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NESCAUM
89 South Street, Suite 602
Boston, MA 02111

Re: Draft Multi-State Medium- And Heavy-Duty Zero-Emission Vehicle Action Plan

I. Introduction

AMPLY Power, Inc. (AMPLY) appreciates the opportunity to provide comment on the Draft NESCAUM Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan, provided for public comment March 10, 2022.[1]

We applaud those NESCAUM states that have established clear targets and mandates in support of the Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Memorandum of Understanding. Medium- and heavy-duty (MDHD) electric vehicles (EV) are critical to reducing the impacts of greenhouse gas and criteria emissions. AMPLY's internal analysis indicates that for each 15-vehicle fleet, electrification can avoid as much as 2,000,000 kg of CO_2 emissions annually.[2]

AMPLY is a comprehensive electric vehicle charging and energy management provider for fleets operating trucks, buses, vans, and other vehicles. As fleets continue to work to meet sustainability goals, AMPLY's fully managed solutions are cost effective and service-focused, reducing fuel costs by as much as 85 percent and making electrification easy for organizations of all sizes. For more information on AMPLY and our proprietary charge management system, OMEGA™ CMS, please visit our website, amplypower.com.

Our comments in response to the draft recommendations in the Action Plan include:

- Mandates and/or targets for EV procurement should include EV charging that prioritizes performance, cost and emissions impact

[1] AMPLY understands that NESCAUM-led member jurisdictions and States on the Task Force developed the Draft Action Plan. In these comments we will use "NESCAUM" to represent the collective members of the Task Force.
[2] "Managed Charging Accelerates Cost & Health Benefits of EVs," AMPLY Power, 2021, https://amplypower.com/whitepaper2021/.

- Incentives for vehicles and charging should be flexible
- Utilities should enhance programs and processes for MDHD EV
- Large-Scale MDHD electrification requires innovative financing solutions and business models

II. Mandates and/or Targets for EV Procurement Should Include EV Charging that Prioritizes Performance, Cost and Emissions Impact

NESCAUM recommends legislation and/or policies requiring zero-emissions vehicle purchases backed by procurement plans for publicly controlled or contracted fleets.[3] AMPLY recommends that vehicle procurement mandates be accompanied by EV charging requirements that prioritize EV Supply Equipment (EVSE) performance and cost effectiveness. This approach aligns EV procurement decisions with charging infrastructure planning and operations to realize potential fuel cost, maintenance cost, and emissions savings. Incentive programs for charging infrastructure should require or otherwise incent high EVSE uptime to increase fleet operator confidence and encourage wider adoption.

With that in mind, AMPLY recommends that NESCAUM build on its guidance as follows:

A. *Institute an uptime data reporting requirement.* Specifically, AMPLY recommends requiring EVSE network operators to report uptime data at the individual charger level (versus site or network level) over a 12-month period for a minimum of five years. Network operators currently collect this data, which makes them the most efficient reporting entity for doing so. When it comes to chargers that can fuel multiple vehicles simultaneously, each charging port should be treated as a separate charger when calculating uptime. Failure to calculate uptime at the port level for these chargers will mask service failures.

B. *Develop standard formula for reporting uptime.* NESCAUM regulatory bodies should develop a standard reporting formula for calculating uptime, including a consistent reporting interval – either by the minute, 15-minutes, or hour. Inconsistent timescales can skew results.

C. *Include standard uptime reporting exclusions.* Uptime data reporting exclusions should be limited to the following incidents:

    a. *Electricity grid and wireless network failures*: These exclusions should have a cumulative compliance time limit of no more than five percent of any twelve-month period (for example, charging companies could exclude 18.25 days of outages over a twelve-month period). Further, when calculating downtime,

[3] *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan; A Policy Framework to Eliminate Harmful Truck and Bus Emissions. Draft for Public Comment.* NESCAUM Multi-State ZEV Task Force. March 10, 2022. Pg. 26.

charging infrastructure should be counted as down whenever it is unable to communicate with its network provider.

b. *Scheduled and planned maintenance.*

c. *Catastrophic weather events*.

D. *Require network operators to report their "excluded time"* as noted above, with the appropriate categorization.

III. Incentives for Vehicles and Charging Should Be Flexible

AMPLY agrees with NESCAUM that equity should be a feature of incentive programs and suggests offering higher incentives for deployments in frontline and overburdened communities. Additional incentives to support these communities can be more effective than reserving program budget for certain customer segments and/or vehicle types. Reserving budget restricts use of resources for projects with potential to demonstrate success. Incentive program design should allow flexibility to meet changing market conditions.

AMPLY also suggests considering performance-based incentives that reward EV miles traveled and/or electric fuel use. Low Carbon Fuel Standards (LCFS) are an example of self-sustaining, effective market-based mechanisms. While point-of-sale rebates rely on external funds, LCFS' can be designed to be self-sufficient. Proceeds from credit sales either directly benefit the clean fuel provider or can be allocated to clean vehicle programs. Fleet vehicles have the potential to generate significant credit proceeds since they generally log far more miles than comparable passenger vehicles, and vehicles in the medium- and heavy-duty segments are among the highest emitting vehicles per mile.[4]

IV. Utilities Should Enhance Programs and Processes for MDHD EV

NESCAUM states should pursue solutions to enable their electric utilities to "streamline interconnection processes to the maximum extent possible to eliminate long interconnection wait times."[5] AMPLY offers the following suggestions to enhance the EV customer experience with timely deployment of charging infrastructure:

1. *Provide a Single Point of Contact per Customer Portfolio*: Utilities of all types should be required to assign a single project manager for each company's portfolio of charging infrastructure projects within that utility's service territory. This project manager should

[4] United States Department of Transportation Bureau of Transportation Statistics, *Estimated U.S. Average Vehicle Emissions Rates per Vehicle by Vehicle Type Using Gasoline and Diesel*, https://www.bts.gov/content/us-vehicle-miles. See also Krzysztof Zamasz, Jakub Stechly, Aleksandra Komorowska, Przemysław Kaszyński, *The Impact of Fleet Electrification on Carbon Emissions: A Case Study from Poland*, Energies, October 2021, https://www.mdpi.com/1996-1073/14/20/6595.

[5] NESCAUM Multi-State ZEV Task Force. March 10, 2022. Pg. 32

be responsible for overseeing dedicated utility engineering and implementation resources across the developer's portfolio irrespective of project type, number, or region.

2. *Clearly Define Customer Requirements and Obligations*: Drawn out approval processes for standard gear, and unforeseen utility requirements and document sign offs can unnecessarily delay service upgrades. Establishing standard review processes and timelines for these matters and addressing them upfront will speed execution and reduce costs.

3. *Create a Dedicated New Service Request Process for EVSE Interconnection and Energization*: Utilities of all types should be required to create a new service request process available for EVSE interconnection and energization. That process may incorporate standard engineering review processes but should also include a threshold of installed EVSE capacity (e.g., 500 kW) below which sites would be exempt from engineering reviews absent separate complicating factors.

4. *Standardize Utility Turnaround Timelines*: Utilities of all types should be required to complete service upgrades and/or interconnection requests within six months of receiving a complete application, absent exigent circumstances,

5. *Automated or Adaptive Load Management (ALM)*: Utilities of all types should be required to allow third-party ALM solutions to manage coincident EVSE load, which in turn will reduce the required infrastructure investment. ALM refers to load management technologies that allow a ratepayer to safely install more charging capacity than the rated capacity of their connection. The application of these technologies reduces the need for utility-side system upgrades.

Utilities should also be encouraged to develop technical standards and interconnection rules that enable electric vehicle fleets to provide grid services. For example, grid-connected school buses could potentially deliver power back to utilities during peak demand periods through vehicle-to-grid (V2G) integration technology. AMPLY encourages NESCAUM to collaborate with the U.S. Department of Energy through its Memorandum of Understanding to Establish the Vehicle-to-Everything Collaboration to launch demonstration projects that accelerate and enable bidirectional electric vehicle integration into the electrical grid and evaluate the business case for V2X applications.

V. Large-Scale MDHD Electrification Requires Innovative Financing Solutions and Business Models

AMPLY agrees with NESCAUM's call for private sector capital financing of electrification at scale, and with the financing barriers they discuss in the Action Plan.[6] States can also test innovative financing arrangements via green banks or green investment funds to support innovative business models. AMPLY's charging-as-a-service offering is one such example of an innovative product that substitutes customer capital with performance-based service payments. States may align their financing models with other policy-focused lenders, such as the U.S.

[6]NESCAUM Multi-State ZEV Task Force. March 10, 2022. Pgs. 35 - 36

Department of Energy's Loan Program Office, so borrowers develop term sheets based on consistent terms and conditions.

VI. Local and U.S. Federal Government Recommendations

In its draft, NESCAUM includes recommendations to local governments in its member states.[7] AMPLY supports NESCAUM recommendations for municipally owned and contracted fleets. Municipal vehicle procurement and EV charging plans should be harmonized with State plans to ensure consistency for developers working across jurisdictions. For example, consistency in building and electrical permitting is important to streamline project development for fleets that operate facilities across different cities, towns, and counties.

AMPLY also supports NESCAUM's recommendations for more stringent federal greenhouse gas and criteria pollutant emissions standards for MDHD vehicles. As a leader in the transition to electric vehicles, AMPLY shares NESCAUM's goal of reducing emissions that negatively impact human health and the environment.

VII. Conclusion

Thank you again for this opportunity to comment on the draft Action Plan. AMPLY commends NESCAUM for leadership in this matter and appreciates its thoughtful consideration of our recommendations.

We look forward to continued dialogue with NESCAUM and engaged stakeholders as we lead the transition to EVs.

Sincerely,

/s/Brian Ross

Brian Ross
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AMPLY Power

[7]NESCAUM Multi-State ZEV Task Force. March 10, 2022. Pg i