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October 17, 2022

VIA ELECTRONIC SUBMISSION AND UNITED STATES MAIL

Honorable Chair Liane Randolph
Honorable Board Members
CALIFORNIA AIR RESOURCES BOARD
c/o Clerk of the Board
1001 "I" Street
Sacramento, CA 95814

Re: Comments on Proposed Advanced Clean Fleets Regulation

Dear Chair Randolph and Members of the California Air Resources Board:

I am submitting the following comments on behalf of California Trucking Association ("CTA") and Western States Trucking Association ("WSTA") concerning the California Air Resources Board's ("CARB") proposed Advanced Clean Fleets Regulation (the "ACF Regulation"). For the reasons stated below, CTA and WSTA request that CARB decline to adopt the ACF Regulation, and instead consider the alternatives they have proposed.

In support of these comments, I have enclosed reports from the following experts concerning the potential negative unintended economic and environmental consequences of the proposed ACF Regulation: (i) Julia Lester and Varalakshmi Jayaram of Ramboll, and (ii) Sean Edgar of CleanFleets. (See Exhibits "A" and "B.")

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I.

INTRODUCTION

CARB should decline to adopt the ACF Regulation at its October 27, 2022, meeting for several reasons. As an initial matter, the ACF Regulation would be preempted by state and federal law. The ACF Regulation runs directly afoul of the Federal Aviation Administration Authorization Act of 1994 (the “FAAAA”), Pub. L. No. 103-305 § 601(c), 108 Stat. 1569, 1606 (codified, as amended, at 49 U.S.C. § 14501(c)), which prohibits states from “enact[ing] or enforce[ing] a law, regulation, or other provision having the force and effect of law related to a price, route, or service of any motor carrier . . . with respect to the transportation of property.” (49 U.S.C. § 14501, subd. (c)(1).) Here, the ACF Regulation directly affects and relates to the pricing, routes, and service of motor carriers.

The ACF Regulation is also preempted by Clean Air Act (“CAA”) Section 209(a). Although California under some circumstances may obtain a preemption waiver from EPA, that is not the case here, as the ACF Regulation does not meet the requirements of CAA Section 209(b). The ACF Regulation contravenes multiple provisions of the CAA by, *inter alia*, establishing classes or categories of vehicles based on impermissible factors, failing to make the required technical determinations, failing to adequately consider the cost of compliance within each period, and declining to include an appropriate lead-time for compliance. The ACF Regulation is also inconsistent with the Clean Fuel Fleet Program included in Section 246 of the CAA.

The adoption of the ACF Regulation would also violate the California Administrative Procedures Act, Govt. Code, § 11340, *et seq.* (the “APA”). CARB’s economic analysis is incomplete because it does not include numerous factors that are required to assess the true cost of ownership. The economic analysis also impermissibly rejects alternatives proposed by CTA, WSTA, and others, even though those alternatives would spare fleets from the massive economic impacts of the ACF Regulation, while at the same time achieving its core objectives.

CARB’s environmental analysis in support of the ACF Regulation is also fundamentally flawed. For instance, the Environmental Analysis (“EA”) quantifies the alleged emissions benefits of the ACF Regulation in detail. At the same time, the EA includes only a qualitative assessment of the potential air quality and greenhouse gas impacts of the ACF regulation, preventing an apples-to-apples comparison between benefits and negative impacts. Moreover, for those significant and unavoidable impacts, the EA fails to identify or adopt adequate mitigation under CEQA, instead speculating on what other agencies may or may not do to avoid potentially significant impacts.

The EA’s assessment of specific resources is also incomplete. The EA contains no assessment of lifecycle emissions for electricity, declines to assess the increase in vehicle miles traveled, and fails to assess impacts to the reliability of California’s electric grid. As with the economic impact analysis in the Initial Statement of Reasons (“ISOR”), that EA’s alternatives

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analysis is fundamentally flawed because the project objectives are drafted to narrowly, essentially foreclosing the adoption of any alternative that does not include the deployment of EVs.

In addition, CARB has not complied with Section 57004 of the Health & Safety Code because there is no evidence that CARB has sought peer review of the scientific portions of the ACF Regulation. Further, CARB should decline to adopt the ACF Regulation on the ground that it is inconsistent with the useful life provisions of Section 43021 of the Health & Safety Code.

For each of the foregoing reasons, CARB should reject the ACF Regulation. CARB should, instead, either take no action or alternatively consider one of the alternatives to the ACF Regulation that they have previously submitted.

II.

THE ACF REGULATION IS PREEMPTED BY STATE AND FEDERAL LAW

A. The ACF Regulation Would Be Preempted by Federal Law Prohibiting State Laws and Regulations that Relate to the Prices, Routes, or Services of any Motor Carrier

The proposed ACF Regulation—or anything resembling it—would run afoul of the preemption provision of the FAAAA. The FAAAA prohibits states from “enact[ing] or enforce[ing] a law, regulation, or other provision having the force and effect of law related to a price, route, or service of any motor carrier . . . with respect to the transportation of property.” (49 U.S.C. § 14501, subd. (c)(1).) Congress enacted that provision to advance the strong federal policy favoring a trucking industry shaped primarily by competitive market forces, against a background of uniform federal regulation, which it began with economic deregulation at the federal level in the Motor Carrier Act of 1980, Pub. L. No. 96-296, 94 Stat. 793. In the wake of federal deregulation, it became clear that Congress could not achieve its goals as long as burdensome and inconsistent *state* regulation of the trucking industry persisted. Concluding that state regulation of the trucking industry “causes significant inefficiencies,” “increase[s] costs, and “inhibit[s] . . . innovation and technology,” Congress enacted the FAAAA’s preemption provision to ensure that “national and regional [motor] carriers attempting to conduct a standard way of doing business” would not be hindered by “[t]he sheer diversity of [state] regulatory schemes.” (H.R. Conf. Rep. No. 103-677 at 87.) As the Supreme Court has observed, the broad preemptive scope of the FAAAA preemption provision reflected the concern that “state requirements could easily lead to a patchwork of state service-determining laws, rules, and regulations,” which would be “inconsistent with Congress’ major legislative effort to leave such decisions, where federally unregulated, to the competitive marketplace.” (*Rowe v. N.H. Motor Transp. Ass’n* (2008) 552 U.S. 364, 373.) The adoption of the ACF Regulation would represent a direct regulation of the trucking industry, with acute impacts on motor carrier prices, routes, and services, and would massively interfere with the Congressional policy favoring regulatory uniformity for the industry.

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The ACF Regulation's impact on motor carrier prices is indisputable. The capital costs of a zero-emission tractor are projected to be 227% to 628% higher than a comparable conventional tractor.¹ In addition, the total cost of ownership of these vehicles may be significantly higher,² taking into account a variety of considerations, including the comparative costs of electricity or other alternative technologies as compared to diesel, as well as increased maintenance and support infrastructure costs, increased dwell, and lost payload. These costs—vehicle costs, fuel, and maintenance—represent as much as 46% of motor carriers' marginal costs. (See American Transportation Research Institute, *An Analysis of the Operational Costs of Trucking: 2002 Update*, at 20, *available at* <https://truckingresearch.org/wp-content/uploads/2022/08/ATRI-Operational-Cost-of-Trucking-2022.pdf>.) Thus, motor carriers cannot simply absorb these increased costs—the ACF Regulation would inevitably require motor carriers to upwardly adjust their prices accordingly.

With respect to motor carrier routes, the impact of the ACF Regulation would be at least as, if not more, significant. Conventional diesel tractor-trailers have an average range of approximately 500-800 miles dependent on fuel tank size. That, combined with the ubiquitous availability of diesel refueling facilities, means that for all intents and purposes motor carriers can run any legally-available route, with their choices dictated (as Congress intended) solely by efficiency and market considerations. Electric-powered tractor-trailers, by contrast, are expected to have a range of approximately 200-250 miles before requiring a recharge, and the necessary recharging facilities are comparatively non-existent. Motor carriers forced to operate electric vehicles will thus be directly restricted to the subset of legally available routes that have sufficient recharging facilities in sufficient density. For the foreseeable future, this will have a significant impact on motor carrier's choice of routes.

And for many motor carriers who have terminals strategically located at points along frequently-travelled routes that conventional trucks can reach on a single fueling, and who depend on that terminal network to route shipments from origin to destination, the ACF Regulation would wreak havoc on their routes. Such carriers would need to build additional terminal facilities in closer proximity to one another to account for the shorter range of electric trucks, and would have to engage in a wholesale reconfiguration of their routes accordingly.

Similar considerations mean that the ACF Regulation would drastically restrict the services motor carriers would be able to provide to their shipper customers. Federal law regulates the amount of time in a given day and week that a commercial driver can work. (See 49 C.F.R. § 395.3(a)(2) [limiting commercial drivers of property-carrying vehicles to a 14-hour period between coming on-duty and being relieved of duty for 10 consecutive hours]; *id.* § 395.3(b) (limiting cumulative duty hours to 60 per 7-day period or 70 per 8-day period).

¹ <https://theicct.org/wp-content/uploads/2022/01/Final-Report-eTruck-Virtual-Teardown-Public-Version.pdf>

² <https://www.nrel.gov/docs/fy21osti/71796.pdf>

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Refueling or recharging a truck is typically an on-duty activity that consumes those available duty hours. Given that electric trucks will need to be recharged more frequently than conventional trucks, and given that it will take longer to recharge an electric truck than it does to refuel a conventional truck, the ACF Regulation will dictate that drivers spend a significantly smaller portion of their available duty time actually providing the service of moving freight. Indeed, given that electric trucks will likely need to be recharged on average 274 times a year compared to 75 refueling events of a conventional truck, and on average 105 minutes to recharge compared to 5 minutes to refuel, the ACF Regulation can be expected to consume an additional 480 hours of a driver's available yearly duty hours (and because, in reality, drivers do not typically work to the full limit of the federal duty hour restrictions, the impact on their productivity will be even higher).

In addition to this steep reduction in service productivity, the ACF Regulation would render flatly *impossible* some services that motor carriers are free to provide under federal rules, and which the marketplace regularly demands. For example, a motor carrier operating conventional trucks might be able to offer a time-sensitive shipper the service of moving a load 400 miles in an eight-hour window. However, a motor carrier operating an electric truck would not be able to do so, because the need for a lengthy recharge (or two) mid-trip would consume too much time to complete the delivery within the specified window. In other words, in addition to reducing the level of services motor carriers can provide across the board, in many specific instances it will as a practical matter prohibit some services altogether.

Each of these direct, significant impacts on motor carrier prices, routes and services would, standing alone, be sufficient to render the ACF Regulation preempted under the clear language of FAAAA. Additionally, these effects, individually and in combination, would represent a profound interference with the Congressional policy embodied in that statute; preventing motor carriers from adopting nationally uniform business practices shaped primarily by market forces rather than a patchwork of state-by-state policy preferences. (See, e.g., *Am. Airlines v. Wolens* (1995) 513 U.S. 219, 229 n.5 [applying equivalent preemption provision of the Airline Deregulation Act and observing that Congress's "overarching deregulatory purpose" means that "States may not seek to impose their own public policies . . . on the operation of a . . . carrier"] [internal quotation marks omitted].)

B. The ACF Regulation Is Preempted by the Clean Air Act

1. The ACF Regulation Cannot Be Implemented Unless and Until EPA Grants a Waiver of Preemption Under Section 209(b)

CAA section 209(a) preempts states from adopting or attempting to enforce "any standard relating to the control of emissions from new motor vehicles" (CAA § 7453(a) [otherwise known as section "209(a)"]; see also *Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist.* (2004) 541 U.S. 246 ("EMA").) This prohibition against state-level regulation of new mobile source emissions is both "categorical" and expansive. (*EMA*, 541 U.S. at 252-53). Because the ACF Regulation requires fleet operators to purchase ZEVs, it constitutes a standard

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relating to motor vehicle emissions and is preempted under CAA section 209(a) unless and until EPA grants a waiver under section 209(b). Until this occurs, CARB cannot implement or enforce the ACF regulation. EPA has historically taken well over two years to act on California's waiver requests.³ Most recently, CARB submitted its request for a waiver associated with Advanced Clean Trucks and associated regulations on October 22, 2021, which remains pending approximately one year later. While ACF requires fleet owners to comply beginning January 1, 2024, CARB cannot implement or enforce the regulation in the absence of a waiver.

Nor can CARB avoid the requirement of a waiver by characterizing the ACF regulation as an "in-use" standard. Section 209(d) provides that states have the right "to control, regulate, or restrict the use, operation, or movement of registered or licensed motor vehicles." These "in-use" controls extend to measures such as "carpool lanes, restrictions on car use in downtown areas, and programs to control extended idling of vehicles," (*Pacific Merchant Shipping Ass'n v. Goldstene* (2008) 517 F.3d 1108, 1115), and "[i]nspection and maintenance programs." (*In re Volkswagen* (N.D. Cal. 2017) 264 F. Supp. 3d 1040, 1051.) CARB has previously relied on the exemption for "in-use" regulations to circumvent the need for a waiver, for example, in developing the Truck and Bus Rule. But the Truck and Bus Rule did not mandate the purchase of particular types of vehicles; as an in-use requirement, it allowed operators the flexibility to retrofit, purchase newer used vehicles, or entirely new vehicles. (California Air Resources Board, Initial Statement of Reasons, Truck and Bus Rule, p. 40 (October 2008).) The ACF Regulation makes no such provisions, and instead seeks to achieve its primary aim of limiting all new purchases to ZEVs. (ACF Regulation, § 2015.1(a).) As the Supreme Court has already established, such a mandate is an emissions standard which is preempted in the absence of a waiver. (See *EMA*, 541 U.S. at 255.) CARB may not enforce the ACF regulation unless and until such waiver is granted and, as discussed below, EPA is prohibited from granting the waiver.

2. EPA Cannot Grant a Waiver Because the ACF Regulation Does Not Meet the Requirements in CAA Section 209(b)

Though EPA can grant waivers from the preemptive effect of CAA section 209(a), it must make particular findings in order to do so. Under CAA section 209(b), EPA may only grant a waiver if EPA finds (i) the State's determination that the rule will be at least as health protective as federal rules is not arbitrary and capricious, (ii) the State needs such standards to meet compelling and extraordinary conditions, and (iii) the State standards and accompanying enforcement procedures are consistent with section 202(a). Because EPA cannot make these findings, it cannot grant a waiver of preemption under CAA section 209(b) for the ACF Regulation.

³ 82 Fed. Reg. 6500 (Jan. 19, 2017) (waiver request submitted on May 28, 2014; approved January 19, 2017, two years and 7 months after submittal); 81 Fed. Reg. 78144 (Nov. 7, 2016) (approval of waiver request submitted February 12, 2014, two years, eight months later).

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a. The ACF Regulation Contravenes Multiple Provisions of CAA Section 202(a)

The ACF Regulation Establishes Classes or Categories of Vehicles Based on Inappropriate Factors. CAA section 202(a)(3)(A)(ii) requires that, “[i]n establishing classes or categories of vehicles or engines for purposes of regulations under this paragraph, the Administrator may base such classes or categories on gross vehicle weight, horsepower, type of fuel used, *or other appropriate factors*” (emphasis added). The ACF Regulation does not utilize appropriate factors to develop classes or categories of new motor vehicles or new motor vehicles engines as required by this section.

When applying this section, EPA generally categorizes vehicles by class into Light Duty (Class 1-2), Medium Duty (Class 3-6), and Heavy Duty (Class 7-8). EPA defines vehicle categories, also by Gross Vehicle Weight Rating (“GVWR”), for the purposes of emissions and fuel economy certification, such as Class 2 (trucks with a GVWR of 6,001-10,000 lbs.) or Class 8 (heavy-duty trucks with GVWR over 33,001 lbs.). EPA has also adopted classes or categories based on the vehicle’s primary function, frontal area, special features, or capacity. (See, e.g., 40 C.F.R. §§ 86.1803-01.) In every case, the class or category is defined by factors intrinsic to the vehicle itself. EPA previously rejected a proposal to treat vehicles as different classes based on method of manufacture because to do so would result in a different class for a vehicle with “exactly the same function and market” as an existing category. (81 Fed. Reg. 73478, 73518-19 (Oct. 25, 2016).)

That is exactly what CARB proposes to do here. The ACF Regulation creates sub-categories of normal classes which means that vehicles with “exactly the same function and market” may be subject to the ACF Regulation in some instances, but not in others. This sub-categorizing by CARB to create standards which vary in their applicability to the same vehicle is not based on appropriate factors under CAA section 202(a).

The ACF Regulation applies to “any entity that owns, operates, or directs one or more vehicles in California that is either:

- (1) an entity or combination of entities operating under common ownership or control that have \$50 million or more in total gross revenue in the prior year;
- (2) is a fleet owner that owns, operates, or directs 50 or more vehicles in the total fleet, excluding light-duty package delivery vehicles;
- (3) is a fleet owner or controlling party whose fleet in combination with other fleets operated under common ownership and control total 50 or more vehicles in the total fleet, excluding light-duty package delivery vehicles; or

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(4) is any federal government agency.

(ACF Regulation, § 2015(a)(1).)

Under the ACF Regulation, the same truck (as characterized by EPA) would have a different standard to comply with (1) whether operated in a fleet greater than 50 trucks or a fleet less than 50 trucks, or (2) whether operated in a fleet with an entity with greater than \$50 million revenue or less than \$50 million revenue. CARB has provided no explanation as to how vehicles require different emissions classifications merely as a function of their ownership. There is nothing in the emissions or operations of the selected vehicles that necessitates sub-classifications with different emissions standards.

In addition, the ACF Regulation's definitions of "controlling party" and "common ownership or control" create unreasonable and incoherent classes or categories of vehicles regulated separately under the ACF. Under the ACF Regulation, common ownership or control means being owned or managed on a day-to-day basis by the same person or entity and includes "vehicles owned by different entities but operated using common or shared resources to manage the day-to-day operations using the same motor carrier number, *displaying the same name or logo*, or contractors whose services are under the day-to-day control of the hiring entity are under common ownership or control" (emphasis added). This means that, for example, sprinter vans provided by a third party who services an online retailer could count as under common control by the retailer only in certain instances. The online retailer may have to count vans with their logo on them as part of their fleet, but if the vans do not have the retailer's logo, they may not count as part of the retailer's "fleet" for purposes of the ACF Regulation. The online retailer is not the operator of the fleet in either instance, but the regulation considers some vans to be part of the retailer's "fleet" because the retailer is the "controlling party." (See ACF Regulation, § 2015(b) ["Controlling party" means the motor carrier, broker, or entity that directs or otherwise manages the day-to-day operation of one or more fleets under common ownership or control to serve its customers or clients].)

In this instance, CARB is not regulating the vehicle itself nor even the owner or operator of the van, but the client the van serves and is treating vehicles with the same function as different for purposes of emission control standards.⁴ In comparison, any vehicle emission standard promulgated by EPA under the CAA would apply to the vehicle itself, regardless of how it is used or by whom. The ACF Regulation's complicated determination of which vehicles are regulated and which are not thus conflicts with the CAA section 202 requirement that the determination of classes or categories to be regulated under the section are based on appropriate factors.

⁴ EPA has promulgated its own definitions of "ownership" and "control" applicable to a purchase standard implemented as part of an authorized Clean Fuel Fleet Program, discussed *infra*, with which the ACF is also inconsistent. (40 C.F.R. § 88.302-94.)

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The ACF Regulation Does Not Make the Required Technological Determinations. CAA section 202(a)(3)(A)(i) requires the EPA to adopt vehicle emission standards which represent “[t]he greatest degree of emission reduction achievable *through the application of technology which the Administrator determines will be available for the model year to which such standards apply*, giving appropriate consideration to cost, energy, and safety factors associated with the application of such technology” (emphasis added). This analysis requires EPA to complete an exhaustive process in which it assesses the technologies that will be available in each model year in order to determine the emission reductions that are achievable each year. (See, e.g., EPA, Final Rule for Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards, 86 Fed. Reg. 74434, 74473-488 (Dec. 30, 2021) [assessing technical feasibility of final standards including projected target levels by manufacturer, projected per vehicle cost for each manufacturer, projections of EV and PHEV technology penetration rates, and explaining why the final standards are technologically feasible]; see also EPA, Revised 2023 and Later Model Year Light-Duty Vehicle GHG Emissions Standards: Regulatory Impact Analysis, Chapter 2: Technology Feasibility, Effectiveness, Costs, and Lead-Time.)⁵

Instead of following this required section 202 process, CARB has inverted it. Rather than complete a full assessment of the technologies that will be available in each model year in order to determine the emissions reductions achievable in that year, CARB has picked an emission level (zero-emission) and then told fleet operators that they have to comply with that level regardless of technology or commercial availability. By allowing for ZEV unavailability exemptions, daily usage exemptions, and vehicle delivery delay extensions, (ACF Regulation, § 2015.3), CARB has admitted that it has not undertaken the analysis required by section 202 to determine in advance which technologies will be available for each class or category of vehicles in each model year. This analysis is the cornerstone of any vehicle emission standard. If neither CARB nor EPA has completed a thorough assessment of the various options for compliance in each model year, how are fleets supposed to understand what technologies are available for compliance and plan accordingly? By failing to complete this analysis, CARB has rendered the ACF Regulation unable to qualify for a waiver of preemption.

Nowhere in the 296-page ISOR does CARB conduct a thorough technological assessment of vehicles available in each model year for which the ACF Regulation will apply. CARB explains that “[i]t is somewhat challenging to precisely predict which ZE technologies fleets would use for complying with the proposed ACF regulation.” (ISOR at 171.) CARB frames its lack of analysis as “flexibility,” forcing covered owners to make their own determination as to what technology is available at the time of compliance subject to CARB’s review. (ISOR at 100, 269.) CARB takes itself off the hook by mandating that regulated parties themselves prove which vehicles are commercially unavailable and then petition CARB. (ACF Regulation, § 2015.3(e).) For the ZEV unavailability exemption, CARB states that it will maintain a list of vehicle configurations that are eligible for the exemption on the CARB

⁵ <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1013ORN.pdf>

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Advanced Clean Fleets webpage, *i.e.*, vehicles that are commercially unavailable. However, no such list exists. Appendix J to the ISOR is a list of commercially available ZEVs as of 2022, however, the ISOR states that Appendix J is only “a partial list of medium- and heavy-duty ZEVs that are currently available or that can be ordered” and is not the list of commercially *unavailable* vehicles that the ISOR says CARB will produce. In crafting the ACF Regulation in this way, CARB has turned the required technological assessment into an individual assessment of various regulated parties’ statements about which vehicles are or are not commercially available, rather than the class by class assessment that CARB is required to undertake pursuant to section 202(a).

Moreover, CARB has defined commercially available to mean a vehicle that is available to order or has had at least one model delivered to a customer. (ISOR at 9-10, 70, 91, 93, 98.) Commercially available typically means a technology is available for purchase within a reasonable time and at an ordinary commercial price. It is clear that many of the vehicles CARB has listed on Appendix J are open for order but are not being delivered in a reasonable time or at the amount ordered. During the rulemaking process, many commenters reported about orders which were decreased in volume or for which they waited extreme amounts of time to receive their vehicles. This does not amount to being commercially available. CARB has also repeatedly emphasized the nuanced requirements for specialized fleets, (ISOR at 91, 98), yet has not and cannot ensure that the technology the ACF Regulation will require is commercially available for all regulated entities. (ISOR at 171-72 [admitting that BEVs have not yet proven functional for fleets with high range or high payload needs, but not discussing what technology will be available to address those needs as ACF standards begin to apply to those uses]; see also *id.* [discussing the mix of ZEVs CARB assumes for purposes of the economic analysis and stating that there are currently “limited small-scale deployments of fuel cell electric truck tractors by several small and major truck manufacturers” and “fuel cell electric technologies leading to commercialization in the latter half of the decade,” yet also assuming that FCEVs will be 10% of the fleet until 2027 and 25% afterwards].)

The ACF Regulation Does Not Give Appropriate Consideration to the Cost of Compliance Within Each Period. CAA section 202(a)(2) and (a)(3)(A)(i) requires that, in adopting vehicle emission standards, EPA give appropriate consideration to the cost of compliance *within each period*. Given that, as discussed above, CARB does not actually identify the technology with which specific classes or categories of vehicles will comply with the rule, it is not possible for CARB to have undertaken an analysis of the actual cost of compliance during each period that the ACF Regulation will apply. In fact, the various compliance options (Model Year Schedule and ZEV Milestone Option) and the multiple exemptions from rule applicability (ZEV unavailability, daily mileage usage, infrastructure construction delay, and vehicle delivery delay) make it impossible to assess the cost of compliance within each period. The Department of Finance also noted the uncertainty in whether and how certain regulated parties would comply with the ACF Regulation in its comments on the Standard Regulatory Impact Assessment (“SRIA”). Appendix C-2: Department of Finance Comment Letter, pp. 1-2 (stating that the SRIA assumes that the purchase requirements of the ACF regulation will complement the sales requirements in the Advanced Clean Trucks regulation, but noting that differences in timing

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between the ACF Regulation and Advanced Clean Trucks may hinder compliance of fleets that utilize heavier vehicle classes and asking that the SRIA include a sensitivity analysis to analyze this issue). CARB did not revise the SRIA as requested but merely responded that “CARB staff believe the assumptions staff made are appropriate” (Appendix C-3: Summary and Response to Department of Finance SRIA at 2.)

In addition, CARB’s SRIA looks not at the cost of compliance within each period based on determined methods of compliance, but at the macroeconomic costs of the ACF Regulation as a whole across the state compared to baseline operations. (ISOR at 157-58.) Further, major changes were made to the proposed ACF Regulation after CARB completed its SRIA. (*Id.* at 159-60.) As explained in the ISOR, CARB’s SRIA modeling assumed that high priority fleets would comply solely through meeting the ZEV milestone requirements. However, in the proposed regulation, high priority fleets by default must meet the Model Year Schedule, but may opt-in to the ZEV Milestone Option if they waive their useful life rights (see discussion above). For this reason, the SRIA cannot accurately predict the cost of compliance within each period as required by section 202(a).

CARB has identified numerous cost-barriers to ACF implementation, including high vehicle upfront costs and the real concern that ZEVs will not be able to replace existing combustion-powered vehicles on a one-to-one basis due to payload, mileage, or other issues. (ISOR at 200 [stating that “higher upfront cost of ZEVs can place a barrier in vehicle purchasing patterns” and that ZEVs can meet *most* daily needs on a one-to-one basis provided the ZEV is placed in applications where it is suitable].) Yet CARB conveniently ignores these real challenges in its SRIA. This economic analysis is not sufficient to meet the demands of section 202(a).

The ACF Regulation Does Not Meet the Lead Time Requirement. CAA section 202(a)(3)(C) provides, “Any standard promulgated or revised under this paragraph and *applicable to classes or categories of heavy-duty vehicles or engines* shall apply for a period of no less than 3 model years beginning no earlier than the model year commencing 4 years after such revised standard is promulgated” (emphasis added). These Congressionally-mandated lead time and stability periods allow individual truck manufacturers to make the capital investments necessary to respond to new regulations. Congress determined that these lead times and stability provisions were essential to successful implementation of the CAA’s technology-forcing objectives.

Here, the ACF Regulation is slated to be adopted in spring 2023. To comply with the lead time provisions, the regulation cannot apply before model year 2028. Under the Model Year Schedule option for the high priority/federal fleets and for drayage fleets, the regulation would take effect in 2024, requiring the purchase of only ZEVs starting on January 1, 2024. (ACF Regulation, § 2015.1.) This directly contravenes section 202(a). In addition, the fleet ZEV Milestone Option requires 10 percent of a fleet’s vehicles to be ZEVs in 2025 for milestone group 1 and 10 percent of a fleet’s vehicles to be ZEVs in 2027 for milestone group 2. (ACF

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Regulation, § 2015.2.) Thus, the Milestone Option also directly contravenes the required 4-year lead time.

This conclusion is supported by federal case law and by EPA’s own prior waiver determinations. Specifically, in *American Motors Corporation v. Blum* (D.C. Cir. 1979) 603 F.2d 978, the D.C. Circuit held that where Congress has specified a lead time period for certain types of mobile source regulations, CARB is bound to comply with that specified lead time just as much as EPA. If CARB fails to provide that congressionally mandated lead time, the CARB regulations are not consistent with CAA section 202(a) and thus are ineligible for a waiver of preemption under section 209(b). (*Id.*)

EPA consistently has followed the D.C. Circuit’s reasoning in *Blum*, and has explicitly addressed the applicability of section 202(a)(3)(C) to California as a requirement to obtain a waiver under section 209(b). EPA issued a memorandum on September 16, 1994, signed by then-Assistant Administrator Mary Nichols that expressly concluded that CARB must comply with the Congressionally-mandated four-year lead time provision of section 202(a)(3)(C) in order for CARB’s regulations to be consistent with CAA section 202(a) and to qualify for a waiver of preemption. (See Decision Document, Sept. 16, 1994, pp. 30, 32.)⁶ EPA explained:

EPA disagrees with CARB’s conclusion [that *Blum* is not applicable to its heavy-duty regulations]. EPA believes that *Blum* indicates that California would be required to provide the statutory lead time required under section 202(a)(3)(C) for its proposed gasoline and diesel standards.
...

EPA believes this case to be similar to the facts in *Blum* in that Congress specified a specific amount of lead time to be provided for heavy-duty manufacturers. The Congressional concern for adequate lead time for manufacturers under certain conditions must be incorporated by California in determining the adequacy of lead time to permit the development of new technology to meet new requirements. . . .

The *Blum* court concluded that . . . a Congressional mandate of a specific amount of lead time should be grafted into section 202(a) and that the California standards may not be inconsistent with this required lead time. Given that *Blum* decision, EPA believes that the heavy-duty lead time requirement, already a part of section 202(a), should be provided in order for California standards to be considered consistent with section 202(a).

(*Id.* at 26, 28, 29-30 [emphasis added]; see also 46 Fed. Reg. 22032 (April 15, 1981) [holding by EPA that when Congress has specified a lead time period, California “must make provision for the extra lead time Congress itself found necessary”].)

⁶ Available at <https://www.regulations.gov/document/EPA-HQ-OAR-2022-0332-0020>

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CARB has alleged in its Advanced Clean Trucks (“ACT”) proceeding that “the lead-time provisions of section 202(a)(3)(C) of the CAA do not apply to the ACT regulation” because section 202(a)(3)(C) only applies to standards “promulgated or revised under this paragraph [section 202(a) of the CAA],” that is, to standards promulgated by the EPA Administrator and not CARB. (CARB, Final Statement of Reasons, Advanced Clean Trucks Regulation (“ACT FSOR”) at 107 (March 2021).) However, to grant a waiver of CAA section 209(a) preemption, EPA must find that CARB’s regulation is consistent with section 202(a), including the lead time requirement. CARB argues that “[s]ince 1970, U.S. EPA has typically applied a “2-pronged” test of whether California standards are consistent with CAA section 202(a) as required by section 209(b)(1)(C). The standards must be: (1) technologically feasible in the lead time provided considering the cost of compliance, and (2) compatible with the federal test procedures so that a single vehicle could be subjected to both tests. No more should be required.” (*Id.*) However, this is patently incorrect with respect to both the determination in *Blum* and the 1994 determination by EPA with a memorandum signed by then-Assistant Administrator Mary Nichols concluding that CARB must comply with the four-year lead time provision of section 202(a)(3)(C) in order for CARB’s regulations to be consistent with CAA section 202(a) and to qualify for a waiver of preemption.

While CARB may wish to do whatever it pleases, under the guise of state law authority, neither case law nor previous EPA action support its incorrect view that it can adopt standards without regard to compliance with CAA section 202(a), and yet receive a waiver of preemption from EPA. Nor is there a need to conduct a tortured analysis of the CAA’s legislative history to attempt to support CARB’s incorrect view. (See ACT FSOR at 107 [attempting to argue that the legislative history of the CAA and its amendments support the fact that “it is unlikely Congress intended to apply the specific 4-year requirement to California”].) Federal statutes must be construed to give full effect to their plain meaning, and when statutes are unambiguous the plain language of the statute controls, without the need to explore any matters beyond the clear terms of the statute. (See *United States v. Barnes* (D.C. Cir. 2002) 295 F.3d 1354, 1359.)

Here, the relevant provisions of the CAA are clear and unambiguous. In order for CARB to receive a waiver for the ACF Regulation, those standards must be “consistent with section 7521(a) [202(a)]” of the CAA. Since the ACF Regulation establishes classes or categories of vehicles based on inappropriate factors, does not appropriately consider cost for compliance within each period, does not make the required technological determinations, and fails to provide the mandated four years of lead time, it is inconsistent with section 202(a), and thus ineligible for a waiver of federal preemption under CAA section 209(b)(1)(C).⁷

⁷ Nor can CARB avoid its obligation by asserting that ACF Regulation is applicable only to owners and operators, not manufacturers. The Supreme Court readily saw through such a distinction in *EMA*. “A command, accompanied by sanctions, that certain purchasers may buy only vehicles with particular emission characteristics is as much an ‘attempt to enforce’ a ‘standard’ as a command, accompanied by sanctions, that a certain percentage of a manufacturer’s sales volume must consist of such vehicles.” (*EMA*, 541 U.S. at 255.)

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b. The ACF Regulation Is Inconsistent With the Clean Fuel Fleet Program

The CAA both contemplates and commands that states impose purchase mandates to increase the proportion of clean fuel vehicles—but *only* in compliance with specific federal requirements. The ACF regulation has not been developed consistent with the CAA’s substantive or procedural requirements. It is therefore preempted.

Section 246 of the Act (42 U.S.C. § 7586) created the Clean Fuel Fleet Program (“CFFP”), which covers vehicle acquisition decisions by individuals, corporations, and all levels of state government. The purchase requirements in section 246 apply to “covered fleets,” which are broadly defined to mean “10 or more motor vehicles which are owned or operated by a single person.” (42 U.S.C. § 7581(5).) “Person” sweeps within the regulation any “individual, corporation, partnership association, State, municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof.” (*Id.* at § 7602(e)). A program enacted through Section 246 would require a specified percentage of all new covered fleet vehicles to be clean-fuel vehicles, meeting the CAA’s mandated emissions standards. (*Id.* at § 7586.) Notably, section 7585 prohibits EPA from enacting any standard applicable to heavy-duty vehicles of more than 26,000 GVWR. (*Id.* at § 7585(a).) Congress mandated states develop a purchase standard, and at the same time Congress exempted the heaviest vehicles from its requirements.

The Supreme Court in *EMA* explained that the CAA’s CFFP prescribes “numerous detailed requirements” that must be complied with to avoid preemption. (541 U.S. at 254 n.6, 257-58.) Among other things, section 246 requires that States participating in the CFFP program submit their fleet regulation programs to EPA as SIP revisions, to ensure federal review and oversight. (42 U.S.C. 7586(a).) Section 246(b) additionally sets out specific phase-in requirements. (42 U.S.C. 7586(b).) Most importantly, section 246(d) requires States to give fleet operators the choice of what type of fuel to use and what type of vehicle to buy, so long as other congressionally specified requirements are met. (42 U.S.C. 7586(d).) As the Supreme Court explained, any fleet purchase standard “must comply strictly with federal specifications, being neither more lenient nor more demanding.” (*EMA*, 541 U.S. at 257-58.)

While CARB may seek SIP approval of the ACF Regulation, it fails to meet the other requirements of the CFFP. The ACF Regulation’s phase-in requirements are inconsistent with those in section 246(b). Moreover, section 246(d) is clear that fleet operators are to be “provide[d] the choice of clean-fuel vehicles and clean alternative fuels” under any compliant plan. The ACF Regulation provides no such optionality. While section 246 offers the choice among any vehicle in a class or category certified to meet model year clean-fuel vehicle standards, (42 U.S.C. § 7581(7)), the ACF Regulation mandates the purchase of only zero

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emission vehicles.⁸ The CAA requires any compliant purchase standard to allow operators to choose freely among “clean alternative fuels,” broadly defined to include:

any fuel (including methanol, ethanol, or other alcohols (including any mixture thereof containing 85 percent or more by volume of such alcohol with gasoline or other fuels), reformulated gasoline, diesel, natural gas, liquefied petroleum gas, and hydrogen) or power source (including electricity) used in a clean-fuel vehicle that complies with the standards and requirements applicable to such vehicle under this subchapter when using such fuel or power source

(42 USC § 7581(2) [emphasis added].) But the ACF regulation would prohibit a choice among these fuels, mandating the use of electricity or hydrogen. Because the ACF regulation irreconcilably conflicts with the requirements of CFFP, it is preempted. Additionally, the ACF regulation imposes purchase standards on the acquisition of Class 7 and Class 8 trucks in violation of section 7585.

California cannot circumvent the care with which Congress calibrated the CAA’s provisions balancing federal and state authority over fleet vehicle emissions by attempting to adopt its own purchase standard separate and apart from CFFP.⁹ Section 246 and its associated provisions demonstrate that Congress intended the federal government to occupy the field of establishing new motor vehicles emissions standards and intended that states regulate new fleet vehicle purchases only in accordance with EPA’s oversight and the CAA’s design. “Congress’s prescription of numerous detailed requirements for such programs [is] inconsistent with unconstrained state authority to enact programs that ignore those requirements.” (*EMA*, 541 U.S. at 254 n.6.)

As the Supreme Court explained, “what is the use of imposing such a limitation if the States are entirely free to impose their *own* fleet purchase standards with entirely different specifications?” (*EMA*, 541 U.S. at 258 [emphasis added].)

⁸ There is a limited allowance for near zero emission vehicles until 2035, but this cannot save the rule.

⁹ The CAA does provide that a state may opt out of the CFFP by providing an alternative program equally capable of achieving the anticipated emissions reductions. (42 U.S.C. § 7511a(c)(4)(B).) In 1999, California did exactly that, substituting its Low Emissions Vehicle program for the CFFP. (64 Fed. Reg. 46849-01 (Aug. 27, 1999).) The Low Emissions Vehicle program did not include a purchase standard, instead creating more stringent emissions standards.

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III.

ECONOMIC ASSESSMENT UNDER THE CALIFORNIA APA

A. CARB’s Economic Impact Analysis

1. CARB’s Obligation to Assess the Economic Impacts of the ACF Regulation

“[T]he APA provides a procedural vehicle to review proposed regulations or modifications thereto in order to ‘advance meaningful public participation in the adoption of administrative regulations by state agencies’ and create ‘an administrative record assuring effective judicial review.’” (*John R. Lawson Rock & Oil, Inc. v. State Air Res. Bd.* (2018) 20 Cal.App.5th 77, 111 [quoting *Western States Petroleum Assn. v. Bd. of Equalization* (2013) 57 Cal.4th 401, 424-425].) Pursuant to their applicable “procedural requirements, agencies must, among other things, (1) give the public notice of the proposed regulatory action; (2) issue a complete text of the proposed regulation with a statement of reasons for it; (3) give interested parties an opportunity to comment on the proposed regulation; (4) respond in writing to public comments; and (5) maintain a file as the record for the rulemaking proceeding.” (*John R. Lawson, supra*, 20 Cal.App.5th at 111 [quoting *POET, LLC v. Calif. Air Res. Bd.* (2013) 218 Cal.App.4th 681, 743-44]; see also Govt. Code, § 11346.5, subd. (a).)

As part of its disclosures at the outset of the public comment period, CARB “must include ‘[f]acts, evidence, documents, testimony, or other evidence on which the agency relies to support an initial determination that the action will not have a significant adverse economic impact on business.’” (*Western States, supra*, 57 Cal.4th at 425.) When, as here, CARB “makes an initial determination that the action will not have a significant, statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states, it shall make a declaration to that effect in the notice of proposed action.” (Govt. Code, § 11346.5, subd. (a)(8); see also Notice of Public Hearing at 10.) Prior to making this determination, CARB must “assess the potential for adverse economic impact on California business enterprises and individuals, avoiding the imposition of unnecessary or unreasonable regulations or reporting, recordkeeping, or compliance requirements” through the preparation of “a standardized regulatory impact analysis,” which “shall address” several factors including the “creation or elimination of jobs within the state,” the “creation of new businesses or the elimination of existing businesses within the state,” and the “competitive advantages or disadvantages for businesses currently doing business within the state.” (*Id.*, subd. (c)(1).)

In addition to an assessment of the potential for a regulation to have a “significant, statewide adverse economic impact directly affecting business,” CARB must also describe “all cost impacts . . . that a representative private person or business would necessarily incur in reasonable compliance with the proposed action,” (Govt. Code, § 11346.5, subd. (a)(9)), a summary of the conclusions of the standardized regulatory impact analysis, (*id.*, subd. (a)(10)); and a summary of impacts on small businesses. (Cal. Code Regs., tit. 1, § 4.)

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If CARB ultimately “decides to enact the regulation” following the public comment period, “it must prepare a ‘final statement of reasons’ for adopting the proposed rule, which must include ‘[a]n update of the information contained in the initial statement of reasons.’” (*John R. Lawson, supra*, 20 Cal.App.5th at 111 [quoting *Western States, supra*, 57 Cal.4th at 426].) “This final statement “must also include ‘[a] summary of each objection or recommendation made regarding the specific adoption, amendment, or repeal proposed, together with an explanation of how the proposed action has been changed to accommodate each objection or recommendation, or the reasons for making no change.’” (*Id.* [quoting *Western States, supra*, 57 Cal.4th at 426].)

While the initial determination need not be “all-inclusive,” it must evaluate adverse economic impacts that are “significant,” and make an “initial showing” that there was at least “some factual basis for [its] decision.” (*Western States, supra*, 57 Cal.4th at 428-29.) “Once the initial assessment is complete, ‘affected parties may comment on the agency’s initial determination and supply additional information relevant to the issue,’” and CARB “must respond to the public comments and either change its proposal in response to the comments or explain why it has not.” (*John R. Lawson, supra*, 20 Cal.App.5th at 111 [quoting *Western States, supra*, 57 Cal.4th at 429].)

2. CARB Failed to Adequately Assess Cost of Ownership to the Regulated Industry

CARB’s assessment of cost of ownership is not supported by substantial evidence. Nor does the Public Notice comply with Section 11346.5(a)(9) of the Government Code. Specifically, prior to the release of the Notice of Public Hearing—which appears to be CARB’s notice of proposed action under Section 11346.5(a)—WSTA and the Truck & Engine Manufacturers Association (“EMA”) submitted evidence to CARB demonstrating CARB’s projected cost of the ACF Regulation on regulated parties was far too low. Unfortunately, these issues have not been addressed in CARB’s Total Cost of Ownership (“TCO”) analysis attached as Appendix G to the ISOR.

Sean Edgar of CleanFleets performed a technical review of the TCO, which is attached as Exhibit “B” to this letter. Mr. Edgar notes several inaccurate assumptions in the TCO. For instance, the TCO ignores data from EMA showing “ZEV purchase costs that are too low,” and that ZEVs cost a company much more to purchase than traditional vehicles. (Exhibit “B” at 2.) Conversely, the “ZEV residual values” in the TCO “are too high.” (*Id.*) In addition, the TCO does not take into consideration the fact that ZEVs “are not able to perform the same amount of work as traditional trucks,” requiring the purchase of additional ZEVs to perform the same tasks as a smaller number of traditional vehicles. (*Id.*)

The TCO also does not take into account the fact that the transition from traditional ZEVs will “require new maintenance facilities and equipment investments” on the part of fleet owners, as well as “the build-out and maintenance of a completely new electricity charging or hydrogen fueling infrastructure.” (Ex. “B” at 2.) Nor is there any effort to quantify the “lost productivity” associated with charging ZEVs, the infrastructure costs for sleeper cab tractors, and the

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maintenance costs for electric infrastructure. (*Id.*) Each of these issues will substantially increase the costs to fleet owners beyond that stated in the TCO. As a result, the TCO is incomplete and unsupported by substantial evidence.

The TCO also fails to take into consideration data collected by CARB on its central to the cost of ownership. For instance, CARB, working in collaboration with the U.S. Department of energy's National Renewable Energy Laboratory ("NREL"), recently published a report on a demonstration project concerning heavy-duty EVs at Foothill Transit (the "Foothill Report"). The purpose of the Foothill Report was to "compare performance and cost of the BEBs [Battery-Electric Buses] to that of conventional technology in similar service and track progress over time." (Ex. "B" at 3.) The Foothill Report included numerous important findings that undermine the conclusions in the TCO, including the fact that "electricity is 5 to 6.5 times more expensive than CNG fuel," that EVs have much higher per-mile maintenance costs than CNG vehicles, and that EVs have much greater downtime than CNG vehicles. (*Id.*) Despite the fact that CARB participated in the Foothill Report, the TCO contains none of the data or lessons learned in the report.

As explained by Mr. Edgar, the TCO also significantly understates the upfront costs of ZEV trucks. For instance, Mr. Edgar's report contains examples showing the actual price of certain ZEVs is over twice as much as the TCO presumes. The TCO also erroneously assumes that the price of ZEVs will decrease. Mr. Edgar provides data from 2022 showing that the price of ZEVs is actually increasing substantially. (Ex. "B" at 3-5.)

In short, the TCO is flawed as an informational document because it does not include important information regarding costs of ownership, including CARB's own information. Before considering the ACF Regulation, the TCO should be updated significantly to provide further information regarding cost of ownership.

B. CARB's Analysis of Alternatives Under the APA

The Legislature requires state agencies, including CARB, to avoid unnecessary or unduly burdensome regulation. To this end, the Legislature requires agencies to analyze alternatives to the proposed action. "Reasonable alternatives to be considered include, but are not limited to, alternatives that are proposed as less burdensome and equally effective in achieving the purposes of the regulation in a manner that ensures full compliance with the authorizing statute or other law being implemented or made specific by the proposed regulation." (Govt. Code, § 11346.2, subd. (b)(4)(A).)

CARB may not adopt regulations unless it has determined no alternative to its proposal would be "as effective and less burdensome to affected private persons than the proposed action, or would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of law." (Govt. Code, § 11346.5, subd. (a)(13).) Likewise, in the initial statement of reasons, CARB must affirm and explain, with "supporting information," that "no alternative" it has considered "would be more effective and less

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burdensome to affected private persons than the adopted regulation, or would be more cost effective to affected private persons and equally effective” in meeting the proposal’s legislative objective. (Govt. Code, § 11346.9, subd. (a)(4) [emphasis added].)

Here, CARB has failed to adequately consider numerous alternatives to the ACF Regulation, including alternatives proposed by EMA (Match Advanced Clean Trucks and Advanced Clean Fleets Zero-Emission Vehicle Deployments Exactly), CTA (Exempt Group 2 and 3 Vehicles and Extend Timeline Six Years to Purchase Group 1 Zero-Emission Vehicles), and WSTA (Credit for Zero-Emission or Natural Gas Vehicles). (ISOR at 255-57, 261-62.)

Each of the above alternatives would achieve CARB’s objective of reducing criteria pollutant and GHG emissions. They would also be far “less burdensome to affected private persons than the proposed action,” and would also “be more cost effective to affected private persons and equally effective” in meeting the proposal’s legislative objective.” (Govt. Code, §§ 11346.5, subd. (a)(13), 11346.9, subd. (a)(4).)

As a result of the foregoing, CARB should decline to adopt the ACF Regulation and should instead seriously consider other less burdensome alternatives.

IV.

CARB’s ENVIRONMENTAL REVIEW OBLIGATIONS UNDER CEQA

A. Overview of CARB’s Obligations Under CEQA

State agencies such as CARB must “refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects.” (*City of Arcadia v. State Water Resources Control Bd.* (2006) 135 Cal.App.4th 1392, 1421 [citing *Mountain Lion Found. v. Fish & Game Comm.* (1997) 16 Cal.4th 105, 134].) To perform this evaluation, CARB must “first . . . identify the environmental effects” of a proposed regulation, “and then . . . mitigate [any] adverse effects through the imposition of feasible mitigation measures or through the selection of feasible alternatives.” (*Sierra Club v. State Bd. of Forestry* (1994) 7 Cal.4th 1215, 1233.) “The CEQA process is intended to be a careful examination, fully open to the public, of the environmental consequences of a given project, covering the entire project, from start to finish. This examination is intended to provide the fullest information reasonably available upon which the decision makers and the public they serve can rely in determining whether or not to start the project at all, not merely to decide whether to finish it.” (*NRDC v. City of Los Angeles* (2002) 103 Cal.App.4th 268, 271.)

State regulatory programs “that meet certain environmental standards and are certified by the Secretary of the California Resources Agency are exempt from CEQA’s requirements for preparation of EIRs, negative declarations, and initial studies.” (*City of Arcadia, supra*, 135 Cal.App.4th at 1421.) The scope of this exemption, however, is narrow, and only excuses ARB

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from complying with the requirements found in Chapters 3 and 4 of CEQA (*i.e.*, Pub. Res. Code, §§ 21100-21154) in addition to Public Resources Code § 21167. (Pub. Resources Code, § 21080.5(c).) However, “[w]hen conducting its environmental review and preparing its documentation, a certified regulatory program is subject to the broad policy goals and substantive standards of CEQA.” (Kostka & Zischke, Practice Under Cal. Env. Quality Act (2016 update) § 21.10) [“Kostka & Zischke”] [citing *City of Arcadia, supra*, 135 Cal.App.4th at 1422; *Sierra Club, supra*, 7 Cal.4th 1215; *Californians for Native Salmon & Steelhead Ass’n v. Dept. of Forestry* (1990) 221 Cal.App.3d 1419; *Env’tl Protection Info. Ctr. v. Johnson* (1985) 170 Cal.App.3d 604, 616].) The broad policy goals of CEQA include: (1) providing public agencies and the public with detailed information about the effect that a proposed project is likely to have on the environment, (2) identifying the ways in which the significant effects of a proposed project might be minimized, and (3) identifying alternatives to the proposed project. (See Pub. Resources Code, §§ 21002, 21002.1(a), 21061; CEQA Guidelines, § 15362.) Thus, the CEQA Guidelines expressly provide that “[i]n a certified program, an environmental document used as a substitute for an EIR must include ‘[a]lternatives to the activity and mitigation measures to avoid or reduce any significant or potentially significant effects that the project might have on the environment.’” (*City of Arcadia, supra*, 135 Cal.App.4th at 1422 [quoting CEQA Guidelines, § 15252(a)(2)(A)].)

CARB must respond to the issues raised by the public by providing a “good faith, reasoned analysis in response, and at a level of detail that matches the level of detail in the comment.” (CEQA Guidelines, § 15088(c); *Pfeiffer v. City of Sunnyvale* (2011) 200 Cal.App.4th 1552, 1568.) If CARB disagrees with the “recommendations and objections raised in the comments,” the “recommendations and objections” “must be addressed in detail,” with the agency “giving reasons why specific comments and suggestions were not accepted.” (CEQA Guidelines, § 15088(d).) “Conclusory statements unsupported by factual information will not suffice.” (*Id.*)

B. The EA Does Not Adequately Assess the Environmental Impacts Associated with the New Facilities and Infrastructure

1. By Assessing the Alleged Benefits of the ACF Regulation in a Quantitative Manner and the Potential Impacts in a Qualitative Manner, CARB Has Failed to Provide Data Allowing the Public and CARB’s Decisionmakers to Adequately Assess the Potential Impacts of the ACF Regulation

In support of the ACF Regulation, CARB staff performed a detailed quantitative analysis of alleged emissions benefits associated with the adoption of the ACF Regulation. This assessment includes supposed air quality benefits from mobile source emissions in both the South Coast and San Joaquin Valley air basins, as well as statewide. (See Appendix F, Tables 8-10.) These figures are stated in precise units of tons per day or tons per year, depending on the pollutant at issue. (*Id.*)

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The EA, however, recognizes the ACF Regulation would result in the installation of an extensive amount of infrastructure needed to accommodate ZEVs, the construction of a large number of new and modified facilities built to increase the supply of ZEVs, an increase in the number of facilities required to produce electricity and hydrogen fuel, and the increased extraction of raw materials “such as lithium, platinum, or other elements.” (EA at 19-21.) With respect to air quality and several other resources, the EA finds the impacts of these new facilities to be potentially significant and unavoidable. (See, e.g., *id.* at 40.) With respect to climate change and GHG emissions, the EA finds the impacts to be less than significant. (*Id.* at 64.)

Although the EA specifies “suggested” mitigation to offset these significant environmental effects, the EA does not identify any mitigation measures that would provide enforceable mechanisms to lessen the significant impacts of the proposed regulation. Instead, for each of the resources, the EA finds the impact would continue to be significant and unavoidable because CARB does not possess land use authority over new those new facilities. (See, e.g., *id.* at 39-40.) Nowhere, however, does CARB attempt to quantify the potential impacts associated with the installation of these new facilities.

In other words, the ISOR touts the alleged mobile source benefits of the ACF Regulation in a high level of detail, providing the public and CARB’s decisionmakers the misleading picture that adoption of the ACF Regulation would result in those air quality benefits. This is simply not true, as the ACF Regulation would result in the installation of facilities that would themselves generate criteria pollutant and greenhouse gas emissions. CARB, however, has not even attempted to estimate those emissions, leaving the public and CARB decisionmakers with only half of the analysis. (*Cf. Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311 [“CEQA places the burden of environmental investigation on government rather than the public,” and a lead agency “should not be allowed to hide behind its own failure to gather data.”].)

CARB staff may argue it is speculative to assess the potential emissions associated with the installation of new facilities. Any such argument would be entirely inaccurate. For example, as explained by Ramboll, it is entirely feasible for CARB “to make a high-level determination of the number of EV chargers and substation installations that would be necessary to fuel” the new vehicle populations created by the ACF Regulation, “and then estimate the emissions impacts of the construction of this infrastructure.” (Exhibit “A” at 2.) After this assessment is completed, it is entirely possible that the alleged emissions benefits of the ACF Regulation will be lowered substantially, if not eliminated.

By declining to perform an apples-to-apples assessment of these potential emissions, CARB staff has shielded from the public and CARB decision makers from evaluating the true consequences of the ACF Regulation. As a result, the ISOR and the EA should be overhauled substantially to include a quantitative assessment of **both** the benefits and negative effects of the ACF Regulation.

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2. CARB's Findings that the ACF Regulation's Impacts to Resources Is Significant and Unavoidable, Without Actually Performing a Quantitative Assessment of those Impacts, Violated CEQA

An environmental document cannot simply label an impact “significant and unavoidable” without first providing adequate discussion and analysis, as this would “allow[] the agency to travel the legally impermissible easy road to CEQA compliance.” (*Berkeley Keep Jets Over the Bay Comm. v. Bd. of Port Comm'rs* (2001) 91 Cal.App.4th 1344, 1370.) Accordingly, the eventual adoption of a statement of overriding considerations does not excuse the lead agency from properly conducting environmental review in the first instance. (*Id.*) Rather, the lead agency must adequately quantify the impact, and consider feasible mitigation based on that analysis, prior to concluding that an impact is “significant and unavoidable.” (See, e.g., *Sundstrom, supra*, 202 Cal.App.3d at 311.) As such, “sole reliance” on another agency’s regulatory authority “is inadequate to address environmental concerns under CEQA.” (*Californians for Alternatives to Toxics v. Department of Food and Agriculture* (2005) 136 Cal.App.4th 1, 16.)

The EA claims there is “some inherent uncertainty in the degree of mitigation that would ultimately need to be implemented” because “decisions by the regulated entities regarding compliance options are unknown. (EA at 10-11.) Consequently, CARB states the EA’s significance conclusions supposedly “tend[] to overstate the risk that feasible mitigation may not be implemented by the agency with authority to do so, or may not be sufficient to mitigate an impact to less than significant.” (*Id.* at 11.) Nevertheless, the EA claims, “[i]t is also possible that the amount of mitigation necessary to reduce environmental impacts to below a significant level may be far less than disclosed in th[e] Draft EA” because “[i]t is expected that potentially significant impacts of many individual development projects would be avoidable or mitigable to a less than significant.” (*Id.*) There are several problems with this approach.

First, “identification of the precise details of project-specific mitigation” is not necessary to determine “the degree of mitigation that would ultimately need to be implemented” in all cases, as the EA claims. (*Id.* at 26.) As explained by Ramboll, it is entirely feasible to generally estimate the potential consequences of the increased need for EV chargers and substation installations, as well as the potential effects of such new infrastructure. (See generally Exhibit “A” at 2.)

Second, by expressly claiming to overstate the risk that feasible mitigation may be insufficient while, at the same time, asserting that impacts could be reduced to less-than-significant levels by local lead agencies, the EA obscures the significance of its identified impacts. However, an environmental document that does not include sufficient information to “enable[] the reader to evaluate the significance of [] impacts” is inadequate under CEQA. (*Lotus v. Dept. of Trans.* (2014) 223 Cal.App.4th 645, 654.) CARB’s approach “precludes both identification of potential environmental consequences arising from the project and also thoughtful analysis of the sufficiency of measures to mitigate those consequences.” (*Id.* at 658.)

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The fact that the proposed project's significant environmental impacts could potentially be mitigated by local lead agencies does not relieve CARB from its duty to consider and to quantify the project's environmental impacts.

Third, by relying solely on local lead agencies to enforce mitigation measures, the EA sidesteps analysis of important environmental impacts. Here, as in *Californians for Alternatives to Toxics*, CARB has “repeatedly deferred” to local and federal “regulatory scheme[s] instead of analyzing environmental consequences.” (*Californians for Alternatives to Toxics, supra*, 136 Cal.App.4th at 16.) As such, CARB has failed to discharge its duty under CEQA to “meaningfully consider the issues raised by the proposed project.” (*Id.*) In *Californians for Alternatives to Toxics*, the lead agency relied on another agency's regulatory scheme to support a finding of no significant impact. (*Id.* at 17.) Here, in contrast, CARB finds a significant impact, but then immediately asserts that the impact may not actually be significant in light of state and federal regulatory schemes. In both cases, however, the result is the same: the lead agency sidesteps CEQA's informational purpose and fails to “meaningfully consider the issues raised by the proposed project.” (*Id.* at 16.)

3. The EA Does Not Propose Adequate Mitigation for New/Modified Facilities

CEQA requires mitigation measures to be enforceable through means that are legally binding. (Pub. Resources Code, § 21081.6, subd. (b); CEQA Guidelines, § 15126.4.) This requirement is designed to ensure that mitigation measures will actually be implemented. (*Fed. of Hillside & Cyn. Ass'ns v. City of Los Angeles* (2004) 83 Cal.App.4th 1252, 1261; *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1186.)

None of the mitigation measures identified in the EA are enforceable through legally binding means. Instead, the EA merely identifies “[r]ecognized practices routinely required to avoid and/or minimize impacts to” the relevant resource category. (See, e.g., EA at 28, 32, 34, 39, 103.) There is nothing in the proposed ACF Regulation, however, that ensures those “recognized practices” will actually be implemented. Although CARB defends this approach on the ground that it “does not have the authority to require implementation of mitigation related to new or modified facilities that would be approved by local jurisdictions,” (see EA at 28, 32, 34, 39, 50, 53, 61, 68, 74, 90, 93, 98, 101, 103, 106), that is insufficient to discharge CARB's obligations under CEQA. The EA contains no discussion or analysis regarding CARB's consideration of feasible mitigation measures, other than to state in conclusory fashion that none exist. CARB must use whatever authority it has at its disposal to ensure that the mitigation measures identified in the EA are enforceable through legally-binding means. Thus, at the very least, CARB must analyze a range of potential mitigation measures and determine, based on the results of that analysis, whether such measures are feasible or not.

That being said, CARB is empowered by CEQA to adopt mitigation measures that another agency should implement, where their enforcement is not within CARB's jurisdiction. (*Tiburon Open Space Committee v. County of Marin* (2022) 78 Cal.App.5th 700, 745 [“CEQA is

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not blind to the possibility of multiple jurisdictions or agencies having some degree of involvement or responsibility for a project. Mitigation may be within the jurisdiction of another entity, and a project may be approved with a finding that a mitigation measure ‘should be[] adopted’ by another entity that has exclusive jurisdiction.”] [quoting Pub. Resources Code, § 21081, subd. (a)(2).)]; see also *City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341, 366 [“CEQA . . . does not require a public agency to undertake identified mitigation measures, even if those measures are necessary to address the project’s significant environmental effects, if the agency finds that the measures” are not within its jurisdiction to enforce.]; and see CEQA Guidelines § 15091 [specifically noting that a valid finding regarding significant impacts includes that changes to a project to reduce impacts are within jurisdiction of another agency and should be adopted by that agency].) CARB’s failure to do so here violates CEQA.

C. Other Air Quality/GHG Impacts Are Not Adequately Assessed in the EA

1. The EA Fails to Evaluate Lifecycle Emissions for the GHG Reductions Contemplated Under the ACF Regulation

For numerous other rulemakings, including the Low Carbon Fuel Standard, CARB has used the CA-GREET3.0 Model to assess lifecycle GHG emissions associated with various fuels. In the ISOR, however, CARB declines to perform a similar lifecycle analysis for the ZEVs that will displace combustion engines. Had CARB used the CA-GREET3.0 model and attempted to perform a lifecycle analysis, the alleged emissions benefits would likely be reduced. Indeed, as explained by Ramboll, the American Transportation Research Institute (ATRI) has demonstrated the lifecycle emissions of BEVs is far higher than internal combustion engine vehicles and fuel cell electric vehicles. (Exhibit “A” at 4.) By declining to perform this analysis, CARB continues to obscure the impacts of the ACF Regulation on GHG emissions.

2. The EA Fails to Analyze Emissions Associated with the Operation of EVs

The EA’s discussion of air quality impacts is also incomplete because it does not assess criteria pollutant emissions particular to EVs. For example, the EA does not analyze or include an assessment of the impacts on “ZEV weight on PM emissions from tire wear and entrained road dust.” (Exhibit “A” at 3.) As explained by Ramboll, it is “reasonably foreseeable that ZEVs will be heavier than the internal combustion engine vehicles (ICEVs) currently on the road.” (*Id.*) Because the weight increase is likely to outpace “the 2,000 lbs allowance under [AB] 2061 for alternative fueled vehicles, either more vehicles will be required to transport goods or the weight threshold for the vehicles will need to be further increased.” (*Id.*) Under either circumstance, the ACF Regulation will result in PM10 emissions that are not addressed in the EA. As explained by Ramboll:

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If the former occurs, the increase in vehicle miles traveled (VMT) will result in an increase in PM emissions from tire wear and entrained road dust. If the latter occurs, the increased average vehicle weight will similarly result in an increase in PM emissions. . . . Given that non-exhaust emissions account for over 90% of PM10 and 85% of PM2.5 emissions from traffic, *the effects of increased vehicle weight may be significant.*

(*Id.* [emphasis added].)

D. CARB’s Energy Assessment Fails to Meet CEQA’s Requirements

CEQA requires that lead agencies evaluate the potential impacts of projects to energy consumption. Specifically, agencies are required to assess whether a project “may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources,” and if so recommend mitigation. (CEQA Guidelines, § 15126.2(b).) “This analysis should include the project’s energy use for all project phases and components, including transportation-related energy” (*Id.*; see also CEQA Guidelines, Appendix F.)

1. The EA Does Not Discuss Baseline Conditions With Respect to Energy Consumption

As an initial matter, the EA is legally deficient under CEQA because it makes no effort to discuss baseline conditions—i.e., current energy consumption. This is highly problematic in the context of energy consumption, as there is nothing against which to compare the impacts of the ACF Regulation to determine whether impacts to energy consumption are potentially significant. (See CEQA Guidelines, § 15125.) By declining to include baseline conditions with respect to energy consumption, there is no way to evaluate whether the ACF Regulation will result in the “wasteful, inefficient, or unnecessary consumption of energy,” and as such the EA violates CEQA.

2. The EA Does Not Adequately Analyze Whether the Project Will Result in the Wasteful, Inefficient, or Unnecessary Consumption of Energy

The EA recognizes that the “electrification of the various sectors affected by the [ACF Regulation] could increase local and regional energy use and impact supplies and requirements for additional capacity,” and that the ACF Regulation may also “impact peak and base load period demands for electricity and other forms of energy. (EA at 57.) The EA, however, ultimately finds that these potential impacts could potentially be avoided in two ways:

- (1) Through “asset management, system design practices, and managed charging to shift a significant amount of the load away

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from system peaks. Charging management strategies beyond time-of-use rates, including those that reflect wholesale prices and carbon intensity, will be needed to align electric vehicle loads with daytime solar generation. And charging technologies should be coordinated with distribution systems to lessen the impact of charging timed to begin at off peak periods when appropriate.” (EA at 57.)

- (2) Through other preexisting long-term planning initiatives, including SB 32, triennial updates to Title 24 Building Standards Code, federal Infrastructure Investment and Jobs Act, updates to California Energy Code, SB 100, SB 1505. (See EA at 58-59.)

Ultimately, the EA finds impacts to energy would be less than significant and beneficial. (EA at 56, 60.)

This method of analysis violates CEQA. First, the practices referenced above are not part of the “project” under CEQA. The ACF Regulation, of course, does not contemplate or otherwise compel “asset management, system design practices, and managed charging.” Nor are any of the preexisting long-term planning initiatives themselves part of the “project.” Rather, these measures are best described as “mitigation” that would allegedly avoid the ACF Regulation’s potentially significant impacts. (Cf. CEQA Guidelines, § 15370 [defining mitigation as a measure that would avoid or minimize the potential impacts of a project].)

These avoidance measures fail as mitigation. They are not binding or otherwise enforceable against any person. (CEQA Guidelines, § 15126.4(a)(2).) For instance, if utilities and others were not engaged in optimal “asset management, system design practices, and managed charging” sufficient to reduce energy consumption, CARB would have no enforceable mechanism to change that behavior. More fundamentally, the EA provides no explanation of exactly how these measures would supposedly avoid the potential energy effects of the ACF Regulation, much less any attempt to quantify the potential impacts of the regulation.

There is likewise no discussion in the EA about grid reliability and the potential for the ACF Regulation to impact the ability of the state’s electricity grid to deliver electricity reliably with projected load demand. This is particularly important given that summer-time threats of rolling blackouts have become the norm in California. Moreover, because much of the state’s grid is powered by solar energy, which decreases toward the end of the day, much of the stress on the grid is felt most acutely in the late afternoon/early evening, prompting calls for consumers to conserve energy when they return home from work. This coincides with the end of work shifts and the return of trucks to the yard for charging. Despite this, the EA contains no discussion regarding grid reliability and California’s ability to meet new energy demands associated with the ACF Regulation.

E. Traffic Impacts

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As previously explained in WSTA’s April 8, 2021, correspondence, “[c]urrent ZEVs are not a ‘one to one’ replacement and vehicles operating at their maximum legal weight face a significant weight penalty despite the 2,000 lbs weight allowance of AB 2061.” In other words, fleet sizes will need to expand to accommodate the existing demand. This will require fleets to purchase additional trucks, which, in return, will result in additional vehicle miles traveled (“VMT”) by those trucks. (Exhibit “A” at 3.) Despite this, there is no mention of this potential impact in the EA.

F. CARB’s Analysis of Alternatives Violates CEQA

1. CARB’s Obligation to Assess Project Alternatives

The requirement that environmental documents identify and discuss alternatives to the project stems from the fundamental statutory policy that public agencies should require the implementation of feasible alternatives or mitigation measures to reduce the project’s significant impacts. (See, e.g., Pub. Resources Code, § 21002.) The lead agency must “focus on alternatives to the project . . . which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives. . . .” (CEQA Guidelines, § 15126.6(b).) Additionally, the range of alternatives “shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects.” (*Id.* at subd. (c).) The CEQA Guidelines specifically recognize that comments raised by members of the public on an environmental document are particularly helpful if they suggest “additional specific alternatives . . . that would provide better ways to avoid or mitigate the significant environmental effects.” (CEQA Guidelines, § 15204.)

2. The EA Defines the Project Objectives Too Narrowly

“A lead agency may not give a project’s purpose an artificially narrow definition.” (*In re Bay-Delta* (2008) 43 Cal.4th 1143, 1162.) It is improper for a lead agency to “artificially narrow” the description of the project objectives to such an extent that the alternatives analysis “would be a foregone conclusion.” (*We Advocate Through Environmental Review v. County of Siskiyou* (2022) 78 Cal.App.4th 683, 692.) Such an approach would turn the alternatives section of the environmental document “into an empty formality,” (*id.* [citing *Bay-Delta, supra*, 43 Cal.4th at 1162]), which constitutes prejudicial error because it prevents informed decision making and public participation. (*Id.* [citing Pub Resources Code, § 21005, subd. (a); *North Coast Rivers Alliance* (2015) 243 Cal.App.4th 647, 668].)

While some of the project objectives here focus on the ultimate end of reducing criteria pollutant and greenhouse gas emissions, the majority of the project objectives articulated in the ISOR and the EA focus myopically on ZEVs as the specific means to achieve that end. For instance, Project Objective No. 1 seeks to facilitate “the attainment of NAAQS for criteria air pollutants” by “[a]ccelerat[ing] the deployment of ZEVs” (EA at 146.) Project Objective No. 3 seeks to “[d]ecrease GHG emissions . . . by adopting strategies to deploy medium- and

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heavy-duty ZEV in California” (*Id.* [emphasis added].) Project Objective No. 6 seeks “the transition of California’s medium- and heavy-duty transportation sector from internal combustion to all electric powertrains,” and “to support ZEV sales” (*Id.*) Project Objective No. 10 seeks to promote acceleration of the development of “environmentally superior medium- and heavy-duty vehicles” by fostering “market certainty for zero-emission technologies” (*Id.* at 147.) Project Objective Nos. 8 and 12 focus solely on the means, seeking to, respectively, “[i]ncentivize and support “emerging zero-emission technology,” and “[s]pur economic activity of zero-emission technologies in the medium- and heavy-duty vehicle sectors.” (*Id.*) By focusing on CARB’s preferred means—electric vehicles and other ZEVs—as opposed to the actual objectives of the regulation, the EA essentially prohibits CARB from considering other alternatives that also achieve emissions reductions and avoid the serious environmental consequences of the ACF Regulation. This is demonstrated in CARB’s assessment of the alternatives proffered by CTA, WSTA, and EMA, all of which were rejected primarily on the grounds that they would result in the deployment of fewer ZEVs and thus would be less effective in achieving the above objectives than the ACF Regulation. (See EA at 155, 157, 158.)

3. Because the Alternatives Proposed by EMA, CTA, and WSTA Would Avoid the Significant and Unavoidable Impacts of the ACF Regulation, CARB’s Rejection of those Alternatives Violates CEQA

The EA also impermissibly rejects the alternatives proposed by EMA, CTA, and WSTA. Each of these alternatives would rely more heavily than the ACF regulation on existing technologies and infrastructure. As a result, the three alternatives would not induce or require the construction of new facilities or the development of new infrastructure to the same extent as the ACF Regulation. Because virtually all of the impacts in the EA that were found to be significant and unavoidable were created by the need for new facilities or the development of new infrastructure, the three alternatives would either significantly reduce or avoid all of the significant and unavoidable impact identified in the EA. Because CARB must “focus on alternatives to the project . . . which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives,” (CEQA Guidelines, § 15126.6(b)), CARB may not simply reject the proposed alternatives.

G. CARB’s Certified Regulatory Program Violates CEQA Because it Contemplates Post Hoc Environmental Review and Delegation of CEQA Authority to the Executive Officer

The EA states that, following its public meeting on October 27, 2022, to approve the ADF Regulation, the CARB Board may direct the Executive Office to make further changes to the ACF Regulation and finalize the environmental review process without bringing those changes back to the CARB Board. (EA at 12-13.) If CARB proceeds in this fashion, it would violate CEQA’s prohibitions on post hoc environmental review and delegation of environmental review authority to a person who did not initially approve the project.

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1. CARB’s Certified Regulatory Program Authorizes Post Hoc Environmental Review, in Violation of CEQA

As the Supreme Court explained in *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376 “[a] fundamental purpose of an EIR is to provide decision makers with information they can use in deciding whether to approve a proposed project, not to inform them of the environmental effects of projects that they have already approved. If post-approval environmental review were allowed, EIR’s would likely become nothing more than post hoc rationalizations to support action already taken.” (*Id.* at 394; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 79; CEQA Guidelines, § 15004, subd. (a) [“Before granting any approval of a project subject to CEQA, every lead agency . . . shall consider a final EIR”] [emphasis added].) Moreover, the timing requirement set forth in § 15004 of the CEQA Guidelines “applies to the environmental review documents prepared by [C]ARB . . . in lieu of an EIR.” (*POET, supra*, 218 Cal.App.4th at 716.)

By authorizing the Executive Officer to perform “further environmental review” associated with changes to the regulatory language pursuant to Government Code § 11346.8(c) “after [the state board] approves of the project,” the EO would engage in post hoc environmental review in violation of CEQA. As explained above, both the initial regulatory proposal and any subsequent 15-day modifications are part of the same “project” under CEQA. The two actions would be “integral parts” of each other and the 15-day modifications are a “reasonably foreseeable consequence” of the original proposed regulations. (*Sierra Club, supra*, 128 Cal.App.4th at 698.) Therefore, authorizing the Executive Officer to perform “further environmental review” after the state board approves the project at issue would constitute impermissible post hoc environmental review.

2. CARB’s Certified Regulatory Program Violates CEQA Because it Authorizes the Delegation of CEQA Decision-making Authority to a Person Who Did Not Initially Approve the Regulation

Delegation to the Executive Officer is improper if the Executive Officer lacks the authority to approve or disapprove the project. This observation is consistent with the decision in *POET* in which the court held that:

[T]he principle that prohibits the delegation of authority to a person or entity that is not a decision-making body includes a corollary proposition that CEQA is violated when the authority to approve or disapprove the project is separated from the responsibility to complete the environmental review. [Citations.] This conclusion is based on a fundamental policy of CEQA. For an environmental review document to serve CEQA’s basic purpose of informing governmental decision makers about environmental issues, that document must be reviewed and considered by the same person or group of persons who make the decision to approve or

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disapprove the project at issue. In other words, the separation of the approval function from the review and consideration of the environmental assessment is inconsistent with the purpose served by an environmental assessment as it insulates the person or group approving the project “from public awareness and the possible reaction to the individual members’ environmental and economic values.”

(*POET, supra*, 218 Cal.App.4th at 731 [quoting *Kleist v. City of Glendale* (1976) 56 Cal.App.3d 770, 779] [emphasis added].)

The term “[p]roject” means “the whole of the action” that otherwise qualifies as a “project” under CEQA. (*Concerned McCloud Citizens v. McCloud Community Servs. Dist.* (2007) 147 Cal.App.4th 181, 192 [quoting CEQA Guidelines, § 15378(a)]; see also Pub. Resources Code, § 21002.1(d) [“The lead agency shall be responsible for considering the effects . . . of all activities involved in a project.”] [emphasis added].) It “does not mean each separate governmental approval.” (*Id.* [quoting CEQA Guidelines, § 15378(c)].) Rather, the term “project” “is broadly construed and applied in order to maximize protection of the environment.” (*Nelson v. County of Kern* (2010) 190 Cal.App.4th 252, 271 [emphasis added].) Consequently, “[c]ourts have considered separate activities as one CEQA project and required them to be reviewed together where, for example, the second activity is a reasonably foreseeable consequence of the first activity . . . or both activities are integral parts of the same project.” (*Sierra Club, supra*, 128 Cal.App.4th at 698.) Moreover, CEQA requires the lead agency to perform its environmental review “at the earliest possible stage.” (*Calif. Oak Found. v. Regents of the Univ. of Calif.* (2010) 188 Cal.App.4th 227, 271.)

CARB’s certified regulatory program purports to delegate to the Executive Officer authority to approve or disapprove the 15-day modifications to the proposed project, but they do not—and cannot—delegate to the Executive Officer authority to approve or disapprove the project, since that decision will have already been made by CARB. Consequently, “the authority to approve or disapprove the project [would be] separated from the responsibility to complete the environmental review.” (*POET, supra*, 218 Cal.App.4th at 731 [emphasis added].) As the court in *POET* explained, “[f]or an environmental review document to serve CEQA’s basic purpose of informing governmental decision makers about environmental issues, that document must be reviewed and considered by the same person or group of persons who make the decision to approve or disapprove the project at issue.” (*Id.* [emphasis added].) CARB’s potential course of action does just the opposite. It suggests CARB’s governing board may approve the ACF Regulation, but then delegate authority to a different person, the Executive Officer, to approve the 15-day modifications and any associated environmental review. This improperly “insulates the person or group approving the project”—i.e., CARB—“from public awareness and the possible reaction” regarding the 15-day modifications and their environmental impacts, since those issues are reviewed and approved by the Executive Officer. (*Id.* [quoting *Kleist, supra*, 56 Cal.App.3d at 779].)

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As such, in the event CARB makes any changes to the proposed ACF Regulation after the October 27, 2022, hearing, the Executive Officer may not act on those modifications, and must instead bring the changes back to CARB's governing board.

V.

CARB FAILED TO ENGAGE IN EXTERNAL PEER REVIEW OF THE ACF REGULATION

Pursuant to Section 50074 of the Health and Safety Code, CARB may not “take any action to adopt the final version of a rule unless” it undertakes a peer review to evaluate the “scientific portions” of the rule. (Health & Saf. Code, § 57004(d).) Section 57004 was enacted by the Legislature in response to “[s]ignificant questions . . . raised by both the environmental and regulated communities about the scientific basis for some rules.” (California Bill Analysis, S.B. 1320 Assem., 8/11/1997.) Thus, it requires CALEPA agencies, such as the CARB, to submit the “scientific portions” of a proposed regulation to an external peer reviewer “for the purpose of conducting an analysis of the science on which the regulation is based.” (*Id.*) The peer reviewer must then “provide a written evaluation as to whether the scientific portion of the rule is based on sound scientific knowledge, methods and practices.” (*Id.*; see also Health & Saf. Code, § 57004(d) [stating that “board, department, or office [must] submit[] the scientific portions of the proposed rule, along with a statement of the scientific findings, conclusions, and assumptions on which the scientific portions of the proposed rule are based and the supporting scientific data, studies, and other appropriate materials, to the external scientific peer review entity for its evaluation” and that the “external scientific peer review entity [must] prepare[] a written report that contains an evaluation of the scientific basis of the proposed rule”].) The “scientific portions” of a proposed regulation include “those foundations of a rule that are premised upon, or derived from, empirical data or other scientific findings, conclusions, or assumptions establishing a regulatory level, standard, or other requirement for the protection of public health or the environment.” (*Id.*, subd. (a)(2).)

The proposed regulation contains numerous “scientific portions” that must be subjected to external peer review pursuant to § 50074 because they “are premised upon, or derived from, empirical data or other scientific findings, conclusions, or assumptions establishing a regulatory level, standard, or other requirement for the protection of public health or the environment.” (*Id.*, subd. (a)(2).) These “scientific portions” include, but are not limited to:

- The total cost of ownership of ZEVs, including the analysis in Appendix G to the ISOR.
- The alleged emissions benefits of the ACF Regulation as discussed in Appendix F of the ISOR, as well as the potential negative criteria pollutant and GHG emissions impacts associated with the new construction and infrastructure required to accommodate demand for new ZEVs.

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- The assessment of the ACF Regulation’s impact on the California energy grid and grid reliability.

As such, CARB must submit these portions of the rule, “along with a statement of the scientific findings, conclusions, and assumptions on which [they] are based and the supporting scientific data, studies, and other appropriate materials, to the external scientific peer review entity for its evaluation.” (*Id.* at subd. (d)(2).) Because there is no evidence of CARB obtaining peer review for any of the above scientific portions of the ACF Regulation, CARB may not approve the ACF Regulation on October 27, 2022.

VI.

THE ACF REGULATION IS INCONSISTENT WITH THE USEFUL LIFE PROVISIONS OF SECTION 43021 OF THE HEALTH & SAFETY CODE

Section 2015.1 of the ACF Regulation contemplates that, after January 1, 2024, fleet owners may only add ZEVs to their fleets, and that no internal combustion engine vehicles (“ICEVs”) may be added to a fleet after that date unless a waiver is obtained. These provisions, however, are contrary to the plain requirements of Section 43021 of the Health & Safety Code.

Section 43021 was enacted “to provide owners of self-proposed commercial motor vehicles . . . certainty about the useful like of engines certified by” CARB and other agencies “to meet required environmental standards for sale in the state.” (Health & Saf. Code, § 43021, subd. (d)). As the Senate Bill Analysis for S.B. 1 explains, Section 43021 “[s]ets a ‘useful life’ period where truckers subject to future, undefined regulations can get a return on their investment before being asked to replace or modify the vehicle. Thus, if the California Air Resources Board (ARB) adopts future in-use regulations, trucks will not be required to turnover until they have reached 13 years from the model year the engine and emission control systems are first certified or until they reach 800,000 vehicle miles traveled. (California Bill Analysis, S.B. 1 Sen., 4/3/2017.) Accordingly, Section 43021 provides that, with limited exceptions inapplicable here, “the retirement, replacement, retrofit, or repower of a self-propelled commercial motor vehicle . . . *shall not be required* until the later of . . . [t]hirteen years from the model year the engine and emission control system are first certified” or when “the vehicle reaches the earlier of either 800,000 vehicle miles traveled or 18 years” from the certification of the engine and emission control system. (*Id.*, subd. (a) [emphasis added].)

Notably, Section 43021 contains no carve outs or exceptions that allow CARB to limit its protections for vehicles added to a fleet after January 1, 2024. Nor is there any language in the regulation that allows CARB to limit the use of ICEVs that are lawful under Section 43021 to certain compliance options. Moreover, after January 1, 2024, both California and U.S. EPA will continue to certify ICEVs for use in California. Those engines would plainly fall within Section 43021, which means CARB cannot require the “retirement, replacement, retrofit, or repower” of those engines.

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As a result of the foregoing, Section 2015.1 should be substantially revised to conform to the requirements of Section 43021 of the Health & Safety Code.

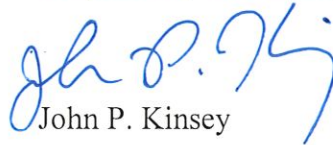
VII.

CONCLUSION

CARB should not adopt the ACF Regulations. CARB should instead continue to work with affected stakeholders to ensure the ACF Regulations will not adversely affect private individuals and small businesses or cause significant adverse environmental effects.

Thank you for your consideration of these comments.

Respectfully submitted,


John P. Kinsey

Enclosures

EXHIBIT “A”

MEMORANDUM

To: John Kinsey, Wanger Jones Helsley PC
Lee Brown, Western States Trucking Association
Chris Shimoda, California Trucking Association

From: Varalakshmi Jayaram and Julia Lester
Ramboll US Consulting, Inc.

Subject: **COMMENTS ON THE CALIFORNIA ENVIRONMENTAL
QUALITY ACT (CEQA) ANALYSIS IN THE DRAFT
ENVIRONMENTAL ASSESSMENT FOR
THE PROPOSED ADVANCED CLEAN FLEETS
REGULATION**

CEQA TECHNICAL COMMENTS

Date: October 17, 2022

The CEQA analysis presented in the for the Draft Environmental Assessment (EA) for the Advanced Clean Fleets (ACF) regulation has numerous inadequacies and/or omissions which need to be corrected before the adoption of the proposed ACF regulation. When conducting a CEQA analysis, the California Air Resources Board (CARB) is required to consider the full environmental impact of a proposed regulation or project, yet fails to quantify the emissions impacts of electric fueling infrastructure construction, increased particulate matter (PM) emissions due to increased vehicle weight, and the life cycle greenhouse gas (GHG) emissions of medium/heavy duty vehicles (M/HDVs) affected by this proposal.

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The environmental impacts of electric vehicle (EV) charger and infrastructure construction, PM emissions from brake and tire wear, and GHG emissions from zero emission vehicle (ZEV) production are possible to quantify and it is highly likely that they would be more than significant. CARB must complete these analyses and publish a revised draft EA that includes these revised analyses. Without this the CARB Board, stakeholders, and the public will not be able to understand the full impacts of the proposed ACF regulation and/or identify environmentally superior alternatives or revisions.

The following sections provide additional details on these inadequacies and/or omissions in CARB’s CEQA analysis:

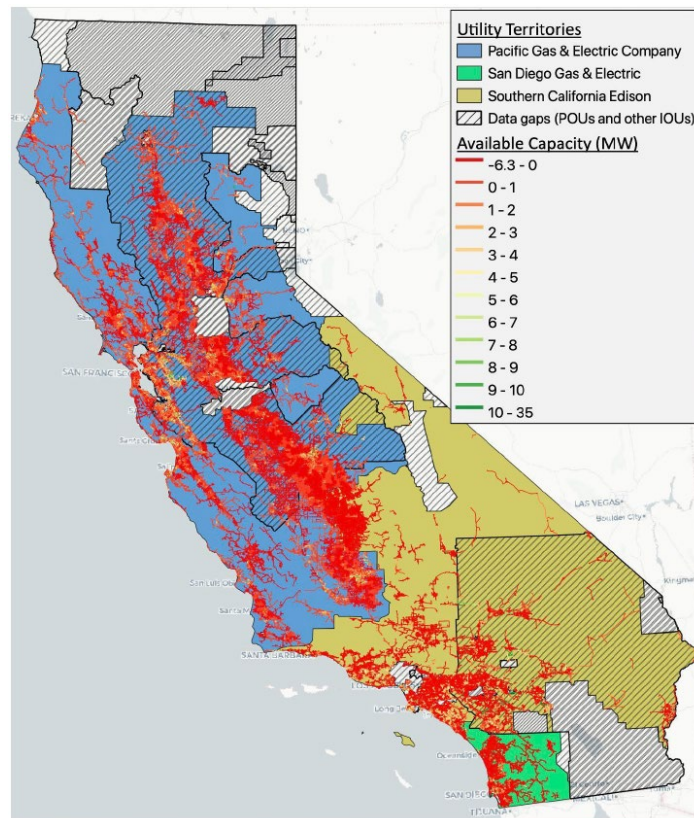
Inadequate Assessment of EV Fueling Infrastructure

One of the most direct impacts from CARB’s proposed ACF regulation is the installation of EV charging infrastructure for hundreds of thousands of zero emission (ZE) M/HDVs that will be deployed across the state. It is critical that the impacts for infrastructure construction are properly considered in CARB’s CEQA analysis. Given CARB’s extensive research into the vehicle populations that will

be affected by the regulation,¹ CARB could conduct an analysis to make a high-level determination of the number of EV chargers and substation installations that would be necessary to fuel these vehicles and then estimate the emissions impacts of the construction of this infrastructure.

CARB does provide CEC projections for charger needs in the Draft EA,² stating that 157,000 chargers will be necessary by 2030 and 258,000 chargers by 2037 to support M/HDV electrification but does not project the number of new substations that would be required. As shown in the EA for the Advanced Clean Cars II regulation (ACC II) regulation, there is no excess grid capacity to support M/HDV charging throughout a majority of the state of California (Figure 1),³ meaning infrastructure upgrades would be required for a significant majority of new EV charging stations. With assistance from utilities, CARB could determine how many new substations would be required to meet the increased electrical demand from these chargers and estimate the level of construction that will be required across the state.

Figure 1: Capacity Analysis from the California Energy Commission’s EDGE Model⁴



¹ CARB. 2022. Appendix D Draft Environmental Analysis for the Proposed Advanced Clean Fleet Regulation. August 30. Available here: <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/appd.pdf>. Accessed: October 2022.

² Ibid.

³ CARB. 2022. Appendix E Final Environmental Analysis for the Proposed Advanced Clean Cars II Program. August 24. Available here: <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/acciifinalea.docx>. Accessed: October 2022.

⁴ Ibid.

CARB could use this data to quantify and evaluate the emissions impacts for charger and substation construction using their statewide land use emissions computer model CalEEMod[®]. This model includes default assumptions for construction and operation of a variety of projects and can be used to estimate criteria air pollutant and greenhouse gas emissions associated with the construction of EV charging stations and substations.

As the lead agency, it is CARB's responsibility to perform such an analysis in order to determine the reasonably foreseeable impact of the proposed ACF regulation for EV infrastructure development projects that will result from the regulation as a part of their CEQA analysis. Without the analyses discussed above, their impact analysis is incomplete and misleading.

Incomplete Assessment of PM Emissions

Under CEQA, CARB is required to assess all reasonably foreseeable emissions impacts associated with the regulation, yet CARB does not consider the impacts of ZEV weight on PM emissions from tire wear and entrained road dust. It is reasonably foreseeable that ZEVs will be heavier than the internal combustion engine vehicles (ICEVs) currently on the road. According to a report by the American Transportation Research Institute (ATRI), battery electric vehicles (BEVs) weigh more than their ICEV counterparts largely due to the significant battery sizes required for M/HDVs. For example, the GREET vehicle weight distribution assumptions for Class 8 Sleeper Cabs lists the battery weight has 17,108 pounds (lbs), for a total BEV weight of 32,016 lbs in comparison to the ICEV which weighs 18,216 lbs.⁵

Given that this weight increase far outpaces the 2,000 lbs allowance under Assembly Bill 2061 for alternative fueled vehicles, either more vehicles will be required to transport goods or the weight threshold for vehicles will need to be further increased. If the former occurs, the increase in vehicle miles traveled (VMT) will result in an increase in PM emissions from tire wear and entrained road dust. If the latter occurs, the increased average vehicle weight will similarly result in an increase in PM emissions. CARB's own methodology for calculating entrained road dust emissions per VMT is dependent of the average vehicle weight on the road⁶ and a 2016 study titled "Non-exhaust PM emissions from electric vehicles" concluded that increased vehicle weight leads to increased PM emissions from both tire wear and road dust.⁷ Given that non-exhaust emissions account for over 90% of PM₁₀ and 85% of PM_{2.5} emissions from traffic, the effects of increased vehicle weight may be significant.

CARB's Initial Statement of Reasons (ISOR) for the proposed ACF regulation⁸ states that the ZEV weight increase is only expected to impact 10% of vehicles; CARB provides no supporting evidence or analysis for this assertion. However, they do indicate that there will be a weight increase for some of these vehicles and despite having the tools to conduct this analysis, CARB has not considered or attempted to quantify the emissions impact from tire wear or entrained road dust. Until they do so, the CEQA analysis for the proposed ACF regulation remains incomplete.

⁵ American Transportation Research Institute (ATRI). 2022. Understanding CO₂ Impacts of Zero Emission Trucks. May. Available here: <https://truckingresearch.org/wp-content/uploads/2022/05/ATRI-Understanding-CO2-Impacts-of-Zero-Emission-Trucks-May-2022.pdf>. Accessed: October 2022.

⁶ CARB. 2021. Miscellaneous Process Methodology 7.9: Entrained Road Travel, Paved Road Dust. March. Available here: https://ww3.arb.ca.gov/ei/areasrc/fullpdf/2021_paved_roads_7_9.pdf. Accessed: October 2022.

⁷ Timmers, Victor and Peter Achten. "Non-exhaust PM emissions from electric vehicles". March 2016. Available here: <http://www.soliftec.com/NonExhaust%20PMs.pdf>. Accessed: October 2022.

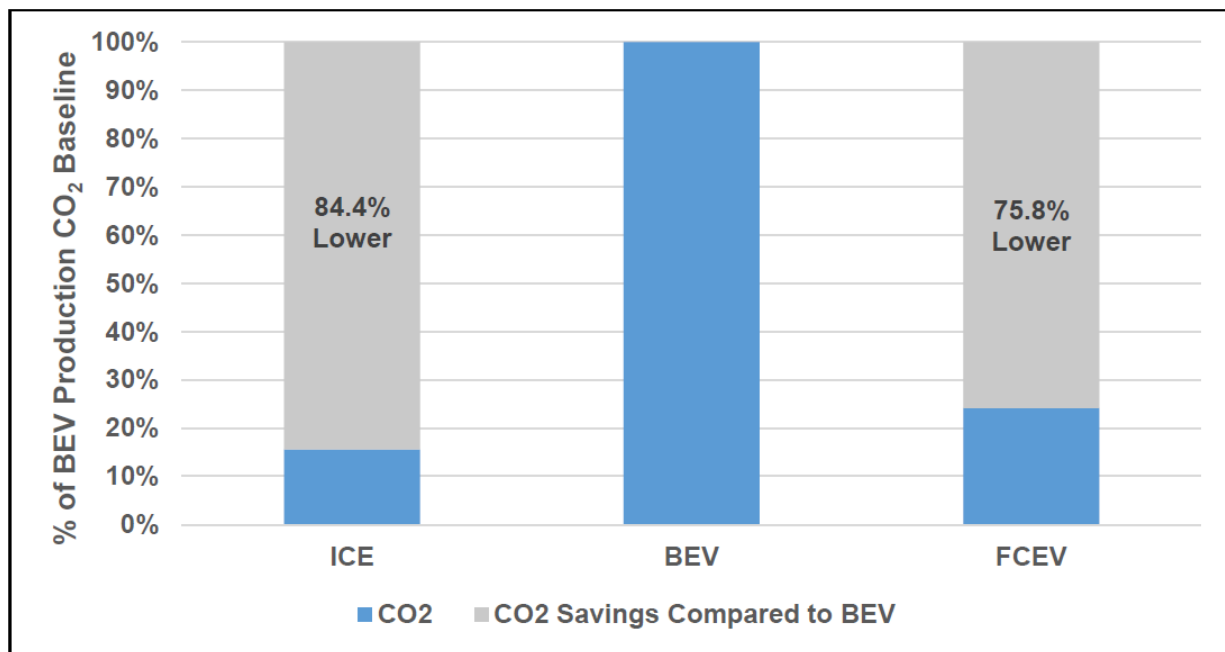
⁸ CARB. 2022. Public Hearing to Consider the Proposed Advanced Clean Fleets Regulation. Staff Report: Initial Statement of Reasons. August 30. Available here: <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/isor2.pdf>. Accessed: October 2022.

Incomplete Assessment of GHG Emissions Impacts

The proposed ACF regulation will result in a dramatic transition of both the vehicle and fuel systems in our transportation system, from ICEV to ZEVs and from diesel and gasoline to electricity and hydrogen. As a part of this CEQA analysis, CARB should properly estimate the GHG emission impacts of the proposed regulation by evaluating the full life cycle emissions of the M/HDVs affected by this proposal. However, CARB continues to ignore the GHG emissions associated with vehicle production and upstream emissions associated with fuel production and only estimates the reductions in tailpipe GHG emissions that would occur with the implementation of their proposal.

The ATRI study titled “Understanding CO₂ Impacts of Zero Emission Trucks”⁹ compares the vehicle cycle emissions of ICEV, BEV, and fuel cell electric vehicles (FCEV) (Figure 2). Using the GREET model, the study determined that the manufacturing of battery electric Class 8 Sleeper Cabs would result in the 478,055 lbs of total CO₂ emissions per vehicle whereas the production of ICEVs emits 74,728 lbs per vehicle. The study also highlights that over the past decade, the U.S. has imported nearly 100% of the critical minerals needed for battery production from other countries, which likely contributes to the high GHG intensity of ZEV production.

Figure 2. Vehicle Cycle GHG Emissions of Class 8 Sleeper Cabs¹⁰



A CEQA analysis must include all potential impacts of a regulation, including the full life cycle GHG emissions of M/HDVs, even if portions of it occur outside the state of California. By not including such impacts in their analysis, CARB is misrepresenting the benefits of the proposed ACF regulation and CEQA alternatives.

⁹ ATRI. 2022. Understanding CO₂ Impacts of Zero Emission Trucks. May. Available here: <https://truckingresearch.org/wp-content/uploads/2022/05/ATRI-Understanding-CO2-Impacts-of-Zero-Emission-Trucks-May-2022.pdf>. Accessed: October 2022.

¹⁰ Ibid.

**ATTACHMENT A
AUTHOR RESUMES**

JULIA LESTER, PhD

Principal

Dr. Julia Lester has over 32 years of experience in air quality services. She joined ENVIRON (now Ramboll) in 2004, after more than 14 years at the South Coast Air Quality Management District (SCAQMD). She has substantial expertise in the preparation and review of California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents, particularly air emissions greenhouse gas and climate change impact, conformity, air quality and health risk assessments. She has conducted regulatory negotiations with many air agencies and supported clients, before city councils and in other public forums. She is a PhD Chemical Engineer and has the following air agency certifications: SCAQMD Certified Permitting Professional and San Joaquin Valley Air Pollution Control District Certified Air Permitting Professional. Her clients include local governments, California sea ports and goods movement operations, government agencies, wastewater / waste-to-energy facilities, industrial facilities, agricultural operations, and agencies/industries with specialized air regulatory challenges.



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EDUCATION

PhD, Chemical Engineering,
California Institute of
Technology

MS, Chemical Engineering,
California Institute of
Technology

BS, Chemical Engineering,
Purdue University

CREDENTIALS

Certified Permitting
Professional – South Coast
Air Quality Management
District

Certified Air Permitting
Professional – San Joaquin
Valley Air Pollution Control
District

EXPERIENCE HIGHLIGHTS

- Prepared full CEQA Environmental Impact Report (EIR) for the City of Los Angeles Digester Gas Utilization Project (DGUP) at the Hyperion wastewater treatment plan certified in August 2013.
- Lead the Air Quality / Health Risk Assessment (AQ/HRA) for the I-710 Corridor Project between the San Pedro Bay Ports and the Downtown Los Angeles Railyards
- Prepared full CEQA EIR for the City of Los Angeles biosolids application at Green Acres Farm, certified in December 2014.
- Provided CEQA/NEPA and permitting/compliance/rule development assistance (analysis, documents, outside review) on several projects, including freeway projects in Central California and Los Angeles, an oil and gas production facility (CEQA Project Manager), waste-to-energy facilities (CEQA/NEPA, permitting, planning), a wastewater utility agency (permitting, compliance, planning assistance), sanitation district (CEQA, compliance, and regulatory negotiation), sea ports (CEQA/NEPA), and others.
- Provided expert services, declarations and/or testimony on several air quality-related hearing board and litigation matters.
- Provided City Council testimony on behalf of the City of Azusa during a mine development CEQA certification and the City of Cerritos (erroneously labeled the "air toxic hotspot" by USA).
- At the SCAQMD, prepared State Implementation Plans, conducted air quality modeling, developed particulate matter regulations (including first-in-the-nation rules).

SELECTED EXPERIENCE**Waste and Waste-to-Energy Projects – Air Quality and CEQA**

- Prepared full CEQA Environmental Impact Report (EIR) for the City of Los Angeles Digester Gas Utilization Project (DGUP) at the Hyperion wastewater treatment plan that was certified in August 2013.
- Prepared full CEQA EIR for the City of Los Angeles biosolids application at Green Acres Farm that was certified in December 2014.
- Prepared an SCAQMD Certified Permitting Professional permit application for a novel biosolids waste-to-energy facility with state-of-the-art control equipment.
- Provided technical assistance to a sanitation district concerning new biosolids composting regulations and current biosolids management operations.
- Assistance to several landfill-gas-to-energy facilities with permitting and compliance issues in South Coast and Santa Barbara County.

Transportation and Goods Movement – Air Quality and CEQA Service

- Preparing the Air Quality / Greenhouse Gas / Health Risk Assessment for the I-710 Corridor Project Environmental Impact Report / Environmental Impact Study, the main goods movement truck corridor between the Ports of Los Angeles/Long Beach and the downtown railyards.
- Assisted the Ports of Long Beach and Los Angeles in the review, development and assessment of the San Pedro Bay Ports Clean Air Action Plan (CAAP) and related CAAP measures.
- Provided peer review services to the Port of Long Beach for air quality and health risk assessment analyses in draft CEQA and NEPA documents.
- Prepared a Negative Declaration for a port control technology implementation project at the Port of Long Beach.
- Prepared several assessments of port-related control technologies, strategies, and clean air plans.
- Assisted the San Diego Unified Port District (SDUPD) in the development of its Clean Air Program (CAP).

Particulate Matter Projects

- Assisted the Imperial County Air Pollution Control District in its 2009 and 2018 PM10 State Implementation Plan (SIP) development, including analysis of appropriate Best Available Control Measures (BACM) for fugitive dust, and exceptional events documentation. Assisted with Ozone SIP development, including analysis of Reasonably Available Control Technology (RACT) and Section 179(B) 'but-for' international emissions attainment demonstration.
- Assisted the Great Basin Unified Air Pollution Control District in its 2016 PM10 State Implementation Plan development for the Owens Valley, including analysis of significant sources and appropriate Best Available Control Measures (BACM) for fugitive dust.
- Conducted an independent third-party review of the fugitive dust controls, rule compliance and Environmental Impact Report assessments of a proposed large-scale aggregate mining operation for the City of Azusa. Included legal counsel support and City Council testimony.

General Permitting and Compliance Assistance

- Provided permitting, compliance and CEQA assistance (analysis and documents) to several facilities subject to air district regulations throughout California. Clients include an oil and gas production facility (CEQA Project Manager), waste-to-energy facilities (CEQA/NEPA, permitting, planning), a landfill gas-to-energy operator (multiple sites), a wastewater utility agency (permitting, compliance, planning assistance), sanitation district (CEQA, compliance, and regulatory negotiation), aggregate facilities, a glass manufacturer, a carpeting manufacturer, dairy and poultry farms, and others.

VARALAKSHMI JAYARAM

Senior Managing Consultant

Varalakshmi Jayaram is a Senior Managing Consultant in Ramboll's Air Quality Practice with over twelve years of experience in air quality management and climate change issues. She has substantial expertise in developing criteria air pollutant and greenhouse gas emission inventories, evaluating control technologies, air permitting and compliance including CEQA and NEPA, air dispersion modeling, and health risk assessments. Her clients span a broad range of industries including transportation agencies, seaports, airports, utilities, commercial and residential developers, and manufacturing facilities. She is a PhD Chemical and Environmental Engineer (UCR) and a Certified Permitting Professional in the South Coast Air Quality Management District (SCAQMD). She is currently serving as the Chair on FuturePorts Board of Directors. She also represents FuturePorts on the SCAQMD's Air Quality Management Plan Advisory Group.



COURSES/CERTIFICATIONS

Certified Permitting Professional - South Coast Air Quality Management District (N62101), 2012 - Present

MEMBERSHIPS

FuturePorts
Harbor Association of Industry and Commerce (HAIC)
Air and Waste Management Association (AWMA)

EXPERIENCE HIGHLIGHTS

- Prepared air quality, greenhouse gas, and health risk assessments (CEQA/NEPA) for several transportation, warehouse, and mixed-use development projects including but not limited to the I-710 Corridor Project, Brightline West Cajon Pass High-Speed Rail Project, K4 Warehouse and Cactus Channel Improvement Project, San Diego State University Mission Valley Campus Master Plan Project, Great Park Neighbourhoods and The Villages of Lakeview. This involved developing construction and operational criteria air pollutant and greenhouse gas inventories; developing and accessing AQ/GHG mitigation measures; performing air dispersion modeling to estimate ambient air quality impacts; estimating health risk impacts; preparing the air quality, health risk assessment, greenhouse gas, and energy technical reports; preparing the Air Quality and Greenhouse Gas sections of the Draft Environmental Impact Reports; addressing responses to comments received from the public, local agencies, and government agencies; and participating in public outreach meetings.
- Assisted with technical evaluations and comment development related to on-road vehicle policy and rulemaking, such as: California Air Resources Board's (CARB's) Mobile Source Strategy, Advanced Clean Trucks (ACT) Regulation, Advanced Clean Fleet (ACF)

CONTACT INFORMATION

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EDUCATION

2006-2011

PhD, Chemical & Environmental Engineering,
University of California, Riverside,
California, United States

2003-2005

MS, Mechanical Engineering,
Ohio University, Athens, Ohio,
United States

1999-2003

BTech, Chemical Engineering
Madras University, Chennai, India

Regulation, Advanced Clean Cars II (ACC II) Regulation, CARB's 2022 Draft Scoping Plan Update, and SCAQMD's Warehouse Indirect Source Rule with a focus on AQ, GHG, and cost analysis of emerging NZE/ZE vehicle (Low NO_x, Battery Electric, Fuel Cell) and fuel (natural gas, electric, hydrogen) technologies for various clients.

- Provided peer review services for air quality, greenhouse gas, and health risk analyses for two large warehouse projects located in the inland empire. Developed air quality and greenhouse gas mitigation measure packages for these projects that included potential greenhouse gas, criteria air pollutant, and diesel particulate matter emission reductions associated for each mitigation measure option. The mitigation measure options spanned across a variety of emission sources including passenger cars, trucks, construction equipment, building energy use, water use, and vegetation.
- Prepared an air quality and health risk analysis protocol for CEQA/NEPA analyses of proposed projects at the Port of Long Beach. Provided peer review services for the Pier B On-Dock Rail Support Facility Project's air quality, greenhouse gas, and health risk analyses in the draft CEQA document.
- Evaluated the siting guidance established by California Air Resources Board in their 2005 Air Quality and Land Use Handbook for sensitive receptors near warehouses. This involved health risk assessments of warehouse scenarios using the latest emissions inventory model and risk assessment methodology.
- Provided AQ/GHG technical and regulatory assistance to Southern California Gas Company since 2016, including but not limited to: analyses and commenting assistance during SCAQMD and California Air Resources Board (CARB) rule development; analysis of multiple AQ (ambient/indoor) and GHG technical articles; commenting assistance during the development of the CEC's 2022 Energy Code and SCAQMD's 2022 Air Quality Management Plan, technical review of SCAQMD's Net Emissions Analysis Tool that estimates NO_x/GHG benefits of residential appliance electrification, and development of a Residential Distributed Generation Comparison Tool that evaluates costs and emissions for a variety of power generation technologies/scenarios.
- Assisting the City of Commerce with the development of a Global Warming and Climate Change chapter for their General Plan update. This involves identifying the existing GHG emissions contributors within the City and developing GHG reduction goals, policies, and action items that target these contributors.
- Assisted Los Angeles World Airports (LAWA) with technical analysis and update of their Alternative Fuel Vehicle Requirement Program that encourages the conversion of conventional diesel and gasoline fueled commercial vehicles operating in the airport to less polluting alternative fuel/vehicle technologies. This involved developing various options for a revised program and evaluating criteria air pollutant and GHG benefits for these options.
- Provided regulatory and technical assistance to the Los Angeles Metropolitan Transportation Authority (LA Metro) Advanced Transit Vehicle Consortium (ATVC) to evaluate the lifecycle cost and cost-effectiveness of near-zero and zero emission transit bus technologies. This analysis involved the development of life-cycle oxides of nitrogen (NO_x) and greenhouse gas (GHG) emissions associated with each near-zero and zero-emission technology. Technologies evaluated include: Low NO_x natural gas buses operating on renewable natural gas, battery electric buses charging at the bus depot only or charging in-route only, and hydrogen fuel cell buses that operate on hydrogen produced on-site by steam methane reformation of renewable natural gas or by electrolysis of water

EXHIBIT “B”



October 17, 2022

John P. Kinsey
Wanger Jones Helsley PC
265 E. River Park Cir., Suite 310
Fresno, CA 93720

Ref: Technical Review of Total Cost of Ownership (TCO) Discussion for the Advanced Clean Fleets Regulation (Appendix G, Posted on August 31, 2022 for the October 27, 2022 Board Hearing)

Dear Mr. Kinsey:

CleanFleets.net provides the following comments in our capacity as an advisor to truck fleet owners affected by CARB regulations. As Director, I have served the trucking industry since the CARB Diesel Risk Reduction Plan adoption in Year 2000 and have participated in the CARB zero emission (ZE) truck process since the initial "Last Mile Delivery" vehicle workshop in 2016. Our firm currently serves more than 100 trucking fleets with consulting services relating to CARB regulatory compliance and advanced technology options. As such, I have gained expertise in how trucking companies prepare to evaluate and deploy trucks, particularly those in the High Priority and Federal Fleets (HPF) category.

The Executive Summary of the TCO analysis concludes, "[I]n summary, the results show that battery-electric vehicles appear cost competitive with the established combustion technologies by 2025 in a variety of use cases." The assumptions used to reach this conclusion are overly optimistic, unsupported by the underlying evidence, and do not reflect real world data prepared by the National Renewable Energy Laboratory (NREL) over the past eight years of ZE bus demonstrations. Throughout the TCO document, CARB relies upon unproven forecasts that truck fleet operators affected by the ACF would experience favorable economic results from switching from internal combustion engine (ICE) trucks to ZE trucks. If this were true, and we do not believe it is, then no purchase mandate would be needed as the basic laws of supply and demand would drive both for-profit fleets and budget-conscious municipalities to move to ZE trucks as rapidly as possible. In any event, the TCO analysis is not supported by empirical data known to CARB and therefore the proposed regulation does not adequately identify the cost impact to businesses affected by the proposed ACF.

1. The TCO assumptions are incorrect based on the ZE trucks manufacturers' statements made in the past year on the draft TCO and CARB has failed to validate those assumptions as requested by the manufacturers. Furthermore, in the Environmental Assessment (EA) for ACF, CARB staff rejected a common-sense proposal from the manufacturers to match their CARB-mandated supply (per the ACT Regulation) with the consumer purchase requirements proposed in this ACF.

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The Truck & Engine Manufacturers Association (EMA) has communicated to CARB the state of ZE trucks:

“Unfortunately, compared to traditional vehicles, ZEVs currently (i) cost a trucking company more to purchase, (ii) are not able to perform the same amount of work as traditional trucks, (iii) require new maintenance facilities and equipment investments, (iv) have lower residual values, and (v) require the build-out and maintenance of a completely new electricity charging or hydrogen fueling infrastructure.”¹

Commercial trucks are highly customized specialty vehicles that HPF-affected fleets must rely on to profitably serve customers. The costs to regulated fleets to address and overcome the barriers above are not adequately explained in the TCO. The most glaring examples of “inaccurate assumptions” were noted by EMA:

- ZEV purchase costs that are too low.
- ZEV residual values are too high.
- No lost productivity to charge a ZEV.
- Average mileage will be adequate when trucks are often needed for peak operation.
- Charger costs based on power ratings that are too low for heavy trucks.
- No infrastructure costs for sleeper cab tractors.
- No maintenance costs for infrastructure.”

Based on overly-optimistic assumptions, the draft cost discussion document concludes that cost parity between ZEVs and traditional vehicles will occur soon. We request that CARB validate the assumptions in the draft cost discussion documents by conducting **case studies of the medium- and heavy-duty ZEV pilot and demonstration projects** that are underway in California.”² (emphasis added in the EMA proposal to CARB, titled “*Alternative 5: Match ACT and ACF ZEV Deployments Exactly*” in the EA, was rejected with inadequate analysis in our view. As stated in the EA:

“The basic concept would require fleets to purchase ZEVs on a schedule that matches the number of ZEV sales required by the ACT regulation starting with the 2024 model year. This alternative would shift where ZEV sales occur but would result in no more ZEVs nor NZEVs than the baseline nor what would otherwise be expected under the No Project Alternative. This alternative would increase administrative burden to implement the fleet requirements and would primarily distribute costs between manufacturers and regulated fleets without increasing ZEV and without achieving any new emissions reductions.”

¹ See Truck & Engine Manufacturers Association comments filed with CARB today at <https://www.arb.ca.gov/lists/com-attach/105-acf-comments-ws-V2VUYIBjVjRSC1Bh.pdf>

² See Truck & Engine Manufacturers Association comments filed with CARB today at <https://www.arb.ca.gov/lists/com-attach/105-acf-comments-ws-V2VUYIBjVjRSC1Bh.pdf>

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First, the “baseline” is a figment of CARB staff imagination and not reflective of what the manufacturers have indicated they can (or will) produce. One need only look at the Advanced Clean Trucks adoption by CARB in 2020 to verify this. Prior to adoption, CARB staff proposed higher percentages of sales than the manufacturers stated they could produce. So the “baseline” established in the ACT is not grounded in reality, but rather by wishful thinking and we see no evidence in the record that the “baseline” percentages can be met due to the statements of the manufacturers themselves. It appears that the EMA’s Alternative 5 would be to match the ambitious increase percentages adopted at the last minute by the CARB Board prior to adoption. To reject this Alternative with the justification that it, “would result in no more ZEVs nor NZEVs than the baseline...,” is not reasonable given that the baseline set by the ACF does not reflect the capacity of the manufacturers to produce ZEVs (e.g. the monumental task of extracting critical minerals and refining those into ZEV batteries). In very simple terms, economic disruption is lessened when the supply of a product and the consumer demand for the product are similar. Due to many factors explained by EMA during the ACT Regulation,³ “beachheads” represent ZE vehicle types for specific customers that are more suitable for manufacturing and use by fleet customers. The initial production required for the ACT when adopted was in the tens of thousands of ZE trucks. With the “100 Percent” proposal in this ACF that manufacturing appears to now be over 500,000 ZE trucks. CARB has failed to provide a thorough analysis or identify the basis for the conclusion that the manufacturing supply chain will produce hundreds of thousands of ZE vehicles *in excess of* what the manufacturers have indicated they can produce.

2. The CARB Board did receive and take testimony on September 22, 2022 from NREL on a multi-year ZE bus evaluation that further demonstrates the TCO for ACF uses assumptions not supported by the facts.⁴

Since EMA made the comments above nearly a year ago, NREL issued its final report on the demonstration project at Foothill Transit. In the introduction to NREL’s Final Report, NREL states indicates that, “Foothill Transit is collaborating with the California Air Resources Board (CARB) and the U.S. Department of Energy’s (DOE’s) National Renewable Energy Laboratory (NREL) to evaluate the buses in revenue service. The focus of the evaluation is to compare performance and cost of the BEBs [Battery-Electric Buses] to that of conventional technology in similar service and track progress over time.”

A brief review of the Final Report shows the TCO does not reflect real world experience such as Foothill Transit. For instance, in comparing a compressed natural gas (CNG) ICE fleet to a ZE bus fleet, the Foothill results do not support the TCO’s conclusions:

³ See <https://ww2.arb.ca.gov/applications/public-comments?p=comm&s=bccommlog&l=act2019>

⁴ Jeffers, Matthew and Leslie Eudy. 2021. Foothill Transit Battery Electric Bus Evaluation: Final Report. Golden, CO: National Renewable Energy Laboratory. NREL/TP-5400- 80022. <https://www.nrel.gov/docs/fy21osti/80022.pdf>.

- More costly fuel: CNG fuel compared to diesel equivalent basis shows that electricity is 5-6.5 times more expensive than CNG fuel, depending on the time of year. The TCO, in contrast, erroneously assumes that CNG and electricity are equally expensive.
- Increased maintenance costs: After removing accident- and warranty-related items for both fleets, the average per-mile maintenance cost was \$0.50/mi for the BEB 35FC fleet, \$0.56/mi for the BEB 40FC fleet, and \$0.32/mi for the CNG fleet, compared to the assumptions of maintenance cost savings for ZEVs in the TCO;
- More vehicle downtime: In the Arcadia Fleet, BEB 40E2 fleet was available 81.9% of time and CNG available 93.5% of time. Unfortunately, there is no mention of vehicle downtime in the TCO, but it is common knowledge that the lack of vehicle reliability translates into more vehicles needed to accomplish the work. Stated another way, if nearly 20% of a battery electric fleet is down at any given time than additional vehicles are needed to maintain the same service level. This cost should be included in the TCO and for that reason the TCO is incomplete.

None of these facts indicate to a reasonable person that heavy duty ZE vehicles are cheaper to own and operate and are reliable as the TCO states.

3. The TCO understates and downplays the upfront costs of ZE trucks and includes predictions for ZE truck cost reductions that are not supported

The TCO shows the cost as follows: "Class 8 Refuse Packer – Battery-Electric \$299,932." Media reports, however, show that the cost of a similar Class 8 Refuse Packer are actually around \$600,000.⁵ As a measure of the incremental cost of a ZE truck versus diesel, the CARB Hybrid Voucher Incentive Program (HVIP) has stated that its incentive amount can cover that incremental cost. A check of the HVIP website lists ZE vehicle incentives for Class 7-8 vehicles in the range of \$85,000 to \$240,000.⁶ The Table 5: New Vehicle Price Forecast in the TCO shows a maximum of \$98,000 in cost difference for the heaviest Class 8 vehicles. The TCO should be substantially revised because its estimates for the price of new ZE vehicles are underestimated. We have noted the same issue with other vehicle types and CARB provides no quotes or validation for the completed vehicle examples modeled in the TCO. There is a lack of transparency to the consumer as it relates to heavy duty ZEVs. Unlike conventional trucks, the consumer can go to the OEM website (e.g. Ford) and view what the MSRP is of vehicles.

⁵ [An electric garbage truck? Zero-emission rigs look to go mainstream - The San Diego Union-Tribune \(sandiegouniontribune.com\)](https://www.sandiegouniontribune.com/story/news/2022/09/28/electric-garbage-truck-zero-emission-rigs-look-to-go-mainstream-the-san-diego-union-tribune/10411174002/)

⁶ <https://californiahvip.org/vehicles/>

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The TCO also predicts decreasing BEV costs. However, these conclusions are entirely undermined by statements from the industry. For example, an August 9, 2022 announcement from Ford Motor Company gave notice of a \$7,000 or more price increase for Ford Motor Company's Lightning pickup. As explained in the announcement, "Due to significant material cost increases and other factors, Ford has adjusted MSRP starting with the opening of the next wave of F-150 Lightning orders." Similarly, in June 2022, Tesla (TSLA) announced that it "has significantly increased the prices of its electric cars across its entire lineup with some models going up by as much as \$6,000."⁷ Lighter duty ZEVs have been in production for several decades and have not reached price parity with their gasoline counterparts so the conclusion that ZE trucks will be close in cost to conventional vehicles is not supported by the facts.

In conclusion, the TCO assumptions are incorrect based on the ZE trucks manufacturers' statements and data collected by NREL in collaboration with CARB. The NREL study metrics should be included in the TCO. Finally, because the upfront cost of ZE trucks is downplayed, the calculated "payback period" is not valid and is not reliable. All of these factors indicate that the TCO does not meet the requirements of the Administrative Procedures Act as it is incomplete, inaccurate and does not disclose the cost impact to businesses.

Sincerely,



Sean R. Edgar
Director

⁷ See "Ford Increases Lightning Base Price For Second Time In Two Months" <https://www.motor1.com/news/614555/ford-lightning-price-increase/#:~:text=In%20August%2C%20Ford%20announced%20it%20was%20increasing%20the,at%20%2453%2C769%20with%20the%20%241%2C795%20destination%20fee%20included.> and "Tesla (TSLA) significantly increases its electric car prices across its lineup," at <https://electrek.co/2022/06/15/tesla-tsla-increases-electric-car-prices-across-lineup/>



Air Resources Regulatory Experts

**Sean Edgar
Director**



Sean R. Edgar has thirty years of public policy development and field experience in transportation, construction and air quality projects for clients in both the public and private sectors. Mr. Edgar gained experience in the public policy arena while serving in the Office of Governor Pete Wilson. There he participated in the formation of the California Environmental Protection Agency in 1991-1993.

In the 1990's Mr. Edgar joined International Technology (IT) Corporation where he managed 25 field personnel in the closure of Hamilton Army Airfield in Marin County, California. For two years, he coordinated waste storage, packaging, transportation, and disposal for the US Department of Energy at Lawrence Livermore National Laboratory. Mr. Edgar was the owner's representative for the closure of the West Contra Costa Sanitary Landfill involving earthwork over 40 acres of the landfill site.

For the past 25 years, Mr. Edgar's consulting practice has consisted of association management and regulatory advocacy relating to transportation and air quality issues. Mr. Edgar has an established presence at the California Air Resources Control Board (CARB) since the September 2000 adoption of the Diesel Risk Reduction Plan (DRRP) and has participated in every major on-road and off-road rulemaking for more than twenty years. Among his other accomplishments, he represented the private solid waste collectors (California Refuse & Recycling Council) in the development and implementation of the CARB Solid Waste Collection Vehicle Rule, the first private carrier rule enacted by CARB. In 2009 Mr. Edgar was appointed by CARB to their Truck Regulations Advisory Committee. In 2011 he was authorized by CARB through a competitive bid process to train business owners about CARB rules. In the past nine years he has educated more than 6,000 fleet owners in six western states through over 150 personal appearances. He is a recognized expert regarding on-road fleet rule implementation and technology options. In 2016 Mr. Edgar was appointed to the CARB Advanced Clean Local Trucks Committee that resulted in the Advanced Clean Trucks Regulation approved by CARB in June 2020. In 2019 he was named Technical Director for the CARB Diesel Filter Replacement Grant Program which resulted in the distribution of \$3 million in grant funds to repair or replace recalled emission systems for public agencies and private fleet owners. As Director he supervises the firm's staff of six professionals servicing more than 200 public and private fleet owners with regulatory compliance services.

Mr. Edgar holds a Bachelor of Arts degree in Political Science from the University of California at Berkeley. Additionally, in 2006 he earned an Air Quality Management Certificate from California State University Fresno Extension and has completed substantial technical training and continuing education in the fields of environmental law and regulation, hazardous materials management, and occupational safety and health. He is fluent in Spanish and is a resident of Sacramento, California.