

Comments on NESCAUM Medium- and Heavy-Duty Zero Emission Vehicles Action Plan

American Council for an Energy-Efficient Economy (ACEEE)

4.25.2022

The American Council for an Energy-Efficient Economy (ACEEE) is a nonprofit research organization that develops transformative policies to reduce energy waste and combat climate change. With our independent analysis, we aim to build a vibrant and equitable economy – one that uses energy more productively, reduces costs, protects the environment, and promotes the health, safety, and well-being of everyone.

ACEEE thanks NESCAUM for supporting the rapid scale up of medium- and heavy-duty electric vehicle deployment by encouraging state adoption of California’s Advanced Clean Truck (ACT). Transportation is the largest source of greenhouse gas (GHG) emissions in the United States and is responsible for 29% of economy-wide emissions. Within the transportation sector, medium- and heavy-duty trucks account for 24% of total GHG and electrifying these vehicles through the adoption of the ACT rule has the potential to make a significant dent in sectoral GHG and criteria pollutant emissions.

NESCAUM’s draft [Medium- and Heavy-Duty Zero Emission Vehicles \(ZEV\) Action Plan](#) provides states that have signed onto the Multi-State Medium- and Heavy-Duty Zero Emission Vehicle [Memorandum of Understanding](#) and other potential signatories with an effective, comprehensive road map of policies and actions to help implement and prepare for the adoption of the ACT rule equitably. We offer comments below on the following topics: state support of federal standards, utility engagement with frontline and overburdened communities, and the need to incorporate metrics and performance indicators to track progress.

State Support of Federal Standards

State adoption of heavy-duty EV deployment targets provides critical support to the adoption of strong federal GHG and nitrogen oxide (NOx) standards. The US Environmental Protection Agency has recently released an updated proposed rule for the Phase 2 heavy-duty GHG standards and in the coming year will also be issuing proposed Phase 3 standards. These rules are the first ones in which EPA will consider the potential for medium- and heavy-duty EV penetration in setting the stringency of the standards. NESCAUM’s draft action plan should include a statement that highlights the important connection between state adoption of ACT and the federal heavy-duty program.

Utility Engagement of Frontline and Overburdened Communities

Utilities will have a significant role to play in the deployment of heavy-duty EVs in states that adopt the ACT rule. Supporting the millions of new EVs necessary to achieve meaningful vehicle electrification will require developing ambitious charging infrastructure nationwide and integrating

future charging needs into utility grid planning¹ Early planning on grid issues will be crucial because electric power needs can be substantial. An individual 18-wheeler may need 1.6 MW of power to charge (equivalent to the power needed by 160 typical homes), electric delivery-vehicle fleets may need on the order of 4 MW, and large bus fleets have been shown to need 13 MW of power².

More critically, utilities will need to ensure that grid planning efforts and program investments lead to equitable outcomes based on customer class, income, racial equity or environmental justice (EJ) considerations; and are in line with PUC requirements on equitable rate-payer spending. Air pollution from heavy-duty vehicles disproportionately burdens these communities as they are often located near highways and other major sources of air pollution, including power plants and industrial sites³. To ensure that utility action supports early pollution relief and charging installation doesn't adversely affect these populations, direct stakeholder engagement with frontline and overburdened communities will be critical to understanding how the utility planning and investment process for heavy-duty charging needs can respond to and address community health, transportation, and economic challenges in addition to fleet requirements(?). NESCAUM's draft action plan highlights the role of the state in conducting this critical engagement but misses the opportunity to identify utilities as a key player in these efforts and to offer specific guidance on how they can facilitate a thoughtful input process for these communities.

ACEEE recommends incorporating language specific to utility stakeholder engagement actions to support the goal of achieving a just and equitable transition to ZEV trucks and buses outlined on pages 5-8 of the draft action plan. Specifically, in the Electric Utility and Utility Regulator section, we encourage NESCAUM to add recommendations on the following:

- Soliciting input from frontline and overburdened communities on potential heavy-duty programs, investment plans and location of charging infrastructure, and general grid planning efforts
- Collaborating with these communities to conduct a transportation and equity needs assessment that identifies a given community's primary challenges and identifies investments that would best respond to those challenges
- Identifying streamlined program offerings and solutions that prioritize education and outreach to community-based organizations.

¹ https://www.aceee.org/sites/default/files/pdfs/siting_evse_with_equity_final_3-30-21.pdf

² <https://www.aceee.org/blog-post/2021/06/electric-trucks-steady-progress-past-18-months>

³ <https://www.c2es.org/document/electrified-transportation-for-all-how-electrified-transportation-can-benefit-low-income-communities/>

For additional details on these recommendations, please see ACEEE's [Siting Electric Vehicle Supply Equipment \(EVSE\) with Equity in Mind](#) paper.

Incorporating Performance Metrics

As states and utilities kick off the implementation of the ACT rule, developing new programs and policies to support the deployment of medium- and heavy-duty vehicles, robust data collection and the creation of key progress metrics will be essential to tracking success. Because the market for these electric vehicles is so nascent and best practice policies and programs have yet to be identified, continual improvement to efforts will be driven by the collection of real-world data. This will particularly be the case as states, utilities, and NESCAUM strive to understand the equity-related impacts of these investments.

As part of the action plan for MOU states, we encourage NESCAUM to provide guidance to states and utilities on tracking progress on heavy-duty EV and EVSE deployment. As states and utilities create their road maps for implementation, in addition to identifying deployment goals and policy and program strategies to achieve those goals, they should also incorporate metrics and plans for collecting data to establish a baseline and track progress. This data also should be made publicly available, with status of milestones achieved shared through regular public reporting.

ACEEE recommends, at a minimum, that states and utilities track the following types of data:

- Total medium- and heavy-duty EV registrations
- Annual new medium- and heavy-duty EV sales
- Number of charger installations
- Dollars disbursed in state and utility EV incentives for vehicle purchases and charger
- Portion Volkswagen Mitigation Plan funds distributed to EV projects
- Percentage of program dollars going directly to overburdened and frontline communities
- Locations of chargers in both frontline and non-frontline communities
- Identification of key freight routes within a state and the proportion that run through overburdened communities
- Number of active EV school buses and transit buses

ACEEE's Transportation Electrification Scorecard [report](#) includes a number of examples of performance indicators and metrics that states and utilities can use to track progress towards goals and deployment.

ACEEE thanks NESCAUM for the opportunity to provide input to the draft Medium- and Heavy-Duty Zero Emission Vehicles Action Plan. For any questions or further discussion of these issues, please do not hesitate to contact Shruti Vaidyanathan, Transportation Program Director, at svaidyanathan@aceee.org.