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Re: Comments of Environmental Defense Fund on Draft Model Action Plan

I. INTRODUCTION

Environmental Defense Fund (EDF) thanks the Northeast States for Coordinated Air Use Management (NESCAUM) for the opportunity to provide comments on their excellent draft model action plan (Plan).

First and foremost, EDF wishes to commend NESCAUM for producing a draft model action plan that is comprehensive, well thought-out, and that has solicited and integrated feedback from multiple stakeholders. It is of critical importance that NESCAUM sought to ensure environmental justice and community advocates had a meaningful opportunity to weigh in and help to shape this document; this is a step that states must take when formulating and implementing policy solutions.

More specifically, EDF points to the following as being particularly good evidence of how strong this document is – and that NESCAUM heard and incorporated stakeholder feedback.

- The recognition that any transition has to be just and equitable. Without ensuring that policies are designed to prioritize deployment of vehicles and infrastructure in communities that are most impacted by harmful air pollution and climate change, states will have fundamentally failed in how they approach the design and implementation of policies designed to achieve the overarching sales target.
- The inclusion of a discussion on marketing, education, and outreach is of critical importance and EDF is gratified to see it reflected in this draft model action plan. Without ensuring that information is distributed in a way that allows for equitable investment – that is, providing tailored information to small businesses, rural residents, and pollution-burdened communities about the benefits of and opportunities for electrification of trucks and buses – those that most need to be part of the transition to zero-emission vehicles may get left behind.

- The robust discussion of the role of utilities in the electric vehicle landscape correctly demonstrates their key role in advancing zero-emission trucks and buses. With careful planning by utilities to advance vehicle electrification, the risk that total cost of ownership savings, which hinge partially on fuel cost savings, won't be realized can be avoided; in addition, insufficient planning for and mitigation of impacts to the grid in a forward-thinking way may fail to ensure cost savings for customers, may not maximize provision of the grid services that these vehicles are capable of, or the environmental benefits inherent in a transition to zero-emission trucks and buses.
- The recognition that continued use of diesel vehicles is harmful, and that any cost-benefit analysis done by states and utilities when deciding on whether to pursue investments needs to take into account the significant societal benefits in the form of fewer missed work and school days, hospital and doctor visits, and premature deaths that zero-emission vehicles can bring about. Incorporating these benefits in decision-making will allow for a more accurate picture and will make a more clear-cut case for why public funding for zero-emission vehicles is appropriate.

EDF provides some recommendations that will make this roadmap for states even stronger. The following are separated into two categories – overarching comments and more detailed suggestions to hone specific recommendations.

II. OVERARCHING RECOMMENDATIONS

EDF makes the following broad recommendations to strengthen the draft model action plan.

A. *The Role of Utilities*

1. The Plan states that utility regulators "should consider directing utilities to…proactively prepare for grid upgrades and be positioned to complete upgrades as needed to serve load."[1] While it is true some level of grid upgrades and build-out will be needed in order to accommodate the increased load from electric vehicles, a more robust connection can be drawn to the need for solutions to mitigate the need for this build-out and keep the costs of the transition for all utility customers down as much as possible. This will involve rates that encourage commercial EV customers to charge vehicles at times that are most beneficial to the grid and allow for uptake of renewable energy,[2] as identified in the Plan. It should also include the use of distributed energy resources like distributed generation and storage that allow for more efficient use of the grid that may reduce the need for costly system

[1] NESCAUM Multi-State ZEV Task Force, *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan* at 32 (Mar. 10, 2022).

[2] *See e.g. Application of Pacific Gas and Electric Company (U39M) for Approval of its Proposal for a Commercial Electric Vehicle Day-Ahead Hourly Real Time Pricing PIlot,* A. 20-10-011 (filed Oct. 23, 2020), https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/A2010011/3471/374628556.pdf; *Application of San Diego Gas & Electric Company (U 902-E) for Approval of Commercial Electric Vehicle Dynamic Rate,* A. 21-12-008 (Dec. 17, 2021), https://www.sdge.com/sites/default/files/regulatory/A21-12-XXX%20SDG%26E%20Application%20for%20Dynamic%20Export%20Rate.pdf.

investments,[3] and appropriate compensation for services like managed charging (V1G), vehicle-to-grid (V2G) and vehicle-to-building (V2B).

2. In addition, while utilities have a key role in this transition, there are non-utility players like distributed energy resource providers that states should be recognizing as also having a part. Innovation can be furthered by establishing partnerships that spur innovation and optimize use of the grid, while helping to ensure customer savings and environmental benefits of zero-emission vehicles.
3. The Plan appears to put the onus on fleets to reach out to utilities to discuss their electrification plans and needs. However, this can and should be more of a two-way street. Marketing, education, and outreach should include utilities proactively reaching out to fleets to understand their plans for the near- and longer-term to effectively future proof; as well, this should also involve grid planning and a plan for load management from utilities that integrates fleet plans for growth. EDF has heard multiple stories in its work with fleets that utilities do not provide adequate information or ask the right questions of fleets – which leads to unnecessary costs and delays. As such, utility regulators should consider guidance to utilities that allows for more effective and streamlined communication with fleets to understand and meet their current and future needs as rapidly as feasible.
4. The Plan should consider integrating stronger guidance ensuring that a utility is covering the cost of make-ready infrastructure on the utility side of the meter as a matter of course – and on the customer side of the meter in certain circumstances (e.g., for low-income customers). For many fleets that do not have long-term leases for facilities, or do not own the facility, it may not make economic sense to front the cost of the make-ready infrastructure – which could prevent them from harnessing the benefits of zero-emission vehicles. Recommending that utility regulators rate-base make-ready infrastructure, similar to what California has done, may streamline and encourage the transition to zero-emission vehicles.
5. It is appropriate for utilities to "offer utility on-bill financing and repayment of MHD electric vehicles and charging infrastructure and prioritize financing for small fleets, transit agencies, and school districts with fewer capital resources."[4] However, EDF notes a few things based on the differences among financial options recognized by both the U.S. Department of Energy and the EPA. First, a distinction should be noted between on-bill financing and tariffed on-bill investment. While both options help address the upfront cost barrier faced by fleet managers and public agencies with constrained capital budgets, the latter has important, positive attributes that may make it a better fit for many customers: rather than marketing debt products to fleet managers, a utility offering a tariffed on-bill program will capitalize equipment without weighing on a fleet manager's balance sheet; capital deployment is based on project economics, rather than credit underwriting, so there is no credit check; the monthly utility bill charge for cost recovery is less than expected energy cost saving; and the cost recovery charge applies automatically to the next occupant. On the other

[3] See, e.g., California Public Utilities Commission, *Distributed Energy Resources Action Plan – Final Draft* (Apr. 21, 2022), https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M467/K470/467470758.PDF.

[4] NESCAUM Multi-State ZEV Task Force, *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan* at 32 (Mar. 10, 2022).

hand, on-bill financing is a utility loan to a customer; its approval is predicated on indicators of consumer credit risk; there is no requirement that the cost be less than expected savings; and transferability of the debt obligation to a successor customer is not assured.[5] To that end, EDF encourages NESCAUM to make it clear that tariffed on-bill investment is more accessible to customers who cannot or will not accept indebtedness as a solution to the upfront cost barrier, so this option will likely ensure more equitable outcomes. The Global Innovation Lab for Climate Finance has endorsed tariffed on-bill investment as a solution, called PAYS for Clean Transport.[6] In that design, the scope of investment is limited to the battery and the charging station as grid-edge equipment, reducing the upfront cost of the MHD EV to a figure on par with the replacement cost of an existing fleet vehicle. In addition to approving tariffed on-bill investment for clean transport, it should also be extended to distributed energy solutions that can exist alongside electric vehicles, such as on-site solar and storage, as a way to enable managed charging. Finally, states should explore whether the capital source for any approved financial programs are funded with shareholder, rather than ratepayer dollars.

6. Finally, utility regulators should put in place guidelines for utilities to report on progress within charging programs. These programs will be better able to maximize success if regulators and stakeholders are apprised of progress and ways in which utilities intend to ensure that course corrections are made to enable programs that are effective, scalable, and meeting targets for investments in frontline communities. This should include setting targets and metrics against which utilities can measure progress; issuance of regular, public-facing reports detailing progress on key items such as cost, measures to mitigate grid impact and the success of those measures, and investment in low-income and disadvantaged communities; and robust, effective plans for marketing, education, and outreach.

B. *Working Collaboratively with Environmental Justice and Community-Based Organizations*

1. The draft Plan states appropriately that "states should build knowledge and capacity within communities to provide input on community needs and priorities to inform the development of state clean transportation policies and effectively advocate for zero-emission technology by partnering with community-based organizations and representatives."[7] EDF agrees that finding ways to ensure the participation of these communities is key – and adds that encouraging states to find ways to fund the participation of these critical community and environmental justice advocates – given their lack of capacity and resources – may also be necessary.

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[5] Slipstream (on behalf of the Illinois Clean Jobs Coalition), Medium & heavy-duty vehicle electrification, ICC Beneficial Electrification Workshop (Feb. 4, 2022) at slide 9, available https://www.icc.illinois.gov/informal-processes/beneficial-electrification-workshops-2021-2022.

[6] Global Innovation Lab for Climate Finance, *Pay as You Save for Clean Transport – Instrument Analysis* (Sep. 2018), https://www.climatefinancelab.org/wp-content/uploads/2018/02/PAYS-for-Clean-Transport_Instrument-Analysis.pdf.

[7] NESCAUM Multi-State ZEV Task Force, *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan* at 7 (Mar. 10, 2022).

2. While the Plan acknowledges that states should be "partnering with community-based organizations and representatives to develop and implement MHD ZEV community outreach and education programs,"[8] further mention in the utility section of the role that utilities should be playing in this space would be well-placed. In addition, discussion of how utilities should be coordinating with community groups to effectively distribute information about the benefits of electric vehicles, rates, available utility programs, as well as ensuring that technical assistance is being provided to small businesses and businesses operating in pollution-burdened communities, will be critical.
3. The Plan advises that "states should establish or utilize existing environmental justice and equity councils and advisory bodies to ensure the integration of equity considerations and frontline and overburdened community voices in clean transportation policymaking processes."[9] EDF agrees but asks that there be consideration of whether existing environmental justice and equity councils/advisory bodies are operating effectively. This should involve state representatives reaching out to frontline and overburdened community voices to get feedback on the effectiveness of these bodies and integration of any recommendations for making them a stronger conduit for hearing and resolving community concerns. As well, these bodies need to ensure that advice from the community is ultimately incorporated into the policymaking process.

C. *Expansion of the Definition of Equity*

EDF continues to advocate for a broad definition of equity. While it is critically important to ensure that pollution-burdened communities in urban areas are prioritized in investment and deployment plans states adopt, it will also be critical to ensure that other underserved (i.e., rural) communities are not left behind. Rural communities, though they may not face pollution burdens from the same sources, do suffer the impacts of emissions from sectors like agriculture; as such, it will also be important to ensure that any pollution from medium- and heavy-duty vehicles is mitigated to lower cumulative impacts. As well, there is movement to ensure that private modes of transportation are able to be replaced with public transportation; there must be an emphasis on ensuring that these communities have equitable access to zero-emission transit. In addition, there is a need to be aware of small fleets and independent truck owners who currently do not have adequate capital to replace old, polluting trucks with zero-emission alternatives. To that end, states should be looking at how to structure programs and ensure they are equitable with a holistic lens – including how to serve rural communities.

D. *Facilitating Charging Deployment*

1. The Plan states that "providing purchase incentives to reduce or eliminate the purchase price differential for MHD ZEVs and the cost of charging and fueling infrastructure are among the most important actions that states can take to accelerate electric truck and bus adoption in this early market."[10] EDF agrees, but also wants to

[8] *Id.* at 8.
[9] *Id.*
[10] *Id.* at 28.

clarify that the purchase incentive for charging should not be limited to hardware, given that the charging station is not always the highest cost related to infrastructure. Particularly for small businesses, incentives might also need to cover soft costs like permitting, design, and installation. Of course, technical assistance for small businesses might also need to be enhanced. As discussed before, incentives for distributed energy resources like on-site storage and solar would also be beneficial, alongside education and technical assistance necessary to facilitate the installation of those resources. While these resources have significant benefits for the customer and the grid, the upfront cost may still be prohibitive for businesses with less capital.

2. On page 22, there is a discussion of "Different Charging Standards" that states "the interoperability of vehicle charging stations is important to maximize vehicle flexibility and convenience" and that "a common open charging standard for trucks is needed to make public charging seamless, achieve economies of scale, avoid stranded assets, and minimize the need for future modifications to charging connectors."[11] EDF agrees in principle with those statements, but adds two suggestions for NESCAUM to consider. First, this paragraph gives the impression that charging standards are only applicable to the plug; however, communication and payment standards will need to be open to enhance the customer experience, facilitate vehicle-grid integration, and ensure assets are used and useful. EDF encourages NESCAUM to expand the definition accordingly so that states consider standards that facilitate open communication between the vehicle and charger, the charger and the network, and between networks – and that streamline payment standards to effectively allow roaming. In addition, these open standards will be helpful not just for public charging – many of the benefits of open standards hold true for private/depot charging.

E. *Expanding Capacity of State Agencies*

Finally, the Action Plan should encourage states to review whether there is sufficient capacity at agencies, such as utilities commissions, to address transportation decarbonization in a thoughtful and expedient way. EDF has frequently bumped up against severe bandwidth constraints at agencies that prevent promulgation of policies that will help support a transition to zero-emission vehicles. It might be prudent for states to map out how to either re-deploy staff or how to add key additional staff in the coming years.

III. ADDITIONS AND COMMENTS ON SPECIFIC RECOMMENDATIONS

EDF adds the following line-item style edits as suggested corrections or enhancements. Comments will be alongside specific text.

- The Plan states that "collectively, commercial fleets have pre-ordered more than 100,000 electric MHD ZEVs and begun deploying the first vehicles…companies like Amazon, DHL, FedEx, IKEA, and UPS are among the earliest adopters of electric delivery vans, and together have placed orders for more than 100,000 commercial medium-duty ZEVs for last-mile deliveries."[12] The 100,000 figure should be updated in the second instance

[11] *Id.* at 23.
[12] *Id.* at 16.

so that it doesn't match the first mention; a good source for the level of adoption by fleets that are part of the Corporate Electric Vehicle Alliance is embedded within a survey conducted by Ceres.[13]

- The Plan states that "demand charges associated with EV charging can dwarf the energy charge and make the cost of electricity prohibitive" and that "rate reform is needed to mitigate demand charges and incentivize fleet charging during lower cost off-peak periods and periods of high renewable generation."[14] EDF agrees that demand charges, particularly non-coincident demand charges, can be problematic in the near-term. However, we caution against presuming that demand charges should be eliminated in the long-term – demand charges do play an important function and, as fleets become more accustomed to electric vehicles, might provide an important and feasible means of enabling managed charging. At minimum, EDF suggests that if states eliminate demand charges, there should be a re-evaluation after a set period of time.
- In the section on "Lithium-ion Battery Production and Recycling,"[15] it would be helpful to reference the work that the Fair Cobalt Alliance and others are doing to ensure responsible mining practices in a way that enhances worker safety and minimizes environmental impact.[16] As well, environmental and health protections will need to be put in place to ensure that recycling does not cause adverse impacts that need to be accounted for and mitigated.[17]
- EDF appreciates the discussion on "Other Challenges for Hydrogen Truck and Bus Development."[18] Two other challenges associated with hydrogen should be noted. First, leakage of hydrogen must be considered – as a paper from EDF currently under peer review finds, "in high leakage situations, hydrogen emissions could yield nearly twice as much warming in the first five years after replacing its fossil fuel counterparts…but if leak rates are minimal, hydrogen could yield an 80% decrease in warming during that same period."[19] As such, ensuring that leaks are adequately monitored, measured, and repaired will be crucial to ensuring that a shift to hydrogen does more good than harm. In addition, it is important to mention that the efficiency of conversion to electricity in fuel cells is less than that of battery-powered vehicles – meaning that fuel costs might be higher. All of those factors should be incorporated in weighing the benefits of hydrogen compared to electricity.
- The Plan states that "stable and sustainable sources of funding are needed to support state incentive programs and provide the market certainty needed to drive industry and private

[13] Ceres, *Corporate Electric Vehicle Alliance Survey Analysis* (Jan. 21, 2022), available https://www.ceres.org/resources/reports/ceva-survey.
[14] NESCAUM Multi-State ZEV Task Force, *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan* at 22 (Mar. 10, 2022).
[15] *Id.* at 23.
[16] The Impact Facility, *Fair Cobalt Alliance,* https://www.theimpactfacility.com/commodities/cobalt/fair-cobalt-alliance/; *see also* Joint Parties, *Letter Supporting Clean Energy Minerals Reform Act of 2022,* https://earthjustice.org/sites/default/files/files/hrm_2022_reform_support_letter.pdf.
[17] USC news, *Lead contamination found in baby teeth of children living near Exide battery plant,* https://news.usc.edu/156523/lead-in-baby-teeth-exide-battery-plant/.
[18] NESCAUM Multi-State ZEV Task Force, *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan* at 24 (Mar. 10, 2022).
[19] https://www.edf.org/blog/2022/03/07/hydrogen-climate-solution-leaks-must-be-tackled

sector capital investment in zero-emission transportation technology."[20] EDF agrees but would further specify two things. The cap-and-invest programs will still need to be designed with and in a way that directly aids pollution-burdened communities. In addition, solutions like the low carbon fuel standard (LCFS) can be helpful in mitigating the upfront cost of electric trucks and buses. Of course, any solution being considered needs to be designed with and approved by communities that are most impacted by harmful transportation pollution before being adopted.

- EDF agrees that states should "require compliance with open communication standards"[21] with respect to infrastructure. However, as described above, this will be important for more than public charging, which should be clarified throughout the document.
- The Plan states that "strategic long-range planning, close coordination and consultation with truck and bus fleets, properly sequenced utility investment in "make-ready" charging infrastructure, and development of beneficial commercial electricity rates designed to incentivize fleet charging during low-cost and low-demand periods are vital to achieving MHD fleet electrification at the pace and scale necessary to meet state electrification goals."[22] EDF agrees but believes that clarity is needed about defining "make-ready" infrastructure as being on both sides of the meter. And, as described before, states should consider having make-ready infrastructure on the utility side of the meter be covered by the utility as a matter of course, and on a more limited basis on the customer side of the meter.
- In Recommendation 3f. under the section on "Electric Utility and Utility Regulator Actions," the Plan encourages states to "offer revenue-generating V2G services and enable vehicle-to-building services for electric school buses and other MHD ZEV fleets that are valued consistent with traditional grid services."[23] EDF asks that managed charging (V1G), which can provide significant benefits to the grid, also be eligible as a revenue-generating services – through such mechanisms as rates that incentivize beneficial charging behavior and demand response programs.
- In a call-out box, the Plan references the New York State Public Service Commission's Equity-Focused MHD Utility Programs.[24] While the intent of this program is laudable, it should be noted that participation rates have been low, likely due to the prescriptive requirements – including requiring scrappage, limiting utility funds for make-ready to areas with available capacity, and limiting availability just to DC fast charging stations - embedded within the program. EDF suggests that potential improvements be explored before it is replicated in other states.
- In the section on "Community Air Monitoring," stationary monitors should be included alongside portable and mobile monitors.[25] Stationary monitors can cost as little as a few hundred dollars and provide for significantly more accuracy than mobile or portable monitors. As such, EDF suggests that NESCAUM either strikes the "portable" qualifier

[20] NESCAUM Multi-State ZEV Task Force, *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan* at 28 (Mar. 10, 2022).
[21] *Id.* at 29.
[22] *Id.* at 31.
[23] *Id.* at 32.
[24] *Id.* at 33.
[25] *Id.* at 42.

in the description of page 42 ("These ~~portable~~ sensors make it easier to examine localized air quality trends) or add "low-cost stationary to "mobile or portable" in the recommendations on page 43 and 44 (e.g., "state agencies should work with communities…to design community air monitoring programs that deploy portable, mobile, or low-cost stationary sensors").

- In Appendix A, "Local and U.S. Federal Government Recommendations," the draft Plan states that "municipal and county governments exert considerable control over charging infrastructure deployment through zoning, construction ordinances, engineering design requirements, and permitting regulations."[26] EDF agrees, and asks that that role be better reflected in the recommendations that follow. In particular, zoning regulations should be explicitly listed as part of the suite of solutions that may be necessary to facilitate promulgation of electric vehicle charging.
- The Plan states that "local agencies responsible for building codes, land use regulations, and engineering compliance should amend existing policies and rules to minimize administrative burdens for EVSE infrastructure planning, permitting, and construction."[27] Local governments should also provide guidance documents and fact sheets that identify where to find applications and regulations, key steps and associated timelines, applicable fees, points of contact. These documents should be easily accessible to the public. Local governments should also work with utilities to offer electrification guidance and technical support to fleet operators. EDF agrees with this but adds that local agencies should also be looking into ensuring commercial fleet facilities in particular are ready through the measures described above.
- Finally, in discussing the role of the federal government, NESCAUM states that "Congress should establish a manufacturers' tax credit for the sale of MHD ZEVs."[28] EDF agrees, but also suggests that this tax credit should be refundable for small businesses.

IV. CONCLUSION

EDF thanks NESCAUM for the opportunity to provide comments on the draft Plan and looks forward to providing any further assistance as the Plan is finalized.

[26] *Id.* at Appendix A, i.
[27] *Id.* at Appendix A, ii.
[28] *Id.* at Appendix A, iii.