October 3, 2022

Hon. Michelle L. Phillips
New York Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

RE: AEE AND ACE-NY COMMENTS IN RESPONSE TO THE PROCEEDING ON MOTION OF THE COMMISSION REGARDING ELECTRIC VEHICLE SUPPLY EQUIPMENT AND INFRASTRUCTURE, Case No. 18-E-0138

Dear Secretary Michelle L. Phillips:

Advanced Energy Economy ("AEE") and the Alliance for Clean Energy New York ("ACE NY") are submitting these Comments in response to the New York Public Service Commission's ("Commission") request for public input concerning the electric vehicle ("EV") infrastructure make-ready order and programs. AEE is a national association of businesses that works to accelerate the move to 100% clean energy and electrified transportation in the U.S. Advanced energy encompasses a broad range of products and services that constitute the best available technologies for meeting our energy needs today and tomorrow. These include electric vehicles, energy efficiency, demand response, energy storage, solar, wind, hydro, nuclear, and smart grid technologies. AEE represents more than 100 companies in the $238 billion U.S. advanced energy industry, which employs 3.2 million U.S. workers, including 157,000 individuals in the Empire State. ACE-NY is a member-based organization with a mission of promoting the use of clean, renewable electricity technologies and energy efficiency in New York State to increase energy diversity and security, boost economic development, improve public health, and reduce air pollution. ACE-NY's diverse membership includes companies engaged in the full range of clean energy technologies as well as consultants, academic and financial institutions, and not-for-profit organizations interested in their mission. Our detailed comments follow.

Sincerely,

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Program Budget and Incentive Levels

1) Provide comments and suggested modifications for the non-DAC incentive levels for both the light-duty program and the Medium Heavy Duty ("MHD") Make-Ready pilot.

AEE and ACE-NY applaud the significant role the Make Ready program has played in the growth of electric vehicle (EV) charging infrastructure in New York, as evidenced by the presentations during the Midpoint Review Kickoff session. The transportation electrification policy landscape in New York State has changed dramatically since the establishment of the Make-Ready Program in 2020. Action at the federal level to pass the Infrastructure Investment and Jobs Act as well as the Inflation Reduction Act provide new electric vehicle incentives for consumers and businesses that will accelerate demand on the state's EV charging infrastructure. Commitments by every major automaker to fully electrify in the coming years in addition to substantial capital investments and facility upgrades to do so signal the private sector is poised to greatly expand its offerings in every vehicle class to meet this demand. Actions by the Cuomo and Hochul administrations to adopt the Advanced Clean Trucks and Advanced Clean Cars 2 rules provide a regulatory path to the transition. Governor Hochul and the state legislature also moved to electrify the state's school bus fleet by 2035 this year. Each of these steps demonstrates that the Make Ready Midpoint Review process will be vital to ensure all stakeholders can help make this critical transition successful.

Nowhere is this more evident than on the topic of medium- and heavy-duty (MHD) electric vehicles. While an MHD Fleet Make-Ready Pilot Program was an efficient step taken by the Commission at the time, it is clear now, based on both NYS policies and the feedback from investor-owned utilities (IOUs) during the Midpoint Review Kickoff, that there needs to be a dedicated program and source of funding for MHD fleet vehicles. Even in the Staff Whitepaper, in which Staff recommended that the Commission establish statewide incentive program to support light-duty EV charging stations, Staff recognized "the need to take additional steps beyond light - duty vehicles and anticipates that issues of assuring adequate and useful charging infrastructure for medium and heavy-duty vehicle types will be addressed expeditiously in the open electric vehicle supply equipment ("EVSE") and infrastructure proceeding."[1]

We recommend that in addition to expanding the entire MHD Fleet Make-Ready Pilot Program, the Commission and IOUs look closely at building a dedicated sub-program and dedicated funding source specifically for electric school buses (Class C / Class 6). As stated in the Petition of CALSTART, Environmental Defense Fund Natural Resources Defense Council, Sierra Club, South Bronx Unite and We Act for Environmental Justice, "the limited current programs in place for MHDVs are not calibrated to complement the ambition of the state's goals and mandates for the deployment of these vehicles,

[1] Case 18-E-0138, Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure, Staff Whitepaper Regarding Electric Vehicle Supply Equipment and Infrastructure Deployment. Page 9. (Jan. 13, 2020)

nor do they recognize the criticality of deploying sufficient MHDV charging infrastructure for the state to meet the CLCPA's emissions limits." [2] We agree the Commission should initiate "a comprehensive stakeholder process, modeled on the light-duty EVSE proceeding but adapted to the special needs of the MHDV sector, that addresses the full suite of MHDV charging issues not covered by the existing and creates a framework for the New York electric utilities to implement programs aligned with the state's long-term goals for zero-emission MHDV deployment."[3] We would encourage these special needs to be taken out of pilot form and more fully incorporated into the next phase of the program.

2) Provide comments regarding the state of the EV charging station market and it's continued need for make-ready subsidies. Is the market ready to begin reducing the percentage of make-ready costs subsidized by the program from 90 percent for publicly accessible nonproprietary stations and 50 percent for other types of chargers? If so, what percentage of costs should be subsidized?

During the Midpoint Review Kickoff, the joint utilities reported their customers used the program across almost all EVSE project sites. The number one challenge facing the widescale deployment of EV infrastructure through the make-ready program is project economics. Project costs have been significantly higher than baseline estimates, which has resulted in many proposed projects not progressing to contract. As a result, greater incentives are needed to achieve true 50/90/100% of eligible cost. It is our understanding that few projects are being completed that are not making use of the utility make-ready programs, especially in costlier areas to deploy downstate and within New York City. Commission staff have previously, separate from the make-ready proceeding, recommended instituting demand charge incentives to commercial EV charging to improve project economics. While we agree with this recommendation, higher capital incentives decrease the need for significantly distorting rate signals.

3) Are the per plug cost estimates for utility and customer side make-ready, which the Commission used to establish the make-ready program budgets reflective of the costs developers encountered during the first two years of the program?

No. The cost per plug for Level 2 ("L2") plugs was higher than expected for the utility make-ready participants. Some utilities' programs reflect rising costs over time, due in large part to inflation and supply chain issues that are driving up utility and customer materials costs and delaying deployments. As a result, the Commission's established budget, which was based on lower expected costs, do not allow utilities to offer incentives at the full 50%, 90%, or 100% level. The Commission should adjust the

[2] Petition of CALSTART, Environmental Defense Fund Natural Resources Defense Council. Sierra Club, South Bronx Unite and We Act for Environmental Justice for the Initiation of a Proceeding and Interim Measures Addressing Electric Vehicle Supply Equipment and Infrastructure for Medium- and Heavy-Duty Electric Vehicles. Appendix B, Page 22. Case 18-E-0138. Filed May 11, 2022.
[3] *Ibid.*

make-ready program budgets based upon the costs the joint utilities disclosed during the Midpoint Review Kickoff.

Disadvantaged Communities

1) In addition to three transportation prize competitions focused on disadvantaged communities ("DACs"), the Commission directed the utilities to fund up to 100 percent of eligible make-ready costs for eligible installations within a one-mile radius of DACs in Con Edison, Central Hudson Gas & Electric, RG&E as well as metro areas in NYSEG and National Grid and within a two-mile radius of DACs outside of metro areas in NYSEG and National Grid. Eligible installations include public direct current fast chargers (DCFC) which meet all accessibility criteria and Level 2 chargers at multi-unit dwellings.

- Provide comments on the degree to which the higher DAC incentives address the barriers to EV adoption in DAC communities.
- Should the DAC incentive amounts or budgets be modified? If so, in what way?
- In high density areas such as New York City, a DAC can include economically affluent properties. Should additional, premise-specific eligibility criteria be developed for the 100 percent tier to ensure the incentives benefit DACs as intended in high density areas? If so, what additional criteria should the Commission consider?
- Provide comments on how the DAC eligibility criteria is working in territories outside of NYC – does the criteria require modifications?

Higher incentives for DACs through the make-ready program can ensure infrastructure upgrades occur in communities where the existing building stock often requires system upgrades, especially in older, established communities. To ensure equitable access to installing EV-infrastructure, a more substantial incentive may be necessary for customers facing costly electrical upgrades.

2) Are there any other issues concerning the Make-Ready Program's DAC approach that are not addressed by Question 1?

The Need for Additional Phases of the Program

1) What program modifications would improve the MHD Make-Ready pilot?

At the Midpoint Review kick-off, the Joint Utilities described significant program design failures in the existing MHD pilot that made it practically inaccessible to MHD projects.[4] A complete overhaul is needed. The program design for this additional phase should mix design characteristics of the

[4] EV Make Ready Program (MRP) Midpoint Review Kick Off. Presented by the Joint Utilities of New York in coordination with DPS Staff, NYSERDA, PSEG LI/LIPA, and NYPA. September 20, 2022. CASE 18 E 0138 Order Establishing Electric Vehicle Infrastructure Make Ready Program and Other Programs. Pg. 31.

successful light-duty vehicle ("LDV") program with features that attract MDHV charging projects aligned with state MDHD electrification policy. For example, like the LDV, the MHD make-ready program should allow pilot participants a choice of business models, such as owner-operated and third-party owned-operated EV infrastructure. Flexibility of choice allows end users to select their best fit EV charging service solution. Incentives for MHD projects should be available for all utility-side infrastructure costs, and rebates available for customer-side infrastructure costs. This design feature of the Light-duty vehicle ("LDV") program in part led to greater participation and investment. The MHD Pilot only covered utility-side infrastructure i.e., customer responsibility for Cost in Aid of Construction ("CAIC") or Excess Distribution Facilities ("EDF"). This can be an insignificant cost for some projects – or even not required for projects that fit their EV charging demand within existing service limits. Such projects should be encouraged rather than ineligible since they limit new utility costs to serve EV charging.

Stakeholder feedback on MHDV charging is warranted to identify program design features that would attract customers. For example, MHDV charging likely requires comparatively high-capacity electrical service and would benefit from heighted attention during utility planning and interconnection processes. Streamlining approval processes as an added incentive to participate in the program is needed to complete charging infrastructure projects in the timeframe of NYS vehicle policy mandates and targets. Incentives or preferences should be made available to projects that include managed charging technologies that reduce the grid impact and expedite service interconnection timelines. Eligibility should extend to facilities that serve MHD fleets even where they are not vehicle owners.

2) Should the Commission consider creating eligibility criteria and program requirements for specific MHD vehicle use cases or vehicle-types, to address the varying charging infrastructure needs across the class 2 – 8 vehicle markets? If so, which vehicle types or use cases should have unique program requirements?

The Commission should consider prioritizing public benefit vehicles for any MHD make-ready program, such as school buses, transit buses, last-mile delivery service providers, refuse vehicles, etc. Private fleets should also be eligible and could be subject to higher cost sharing requirements. Program enrollment targets and incentive levels should consider unique characteristics of these different vehicle types and end uses. For example, the program design should align infrastructure deployment goals for electric school buses with the NYS mandate to fully electrify new vehicle sales by 2027.

3) Should additional equipment be added as eligible EV make-ready costs, for either the light duty or MHD Make-Ready pilot?

Any make-ready program should include all types and configurations of EV charging, including but not limited to Direct Current Fast Charging ("DCFC"), L2 charging, mixed DCFC / L2 configurations, etc.

in the light-duty make-ready program. Additionally, for participants to qualify for the MHD make-ready programs they currently "must… seek and receive support through the New York Truck Voucher Incentive Program ("NYTVIP") run by NYSERDA, or the New York City Clean Trucks Program administered by the NYC Department of Transportation."[5] This requirement, as evidenced in the order is meant to ensure that an older, heavier polluting vehicle is being replaced—both NYTVIP and the NYC Clean Trucks Program require that vehicles be model year 2009 or older to qualify. We recommend that this requirement be removed from the existing MHD Program, as it limits the number of fleets which are eligible for the MHD Program. This requirement limits participation from fleets with vehicles newer than 2009—model year 2010 buses are now almost 13 years old. Additionally, this requirement, as noted by the CALSTART petition, makes it so that "makeready pilot funding is unavailable to entities that do not themselves own MHDVs but provide vital services to fleets (including logistics companies that lease out warehouses and other facilities to fleets, and repair shops that services fleet vehicles)."[6] Eliminating this requirement would allow a larger number of participants in the existing MHD Program, which, as noted, is crucial to achieving the deployment rate of MHDVs needed to meet New York's goals under the Climate Leadership and Community Protection Act ("CLCPA").

4) What progress have Transit Authorities made on fleet electrification since the Make-Ready Order?

5) Are changes to the current Transit Authority Make-Ready program needed, to ensure the five upstate Transit Authorities meet their goal of 25 percent fleet electrification by 2025?

6) Should Vehicle to Grid Integration ("VGI") pilots be considered as part of the Midpoint review?

Yes, and the make-ready program should prioritize projects that integrate managed charging solutions. Customers should also be encouraged to optimize infrastructure investment on both sides of the meter and avoid utility system peak. Solutions to assist customers include but are not limited to automated load management, energy storage, integrated distributed energy resources ("DERs"), integrated facility loads, etc. VGI programs could offer incentives for such technologies or reduce cost sharing requirements for projects that incorporate them. Numerous demonstration programs across the country document the important role that EVs connected to a bidirectional infrastructure can play in creating a more flexible and resilient power grid. Those pilots are testing a range of applications including demand response and emergency load reduction, local emissions reduction, resiliency hubs in low-income

[5] Order Establishing Electric Vehicle Infrastructure Make-Ready Program and Other Programs. Page 131. Filed on 7/16/2020. Matter Number: 18-00561/18-E-0138. https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={6238DD07-3974-4C4E-9201-3E339E311916}

[6] [6] Petition of CALSTART, Environmental Defense Fund Natural Resources Defense Council. Sierra Club, South Bronx Unite and We Act for Environmental Justice for the Initiation of a Proceeding and Interim Measures Addressing Electric Vehicle Supply Equipment and Infrastructure for Medium- and Heavy-Duty Electric Vehicles. Appendix B, Page 22. Case 18-E-0138. Filed May 11, 2022.

communities, emergency building backup, and others. Customers should also be encouraged to optimize infrastructure investment on both sides of the meter and avoid utility system peak.

Commercially available VGI systems include bidirectional DCFC and EVs that are fully certified and have been interconnected in numerous utility jurisdictions. One of AEE's members, Nuvve Holding Corporation, offers a 60 kW and 125 kW bidirectional DCFC that is UL 1741 certified and approved for interconnection under California's Rule 21 interconnection procedures. Several school bus Original Equipment Manufacturers ("OEM") offer VGI ready buses. Blue Bird, the nation's largest school bus OEM, manufactures electric school buses that are VGI ready off of the production line. We understand that other OEMs are in the process of developing VGI capable buses as well. And more broadly, numerous manufacturers of passenger and MHD vehicles are working to make their EVs VGI capable. Today, virtually all of the charging infrastructure being deployed is unidirectional, which is leading to lost opportunities and value to New York State ratepayers. Bidirectional charging stations today are more costly than unidirectional charging stations. To support the development of the nascent bidirectional charging infrastructure, the Commissions should create a funding carve-out specifically to cover the incremental cost of bidirectional charging stations relative to unidirectional options.

Redirecting unused program funding to multi-unit dwellings and workplace or redefining the accessibility criterial to include multi-unit dwellings and workplaces

1) Provide comments on whether program funding should be further directed to multi-unit dwellings and workplaces.

Yes, additional funding should be directed to multi-unit dwellings and workplaces, especially for ConEd and other utilities whose service territories cover high-density urban areas. Because a large portion of utility customers living in urban areas are unable to access home charging options, providing additional funding for multi-unit and curbside charging projects through the make-ready program will ensure all New Yorkers have sufficient access to EV charging infrastructure. New federal funding programs focused on corridor charging support more flexible state and utility incentives to be used in such a manner.

Revising the accessibility criteria to include public pay to park lots

1) Should nonmunicipal pay to park lots be eligible for the higher incentive tier?

Yes, charging stations that otherwise meet the publicly accessible criteria for the 90 percent incentive level should not be disqualified from the higher incentive level if they are located in a facility that requires a fee to enter or park in the facility. Parking, particularly in places such as New York City, is valuable, and some entity must pay for it, regardless of whether a customer pays for their own parking directly. The free parking requirement for the 90 percent incentive eligibility extremely limits the scope of facilities that can receive this incentive level to those that are willing to subsidize customer parking

costs, such as shopping centers. If the make-ready programs are to provide fair access to public charging to all New Yorkers, they must include the paid parking facilities that customers without their own designated or rented parking spots will most likely rely on for charging. Even residents that have their own long-term parking in a garage or MUD may have difficulty accessing charging at that facility, requiring them to charge elsewhere in other pay-to-park facilities.

Recalibrating the 50 percent utility-funded, make-ready level for private and proprietary technology types

1) Provide comments on whether the 50 percent utility-funding make-ready level for private and proprietary technology types remains appropriate.

As stated above, the make-ready program incentive levels are overall inadequate, but we have no comment on which funding level should apply to chargers using proprietary technology and standards for their plugs.

Revisiting future-proofing requirements and budgets

1) Provide comments on the future-proofing framework for a Make-Ready site as described in the Make-Ready Order on pages 55 - 58. 2) Should battery energy storage systems be added as eligible equipment for the make-ready program? Are there other forms of advanced technologies that should be considered for eligibility in the make-ready program?

Yes, we believe battery energy storage and other DERs should be added as eligible equipment for the make-ready program. However, this approach will require a site-by-site cost-benefit analysis. In some locations, battery energy storage will likely save utilities and their customers money by avoiding the need for investment in costly distribution upgrades while in other locations, storage costs will take away from the money that goes toward funding charging station build out.

Reviewing implementation requirements and budgets

1) The Make-Ready Order, on pages 104-109, describes the information needed for an annual Make-Ready Report. Provide comments on and any suggested modifications to the annual data collection and reporting requirements.

2) Provide comments on the quarterly reporting process. Are any modifications necessary that can optimize the data collection and reporting process?

Utility ownership of charging station hardware

1) The Make-Ready Order allows for NYPA participation in the Make Ready Program, with certain conditions. Specifically, NYPA is directed to build 10 fast charging locations in every Regional

Economic Development Council region by 2022, with a budget cap of $15M. The Commission also authorized $15M for NYPA's Evolve NY Program to help build out a robust network of DC Fast Chargers across the State. As part of the program, NYPA must make each of its proposed sites available for inquiry by other station developers to reduce the risk of co-location. Provide comments on the effectiveness of NYPA's public notification process and provide any suggestions for improvement.

Emerging plug standards

1) Are there any topics that the Technical Standards Working Group should address that are not already delineated in the Make-Ready Order or have not been discussed in previous TSWG meetings?

Potential need for residential make-ready

1) Provide comments on the potential need for residential make-ready.

The residential sector has similar and additional barriers to widescale deployment of EVSE infrastructure and a residential make-ready program could examine the best tactics for addressing these challenges. For example, a residential make-ready program could include behind the meter ("BTM") and between pole and meter ("PTM") upgrades or PTM may be part of line extension plans. The Commission could then determine rules on which entities are eligible for the incentive to ensure efficient uptake and low cost. Further highlighting the need for a residential make-ready program is the differing utility tariffs and related policies for home charging; comparing the performance of these programs would help establish statewide best practices for expanding the EVSE residential market.

Modifications to performance incentives

1) After the first performance incentive term, should any changes be made to the EAM framework? If so, what modifications should be made?

We contend that it is likely not necessary to change the shared savings approach based on capacity per dollar EAMs framework before the conclusion of the make-ready program. In the future, it may be more appropriate to institute an EAM based on overall charging utilization but given that metric's more complex data needs, we believe it would be premature to adopt that EAM framework at this time. The MRP Kick-Off status slides show that there are many more plugs committed and applied to the LDV programs than plugs placed in service. This is consistent across the state utilities. We suggest an EAM to encourage timely implementation of projects to ensure they are in service by the 2025 program conclusion. An EAM could incentivize utilities to meet or exceed target task durations in their interconnection process.