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October 13, 2022

Clerk of the Board  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

## **COMMENTS ON THE ADVANCED CLEAN FLEET PROPOSED REGULATIONS**

The Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) appreciates the opportunity to submit the following comments to the California Air Resource Board (CARB) on the Advanced Clean Fleet (ACF) Proposed Regulations during the formal comment period.

On September 27, 2021, the Task Force submitted comments on the ACF Draft Regulations (enclosed). In the letter, the Task Force suggested pathways for the ACF Proposed Regulations to align with Senate Bill (SB) 1383 (Lara, 2016) requirements. The Task Force commends CARB's efforts for addressing air pollution and reducing petroleum dependency and for providing an array of exemptions and extensions for various situations including unavailability and infrastructure delay. However, the Task Force's primary concerns have not been addressed in the draft subject ACF Proposed Regulations submitted for public review and the CARB's consideration. Below are several opportunities that CARB staff have overlooked, and the Task Force would like these opportunities to be considered and incorporated in the final adopted ACF regulations before the formal commenting period ends:

- 1) Align ACF goals with SB 1383 and its procurement requirements.
- 2) Support existing markets for Renewable Natural Gas (RNG).
- 3) Consider performance parameters of heavy-duty Zero Emission Vehicles (ZEVs).
- 4) Allow alternative pathway for Solid Waste Refuse Trucks that use RNG.

### **Align ACF goals with SB 1383 and its procurement requirements**

The ACF Proposed Regulations provide a golden opportunity for CARB to align its zero emission policies with the requirements of SB 1383, which currently calls for a 40 percent reduction in methane and a 50 percent reduction in anthropogenic black carbon by 2030.

To immediately reduce short-lived climate pollutant emissions including methane emitted from decaying organic waste in landfills, SB 1383 implementing regulations require local jurisdictions to provide mandatory organic waste collection services to all residents, businesses, and local government facilities; requires waste haulers to transport the waste to organic waste processing facilities such as anaerobic digestors; and requires jurisdictions to procure the products like biomethane gas produced from organic waste processing.

Implementing the SB 1383 regulations will be costly. California's Department of Resources Recycling and Recovery (CalRecycle) estimated that the Statewide cost of implementing the regulations would be between \$20 and \$40 billion, including \$4 billion for infrastructure. In June 2022, Governor Newsom signed the latest State budget, which includes \$180 million in local assistance grants for organic waste infrastructure, \$10 million for food waste processing at existing wastewater treatment plants, and \$13 million for organic waste collection and processing. Based on capacity planning analyses mandated by SB 1383 implementing regulations, Los Angeles County and the jurisdictions within, need an additional five million tons per year of organic waste processing capacity. This shortfall of infrastructure capacity will require the region's solid waste management agencies to build new sorting facilities, anaerobic digestors, and other advanced processing facilities. Identifying sites in urban areas is a significant challenge and each facility can take three to four years to develop and construct.

Pursuant to the SB 1383 implementing regulations, CalRecycle has developed a procurement target for each local jurisdiction based on population to support collection programs, processing facilities, and markets for recovered organic waste products. To meet the target, local jurisdictions can purchase products such as compost, mulch, vehicle fuel, pipeline biomethane, and/or electricity created from organic waste collected and processed in California. As processing facilities are built to meet SB 1383 organic waste processing requirements, SB 1383 compliant RNG will be produced. The ACF Proposed Regulations can immediately support emission reductions in the transportation sector by integrating these SB 1383 requirements with decades of investments in natural gas vehicles that run on RNG.

### **Support existing markets for RNG**

While heavy-duty ZEV technologies continue to improve, CARB can support trucks that run on in-state RNG to immediately replace heavy-duty diesel vehicles to reduce methane, carbon dioxide, and air pollution. A majority of the solid waste refuse fleets are currently running on RNG generated from biomethane gas produced from anaerobic digestion at wastewater treatment plants. The in-state RNG generated at these facilities is from a renewable energy source which can immediately be used in new trucks that run

on in-state RNG. Moreover, the RNG fueling infrastructure is already built and ready for certain heavy-duty fleets such as solid waste refuse trucks to use. As organic waste is collected and processed, CARB's ACF regulations along with CARB's Low Carbon Fuel Standard (LCFS) can support the procurement of SB 1383 compliant in-state RNG by sending a strong economic signal that there are current transportation markets for in-state RNG.

The Task Force strongly recommends that CARB consider the entire life cycle emissions of heavy-duty ZEVs scheduled to be commercially available for purchase and hold all fuels and vehicle embodied energies to the same sustainability standards. CARB should consider the carbon intensity (CI) of the ZEVs from manufacturing to disposal, the sustainability of building large heavy batteries, and how to manage them at the end of their useful service life. In the LCFS program, CARB has compared the CI score of each type of fuel, including electricity and RNG produced from organic waste processing compared to gasoline and diesel. The lowest CI fuels are biofuels derived from organic waste and, in many cases, several times lower than grid electricity.

As mentioned in the previous letter, the Task Force supports the future transition of heavy-duty fleets from fossil fuels and believes that the time will come when heavy-duty ZEVs will run on zero emission electricity that was not generated from fossil fuels and can outperform trucks that run on RNG. However, the Task Force wonders if California will be ready to convert the SB 1383 compliant RNG to electricity, upload this RNG generated electricity to the electrification grid, and build enough ZEV charging islands at the pace outlined in CARB's timeline for transitioning heavy-duty fleets to 100 percent ZEVs. In the interim of transitioning to 100 percent ZEV, CARB should consider the remaining useful life of the existing natural gas pipeline and RNG fueling infrastructure.

### **Consider performance parameters of heavy-duty ZEVs**

The Task Force also recognizes that the ACF Proposed Regulation is tied to the adopted Advanced Clean Truck Regulations which require manufactures to meet ZEV sale targets for each class of heavy-duty truck and that the ACF Proposed Regulations will require CARB to maintain a list of vehicle configurations that are not commercially available as ZEVs. However, the date ZEVs will become commercially available for one-to-one replacement of an Internal combustion engine vehicle (ICEV) and when fleets can reliably place their orders may languish and falter for many reasons beyond any manufacture or buyer's control.

For example, during CARB's workshop presentation, on July 26, 2022, it shows that rear and front loaders of solid waste haul trucks are currently commercially available for purchase. However, the current ZEV refuse collection vehicle driving range is 150 miles

or less with payload losses up to 7,000 lbs. This would likely require a two to one replacement for current refuse vehicles, doubling costs for both vehicle infrastructure and labor needs. To qualify for CARB's unavailable exemption, the fleet operators will have to demonstrate that variables such as payload, power take off, duty cycle, and mileage range of these ZEVs is not comparable to the same ICEV and does not meet the fleet's daily needs.

Currently, ZEV batteries are heavy and increase the payload of solid waste hauling trucks. Charging the batteries takes hours which makes it extremely difficult for many fleet operators to fuel quickly while on specific duties. In addition, many of these operators of these ZEV service vehicles may find themselves in remote areas where they are unable to charge the vehicle due to a lack of charging infrastructure. Furthermore, Public Safety shut offs due to wildfires and unscheduled blackouts impact the electric grid reliability and charging. September 2022 was one of the hottest months on record. The electric grid was stressed and residents throughout the state were asked to conserve power to avoid power disruptions. The Task Force urges CARB to include in the regulations procedures for working closely with jurisdictions and other State Agencies to verify the viability of ZEVs for each class of vehicles, to develop publicly accessible charging or hydrogen fueling infrastructure aligned with the transition schedule to full ZEVs, and to develop a list of provisional exemptions by truck class and regions where ZEVs are not suitable.

### **Allow alternative pathway for Solid Waste Refuse Trucks that use RNG.**

The water, wastewater treatment, and refuse industry all provide essential services and have contractual arrangements with local jurisdictions to protect the health and safety of the public (emphasis added). Early purchasers of ZEV will have to become familiar with the ZEV market hiccups, file for exemptions and extensions, and weigh their options of waiting for ZEVs that can meet their duty cycle with the immediate need to purchase an ICEV for their fleet. The ICEV should be a truck that runs on reliable RNG to protect the public especially in emergency situations. Furthermore, many jurisdictions anticipate meeting their SB 1383 procurement targets by requiring their waste haulers to purchase the in-state RNG produced from organic waste processing.

On behalf of local jurisdictions, rate payers, environmental stakeholders, and solid waste management agencies, the Task Force urges CARB to include an alternative compliance standard for fleets that have been using RNG from wastewater treatment plants and plan to use carbon negative SB 1383 compliant RNG. In the adopted ACF regulations, the Task Force recommends that CARB considers the following three options:

- 1) Create a compliance pathway for solid waste and wastewater treatment facility fleets to be able to use in-state RNG or hydrogen produced from in-state anaerobic digestion facilities to fuel their heavy-duty vehicles regardless if there is an available ZEV for the vehicle class.
- 2) Extend the dates in which the above vehicles must transition to ZEVs, pushing the final date in which the entire fleets must be 100 percent ZEV from 2039 to 2045.
- 3) Place solid waste collection vehicles in the High Priority Group 3 with specialty vehicles; this would extend the date that a fleet must be 100 percent ZEV from 2039 to 2042.

In addition, the Task Force recommends that CARB revise the following definition:

"Internal combustion engine vehicle" or "ICEV" means a vehicle with a powertrain powered by gasoline, diesel, natural gas, propane, or other fuel where the sole source of power is from the combustion of the on-board fuel to provide motive power. An ICEV vehicle powered by renewable natural gas is considered a near-zero emission vehicle (NZEV).

In summary, when ZEV for a particular class of vehicle does not exist, is delayed, or does not meet the duty cycle or if the electrification/charging infrastructure is not ready, the fleet operator should be allowed to purchase trucks that run on reliable carbon negative SB 1383 compliant RNG. To immediately encourage taking diesel off the road, the Task Force suggests that CARB allow trucks that run on RNG to be treated the same as ZEVs. Moreover, vehicles powered by RNG should not be grouped with other ICEV that run on diesel or gasoline. These fuels, not RNG, should be discouraged.

Pursuant to Chapter 3.67 of the Los Angeles County Code and the California Integrated Waste Management Act of 1989 (Assembly Bill 939), the Task Force is responsible for coordinating the development of all major solid waste planning documents prepared for the County of Los Angeles and the 88 cities in Los Angeles County with a combined population in excess of ten million. Consistent with these responsibilities and to ensure a coordinated and cost-effective and environmentally sound solid waste management system in Los Angeles County, the Task Force also addresses issues impacting the system on a countywide basis. The Task Force membership includes representatives of the League of California Cities-Los Angeles County Division, County of Los Angeles Board of Supervisors, City of Los Angeles, waste management industry, environmental groups, the public, and a number of other governmental agencies.

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In summary, the Task Force strongly encourages CARB to consider the recommendations above when adopting the ACF Proposed Regulations during this 45-day rule making period. If you have any questions, please contact Mr. Mike Mohajer, a member of the Task Force, at [MikeMohajer@yahoo.com](mailto:MikeMohajer@yahoo.com) or (909) 592-1147.

Sincerely,



Sam Shammass, Vice-Chair  
Los Angeles County Solid Waste Management Committee/  
Integrated Waste Management Task Force

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Enc.

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California State Association of Counties  
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San Gabriel Valley Council of Government  
South Bay Cities Council of Governments  
Westside Cities Council of Governments  
Each City Mayor and Manager in the County of Los Angeles  
Each City Recycling Coordinator in the County of Los Angeles  
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September 27, 2021

Ms. Liane M. Randolph, Chair  
California Air Resources Board  
Post Office Box 2815  
Sacramento, CA 95812

Dear Ms. Randolph:

### **COMMENTS ON PROPOSED ADVANCED CLEAN FLEETS RULEMAKING**

The Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) appreciates the opportunity to comment on the Advanced Clean Fleet (ACF) Proposed Regulations and Workshop held on September 9, 2021.

The Task Force strongly supports the targets established by Governor Newsom's executive order N-79-20 and regulations that will help the State meet Senate Bill 32 (SB 32) emissions targets to reduce greenhouse gas (GHG) emissions 40 percent below 1990 levels by 2030, as well as the funding of programs to support the use of Zero Emission Vehicles (ZEV). The key to meeting the timelines set forth in the proposed ACF regulations is the serviceability and availability of certain electric heavy-duty vehicles on the market and making sure that there is a robust electrification infrastructure ready to support the transition for short-haul and long-haul heavy-duty vehicles from diesel to electric.

The Task Force urges California Air Resources Board (CARB) to ensure that the ACF regulations include the appropriate use of biomethane produced from organic waste to immediately reduce short-lived climate pollutant (SLCP) emissions and eliminate the use of diesel to reduce black carbon. The Task Force also would like to emphasize the importance of working closely with jurisdictions and other State agencies to ensure electrification infrastructure is ready to accommodate fully ZEV fleets in the timeline specified and streamline the exemptions process for Public Fleets outlined in Section 95693.2.

§95693.2 (a) of the proposed regulations states that public agencies can apply for an exemption from ZEV or near zero emission vehicle (NZEV) purchase requirements if the vehicles will be designated to provide emergency response in supporting electricity,

natural gas, water, or wastewater services across California or in other states. The Task Force requests that CARB include municipal solid waste haul trucks in §95693.2 (a) of the proposed regulations.

CARB should take the lead in monitoring the market, verifying the viability of ZEVs for each class of vehicles, working with other State agencies to develop publicly accessible charging or hydrogen fueling infrastructure in line with the transition schedule to full ZEVs, and develop a list of provisional exemptions by truck class and regions where ZEVs are not suitable for emergency response.

Emergency service fleets, including water service vehicles and other utility trucks should automatically be exempt until battery technology and charging infrastructure are available that can meet the service needs of this sector. Currently, charging batteries takes hours which makes it extremely difficult for many fleet operators to charge batteries of utility trucks while on duty. In addition, many of these operators of ZEV service vehicles may find themselves in remote areas where they are unable to charge and therefore cannot function reliably while on duty for several days.

The ACF regulations provide an opportunity for CARB to align electrification policies with the requirements of Senate Bill 1383 (2016) which currently calls for a 40 percent reduction in methane and a 50 percent reduction in anthropogenic black carbon by 2030. To reduce methane, CalRecycle's regulations include reducing landfill disposal of organic waste by 75 percent by 2025 and requires jurisdictions to procure and use products like biomethane produced from the processing of organic waste.

Projects that process organic waste have the added benefit of generating carbon negative biomethane and electricity that can be used to replace fossil-based energy sources including diesel, which is by far the largest source of air pollution in the San Joaquin Valley and the South Coast Air Quality Districts. Capturing methane generated from organic waste and eliminating the use of diesel can help avoid catastrophic climate change and drastically benefit public health and safety from wildfires, airborne pollutants, and many other natural and man-made disasters.

The ACF regulations should recommend strategies that advance policies, programs, and projects to replace diesel and fossil fuels used for vehicles and electricity generation with carbon negative biomethane generated from organic waste. This includes support for low NOx NZEVs which would help immediately get heavy duty diesel vehicles off the road to reduce air pollution and improve public health while heavy duty ZEV technologies continue to improve.

Pursuant to Chapter 3.67 of the Los Angeles County Code and the California Integrated Waste Management Act of 1989 (AB 939), the Task Force is responsible for coordinating the development of all major solid waste planning documents prepared for the County of

Ms. Liane M. Randolph  
September 27, 2021  
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Los Angeles and the 88 cities in Los Angeles County with a combined population in excess of ten million. Consistent with these responsibilities and to ensure a coordinated and cost-effective and environmentally sound solid waste management system in Los Angeles County, the Task Force also addresses issues impacting the system on a countywide basis. The Task Force membership includes representatives of the League of California Cities-Los Angeles County Division, County of Los Angeles Board of Supervisors, City of Los Angeles, waste management industry, environmental groups, the public, and a number of other governmental agencies.

In summary, the Task Force strongly encourages CARB to consider the recommendations above when updating the ACF Regulations. If you have any questions, please contact Mr. Mike Mohajer, a member of the Task Force, at [MikeMohajer@yahoo.com](mailto:MikeMohajer@yahoo.com) or at (909) 592-1147.

Sincerely,



Margaret Clark, Vice-Chair  
Los Angeles County Solid Waste Management Committee/  
Integrated Waste Management Task Force and  
Council Member, City of Rosemead

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