SMUD®

June 23, 2022

Tony Brasil, Branch Chief
Craig Duehring, Manager
Paul Arneja, Engineer
Mobile Source Control Division
California Air Resources Board
1001 I Street
Sacramento, CA 95812

Re: Sacramento Municipal Utility District's Comments on the May 4, 2022, Advanced Clean Fleets Regulation Proposed Draft Regulation Language, Public Fleets Requirements

Dear Mr. Brasil, Mr. Duehring, and Mr. Arneja:

Sacramento Municipal Utility District (SMUD) appreciates the opportunity to comment on the Advanced Clean Fleets (ACF) Proposed Draft Regulation Language for Public Fleet Requirements, dated May 4, 2022 (Public Fleet Requirements). We thank CARB for its continued efforts to engage utility stakeholders throughout this pre-rulemaking process.

SMUD supports a comprehensive strategy to accelerate California's transition to zero emission vehicles (ZEVs). We recognize that transportation is the single largest source of the State's greenhouse gas (GHG) emissions and achieving a ZEV truck and bus fleet by 2045, where feasible, is critical to meeting California's environmental goals. However, we also share the concerns voiced by many stakeholders regarding the availability of suitable ZEVs given the ACF implementation timeline and the unique operational challenges of emergency response, and maintaining utility infrastructure in remote areas, requiring specialized utility vehicles where electrification may not yet be an available option.

SMUD continues to be a leader in the move toward transportation electrification and the development of additional renewable resources necessary to meet the state's carbon reduction targets. Our 2030 Zero Carbon Plan sets a trajectory to reach zero carbon emissions in our power supply by 2030, while maintaining reliability, safety, and affordable rates, doing it all with an eye toward equity for underserved communities. Fleet electrification is a key component of achieving SMUD's carbon reduction goals.

SMUD is taking a proactive approach to electrifying its fleet, including the following actions:

- Ownership and operation of 25 JEMS hybrid-electric technology bucket trucks where the bucket is battery operated.
- Ownership and operation of 25 all-electric sedans and 25 hybrid sedans.
- Mid-2022 purchase and evaluation of five medium-duty, all-electric trucks (GVW 19,500 lbs.) from Zeus Electric Chassis.

SMUD is a member of the California Municipal Utilities Association (CMUA) and supports the comments submitted to this docket by CMUA, dated June 16, 2022.[1] We encourage CARB to give serious consideration to the recommended revisions to the Public Fleet Requirements proposed by CMUA as described in CMUA's comments and the redlines attached to those comments.

Executive Summary

We appreciate staff's inclusion of a credit mechanism for early or excess ZEV additions in the latest proposed draft of the Public Fleet Requirements. SMUD has had an active electric transportation program since 1990 and has been a leader in statewide electric vehicle (EV) policy development since that time.

We also appreciate the inclusion of exemptions allowing utilities to continue operations critical for maintaining a reliable and safe electric system. In addition, to accommodate the unique service requirements of electric utilities we support the following recommendations on the proposed ACF regulatory language offered by CMUA for CARB's consideration:

- Align compliance and reporting requirements with effective date of the regulations. Revisions are suggested to clarify the intent that compliance be measured by calendar year with reporting in April of the following year. The initial compliance requirements should commence eighteen months following the effective date of the ACF to provide utilities sufficient time to undertake adequate budgeting, financing, and procurement processes. This also allows flexibility to absorb any delays in the regulatory procedure.

- Clarify early/excess ZEV addition counting and compliance calculation methodologies. Revisions are suggested to clarify that ZEVs added prior to the effective date of the Regulation or in excess of the purchase quantities required for any year may be counted toward ZEV purchase requirements in any future compliance year, if the ZEV has not been previously counted and is still active in the fleet. Similarly, revisions are suggested to remove ambiguity in the calculation methodology for compliance with the purchase requirement in any year; permitted ICEV purchases should be excluded from the count of new additions.

[1] CMUA Comments dated June 16, 2022 (170-acf-comments-ws-UTtROFM7U25WJAdY.pdf (ca.gov).

- Adopt a more robust framework for identifying ZEVs that are not commercially available, to include a public process. Whether CARB adopts an unavailability list or an availability list, utilities should not be penalized when a ZEV is not commercially available. A clear process for stakeholder participation as well as timely resolution by CARB must be included in the ACF. In addition, revisions are suggested to clarify the criteria for measuring whether a ZEV or NZEV configuration is "commercially available." Measured by individual weight classes rather than groupings, such criteria must include:

    - The vehicle configuration for a given weight class is available as a model from at least three manufacturers and/or upfitters with at least two years' experience selling vehicles in California, and the manufacturers and/or upfitters of each of the three models have placed into service at least 25 copies of that model.
    - The ZEV or NZEV available in the given configuration can reliably meet the duty cycles for which the fleet owner intends to use the vehicles, including the required towing capacity.
    - The total purchase cost of the ZEV or NZEV is not greater than 133% of the purchase cost of an ICEV with the same configuration.
    - The lead time for delivery of the ZEV or NZEV does not exceed that for delivery of an ICEV by more than 6 months.
    - The ZEV or NZEV does not exceed the weight or dimension constraints for roads and bridges on which the vehicle must operate.

- Clarify that the "Mutual Aid Assistance" exemption is intended to address all "Emergency Response" operations by public fleets. Revisions are suggested to redefine the exemption to align with the similar approach in the High Priority Fleets Requirements and to expand the definition of Emergency Event to include local emergency events outside the public fleet's control that require emergency response by--or at the request of--first responders. This includes removing any requirement that the emergency be formally declared by a Federal or State official. Further the exemption should be extended to public agencies that provide electricity, water, wastewater, or gas service as these are critical services for response to any emergency. Revisions are also suggested for ensuring that the "Emergency Response" exemption is applied in a manner that would provide clarification that:

    (i) the calculation of the 75% threshold criteria excludes vehicles which meet the requirements for a compliance exemption or extension. We also urge CARB to consider a phased-in approach to achieving the threshold, or a time limited waiver of the threshold criteria where a sizable portion of a fleet is expected to be deployed for emergency response during the compliance period and ZEVs or NZEVs are not suitable.

(ii) Emergency response vehicles would have sufficient commercially available fueling options only where they are able to reach 80% of the ZEV or NZEV's fueling capacity within one hour of fueling time, for at least 14 days without access to grid power.

- Include a case-by-case exemption process to address unforeseen circumstances where ZEV technology is not yet available or not suitable.

- Align ZEV compliance options in the Public Fleet Requirements to the ZEV requirements in the High Priority/Federal Fleet Requirements (High Priority Fleet Requirements). Public agency fleets should be offered an opt-in alternative ZEV fleet milestone compliance pathway similar to that provided in the High Priority Fleet Requirements. In addition, vehicle delivery delay extension and other relevant allowances for meeting the required ZEV milestones in the High Priority Fleet Requirements should be incorporated into the Public Fleet Requirements.

- Include Daily Mileage Exemption for public fleets similar to that provided for high priority and federal fleets. Likewise, public fleet owners should be provided the flexibility to exclude ICEV that meet criteria for a daily mileage exemption from compliance calculations.

- Ensure the Infrastructure Construction Delay Extension is clearly defined to encompass the array of events that could delay completion of necessary charging infrastructure and to align EV delivery delay extensions to coincide with infrastructure completion.

- Harmonize the ACF Rule with related, ongoing CARB regulations and programs.

- Expand the NZEV definition to include ICEV with electrified functions. Revisions are suggested to align the ACF with the existing Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) requirements and to include hybrid vehicles capable of zero-emission power takeoff operations (ePTO) needed to support the primary intended function of the vehicle.

- Streamline annual compliance reporting. Revisions are suggested to minimize the burden on public agencies and decrease the diversion of limited public resources by removing duplicative and unnecessary reporting obligations that provide little to no benefit. All data can be submitted as part of the annual April compliance filing.

- Remove unnecessary provisions. Deletions are suggested to remove unnecessary provisions regarding fleet verifications for hired fleets and exclusion of ZEV and NZEV acquired with "public funding."

- Ensure regulations are unambiguous. Minor conforming and clarifying language revisions are suggested throughout the ACF.

Discussion

Safe, reliable, and affordable electric service is essential to achieving the state's ambitious decarbonization goals. It is imperative that the ACF rule not jeopardize or endanger California's broader environmental goals such as accelerated renewables, electrification priorities, and energy affordability. Foundational to ensuring the ACF rule's success is preserving POUs' ability to maintain and operate the reliable electric grid needed to support the state's clean energy goals, as well as its transportation electrification infrastructure. We are concerned that premature expansion of fleet electrification could result in unanticipated electric service disruptions that may disincentivize the accelerated electrification of other sectors like building electrification.

Electric utilities—as providers of essential public services—require medium- and heavy-duty (MHD) vehicles to operate under extreme conditions, for prolonged periods, whenever and wherever needed. Vehicles that can meet these duty cycles are vital to ensuring uninterrupted, safe, and reliable electric service.

Below, we provide several real-life examples of how SMUD utilizes its MHD vehicle fleet, without which we cannot sustain our operations:

- In storm situations (either heat, cold, wind or rain) and where multiple consecutive outages may frequently occur, our crews regularly work 24/7 shifts, and our trucks must serve as safe shelter from the elements. Additionally, SMUD emergency vehicles may travel for consecutive shifts over multiple days. Any time a vehicle needs to double as a shelter in inclement weather, the vehicle's power source must be reliable, readily available, and quickly replenished. Much of SMUD's core fleet also double as office space for the vehicle operator. These vehicles are essential to safeguard the safety of our crews and ensure grid reliability.
    - Throughout December 2021 and January 2022, SMUD provided mutual aid assistance to PG&E crews in Placer and El Dorado Counties where extended power outages of 1-3 weeks duration, during record winter storms, resulted in a humanitarian crisis.
    - In December 2021, record-breaking snow levels of 210 inches disrupted SMUD operations at our hydroelectric facilities in the Sierras. Snow removal and extreme weather is a consistent concern at upper elevations where SMUD's extensive hydroelectric facilities are located (e.g., Loon Lake, Ice House, etc.). To sustain uninterrupted service for our customers, SMUD operated snow plowing trucks and mechanic trucks around the clock to support our operations throughout the winter onslaught.

- SMUD also routinely provides emergency response to restore power in emergency and exigent circumstances, both locally and for mutual aid across the nation. In mutual aid emergencies, our crews must travel far beyond SMUD's service territory to access impacted areas where charging capabilities are unknown. Vehicles responding to such emergency and mutual aid efforts are drawn from SMUD's fleet based on the anticipated needs of the situation; we do not maintain segregated fleet vehicles for these purposes.

    - From 2018-2021, SMUD crews supplied mutual aid in Puerto Rico where crews, vehicles and equipment were shipped and required to operate for extended periods without access to electricity.
    - We also supplied aid to assist local utilities respond to the Redding Fire, the Caldor Fire.
    - SMUD sent crews and equipment to participate in "Light Up the Navajo Nation" in Arizona, where they operated in remote tribal areas to establish access to electricity.

- To meet duty cycles for regular daily use, SMUD's aerial equipment, derricks, dump trucks, crew trucks, and line trucks must be able to run for the duration of each job. Stopping, even intermittently, to charge any of these vehicles may pose safety and productivity risk.

    - Locally, in numerous instances during the past three years, our crews worked 24-hour shifts during high-wind storm events to restore power, requiring the use of multiple crew vehicles, including: digger derricks (66,000 GVWR), 88-foot aerials (64,000 GVWR), 60-foot aerials (34,000 GVWR), 40-foot aerials (19,500 GVWR), and line foreman trucks (19,500 GVWR), for extended uninterrupted periods.
    - We also responded to local outages where extended outages affected businesses and homes in downtown Sacramento and the Capitol.
    - SMUD responded to multiple wildfire situations in the last several years.

- SMUD crews are regularly called upon by first responders to address local emergencies such as downed powerlines, etc. SMUD's ability to respond timely with the crews and equipment needed to effect repairs saves lives and property in these situations.

SMUD urges CARB to consider the CMUA recommendations. We believe CMUA's redlines to the Public Fleet Requirements offer important revisions to achieve the complimentary goals of fleet electrification, upholding POUs' ability to respond to emergency events, and the preservation of affordable, reliable, and safe electric service for all Californians, especially those located in disadvantaged communities that are already severely challenged and in areas that are still struggling to recover from wildfire disasters.

We also provide the additional consideration in support of these recommendations as follows:

1) Adopt a more robust framework for qualifying ZEVs that are not commercially available to include a public process.

SMUD recognizes that transportation is the single largest source of the State's GHG emissions and is committed to promoting and enabling the adoption of ZEVs for California's clean transportation future. The ACF regulation is integral to moving the State toward that future. However, the ACF as currently proposed creates considerable uncertainty and risk as to the availability and functionality of ZEVs to satisfy the purchase mandate proposed in the ACF Proposed Draft Language while allowing utilities to meet their obligations to maintain the reliable and safe electric grid fundamental to the State's decarbonization goals.

SMUD echoes the concerns raised by CMUA and the California Electric Transportation Coalition (CalETC) with respect to availability of ZEV models that have not been confirmed by fleets to meet fleets' unique duty cycles and performance requirements.[2] As other stakeholders have stated, the Public Fleet Requirements implementation timeline should be scaled with the general availability and technology maturity of ZEVs.[3]

We are pleased that CARB will take the lead in monitoring the market and verifying whether ZEVs are or are not commercially available. To that end, SMUD recommends that the ACF Regulation include a robust framework or appropriate parameters to qualify ZEVs for purchase by public fleets. This will help address the risk when vehicles do not exist for some critical specialty use purposes.

We recommend that the framework for identifying ZEVs that are not commercially available include a transparent public process. Whether CARB adopts an unavailability list or an availability list, utilities should not be penalized when a ZEV is not commercially available. To ensure the list is updated based on necessary duty cycle and other needs, stakeholder participation as well as timely resolution by CARB, is critical.

The determination that a ZEV is not commercially available must include a comprehensive market analysis of whether a viable ZEV does/does not exist in the marketplace; and that the ZEV is demonstrated, evaluated, and determined to support or satisfy the necessary performance requirements of the existing ICE vehicle to be replaced.

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[2] CalETC Comments filed on June 9, 2022 (https://www.arb.ca.gov/lists/com-attach/167-acf-comments-ws-WjkAZ1A9UmRRIwZI.pdf).
CMUA Comments filed on June 16, 2022 (170-acf-comments-ws-UTtROFM7U25WJAdY.pdf (ca.gov).

[3] Comments of the California Municipal Utility Association dated 10/29/21; and the California Electric Transportation Coalition dated 10/04/21.

As previously suggested by CalETC, exemptions should be transparent and follow a streamlined, formalized, narrowly defined process that is based on objective criteria.[4]

SMUD recommends that the evaluation framework for determining whether a ZEV is commercially available, or not, should incorporate, but not be limited to, the following criteria:

- ZEV is available from a minimum of three manufacturers and/or upfitters with at least two years' experience selling vehicles in California.
- The manufacturers and/or upfitters of each of the three models have placed into service at least 25 copies of that model.
- ZEV production-to-delivery timeline is comparable to similar ICE model.
- The price premium does not exceed 33% of a comparable ICE model.
- ZEV or NZEV specifications (gross vehicle weight rating (GVWR), dimensions, towing capacity, etc.) are within 10% of a comparable ICE model.
- The ZEV or NZEV available in the configuration can reliably meet the duty cycles for which the fleet owner intends to use the vehicles, including the required towing capacity.
- The lead time for delivery of the ZEV or NZEV does not exceed that of a similar ICE model by more than 6 months.

SMUD also recommends a periodic technology review process be performed by CARB that assesses the status of ZEV technology and adjusts the regulatory compliance targets based on data and consensus from those reviews. CARB adopted a similar technology review process in the light-duty ZEV mandate that proved to be a fundamental part of that rule's success.[5] A similar approach could be applied to the ACF regulations to help address the financial and technical risk for entities that will need to make significant investments in transitioning their fleets.

A robust evaluation framework is critical given the unique nature of the vehicles in utility fleets. Many of the vehicles that utilities depend upon to provide critical services are considered specialty vehicles and may be some of the last vehicles adapted to zero emission drivetrains given the limited market size and unique performance requirements. While technology in the ZEV truck market is rapidly evolving, there are still significant gaps between the ability of specialized ZEV trucks to meet certain duty cycles and auxiliary functions required in the field and in emergency response situations. These unknowns introduce significant operational and compliance risk for fleets.

[4] Comments by CalETC dated 10/4/21 (emailed to CARB staff).
[5] CARB held technology symposiums in 2006 and 2009 and an independent expert review panel submitted a report on the status of ZEV technology. The independent panel should include representatives from across the industry including fleets, utilities, EVSPs, OEMs, agencies, including the Energy Commission on infrastructure, etc.

Transparency will be essential in the process of determining whether a ZEV is commercially available. SMUD urges CARB include a defined procedure for this purpose. The evaluation and listing procedure should also consist of a public process whereby parties or stakeholders may submit evidence, appeal decisions, etc., whenever a vehicle is added or removed from CARB's ZEV list.

2) Align ZEV compliance options in the Public Fleet Requirements to the ZEV requirements in the High Priority/Federal Fleet Requirements.

CARB should align the ZEV implementation provisions in the Public Fleet Requirements to the ZEV requirements in the High Priority/Federal Fleet Requirements. Public agency fleets should be offered an opt-in alternative ZEV fleet milestone compliance pathway--similar to that provided in the high priority and federal fleets. In addition, the Vehicle Delivery Delay Extension, the Daily Mileage Extension, and other relevant allowances for meeting the required milestones, should be incorporated into the Public Fleet Requirements.

The ZEV fleet milestone option can provide much needed flexibility for certain public fleet owners. A one-size-fits-all approach is very limiting. Depending on a public fleet's size, its early adoption activities, the age of the fleet, its budgetary and procurement practices, timing constraints, etc., the ZEV fleet milestone compliance option could be a more feasible approach for some utilities.

3) Implement a phased-in or tiered threshold requirement for ZEV exemptions.

The 75% threshold for eligibility to claim a Mutual Aid (Emergency Response) Exemption in the proposed Public Fleet Requirements is not feasible, especially in the beginning years of the regulation given the current state of ZEV technology and the lagging buildout of charging infrastructure in the state. SMUD, one of the earliest and broadest EV adopters, will not be able to hit the 75% ZEV threshold by 2023. As a result, we will not have the sufficient capacity duty cycles to continue to respond to emergency events as ICE vehicles need to be taken out of service.

SMUD's entire fleet is an emergency response fleet. SMUD does not maintain a separate fleet of vehicles specifically for mutual aid response as this would require adding several million dollars' worth of equipment to our fleet that would sit idle until mutual aid or emergency response is required. The vehicles we employ for mutual aid are dependent on the crews responding to the emergency and the nature of aid provided. Additionally, SMUD does not sustain a fleet of backup vehicles; our only backup vehicles are ready-reserve vehicles that are short-term loans during maintenance and repair of daily use vehicles.

A workable solution to the 75% threshold prerequisite could be a phased-in or tiered ZEV threshold to qualify for a Mutual Aid Exemption or Emergency Response Exemption. CARB should replace the requirement that "at least 75 percent of the total number of vehicles already in the California fleet and on order must already be ZEVs," with a phased-in or tiered ZEV threshold.

For example, by XXXX year, XX% of Fleet must be ZEV:

- In 2024 - 25% of fleet vehicles must be ZEV
- In 2025 - 35%
- In 2026 - 45%
- In 2027 - 55%
- In 2028 - 65%
- In 2029 - 75%

This phased-in or tiered ZEV threshold would allow time for ZEV technology to evolve, for ZEV manufacturers to scale up production, and for fleet owners to ramp up their ZEV acquisitions in a manner that would not constrain fleet operations and fleets' ability to respond to emergency events.

4) Streamline annual compliance reporting.

SMUD recommends streamlining compliance reporting by eliminating proposed requirements that public fleets file periodic reports in addition to the required annual compliance reporting.

SMUD fully supports the annual public fleet compliance reporting requirement proposed by CARB, to be submitted every April 1st. However, intermittent submittals "within 30 calendar days" (§ 2013.2(d)(1) and (2)) whenever a vehicle is added or removed from the fleet are needless, repetitive, and overly burdensome.[6]

Several of SMUD's vehicles and aerials are custom-built to meet SMUD's unique needs. Procurement and delivery of these vehicles may occur several times throughout the year and are subject to unforeseen delays that are beyond our control such as manufacturer material shortages, staffing constraints, shipping interruptions, etc. On any given year, the "30 calendar days" reporting requirement could entail multiple report submittals, which is disruptive to operations.

We recommend that any mid-year fleet vehicle additions and removals or other mid-year fleet activities be incorporated into the annual compliance reporting that is due on April 1st of each year.

Conclusion

The Advanced Clean Fleets rule is an innovative regulatory and SMUD enthusiastically supports its success.

SMUD appreciates the opportunity to comment on the Advanced Clean Fleets Proposed Draft Regulation Language for Public Fleet Requirements. SMUD also supports the recommendations by CMUA and CalETC in their comments on this

[6] CARB Staff ACF Presentation Slides – Public Fleet Reporting Slide #29 – September 9, 2021 (https://ww2.arb.ca.gov/sites/default/files/2021-09/210909acfpres_ADA.pdf).

rulemaking, dated June 16 and June 9, respectively.[7] We look forward to the ongoing dialogue with CARB as we strive together to formulate solutions to enhance the positive impacts of EV adoption.

/s/_____
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cc: Corporate Files

[7] CalETC Comments filed on June 9, 2022 (https://www.arb.ca.gov/lists/com-attach/167-acf-comments-ws-WjkAZ1A9UmRRIwZI.pdf).
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