April 7, 2023 Comment letter submitted via electronic commenting system

Mr. Tony Brasil
Mobile Source Control Division
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Mr. Craig Duehring
Mobile Source Control Division
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Mr. Paul Arneja
Mobile Source Control Division
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Association of California Water Agencies' Comments on Proposed 15-day Changes to the Proposed Regulation Order Advanced Clean Fleets Regulation State and Local Government Agency Fleet Requirements

The Association of California Water Agencies (ACWA) appreciates the opportunity to provide public comments to the California Air Resources Board (CARB) in response to the Proposed 15-day Changes to the Proposed Regulation Order Advanced Clean Fleets Regulation State and Local Government Agency Fleet Requirements (Proposed ACF)**.** ACWA represents more than 460 public water agencies that collectively deliver approximately 90 percent of the water in

California for domestic, agricultural, and industrial uses. CARB must approach Proposed ACF implementation, as the State seeks to accelerate the deployment of Medium-and-Heavy Duty (MHD) Zero Emission Vehicles (ZEVs) and Near-Zero Emission Vehicles (NZEVs), in a feasible manner that does not impose unintended consequences on public water agencies' ability to provide essential services, including during emergencies.

Proposed ACF implementation must provide certainty to public water agencies to make the necessary purchases of ZEVs and NZEVs while minimizing the potential for adverse impacts in maintaining essential public health and safety services and the delivery of safe and affordable water during normal operations and extended emergency conditions. Public water agencies are essential public service providers that possess fleet vehicles with unique needs to accomplish core functions. We appreciate CARB staff's work to incorporate past ACWA commentary on real world considerations that are reflected in the latest changes to the Daily Usage, ZEV Infrastructure Delay, and ZEV Purchase exemptions to address some of our past concerns. We encourage CARB to incorporate our comments focused on specific details within the Daily Usage, ZEV Infrastructure Delay, and ZEV Purchase exemptions, and the 13th Model Year Requirement into the Proposed ACF ahead of CARB board adoption, and to continue engaging with stakeholders to ensure that Proposed ACF implementation considers ongoing challenges with compliance. We offer the following comments:

1. **The State and Local Government Agency Fleet Exemptions (Section 2013.1) must be amended to consider additional details for successful implementation of the Proposed ACF.**

1A. The Daily Usage Exemption formula should be amended to enable public fleets to use calculations that more fully consider the real-world mileage range of ZEVs.

Real world factors like aerodynamic drag and ambient temperature need to be considered when public fleets apply for a Daily Usage Exemption under the Proposed ACF. Aerodynamic drag accounts for more than half of a ZEV's energy consumption and ambient temperature can decrease range by approximately 40 percent (at 32 degrees Fahrenheit and 104 degrees Fahrenheit which are common temperatures in California). Section 2013.1(b)(3) Daily Usage Exemption[1] should be amended to consider aerodynamic drag for the increased weight of vehicles, and ambient temperatures that impact the performance range of vehicles. The range calculation method specified in section 2013.1(b)(3) should include adjustment for average drive-cycle speed and ambient temperatures, to provide a reasonably accurate basis for estimating real-world range to ensure ZEVs are not deployed for drive-cycles that they cannot complete[2]. We recommend that CARB add "Calculations may include estimated impacts of aerodynamic drag and ambient temperature on energy usage of ZEVs" to remove this concern.

[1] Section 2013.1(b) indicates that a Daily Usage Exemption may be requested when no suitable ZEV or NZEV can be found to meet the existing vehicle's daily use requirements e.g., range requirements. In section 2013.1(b)(3) it goes on to say that ZEV range is to be calculated by dividing rated energy capacity by fixed kilowatt hour per mile factors that are not adjusted for speed or ambient temperature.

[2] TerraVerde Energy explains the relationship between vehicle weight and energy consumption, discuss ambient temperature impacts on EV range, explain how we calculate the onboard battery storage (kWh) capacity needs of these vehicles, and we reveal the significant challenge that many water agencies will face in finding suitable, feasible EV replacements.

A-1-23

Section 2013.1(b)(3)

Calculate the range of the vehicle identified in section 2013.1(b)(2) in miles by dividing the rated energy capacity of the identified ~BEV by the following factors: for Class 26 through 3 vehicles. 0.6 kilowatt-hours per mile: for Class 4 through 6 vehicles, 1.3 kilowatt-hours per mile; for Class 7 and 8 -vehicles that are not tractors, 1.8 kilowatt-hours per mile; for Class 7 and 8 tractors, 2.1 kilowatt-hours per mile. Calculations may include estimated impacts of aerodynamic drag and ambient temperature on energy usage of ZEVs. For vehicles that operate truck mounted or integrated equipment while stationary, in lieu of calculating the needed rated energy capacity based on vehicle miles travelled, the needed rated energy capacity is the same as the optionally submitted measured BEV energy use of specified in section 2013.1(b)(3)(A). Submit the calculation and results.

1B. Public Fleets using the Daily Usage Exemption should be allowed to submit quantitative data when telemetry data is unavailable.

In some situations, ZEVs will not have accessible data to calculate daily usage as required by CARB in Section 2013.1(b)(3)(A) because the ZEV has not yet been deployed, and telemetric data is also unavailable to be compared against internal combustion engine (ICE) vehicles of the same weight class and configuration. Public fleets should be able to submit quantitative data[3], when telemetry data is unavailable to compare against ICE vehicle data, using calculations to account for what thirty consecutive workdays would amount to calculate daily usage. More specifically, public fleets should be able to submit quantitative data from reputable sources, and route maps and drive-cycle specifications to inform their exemption request. We recommend that CARB add "In the event that no telemetric data is available, fleet owners may instead submit quantitative data from reputable sources, and route maps and drive-cycle specifications to inform their request" to remove this concern.

A-1-23

Section 2013.1(b)(3)(A)

In lieu of calculating range as specified in section 2013.1(b)(3), fleet owners may instead submit measured BEV energy use data from BEVs of the same configuration already operated on similar daily assignments to substantiate their exemption request. Information must include vehicle loading and weight data, route grade, average ambient daily temperature, vehicle miles travelled per day. energy used to drive, and state of charge at the beginning and end of the daily shift to show typical daily energy usage for the BEV, over five consecutive business days. For vehicles that operate truck mounted or integrated equipment while stationary the information must also include the energy used while stationary and number of hours such truck mounted or integrated equipment is operated

[3] A fleet owner should be able submit calculated ZEV energy use data using fundamental physics calculations, drive-cycle speed, distance and ZEV specifications like GVWR and frontal area e.g., ½ mv^2 (kinetic energy; m = GVW), 1/2 pv^3 ACd (aerodynamic drag), and data from reputable studies dedicated to quantifying the relationship between ZEV range and ambient temperature.

each day. In the event that no telemetric data is available, fleet owners may instead submit quantitative data from reputable sources, and route maps and drive-cycle specifications to inform their request.

1C. The ZEV Infrastructure Delay Exemption needs to consider extension requests beyond 2030.

It is essential that the ZEV Infrastructure Delay Exemption works effectively to enable public fleets to make and receive exemption requests until charging infrastructure and power is available to meet fleet needs, which may be required past 2030. Section 2013.1(c) ZEV Infrastructure Delay Exemption more clearly describes the steps that public fleets must take to ensure that exemption requests are approved when public fleets can appropriately document ZEV infrastructure construction delay (Section 2013.1(c)(1)) or ZEV Infrastructure Site Electrification Delays (Section 2013.1(c)(2)). ACWA appreciates the clarity that this exemption enables fleets to proceed with purchasing ICE vehicles where necessary to ensure that fleets can continue to provide services to their communities. However, ACWA has expressed concern throughout the Proposed ACF process that electric utilities throughout the state will not yet have necessary charging infrastructure and power required to service public fleets at the start of compliance with the Proposed ACF, and we maintain this concern. We recommend that CARB remove "Until January 1, 2030" from A-1-27 to allow public fleets to request site electrification delays until electric utilities can provide the requested to power.

A-1-27-A-1-28

Section 2013.1(c)(2)

ZEV Infrastructure Site Electrification Delays. ~~Until January 1. 2030.~~ fleet owners may request this extension if their electric utility provider determines it cannot provide the requested power to the site where ZEVs will be charged or refueled before the fleet's next ZEV compliance deadline.

1D. The ZEV Purchase Exemption application needs to consider water standards amongst safety laws and standards that public water agencies are subject to.

The CARB Executive Officer should consider safe drinking water[4] and wastewater discharge[5] standards (water standards) amongst criteria to determine if a ZEV or NZEV is available to purchase to comply with the Proposed ACF. Public water agencies are subject to water standards (Federal and State) as they manage water main breaks, sewer spills, and other issues that, if not taken care of immediately, are a safety risk for communities in California. Requiring compliance with the Proposed ACF that would put complying with water standards at risk is unacceptable. Public water agencies need to be able to deploy fleet vehicles to meet water standards they are subject to, and should be able to effectively communicate when available ZEVs are unable to accomplish this. CARB should, on A-1-34, amend Section 2013.1(d)(2)(D)(5)

[4] Public water agencies rely on their fleets to comply with Safe Drinking Water Laws (state and federal) Safe Drinking Water Laws, including maximum contaminant levels, within the Health & Safety Code.
[5] Public water agencies rely on their fleets to comply with Wastewater Discharge Standards (state and federal), including water pollution management programs like National Pollution Discharge Elimination System Program, within the Health & Safety Code.

to specifically identify “water standards” amongst safety laws or standards that the CARB Executive Officer could consider to be in conflict with complying with the Proposed ACF.

A-1-34

Section 2013.1(d)(2)(D)(5)

5. ZEVs or NZEVs do not conflict with safety standards, including water standards, that the fleet owner is subject to, if applicable, as prescribed under title 8, CCR by the California Department of Industrial Relations, Division of Occupational Safety and Health, comparable federal or state health and safety laws where the vehicle operates, or federal highway safety laws.

1E. The ZEV Purchase Exemption application should not require public water agencies to purchase higher weight class vehicles.

Denial of a ZEV Purchase Exemption application, as described in Section 2013.1(d)(2)(E), on the grounds that higher weight class ZEV is available for purchase is concerning for a variety of reasons to public water agencies. Public water agencies are not offered the opportunity to respond to the Executive Officer’s determination that a higher weight class ZEV meets their fleet needs. Also, the additional upfront cost to purchase the higher weight class vehicle may be prohibitively expensive. Requiring a public water agency to purchase an even more expensive vehicle only adds to the concern about the cost of compliance while navigating the public procurement process to replace fleet vehicles. Additionally, the demand that will be generated to purchase these higher weight vehicles may make this more expensive vehicle also unavailable if out of stock due to numerous public water agencies competing for limited vehicles manufactured. Lastly, higher weight vehicles may have more demanding charging infrastructure needs un-accounted for by the public water agency or electric utilities responsible for building infrastructure and supplying power to public water agencies. For these reasons, we recommend that CARB, on A-1-34, amend Section 2013.1(d)(2)(E) to remove “or next higher weight class, except for Class 8 vehicles which must only be in the same weight class” to only justify denial of an Application if the Executive Officer discovers a ZEV or NZEV chassis or complete ZEV or NZEV in the same weight class. We also wish to align with the Joint Public Agencies’ comment letter suggestion to add “The manufacturer shall provide a specification sheet for the offered vehicle, including evidence of battery capacity range, fully loaded weight and dimensions, compatibility with and run time of auxiliary equipment where applicable, and payload; a delivery date for the vehicle within 18 months; and a list of service centers located near the fleet” to Section 2013.1(d)(2)(E) to give public water agencies an opportunity to respond to the Executive Officer’s determination prior to requirement to purchase a ZEV.

A-1-34

Section 2013.1(d)(2)(E)

E. lf the Executive Officer identifies any manufacturer or authorized dealer that offers for sale a ZEV or NZEV chassis or complete ZEV or NZEV in the same ~~or next higher~~ weight class~~, except for Class 8 vehicles which must only be in the same weight class~~, in the needed

configuration, with the needed frame attachments. and on which the identified body submitted in section 2013.1 (d)(2)(A) or an equivalent body from another manufacturer or authorized dealer that can perform the same primary intended function can be installed, the Executive Officer will supply the manufacturer or authorized dealer name to the fleet owner applicant, deny the exemption request, and remove the vehicle configuration from the ZEV Purchase Exemption List pursuant to section 2013.1 (d)(2)(G). The manufacturer shall provide a specification sheet for the offered vehicle, including evidence of battery capacity range, fully loaded weight and dimensions, compatibility with and run time of auxiliary equipment where applicable, and payload; a delivery date for the vehicle within 18 months; and a list of service centers located near the fleet.

2. The 13 Year Model Replacement Requirement (required in Section 2013.1) to replace an ICE vehicle should be amended to be consistent with existing California Code Useful Life standards.

CARB should base its model year replacement requirement, for public fleets requesting exemption, on existing California statute which sets useful life for many MHD at 10-11 years. California Code of Regulations, Title 13 Section 2112(l) (California Code)[6] provides useful life standards for MHD ICE vehicles through 2031 and beyond. Section 2013(n)(4), as written, unnecessarily prevents public water agencies from replacing ICE vehicles earlier than 13 years past model year, if needed. The 13 Year Replacement Requirement added to section 2013(n)(4) of the Proposed ACF appears to parallel the standard set in Senate Bill 1 Section 43021(a)(1)[7] (SB 1) to set the useful life of MHD at 13 years. SB 1 prevents regulators from requiring California vehicle owners to retire, replace, retrofit, or repower their trucks within 13 years of the model year (or before the vehicle travels 800,000 miles). However, SB 1 does not require vehicle owners to retain MHD for 13 years. California Code more definitively frames useful life based on model year. Public water agencies must use their best engineering judgement to consider whether their existing fleet vehicles are performing, or need to be replaced to meet their fleets' operational needs while observing California Code. We therefore recommend that CARB replace all three instances of "ICE vehicle being replaced reaches 13 years old" on A-1-18 with "with ICE vehicles being replaced reflects Useful Life in California Code of Regulations, Title 13 Section 2112(l), or is no longer serviceable".

A-1-18

Section 2013(n) (2-4)

Fleet owners must request and obtain this exemption pursuant to the criteria specified in section 2013.1 (b-d2) ~~no earlier than when the model year of the ICE vehicle being replaced reaches 13 years old~~ with ICE vehicles being replaced reflects Useful Life in California Code of Regulations, Title 13 Section 2112(l), or is no longer serviceable.

---

[6] California Code of Regulations, Title 13 Section 2112 set useful life standards for MHD with model years through 2031 and beyond.

[7] Senate Bill 1 states that replacement "shall not be required" until "13 years from the model year" or "When the vehicle reaches the earlier of either 800,000 vehicle miles traveled or 18 years from the model year".

3. CARB should revisit performance of the Proposed ACF ahead of 2028 through a Technology Review.

We recommend that CARB include in the resolution pending adoption of the Proposed ACF to revisit the performance and impacts of the Proposed ACF, ahead of the State Implementation Plan[8] requirement to do so in 2028, through a Technology Review. It is essential to evaluate barriers to access and the extent to which the Proposed ACF is adequately addressing those barriers. Due to the elevated level of stakeholder engagement and concern with the Proposed ACF being a first of its kind regulation to decarbonize fleet vehicles, CARB should preemptively plan to review the performance of fleet compliance with the Proposed ACF following adoption, and ahead of the next planned regulatory action in 2028. ACWA, and other essential public service providers have expressed concerns throughout development of the Proposed ACF of the ability to account for issues that may make compliance difficult, including the comments raised above. CARB Board Members, and CARB staff have acknowledged the need to be nimble to successfully implement the Proposed ACF because of the many uncertainties that will need to be addressed to meet the State's goal to electrify fleets everywhere feasible.

4. Conclusion

We appreciate the opportunity to comment on the Proposed ACF and continue to do so because we want to provide feedback to inform the Proposed ACF to make implementation easier. ACWA hopes to continue conversations with CARB staff and Board Members regarding the Proposed ACF even after potential adoption as we see implementation being an ongoing conversation to address real world issues impacting public water agencies. Please do not hesitate to contact me at nickb@acwa.com or (916) 441-4545, if you have any questions regarding ACWA's input.

Sincerely,

Nicholas Blair
Regulatory Advocate II
Association of California Water Agencies

Bella Vista Water District
Borrego Water District
Calaveras County Water District
City of Poway
Coachella Valley Water District
Contra Costa Water District
Cucamonga Valley Water District

[8] CARB State Implementation Plan requires CARB to revisit vehicle decarbonization programs in 2028.

Desert Water Agency
Georgetown Divide Public Utilities District
Helix Water District
Hidden Valley Lake Community Services District
Humboldt Bay Municipal Water District
Imperial Irrigation District
Inland Empire Utilities Agency
Las Virgenes Municipal Water District
Mesa Water District
Mission Springs Water District
Olivenhain Municipal Water District
Orange County Water District
Orchard Dale Water District
Otay Water District
Placer County Water Agency
Santa Clarita Valley Water Agency
Santa Margarita Water District
South San Joaquin Irrigation District
Three Valleys Municipal Water District
Truckee Donner Public Utility District
Tuolumne Utilities District
Turlock Irrigation District
Valley Center Municipal Water District
Vista Irrigation District
Walnut Valley Water District

cc: The Honorable Liane Randolph, Chair, California Air Resources Board
The Honorable E. Joaquin Esquivel, Chair, California State Water Resources Control Board
Dr. Steven Cliff, Executive Officer, California Air Resources Board
Mr. Craig Segall, Deputy Executive Office, California Air Resources Board
Dr. Sydney Vergis, Division Chief, Mobile Sources Division, California Air Resources Board
Mr. Dave Eggerton, Executive Director, Association of California Water Agencies
Ms. Cindy Tuck, Deputy Executive Director for Government Relations, Association of California Water Agencies