AMERICAN AUTOMAKERS
AAPC

The American Automotive Policy Council (AAPC) on behalf of its member companies – Ford Motor Company, General Motors Company and Stellantis - are providing the following comments on the NESCAUM Proposal for their Multi-State Medium- and Heavy-duty Zero-Emission Vehicle Action Plan.

California Advanced Clean Trucks Rule

For States opting into the California Advanced Clean Trucks (ACT) program,[1] American Automakers (AAPC) encourages States to work with NESCAUM, and manufacturers, either directly or through coordination with a trade association, to adequately prepare to administer the program. It will be important to develop a common understanding of expectations regarding reporting, transactions qualifying for ZEV credits, and timing.

The Advanced Clean Trucks regulation permit manufacturers earn a ZEV credit when the zero emissions vehicle is "sold to the ultimate purchaser" in the State, which is currently understood to be different than when a vehicle is "produced and delivered for sale". Many questions remain about how to practically count vehicles and transactions that qualify for the ZEV credit, especially considering common business practices in the medium-duty and heavy-duty markets. For instance:

- Medium-duty and heavy-duty sales of new on-road vehicles may occur between business entities, executed by representatives in corporate offices. The location of the "ultimate purchaser", and the intended geography of use, or location of first registration for a specific new fleet vehicle may be unclear at the time of sale.
- Manufacturers may have limited visibility into dealer activities related to the "ultimate purchaser" of the vehicles since many of the vehicles are transformed into differing configurations before their ultimate end use
- In some segments of the Medium-Duty and Heavy-Duty markets, upfitters play a significant role. These businesses may hold inventory and complicate manufacturer reporting for ZEV credits in the ACT program.

The Advanced Clean Trucks program includes provisions for manufacturers to earn ZEV credits beginning with 2021 model year, which manufacturers may use to meet obligations in later model years as the ZEV Sales Percentage Schedule ramps up. The ability to earn early credits is an important flexibility for manufacturers, especially as the size of the ZEV sales percentage ramps up for States adopting ACT in 2025 and beyond. As additional States opt-in to ACT, it is

[1] https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/fro2.pdf

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important for these States to recognize that there will be reporting and administrative activities that they should be prepared to support well in advance of the "first year" of the program in their State. For instance, States adopting ACT in 2025, 2026, 2027, and beyond should make clear to manufacturers where to send reports and be prepared for back-and forth dialogue to ensure the recognition of early action ZEV credits. To the extent that NESCAUM or CARB will play a role in credit recognition and reporting on behalf of the States, the States should work with NESCAUM and CARB to make that clear.

AAPC encourages NESCAUM, CARB, and States adopting the ACT to reach a Memorandum of Understanding with manufacturers, either directly or through a trade association, to clarify reporting practices related to "ultimate customer", and to standardize reporting practices related to the recognition of early action ACT ZEV credits.

Refueling Infrastructure

Refueling infrastructure is critically important to adopters of Zero Emissions Vehicles. The availability of refueling infrastructure often plays a significant role in purchasing decisions. Medium-duty and heavy-duty zero emissions vehicles can differ significantly from light-duty vehicles in refueling needs.

Large battery electric vehicles need convenient, reliable access to high power chargers. Operators often weigh costs, including downtime during driver hours of service (regulated by Federal Motor Carriers Safety Administration), fuel costs, and refueling convenience when considering if zero emissions vehicles are right for them. NESCAUM correctly identifies that many medium-duty and heavy-duty vehicles do not have fixed routes, and many vehicles are owned and operated by small businesses, with only a few vehicles in the fleet. In many use cases, adopters of battery electric vehicles are likely to rely on publicly accessible chargers for most refueling.

Fuel cell vehicles, powered by clean hydrogen, may be an attractive zero emissions powertrain alternative for very large vehicles. NESCAUM correctly identifies highway corridors and near highway rest areas as high-potential locations for hydrogen fueling stations.

AAPC encourages States to understand and motivate the needed public refueling infrastructure to support the adoption and use of zero emissions vehicles. In many cases, groups of fast charging stations powered by the electricity grid will require advanced planning, and coordination with utilities to ensure safe and reliable operation. AAPC recognizes that placement and operation of refueling infrastructure can be a daunting challenge for policymakers and community planners interested in supporting the transition towards zero emissions. Still, these problems must be solved to enable widespread adoption of zero emission medium-duty and heavy-duty vehicles.

Vehicle to Grid and Non-Road Electricity Generation

Medium-duty and heavy-duty zero emissions vehicles have large battery packs that may be used in diverse applications beyond moving the vehicle. For instance, an electric work truck may power

equipment at a remote job site, replacing the need for a traditional generator. The battery on an electric vehicle may be used to provide electricity to a building for a time, or to return energy to the electricity grid in a coordinated effort with grid services when it is advantageous to do so. Innovative non-road uses of vehicle battery packs have the potential to further reduce emissions and provide societal value. NESCAUM correctly identifies these ideas in the action plan and encourages States to support further development of such applications. AAPC is supportive of innovative uses of vehicle battery packs that create societal value and reduce emissions.

CARB and the U.S. EPA are considering regulations on battery durability for vehicles on a mileage basis, or age basis. The ability of a battery to receive and provide electric charge, and to maintain that capability over many uses, depends on the number and type of charges and discharges, and the conditions of the battery pack and the environment at that time. Medium- and heavy-duty vehicles typically perform auxiliary functions that do not accumulate mileage and may be used for different purposes during useful life, leading to different degradation patterns. These uses, especially for battery cycles related to non-road activities, will not be fully captured by vehicle mileage or age of the vehicle, but could be recorded from real world customer usage. AAPC is supportive of innovative uses of vehicle battery packs, but the scope of these applications may be affected significantly by future mileage-based battery durability regulations.

Questions about these comments can be direct to:

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