



**Todd R. Campbell**

Vice President, Public Policy and Regulatory Affairs

The Honorable Liane Randolph  
Chair, California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

October 17, 2022

**RE: ADVANCED CLEAN FLEETS (ACF) REGULATION**

Dear Chair Randolph:

CARB's draft Advanced Clean Fleets ("ACF") Regulation ("draft regulation") proposes an ambitious program to phase out combustion-powered medium- and heavy-duty vehicle sales in California. The proposed regulation would require state and local government fleets, drayage trucks, high priority fleets, and federal fleets to phase in medium- and heavy-duty zero-emission vehicles ("ZEVs"), and light-duty package delivery ZEVs over time. As a backstop, the proposed regulation sets a clear end date for combustion-powered new medium- and heavy-duty vehicle sales.

While Clean Energy fully supports CARB's efforts to maximize reductions of both criteria pollutants and greenhouse gas ("GHGs") emissions from medium- and heavy-duty vehicles in California, Clean Energy is concerned that the draft regulation violates the environmental and administrative mandates required by California law. Indeed, CARB's actions here will actually result in *significant* short-term air quality impacts and adversely impact an industry that has championed and continues to support low-emission vehicle technologies.

In its rush to embrace zero emission technologies, similar to its actions in the Advanced Clean Truck (ACT) proceedings, CARB has ignored substantive and procedural limits on its powers. The California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 et seq., and California Administrative Procedure Act ("APA"), Government Code §11340 et seq., impose substantive and procedural guardrails that CARB must follow when developing regulations or other programs to attain air quality standards. CEQA is designed to protect the environment by requiring state and local government agencies, like CARB, to evaluate and disclose the significant environmental impacts of proposed projects and to adopt all feasible alternatives or mitigation measures to mitigate those impacts. The APA aims to reduce economic burdens on individuals and businesses in the state, by requiring agencies to evaluate and disclose the economic impacts of proposed regulations and adopt the most cost-effective set of regulatory measures to achieve their goals.

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As discussed below, CARB’s draft regulation fails to satisfy these legal requirements. To address those deficiencies, Clean Energy proposes that CARB consider adopting (1) the Best Available Control Technology Alternative, a modification to the proposed project that the draft EA improperly rejects, and (2) an additional requirement related to the proposed “ZEV Unavailability” exemption, which as drafted allows fleet owners to purchase a new internal combustion (“ICE”) vehicle if no ZEV or near-zero-emissions vehicle (“NZEV”) is commercially available, provided that certain requirements are met. Rather than giving fleet owners unfettered discretion to purchase any ICE vehicle—including diesel vehicles—Clean Energy proposes that CARB require or incentivize fleet owners to purchase cleaner low-NOx renewable natural gas powered vehicles instead.

## **A. CARB’s Environmental Assessment Fails to Adequately Consider Feasible Mitigation Measures and Alternatives**

### **i. CEQA Requires CARB to Adhere to Important Procedural Requirements**

CEQA sets forth procedures requiring state and local government agencies to disclose and evaluate the significant environmental impacts of proposed projects and adopt all feasible alternatives or mitigation measures to mitigate those impacts. Pub. Res. Code § 21000 et seq.; *see also* CEQA Guidelines, Cal. Code Regs., title 14 (hereinafter “Guidelines”) § 15002.

CEQA requires public agencies to “refrain from approving projects for which there are feasible alternatives or mitigation measures” that can substantially lessen or avoid any of its significant environmental effects. *Mountain Lion Found. v. Fish & Game Com.*, 16 Cal. 4th 105, 134 (1997); Pub. Res. Code §§ 21002, 21002.1, 21081; Guidelines §§ 15021, 15091-15093. Accordingly, before approving a project, an agency must find either that: (i) the project’s significant environmental effects have been avoided or mitigated, or (ii) there is no feasible way to mitigate the project’s significant effects and its unmitigated effects are outweighed by its benefits. *Id.* §§ 21002, 21002.1, 21081; Guidelines §§ 15043.

CEQA requires agencies like CARB to prepare an environmental impact report (or its equivalent—here, an environmental assessment). Pub. Res. Code § 21100; Guidelines § 15002(f)(1). The report must include “detailed information about the effect a proposed project is likely to have on the environment; [] ways in which the significant effects of such project might be minimized; and [] alternatives to such a project.” *Laurel Heights Improvement Ass’n v. Regents of Univ. of Cal.*, 47 Cal. 3d 376, 391 (1988) (citations omitted).

Thus, when CARB determines that a proposed regulation may have a significant effect on the environment, it must prepare an environmental assessment, discussing the environmental impacts of the proposed regulation and potentially feasible mitigation measures and alternatives “which could feasibly attain most of the project objectives but could avoid or substantially lessen any of the identified significant impacts, consistent with [Guidelines] section 15126.6.” 17 Cal. Code Regs. § 60004(b). CARB cannot approve a project unless the project will not have a significant effect on the environment, or “CARB has eliminated or substantially lessened all significant effects on the environment where feasible . . . and determined that no feasible alternatives or mitigation measures are available that would substantially lessen any remaining significant adverse effect that the activity may have on the environment.” *Id.* § 60004.2(c)(2)(B).

**ii. The Draft Environmental Assessment for the Proposed ACF Regulation Fails to Comply with CEQA**

On August 30, 2022, CARB released a draft Environmental Assessment (“EA”) for the proposed ACF Regulation. The EA appears to violate CEQA’s requirement that public agencies evaluate and adopt all feasible mitigation measures, in a number of respects. Clean Energy highlights two of these deficiencies:

First, the EA acknowledges (in “Impact 3-1: Short-Term Construction-Related Effects to Air Quality”) that the Regulation could result in an increase in manufacturing and associated facilities to increase the supply of ZEVs, along with the construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations. CARB estimates that 157,000 chargers will be necessary by 2030 and 258,000 chargers by 2037 to support medium- and heavy-duty vehicle electrification. The EA states that this massive undertaking could result in the release of hundreds of pounds of daily NO<sub>x</sub> and PM, which may exceed applicable significance thresholds depending on the exact location of generation: “Thus, implementation of the Proposed Project could generate levels that conflict with applicable air quality plans, violate or contribute substantially to an existing or projected violation, result in a cumulatively considerable net increase in non-attainment areas, or expose sensitive receptors to substantial pollutant concentrations.” Draft EA at 39. The EA acknowledges that these “short-term construction-related air quality impacts” could be “potentially significant.” *Id.*

Despite this finding, CARB does not propose any enforceable mitigation measures in the draft EA. Instead, CARB concludes that it “does not have the authority to require implementation of mitigation related to new or modified [manufacturing, fueling and charging] facilities” and that “[t]he ability to require such measures is within the purview of jurisdictions with local or state land use approval and/or permitting authority.” Draft EA at 39. This is an unsupported abdication of CARB’s power and obligations under CEQA: CARB undeniably has broad authority to regulate air pollution caused by motor vehicles. *See, e.g.*, Health & Safety Code § 39003. And CARB’s focus on only “project”-level mitigation measures is misplaced. The CEQA Guidelines explicitly provide that “[i]n the case of the adoption of a . . . regulation[,] mitigation measures can include measures incorporated into the . . . regulation[,]” as well as offsetting measures that compensate for the adverse impact created by the proposed project. Guidelines §§ 15126.4, 15370(e). That is, CARB is fully empowered to consider program-level changes to the proposed Regulation to offset any identified environmental impacts.

Second, the EA rejects, in its alternative analysis, Clean Energy’s proposal that the ACF Regulation include a provision for renewable fuel-powered low-NO<sub>x</sub> heavy-duty vehicles that meet a 0.02g/bhp-hr NO<sub>x</sub> certification standard or better. This proposal is described in the draft EA as the “Best Available Control Technology (‘BACT’) Concept.” Draft EA at 151. As CARB acknowledges, this proposal “could increase the number of cleaner combustion engines if ZEVs and NZEV are not available[,] assuming engines certified to the” 0.02g/bhp-hr NO<sub>x</sub> certification standard become available. CARB also acknowledges that this alternative would reduce ZEV sales, and therefore would reduce the “environmental impacts related to ZEV manufacturing,” including the negative impacts on short-term air quality described above. Draft EA at 153.

Nevertheless, CARB rejected this alternative because it would “not achieve new NOx reductions overall.” Draft EA at 152. That is, CARB states that “[n]o NOx reductions would occur beyond what is already expected from the” Heavy-Duty Low NOx Omnibus (“Omnibus”) Regulation, which will establish a new low-NOx certification standard for combustion engines beginning in 2024. Further, CARB states that it is rejecting the alternative because it would be “less effective . . . at meeting ZEV-related project objectives” and would result in “fewer ZEVs” and “less ZEV innovation.” Draft EA at 154. Finally, CARB claims that the alternative is an “administrative burden” because reductions in emissions are “already accounted for” in the Omnibus Regulation.

But this analysis is deficient for several reasons. For one thing, CARB does not explain how it estimates the potential emissions reductions of the BACT Concept as opposed to the proposed ACF Regulation, or provide calculations to support its conclusion. Conclusory comments in support of environmental conclusions “are generally inappropriate.” *Laurel Heights*, 47 Cal. 3d at 404. For another, CARB appears to be arriving at its conclusions regarding the environmental impacts of the BACT Concept by crediting any NOx reductions to the Omnibus Regulation. Draft EA at 153 (“No NOx reductions would occur beyond what is already expected from the HD Omnibus Regulation.”). CARB also appears to credit any GHG reductions to the state’s Low Carbon Fuel Standard (“LCFS”) program. *Id.* (“[A]ny GHG benefits achieved . . . would be attributed to LCFS[.]”) CARB’s failure to make clear how it is accounting for reductions in NOx and GHG emissions is itself a violation of CEQA’s requirement that CARB fully describe the basis of its analysis and conclusions. *Laurel Heights*, 47 Cal. 3d at 404 (“[T]here must be a disclosure of the ‘analytic route the . . . agency traveled from evidence to action.’”). For the same reason, CARB’s conclusion about “administrative burden” is misplaced—any administrative burden derives purely from CARB’s internal methods for accounting and tracking NOx and GHG reductions, and is therefore self-created. Finally, CARB’s conclusions regarding the BACT Concept’s environmental impacts, and its ability to mitigate the acknowledged short-term air-quality impacts from the proposed Regulation, is contrary to the evidence CARB received. In fact, numerous stakeholders in this proceeding have pointed out that CARB is relying on outdated and questionable studies to support its position. Further, stakeholders have presented CARB evidence concerning how BACT trucks would substantially reduce emissions of criteria pollutants and Greenhouse Gases, particularly when compared to diesel trucks.

**iii. Incorporating Low-NOx Vehicles, Through The BACT Concept And A Supplement to the “ZEV Unavailability” Exception, Will Help Reduce Short-Term Air Quality Impact While Still Achieving Most of the Proposed Regulation’s Objectives**

Although we commend CARB for attempting to push the transportation sector aggressively toward a cleaner future, we are concerned that proposed Regulation’s exemptions for “ZEV Unavailability” represent a missed opportunity to incorporate low-NOx requirements to provide a safety net solution that will both reduce short-term air quality impacts and achieve the proposed Regulation’s objectives of reducing the State’s dependence on petroleum, diversifying the use of fuels in the transportation fleet, meeting federal and state air-quality goals, decreasing GHG and NOx emissions, and transitioning the medium- and heavy-duty transportation sectors away from standard internal combustion vehicles. We therefore suggest that CARB modify the ACF regulation to require fleets using the “ZEV Unavailability Exemption” to evaluate and purchase

vehicles certified to the 2027 0.02g NO<sub>x</sub> Omnibus standard during the calendar years 2024-2026. This creates a “safety net” where zero-emission products aren’t available or applicable, and reinforces CARB’s inherent support of their Omnibus regulation, and ensures that fleets purchase the cleanest trucks available instead of new diesel trucks. Evidence presented to the Board demonstrates that engines certified to a 0.02g. and fueled with RNG dramatically reduce criteria pollutants and GHG emissions when compared to current generation diesel engines. This safety net will ensure that the State will make solid progress towards our ambient air and GHG goals in the event ZEV trucks are not readily available.

As drafted, the proposed Regulation contains exemptions for fleet owners to “purchase a new ICE vehicle and exclude it from the ZEV addition requirements” if no ZEV or NZEV is “commercially available” and certain other conditions are met. *See, e.g.*, Appendix A-1 (State and Local Government Agency Fleet Requirements) at 13; Appendix A-2 (High Priority and Federal Fleet Requirements) at 26. But as drafted, the “ZEV Unavailability” exemption permits qualifying fleets to purchase alternatives with no other limitation. As a result, with zero emission trucks unlikely to be widely available on a widespread scale in the near future, the obvious choice for trucking fleets who qualify for the “ZEV Unavailability Exemption” will be cheaper, dirtier diesel trucks. Put another way, absent a provision requiring fleets to purchase commercially available low-NO<sub>x</sub> vehicles powered by renewable natural gas—if ZEVs are unavailable—the “ZEV Unavailability” exemption will blow a gaping hole through the ACF Regulation that undermines the proposed Regulation’s very objectives. At a minimum, fleet owners will have no reason not to purchase traditional ICE vehicles—the very vehicles that the ACF Regulation seeks to eventually remove from California’s roads.

By contrast, directing fleet owners seeking the “ZEV Unavailability exemption” to purchase BACT low-NO<sub>x</sub> trucks, would obviously further the draft Regulation’s objectives while, at the same time, also mitigating the short-term air quality impacts identified in the EA Low-NO<sub>x</sub> vehicles certified to a 0.02 g/bhp-hr NO<sub>x</sub> standard provide significant emissions reductions from current engine and emission control technology—as CARB has already recognized in the 2016 State Implementation Plan. As CARB’s staff has previously acknowledged, current trucking fleets need to be replaced by clean trucks that meet zero or near-zero tailpipe vehicle performance levels as soon as possible. Requiring manufacturers invoking “ZEV Unavailability” to first turn to low-NO<sub>x</sub> vehicles is a meaningful way for regulators to encourage the cleanest vehicle purchases for fleets retiring their older vehicles.

By including low-NO<sub>x</sub>, near-zero tailpipe vehicles in the proposed Regulation, CARB will send a strong market signal that will encourage cleaner near-zero vehicles that can meet tighter standards, improve overall air quality throughout the state almost immediately, and make it more likely that our most polluted California air sheds can reach clean air attainment.

Finally, we would point out that the EA fails to adequately assess the total emissions of battery electric and fuel cell vehicles. A significant new study sponsored by the Argonne National Laboratory, the Joint Research Center and the European Commission, concluded that battery electric and hydrogen (other than electricity or hydrogen made from renewable natural gas), have the worst greenhouse gas emissions while RNG has the lowest with negative carbon intensity values. This conclusion was made after the study performed a well-to-wheels (WTW) analysis for

all transportation fuels applying both U.S. and European Union forms of well-to-wheel measurement.

More specifically, the study finds that “in both the U.S. and E.U. markets, waste-streams-to-energy technologies, such as CNG production via AD of wet waste resources, offer the biggest opportunities to reduce WTW GHG emissions.” The study goes on to state that “timely, deep decarbonization of the transportation sector requires a mix of low-carbon, renewable energy and powertrain technologies that could scale up collectively.” See: <https://pubs.rsc.org/en/content/articlelanding/2022/se/d2se00411a>.

The Low Carbon Fuels Standard is the most effective tool that California has to eliminating greenhouse gas emissions from the transportation sector. It would not, however, be nearly as effective if it did not consider a full lifecycle assessment of the transportation fuels. The proposed ACF should also include a full lifecycle analysis of all emissions associated with covered transportation fuels.

Sincerely,

A handwritten signature in black ink, appearing to read 'Todd Campbell', with a stylized, flowing script.

Todd Campbell  
Vice President, Regulatory Affairs and Public Policy