STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 18-E-0138 - Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure.

ORDER APPROVING MIDPOINT REVIEW WHITEPAPER'S RECOMMENDATIONS WITH MODIFICATIONS

Issued and Effective: November 16, 2023

TABLE OF CONTENTS

STATE OF NEW YORK
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At a session of the Public Service Commission held in the City of New York on November 16, 2023

COMMISSIONERS PRESENT:

Rory M. Christian, Chair
Diane X. Burman, concurring
James S. Alesi
John B. Howard
David J. Valesky
John B. Maggiore

CASE 18-E-0138 - Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure.

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BY THE COMMISSION:

INTRODUCTION

The Order Establishing Electric Vehicle Infrastructure Make-Ready Program and Other Programs (2020 Make-Ready Order), issued by the Public Service Commission (Commission) on July 16, 2020 in this proceeding, established programs to accelerate the buildout of electric vehicle charging infrastructure, stimulating electric vehicle adoption across New York State (Make-Ready Program). The majority of the programs established in the 2020 Make-Ready Order were to be administered by the investor-owned electric utilities, with participation from the

New York Power Authority (NYPA) as appropriate.[1] Being the first of its kind in New York State, the Make-Ready Program allowed for the development and testing of innovative ideas, the outcome of which would help shape future policy and programs related to electric vehicles (EVs). The 2020 Make-Ready Order directed Department of Public Service Staff (DPS Staff or Staff) to commence a formal midpoint review of the Make-Ready Program by no later than October 1, 2022, to ensure the programs remain effective under an everchanging landscape.[2] Since the initiation of this proceeding in 2018, the market for EVs has evolved, as have the advances in the analytical tools used to predict the State's future EV charging needs. The collection of data, along with Stakeholder input, helped shape the Department of Public Service Staff Electric Vehicle Make-Ready Program Midpoint Review and Recommendations Whitepaper (Whitepaper) and outline recommendations for the Commission to consider for Make-Ready Program optimization. The Whitepaper recommendations include:

- Increasing the budget from $701 million to $1.108 billion and updating the plug targets to a total of 43,122 Level 2 (L2) plugs and 6,302 Direct Current Fast Charger (DCFC) plugs;[3]
- Extending the deadline of the Make-Ready Program beyond January 1, 2025, if plug targets are not met;

[1] The investor-owned electric utilities include Central Hudson Gas & Electric Corporation (Central Hudson), Consolidated Edison Company of New York, Inc. (Con Edison), Niagara Mohawk Power Corporation d/b/a National Grid (National Grid), New York State Electric & Gas Corporation (NYSEG), Orange and Rockland Utilities, Inc. (O&R), and Rochester Gas & Electric Corporation (RG&E) (collectively, the Joint Utilities or JU).

[2] 2020 Make-Ready Order, p. 151.

[3] Case 18-E-0138, Department of Public Service Staff Electric Vehicle Make-Ready Program Midpoint Review and Recommendations Whitepaper (Whitepaper) (filed March 1, 2023), p. 7.

- Creating a $25 million micromobility make-ready program targeting Disadvantaged Communities;
- Modifying the Disadvantaged Community tier for L2 plugs to use premise-specific eligibility criteria for stations located in multi-unit dwellings (MUDs) and the addition of curbside charging as an eligible use case;
- Modifying the Medium- and Heavy-Duty (MHD) Pilot to increase the total budget to $67 million as well as expanding eligibility to include Environmental Protection Agency (EPA's) Clean School Bus Program and customer-side costs;
- Creating a Stakeholder process to address problems with the interconnection queue;
- Testing Electric Vehicle Supply Equipment (EVSE) by an independent third-party facility for compliance with Open Charge Point Protocol (OCPP) version 1.6, or later, that has no proprietary extensions;
- Increasing site-specific limits for the future-proofing incentive, and adding the contact information for service providers, site hosts, and utility customer service on EV chargers so that EV users can contact the appropriate personnel if there are issues with the chargers;
- Requiring minimum milestones for the Transit Authority Make-Ready Program, and a process to modernize the fleet assessment application process;
- Continuing collaboration with the New York State Energy Research and Development Authority (NYSERDA) and the New York State Education Department to address school transportation electrification objectives; and

- Requiring quarterly updates be provided to load-capacity maps.

This Order approves, with modifications, the recommendations provided by DPS Staff in the Whitepaper, and considers the state of the Make-Ready Program as a whole, balancing the requests of Stakeholders with the most cost-effective methods to achieve New York's aggressive greenhouse gas emissions reduction goals.

BACKGROUND

As part of the 2020 Make-Ready Order, the Commission directed DPS Staff to commence a formal Midpoint Review of the Make-Ready Programs run by the Joint Utilities by no later than October 1, 2022, and to provide its recommendations to the Commission by no later than January 4, 2023.[4] This filing deadline was later extended to February 1, 2023,[5] and a second request extended the deadline to March 1, 2023.[6]

In the 2020 Make-Ready Order, the Commission stated that the Midpoint Review should, at a minimum, assess the following:

- Program budget and incentive levels;
- The need for additional phases of the program;
- Redirecting unused program funding to multi-unit dwellings and workplaces or redefining the accessibility criteria to include multi-unit dwellings and workplaces;
- Revising the accessibility criteria, to include public pay-to-park lots;

[4] 2020 Make-Ready Order, p. 151.

[5] Case 18-E-0138, Ruling on Extension Request (issued January 3, 2023).

[6] Case 18-E-0138, Ruling on Extension Request (issued February 1, 2023).

- Recalibrating the 50 percent utility-funded, make-ready level for private and proprietary technology types;
- Revisiting future-proofing requirements and budgets;
- Reviewing implementation requirements and budgets;
- Utility ownership of charging station hardware;
- Emerging plug standards;
- Potential need for residential make-ready; and
- Modifications to performance incentives.[7]

Additionally, the Whitepaper requested Stakeholder input and feedback on 1) the waitlisted interconnection applications; 2) the cost and eligibility of fire suppression systems for micromobility charging sites; 3) approaches to integrating Disadvantaged Community-focused workforce development; 4) customer-side power sharing; 5) site-specific budgetary limit on future-proofing; and 6) the data collection and reporting process.[8]

On August 30, 2022, the Midpoint Review commenced with a Secretary's Notice that included a series of questions to Stakeholders designed to address the above-listed topics, as required by the Commission.[9] In addition, four technical conferences were held that were intended to solicit additional relevant information, expanding on the comments and feedback

[7] 2020 Make-Ready Order, p. 101.

[8] Whitepaper, pp. 7-8.

[9] Case 18-E-0138, Notice of Meeting and Commencement of the Make-Ready Program Midpoint Review (issued August 30, 2022).

which were collected through written responses.[10] The questions and technical conferences were designed to obtain Stakeholder feedback and to take a deep dive into the complexities of the Make-Ready Program and to determine whether adjustments to the Program were necessary. The data, information, and recommendations collected from Stakeholders during the activities conducted during the Midpoint Review have been accumulated into this Order.

NOTICE OF PROPOSED RULE MAKING

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), a Notice of Proposed Rulemaking (Notice) was published in the State Register on March 15, 2023 [SAPA No. 18-E-0138SP10]. The time for submission of comments pursuant to the Notice expired on May 15, 2023. Comments received are addressed below, in each relevant topic area, and comment summaries are attached as Appendix A.

LEGAL AUTHORITY

Pursuant to Public Service Law (PSL) §§5, 65, and 66, the Commission has the legal authority to take the actions prescribed in this Order. In carrying out its responsibilities, the Commission has broad discretion and judgment in choosing the means of achieving statutory mandates and has the authority to adopt different methodologies or combinations of methodologies

[10] Three technical conferences were held on November 18, 2022, November 29, 2022, and December 1, 2022, prior to the issuance of the Whitepaper. Case 18-E-0138, Notice of Technical Conferences (issued October 28, 2022). An additional technical conference was held on June 12, 2023, specifically to address data reporting requirements.

in balancing ratepayer and investor interests.[11] Specifically, PSL §5 grants the Commission authority to direct utilities to "formulate and carry out long-range programs, individually or cooperatively, with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources." The Commission has further authority under PSL §66(5) to prescribe the "safe, efficient and adequate property, equipment and appliances thereafter to be used, maintained and operated for the security and accommodation of the public" whenever the Commission determines that the Utility's existing equipment is "unsafe, inefficient or inadequate."

PSL §65 authorizes the Commission to ensure that every electric corporation furnishes and provides safe and adequate service, instrumentalities, and facilities at just and reasonable rates. The Make-Ready Program authorized by this Order directs New York's investor-owned electric utilities to provide such service, instrumentalities, and facilities.

Moreover, PSL §66(2) provides that the Commission shall "examine or investigate the methods employed by ... persons, corporations and municipalities in manufacturing, distributing and supplying ... electricity ... and have power to order such reasonable improvements as will best promote the public interest, preserve the public health and protect those using such ... electricity."

The actions taken herein with respect to the updates to the Make-Ready Program fall within this legal authority and are designed to support long-range program goals economically and efficiently, support public health and safety, preserve environmental values, and conserve natural resources.

[11] Multiple Intervenors v. Public Service Commission of the State of New York, 166 A.D.2d 140, 143 (3d Dept. 1991).

DISCUSSION

The Make-Ready Program, authorized in the 2020 Make-Ready Order, and modified herein, continues the multi-year approach to develop and deploy the minimum critical infrastructure necessary to support the EV charging market and EV adoption. The following sections address Staff's recommendations in the Whitepaper along with the relevant public comments received. While the Commission adopts many of these recommendations, certain modifications have been made where appropriate.

The Make-Ready Program was unprecedented not only for being the first program of its type and scale in the United States, but also for launching in the middle of the equally as unprecedented COVID-19 pandemic. Due to the shifting landscape, as part of the midpoint review, DPS Staff collected information from the JU to not only gauge the Make-Ready Program's success, but to ensure that the costs and budgets used to recommend programmatic changes remain accurate. During the midpoint review of the Make-Ready Program's budget and incentives, based on observed costs from the Make-Ready Program, Staff determined that the average per plug cost for L2 and DCFC chargers should be adjusted upwards. The increase in costs is mainly due to inflationary factors, supply chain issues and the insufficiency of the original Make-Ready budgets that were based on the best information at that time.

Additional information obtained during the review of the Make-ready program includes:

- An error found in the calculation of the proposed budget presented in the Whitepaper, which has been remedied and is addressed below;

- Updated plug forecast projecting the need for more DCFC plugs and considering the need for additional L2 plugs in MUDs;
- Increased investment in Disadvantaged Communities and the medium heavy-duty pilot;
- The need for a micromobility program, particularly in communities with lower levels of personal vehicle ownership;
- The placement of "guardrails" around the installation of make-ready infrastructure in Disadvantaged Communities to ensure that these communities are getting the benefits allotted to them;
- Right-sizing the Make-Ready program with enhanced incentives for Disadvantaged Communities; a $25 million budget for micromobility programs; $43 million incremental budget increase for the MHD make-ready program; and a 35 percent minimum budget dedicated Disadvantaged Community investment.

This Order carefully and deliberately considers the above matters as well as the other matters that were discovered during the Make-Ready Midpoint Review, which are described more fully below.

Whitepaper Proposed Midpoint Budget

Whitepaper Proposed Baseline Costs

For the budget analysis that was completed as part of the Midpoint Review and appearing in the Whitepaper, Staff reviewed Stakeholder comments and approximately two and a half years of historical data obtained from Interrogatory Requests sent to the Joint Utilities about the Make-Ready Program.[12]

[12] Whitepaper, p. 21.

Based on the analysis of this data, Staff found that the per-plug cost averages from the 2020 Make-Ready Order, which at the time were based on estimated costs, were not aligned with real-world costs. Based on data provided from the JU, Staff recommends adjusting the baseline per-plug costs.[13] By applying the weighted average of the program's reported costs, Staff recommends a separate baseline cost for the upstate utilities (Central Hudson, NYSEG, RG&E, and National Grid) and for the downstate utilities (Con Edison and O&R).[14] It is important to note that in the 2020 Make-Ready Order Con Edison was allocated its own baseline cost and O&R's baseline cost was included as part of the upstate utilities' allocation. For the upstate utilities, the updated analysis generates an average per-plug cost for L2 chargers of $6,396, which is an increase of $396 from the 2020 baseline cost of $6,000.[15] For the downstate utilities, the updated cost of the L2 chargers is $15,472, which is an increase of $4,215 from the 2020 baseline cost of $11,257.[16]

For DCFC plugs, Staff used the data obtained from the December 2022 IR to develop a cost per kilowatt (kW) make-ready value, finding that the average cost per kW ranges from $347 to $893 by utility.[17] Using this range, Staff developed a baseline make-ready cost for a 150kW DCFC charger, ranging from $52,128 to $133,988, depending on utility. Staff added the baseline cost of the make-ready installation and other average associated costs (i.e., new business and chargers) for a total cost per

[13] Case 18-E-0138, Interrogatory Response (filed December 21, 2022) (December 2022 IR).

[14] 2020 Make-Ready Order, Appendix C, p. 1.

[15] Whitepaper, p. 21; 2020 Make-Ready Order, p. 74.

[16] Whitepaper, p. 21; 2020 Make-Ready Order, p. 74.

[17] Whitepaper, p. 21.

150kW DCFC plug that ranges from approximately $108,000 in National Grid to $202,000 in Con Edison.[18] In comparison, in the 2020 Make-Ready Order the baseline cost for DCFC chargers is $100,109 for Con Edison and $55,000 for all other utilities.

Whitepaper Proposed Plug Forecast, Incentive Levels and Budget

Staff used a multi-step analysis method when creating the proposed revised Make-Ready Program budget, as discussed in the Midpoint Review Whitepaper. First, Staff relied on a forecast from the National Renewable Energy Laboratory (NREL) EVI-Pro tool that projected the number of plugs needed for the Make-Ready Program to support an increased deployment of EVs within New York State.[19] The NREL EVI-Pro model forecasted a need for 6,302 DCFC plugs and 19,293 workplace and public L2 plugs to support New York State's goal of 850,000 EVs by 2025.

Second, an additional residential charging access analysis was conducted with the inclusion of MUDs. This analysis found that approximately 44,300 L2 plugs would need to be installed at MUDs by 2025.[20] Third, Staff subtracted the number of currently installed plugs from the total forecasted public, workplace, and MUD plugs to determine that it is necessary to modify the Make-Ready Program's plug targets incrementally by increasing the number of DCFC plugs by 5,672 and decreasing the number of L2 plugs by 30,647 to align with the model's projections.[21]

Next, Staff applied the up-to-date baseline costs of $6,396 for L2 plugs in the upstate territories and $15,472 in the downstate territories as well as the relevant DCFC cost by

[18] Id.

[19] Id., p. 22.

[20] Id., p. 23.

[21] Id., p. 89.

utility, ranging from $52,128 to $133,988 per 150 kW, to the proposed updated targets. To moderate the proposed budget increase, Staff assumed an incentive tier reduction for publicly accessible DCFC plugs in Con Edison and O&R's territories from the up-to-90 percent of eligible costs allowed in the 2020 Make-Ready Order to up-to-75 percent of eligible costs. Staff maintained the incentive tier of up-to-90 percent of eligible costs for DCFC in upstate territories and for public L2 plugs in all service territories. Staff also assumed incentives for workplace and MUD L2 plugs to be at the up-to-50 percent of eligible costs tier.

Finally, Staff finalized the Whitepaper's overall proposed budget by incorporating the modifications discussed above and including an incremental increase of $30 million for the MHD Pilot program and $25 million for a new micromobility make-ready program. The proposed overall budget reflected in the Whitepaper depicts an incremental increase of approximately $407 million from the 2020 Make-Ready Order total budget of approximately $701 million, for a revised overall budget of approximately $1.108 billion.[22]

Moreover, Staff proposes that the light-duty Make-Ready Program, MHD Pilot, Fleet Assessment Services, Transit Authority Make-Ready Programs, and Micromobility Make-Ready Program remain operative either (1) through December 31, 2025, if a utility has met its plug goal, or (2) until the authorized program budgets are fully depleted if the utility's plug goals have not been met.[23]

[22] Id., p. 7.

[23] Id., p. 24.

Stakeholder Comments on Whitepaper Proposed Plug Forecast, Budget, and Incentive Levels

Revel recommends that additional make-ready funding be made available for sites that require additional capacity and where voltage must be increased, outlining the cost considerations that require sites to be able to scale to at least 60 plugs to be economical. Franklin Energy Services, LLC. (Franklin) expresses concern that both the baseline and the incentive levels are insufficient to encourage adequate installations of L2 chargers statewide. Franklin Energy maintains that costs such as incentive structure cost sharing, costs that exceed the baseline level, ineligible EVSE costs, and energy costs are a deterrent to site development, particularly in utility service territories with lower EV adoption rates and where developers are less motivated to develop infrastructure.

New York City (the City) supports the proposal to increase the baseline for incentive levels to reflect increasing costs for EVSE and is supportive overall of the recommended increased focus on DCFC chargers. The City states that they are concerned that the revised L2 baseline is not inclusive of the full costs associated with on-street charging. The City recommends establishing a specific budget carve-out for L2 chargers, on-street L2 charging, and other projects located on municipal property.

ATE and the JU recommend providing a consistent DCFC incentive across all upstate utilities, and the JU supports the proposal for different baselines between Con Edison and O&R.

Advanced Energy United (United) and Alliance for Clean Energy New York (ACE-NY), Alliance for Transportation Electrification (ATE), New York Power Authority (NYPA), and the JU support extending the program beyond December 31, 2025, if budgets have not been spent and targets have not been met.

Earth Justice & Sierra Club (EJSC) recommends annual review of program incentives to determine if budget modifications are required. United and ACE-NY request that a progress report be filed within 12 months of the Midpoint Order that contains information on program data, the reactions to the incentive tiers, and any modifications to the program, if necessary.

United and ACE-NY, ATE, New York Battery Storage Consortium, Inc (NY-Best), EJSC, NYPA, and Revel support aligning the per plug incentives with historical data on project costs, and updating the L2 and DCFC plug targets to 43,122 and 6,302, respectively. New York League of Conservation Voters (NYLCV) and Environmental Advocates of New York (EANY) supports the updated DCFC target in Con Edison's service territory. ATE recommends reconsidering the proposed upstate incentive amounts (which may be too low) for L2 EVSE because the current number of completed installations may not be illustrative of future installation prices (which will be higher) and recommends developing a unit pricing metric with a recognized index (RS Means).

The City of New York (City) and EJSC oppose the proposed decrease in L2 funding, stating that it may impact lower income neighborhoods. The City recommends establishing a Disadvantaged Community-specific budget carve-out for L2 chargers, on-street L2 charging, and other projects located on municipal property.

ATE opposes the incentive reductions of the downstate DCFC public tier and the public L2 plugs in MUDs. ChargePoint, Inc. (ChargePoint) also expresses concerns about the proposed port deployment targets and requests for clarification regarding the expectation on how the remaining L2 budgets will be allocated among public, workplace, and MUD segments. However,

the City supports the proposal to increase the baseline for incentive levels to reflect increasing costs for EVSE and is supportive overall of the recommended increased focus on DCFC chargers. The City, the JU, EVgo Services LLC (EVgo), NYLCV, and EANY are opposed to the proposal to decrease the incentive level from 90 percent to 75 percent for publicly available chargers in areas not located in a Disadvantaged Community stating that it is counterintuitive to the goals of the program.

United and ACE-NY agree with decreasing the number of L2 chargers for public and workplace locations, increasing the number of L2 plugs needed for MUDs, and capping the MUD L2 incentive budget level to the up to 75 percent and the up to 50 percent for upstate and downstate utilities, respectively. However, the JU and United and ACE NY caution that lowering the public tier incentive to the up-to-75 percent level can decrease program interest and slow the deployment of EVSE.

After the submission of the Whitepaper on March 1, 2023, Staff received feedback from the JU and other Stakeholders that the proposed budget and incentives levels continued to be insufficient to successfully administer the program. Consequently, on July 27, 2023, Staff convened a technical conference to obtain additional information from Stakeholders regarding the Whitepaper's proposed updated plug forecast, modified incentive levels, light-duty Make-Ready Program budget, and the overall budget.[24] At the July 2023 technical conference, Staff presented their budget analysis introduced in the Whitepaper. The JU presented its proposed budget methodology, which included historical plug data allocated by incentive tier.

[24] Case 18-E-0138, Cover Letter for July 26, 2023 Technical Standards Working Group meeting Presentations and Recording Link (filed July 27, 2023).

The New York State Department of Transportation presented on the National Electric Vehicle Infrastructure Formula Program.[25]

During the July 2023 technical conference, Stakeholders expressed strong support for Make-Ready Program budget revisions that would consider the historical distribution of plugs by incentive tier. Stakeholders were also supportive of maintaining the up-to-90 percent incentive tier for publicly accessible plugs for all territories instead of Staff's proposed 75 percent for downstate. Stakeholders noted the historical data as evidence of the high cost of installing charging infrastructure, particularly for projects that incur utility-side installation costs. The City stated that utility-side costs are also a barrier to developing curbside charging. Revel stated that costs to develop charging stations in New York City can exceed $1,600 per kW, due in part to the expense of blockhouses associated with high-capacity utility-side interconnection for 480-volt service exceeding 2 MW, which in Con Edison's service territory is a required expense to developers, where relevant. In cases where there are no utility-side costs, Revel stated that DCFC costs are $1,000 per kW. Tesla agreed with Revel's cost assessment and stated that the utility-side expense to build DCFC should be re-considered statewide. Tesla, Gravity Inc. (Gravity), and Revel commented that the Make-Ready Program should offer sites that exceed 2 MW and/or sites with more than thirty plugs the opportunity to participate in the program without restrictions.

Following the July 2023 technical conference, Staff prepared and sent an Information Request (IR) to the JU. In response to the IR, the JU provided the most-recent cost information from the Make-Ready Program allocated by project,

[25] Established in the federal Infrastructure Investment and Jobs Act, November 15, 2021.

including: the number of completed and committed L2 and DCFC plugs; utility-side and customer-side make-ready costs; the relevant incentive tier; and the incentive amount expended (August 2023 IR).

Discussion and Determination

The Commission concurs with Stakeholders that to meet the Make-Ready Program goals, the budget should be revised in consideration of the historical allocation of plugs by incentive tier and information contained in the IR response provided by the JU. Therefore, the Commission declines to adopt the budget methodology established by Staff in the Whitepaper.

The Commission agrees with Stakeholders that incentivizing up-to-90 percent of eligible costs for all publicly accessible and non-proprietary plugs statewide is appropriate. The Commission notes that it is reasonable to expect that costs could continue to rise, as the least expensive and most favorable sites are developed, and that the incentive levels should continue to strongly favor sites that provide broad accessibility. Therefore, the Commission adopts the following plug forecast, budget, incentive levels, and program restrictions.

Amended Baseline Costs

In response to concerns raised in comments and during the July technical conference, the Commission reexamined the budget analysis using the data obtained from the August 2023 IR, which contained more recent cost data and completed projects. For L2 plugs, updated baseline costs were developed using the more recent data from the August 2023 IR, resulting in $7,067

per L2 plug in upstate territories and $14,801 per L2 plug in downstate territories.[26]

To determine the updated baseline costs of DCFC plugs, weighted customer-side per-kW make-ready costs were developed using information obtained from the August 2023 IR. In addition, the Commission considered Stakeholder comments that stated that utility-side costs continue to increase as more advantageous sites are built. In response to these concerns, for utility-side make-ready costs the weighted utility-side cost per-kW were updated to solely include data from projects with associated utility-side costs, filtering out projects without these associated costs. The resulting weighted average for customer-side and utility-side was then applied to a 150kW DCFC plug to develop a baseline. The Commission therefore adopts more accurate per kW utility-specific baselines, scaled to a 150kW DCFC plug as shown in Appendix B, Table 2.

Amended Plug Forecast, Budget, and Incentive Levels

Using data provided by the JU in the August 2023 IR, the percentage of plugs by incentive tier were allocated in Central Hudson, National Grid, NYSEG, and RG&E (upstate) and Con Edison and O&R (downstate) territories, as shown in Table 1 below.

[26] Staff identified an error in the initial calculations that were developed for the baseline costs proposed in the Whitepaper. For L2 plugs, the identified error was that the weighted average per plug was calculated using the kW per project rather than by the number of plugs. When these corrections are applied the updated L2 per-plug baseline is actually $6,280 for upstate and $15,367 for downstate; these reflect a decrease of $116 and $106, respectively, from the costs in the Staff Whitepaper.

Table 1 Percent Incentive Level

	Percent Incentive Level of L2 and DCFC Plugs Between Upstate and Downstate					
	Level 2			**DCFC**		
	Partial Tier 50%	**Public Tier 90%**	**Enhanced Tier 100%**	**Partial Tier 50%**	**Public Tier 90%**	**Enhanced Tier 100%**
Downstate	39.8%	35.2%	25.0%	38.6%	43.9%	17.5%
Upstate	11.8%	73.0%	15.2%	27.7%	36.0%	36.3%

Accordingly, the Commission revises the number of incremental L2 and DCFC plugs required by each utility based on the more up to date committed and completed plug data provided in the August 2023 IR. The amended incremental L2 and DCFC plugs needed in each utility's territory was then allocated into incentive tiers by the percent allocations in Table 1, to establish an amended program budget.

The Commission considers the amended program budget to be more reflective of the cost reality as it uses the most recent and up-to-date historical program data. The Commission's amended and updated program budget analysis maintains the up-to-90 percent incentive tier for all publicly accessible non-proprietary plugs and the up-to-50 percent incentive tier for private access and proprietary plugs.

Consistent with stakeholder comments, the amended budget includes enhanced incentives for certain installations benefiting Disadvantaged Communities. Enhanced incentives have a dedicated budget carveout for plugs located in Disadvantaged Communities that receive funding for up to 100 percent of eligible costs. The amended budget carveout for DCFC is 25 percent of the total budget for downstate territories and 20 percent of the budget for upstate territories. The amended budget carveout for L2 plugs is 20 percent of the statewide budget designated to the up-to-100 percent enhanced incentive

tier (discussed further in the Disadvantaged Communities section of this Order).

Additionally, the Commission further refined the residential charging access analysis developed by NREL and as a result, the Commission adjusts the MUD L2 plug projections to control for any double counting between the NREL forecast developed using EVI-Pro and the subsequent refined MUD L2 plug need analysis. Of the approximately 44,300 L2 plugs assumed to be installed in MUDs, the Commission directs that the program incentivizes 19,064 total MUD plugs. The Commission adopts updated Make-Ready Program plug targets of 38,356 for L2 and 6,302 for DCFC statewide. Based on information shared by the JU in their response to the August 2023 IR, there are 21,855 L2 and 5,137 DCFC incremental plugs needed relative to plugs completed and committed in the program.

Table 2 Plug Targets

	Revised Midpoint Review Plug Targets		**Completed and Committed Plugs**		**Incremental Plug Needs**	
Utility	**L2**	**DCFC**	**L2**	**DCFC**	**L2**	**DCFC**
CHGE	2,037	416	674	68	1,363	348
CECONY	21,371	3,157	9,924	547	11,447	2,610
NMPC	7,439	1,329	3,641	338	3,798	991
NYSEG	3,526	594	842	128	2,684	466
O&R	1,546	340	768	43	778	297
RG&E	2,437	466	654	41	1,783	425
Total	**38,356**	**6,302**	**16,503**	**1,165**	**21,853**	**5,137**

As a result of the modifications described above, the Commission adopts an amended total budget of approximately

$1.243 billion, which is an incremental increase of approximately $542 million from the 2020 Make-Ready Order budget of approximately $701 million, and an incremental increase of approximately $135 million from the $1.108 billion total budget proposed in the Whitepaper. The budget allocation by utility for the light-duty Make-Ready Program can be found in Appendix B, Table 1 and the overall programmatic budget can be found in Appendix B, Table 6.

The relative customer impacts of the total budget authorized in this order are estimated to range from an increase in total revenue requirement of 0.73 percent to 1.40 percent.[27] It should be noted that the increase in revenue requirement does not account for the potential increase in non-program utility costs incurred as a result of transportation electrification or the beneficial effect that the additional revenue from electric vehicle charging will have on utility rates. To address the need for a more holistic accounting of the customer bill impacts, the Commission directs the JU to file within 180 days of this Order, a proposed framework to measure the customer bill impacts of transportation electrification, which includes the costs of the utility programs supporting transportation electrification, the non-programmatic utility costs of transportation electrification and the increase in revenues generated by transportation electrification.

Program Restrictions

Whitepaper Recommendation

In the 2020 Make-Ready Order, a cost containment measure limited the number of plugs that could be developed at a single site; sites with more than ten plugs can only make up half of the total number of plugs in each utility's program. On

[27] Appendix C, Table 7

July 14, 2022, the Commission authorized the Order Approving Modifications to Make-Ready Program, which, in Con Edison's service territory only, increased the limit of plugs-per-site from ten to thirty plugs per site for up to half of the utility's overall plug target and removed the conditional participation of sites exceeding 2 MW in capacity.[28] Comments received from Revel, Gravity, and Tesla request to remove this limitation statewide so that sites at up to 60 plugs and exceeding 2 MW in demand can be eligible for make-ready incentives.

Based on the significant change in plug targets proposed in the Whitepaper, and recognizing the uncertain market conditions, including supply chain issues, and labor shortages in the aftermath of the pandemic, Staff proposed increasing the flexibility of the program duration. Staff recommended that the program remain in place either through December 31, 2025, if a utility has met its plug goal, or until the authorized program budgets are fully depleted, if the utility's plug goals have not been met by December 31, 2025.

Discussion and Determination

The Commission finds the comments from Revel, Gravity, and Tesla to remove the 2 MW capacity limit to be persuasive, given that increasing the MW limit per site will accommodate larger projects with improved economies of scale. Further, the Commission agrees with Revel that the unique characteristics of the infrastructure necessary to interconnect larger DCFC stations into Con Edison's system, which include blockhouses and step-up transformers, are likely to drive up the per kW cost of such sites.

[28] Case 18-E-0138, Order Approving Modifications to Make-Ready Program (issued July 14, 2022).

Rather than increase the per kW incentive for stations that fall into this circumstance, the Commission finds it reasonable to increase the site-specific capacity limit to ensure that fixed costs are spread across a sufficient number of plugs per site and that ratepayers benefit from the economies of scale. The Commission also notes that the increased DCFC plug targets authorized in this Order, and the existing requirement that no more than half of the plugs may be met by sites with greater than thirty plugs in Con Edison and ten plugs in the rest of the State reduce the likelihood that a small number of sites would absorb an unacceptably large portion of the overall target, striking a balance between cost containment and geographic diversity. The Commission therefore modifies the capacity limits to up to 6 MW for Con Edison's territory and up to 3 MW for the other utilities' territories.

Furthermore, the Commission directs the utilities to file updated implementation plans as well as the Participant Guide detailing the administration of the program no later than January 12, 2024, enacting these program modifications, including updated utility specific budget allocations and plug targets. Moreover, the Commission directs the utilities to detail the progress of the Make-Ready Program in future annual report filings, which are to be filed no later than March 1 of each year. Annual reports will include the program data outlined in the data reporting section below, as well as recommendations for program modifications as relevant based on historical data (including recommendations for changes in budget or incentive tier allocations).

Based on strong support from NYPA, ATE, United, and ACE NY for Staff's proposal to extend the program timeline beyond December 31, 2025, if a utility's plug targets have not been achieved, and noting that just over two years remain in the

current program duration, the Commission modifies Staff's recommendation regarding the Make-Ready Program end date. The Make-Ready Program shall remain in effect until the plug goals are met or budgets are depleted, but to limit any uncertainty that may occur in the market, the Commission directs Staff to conduct a program review that facilitates a smooth transition of the ramping-down of the program. This review shall commence the earlier of either when 70 percent of the total statewide plug goals for both L2 and DCFC are determined to be committed or completed, or no later than two years from the date of this Order. The review shall evaluate the Make-Ready Program's effectiveness, progress towards plug goals, budget modifications, the impact of proprietary technologies, and the ramping down of the incentive allocations. Staff will not be required to explore every topic required as part of the Midpoint Review, but Staff shall initiate an orderly transition to end the Make-Ready Program during the next program review.

Further, the Commission directs the utilities to individually file an end-of-program report when either the utility is within 80 days of either the L2 or DCFC plug goals being met or the program budget is depleted, whichever occurs first. The end of program report shall include all the data required in the Annual Reports and a summary of the lessons learned and best practices from the program.

Administration Budget

Whitepaper Recommendation

In the Whitepaper, Staff recommends keeping the administration budget at 15 percent of the program incentive budget, as defined in the 2020 Make-Ready Order.[29] The Whitepaper suggests that the administration budgets should be

[29] Whitepaper, p. 25.

reported in each of the utilities' implementation plans and proposes the use of cost categories that are consistent across all utilities.[30] Furthermore, Staff advises providing separate line items that contain the costs for education and outreach, information technology requirements, data collection and management, fleet assessment services, staffing, vendor costs, general implementation costs, and evaluation.[31] Staff recommends that the JU coordinate to determine uniform definitions for each cost category.[32] The Whitepaper also recommends updating the implementation plans on a semi-annual basis if no modifications are made, or immediately as modifications are made.[33]

Stakeholder Comments

ATE supports maintaining the existing administration budget given the scale and complexity of the programs but recommends basing the percentage on the total value of all programs, not just the light-duty Make-Ready Program budget. The JU recommends that administration budgets for newly proposed programs, such as for micromobility, be set at 15 percent of their respective budgets.

Discussion

The Commission agrees with the Whitepaper's recommendation that the administration budget continue to be comprised of fifteen percent of the updated make-ready program total budgets and that this amount is sufficient for the utilities to effectively run the Make-Ready Program. Therefore, the Commission authorizes 15 percent of the updated Make-Ready program total budgets as an administration budget amount. The

[30] Id.

[31] Id.

[32] Id.

[33] Id.

utilities are directed to file updated implementations plans, which shall include the reporting of the administration budget, including the forecasted and actual administration costs. The Commission directs the utilities to file the updated implementation plans by January 12, 2024, and on a semi-annual basis thereafter, or immediately if program modifications are made.

Furthermore, the Commission agrees with the recommendation that the administration budget reporting shall include separate line items for the forecasted and actual costs of (1) education and outreach, (2) information technology requirements, (3) data collection and management, (4) fleet assessment (5) service staffing, (6) vendor costs, (7) general implementation costs, and (8) evaluation. The JU are directed to coordinate the development of uniform and consistent definitions to be included as part of the first semi-annual update to the implementation plans.

Waitlisted Application Process/ Queue Management Whitepaper Recommendation

In the Whitepaper, Staff recommends the development of a Stakeholder process that will streamline the interconnection process for new EV charging stations, similar to the approach used to develop the Standard Interconnection Requirements (SIR) in the Interconnection Technical Working Group (ITWG) and Interconnection Policy Working Group (IPWG).[34] Staff envisions that project developers, utilities, and other interested parties would develop a coordinated interconnection framework by identifying project rules, milestones, and reporting that result in greater flexibility, efficiency and transparency.[35]

[34] Id., p. 26.

[35] Id.

Additionally, Staff asked for Stakeholder feedback on the development of a process and associated rules that can address and eliminate the project backlog that occurs when some projects cease to move forward in the queue.[36] Staff also proposes that service application portal data be transparent to users and updated monthly.[37]

Stakeholder Comments

Most commenters agree that the interconnection process poses several issues. ATE states that the array of permitting and siting requirements from local government agencies can delay installations and encourages an application queue that balances applicants who are making legitimate efforts to advance their projects with those with speculative projects taking up space in the queue.

United and ACE NY, EVgo, the JU, Livingston Energy Group, LLC. (Livingston Energy), and PowerFlex support the development of a process to develop a coordinated interconnection framework, and, if established, United and ACE NY and Evgo recommend meeting within 30 days after the issuance of the Midpoint Review Order and submitting for Commission review any recommendations 60 to 90 days after such date. NY-BEST states that the interconnection issues can be addressed in the existing Interconnection Technical Working Group rather than establishing a new Stakeholder process. ChargePoint states that Stakeholder discussion is necessary for accelerating energization timelines and getting greater transparency into program operation.

Con Edison comments that it will continue to improve its operations to reduce interconnection timelines by assessing

[36] Id.

[37] Id.

design and engineering standards. The JU notes that Con Edison is working closely with Stakeholders on recommendations to provide transparency into program status.

PowerFlex proposes several recommendations to streamline the application process, such as the provision of separate applications by stage instead of one general application, forms that clearly indicate the character limit, allowing the upload of larger documents, allowing customers to assign the rebate to a contractor or network provider while also applying under a customer name, making clear what eligible funding is at the start of the process, and informing applicants of the wait time and likelihood of funding.

Discussion and Determination

The Commission agrees with Staff and commenters regarding the benefits of forming a Stakeholder group whose goal is to develop an EV interconnection framework that addresses any application backlog issues effectively and sufficiently. This process could also be beneficial to the building sector as the market transitions to increased levels of electrification. As the State continues to electrify its grid, it is likely that the transportation and building sectors will combine to place increasing demand on the grid.

The Stakeholder process shall address and advance, among other issues, transparency, the queue backlog, wait times, and application development, as discussed by PowerFlex. Establishing a standard process for the interconnection applications may shorten, and ideally streamline, the intake of applications that are driven by electrification and the CLCPA. Once this Stakeholder group matures by developing recommendations to standardize the interconnection process for electrification use cases, it could then join the ITWG, as discussed by NY-Best.

Therefore, on or before March 15, 2024, the Commission directs Staff to initiate an EV Infrastructure Interconnection Working Group (EVIIWG) that could emulate and use the existing SIR process and procedures as a framework for its own efforts and then eventually be incorporated into the existing working group efforts for Distributed Generation as a subgroup of the ITWG. Once the initial processes are fully developed, the subgroup may be subsumed into the ITWG. As stated in comments from Con Edison and the JU, Con Edison has already begun to examine some interconnection and transparency issues. Therefore, the Commission directs Con Edison to submit a straw proposal describing the efforts put forth in streamlining their queue management system for consideration and further development by the EVIIWG by March 15, 2024. Once the EVIIWG determines that the proposal is final, Staff will submit the proposal for public notice and comment as a step towards the finalization of a statewide approach.

Disadvantaged Communities

Disadvantaged Communities Budget Allocation

Whitepaper Recommendation

The CLCPA codified the requirement that State entities must, to the extent practicable, ensure that at least 35 percent of the benefits of clean energy investments are directed to Disadvantaged Communities.[38] To that end, Staff proposes designating 25 percent of the light-duty DCFC program funding for Disadvantaged Communities in downstate service territories and designating 20 percent of DCFC funding for Disadvantaged Communities in upstate territories.[39] For L2 funding, Staff proposes maintaining the existing 20 percent designation for

[38] Environmental Conservation Law §75-0117

[39] Id., p. 27.

Disadvantaged Communities statewide.[40] These budget allocations would increase the proposed DCFC Disadvantaged Community budget to $117.2 million statewide and the proposed L2 Disadvantaged Community budget to $56.4 million statewide.[41]

Additionally, Staff proposes funding two supplemental programs beneficial to Disadvantaged Communities: a Micromobility Make-Ready Pilot and the existing MHD Make-Ready Pilot, both described in subsequent sections of this order.[42] Staff proposes a micromobility budget of $25 million statewide.[43] For the MHD Make-Ready Pilot, Staff proposes an incremental budget of $30 million statewide.[44]

Combining the light-duty program and supplemental program funding, Staff proposes to allocate 35 percent of the total budget to programs that directly benefit Disadvantaged Communities.[45] Appendix B Tables 3 and 4 depict the allocation of Disadvantaged Community Program funding.

Stakeholder Comments

Many commenters expressed support for increasing Make-Ready Program investments in Disadvantaged Communities. EJSC and United and ACE-NY support Staff's proposal to designate 35 percent of the overall budget for investments benefiting Disadvantaged Communities, and to include funding within that carveout for micromobility and other programming specifically intended to bring the benefits of clean transportation to Disadvantaged Communities. The JU recommend the budget methodology allocate 25 percent of the overall light-duty

[40] Id.

[41] Id.

[42] Whitepaper, pp. 27, 46

[43] Whitepaper, p. 28.

[44] Id.

[45] Id.

program budget for eligible plugs at the enhanced tier, and at the new plug baseline levels, without adversely impacting the rest of the program budget. The JU argues that, in combination with the more stringent eligibility requirements proposed by Staff, these higher budget allocations will enable the program to deliver more clean transportation benefits to Disadvantaged Communities across the State.

South Bronx Unite notes that it is important to make sure there is access charging with equitable deployments across all communities. However, South Bronx Unite also comments that Disadvantaged Communities in the South Bronx have low rates of vehicle ownership, and therefore EV charging infrastructure installed in those communities is of limited benefit to residents and if not planned appropriately could increase traffic from drivers traveling into DACs to charge their vehicles. South Bronx Unite recommends that DAC incentives also include MHD DCFC, not just light-duty vehicle incentives.

NYLCV and EANY recommend increasing funding to Disadvantaged Community sites, noting the higher portion of for-hire-vehicle drivers who live in these communities.

Discussion and Determination

The 2020 Make-Ready Order was issued before the Climate Justice Working Group's final criteria to identify Disadvantaged Communities,[46] and the Midpoint Review provides the first opportunity to fully align the Make-Ready Program budget with the finalized criteria.

The Commission contends that the budget allocations proposed by Staff strike an appropriate balance between ensuring

[46] The Climate Justice Working Group finalized the initial set of Disadvantaged Communities criteria in March 2023. Climate Justice Working Group, Disadvantaged Communities Criteria https://climate.ny.gov/Resources/Disadvantaged-Communities-Criteria.

that Disadvantaged Communities are not overlooked in the buildout of light-duty EV charging infrastructure and directing funding to other clean transportation solutions that address Disadvantaged Communities' needs and priorities, like micromobility charging and MHD vehicle electrification. Further, the Commission finds that infrastructure receiving the up-to-50 percent and up-to-90 percent incentive tier can also potentially serve Disadvantaged Communities, above and beyond those funded through the enhanced incentive budget carveout. Therefore, the Commission adopts the designation of 25 percent of the light-duty make-ready budget for DCFC plugs downstate and 20 percent for light-duty DCFC plugs upstate in addition to 20 percent of the budget for L2 plugs statewide for enhanced incentives of up-to-100 percent of eligible incentive costs for qualifying installations serving Disadvantaged Communities.

To further support Disadvantaged Communities with the transition to transportation electrification, the Commission authorizes a total of $25 million for the Micromobility Make-Ready Program and authorizes an incremental $43 million for the MHD Pilot.[47] The Disadvantaged Communities budget allocations can be found in Appendix B, Tables 3 and Table 4.

Enhanced Tier Eligibility

Whitepaper Recommendation

Staff proposes three adjustments to the eligibility requirements for projects funded at the enhanced incentive tier benefitting Disadvantaged Communities. First, Staff recommends adding premise-specific requirements for projects at multi-unit

[47] The Disadvantaged Community proposed budget achieves a 35 percent minimum dedicated Disadvantaged Communities budget allocation which includes dedicated light-duty make-ready enhanced incentives, Micromobility Make-Ready Program, MHD Pilot, Transit Authority Make-Ready Program, and the Clean Transportation Prizes.

dwellings (MUDs) that would restrict eligibility for incentives at the enhanced level to affordable buildings.[48] Staff proposes adopting the eligibility criteria used by the statewide Affordable Multifamily Energy Efficiency Program (AMEEP),[49] which requires applicants to either submit a regulatory agreement qualifying the building as affordable housing, or to demonstrate via rent roll that 25 percent of units have a calculated household income no more than 80 percent of the Area or State Median Income, whichever is greater.[50] Second, Staff recommends extending eligibility for enhanced incentives to curbside L2 chargers, in recognition that curbside chargers may serve "home" charging needs for residents of MUDs that do not have designated off-street parking.[51] Third, Staff proposes reducing the eligibility radius for L2 chargers to within zero miles of a Disadvantaged Community, or "DAC + 0," in all utility service territories.[52] Staff supports maintaining the existing zero-to-two-mile eligibility radius for DCFC chargers, on the grounds that a fast charger located within two miles of a Disadvantaged Community plausibly serves the charging needs of community residents.[53] However, given the notably longer times required to charge at L2 chargers, Staff believes that drivers are best served by L2 chargers located at or near their residences, or elsewhere in their communities where they spend extended periods

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[48] Whitepaper, p. 28-29.

[49] NYSERDA, New York State Affordable Multifamily Energy Efficiency Program, https://www.nyserda.ny.gov/All-Programs/Residential-and-Property-Owner-Income-Eligible-Programs/LMI-Stakeholder-Resources-New-Efficiency-New-York/NYS-Affordable-Multifamily-Energy-Efficiency-Program.

[50] Id., p. 29.

[51] Id.

[52] Id.

[53] Id.

of time.[54] Staff asserts that reducing the eligibility radius for L2 chargers to DAC+0 statewide will focus funding on the most beneficial locations for Disadvantaged Community residents.[55]

Stakeholder Comments

Commenters generally support Staff's proposed changes to the eligibility requirements for the enhanced incentive tier. The City, United and ACE-NY, and the JU support adopting the AMEEP eligibility criteria for buildings receiving incentives for L2 chargers at the enhanced tier. However, the JU proposes that this incentive tier should apply to all MUDs satisfying the AMEEP criteria, regardless of location, as opposed to only MUDs within census tracts designated by the Disadvantaged Communities Criteria adopted by the Climate Justice Working Group as directed by the Climate Act.

The JU, EJSC, ATE, and the City support extending eligibility for the enhanced incentive tier to curbside L2 chargers in Disadvantaged Communities. Commenters agree with the rationale expressed in the Whitepaper that this modification will make charging more accessible to Disadvantaged Community residents who lack access to designated off-street parking. The City notes the importance of this use-case in higher-density, lower- and moderate-income New York City neighborhoods that are home to immigrants, people of color, and a large proportion of the City's for-hire vehicle drivers.

United and ACE-NY caution that curbside L2 chargers should be limited to EV-only parking spaces and recommend that Staff institute a process for monitoring this issue and

[54] Id.

[55] Id.

coordinating with municipalities and utilities to ensure that adequate EV parking is being developed.

EJSC states that the program should prioritize L2 chargers in Disadvantaged Communities, both curbside and at MUDs, because the generally higher price to charge at DCFCs could be a significant cost concern for drivers in those communities. EJSC urge regular reviews of the program to ensure that it is adequately supporting L2 charger deployment in Disadvantaged Communities. If deployment in this sector continues to lag, they recommend considering alternative ownership models, including utility ownership.

The City and ACE-NY comment in support of reducing the eligibility radius for L2 chargers to DAC+0.

Discussion and Determination

The Commission finds it important to recognize that some of the issues regarding enhanced tier eligibility in the Con Edison service territory were addressed in the Order Approving Modifications to the Make-Ready Program (Modification Order), issued on July 14, 2022, in this proceeding. In the Modification Order, the Commission authorized an interim solution to the issues later raised in the Whitepaper and by Stakeholders. In its petition underlying the Modification Order, Con Edison recognized that "[a]n early lesson from the Company's Program experience...has highlighted that in densely populated New York City where disadvantaged communities are in close proximity to other more economically affluent communities, what was envisioned as a close focus on disadvantaged communities in fact includes many other communities."[56] As a

[56] Case 18-E-0138, Petition of Consolidated Edison Company of New York, Inc. to Modify its EV Make-Ready Program to Improve Service to Disadvantaged Communities and Development of Fast Chargers (filed February 11, 2022), p. 2.

result of this problem, one solution proposed by Con Edison was to "define DAC [enhanced] Tier eligibility for the incremental funds as projects either in the DAC+0 zone or that can demonstrate eligibility through premise-specific qualifications, similar to the Company's rules for energy efficiency programs, rather than the DAC+1 zone geographic qualification."[57] At the time, the Commission authorized only the DAC+0 zone and required that this issue be addressed during the midpoint review. The Commission now returns to this issue.

Reflecting on Make-Ready Program participation during the initial years of implementation, the Commission observes that in downstate areas, L2 budgets dedicated to MUDs in Disadvantaged Communities were rapidly depleted. Given the density of lower-income residents and Disadvantaged Communities in this part of the State and the desire to maximize the impact of the Make-Ready Program, the Commission aims to ensure that the program prioritizes investments in the MUDs in most need of enhanced incentives. The Commission agrees with Staff and stakeholders that adding premise-specific eligibility criteria for MUDs receiving enhanced tier incentives is an appropriate measure to better target program funding.

Regarding Staff's proposal to add premise-specific requirements for projects at MUDs, the Commission finds it advisable to modify the Whitepaper proposal for MUD eligibility in three respects. These modifications relate to the refinement of premise-specific eligibility criteria, the expansion of eligibility to affordable MUDs outside of geographic Disadvantaged Communities, and the need for different approaches to meet the Make-Ready Program's Disadvantaged Community objectives in upstate and downstate service territories.

[57] Id., p. 8.

First, the Commission is concerned that the AMEEP requirements do not sufficiently focus eligibility for the purposes of the Make-Ready Program. AMEEP defines affordable multifamily buildings as those "in which at least 25 percent of the units are, or are expected to be, occupied by households earning not more than 80 percent of the area or State median income, whichever is higher."[58] The program maintains a list of proxies that applicants may use to demonstrate eligibility, which include regulatory agreements with affordable housing agencies and participation in various affordable housing programs.[59] For buildings that do not qualify via one of the listed proxies, AMEEP provides the option to demonstrate eligibility via rent roll.

AMEEP's eligibility requirements encompass a broad range of affordable housing types, including some buildings with high proportions of market-rate units — for example, buildings participating in 80/20 programs, in which 80 percent of units are market-rate. Including these buildings may be appropriate for AMEEP and the broader set of ratepayer-funded, affordable-housing focused clean energy programs, which seek to improve and maintain energy affordability and sustainability for all

[58] NYSERDA, New York State Affordable Multifamily Energy Efficiency Program, Program Manual, Version 2.2, July 10, 2023, p. 10.

[59] The complete list of proxies accepted by AMEEP includes regulatory contracts with Federal, State, or local housing agencies; properties receiving Low Income Housing Tax Credits or State of New York Mortgage Agency (SONYMA) mortgage insurance; properties meeting the eligibility requirements for the Weatherization Assistance Program administered by New York's Division of Homes and Community Renewal; properties accepted into the Housing Finance Agency's 80/20 Program; properties participating in the New York City Housing Development Corporation's 80/20 Program or Mixed Income Program; and Mitchell-Lama properties.

building tenants. However, with the Make-Ready Program, we are advancing a slightly different objective, in that we are seeking to reduce barriers to accessing clean transportation options. In buildings with high proportions of market-rate units, at this early stage of EV adoption, we expect EV drivers to be concentrated among higher-income residents. In these buildings, therefore, EV chargers are likely to disproportionately benefit residents of market-rate units and provide little benefit to residents of designated affordable units. Given the rapid depletion of enhanced tier L2 budgets in Con Edison's service territory, the Commission believes that buildings with higher proportions of market-rate units should not be eligible for the highest level of incentive support and should instead be limited to incentives at the up-to-50-percent level. Therefore, the Commission adopts site-specific criteria that are similar but not identical to those used to determine eligibility for AMEEP, as detailed below.

The second modification of the Whitepaper's MUD eligibility proposal regards expanding eligibility for enhanced tier L2 incentives to affordable MUDs that are not located in geographic Disadvantaged Communities. The Commission agrees with the JU that buildings meeting the stricter site-specific criteria adopted in this Order should be eligible for the enhanced incentive tier, regardless of their location.

The third modification of the Whitepaper's MUD eligibility proposal pertains to the need for different approaches in upstate and downstate service territories. Data submitted by the utilities in response to the August 2023 IR indicates that 44 percent of total L2 incentive payments were at the enhanced tier designated for Disadvantaged Communities in

downstate service territories.[60] In contrast, in upstate service territories, only 17 percent of total L2 incentive payments were at the enhanced tier, suggesting that upstate utilities have experienced greater challenges deploying L2 chargers in Disadvantaged Communities than their downstate counterparts. Indeed, L2 deployment is lagging overall upstate, with upstate utilities having expended only 16 percent of their collective L2 budgets. The Commission is concerned that while additional eligibility restrictions are necessary to focus funding in Con Edison's service territory, they may further impede the expenditure of enhanced tier L2 budgets in Disadvantaged Communities upstate.

In light of these concerns, the Commission directs Con Edison to limit eligibility for incentives at the enhanced tier for L2 chargers at MUDs to buildings that have an affordable housing regulatory agreement in place with a state, federal or city entity that requires at least 25 percent of units to be affordable to households at or below 80 percent of Area or State Median Income;[61] or, alternatively, to buildings that can demonstrate via rent roll that at least 25 percent of the units have a calculated household income no more than 80 percent of the greater of the Area or State Median Income.[62] The Commission further directs all of the utilities to extend eligibility for enhanced L2 incentives to all MUDs meeting the site-specific

[60] For reference, 20 percent of each utility's L2 budget is earmarked for projects at the enhanced tier.

[61] For applicants demonstrating eligibility via regulatory agreement, the term of the agreement must extend for 30 years from the date of application for new buildings and 10 years for existing buildings.

[62] For the purposes of this program, "buildings" are to be considered single sites; however, utilities should work with Staff to consider eligibility for cluster-site affordable housing properties.

criteria detailed above, regardless of their location. The utilities shall require applicants to submit a copy of the regulatory agreement pertaining to the property at which the charging station is to be located; or, for applicants qualifying via rent roll, shall supply a spreadsheet tool for determining income-based eligibility.

The Commission directs Staff and the JU to work directly with the agencies responsible for regulating affordable housing to increase awareness of and facilitate access to Make-Ready Program incentives among eligible buildings, particularly in upstate service territories where uptake has been lagging. The Commission also directs Staff and the utilities to continue to monitor the expenditure of enhanced tier L2 budgets. If it is determined that the changes directed in this Order are insufficient to appropriately direct funding, the utilities shall work with Staff to develop a proposal to adjust site-specific eligibility requirements, for consideration by the Commission.

Regarding Staff's recommendation to extend eligibility to curbside L2 chargers, stakeholder comments have indicated that curbside L2 chargers fulfill an important charging need in Disadvantaged Communities, especially for residents of MUDs without access to off-street parking. The Commission adopts Staff's recommendation to extend eligibility for the enhanced incentive tier to curbside L2 chargers in and adjacent to Disadvantaged Communities.[63] The Commission agrees with United and ACE-NY that the program should include protections to ensure that EV drivers can reliably access parking spaces associated

[63] An area is adjacent to a Disadvantaged Community where the Disadvantaged Community border stops short of the street (i.e., if one side of the street is in a designated in a Disadvantaged Community, the opposite side of the street would be adjacent).

with curbside chargers. Therefore, to qualify for Make-Ready Program incentives for curbside L2 chargers, the utilities are directed to ensure that applicants have demonstrated that each curbside charger is associated with a designated EV charging parking space, and that a framework is in place to prevent non-charging vehicles from blocking access to chargers.

Finally, the Commission addresses Staff's proposal to reduce the eligibility radius for L2 chargers funded at the enhanced tier. For the reasons stated in the Whitepaper, the Commission adopts the recommendation to reduce the eligibility radius for L2 chargers to within zero miles of a Disadvantaged Community, or DAC+0. The JU shall update the implementation plans as well as the Participant Guide to reflect the changes to enhanced tier eligibility discussed in this section by not later than January 12, 2024.

Micromobility

Whitepaper Recommendation

Micromobility devices, like electric bikes, electric scooters, and electric skateboards (collectively, micromobility devices), are more affordable than EVs, are efficient modes of travel, and are currently in use in Disadvantaged Communities, particularly in dense urban areas of the state. Staff believes that providing funding for safe, designated charging for micromobility devices is one important way that the Make-Ready Program can support clean transportation and help overcome barriers to personal electric mobility in Disadvantaged Communities.

The Whitepaper recommends creating a $25 million make-ready program for micromobility charging infrastructure.[64] In the Whitepaper, Staff proposes a $20 million allocation for

[64] Whitepaper, p. 30.

downstate utilities and $5 million for upstate utilities due to higher costs and demand for micromobility in the denser areas of the downstate region.[65] The Whitepaper recommends that the utilities work with Staff to determine the appropriate allocation of funding based on projected demand.

Stakeholder Comments

Staff's micromobility proposal received broad support from commenters. The JU comments that "[t]he Whitepaper's recommended approach will expand the benefits of vehicle electrification beyond car owners, importantly to Disadvantaged Communities residents who rely on e-bikes and e-scooters to get to work or to make a living, including delivery work." Citi Bike, Franklin Energy, and others make similar statements affirming the benefits of micromobility to Disadvantaged Communities. EJSC recommends including safeguards to ensure that the micromobility program benefits Disadvantaged Community residents, for example by requiring chargers situated at MUDs to satisfy the same eligibility requirements as those proposed by Staff for L2 EV chargers at MUDs. At the Disadvantaged Communities Stakeholder Session, held by Staff on April 27, 2023, a representative from the New York City Housing Authority (NYCHA) voiced support for Staff's micromobility proposal.

CalStart, Citi Bike, and re:Charge recommend that the program support shared-use micromobility stations and bike-share station electrification. According to these commenters, shared-use micromobility is a more affordable alternative to private ownership for low-income riders, especially in combination with income-eligible reduced fare programs like that offered by Citi Bike. Calstart, Citi Bike, and re:Charge also note that shared-use models reduce the risk of fire associated with micromobility

[65] Id.

because charging occurs on the street at designated stations, rather than in private residences. Citi Bike, NYLCV, Transportation Alternatives, CHEKPEDS and re:Charge state that support for public charging stations may reduce the costs and environmental impacts associated with battery-swapping and vehicle-swapping models currently used by shared micromobility operators. Citi Bike and re:Charge also advocate a "dig once" approach, in which shared mobility charging is co-located with other charging infrastructure, for example for EVs or privately owned micromobility devices.

The City and NY-BEST, among others, emphasize the importance of reducing the fire risk associated with micromobility charging, especially in Disadvantaged Communities. Along with Franklin Energy, Livingston Energy Group, and the JU, they support including fire suppression equipment as an eligible cost. re:Charge comments that siting micromobility charging stations outdoors is the best way to mitigate fire risk, and that outdoor stations do not require additional fire suppression equipment. Franklin Energy recommends requiring micromobility charging projects to complete independent lab testing related to fire safety.

Franklin Energy and the JU advocate a broad approach to micromobility program eligibility that includes both utility- and customer-side costs. The JU comments that the cost of the charging dock and any associated housing should be considered eligible. re:Charge recommends allocating additional funding through NYSERDA's Charge Ready 2.0 program to help cover the costs of charging equipment. The JU recommends maintaining flexibility regarding eligible technologies and participants at this early stage of micromobility market development, noting opportunities for many different business models. ATE writes that the proposed program "presents an opportunity for the

Commission to think broadly about micromobility and to provide funding for uses other than make-ready."

Citi Bike, NYLCV, Transportation Alternatives, CHEKPEDS, and re:Charge comment that the Commission should allocate more to micromobility than the $25 million proposed by Staff. CalStart states that supporting shared-use micromobility may require a larger budget and recommends that Staff work with agencies overseeing shared micromobility services to determine plug goals and appropriate budgets. The JU comments that Staff's proposed budget would likely support fewer plugs than the estimate of 18,000 included in the Whitepaper, especially given the interconnection costs associated with chargers installed on the street or sidewalk. The JU urges the Commission to authorize an additional program administration budget equal to 15 percent of the $25 million incentive budget, to be allocated between utilities in proportion to their incentive budgets. ATE also recommends including an appropriate budget for administration and adds that the utilities should be authorized to engage a third-party expert to help them make the best use of the program budget.

Citing differences between upstate and downstate markets for micromobility, the JU proposes two different administrative models. Downstate, the JU proposes that Con Edison and O&R should jointly administer the $20 million budget, allocating funds according to relative needs within the two utilities' service territories. Upstate, the JU suggests that pilot programs, grants, and research and development funding are a more appropriate use of micromobility budgets than funding for incentives. Therefore, the JU proposes that the Upstate Utilities should engage a single, third-party vendor to issue Requests for Proposal (RFPs) and present submissions to the Upstate Utilities for review and approval. The JU states that

the Upstate Utilities would work together with Staff to develop project funding criteria.

Discussion and Determination

The Commission adopts Staff's proposal for a micromobility program, including budget allocations of $20 million for the downstate utilities and $5 million for the upstate utilities. Noting the equity, safety, and environmental benefits of shared-use micromobility, the Commission agrees with commenters that shared-use charging stations must be eligible for incentives through the program. The Commission also agrees with the many commenters who stress the importance of fire safety considerations; therefore, the costs of fire suppression systems are to be included as eligible costs. The Commission agrees with Stakeholders that the micromobility programs should be focused on Disadvantaged Communities. The Micromobility Make-Ready program will provide funding for publicly accessible sites in Disadvantaged Communities as well as in or adjacent to MUDs that meets the same eligibility criteria as the light duty Make-Ready Program described above.

Costs related to the Micromobility Make-Ready Program shall be recovered consistent with recovery methods for the Make-Ready Program.[66] To the extent that costs in these programs are for utility make-ready infrastructure, such costs shall be treated as capitalized plant in service with cost allocation and recovery accomplished via traditional ratemaking methodologies. Other costs resulting from the Micromobility Make-Ready Program, including the full budget for the Upstate Utilities, will be deferred as a regulatory asset and, at the end of each program year, be recovered via an existing surcharge mechanism over a period of 15 years, with the net-of-tax balances accruing

[66] 2020 Make-Ready Order, p. 78 – 82.

carrying charges at each utility's pretax overall cost of capital.

Regarding the JU's proposal to differentiate between upstate and downstate administrative models, the Commission is persuaded that different approaches are appropriate to meet the unique needs of the market for micromobility in different regions of the state. The Commission directs Con Edison and O&R to jointly administer $20 million in funding for a downstate Micromobility Make-Ready Program. The incentive will include supporting utility-side infrastructure upgrades as well as up-to-50 percent of customer-side infrastructure, including necessary make-ready upgrades and fire suppression equipment. The Commission agrees with Stakeholders that a 15 percent administrative budget should be allocated to properly administer the Micromobility Make-Ready Program. The Commission directs Con Edison and Orange and Rockland to file a joint Micromobility Make-Ready Implementation Plan no later than February 2, 2024.

The Commission modifies the JU's proposal for upstate micromobility in one key respect. The research and development activity called for by the JU is analogous to the activities that NYSERDA implements as part of its Clean Transportation Innovation Plan within the Innovation and Research Portfolio of the Clean Energy Fund (Portfolio). NYSERDA's Clean Transportation Innovation Plan supports funding opportunities and technical assistance to overcome barriers to developing and demonstrating scalable technologies, products, and services. The Portfolio includes programs that assists communities to receive equitable access to clean mobility options and enable innovative electrified first and last-mile solutions to connect people to public transportation. Additionally, the Portfolio seeks to advance several low-carbon modes of transportation

including micro-transit, shared mobility, e-bikes and e-scooters, and zero emission shared multi-passenger vehicles.[67]

Therefore, the Commission directs NYSERDA to develop a research and development micromobility grant program that supports access to safe, affordable micromobility in upstate Disadvantaged Communities. The Commission authorizes $5 million for NYSERDA to develop and implement an upstate micromobility program and an additional ten percent of the upstate micromobility budget shall be allocated to NYSERDA's administrative costs.[68] The $5 million budget shall be allocated to the utility service territories in which the program expenses are incurred. NYSERDA and the upstate utilities shall use the existing Bill-As-You Go (BAYG) agreements used for the New York Clean Transportation Prizes to facilitate the tracking, requisition, and transfer of funds between NYSERDA and the utilities.[69] The Commission directs NYSERDA to update the Appendix of the BAYG Summary to reflect the upstate micromobility program within 30 days of this Order.

The Commission further directs NYSERDA to, in consultation with Staff, file a Micromobility Implementation Plan on or before February 15, 2024. The Implementation Plan shall include a description of the administration of the upstate micromobility grant as a new dedicated funding source working in parallel with NYSERDA's existing or planned Clean Energy Fund programs. Finally, the Commission directs NYSERDA to file an

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[67] Case 14-M-0094, Clean Energy Fund, Clean Energy Fund Compiled Investment Plans (filed May 1, 2023). https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/About/Clean-Energy-Fund/Matter-1600681NYSERDA-CEF-CIP-1-May-2023.pdf

[68] Utility-specific administrative budgets can be found in Appendix B, Table 5.

[69] 2020 Make-Ready Order, p. 144

annual report for the upstate micromobility program by no later than March 1 of each year, beginning in 2025 for calendar year 2024. The format of the report shall be described in the program implementation plan, and shall include the program spending, commitments, and remaining budget by utility service territory, along with a description of the program accomplishments for the prior calendar year.

Workforce Development

Whitepaper Recommendation

New York State's transition to clean transportation will require the training and education of workers in clean energy technologies, including EVSE installation, maintenance, and operation. In the Whitepaper, Staff requested comments on the value of creating an additional EV Make-Ready Workforce Development Pilot Program that would incentivize new jobs filled by residents of Disadvantaged Communities. As proposed, the Workforce Development Pilot Program would apply to projects in all incentive tiers and would fund an adder to the make-ready incentive equal to the lesser of an additional 10 percent of the eligible make-ready costs or $1,000 per worker per make-ready application.[70] The program would impose a lifetime per-worker cap of $4,000, intended to balance the incentive for make-ready applicants to create new jobs with the incentive to sustain the employment of newly trained workers.[71] Staff estimates that a $5 million incentive budget for this initiative could fund between 1,250 and 5,000 new positions based on the per-project and per-worker caps proposed.[72]

[70] Whitepaper, p. 32.

[71] Id.

[72] Id.

To reduce the administrative burden, leverage existing training opportunities, and ensure that the adder would be funding new jobs, the Whitepaper proposes that eligible workers first complete NYSERDA's On the Job Training (OJT) or a similar program.[73] NYSERDA offers programs for internships, fellowships, and training designed to meet the needs of early-career residents of Disadvantaged Communities who are interested in clean energy careers. These include the OJT program,[74] the Clean Energy Internship Program,[75] and the Climate Justice Fellowships program.[76] In addition, NYSERDA administers the capacity-building Energy Efficiency and Clean Technology Training Program, which funds projects that provide technical training and education, hands-on experience and job placement services in energy efficiency and clean technology industries.[77] EV charging is an eligible field of employment for all these programs. If the employee hired through OJT is a Disadvantaged Community resident, the interval the program wage subsidy covers is extended from 16 to 24 weeks.[78]

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[73] Id.

[74] NYSERDA, On-the-Job Training Program, https://www.nyserda.ny.gov/All-Programs/On-the-Job-Training-Program.

[75] NYSERDA, Clean Energy Internship Program, https://www.nyserda.ny.gov/All-Programs/Clean-Energy-Internship-Program.

[76] NYSERDA, Climate Justice Fellowship, https://www.nyserda.ny.gov/All-Programs/Climate-Justice-Fellowship.

[77] NYSERDA, Energy Efficiency and Clean Technology Training, https://www.nyserda.ny.gov/All-Programs/Energy-Efficiency-and-Clean-Technology-Training.

[78] NYSERDA, On-the-Job Training, Reimbursement Details, https://www.nyserda.ny.gov/All-Programs/On-the-Job-Training-Program.

In connection with the proposed EV Make-Ready Workforce Development Pilot Program, Staff requested Stakeholder input on approaches to integrating Disadvantaged Communities-focused workforce development into the Make-Ready Program, the appropriate budget for such a program, suitable per-project and per-worker caps, the proposed requirement that eligible workers participate in OJT or a similar program, and the identification of additional training and workforce development programs that could be leveraged in addition to OJT.

Stakeholder Comments

ChargerHelp!, Franklin Energy, the JU, Livingston Energy, and South Bronx Unite support the workforce development proposal for EVSE installation and maintenance. ChargerHelp! and the JU recommend creating a streamlined program with NYSERDA administering the program funds, as they have significant experience administering workforce development programs.

Franklin Energy expresses several concerns with the proposal stating that incorporating workforce development costs into make-ready incentives may inadvertently reward or punish site hosts for factors outside of their control, such as the availability of eligible contractors and the contractors' ability to schedule eligible workers for a particular project.

Franklin Energy states that the proposed adder design may increase the complexity of administering the program and create greater cost uncertainty for site hosts. Instead, Franklin Energy recommends that the proposed $5 million budget be used to train new workers without the involvement of any site hosts to absolve them of any workforce development obligations.

Livingston recommends that that the incentives be made available to both utilities and EV charging station developers. South Bronx Unite cautions against the development of strict

requirements as that could render community members ineligible to participate.

In addition to soliciting comments in the Whitepaper, on September 7, 2023, Staff hosted a Stakeholder webinar on available workforce development programs. The webinar was attended by EVSE developers and contractors as well as community-based organizations and other Stakeholders concerned with equity and environmental justice. During the webinar, Stakeholders heard presentations from NYSERDA on the range of programs supporting the hiring and training of clean energy workers, with a focus on workers from Disadvantaged Communities. Stakeholders also heard presentations from Livingston Energy, an EV charger installation company that has hired workers through NYSERDA's OJT program, and ChargerHelp!, which provides EVSE maintenance and operation services and operates its own worker training initiatives, including one in partnership with Brooklyn-based company BlocPower.

Discussion and Determination

Throughout the Midpoint Review, Stakeholders expressed strong support for creating EVSE workforce development opportunities for Disadvantaged Communities. The Commission agrees with Stakeholders who have stated that opportunities for well-paying jobs in EVSE installation and maintenance are an important way in which Disadvantaged Communities can benefit from the transition to clean transportation.

However, the Commission also appreciates comments from Stakeholders cautioning that workforce development programs are complex to administer and endorses making use of NYSERDA's experience in the field of workforce development and existing program offerings. The Commission finds that programs available through NYSERDA and other entities provide opportunities and incentives for EVSE contractors to hire and train new workers

and prioritize Disadvantaged Community residents in their hiring. Therefore, the Commission declines to adopt the Whitepaper recommendation to create a workforce development pilot program, and instead directs the utilities to provide information on the available NYSERDA workforce development programs as part of the application process for approved contractors.

Multiunit Dwellings and Workplaces

Whitepaper Recommendation

The Whitepaper recommends maintaining the current funding tiers for MUD and workplace sites.[79] The Whitepaper states there has not been sufficient evidence from Stakeholders that redirecting funds or redefining the accessibility criteria would improve program outcomes.[80] The Whitepaper also recommends that there be a mechanism to re-examine make-ready incentives due to changes in local laws, codes or regulations that imposes or updates make-ready requirements on buildings.[81]

Stakeholder Comments

ATE supports the Whitepaper recommendation to maintain the current funding tiers for MUD and workplace chargers. ChargePoint comments that limiting MUDs to the 50 percent tier will hurt deployment at these sites. ChargePoint posits that incentive tiers should be modified based on the level of support needed to achieve targets and recommends that MUD incentives be increased to at least 75 percent of eligible make-ready costs. The JU suggest that program modifications due to policy changes be minimized, when possible, because MUDs already face significant hurdles to upgrade their buildings.

[79] Whitepaper, p. 33.

[80] Id.

[81] Id.

Discussion and Determination

The Commission finds that the current eligibility criteria for MUD and workplace sites is appropriate and notes the limited comment from Stakeholders. However, given the need to accurately target funding and improve program outcomes, Staff shall examine an appropriate definition for MUDs eligible for Make-Ready Program funding for future consideration by the Commission. The Commission is not persuaded that increasing the percent of make-ready costs eligible for incentives for these sites is necessary at this time. Regarding Staff's recommendation of a mechanism for re-examination considering changes to local regulations requiring make-ready work, we find that the existing processes are sufficient.

Pay-to-Park Lots

Whitepaper Recommendation

The Whitepaper recommends maintaining the existing treatment of pay-to-park lots. Currently, public pay-to-park lots are eligible for the public tier, while private pay-to-park lots are eligible for the partial tier and may waive parking/access fees for the EV chargers for five years to be eligible for a public tier incentive.[82]

Stakeholder Comments

ATE recommends including pay-to-park lots be eligible for the same funding levels as parking that does not require the driver to pay as doing so can broaden the pool of eligible charging sites and will boost deployments of charging stations.

Discussion and Determination

The Commission declines to modify the current eligibility criteria for pay-to-park lots, in line with Staff's recommendation. Given only one comment was received on this

[82] Id., p. 34.

subject, the Commission finds that the current treatment of such locations effectively encourages the build out of publicly accessible infrastructure.

Private and Proprietary Hardware Technology

Whitepaper Recommendation

The Whitepaper recommends maintaining the 2020 Make-Ready Order determinations on proprietary plug type eligibility, in which CCS and SAE J1772 ("SAE J plug") are considered non-proprietary.[83] Where a proprietary plug type is co-located at a charging site with an equal number of commonly accepted non-proprietary plug types of equal or greater charging capacity, that charging site can receive the public tier incentive.[84] Under the 2020 Make-Ready Order, the number of plugs eligible for incentives at charging sites with more than one plug is the number of plugs capable of simultaneously charging at 50 kW or greater.[85]

Stakeholder Comments

ATE and Tesla support maintaining the current funding structure for private and proprietary plug types to avoid introducing market uncertainty.

In reply comments, Tesla notes its publication of its North American Charging Standard (NACS) design in November 2022 and the subsequent announcement by Ford that it will adopt NACS in future vehicles. Tesla requests that NACS be considered a non-proprietary plug type given these developments. The JU comments that the Commission should consider changes if there is a drastic change in charger technology, such as widespread adoption of other non-proprietary plug types than CCS.

[83] Id.

[84] Id.

[85] Id. (Referencing Case 18-E-0138, Make-Ready Order, p. 50).

In reply comments, the JU agreed with Tesla and Staff stating that they support "Staff's recommendation to maintain the determination on proprietary plug type eligibility and continue to fund 'Non-publicly accessible sites and proprietary technology' at the 'Up-to-50 percent' partial tier level." However, the JU stated that if there are significant changes in plug technology then revision of plug standards and corresponding incentives should be considered.

Discussion and Determination

The Commission agrees with Staff and commenters that maintaining the current funding structure for private and proprietary plug types is appropriate.

As noted in Tesla's reply comments, since the release of the Whitepaper, a number of automakers have announced intentions to adopt NACS, raising the question of whether NACS should be considered non-proprietary in the Make-Ready Program. While the Commission still maintains the importance of standardization and the need for collaboration among station developers, we must also evaluate the current state of the market and ongoing development of new standards.

The Commission finds that the current lack of codification of NACS and limited current use of the standard by automakers merits maintaining NACS's classification as proprietary. However, the Commission agrees with the JU that changes should be considered if there are drastic changes in charger technology. The Commission directs Staff to convene a technical conference in 2024 to consider interoperability and universal accessibility of charger hardware, such as plug type, charger design, charging adapters, and software as it pertains to Make-Ready Program eligibility.

Communication Standards

Whitepaper Recommendation

The Whitepaper recommends that EVSE hardware used in the Make-Ready Program should be tested by an independent third-party facility for compliance with Open Charge Point Protocol (OCPP) version 1.6 (at a minimum) or later version, with no proprietary extensions.[86] OCPP's importance in developing and maintaining successful EVSE/central management and back-end communications is supported by the California Public Utilities Commission (CPUC) in a 2022 decision, which explains that OCPP-compliant EVSE will be compatible with any back-end network that is also OCPP compliant and ensures that the EVSE will not become a stranded asset if the Electric Vehicle Service Provider (EVSP) goes out of business, as a new EVSP can seamlessly manage the abandoned EVSE.[87]

The Whitepaper also supports requiring installed chargers to conform to the International Organization for Standardization (ISO) 15118 standard, in line with the Federal Highway Administration's (FHWA) National Electric Vehicle Infrastructure (NEVI) Formula Program regulations.[88]

Stakeholder Comments

NYPA states its concern that the independent testing requirement for conformance to OCPP 1.6 could prevent participation in the short term due to the limited number of independent third-party testing facilities and testing staff. NYPA's concern is supported by actual conditions as referred to

[86] Whitepaper, p. 36.

[87] Decision 22-08-024, Before the Public Utilities Commission of the State of California, Order Instituting Rulemaking to Continue the Development of Rates and Infrastructure for Vehicle Electrification, Rulemaking 18-12-006, August 4, 2022.

[88] Whitepaper, p. 36.

by the Federal Highway Administration (FWHA) in its Final Rule where it states that commenters to its proposed NEVI standards warned that the necessary tools and laboratory facilities capable of performing that certification are in short supply and that a third-party certification requirement could create unnecessary delays to charging station deployment.[89] NYPA goes on to recommend that this requirement be phased in over a three-year period from the commercial operation date of the EVSE, arguing that doing so would provide adequate time for more testing facilities and staff to become available. United and ACE-NY support adoption of OCPP version 1.6 and the use of proprietary extensions to the extent the extensions are made publicly available so that the customer can still charge their vehicle. ACE NY recommends that the proposed third-party testing requirement undergo more discussion to determine implementation timelines and enforcement practices.

ChargePoint, ACE-NY, Tesla, and EVgo recommend that only the EVSE hardware be compliant with ISO 15118, to permit time for fuller development of this ISO standard. As explained by Tesla, hardware compatibility with ISO 15118 would allow the charging equipment hardware to implement ISO 15118 but not require actual, full integration of the standard until later.

Separately, the California Energy Commission (CEC) has posited that an ISO 15118 hardware compliant charger should have onboard hardware to support such capabilities as secure management and storage of keys, remotely receiving updates to activate/enable ISO 15118, and capability to connect to a

[89] Federal Register, Volume 88, February 28, 2023, Department of Transportation, 23 CFR Part 680, National Electric Vehicle Infrastructure Standards and Requirements, pg. 12745. Final Rule published 3/30/23.

backend network, among other features.[90] The FHWA has stated that charging hardware capable of supporting ISO 15118 software updates is required through several State EV charging programs by mid-2023 to support Plug and Charge, and that the standard could provide grid integration and resiliency benefits as vehicles with bi-directional charging capabilities are released into the market. To capitalize on the benefits of Plug and Charge capabilities while acknowledging requests from several commenters on its proposed NEVI standards for a need for additional time for compliance with the associated technological requirements, FHWA modified the language in its final rule to address a phased requirement more fully for Plug and Charge capabilities through language in §680.108 by adding a compliance date of February 28, 2024.[91]

Two other interoperability issues raised by commenters involve backwards compatibility of newer versions of OCPP (such as OCPP 2.0, 2.0.1, or later) with previous versions, namely version 1.6, and use of proprietary extensions, including the use of proprietary extensions of the software within the same version of OCPP. Regarding backwards compatibility, Tesla and other commenters state that OCPP versions 2.0 and 2.0.1 are not backward compatible with version 1.6, which could lead to an unsuccessful charging session if the EVSE and network OCPP versions are not compatible. In its comments, NYPA referred to the Open Charge Alliance (OCA) organization, whose international mission is to foster global development, adoption, and compliance of communication protocols in the EV charging

[90] California Energy Commission, Docket No. 19-AB-2127, CEC Recommendation for Deployment of ISO 15118-Ready Chargers, Docket Date 2/24/2022

[91] 23 CFR 680.108, Interoperability of electric vehicle charging infrastructure.

infrastructure and related standards through collaboration, education, testing, and certification.[92] NYPA notes that OCA lists advantages of OCPP version 2.0.1 compared to OCPP version 1.6. which are: 1) features "to get and set" configurations and also monitors a charging station which is especially useful in complex multi-vendor (DC fast) charging stations; 2) improved transaction handling - important to charging station operators who manage large numbers of charging stations and transactions; 3) added security including the addition of secure firmware updates, security logging and event notification, and security profiles for authentication (key in management for client-side certificates) and secure communication; 4) added Smart Charging functionalities for topologies with an Energy Management System (EMS), a local controller, and for integrated smart charging of the EV, charging station and Customer Side Management Systems (CSMS); 5) support for ISO 15118 -regarding plug-and-charge and smart charging requirements from the EV; and, 6) display and messaging support to provide the EV driver with information on the display, for instance regarding rates and tariffs. Commenting on these advantages in its NEVI Formula Program regulations, the FHWA sees the improvements in OCPP 2.0.1 over previous versions as compelling benefits to the EV charging ecosystem, but also acknowledges the level of effort required for charger manufacturers and charging network providers to update systems to OCPP 2.0.1. The FWHA goes on to require that chargers and charging networks conform to OCPP 2.0.1 by one year past the date of publication of this rule which would be by February 28, 2024.

Regarding use of proprietary extensions, ATE warns that customers could be locked into a particular network and not

[92] Open Charge Alliance, About Us, https://www.openchargealliance.org/about-us/about/.

be able to take advantage of other network features. However, ChargePoint states that proprietary extensions to newer versions of OCPP (such as OCPP 2.0.1) do not preclude a customer from switching networks if the provider leaves the industry, nor does it increase the risk of stranded assets. More specifically, ChargePoint explains that if both the EVSE and central management software are OCPP compatible and one or both have proprietary extensions, both components can revert to a baseline OCPP functionality and would therefore eliminate the proprietary functions that act as extensions. In supporting proprietary extensions, EnergyHub, Inc. (EnergyHub) states that it has seen first-hand the benefit of supporting both proprietary and standards-based integrations to maximize the number of EVSE providers eligible to participate in utility programs. In its NEVI Formula Program regulations, the FHWA states that there are no restrictions on additional OCPP extensions, provided all minimum standards under 23 CFR 680 can be met.

Discussion and Determination

Given the broad support to require EVSE hardware compatibility with ISO 15118, and consistent with the requirements of the NEVI program, the Commission modifies Staff's proposal and directs each utility to confirm that any installation funded with Make-Ready Program incentives shall be hardware capable for ISO 15118 Parts 2 and 20, effective for new incentive commitments 30 days from the date of this Order.[93] Further, for new installations, the Commission requires that stations receiving Make-Ready Program incentives shall achieve software conformance with ISO 15118, effective 1 year from the date of this Order. The Commission also directs the utilities

[93] A committed project is one that has reached a formal agreement with the utility for the incentive offered through the program.

to update their implementation plans and the Participant Guide to reflect this requirement by no later than January 12, 2024.

The Commission agrees with the Whitepaper regarding OCPP's importance in developing and maintaining successful EVSE/central management and back-end communications.

Noting the advantages described by Stakeholders of OCPP version 2.0.1 compared to version 1.6 and the FHWA's Final Rule requiring OCPP version 2.0.1, the Commission directs the Joint Utilities to ensure that Program applicants and participants obtain hardware conformance with OCPP version 2.0.1 or later, effective 1 year from the date of this Order, for new installations. The ISO 15118 and OCPP requirements adopted in this Order are prospective and therefore do not require existing EVSE or CSMS hardware compatible with OCPP version 1.6 or prior to upgrade to version 2.0.1. As the owners and operators of these existing systems discover the advantages of version 2.0.1 (or later), it is likely that they may update on their own to capture the value in the market and other advantages of these newer OCPP versions. While the decisions to adopt OCPP version 2.0.1 or later and ISO 15118 Parts 2 and 20 are consistent with the requirements of NEVI, this does not imply that the Commission will adopt modification to the NEVI program requirements in the future without thorough review and justification. The Joint Utilities shall update the implementation plans and the Participant Guide to reflect the updated hardware requirements.

Recognizing the concerns highlighted by stakeholders, that there is insufficient capability to third-party test for OCPP compliance, the Commission declines to adopt the Whitepaper's recommendation to require such certification.

Given that it is apparent that proprietary extensions do not limit the practical interoperability terms or inhibit the

development of EVSE standards, as noted by Stakeholders, the Commission will not preclude proprietary extensions at this time, insofar as they do not impede interoperability of EVSE.

Future-Proofing Requirements and Budgets

Whitepaper Recommendation

In the Whitepaper, Staff proposed keeping the overall future-proofing budget at 8 percent of the overall utility budgets.[94] Staff also stated that they agree with the JU that the 10 percent site-specific limit on future-proofing should be increased to encourage cost-efficient choices.[95] However, Staff stated that there was not enough information to recommend an appropriate limit and requested additional Stakeholder feedback to obtain information on a make-ready incentive limit that may be more appropriate than the current 8 percent.[96]

Stakeholder Comment

Commenters support future-proofing as an opportunity to save money overall by simplifying future installation work when the expansion of a site is foreseen. ATE states that a 10 percent site-specific limit is a reasonable minimum and recommends that future charging development remain flexible. ATE proposes convening a Stakeholder process that could assist in developing a range above the proposed 10 percent. The JU suggests that while the 8 percent overall cap on future-proofing costs should remain in place, utilities should be allowed flexibility in allocating site-specific funds based on customer needs. Livingston proposes increasing the futureproofing budget limit above 10 percent of project costs.

[94] Whitepaper, p. 36.

[95] Id.

[96] Id.

Discussion and Determination

The Commission is of the opinion that not enough information was received to generate any informative and gainful modifications to the Make-Ready Program's current 8 percent overall cap or 10 percent site-specific cap on future-proofing costs. Therefore, no changes will be made to the current make-up of the Make-Ready Program regarding future proofing requirements and budgets.

Battery Energy Storage Systems (BESS)/ Advanced Technologies Whitepaper Recommendation

The Whitepaper recommends that any cost-reducing advanced technology be eligible for make-ready incentives if the advanced technology provides grid and ratepayer benefits, such as peak load management.[97]

Stakeholder Comments

The JU, NY-BEST, and VGIC support including energy storage as eligible equipment for make-ready incentives. United and ACE NY support Staff's recommendation that cost-reducing advanced technology be eligible for incentives, but state that more clarity is needed on how such benefits would be determined. The City supports providing incentives for pairing energy storage with EVSE to promote grid resiliency and recommends that bidirectional chargers be eligible for make-ready incentives for enabling vehicle-to-grid services. EnergyHub supports incentives for energy storage paired with EV charging equipment, citing the possibility that this type of pairing could allow for grid peak shaving and load shifting. EDF supports incentives for bidirectional chargers to enable Vehicle to Grid Integration (VGI). FreeWire Technologies (FreeWire) supports additional

[97] Id., p. 37.

incentives for energy storage sited with EVSE designed in a way to encourage market animation.

Discussion and Determination

The Commission adopts the Whitepaper's recommendation that cost-reducing advanced technologies, such as energy storage and Automated Load Management Systems, should be eligible for make-ready incentives. Bidirectional chargers shall not be eligible for make-ready funds, as these charging stations do not reduce or avoid the need for the utility or customer-side infrastructure necessary to make a site ready for EV charging. Furthermore, this limitation is consistent with the Make-Ready Program excluding chargers as eligible equipment for incentives.

On-site energy storage paired with EVSE has the potential to further integrate renewable energy with electric vehicle charging and provide peak reduction. The Commission recognizes that currently there are multiple State incentives offered to energy storage and specifies that any projects that receive a Make-Ready Program incentive for on-site energy storage must not already be receiving a different incentive through a Commission-approved program and shall not receive multiple utility incentives for the same equipment. The Commission further clarifies that any energy storage device receiving Make-Ready Program incentives must be paired exclusively with EVSE and be solely used for EV charging and not for any other purpose, such as providing backup power to the host site.

Vehicle-to-Grid Integration (VGI)

Whitepaper Recommendation

The Whitepaper recommends that the Commission direct the TSWG to identify and propose solutions to barriers of VGI,

including interconnection.[98] The TSWG would also consider specific use cases that would benefit from a pilot program while considering any utility-specific issues.[99] The Whitepaper also recommends that the Commission direct the JU to update their Value of Distributed Energy Resources (VDER) tariff to clearly define VGI as eligible for compensation under that tariff, using consistent language across the State.[100]

Stakeholder Comments

United and ACE-NY, Vehicle-Grid Integration Council (VGIC), Fermata Energy, LLC. (Fermata), and Nuvve Holding Corporation (Nuuve) all support the Whitepaper's recommendation to have the JU update their VDER tariff to clearly identify VGI as eligible for compensation. Fermata states that new interconnection rules require inverters in VGI equipment to comply with the UL 1741-SB standard to avoid having to install additional grid protection equipment. Fermata notes that there are presently no VGI inverters that comply with the UL 1741-SB standard. Fermata recommends that the Commission consider pathways for the utilities to leverage the Earning Adjustment Mechanism (EAM) to cover higher costs for VGI make-ready work until vehicle-to-grid systems can be certified using the UL 1741-SB standard.

ATE and the JU support the TSWG as the forum where issues related to VGI, including interconnection, be discussed, whereas Fermata, VGIC, NY-BEST, and Nuuve support the creation of a specific Vehicle to Everything (V2X) working group. Fermata, NY-BEST, Nuuve, and VGIC recommend that the Interconnection Technical Working Group (ITWG) issue a waiver

[98] Id., p. 39.

[99] Id.

[100] Id.

for the UL1741-SB requirement for all inverter-based resources, commenting that it could be up to two years before there are any chargers in compliance with the requirement, potentially delaying the installment of Vehicle to Grid (V2G)-enabling DCFC. United, ACE-NY, and NY-BEST recommend a focus on commercialization of V2G activities, rather than development of pilot projects. VGIC recommends that the Commission direct the JU to propose pathways to scale VGI benefits within the existing Demand Response programs.

Discussion and Determination

The Commission recognizes the potential value that VGI can provide to the electric system in terms of enabling EVs to function as electric supply resources and to customers by allowing them to sell power to the grid when system conditions warrant. As described in the Whitepaper, barriers to VGI still exist, including during the interconnection process.

The Commission surmises that the existing ITWG is the appropriate venue for discussing interconnection challenges related to VGI. Other VGI issues not relating to interconnection may be discussed in the TSWG as needed. The Commission notes the "UL 1741 SB Waiver for Bi-Directional EV Chargers" ("Waiver") issued by the ITWG granting an exemption of the UL1741 SB certification requirement, effective September 1, 2023, and expiring on July 1, 2024, for qualified bidirectional EV chargers and declines to extend the Waiver's expiration date.

The Commission agrees with the Whitepaper's recommendation that the JU's VDER Value Stack tariffs should be consistent in allowing for V2G and VGI as eligible for compensation and therefore directs the JU to update their VDER Value Stack tariffs on not less than 30 days' notice, to become effective on January 1, 2024, to reflect V2G and VGI's eligibility. Since these filings will be made in compliance

with this Order, the requirements of Public Service Law §66(12)(b) and 16 NYCRR §720-8.1 for newspaper publication are waived.

Data Reporting

Whitepaper Recommendation

The Whitepaper contends that the information sought through the current reporting requirements is necessary to ensure that the goals of the Make-Ready Program are realized but recognizes the difficulty the utilities and charging developers have encountered in obtaining and providing some of the required data.[101] The Whitepaper notes the lack of plug outage information as particularly concerning.[102] The Whitepaper calls for a technical conference with industry Stakeholders to further discuss the barriers in obtaining and providing data, including but not limited to network and data fees as well as customer confidentiality issues, which was convened June 12, 2023.[103]

Stakeholder Comments

Numerous stakeholders filed comments in support of Staff's suggestion to hold a technical conference on data reporting, including ACE-NY and United, ATE, ChargePoint, EVgo, Powerflex, and the JU.

The JU support the scheduling of one or more technical conferences to discuss the barriers in: data reporting; the importance of reliable data access; L2 station interval versus session data; the challenges of monitoring DCFC plug uptimes, energy and non-energy operating costs, and interval load data; and extending the annual reporting timeline from 60 to 90 days.

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[101] Id.

[102] Id., p. 39-40.

[103] Id., p. 40; Case 18-E-0138, Cover Letter for June 12, 2023 Technical Conference Filings and Recording Link (filed June 13, 2023).

Livingston supports robust data collection and recommends program data be made available to the public for transparency on uptime and performance for sites and developers. SWTCH Energy, Inc. (SWTCH) supports EnergyHub's suggestion that the utilities leverage a software platform capable of supporting a diverse set of EV OEM/EVSE providers to facilitate customer choice while enabling a more cost-effective collection of standardized data.

Tesla agrees that reporting on 15-minute interval meter data is important for regulators, but that the requirement should be limited to the JU, which has existing systems to meet it, asserting the ask is burdensome for EV charging providers. Tesla urges the removal of the financial information reporting requirements on charging stations, arguing it is inappropriate information to ask a private company to disclose. In its reply comments, Tesla recommends the 15-minute interval data be provided by the utility-owned meter as the simplest path forward despite sub-metering challenges. Tesla also suggests choosing either interval or session-level data for L2 stations rather than both. In reply comments, the JU supports the Whitepaper's recommendation for more technical conferences on data collection challenges to help each utility develop its own advanced metering infrastructure to collect Tesla's suggested "15-minute interval meter data."

Concerning the challenges of data reporting, ATE noted the time and financial challenges for station owners and network operators, recommending that reporting be reduced to an annual basis and be limited to data that is already widely collected and necessary to achieve specific and demonstrably important purposes. ChargePoint asserts the importance of standardizing a definition for plug outage, putting forth NEVI's uptime formula as a foundation for a more standardized reliability reporting metric.

ChargerHelp! asserts the need for reporting requirements for L2 charging station reliability, as with DCFCs, and that performance metrics should be revisited, noting that 30 percent of publicly accessible EV stations are offline or broken, on average. ChargerHelp! states they can collect data and enable accurate reporting on reliability issues and recommends that any new Order update reliability standards align with NEVI, including L2 chargers, and require incentives for maintenance contracts with service level agreements. In its reply comments, ChargePoint disagrees with ChargerHelp!'s recommendations that 1) reliability standards should align with NEVI, 2) reliability standards should apply to L2 stations, and 3) site hosts should invest in maintenance contracts that include service level agreements, pointing out the lack of clarity on the definition for service level agreements. ChargePoint is concerned that unnecessary requirements may increase costs, cause confusion for site hosts, and limit customer participation. In its reply comments, ChargePoint recommends a Technical Solutions Working Group with Stakeholders before the adoption of station reliability requirements.

EnergyHub warns that excessive requirements can impede program implementation and generate administrative complexities and recommends aligning reporting requirements with use cases that minimize negative impacts from unmanaged EV load growth. EVgo recommends that the Make-Ready Program be consistent with federal NEVI program data reporting and frequency of reporting requirements.

At the June 12, 2023 technical conference, the JU reiterated and expanded on the challenges in obtaining the necessary data for reporting, asserting that several of the data reporting requirements are challenging to meet due to the absence of separate Automated Metering Infrastructure (AMI)

meters and the refusal of charging networks to provide data. The JU also noted that the Make-Ready Program data requirements do not fully align with those from NEVI and indicated that the following data points were particularly difficult to obtain: 15-minute interval data, load profiles for stations for the top ten demand days of each year, fee structure (i.e., cost per minute, kilowatt-hour (kWh), cost per session and whether the station owner is providing charging for free), charging revenues derived, operating costs (which should include energy-related costs and non-energy-related costs separately identified), peak session power (kW), and plug outage information (number and duration of expected and unexpected outages). The JU recommended that the Make-Ready Program data reporting requirements be simplified to include those points that are most useful for program evaluation and which networks and participants can provide consistently. During the subsequent question and answer period facilitated by Staff, Stakeholders attending the conference expressed challenges with: the cost of storing data; attaining 15 minute interval data; conveying financial information; and conveying information from comingled sites.

Discussion and Determination

The Commission recognizes the challenges raised by the JU and Stakeholders in obtaining some data components due to factors such as AMI limitations, network cooperation, and various other site host barriers. However, the Commission strongly upholds its stance that reporting requirements are necessary to continue to evaluate and improve the Make-Ready Program's achievements and to confirm that ratepayer funds are being used wisely and as intended.

With this consideration, the Commission opts to modify some of the more difficult-to-obtain data reporting requirements

for the Make-Ready Program. The Commission acknowledges that there may be value found in the collection of financial and utility system and billing information. However, the removal of these requirements can reduce the some of the difficulty in the collection of reporting requirements and are not integral in the determination of the whether the Make-Ready Program is successful. Therefore, the Commission considers it acceptable to forgo the financial information and utility system and billing information reporting categories. Moreover, the Commission finds it reasonable to eliminate the 15-minute interval data requirement for the Make-Ready Program, given the enaction of the Demand Charge Alternative Order, since this data will be collected in the EV phase-in rate report.[104]

Concerning plug outages and the tracking of CLCPA Disadvantaged Community requirements, the Commission agrees with Stakeholders that the reporting should be streamlined and standardized and shall include the additional program participation data requirements, as listed below.

The JU will continue to be required to collect data on programmatic maintenance and improvement categories, including: 1) program participation information and 2) plug and charging session data bifurcated by L2 and DCFC plugs. The data shall be compiled in their Make-Ready Program Annual Report and organized by calendar year, encompassing the historical data reported since the EVs Make-Ready Program's inception and include:

Program Participation:

- Reporting year;
- Site ID;
- Census Tract;

[104] Case 22-E-0236, Demand Charge Alternatives, Order Establishing Framework for Alternatives to Traditional Demand-Based Rate Structures (issued January 19, 2023).

- Is the site located in a geographic Disadvantaged Community;
- Percent of service applications that have matured into operating stations;
- Number of station owners participating;
- Number of sites for which incentives were issued;
- Number of plugs installed;
- Aggregated kW Nameplate Capacity;
- Infrastructure costs (broken out by customer and company infrastructure, allocated by make-ready costs and new business costs);
- Incentive levels a site received (up-to-50, 90, or 100 percent); and
- Total incentives paid per site.
- Did the site receive funding from the MHD Pilot?
- Did the site receive funding from the Transit Authority Make-Ready Program?
- Does the site receive Operating Cost Relief from a Demand Charge Alternative Program?

Plug and Session Charging Data:

- Number of sessions daily;
- Start and stop times of each charge;
- Amount of time each vehicle is plugged in per session;
- Peak kW per charging site (aggregated monthly per site; including site capacity, charger nameplate capacity, and peak kW load management adjustment);
- Annual aggregated kWh per charging site;
- Annual aggregated percent utilization per site;
- Annual aggregated hours charging; and

- Plug outage information (the number and duration of outages, differentiated by expected outage and unexpected outages).[105]

In order to address the remaining challenges that were identified regarding data reporting, the Commission directs each utility to require any station owners that are new to the program to collect and report the required data, as listed above. For stations owners that have been participating in the program, the Commission directs each utility to conduct a robust review of a charging station owner and/or operator's knowledge of the data that must be reported, its ability to provide the required data, and the barriers that prevent the data from being reported. It is the JU's responsibility to disperse make-ready funding to developers and stations that are fully aware of the rules and requirements to successfully participate in the program, including providing the required data.

Each utility shall continue to file the Annual Reports no later than March 1 of each year. Beginning in 2024, the Annual Reports will be modified to Semi-annual Reports and each report shall contain the required data from new program participants and as much data as available from the already-participating station owners.

Additionally, the Commission directs the utilities to develop a publicly accessible online tracker that monitors both the committed and completed L2 and DCFC plug installations, as well as committed and completed L2 and DCFC budgets reported as separate dollar figures, by service territory. Furthermore, the online tracker shall include the same data separated out for the enhanced tier. The Commission encourages the utilities to

[105] For expected outages, use NEVI Outage Formula: μ= ((525,600 - (T_outage-T_excluded))/525,600)x100. For unexpected outages, use: μ=((525,600–T_outage)/525,600)x100. For unexpected outages, use: μ=((525,600–T_outage)/525,600)x100).

update the online tracker as frequently as is practicable; however, the Commission requires that updates shall be no less frequently than monthly.

While the Program Participant Guide outlines the data reporting requirements and consequences for failure to report the data, there should be greater specificity regarding the data reporting requirements. Therefore, the Commission directs the JU, in consultation with Staff, to develop a Data Reporting Compliance Plan which outlines the method or methods each utility will use to collect the data from station owners. The Compliance Plan will identify all the data that was required to be collected but was not provided from the start of the program to the 2024 Annual Report. The Data Reporting Compliance plan should provide insight on the status of each network's ability to collect and provide data. As part of the Data Reporting Compliance Plan, the JU shall develop a preferred network list and include steps that each utility will take to educate developers and station owners on data collection and the consequences for failing to provide the data and the potential use of an incentive claw back mechanism for failing to comply with the data reporting requirements.

The Data Reporting Compliance Plan will be filed by the JU no later than March 1, 2024. In addition, no later than August 23, 2024, the JU shall file the first Semi-annual Report that contains all of the required data from all station owners retroactive from the program's start.

Customer Complaints

Whitepaper Recommendation

The Whitepaper recommends that all chargers be required to clearly display contact information for the EV

service provider, site host, and utility customer service.[106] This recommendation is based on the Customer Experience Working Group process, which identified difficulties that customers experienced related to resolving complaints, such as blocked chargers.

Stakeholder Comments

ATE, ChargePoint, EVgo, the JU, NYPA, and PowerFlex express concern that requiring phone numbers be displayed for the EVSP, site host, and utility call center would worsen the driver experience due to added confusion. EVgo and NYPA recommend that only the EVSP's phone number be listed. The JU recommend that drivers be directed to the entity responsible for EV charger operations and maintenance. PowerFlex suggests that the network provider, quick response (QR) code, and support helpline number be included on each charger. ChargePoint requests that if Staff's suggestion is adopted, that a digital display be sufficient to meet the requirement.

Discussion and Determination

It is essential that the charging infrastructure funded through the Make-Ready Program is operational and available to drivers. For this purpose, drivers must have a way to easily identify and contact the appropriate entity when there are problems with a charger. While a lack of contact information on a charger can be problematic, so too can displaying too much information. As commenters noted, under Staff's proposal a driver may not be able to discern which phone number to call to report their problem, even if clearly labeled.

The Commission therefore directs the JU to require all Make-Ready Program-funded sites to display easily identifiable, up-to-date contact information for the electric vehicle service

[106] Whitepaper, p. 40.

provider on each charger, as a condition of receiving make-ready funding. The JU is directed to update the Participant Guide to reflect this requirement. Displaying a single entity's information will balance the concerns of including too much or too little information. The electric vehicle service provider is the appropriate entity to contact for most driver concerns, and as such is the most suitable single entity to list on the charger.

Performance Incentives

Whitepaper Recommendation

The 2020 Make-Ready Order established two multi-year Earnings Adjustment Mechanism (EAM) metrics (Make-Ready EAM), that, in combination, would allow the utilities to earn up to 15 basis points of financial incentives for performance through December 31, 2022, and another opportunity of up 15 basis points of financial incentives following the end of the Make-Ready Program in 2025.[107] The Make-Ready EAM metrics consist of a L2 metric and a DCFC metric, both of which are established as "share the savings" metrics whereby the utility may retain a portion of Make-Ready Program cost savings achieved.[108] The L2 metric is calculated as 30 percent of the difference between: (1) the baseline incentive cost forecast per plug multiplied by the population of plugs incented as part of the program; and, (2) the actual incentives provided by the utility. Similarly, the DCFC metric is calculated as 30 percent of the difference between: (1) the product of the baseline incentive cost forecast per kW of charging capacity and actual kW charging capability achieved; and, (2) the actual incentives provided by the

[107] 2020 Make-Ready Order, p. 87.

[108] Id., p. 86.

utility.[109] The 2020 Make-Ready Order also established minimum plug count requirements for the L2 metric and DCFC metric that each utility would have to achieve to be eligible to earn an EAM award on the applicable EAM metric – failure to achieve these minimum plug requirements would result in no EAM earnings for the applicable metric regardless of program performance or cost savings.[110]

In the Whitepaper, Staff reviewed the utilities' progress toward meeting the minimum EAM plug deployment goals, reporting that at the time no utility had met the minimum L2 plug deployment threshold, and only National Grid had met its DCFC plug deployment goal.[111] Staff noted, however, that the information relied on in developing the Whitepaper was dated December 21, 2022, and the Make-Ready EAMs were measured through December 31, 2022, resulting in the possibility that actual Make-Ready EAM achievement may differ from the levels reported in the Whitepaper.[112]

The Whitepaper noted a lack of evidence that the Make-Ready EAMs are not working or are otherwise producing unintended or undesirable consequences, and notes that the utilities' apparent ineligibility to earn Make-Ready EAM incentives is tied to not achieving the minimum plug deployment requirements.[113] Staff recommended that the Make-Ready EAM metrics be continued, with updates to the baseline costs per-plug for the L2 metric and per-kW for the DCFC metric.[114] Staff also recommended that the utilities be required to meet minimum plug deployment

[109] Id., p. 88.

[110] Id., Appendix C, pp. 1-2.

[111] Whitepaper, p. 41.

[112] Id., p. 41-42, see footnote 108.

[113] Id., p. 42.

[114] Id., p. 43.

requirements in the Transit Authority Make-Ready Program to be eligible to earn incentives through the Make-Ready EAM, reasoning that an on/off incentive would ensure that utilities would achieve at-least-minimum levels of performance in all relevant programs to become eligible to earn any shareholder incentives for the Make-Ready Program.[115]

Comments

In its initial comments, United indicated that it generally supports the structure of the existing Make-Ready EAM metrics. United states that the share-the-savings Make-Ready EAM metric supports the alignment of utility financial incentives with desired outcomes by providing utilities with incentives to control program costs while ensuring that customers receive the majority of the benefits of these savings. United notes that, while they are supportive of the EAM's framework, shareholder incentives should only be earned once program performance exceeds baseline levels. United expresses concern that the Whitepaper did not provide sufficient information or analysis to determine whether the EAM metric is working as intended or if the baseline targets were set too far out of reach to effectively drive desired utility behavior. United indicates that it supports the Whitepaper's recommendation to update the Share the Savings EAM with a revised baseline, and supports including a threshold condition of meeting minimum Transit Authority Make-Ready Program achievement targets, but requests an opportunity to weigh in further before any metric is finalized.

In its initial comments, ATE states that the all-or-nothing approach created by the existing Make-Ready EAM metric is not the optimal structure due to the combination of early

[115] Id.

stages of EV charging infrastructure deployment and the ambitious goals set by the Commission. ATE states that it is too early to expect significant cost savings, incentivized by the Make-Ready EAM metric, and suggests adding a tiered incentive structure to the existing share the savings metrics with specified low, medium, and high achievement levels.

In their initial comments, the JU recommend that the Make-Ready Program Share the Savings EAM metrics continue, but that the Commission should implement several modifications to improve the metrics. The JU state that they support the Share the Savings metrics' dual purpose of achieve or exceed Make-Ready Program plug deployment goals while striving to contain program costs. Instead of the present structure of the Share the Savings EAM metrics, which has a single minimum plug deployment threshold acting as a gate and the ability to utilities to earn a 30 percent share of per-plug or per-kW savings thereafter, the JU propose to implement a three-tier structure whereby the utility share of savings would increase with increasing plug deployment.[116]

Specifically, the JU propose that the Share the Savings metrics be implemented with a minimum tier, where once the utility deploys a predefined target number of plugs they would retain an amount less than a 30 percent share of achieved per-plug savings for the L2 metric or per-kW savings for the DCFC metric.[117] Similarly, the JU propose a maximum tier, which would be earned once the utility deploys a predefined target number of plugs, and would qualify the utility to retain an

[116] The JU propose to retain the existing separate Share the Savings metrics related to the L2 and DCFC Make-Ready Programs.

[117] The JU did not propose a specific level less than 30 percent of savings for the minimum tier incentive.

amount greater than 30 percent of the achieved per-plug or per-kW savings.[118] The JU propose a middle tier between the minimum and maximum tiers, with its own predetermined plug deployment target, which would qualify the utility to retain an amount equal to 30 percent of the achieved per-plug or per-kW savings. The JU assert that the higher proportion share of savings at the maximum tier would appropriately incentivize achievement of highly ambitious targets in a short period of time while remaining under-budget, while allowing for a lower proportion share of savings at the minimum tier would help ensure that cost containment remains at the forefront of Make-Ready Program operations.

The JU propose to set different minimum, middle, and maximum plug deployment target thresholds for the L2 and DCFC Share the Savings metrics. The JU state that their proposed target levels were selected to be ambitious at the maximum tier while being achievable at the minimum tier. The JU assert that earnings would only be achieved at maximum tier if the utility over-delivers by achieving the new plug goals on time while spending less than the baseline budget per plug on average, whereas simply achieving the new plug targets on-budget would not result in any earnings. The JU state that their recommended modifications would constitute an effective and balanced approach which both appropriately weighs cost containment with necessary market acceleration, and also recognizes observed market sensitivity to Make-Ready Program funding levels.

For the L2 Share the Savings metric, the JU propose to begin earning incentives at the minimum tier – i.e., less than 30 percent share of savings – once the utility has achieved 75 percent of the Whitepaper's 2025 plug deployment target for L2

[118] The JU did not propose a specific level greater than 30 percent of savings for the maximum tier incentive.

plugs. The JU propose to earn middle and maximum tier incentives – at the 30 percent and greater than 30 percent share of savings, respectively – once the utility achieves 85 percent of the Whitepaper L2 plug deployment target for the middle tier, and once the utility achieves the full Whitepaper L2 plug deployment target for the maximum tier. The JU assert that the L2 plug targets recommended in the Whitepaper present an execution challenge, especially for Con Edison where Whitepaper recommended a 35 percent increase to the L2 Make-Ready Program plug deployment target. The JU state that to date they have achieved approximately 35 percent of the L2 plug deployment goals statewide, requiring an aggressive upscaling of the program to achieve the remaining 65 percent of the plug deployment goal in the final two years of the program.

For the DCFC Share the Savings metric, the JU propose to begin earning incentives at the minimum tier once the utility has achieved the 2020 Make-Ready Order's 2025 DCFC plug deployment target. The JU propose to earn middle and maximum tier incentives once the utility achieves 50 percent of the Whitepaper DCFC plug deployment target for the middle tier, and once the utility achieves the full Whitepaper DCFC plug deployment target for the maximum tier. The JU note that the achieving the Whitepaper's recommended DCFC plug deployment targets by 2025 will be challenging, since the Whitepaper recommended DCFC plug deployment targets on average three times higher than the 2020 Make-Ready Order, and for some utilities as much as six times higher.

The JU state that that they disagree with the Whitepaper's proposal to tie eligibility to earn an incentive under the Make-Ready Program EAM with achieving Transit Authority Make-Ready Program targets. The JU assert that they agree with the importance of encouraging transportation fleet

electrification, however, the focus of the Make-Ready Program Share the Savings EAM should remain on driving achievement of the Make-Ready Program's L2 and DCFC plug deployment goals. The JU suggest that the Commission should consider establishing a separate EAM metric with a different mechanism than the present Share the Savings metric to incentivize Transit Authority Make-Ready Program performance more directly.

In its reply comments, United states that it could support the JU's proposed modifications to the Share the Savings EAM structure, however, United suggests that it is worthwhile to further explore whether the JU's revised EAM is more suitable than the existing metric. While United asserts that there is presently insufficient information to fully endorse the JU's proposed EAM modifications over the existing metric, it remains unconvinced that the current EAM metric is working as intended and would be effective. United opines that it would welcome additional opportunities to engage in a process to examine the Make-Ready Program EAM structure, as well as EAMs more generally.

Discussion and Determination

The Make-Ready EAM is integral to efficient operation of the Make-Ready Programs because the utilities earn a return on their customer-side and utility-side Make-Ready Program costs. In the absence of an EAM incentive, the traditional utility business model would provide an incentive for the utilities to fully expend their Make-Ready Program budgets, regardless of how many L2 and DCFC plugs such expenditures result in. The Make-Ready EAM metrics provide a counterbalance to the incentives provided through the traditional utility business model by incentivizing cost reductions on a per-unit basis. This results in equivalent incentives to either maximize the number of plugs supported by the program while spending the

entire budget, achieve the plug deployment targets under budget, or, ideally, to over-achieve the plug deployment targets and do so under budget.

In the Whitepaper, Staff noted that, while achievement of the EAM would be measured through December 31, 2022, as of mid-December 2022 no utility had met the L2 plug deployment targets necessary to earn an incentive under the L2 metric, and only National Grid had met the DCFC plug deployment target necessary to earn an incentive under the DCFC metric.[119] Appendix D provides a summary of the utilities' progress toward EAM goals listed in the Whitepaper and the utilities' achievement as of December 31, 2022, as provided in the utilities' filed EAM reports.[120] As shown in Appendix D, Central Hudson and Con Edison were able to complete installation of enough DCFC plugs between mid-December 2022 and December 31, 2022, to qualify for incentives under the DCFC metric, representing a significant increase in activity to complete DCFC plug installations by the end of the year.[121] This observed

[119] Whitepaper, p. 41.

[120] Case 20-E-0428, Central Hudson – Rates, Revised Central Hudson 2022 EAM Annual Report (submitted August 14, 2023); Case 18-E-0138, Con Edison Midpoint Make-Ready Program EAM Report (submitted March 31, 2023); Case 20-E-0380, National Grid – Rates, NMPC CY2022 Annual EAM Report (fnl) (submitted April 13, 2023); Case 18-E-0138, 2023-03-02 NYSEG EV Make Ready DCFC PPI 2022 Annual Report REDACTED (18-E-0138) (submitted March 2, 2023); Case 18-E-0138, 2022 Con Edison O&R MRP and PPI Annual Report (submitted March 2, 2023); Case 18-E-0138, 2023-03-02 RGE EV Make Ready DCFC PPI 2022 Annual Report REDACTED (18-E-0138)(submitted March 2, 2023).

[121] Although Con Edison, National Grid, and RG&E each made significant progress toward their L2 deployment goals by December 31, 2022, each of the utilities fell short of the required number of plugs completed to be eligible to earn an incentive under the L2 metric.

behavior speaks volumes to the potency of positive incentives to drive desired outcomes.

The Commission finds that is reasonable to continue the two-component Make-Ready EAM with several modifications and clarifications. The Make-Ready EAMs, as modified, are summarized in Appendix E. In addition, a workbook demonstrating operation of the modified Make-Ready EAMs approved in this Order is provided in Appendix F, including several example scenarios and resulting levels of earned incentive for each EAM metric. First, we find that the Whitepaper's recommendation to update the baseline costs on a $/plug basis for the L2 metric and on a $/kW of nameplate capacity for the DCFC metric is reasonable and well supported by Stakeholder comments. As described in the "Amended Budget Analysis" section above, the baseline costs and budgets for the Make-Ready Program going forward will be significantly different than those approved by the Commission in the 2020 Make-Ready Order, and it is reasonable to modify the baseline costs used in determining Make-Ready EAM performance to the updated levels to ensure that the utilities have appropriate incentives. As with the 2020 Make-Ready Order, the cost baseline used for the Make-Ready EAM metrics will be based on the sum of baseline customer-side and utility-side costs.

Where the 2020 Make-Ready Order established an Upstate Utilities performance baseline and a Con Edison performance baseline in line with the budget methodology used in that Order, we will establish baselines in this Order that match the updated basis for determining utility-specific budgets. The L2 metric will use separate $/plug baseline levels for two groups of utilities – the Upstate Utilities: Central Hudson, National Grid, NYSEG, and RG&E; and the Downstate Utilities: Con Edison and O&R. Specifically, the baseline cost for a L2 plug in the Central Hudson, National Grid, NYSEG, and RG&E service

territories will be updated to $7,067 per plug, and the baseline cost for a L2 plug in the Con Edison and O&R service territories will be $14,801 per plug. The DCFC metric will use separate $/kW baseline levels for each individual utility. Specifically, the baseline costs for the DCFC metric will be $717.64 per kW for Central Hudson, $1,110.56 per kW for Con Edison, $473.61 per kW for National Grid, $450.76 per kW for NYSEG, $611.13 per kW for O&R, and $747.57 per kW for RG&E.

The Commission also clarifies that the measurement period for the Make-Ready EAMs will end on December 31, 2025. The 2020 Make-Ready Order stated that the Make-Ready EAMs would measure performance during two periods – through December 31, 2022, and at the end of the Make-Ready Program - however, as discussed above, utilities will have the opportunity to continue Make-Ready Program operations until the plug deployment goals have been achieved, or until the utility has fully expected their authorized budget. Importantly, the next comprehensive program review will begin two years from the date of this Order, which aligns well with a December 31, 2025 end to the measurement period, allowing the next program review to evaluate the performance of the Make-Ready EAMs modified by this Order. Ending the measurement period for the Make-Ready EAM on December 31, 2025, avoids a potential gaming opportunity where utilities could delay more expensive installations in favor of waiting for a less expensive site to emerge which would be more advantageous under the Share the Savings metric.[122]

The Commission is cognizant that the Make-Ready Program may extend beyond December 31, 2025, and that cost

[122] This delaying tactic would be counteracted during the measurement period by the updated structure of the Share the Savings incentive and minimum plug deployment targets discussed below.

containment for the program under the EAM approved herein would end on that date if not extended. The Commission will require that the review process following December 31, 2025, must include a review and proposal regarding cost containment, whether a further extension and/or modification of these EAM metrics or some new cost containment strategy. The utilities should be on notice that their program expenditures beginning on January 1, 2026, may be subject to the cost containment determinations made by the Commission following the future review process.

In their comments, United, ATE, and the JU argued that the first iteration of the Make-Ready EAM may have suffered from an all-or-nothing incentive structure with targets set too high to spur desired utility behavior. The Make-Ready EAM performance data shown in Appendix D also bear out this conclusion, as utilities were further away from being able to earn a reward experienced low or no growth of plug installation between the data referenced in the Whitepaper and December 31, 2022. Based on this data, the Commission agrees that changes to the EAM structure approved in the 2020 Make-Ready Order are necessary to improve the effectiveness of those incentives. The three-tiered incentive structure proposed by the JU is a reasonable modification and is supported by Stakeholders. The tiered structure's effect of increasing the share of the savings retained as an incentive for higher levels of achievement also conforms to longstanding EAM design philosophy that marginal incentives available should increase with increasing performance – a common feature of many of the EAM metrics, targets, and financial incentives approved by the Commission since their inception.

The Commission will approve the general three-tiered incentive structure proposed by the JU, however, the combination

of the specific target levels for each incentive tier and the share of savings applicable for each tier, as proposed by the JU, require adjustment and clarification. First, the JU proposed that the plug deployment targets for determining the share of savings incentive tier be based on a percentage of the Whitepaper's recommended plug deployment targets. The Commission clarifies that the applicable plug deployment targets that will be used for determining the share of savings incentive tier will be those approved in this Order, not those recommended in the Whitepaper.

Second, the Commission finds that the JU's proposed target levels for the minimum, middle, and maximum incentive tiers for the L2 metric – 75 percent, 85 percent, and 100 percent of applicable plug deployment goal, respectively – are reasonable. However, the JU's proposed target levels for the DCFC metric require modification. The JU's proposed L2 plug deployment levels appropriately require that a majority of the plugs required are deployed before the utility is eligible to earn any incentive, and any incentive earned would then be based on cost-savings relative to the baseline for the plugs deployed. However, this is not the case for the JU's proposed DCFC plug deployment targets. The JU's proposed minimum DCFC plug deployment target for the minimum incentive tier – the DCFC plug deployment goal from the 2020 Make-Ready Order – is far too low, considering that the baseline costs and overall budgets are being updated and significantly increased in this Order relative to the 2020 Make-Ready Order.

Relying on the DCFC plug deployment goal from the 2020 Make-Ready Order is no longer reasonable for EAM purposes, given all of the other changes considered in this Order. Further, as shown in Appendix D, as of July 31, 2023, some utilities have already exceeded the number of DCFC plugs required in the 2020

Make-Ready Order in their present pipeline of committed or completed projects, or will in the near future.[123] Instead, balancing the need for a smoother path for incentive eligibility, significantly higher DCFC plug deployment goals for 2025, higher baseline costs and budgets for DCFC plugs established in this Order, and the need to ensure that EAM incentives are earned only for superior utility performance, setting the minimum incentive tier DCFC plug deployment target at 50 percent of the overall DCFC plug deployment target is appropriate. Consequently, the JU's proposed middle incentive tier target – 50 percent of the applicable DCFC plug deployment goal - must also be modified. The middle tier DCFC metric incentive level shall be 75 percent of the DCFC plug deployment goal established in this Order, splitting the difference between the maximum incentive tier and minimum incentive tier DCFC plug deployment targets.

Finally, the JU's proposed share of savings at the minimum, middle, and maximum incentive tiers for both the L2 and DCFC metrics must also be modified. The initial Make-Ready EAM was designed on the basis that the utilities must meet the program plug deployment goals, which the Make-Ready Program budgets were developed to achieve, and for the utilities to earn a 30 percent share of cost savings they could achieve under both the L2 and DCFC metrics. The Commission finds no basis for providing a greater than 30 percent share of the savings to the utilities as performance incentives at the maximum incentive tier for either the L2 or DCFC metric. Providing a 30 percent share of savings at the maximum incentive level for both the L2

[123] The sum of the committed and completed DCFC plugs for Central Hudson is only one away from the 2020 Make-Ready Order goal of 68 DCFC plugs by 2025, and Con Edison has already exceeded its 2025 goal by 90 plugs in its committed and completed pipeline as of July 31, 2023.

and DCFC metrics reflects the original design of the Make-Ready EAM. Since the budgets and plug deployment targets for the Make-Ready Program are being updated in this Order the Commission finds no rationale to support changing the 30 percent proportion of utility share of the program savings as a shareholder incentive.

The Commission will set the share of savings at the minimum incentive level at 5 percent, and the share of savings at the middle incentive level at 10 percent. The 5 percent share of savings was selected at the minimum tier to establish some incentive for the utilities to seek cost savings at lower plug deployment levels, recognizing the difficulties that utilities may have in achieving aggressive plug deployment targets as well as the fact that the budgets were updated to reflect higher historical costs and more aggressive targets – while also maintaining the Commission's commitment that significant utility shareholder incentives should only be awarded for achievement of superior outcomes. The 10 percent of savings middle incentive tier share of savings was selected to establish an incentive which accelerates with increasing achievement to provide a stronger incentive to attain the maximum tiers. This 5/10/30 percent share of savings arrangement establishes an accelerating incentive that should not result in diminishing returns, thus acting as an effective incentive to achieve both increased plug deployments and manage Make-Ready Program budgets for the mutual benefit of customers and shareholders.

New York Power Authority's (NYPA) Role

Whitepaper Recommendation

The Whitepaper recommends maintaining NYPA's participation in the buildout of New York's statewide EV charging network, particularly in rural and sparsely populated

locations where private development of charging sites remains unlikely because of poor economics.[124]

The Whitepaper additionally recommends maintaining NYPA's current notification process, which includes a 30-day waiting period so that any private developers can notify NYPA if there are any colocation conflicts.[125] The Whitepaper notes that only one developer had raised issue with this process.[126] The lack of complaints indicates that the current process has generally allowed NYPA to develop sites without encroaching on areas where private development would otherwise have taken place.[127]

Stakeholder Comments

ATE supports the Whitepaper's recommendation and states that the public notification process and requirements determined in the 2020 Make-Ready Order strike a reasonable balance of interests between NYPA and other developers. ChargePoint expresses concern that NYPA's dispute resolution process inhibits developers' ability to work with NYPA to limit co-location. ChargePoint suggests that a memorandum of understanding should be sufficient to initiate the dispute resolution process. Livingston comments that NYPA's monthly filings do not allow developers sufficient time to respond or enough information and recommends that NYPA's eligibility be curtailed.

In reply comments, NYPA disagrees with ChargePoint's recommendation to require only an MOU from a developer to prove

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[124] Whitepaper, p. 41-42.

[125] Id., p. 42.

[126] Id. ChargePoint was the only developer to raise an issue with NYPA's notification process for a limited number of sites.

[127] Id.

they are planning to develop a site. NYPA states that an MOU is not legally binding and thus does not offer the level of commitment to develop a site that a signed site agreement does and does not ensure a site will be developed in a timely manner. NYPA comments that the monthly filing on DMM is a supplement to the map on the EVolveNY website, which is the initiation point for the 30-day inquiry period when a site host agreement has been signed. NYPA states that developers may inquire about sites NYPA has identified as in early-stage identification or site host negotiation in advance of the 30-day period.

Discussion and Determination

The notification processes and procedures required for NYPA's participation in the Make-Ready Program were developed to allow NYPA to meet the needs of areas that the private sector is likely to overlook in the near-term without interfering where the private sector is currently willing to build. The Commission agrees with Staff that the current process and requirements appropriately balance these considerations and do not require any modification. The Commission finds that an MOU, as suggested by ChargePoint, would not provide sufficient proof that a location would be built quickly enough to fill near-term needs in underserved areas, if built at all, as the MOU is not as binding as a signed site agreement.

Residential Make-Ready Program

Whitepaper Recommendation

In the Whitepaper, Staff does not recommend developing a residential make-ready program at this time.[128] The recommendation is based upon current market indicators, which suggest such a program is not currently necessary.[129]

[128] Id., p. 45-46.

[129] Id., p. 45.

Stakeholder Comments

The JU suggest exploring a separate residential program for upstate that would provide rebates for 1-4 family residences in DACs and EAP-eligible households. ATE supports residential make-ready incentives for single family households but states that such incentives should not come at the cost of the existing incentive programs.

Discussion and Determination

Currently, the Commission does not believe a residential make-ready program is an appropriate use of rate-payer dollars. Right now, existing waitlists for EVs suggest that ratepayer support for a residential make-ready program is not necessary. Moreover, the Commission does not believe a make-ready program designed for individual residences would be a prudent use of rate payer dollars in the light of the existing and additional ratepayer investments in the transportation electrification sector that more appropriately serve a wider audience.

Medium- Heavy-Duty Pilot Program

Medium- Heavy-Duty Make-Ready Pilot Program Budget and Scope

Whitepaper Recommendation

The Whitepaper proposes increasing the Medium- and Heavy-Duty (MHD) Make-Ready Pilot (MHD Pilot) budget to $54 million, an increase of $30 million.[130] The proposed total MHD Pilot budget includes $9 million that was authorized in a previous Con Edison rate case and $15 million authorized in the 2020 Make-Ready Order.[131] The Whitepaper contends that the MHD proceeding is the appropriate place to examine more

[130] Id., p. 47.

[131] Id.; Case 19-E-0065, Con Edison – Rates, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plan (issued January 16, 2020).

comprehensive policies and full-scale programs necessary to facilitate MHD electrification.[132]

Stakeholder Comments

Nearly all stakeholders are generally in favor of the Whitepaper recommendation to increase the MHD Pilot budget to $54 million, including ATE, CALSTART, the City, EDF, First Student (FS), Highland Electric Fleets, Inc. (Highland), the JU, NY BEST, Nuvve, NYPA, United and ACE-NY, South Bronx Unite and VGIC. CALSTART qualifies its support for this recommendation by warning that eligibility restrictions have hindered participation, while NY BEST characterizes the proposed budget increase as insufficient. The City contends that the MHD pilot has been ineffective to date and should be revised to focus on removing barriers to participation in Disadvantaged Communities, where the public health effects associated with vehicular traffic are most dire. Similarly, EDF alleges that the proposed modifications provide inadequate support to Disadvantaged Communities and requests that Staff reconsider its estimates of infrastructure needs, noting that data are available that were omitted from the Whitepaper. United and ACE-NY advocate a focus on "public benefit vehicles." EJSC contends that it is essential to coordinate with utilities to plan service levels and infrastructure build-out for locations in Disadvantaged Communities.

Discussion and Determination

The Commission modifies Staff's proposal and increases the budget of the MHD Pilot Program of $43 million to a total budget of $67 million (inclusive of $9 million in unspent

[132] Whitepaper, p. 47. Case 23-E-0070, Proceeding on Motion of the Commission to Address Barriers to Medium- and Heavy-Duty Electric Vehicle Charging Infrastructure (Medium- and Heavy-Duty Proceeding) is the appropriate proceeding.

funding authorized in the 2019 Con Edison rate case).[133] The Commission notes that there was extensive support for this proposal among commenting parties and acknowledges that several stakeholders viewed this increase as inadequate and advocated for even greater expansion of the MHD Pilot. Several parties also stressed the equally imperative need to address current pilot underperformance, not only by increasing the overall budget, but through various programmatic reforms to current eligibility restrictions, which are addressed in the sections below.

While the Commission acknowledges that the current underperformance of the MHD Pilot is not a symptom of inadequate budgeting, we agree with some parties that greater funding – when coupled with other program revisions – has the potential to stimulate further participation. Moreover, the Commission concurs with the idea expressed by some parties that an essential purpose of the MHD Pilot is to provide preliminary lessons that can inform the development of a full-scale MHD make-ready program in the dedicated MHD Proceeding. The Commission agrees with the many stakeholders that stated that reducing emissions associated with the MHD transportation sector is enormously important for improving environmental quality and public health, particularly in environmental justice and Disadvantaged Communities, and anticipates relying on the results of an expanded and reformed MHD Pilot to ensure that this achieved at the greatest benefit to ratepayers in a full-scale program.

Some parties expressed support for a focus on "public benefit vehicles" owned or contracted by governmental entities

[133] Case 19-E-0065, Con Edison – Rates, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plan (issued January 16, 2020).

such as public transit agencies, school districts, and municipalities. This proposal was purportedly advanced to narrow the MHD Pilot scope to avoid premature depletion of available funding while achieving the greatest benefit by support public fleets that generally have fewer financial resources at their disposal. However, the Commission agrees with other parties that limiting MHD Pilot support to such public benefit fleets would further restrict access and participation in an already undersubscribed program and declines to impose a public benefit requirement at this time.

Medium- Heavy-Duty Customer-side Costs

Whitepaper Recommendation

The Whitepaper recommends allowing customer-side incentives up to the 50-percent level for projects in Disadvantaged Communities only, with a $/kW limit like those established to measure EAM performance in the light-duty program.[134] The Whitepaper states that incentives covering 50-percent of make-ready costs for all projects could rapidly deplete pilot funding and that limiting the addition of customer-side costs to projects in Disadvantaged Communities only would strike a balance between increasing participation and directing funds to projects with a strong impact in these communities.[135]

Stakeholder Comments

Several parties express support for the provision of customer-side make-ready incentives for the MHD Pilot, but with varying specifications as to eligibility and the level of incentive support necessary. There is also consensus among these parties that customer-side costs represent a significant

[134] Whitepaper, p. 48.

[135] Id.

barrier to MHD electrification efforts. ATE, EDF, and the City support customer-side incentives of up-to-50 percent for projects located in Disadvantaged Communities as recommended in the Whitepaper, though EDF cautions that such support may prove inadequate in achieving transportation electrification policy objectives. EDF also warns that poorly designed incentive programs could result in greater traffic congestion in Disadvantaged Communities by making these locations more economically attractive to charging developers, potentially resulting in scenarios in which air pollution reductions achieved through transportation electrification are offset by adverse effects associated with induced transportation demand. According to EDF, the Commission should generally do more to engage with community groups and environmental justice organizations when developing programs with a focus on Disadvantaged Communities.

CALSTART also supports customer-side incentives, but advocates increasing incentive levels for projects located in Disadvantaged Communities to 80 percent, while providing support to projects in areas not considered a Disadvantaged Community at the up-to-50 percent level. CALSTART suggests that these incentive levels can represent an interim measure for the MHD Pilot, with subsequent market response to these revisions used to guide future MHD electrification policy. United and ACE-NY also support revised incentives but propose a 90-percent incentive level for projects not located in a Disadvantaged Community and a 100-percent incentive for "public benefit vehicles" such as transit agencies, school buses, and municipal fleets. NY-BEST concurs with United and ACE-NY that the MHD Pilot should adopt a focus on vehicles owned or contracted by government agencies, but without stipulating specific incentive

levels for these, though this focus on public fleets is opposed by EDF.

Additionally, NY-BEST supports the expanded eligibility to customer-side costs and recommends it be expanded to all fleets eligible for the program. While supporting the revisions proposed in the Whitepaper, First Student, Highland, and the JU recommend further changes, proposing that incentives cover 100 percent of customer-side costs statewide, with First Student and the JU also recommending elimination of the Disadvantaged Community eligibility requirement. In its comments, the JU observes that facility location is not always an accurate indicator of MHD traffic, as significant non-passenger traffic often traverses Disadvantaged Communities regardless of charging location. Nuvve proposes statewide customer-side cost eligibility, regardless of Disadvantaged Community status, but without recommending incentive percentages, while NYPA and VGIC similarly express general support for customer-side make-ready incentives without endorsing specific levels. EDF contends that there is evidence that finds that funding both utility- and customer-side infrastructure can result in neutral or positive utility net revenue and reduced customer rates.

Given likely budgetary limitations, VGIC expresses a preference for restricting eligibility to sectors with the greatest financial need and potential for public benefit, such as school transportation and municipal fleets. VGIC also recommends that ALM technologies, including those that incorporate battery storage, be eligible for make-ready incentives through the MHD Pilot.

Discussion and Determination

Several commenters identified customer-side make-ready costs as a serious financial barrier to fleet electrification

efforts and proposed various customer-side incentive levels to alleviate these impediments. These suggestions ranged from incentives covering 50 to 100 percent of customer-side make-ready infrastructure, with proposals generally recommending higher levels in Disadvantaged Communities or even statewide eligibility for full incentive coverage with no geographic restrictions. While acknowledging the serious effect of customer-side costs in limiting MHD Pilot participation, the Commission remains apprehensive that full incentive eligibility for such costs at a statewide level would rapidly deplete even the increased program budget.

The Commission agrees with Staff that permitting a greater degree of customer-side cost eligibility will likely alleviate alleged impediments presented by truck voucher program requirements. Such limited incentives for customer-side costs represent an appropriate provisional measure to stimulate improved pilot performance that can inform a full-scale MHD make-ready program to be developed in the MHD Proceeding, while encouraging greater participation and infrastructure development in the interim. The Commission also finds merit in the argument by EDF for customer-side support outside of Disadvantaged Communities, as air pollution and other public health effects associated with MHD traffic are as much a product of fleet routing than facility locations and may even unintentionally increase traffic congestion in Disadvantaged Communities. However, the Commission remains in favor of some degree of limits on customer-side incentives for cost-containment purposes.

Therefore, the Commission orders that the revised MHD Pilot shall provide incentives covering up-to-50 percent of customer-side costs to qualifying projects at publicly accessible locations or in Disadvantaged Communities. Customer-

side incentives are capped at 50 percent of the $/kW baseline developed for the DCFC baseline, scaled to a 150kW charger. The full breakdown of baseline costs is in Appendix B, Table 2. The customer-side DCFC baseline costs per kW for each utility are as follows: $658.36/kW for CHGE; $980.76/kW for Con Edison; $440.96/kW for National Grid; $409.07/kW for NYSEG; $592.77/kW for O&R; and $712.08/kW for RG&E.

Medium- Heavy-Duty Eligibility

Whitepaper Recommendation

The Whitepaper recommends including transportation electrification programs with Disadvantaged Community requirements established in the federal Infrastructure Investment and Jobs Act and Inflation Reduction Act of 2022 in the list of qualifying voucher programs that determine MHD Pilot eligibility, including the Environmental Protection Agency's Clean School Bus Program.[136] Much like the truck voucher program, the Clean School Bus Program has a scrappage requirement that decommissions existing polluting diesel buses to access funding for new zero emission and low emission buses.[137] The recommendation to expand the list of qualifying voucher programs is intended to increase program uptake in the near-term while ensuring that early MHD electrification investments will directly displace existing diesel emissions in Disadvantaged Communities.[138]

Stakeholder Comments

There is broad stakeholder support for eliminating altogether the current requirement that MHD Pilot participants receive support through the NYSERDA New York Trucker Voucher

[136] Id., p. 50.

[137] Id., p. 49-50.

[138] Id., p. 50.

Incentive Program (NYTVIP) or the New York City Department of Transportation Clean Trucks Program. While some parties acknowledge the prudent program administration intended by these imposing such obligations and their attendant scrappage requirements, CALSTART, EDF, and EJSC allege that experience to date demonstrates that these conditions have been overly restrictive and have unduly stifled participation. EJSC argues that while some state policies should emphasize decommissioning of the worst polluting vehicles, the Make-Ready Program is intended to achieve the widespread availability of charging infrastructure and voucher requirements hinder this deployment.

Furthermore, EDF, the JU, and Tesla specifically criticize the existing program eligibility requirements for their preclusion of participation by newer fleets, as well as fleets that are expanding through the adoption of electric vehicles without decommissioning, rather than through the outright one-to-one replacement of obsolescing vehicles required by the voucher programs. EDF observes that these requirements also render the MHD Pilot inaccessible to entities that do not own MHDs of their own but provide services to MHD fleet operators, such as logistics, leasing, and repair companies. For these reasons, CALSTART, EDF, EJSC, First Student, the JU, and Tesla all call for the Commission remove such constraints on the MHD Pilot by eliminating these voucher program participation requirements, though all but Tesla endorse expanded eligibility as proposed in the Whitepaper absent such action. The City, Highland, and NYPA commend the proposed expansion of qualifying programs without offering criticism of current restrictions, and predict that such an extension will increase demand for the MHD Pilot.

Discussion and Determination

The Commission agrees with Staff's recommendation to augment existing truck voucher requirements by including participation in the EPA's transportation electrification programs with Disadvantaged Community requirements as a qualifying condition, in addition to NYSERDA's New York Truck Voucher Incentive Program and the New York City Department of Transportation New York City Clean Trucks Program. Regarding these eligible programs, the Commission stipulates that participation in NYSERDA's NY School Bus Incentive Program should also constitute a qualifying condition.

While several commenting parties observed that the existing scrappage requirements constitute an impediment to program participation, the Commission remains persuaded that such restrictions are necessary to prioritize the direct replacement of internal combustion engine vehicles and their associated pollutants with zero-emissions vehicles. Moreover, while there was criticism of the scrappage requirement from several parties, other commenters were supportive of expanding program eligibility as proposed by Staff, even if only as a near-term compromise to encourage greater program participation. The Commission finds that the participation in NYSERDA's New York Truck Voucher Incentive Program or related programs with scrappage requirements are not necessary for publicly accessible charging infrastructure.

Transit Authority Make-Ready Program

Whitepaper Recommendation

The Whitepaper recognizes that transit fleet electrification directly benefits Disadvantaged Communities and urban areas where public transportation is generally the most affordable, accessible, and convenient transport system for much

of the population.[139] The Whitepaper requests additional Stakeholder input and analysis before recommending any modifications of the transit electrification efforts, asking for proposals and supporting cost studies.

Regarding school bus electrification, the passage of the New York State Environmental Bond Act of 2022 allocated an additional $500 million for school transportation electrification.[140] The Whitepaper contends that further coordination between utilities and interagency partners such as DPS, NYSERDA, and the New York State Education Department is necessary to allocate the Bond Act funding efficiently to achieve the State's school transportation electrification objectives.[141]

Stakeholder Comments

Several parties express general support for the current Transit Authority Make-Ready Program. ATE advocates continued funding for MHD transit infrastructure and supports processes that identify economically efficient charging locations for the scale required by fleet operators considering electrification. CALSTART explains that the extant Transit Authority Make-Ready Program provides vital support and funding to ensure the success of public transportation transition efforts, particularly as transit operators strive to balance fulfillment of Zero Emission Vehicle (ZEV)-only purchasing requirements and complete fleet electrification objectives while maintaining fiscal solvency in the critical initial stages of this process. The JU agrees with NYPA's observation that costs constitute the greatest impediment to transit electrification

[139] Id., p. 51.

[140] Environmental Conservation Law (ECL) §58-0701.

[141] Id.

and support the continuation of the Transit Authority Make-Ready Program to address these issues. The JU notes that transit agencies have expressed issues with the available range of plug-in electric buses, especially during the winter seasons. Installing additional on-route charging can be cost prohibitive, and some transit agencies have determined that hydrogen fuel cell buses are the most cost effective and operationally feasible way they can meet their zero-emission bus goals. The JU states that the Transit Authority Make-Ready Program should expand eligibility to include supportive electrical infrastructure for fuel cell buses. In reply comments, EDF argues that hydrogen fuel cell technology is beyond the utilities' traditional area of expertise and cautions that this technology remains unproven.

Other commenters advocate for even greater investment in the Transit Authority Make-Ready Program. EDF recognizes Staff's caution over the prudent outlay of ratepayer funding, but references analysis by Synapse Energy Economics that predicts that rate basing both customer-side and utility-side make-ready infrastructure costs can have a neutral or even positive effect on utility net revenues, and consequently a corresponding depreciatory effect on customer rates. With the alleviation of such concerns, EDF argues that greater make-ready funding should be made available to all fleet operators, including transit operators whose services provide benefits to Disadvantaged Communities. Nevertheless, EDF identifies the new MHD proceeding as a more appropriate venue for the consideration of such program expansion.

EJSC alleges that the existing Transit Authority Make-Ready Program is inadequate in both scale and funding, claiming that the $10 million allocation is insufficient to achieve a transition to all-electric, zero-emissions public transportation

operations, even for the four transit operators currently funded. EJSC acknowledges that comprehensive efforts to accomplish statewide transit fleet electrification can be considered more fully in an MHD-specific proceeding, but in the interim, recommends an increase in transit funding to the $50 million originally requested by the New York Public Transit Association as a more immediate remedy. EJSC also proposes that the Transit Authority Make-Ready Program be increased in scale to accommodate participation by all utilities and transit agencies, thereby correcting the current omission of both the MTA and operators on Long Island, as well as more rural upstate areas. EJSC qualifies all its recommendations with a recognition of Staff's efforts to maintain discretion in the allocation of ratepayer funding, but contends that its proposals remain reasonable, modest, and essential to achieving state transportation electrification policies.

On the related issue of school transportation electrification, United and ACE-NY and NY-BEST support the establishment of a dedicated program and separate funding for electric school buses. United and ACE-NY also warn that infrastructure development timelines are not keeping pace with school transportation electrification and that additional resources are needed to realize the State's ambitious policy objectives on school transportation electrification.

ATE, CALSTART, Highland, and the JU generally emphasize the importance of collaboration between utility companies and educational institutions, as well as other local and industry stakeholders, and generally support greater engagement and coordination between various entities in these efforts. Highland specifically underscores the importance of such coordination in managing the allocation of external funding such as the Bond Act.

Highland and the JU express specific support for Staff's recommendations for coordinated interagency efforts to identify school transportation facilities ready for electrification at current capacity levels, as well as the development of electrification plans for grid-constrained sites. However, in response to the same recommendation, EDF cautions that such efforts should not be limited to specific use cases such as school transportation but should be applied broadly to more comprehensive planning for electrification across the entire MHD sector.

Discussion and Determination

The Commission observes that commenters were generally supportive of the current Transit Authority Make-Ready Program, while also acknowledging ardent appeals for even greater funding for the electrification of public transportation. The Commission is encouraged by the progress made in the more limited scope of the existing Transit Authority Make-Ready Program, but concurs with Staff both in recognizing that the newly established Medium- and Heavy-Duty Proceeding as a more suitable forum for the potential expansion of transit bus electrification efforts statewide, and in its cautious approach to the careful outlay of ratepayer funding for such work. For these reasons, the Transit Authority Make-Ready Program should continue in the form of soliciting transit electrification proposals and costs studies as proposed in the Whitepaper, and Stakeholders should submit proposals in the Medium- and Heavy-Duty Proceeding.[142]

In the interim, the Commission is optimistic that other revisions to MHD transportation electrification policy

[142] Case 23-E-0070, Proceeding on Motion of the Commission to Address Barriers to Medium- and Heavy-Duty Electric Vehicle Charging Infrastructure.

outlined in this Order will also stimulate future transit electrification efforts, particularly in regions of the state not served by transit operators not included in the Transit Authority Make-Ready Program. For the remaining funds in the Transit Authority Make-Ready Program, the Commission directs the utilities to expand eligibility to include the electrical infrastructure necessary to make a site ready for hydrogen fueling (hydrogen fuel cell electric make-ready), noting that certain transit agencies are currently adopting this technology due to the range limitation of plug-in electric bus models.[143] While this change will support the transit authorities' achievement of the 2020 State of the State goal to electrify 25 percent of their fleets by 2025, some small deployment of hydrogen fuel cell buses will have the added benefit of generating learnings that can be used to develop further recommendations in the Medium- and Heavy-Duty Proceeding. Although the Commission modifies eligibility to the Transit Authority Make-Ready Program with the inclusion of hydrogen fuel cell electric make-ready, the role of this technology in future ratepayer funded programs will be addressed in the Medium- and Heavy-Duty Proceeding.

While not discussed in the 2020 Make-Ready Order, the Commission notes that school transportation electrification has quickly emerged as a significant issue for consideration following ZEV-only school bus mandates announced by Governor Hochul at the 2022 State of the State address. The Commission recognizes notable commenter support for continued collaboration between utility companies, state agencies, public school

[143] Although Transit Authority Make-Ready eligibility has expanded to include hydrogen fuel cell buses, the equipment eligible for incentives remains the same as the existing Make-Ready Program.

districts, and other stakeholders to coordinate efforts in this MHD sector, particularly as greater funding becomes available for school transportation electrification through the EPA Clean School Bus Program and the New York State Environmental Bond Act of 2022. As recommended by Staff in the Whitepaper, the Commission directs the Joint Utilities to work with Staff to identify existing load serving capacity at school transportation facilities within 180 days of this Order. However, the Commission declines, at this time, to allocate separate funding for school transportation electrification in consideration of external funding and the remaining MHD Pilot budget, both of which should serve as interim support until a more comprehensive school transportation program might be developed in the new MHD proceeding.

Fleet Assessment Services

Whitepaper Recommendation

The Whitepaper recommends that Stakeholders collaborate to investigate modifications of the existing utility Fleet Assessment Services.[144] The Whitepaper additionally recommends that the JU modernize the fleet assessment application into a single, standardized, web-based form to streamline onboarding fleets into the program.[145]

Stakeholder Comments

Comments on fleet assessment services were more limited than other MHD topics, but with demonstrated general stakeholder support for these services and the Whitepaper recommendations concerning them. Without stating a specific position on the Whitepaper recommendations, ATE notes that it recently published an issues brief with five case studies on

[144] Id., p. 52.

[145] Id.

utility fleet assessment offerings and suggests their use in improving the existing program. CALSTART, EDF, the JU, and Highland support the recommendation to solicit stakeholder input and collaboration to develop a standardized web-based form that will permit a more streamlined, consistent, and accessible application process.

EJSC, EDF, Highland, and the JU are all in favor of expanded fleet assessment services, with EJSC advocating greater guidance and minimum standard offerings, such as total cost of ownership calculation, interconnection services, and fleet conversion schedules. EDF notes that fleet assessment services are even more important to smaller fleets due to their more limited resources and access to capital.

To preserve a uniform customer experience, the JU specifically recommends retaining separate application links and contacts for each respective company on the JU website, but with identical customer application questions for each utility. Both the JU and Highland support additional utility budgets for fleet assessment services. However, EDF and EJSC advise against prescribing fleet assessment services with a focus on specific use cases to the exclusion of other fleet types, as suggested in Staff's recommendation to develop a program tailored to serve the needs of school transportation operators. While supportive of school transportation electrification efforts, EDF requests that Staff work to engage with a variety of fleet operators in both the public and private sectors to develop the most effective portfolio of services for all use cases.

Discussion and Determination

The Commission recognizes general support for the expansion of fleet assessment services, with several commenters endorsing the Whitepaper recommendation calling for stakeholder

collaboration in the development of a standardized, web-based form for use by all the JU companies.

The Commission also acknowledges requests by several parties to increase the scope of the existing fleet assessment services, including remarks recorded in the December 1, 2022 MHD technical conference recommending total cost of ownership evaluation, fuel savings and emissions reduction estimates, guidance on sequencing fleet conversion and replacement, and greater coordination between fleet assessments and interconnection evaluations. The Commission agrees with CALSTART's observation that a more consistent application process for the entire JU will simplify program applications by fleet owners with operations across utility service territory boundaries, as well as comments made during the MHD technical conference that predicted that a more uniform suite of offerings would generate greater fleet operator confidence. The Commission directs the Joint Utilities to develop a single online application portal for the MHD Pilot that will prompt fleets to provide the necessary information for the application to be filtered and sent to the appropriate utility.

Regarding school transportation electrification, the Commission shares the concern expressed by some parties that the fleet assessment services should not be revised to concentrate on school districts to the exclusion of other fleets. However, given the urgency and scale of school transportation electrification efforts that will be necessary to meet state policy objectives in this area, the Commission agrees with the Whitepaper that fleet assessment services should continue to allow for targeted, site-specific studies that can be incorporated into educational capital improvement processes and facilities work timelines.

The Commission anticipates that these efforts will continue at a greater scale in the pending MHD proceeding, but in the interim, the Commission directs the Joint Utilities to develop a standardized, web-based form as recommended in the Whitepaper, within 120 days of this Order.

Load-serving Capacity Maps

Whitepaper Recommendation

The 2020 Make-Ready Order did not specify a frequency for updates to the maps. The Whitepaper recommends that the utilities provide quarterly updates to their load-serving capacity maps.[146]

Stakeholder Comments

United and ACE NY, EJSC, and EDF support quarterly updates to the load-serving capacity maps and recommend including the costs of installing hardware and software for load management. EJSC proposes the utilities be directed to identify locations of major fleet depots and hubs, grid constraints, least-cost locations, and distribution upgrade prioritization locations.

ATE does not support requiring quarterly updates to the load-capacity maps and recommends an annual update. ATE notes that these maps are intended to provide speculative indication to private developers of whether capacity exists on a given feeder and that only formal engineering studies can provide the certainty required to go forward with a project. The JU notes that the analysis for the capacity data on the load capacity maps is reliant on a one-time annual snapshot of summer peak load, and therefore would not change from quarter to quarter.

[146] Id., p. 53.

In reply comments, EDF disagrees with ATE's assertion that the capacity maps are meant only to provide a speculative availability of capacity as these disregards the number of entities that may install chargers in a location near other fleets and will use the maps to decide if electrification is feasible. EDF recommends that Staff identify other improvements to the maps such as greater temporal and spatial granularity for the map and how the map modifications could integrate with the utilities' forecasting and planning work. EDF also agrees with EJSC's recommendations that the utilities proactively identify MHD fleet clusters that will require distribution upgrades so that upgrades will not suspend fleet electrification.

Discussion and Determination

In the Order Directing Energy Efficiency and Building Electrification Proposals, the Commission reiterated NYSERDA's comments provided in that proceeding that "it is the utilities' unique position to provide public information about what parts of the electric grid are ready for accommodating increased electric load."[147] NYSERDA further commented that "there are a number of examples of such "grid-ready" maps today, including Con Edison's Distributed Generation Hosting Capacity map and their Electric Vehicle Charging Capacity map, which indicate what parts of the grid are suitable for hosting distributed generation and electric vehicle charging.[148] In the Energy Efficiency and Building Electrification Proposal, the Commission directed the electric utilities, in consultation with Staff, to expand the Electric Vehicle Load Serving Capacity Maps into

[147] Case 14-M-0094, et. al., Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Order Directing Energy Efficiency and Building Electrification Proposals (issued July 20, 2023), pp. 69-70.

[148] Id., p. 69.

"Electrification Load Serving Capacity Maps" within 180 days of that Order."[149] The Commission agrees with the JU that an annual cadence for load serving capacity map updates is appropriate, and directs the JU to update the maps annually going forward.

Power Sharing

Whitepaper Recommendation

Power sharing allows for multiple chargers at a charging site to distribute the available energy capacity proportionally across all the active EV chargers.[150] The Whitepaper solicited Stakeholder feedback on whether to allow higher capacity on the customer side under certain circumstances, such as establishing a minimum utility-to-customer-side ratio or a minimum plug count, to enable larger charging sites to utilize power sharing.[151]

Stakeholder Comments

The majority of commenters support power sharing. United and ACE-NY recommend funding asymmetric capacities on the customer and utility sides of the meter and suggest using the term "Automated Load Managed" rather than "power sharing" because, as said by United and ACE-NY, the term "power sharing" does not fully represent all of the technology's capabilities. United and ACE-NY and PowerFlex propose not capping or limiting power sharing capabilities but rather allowing each site to decide power sharing specifics. PowerFlex further recommends not mandating a utility-to-customer-side ratio, as load management varies by site. ATE suggests seeking Stakeholder feedback on whether to allow higher capacity on the customer side under certain circumstances. The JU comment that many

[149] Id., p. 70.

[150] Whitepaper, p. 53.

[151] Id.

installations currently use software and hardware solutions to allow for power sharing, concluding that the current Make-Ready Program structure does not discourage power sharing.

Livingston Energy proposes verifying hardware and software capabilities to ensure that chargers can dispense maximum energy while sharing power and recommend allocating the up-to-50 percent incentive level in Disadvantaged Communities for customer-side power sharing costs. VGIC indicates ALM is a better approach to addressing power sharing as it encompasses a range of potential solutions such as battery storage, rectifier cabinets, and other hardware- or software-based approaches.

Discussion and Determination

The Commission is appreciative of the comments received regarding load management and the JU's clarification that many make-ready installations currently install load management software and hardware solutions to allow for power sharing across multiple dispensers. The Commission agrees with the JU's explanation that software and hardware solutions are customer driven and are not currently excluded from the current incentive structure of the Make-Ready Program, therefore, no modifications to the program regarding power sharing are necessary, at this time.

CONCLUSION

The Commission recognizes the immediate need for support to ensure ratepayers have sufficient access to EV charging and believes that the modifications made to the Make-Ready Program in the Midpoint Review Order will lead to a proliferation of EV charging infrastructure across the State. The modifications in this Order build upon the successes of the 2020 Make-Ready Order with new budget allocations and programmatic elements added to the light-duty Make-Ready

Program, Fleet Assessment Services, and the Medium- and Heavy-Duty Make-Ready Pilot.

The Commission also recognizes the need for tailored support for clean mobility within Disadvantaged Communities. Dedicated enhanced incentives in the Make-Ready Program, additional eligibility, and an incremental budget increase in the Medium- and Heavy-Duty Pilot as well as the new micromobility programs provide benefits to Disadvantaged Communities by expanding access to a variety of transportation modes as well as reducing pollution from diesel vehicles that have a disproportionate public health impact.

The actions of this Order will expand clean mobility and further the State's progress towards its climate change mitigation targets codified in the CLCPA.

The Commission orders:

1. New York State Department of Public Service Staff are directed to conduct a program review that facilitates the ramping-down of the Make-Ready Program, as directed in the body of this Order.

2. Consolidated Edison Company of New York, Inc. is directed to increase the allowable number of megawatts per site from 3 megawatts to 6 megawatts.

3. Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to increase and reallocate funding, as described in the body of this Order and in Appendix B, Table 1 and Table 6.

4. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas

Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to file an annual report detailing the progress of the Make-Ready Program, as described in the body of this Order.

5. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to individually file an end-of-program report within 80 days of either the plug goals being met, or program budget being depleted, whichever comes first.

6. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to file updated implementation plans, the content of which is outlined in the body of this Order, by January 12, 2024, and on a semi-annual basis thereafter, or immediately if program modifications are made.

7. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to coordinate the development of uniform and consistent definitions related to the administration budget reporting as part of the first semi-annual update to the implementation plans.

8. Department of Public Service Staff shall initiate an Electric Vehicle Infrastructure Interconnection Working Group no later than March 15, 2024.

9. Consolidated Edison Company of New York, Inc. shall submit a straw proposal that describes its efforts in streamlining their queue management system no later than March 15, 2024.

10. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to ensure that Make-Ready Program applicants who are applying for curbside charging incentives have demonstrated that each curbside charger is associated with a designated electric vehicle charging-only parking pace, and that a framework is in place to prevent non-charging vehicles from blocking access to electric vehicle chargers.

11. Consolidated Edison Company of New York, Inc., and Orange and Rockland Utilities, Inc., shall jointly administer $20 million in funding for a downstate Micromobility Make-Ready Program, as directed in the body of this Order.

12. Consolidated Edison Company of New York, Inc., and Orange and Rockland Utilities, Inc., are directed to file a joint Micromobility Make-Ready Implementation Plan no later than February 2, 2024.

13. The New York State Energy Research and Development Authority is directed to develop and implement a research and development micromobility grant program, as directed in the body of this Order.

14. The New York State Energy Research and Development Authority is directed to update the Appendix of the Bill-As-You Go Summary to reflect the upstate micromobility program, within 30 days of this Order.

15. The New York State Energy Research and Development Authority is directed to file a Micromobility Implementation Plan, as directed in the body of this Order, on or before February 15, 2024.

16. The New York State Energy Research and Development Authority is directed to file an annual report for the upstate micromobility program, as directed in the body of this Order, no later than March 1 of each year, beginning in 2025.

17. Consolidated Edison Company of New York, Inc., is directed to limit eligibility for incentives at the enhanced tier for L2 chargers at multi-unit dwellings as directed in the body of this Order.

18. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to extend eligibility for enhanced L2 incentives to all multi-unit dwellings that meet the site-specific criteria and submit the necessary documentation, regardless of their location, as directed in the body of this Order.

19. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to work with Department of Public Service Staff and the New York State and Federal agencies responsible for regulating affordable housing to increase awareness of and facilitate access to Make-Ready Program incentives, as directed in the body of this Order.

20. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power

Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to update the Participant Guide to reflect the changes to the Make-Ready Program, as discussed in the body of this Order.

21. As part of the application process, Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to provide approved contractors with information related to NYSERDA's workforce development programs.

22. Department of Public Service Staff are directed to convene a technical conference in 2024 to consider interoperability and universal accessibility of charger hardware, as directed in the body of this Order.

23. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to confirm that any installation funded with Make-Ready Program incentives shall be hardware capable for ISO 15118 parts 2 and 20, and achieve software conformance within one year of the date of this Order.

24. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to confirm that any installation funded with Make-Ready Program incentives shall require hardware conformance with OCPP version 2.0.1 or later within one year of the issuance of this Order.

25. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation shall update their VDER tariffs on not less than 30 days' notice, to become effective on January 1, 2024, to reflect the eligibility of vehicle to grid integration under the VDER Value Stack tariff.

26. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to file annual reports, no later than March 1 of each year, the contents of which shall be consistent with the directives in the body of this Order.

27. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to develop an online tracker that monitors the committed and completed L2 and DCFC plug installations, as well as the committed and completed L2 and DCFC budgets, by service territory. Additionally, the online tracker shall reflect the same data for the enhanced tier. This tracker shall be updated, at least, on a monthly basis.

28. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to develop, and file no

later than March 1, 2024, a Data Reporting Compliance Plan, as described in the body of this Order.

29. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation shall file the first Semi-Annual Report no later than August 23, 2024, that contains all of the required data from all station owners, retroactive from the Make Ready Program's inception.

30. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation shall require all Make-Ready Program-funded sites to display easily identifiable, up-to-date contact information for the electric vehicle service provider on each charger.

31. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation shall expand the Electric Vehicle Load Serving Capacity Maps, as directed in the body of this Order.

32. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to work with Department of Public Service Staff to identify existing load serving

capacity at school transportation facilities within 180 days of this Order.

33. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to develop a single online application portal for the Medium- and Heavy-Duty Pilot, as directed in the body of this Order.

34. Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas & Electric Corporation are directed to develop a standardized, web-based form for fleet assessment services, as directed in the body of this Order, within 120 days of the issuance of this Order.

35. Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation, shall file tariff revisions to effectuate the provisions directed in this Order. The tariffs amendments shall be filed on not less than 30 days' notice become effective on January 1, 2024.

36. The requirements of Public Service Law Section 66(12)(b) and 16 NYCRR §720-8.1, as to newspaper publication of the tariff filings directed in Ordering Clauses Nos. 25 and 35 are waived.

37. In the Secretary's sole discretion, the deadlines set forth in this Order may be extended. Any request for an extension must be in writing, must include a justification for

the extension, and must be filed at least three days prior to the affected deadline.

38. This proceeding is continued.

By the Commission,

(SIGNED) MICHELLE L. PHILLIPS
Secretary

APPENDICES

List of Commentors

Advanced Energy United (United) and Alliance for Clean Energy New York (ACE NY)

Alliance for Clean Energy New York (ACE NY)

Alliance for Transportation Electrification (ATE)

CALSTART

ChargePoint, Inc (ChargePoint)

ChargerHelp!

Citi Bike

City of New York (City)

Earth Justice & Sierra Club (EJSC)

EnergyHub Inc. (EnergyHub)

Environmental Defense Fund (EDF)

EVgo Services LLC (EVgo)

Fermata Energy LLC (Fermata)

First Student, Inc. (FS)

Franklin Energy Services LLC (Franklin)

FreeWire Technologies (FreeWire)

Gravity, Inc. (Gravity)

Highland Electric Fleets, Inc. (Highland)

Joint Utilities of New York (JU)

Livingston Energy Group LLC (Livingston Energy)

New York Battery Energy Storage Consortium, Inc (NY-BEST)

New York League of Conservation Voters and Environmental Advocates of New York (NYLCV EANY)

New York League of Conservation Voters (NYLCV), Transportation Alternatives, and Hell’s Kitchen Chelsea Coalition for Pedestrian Safety (CHEKPEDS)

New York Power Authority (NYPA)

Nuvve Holding Corporation (Nuvve)

PowerFlex

re:Charge

Revel

South Bronx Unite

SWTCH Energy Inc. (SWTCH)

Tesla

Vehicle-Grid Integration Council (VGIC)

COMMENTS

Advanced Energy United (United)and Alliance for Clean Energy New York (ACE NY)

Baseline Costs

United and ACE NY support increasing the make-ready budget and aligning the per charger incentives with historical data on project costs.

Plug Goals

United and ACE NY agree with the proposal to decrease the number of public and workplace L2 charges, add charger projections of multi-unit dwellings, and cap the MUD L2 incentive budget at 75% for upstate and 50% for downstate utilities.

Program Timeline

United and ACE NY support extending the program beyond December 31, 2025, if budget has not been spent and targets have not been met.

Changes to Incentive Tiers

United and ACE NY state that lowering the public tier incentive to 75% can decrease program interest and slow the deployment of EVSE. United and ACE NY request clarification on whether the change applies to L2 and DCFC.

United and ACE NY recommend monitoring EVSE deployment to identify areas where it is lagging and therefore may not be able to meet the targets. United and ACE NY recommend remaining flexible to increasing incentive levels beyond the current proposal, if deployment is lagging. United and ACE NY also request that a progress report be filed within 12 months of the Issuing Order with information that contains the data, reactions to the incentive tiers, and any modifications to the program, if necessary.

Disadvantaged Communities

United and ACE NY support all modifications proposed in the Whitepaper regarding Disadvantaged Communities, including the addition of the micromobility program, the modifications to the tier eligibility, and on-street L2 charging in the DAC+0 radius.

Medium and Heavy-Duty Pilot

United and ACE NY support expanding the MHD pilot budget and the inclusion of Disadvantaged Communities' customer-side costs. United and ACE NY propose focusing on "public benefit vehicles" ("defined as owned or contracted by the government, such as transit agencies, school buses and municipal fleets") for the MHD pilot. United and ACE NY state that incentives should be available for all utility-side and customer-side infrastructure costs, equivalent to the structure of the light duty program.

United and ACE NY emphasize that a separate program and funding source be established for electric school buses under the public benefit vehicle program pilot. United and ACE NY state that a separate program can bolster support for grantees funded by the EPA's Clean School Bus program. United and ACE NY iterate the importance of the timeline of infrastructure upgrades aligning with the adoption pace of MHD vehicles.

Application Process

United and ACE NY recommend establishing a working group for the requests for grid connections for EVSE (like the Interconnection Technical Working Group and Interconnection Policy Working Group which address queue management issues). If an EVSE working group is established, United and ACE NY recommend meeting within 30 days after the Midpoint Review Order and submitting for Commission review any recommendations 90 days after that.

Communication Standards

United and ACE NY recommend that communication standards be consistent among programs so that hardware can be efficiently deployed across the country. United and Ace NY recommend having a phased approach to developing communication standards specifically designed to consider the rapid development and changes in the technology. United and ACE NY support third party testing for OCPP 1.6 but note that proprietary extensions may be required to communicate between cloud servers and charges however these extensions should be made publicly available so that any vehicle or customer can still use the charger. United and ACE NY further state that the proprietary extensions should

be allowed within the context of OCPP 1.6 so that providers have the flexibility to successfully implement OCPP in practice.

United and ACE NY recommend providing at least one year from the order date for compliance if third-party certification for OCPP will be required.

United and ACE NY support adopting ISO 15118 and recommend following the same phased approach as used in California.

United and ACE NY recommend that any technical requirements follow the FWHA NEVI standards so that the program may be eligible to receive federal funding.

Battery Storage/Advanced Technologies

United and ACE NY support Staff's recommendation that cost-reducing advanced technology be eligible for incentives, but state that more clarity is needed on how such benefits would be determined.

United and ACE NY do not support utility storage ownership beyond the criteria already established by the Commission.

Vehicle-Grid Integration (VGI)

United and ACE NY recommend developing a specific program to support bidirectional charging for school districts, fleets, or contracts that provide fleet services rather than introducing another pilot. United and ACE state that VGI technology is proven and commercially available today.

United and ACE NY support the proposal that would instruct the utilities to update the VDER tariffs to include VGI as an eligible technology for compensation.

Performance Incentives

United and ACE NY support paying the utilities incentives only when the utility's performance exceeds the baseline level of performance. United and ACE NY are uncertain if the current EAM framework provides a suitable incentive to be effective, or instead, if the targets are too high and therefore unattainable. United and ACE NY support the recommendations to update the revised EAM baseline cost assumptions and to include the requirement that a minimum achievement on the Transit Authority Make-Ready Program be a precondition, however United and ACE NY

request an opportunity evaluate any updated EAM proposal prior to finalization.

Power Sharing and Load-Serving Capacity Maps

United and ACE NY support quarterly updates to load-service capacity maps and recommend including the costs of installing hardware and software for load management. United and ACE NY recommend revising the Make-Ready programs to fund asymmetric capacities on the customer and utility sides of the meter to ensure that customers choosing to minimize new infrastructure can still receive the assistance commensurate with that of an unmanaged installation. United and ACE NY recommend using the term "Automated Load Managed" rather than "power sharing", as the term power sharing does not fully represent all its capabilities.

United and ACE NY state the make-ready program should not set a cap on power sharing capabilities, but rather determine what is best for each site.

Regarding school bus depots, United and ACE NY recommend that the proactive assessment of existing load capacity include the "identification of operators who may be able to use load management solutions to electrify using current grid capacity".

Data reporting

United and ACE NY support having a technical conference to discuss gaps and challenges of collecting consistent and reliable data.

Alliance for Clean Energy New York (ACE NY)

ACE NY supports required compliance with ISO 15118 and OCPP for relevant equipment and recommends continued alignment among programs across the country to ensure consistency. ACE NY comments that a phased-in approach that requires hardware initially and then firmware would be most prudent.

ACE NY comments that the recommendation to require 3rd party certification for OCPP 1.6 compliance and future standards needs further discussion on implementation timelines, process, and enforcement. ACE NY comments that proprietary extensions should be allowed within the context of OCPP 1.6 so that

providers have the flexibility to successfully implement OCPP in practice. ACE NY states that few EVSE are currently formally certified OCPP compliant, and that should the Commission proceed with requiring 3rd party certification, the Commission should allow at least one year from the order date to enable companies time to apply for and receive certification. ACE NY contends that without this timeline, critical infrastructure deployments would likely be unintentionally delayed. ACE NY encourages the Commission to maintain harmony with NEVI standards, and notes that after extensive stakeholder engagement the FHWA intentionally decided to not require 3rd party certification for communication standards compliance given limited capacity to accomplish it or regulate compliance. ACE NY requests the Commission to allow companies to self-certify for a reasonable period to allow for further innovation and fair competition, and notes that third party testing is often time and resource consuming. ACE NY comments that an OCPP requirement could have the undesired effect of punishing vertically integrated EVSPs and excluding reliable EV charging providers from the make-ready program.

ACE NY recommends that the proposed ISO 15118 requirement remain a hardware-only requirement, and points to certain California programs that have taken this approach. ACE NY requests further consideration of specific use-cases for any standards requirement, and states that it is important to differentiate between light-duty and MHD applications as well as AC vs DC charging. ACE NY requests further consideration of the various charging use-cases and applications of these charging protocols rather than applying a broad OCPP requirement without clearly defined benefits to EV drivers. ACE NY comments that at a minimum, OCPP should not be required for non-publicly accessible use-cases nor proprietary technology types which are unlikely to make use of the standard without an impact on reliability or driver experience.

Alliance for Transportation Electrification (ATE)

Baseline Costs - Budget and Deadline

ATE supports increasing the budget both in terms of dollars and charger-count stating that it is necessary based on the need for more EVSE (as demonstrated by the NREL study) and on the

higher construction prices (as documented by the utilities.) However, ATE states that the EV Infrastructure Projection Tool developed by NREL is sensitive to certain assumptions such as the division between full BEVs and PHEVs as well as the split between multiple use cases therefore, private installations are receiving lower incentive payments than public installations making the achievement of the State's public charging goals more difficult to achieve. Therefore, ATE endorses transparency into the formulas and inputs used to arrive at individual budget items (such as the split between public and private chargers) as this would assist with productive stakeholder discussions of how best to allocate the incentives.

ATE recommends reconsidering the proposed upstate incentive amounts (which may be too low) for L2 EVSE because the current number of completed installations may not be illustrative of future installation prices (which will be higher). Instead, ATE proposes developing a unit pricing metric based on an industry-recognized index such as RSMeans which would keep site development prices current including adjusting for both labor and materials prices in different geographic regions.

ATE recommends developing a consistent incentive level for DCFC across upstate utilities because when developers provide quotes, the quote is not based on where a site is located.

Updated Plug Projections

ATE supports incentives for charging in MUDs but is concerned about the incentive reduction for public L2 charging in MUDs. ATE finds that the evidence shows that demand for this type of charging already exceeds the projection. Therefore, these incentives should not be at the expended at the expense of other make-ready programs or budgets for either DCFC or public L2 chargers.

ATE opposes the reduction of the downstate DCFC public tier incentive to 75%, stating that the development at upcoming sites will be more complicated, more expensive, and more time-consuming. ATE notes that charging infrastructure deployment momentum would continue by keeping the incentive level at 90%.

ATE supports continuing the Make-Ready Program expenditures through December 31, 2025, if a utility has met its charger

goals, or until the authorized program budgets are fully depleted if the utility's charger goals have not been met.

Administrative Budget

ATE supports maintaining the existing 15% administration budget given the scale and complexity of the programs but recommends basing the administrative budget on the total value of all programs and not limited to just the percentage of the make-ready budget.

Waitlisted Applications / Application Process

ATE affirms that there is a wide array of permitting and siting requirements from local government agencies that can delay EV charging installations and therefore encourages an application queue that has applicants who are making legitimate efforts to advance their projects and rather than those which are speculative and bottlenecking the queue.

Disadvantaged Communities

ATE supports on-street charging.

Micromobility

ATE supports micromobility, including an appropriate budget for its administration noting that micromobility is a rapidly developing enterprise with public agencies and utilities across the country. ATE recommends obtaining a third-party expert in identifying specific opportunities to maximize the development of micromobility.

Multi-Unit Dwellings and Workplaces

ATE agrees that the 50% incentive for MUD and workplace chargers is adequate and does not recommend redirecting any unused funding to these sectors.

Pay-to-Park Lots

ATE proposes that pay-to-park lots be eligible at the same funding levels as parking areas that do not require a payment as doing so would increase the number of eligible sites, resulting in deployments that can be built faster and at lower cost.

Private and Proprietary Plug Technology Types

ATE supports maintaining the current funding levels for private and proprietary charger types, stating that any modification at this stage of market development would create market uncertainty.

Communication Standards

ATE supports independent third-party testing of EVSE hardware used in the Make-Ready Program for compliance with OCPP, noting that requiring OCPP is a necessary but insufficient requirement and that any EVSE used in the program should have the capability to switch to a different OCPP provider, unhindered by hardware and firmware limitations and avoiding vendor lock-in should be consider of utmost importance in awarding incentives.

Future-Proofing Requirements and Budgets

ATE supports future-proofing and agrees that the 10% site-specific limit proposal is a reasonable minimum. ATE recommends that future charging development remain flexible. ATE states that a Stakeholder process could assist in developing a range above the proposed 10% by incorporating several factors such as, but not limited to, the technology, construction costs, and local government permitting.

Vehicle-to-Grid Integration

ATE states that the TSWG is a useful forum to identify and propose solutions to barriers of VGI. ATE states that Stakeholders should specify the mission of the TSWG and convene working group sessions to achieve the group's goals.

Data Reporting

ATE supports a technical conference for Stakeholders to identify and discuss the barriers that exist in refining data for reporting requirements. ATE agrees that data is important but states the task of collecting, and reporting data is a financial and time-consuming burden for station owners and network operators who may not have the necessary resources for compliance. ATE recommends minimizing the data reporting to an annual basis and to data which is already widely collected and necessary to achieve specific and demonstrably important purposes.

Driver Complaint Process and Procedures

ATE supports the proposed requirement to have contact information clearly displayed on the EV chargers. ATE recommends that the developer decide who the contact person should be. ATE notes that the site host or the utility should not be listed as contacts because they are unqualified and untrained in the capability of the EVSE. ATE suggests that, in the event of an emergency, the user should be directed to call the 911 system that is operated by the Public Service Answering Point, a local government agency in New York, as is the usual practice to protect consumers during emergencies.

Performance Incentives

ATE states that due to the early stages of EV charging infrastructure, the goals set by the EAMs may not be optimal, particularly because it is too early in the program to identify efficiencies and to expect significant cost savings. Instead, ATE recommends a tiered approach to the EAMS paired with share the savings earnings.

NYPA's Role

ATE supports NYPA's continued involvement and eligibility for make-ready funding. ATE notes that both the public notification process and the requirements established in the Commission Order strike a reasonable balance of interests between NYPA and any other commercial EVSP.

Residential Make-Ready

ATE supports residential make-ready incentives for both single family homes and multifamily communities, though ATE states that such funding should not come at the expense of the existing incentive programs. ATE recognizes the challenges experienced in multifamily communities – noting the most basic challenge is the shared parking scenarios where drivers are not allowed to install chargers as they do not own the ground between their parking space and an electrical panel. ATE proposes a solution where the utility owns and operates the complete installation of the charger for the landlord, property owners, or HOA.

Medium- and Heavy-Duty Make-Ready Pilot Program

ATE supports increased incentives for the MHD sector and notes that electrifying medium- and heavy-duty vehicles delivers significant carbon reduction benefits.

MHD Customer-Side Costs

ATE supports allowing customer-side incentives up to the 50% level for projects in Disadvantaged Communities.

Transit Authority Make-Ready Program

ATE advocates continued funding for MHD infrastructure and supports processes that identify economically efficient charging locations for the scale required by operators considering fleet electrification. Regarding school bus depots, ATE recommends consultations with the utilities and all parties related to school bus depots to determine the best course of action to address the needs.

Fleet Assessment Services

ATE points to an Issues Brief that they published entitled "Fleet Advisory Service (FAS) for Fleet Electrification: Meet Customer Needs and Provide Grid Benefits" that contains case studies on utility offerings and provides actionable information as the stakeholders conduct a review of existing programs and identify ways in which to improve the Fleet Assessment Services going forward.

Load-Service Capacity Maps

ATE does not support requiring quarterly updates to the load-capacity maps and states that load-service capacity maps should be updated annually. ATE notes that these maps are intended to provide speculative indication to private developers of whether capacity exists on a given feeder and that no firm commitments should be made based on a load-service capacity map; only formal engineering studies can provide the certainty required to go forward with a project.

Power Sharing

ATE supports seeking Stakeholder feedback on whether to allow higher capacity on the customer side under certain circumstances, such as establishing a minimum utility-to-customer-side ratio or a minimum charger count, to enable larger charging sites to utilize power sharing.

CALSTART

Medium- and Heavy-Duty Make-Ready Pilot Program

CALSTART supports the increased MHD Pilot budget but comments that existing program eligibility constraints have resulted in significant amounts of approved but unawarded funding and states that deploying these funds is critical to accelerate the transition to MHD. CALSTART endorses expanded eligibility so that applicants that are not participating in a vehicle incentive program can do so.

MHD Customer-Side Costs

CALSTART supports the proposal to allow customer-side incentives up to the 50% measure for projects located in Disadvantaged Communities. However, CALSTART proposes modifying the proposal so that projects in Disadvantaged Communities are eligible for an 80% incentive while projects not located in Disadvantaged Communities receive 50% incentives. CALSTART posits that this proposal would provide Staff with an indication of level of interest at the increased incentive price point.

MHD Eligibility

CALSTART comments that scrappage requirements can be an impediment to program enrollment in vehicle incentive programs and recommends suspending the requirement, at least until the market for scrappage vehicles further develops. However, if participation in a voucher program remains a requirement, CALSTART supports the EPA Clean School Bus Program as well as additional programs such as the Clean Heavy-Duty Program and the Clean Ports Program.

Transit Authority Make-Ready Program

CALSTART comments that the Transit Authority Make-Ready Program provides much needed funding to support fleet electrification.

For school bus electrification CALSTART notes that collaboration between utilities, school bus depot operators, and other local and industry stakeholders is vital to successful deployment of electric school buses. CALSTART states that they are currently working with the utilities on a whitepaper identifying best practices to support this sector.

Fleet Assessment Services

CALSTART states success with fleets is best achieved through proactive outreach and notes that providing standardized fleet assistance programs state-wide will ensure that fleets can achieve a successful transition to ZEVs. CALSTART supports the recommended measures streamlining the online user interface. CALSTART further states that creating a consistent application process across all utility territories will facilitate a smoother enrollment process.

Micromobility

CALSTART supports the inclusion of $25 million in dedicated funding for micromobility charging infrastructure and recommends ensuring that shared micromobility docking stations be included in this funding set-aside in addition to ports for privately owned devices. CALSTART recommends that Staff collaborate with local agencies that oversee shared services to better understand their electrification goals and the number of ports required to adjust the funding set aside accordingly.

ChargePoint, Inc. (ChargePoint)

MUDs

ChargePoint is concerned that limiting MUDs to the 50% tier will undermine the effort to improve L2 port deployment at these locations. ChargePoint comments that by assigning incentive tiers based on whether a use case is considered public or private will not achieve the desired outcome to accelerate charging at MUDs. ChargePoint posits that incentive tiers should be modified based on the level of support needed to achieve targets and that simply increasing the MUD L2 port target will not achieve greater deployment at MUDs without a proportionate increase in the incentive tier. ChargePoint recommends that all MUDs eligibility be upgraded to at least the 75% tier.

Plug Goals

ChargePoint is concerned by the proposed port deployment targets and requests for clarification regarding the expectation on how the remaining L2 budgets will be allocated among public, workplace, and MUD segments.

Data Reporting

ChargePoint supports convening a technical conference to identify and address data reporting issues and reliability of utility funded charging stations. ChargePoint suggests that the technical conference agenda include the discussion of any shortcomings regarding the "number and duration of plug outages" metrics and lack of standardization for "plug outage data". ChargePoint notes that the 2020 Make-Ready Order does not establish a definition for what is considered "plug outage", and states that without standardized definitions, one provider's interpretation of what is counted as a "plug outage" may not be the same as another's. ChargePoint comments that the uptime formula, as defined by the National Electric Vehicle Infrastructure Program, could provide a foundation for a more standardized reliability reporting metric.

Driver Complaint Process and Procedures

ChargePoint expresses concern that the recommendation to display contact information for the EV service provider, site host and utility customer services would worsen, rather than improve, the complaint process. ChargePoint comments that the complaint process needs greater input from Stakeholders before changes are finalized, but if the recommendation is adopted than a digital display of contact information would be acceptable.

Communication Standards

ChargePoint states that third-party compliance testing for OCPP with no proprietary standards is based on an inaccurate understanding regarding the role of extensions within OCPP and how compliance is tested. ChargePoint recommends that no restrictions be placed on the EVSE system that limit the ability for network operators to utilize proprietary extensions to OCPP utilization when a driver switches.

ChargePoint requests clarification as to whether the requirement for ISO 15118 will apply only to DCFC. ChargePoint recommends that L2 products be exempt from the requirement as because of the limited number of L2 products available on the market that currently comply with ISO 15118. ChargePoint also recommends that new technical requirements apply to stations not yet installed, rather than retroactively as it would be costly

for site host to replace equipment already in the ground to comply with new standards.

ChargePoint notes that the compliance requirement proposal for OCPP 1.6 (or later) creates a disadvantage for products developed using OCPP 2.0.1 since they cannot be certified by an independent testing organization. ChargePoint asks for flexibility with compliance requirements and requests that OCPP testing occur at least one year from the date of the Make-Ready 2.0 Order; or to allow EV charging companies to self-certify for one year from the date of the Order.

ChargePoint supports the development of a qualified equipment list. A qualified equipment list could assist site hosts by ensuring the selected equipment would contain the required functionalities. ChargePoint recommends adopting NYSERDA's Charge Ready 2.0 equipment list to align requirements with other statewide programs.

NYPA Co-Location Dispute

ChargePoint expresses concern with NYPA's co-location dispute resolution process that inhibits a developer's ability to effectively work with NYPA to limit co-location in areas that the market is ready to serve. ChargePoint restates their initial recommendation that an MOU should be sufficient to initiate the dispute resolution process as outlined in NYPA's Electric Vehicle Infrastructure Make-Ready Program Implementation Plan. ChargePoint states their intent to work collaboratively with NYPA to address co-location concerns, but that an effective dispute resolution process is crucial direct NYPA to areas where private investment is not available.

ChargerHelp!

Disadvantaged Communities – Workforce Development

ChargerHelp! proposes that workforce development programs should focus on operations and maintenance of EVSE. ChargerHelp! asserts that the current proposal is limited in scope to an installation workforce and that broadening the focus would create longer term jobs for Disadvantaged Communities. CharerHelp! argues that EVSE maintenance training is better defined, less costly, more tech-focused, and has less job risks than installation. They assert that incentivizing a maintenance

workforce will also help solve station reliability issues. ChargerHelp! also asserts the workforce development program should be streamlined with funding flowing through NYSERDA and incentives extending to operations and maintenance, given NYSERDA's role in workforce development programs. ChargerHelp! supports a make-ready incentive adder, calling for alignment with existing contracts and extensions encouraging EVSE owners to invest in maintenance services.

Data Reporting

ChargerHelp! asserts that requirements be established for L2 charging station reliability, as it did with DCFC, and that performance metrics should be revisited. ChargerHelp! note that on average, 30% of publicly accessible EV stations are offline or broken and states that they can collect data and enable accurate reporting on these issues. ChargerHelp! recommends that any new Order should update reliability standards to align with NEVI, include L2 charger standards, and require incentives for maintenance contracts with service level agreements.

Citi Bike

Disadvantaged Communities - Micromobility

Citi Bike state that while e-bikes currently make up 20% of the Citi Bike fleet, they account for 39% of all Citi Bike rides and are critical to the Make-Ready Program. Citi Bike iterates that the proposed $25 million fund allocation is insufficient and more should be done to support e-micromobility. Citi Bike states that the Make-Ready program is too focused on charging infrastructure for personal rather than communal e-bikes. Citi Bike encourages the next make-ready program to consider more direct bikeshare station electrification support, noting their ability to co-locate with other charging infrastructure and adherence to the "dig once" principle.

Citi Bike argues the importance of their e-bikes to nearly 15K Reduced Fare Bikeshare (RFBS) program riders, noting the importance of the program to provide transportation to low-income New Yorkers, 84% of which identify as persons of color. Citi Bike states that 55% of RFBS trips in 2022 were by e-bike and nearly 80% of those occurred in the Bronx. Citi Bike also notes that electrification of their stations can also strengthen

shared and personal e-bike charging for NYCHA residences, 62% of which are within half a mile of Citi Bike stations.

Citi Bike describes the costly and environmentally impactful process of swapping batteries between bikes, noting that it's almost entirely reliant on operations vehicles to swap the batteries because of a lack of a network of charging stations. Citi Bike describes Lyft's new e-bike docks, which enable e-bikes to be charged directly from the grid, eliminating the battery-swapping process and the need for more operations vehicles on the road that comes with it. Citi Bike estimates that electrifying 20% of stations can grow e-bike ridership by eliminating 90% of battery swapping and notes that Lyft is already in discussions with NYC DOT about this process.

City of New York (City)

The City is generally supportive of most of the changes proposed in the Whitepaper and offers several recommendations for improvement.

The City notes the importance of on-street parking and associated charging infrastructure, especially in the outer boroughs in lower income neighborhoods and is concerned that the proposed decrease in L2 chargers funding may impact the pace of EVSE installation in these areas. The City recommends establishing a Disadvantaged Communities-specific budget carve-out for L2 chargers, on-street L2 charging, and other projects located on municipal property. The City requests clarification that the proposed L2 budget will be sufficient to build out these stations and meet the 100% incentive tier. The City further recommends taking another look at Con Edison's utility- and customer-side make-ready construction cost data to verify that the baseline estimates are not underestimated due to ConEd's "temporary service" Tariff provisions in the calculation. The City opposes the proposal to decrease the incentive level from 90% to 75% for publicly available chargers in non-Disadvantaged Communities stating that it is counterintuitive to the goals of the program and made without justification.

The City supports the proposal to increase the baseline for incentive levels to reflect increasing costs for EVSE and is supportive overall of the recommended increased focus on DCFC

chargers. The City recommends that ConEd examine its design and engineering requirements that impact development costs to expedite development of EVSE. The City points to ConEd's interconnection process

that was designed with large-scale construction in mind and the need to consider changes that would make charging hubs, which are smaller than large buildings and therefore should have different requirements, to develop on a faster timeline.

The City recommends that short-term improvements to the interconnection process be implemented such as including bonus incentives for projects that expedite construction and imposing penalties for projects that fail to meet deadlines. The City further states that the Commission should require that the utilities report regularly on the progress and construction of projects so that stagnant projects can be removed from the queue.

The City supports the proposal to make the DAC+0 geographic incentive in ConEd's service territory permanent, as it better targets the intended communities. The City supports the application of the criteria used in the Affordable Multifamily Energy Efficiency Program to determine incentives for MUD applications, as this will better target low-income residents rather than paying incentives to any building located within a Disadvantaged Community.

The City is supportive of the Midpoint Whitepaper's recommendation to establish a $25 million Micromobility Pilot Program, $20 million of which should be allocated to downstate utilities, noting that electric bikes and scooters are increasingly important for transportation in urban areas. The City further recommends that the cost of fire suppression equipment be included as eligible costs for make-ready funds.

The City points out the importance of electrifying MHD vehicles as they represent a large source of emissions and the need for a dedicated program to electrify this sector; the City states the current pilot program is not robust enough to achieve this goal. If the Commission continues with the pilot program only, the City recommends that the focus be on reducing barriers in Disadvantaged Communities and EJ communities where air pollution is most acute and that incentives be provided to cover

both utility- and customer-side infrastructure, like the light-duty program.

The City recommends make-ready incentives be provided for pairing storage with EVSE to promote grid resiliency. The City states that battery storage can assist with load management and lower charging costs. The City also notes the importance of bidirectional chargers for vehicle-to-grid services and recommends bidirectional charging technology be eligible for make-ready incentives. Lastly, the City recommends the Commission consider establishing a pilot program for storage integration with EVSE.

Earthjustice and Sierra Club (EJSC)

Updated Plug Targets

EJSC agrees with updating the EVI-Pro modeling used to estimate public charging infrastructure needs, as well as decreased L2 and increased DCFC deployment. However, EJSC is concerned that home charging access was over-estimated for early EV adopters in NY, and that this assumption drives down the projected public charging needs. EJSC asserts that the Make-Ready Program is meant to develop charging access and urges using the data of actual service-territory-specific to account for the home charging statistic.

MUDs

EJSC supports the L2 charger goal proposal for MUDs, noting the benefits that L2 charging has on the grid by reducing the speed of charging by charging over more hours and shifting demand away from peak. EJSC notes that there are driver benefits to MUD home charging such as the convenience and lower cost benefits to drivers, as well as the availability of subscriptions and noting L2 chargers are the least expensive method per kWh to charge. EJSC supports prioritization of EVSE at MUDs in Disadvantaged Communities, including premise-specific eligibility to dissuade higher-income resident benefit. EJSC also notes higher DCFC costs in Disadvantaged Communities could dissuade EV adoption. EJSC also urges a regular review of the updated MUD installations to consider alternate ownership structures charger deployment in MUDs continues to lag.

Curbside Charging

EJSC supports the prioritization of on-street L2 chargers for Disadvantaged Communities tier incentives, agreeing with the limitation to areas with EV parking-only curb regulations. EJSC also urge regular review and consideration of alternative ownership models to accelerate curbside L2 deployment.

Disadvantaged Communities Budgets

EJSC generally agrees with the updated Disadvantaged Communities budget proposals, providing that there are safeguards are in place, such as in the MUD eligibility criteria, to ensure that the beneficiaries of the program are actual Disadvantaged Community residents.

Increased Per-Plug Incentives

EJSC supports the increase in per-charger incentives as make-ready costs are higher than anticipated at the time of the original 2020 Make-Ready Order. EJSC recommends annual review of program incentives to determine if budget modifications are required.

Battery Storage and Advanced Technologies

EJSC support incentivizing the use of advanced technologies where it would provide grid and rate payer benefits particularly because the deployment of DCFC creates the potential for increase in local peak demand that may require grid upgrades. Therefore, co-locating advanced technologies, such as battery storage, with DCFC would help limit peak impacts thereby avoiding costly grid upgrades. However, EJSC cautions against over subsidizing these technologies by requiring DCFC owners to verify the grid and ratepayer benefits prior to receiving any incentives. Additionally, EJSC state that larger incentives are appropriate for climate resilience technologies that provide clean resources for Disadvantaged Communities.

MHD Programs

EJSC state that widespread electrification of MHDs is important to the State's Final Scoping Plan and CLCPA goal and support the MHD program. EJSC advocates working with the utilities to plan for a near-term buildout of public and fleet charging infrastructure that is needed to support the electrification of MHD fleets, particularly in DACs. EJSC asserts that a near-term increase in MHD fleet infrastructure

development is a necessary and urgent action, and a requirement of the Midpoint Review reforms.

Pilot

EJSC state that the recommendations in the midpoint review whitepaper concerning budget, funding, and participation, modifications are insufficient to stimulate investment in MHD fleet electrification. EJSC recommends removing barriers to the program such as the burdensome truck voucher incentive requirement, EJSC points out that the NY Truck Voucher Incentive Program has exhausted available Congestion Mitigation Air Quality Improvement Program (CMAQ) funding, making scrappage of pre-2009 vehicles an eligibility requirement. EJSC state the urgency to increase the number of electric MHD vehicles on the road and state that limiting access to make-ready funds only to fleets that can scrap a diesel vehicle is detrimental to the deployment of clean electric vehicles.

Transit Authority Make-Ready

EJSC disagrees with maintaining the existing Transit Authority Make-Ready Program as is, due to the necessity of getting to zero-emission by 2030. EJSC states that the $10 million budget is insufficient to support this endeavor, adding that the funding only benefits three utilities and four transit agencies. EJSC calls for immediate budget and scope modifications, proposing instead a budget of $50 million. EJSC also recommends expanding the program to all utilities and transit authorities, including the MTA, as well as transportation on Long Island and in rural areas.

School Bus Electrification

EJSC supports the proposals for school bus fleet electrification in NY, particularly the directive for utilities to proactively identify load capacities at school bus facilities, noting this information can identify areas of constraint. EJSC urge the use of dedicated incentives for school bus electrification going forward and note that in year one of the Bipartisan Infrastructure Law (BIL), an award for $69 million is going to 22 NY school districts to electrify 184 school buses. However, EJSC notes that there are eligibility restrictions that limit EVSE upgrades, and that added funding is necessary for these upgrades in order to meet bus

electrification goals. EJSC suggests utilities engage with school districts by providing extra services such as fleet advisory, technical services and assistance for districts in Disadvantaged Communities.

EJSC asserts that school buses are an ideal use case that should be prioritized in the development of a V2G integration pilot program.

Fleet Assessment Services

EJSC supports the recommendations for a more robust and standardized Fleet Assessment Services program but argues for the inclusion of transit authorities at a minimum and possibly refuse trucks, particularly due to their air impacts on Disadvantaged Communities. EJSC states that there should be provisions to include Disadvantaged Community's representatives in the transition process.

Other Fleets

EJSC recommends that the utilities identify major fleet depots and hubs in their service territories potentially electrifying these fleets at one time as well as determining any grid constraints. EJSC supports updating load capacity maps quarterly and recommends that the maps include detailed information such as EV prioritization areas, least-cost locations, and distribution upgrade prioritization locations.

EnergyHub, Inc. (EnergyHub)

Communications standards

EnergyHub recommends that the Commission align communications standards for EVSE deployment with state equity objectives so that program participation is not limited by device type or class. EnergyHub agrees with other stakeholders that advocate for the use of a variety of communications protocols paired with specific API integrations and cites claims by SEPA that the use by vendors of open protocols alongside proprietary ones can enhance interoperability and integration in existing systems. EnergyHub contends that support for both proprietary and standards-based integrations can maximize utility program eligibility by a variety of EVSE providers. EnergyHub submits that the SEPA report Guidelines for Selecting a Communications Protocol for Vehicle-Grid Integration may

provide a useful decision-making reference for stakeholder discussions on this issue and encourages Commission actions that will ensure outcomes that are technology-agnostic, accessible, and cost-effective. As an example, EnergyHub lists the distinct use cases for which OpenADR, IEEE 2030.5, ISO 15118, and OCPP are best suited, and proposes that the selection of a standard or combination of various standards that work in a variety of programmatic scenarios represents a flexible and sensible approach.

Energy storage

EnergyHub encourages the Commission to consider the potential grid and ratepayer benefits of co-locating energy storage with EV charging equipment, particularly their effectiveness in avoiding substantial demand charges that result from peak energy use associated with EV charging. Additionally, EnergyHub alleges that co-locating battery installations with EV charging infrastructure can reduce project costs by obviating expensive interconnection upgrades. EnergyHub also states that pairing storage and EV infrastructure enables participation in demand response programs that contribute to grid peak shaving and load shifting efforts, and it encourages the Commission to investigate demand response program participation as a requirement for EV-associated energy storage incentives. Lastly, EnergyHub cites a report by the California Energy Commission entitled Demonstrating Plug-In Electric Vehicles Smart Charging and Storage Supporting the Grid as an illustrative use case demonstrating the benefits of such technology combinations.

Vehicle-to-grid integration

EnergyHub advises that the Commission allow for the consideration of V2X efforts in New York State and encourage opportunities for such developments through residential make-ready pilot programs. While acknowledging the concerns of Staff regarding the efficacy of a residential pilot in the near time, EnergyHub maintains that a residential V2X pilot could demonstrate valuable and cost-effective managed charging strategies and equitable rate structures and suggests that stakeholders should continue to investigate a V2X future in the state as the market evolves. EnergyHub contends that the initiation of passive managed charging programs represents

important groundwork in establishing future V2X capabilities and that the Commission should harness this momentum in examining the potential benefits of bidirectional charging and other managed or automated services, particularly regarding the integration of these activities into the current VDER framework.

Data reporting requirements

EnergyHub recommends that the Commission address challenges associated with data collection and reporting by adopting a software platform that supports a diverse set of EV OEM and EVSE providers. EnergyHub states that its experience in program administration can inform stakeholder discussion that addresses hardships experienced by the JU in meeting Make-Ready reporting requirements. EnergyHub that an adaptable software platform is necessary to cope with the complexities of monitoring and reporting in the evolving diversity of the existing device market, with each developer providing varying technical and network capabilities and requirements. EnergyHub also recommends that a centralized software platform can achieve data uniformity and visibility through, while providing the necessary flexibility to contend with varying data collection and communications capabilities presented by the current technology market. EnergyHub emphasizes that data collection and reporting requirement revisions must be adopted with suitable communications standards that enable collection across a variety of devices and use cases. EnergyHub warns that excessive requirements can impede program implementation and generate administrative complexities and stresses that stakeholders will need to weigh the technological complexities of the current market with the need for actionable insights into grid effects, customer behaviors, evolving use cases, and the need for diverse technology solutions. EnergyHub argues that doing so will be vitally important in avoiding potentially negative effects from unmanaged load growth associated with widespread EV adoption.

Environmental Defense Fund (EDF)

MHD Deployment

EDF asserts that NY's MHD goals are appropriately ambitious, but that the scale of infrastructure deployment in the State is not currently sufficient to meet them, particularly for the early years of Advanced Clean Truck Rule (ACT Rule)

implementation. EDF notes the two-year gap between the opening of the present proceeding and adoption of the 2020 Make-Ready Order and that a similar delay in MHD proceeding would delay programs until after the ACT Rule is already in effect, accelerating infrastructure needs even further. EDF states that there is an urgent need for rapid development support not just for buses and public MHD fleets, but also private fleets, which EDF notes make up the bulk of MHDs in NY. EDF calls for expanding MDV eligibility and coverage, grid planning, and fleet assessment and advisory services for all fleet types.

MHD Make-Ready Eligibility

EDF states that the proposed Pilot modifications are an improvement but are insufficient to meet MHD needs. EDF asserts that MHD program eligibility is overly restrictive, noting that presently the pilot is only open to fleets participating in NYSERDA's NY Truck Voucher Incentive Program or the NYCDOT's NYC Clean Truck Program, which prevents access for fleets without eligible vehicles for these programs, as well as those expanding rather than replacing vehicles, as well as other entities outside the requirement. EDF asserts that program participation by those wishing to install charging is too restrictive and limits MHD charging infrastructure expansion. EDF states fleets are deprioritizing development in NYS due to lack of utility support for infrastructure upgrades and states that research demonstrates utility support can be a net-positive for ratepayers.

MHD Make-Ready Incentives

EDF states that the proposal addressing Disadvantaged Communities is inadequate and EDF proposes expanding the program to provide 50% customer-side make-ready support at certain sites. EDF notes an analysis by Synapse Energy Economics finds that both utility and customer-side support can result in neutral or positive utility net revenue and improved customer rates. EDF asserts that program restrictions could miss these potential benefits. EDF states the importance of input from community and environmental justice groups for Disadvantaged Communities program proposals, noting that poorly designed incentives could increase MHD traffic to these communities. EDF asserts that the limited use of the original $24 million budget to date is due to burdensome restrictions on eligibility and

coverage, and not because of disinterest. EDF recommends considering the estimates for MHD infrastructure needs in the future years, noting that this information was not provided in the Whitepaper, but the data is available.

Transit Authority Make-Ready Program

EDF notes that the Synapse study results should mitigate any concerns that ratepayers will bear the cost of infrastructure spending therefore, increased make-ready funding should be made available for both public and private fleets. EDF asserts that, as the new MHD proceeding has a more targeted focus on MHDs and related system planning needs, it is a more appropriate venue to consider more widespread availability of these kinds of support including for fleet transits. EDF agrees that school bus electrification infrastructure and load assessments require support but asserts that the support should be directed to the entire MHD sector. EDF states that the load-serving capacity maps should be updated quarterly and that the maps should consider further MHD informational needs, such as anticipated load times.

Fleet Assessment Services

EDF supports the scope of fleet assessment services and simplifying the fleet application process, and caution against over-tailoring the program to the detriment of other fleet types. EDF notes that assessment services are especially beneficial to small fleets, which might not have funding for the services. EDF states that increases in accessibility will help with nearer-term goals. EDF agrees that school bus fleets need additional support, but not at the expense of other fleet types, which are equally important to state climate goals.

Proposed Modifications to Technical Standards (Load Capacity Maps)

EDF supports Staff's technical standards proposal but recommends expanding the list of standards, and that installed chargers should have to convert to the ISO standard. EDF recommends OpenADR, further detailed in EDF's August 2022 comments on the submetering and communications standards. EDF asserts OpenADR will help realize the load flexibility potential of EVs and that it complements the OCPP and ISO 15118 standards. EDF emphasizes the importance of standards for submetering and

associated data formatting to EV rates, cost reductions, and lowered infrastructure barriers. EDF also recommends the TSWG make recommendations on which standards for hardware and communications technology are appropriate for MHD use cases.

Futureproofing

EDF asserts future-proofing for MHDs is critical to minimizing long-term costs and ratepayer burdens and that appropriate future-proofing MHD allowances be considered in the MHD proceeding. EDF cites a National Grid MHD use case that would require numerous costly upgrades without future-proofing, noting the likelihood of this occurring elsewhere.

VGI

EDF asserts the importance of VGI technologies as an NWA where possible to avoid costly upgrades, provide revenue to vehicle owners, and flexibility to utilities. EDF states that MHD should be a priority for VGI because managed charging alone can decrease upfront capital costs and because the larger MHD batteries can provide more power per vehicle when used for discharging. EDF provided school buses as an example due to their large batteries, reliable schedules, and summer down-times. EDF notes the rapid evolution of VGI and the more mature technology available, as well as industry interests in its use for grid resiliency.

EVgo Services LLC (EVgo)

EVgo states generally agrees with the Midpoint Review Whitepaper's recommendations.

Project Budget and Incentive Level

EVgo recommends that Staff be mindful of the potential impacts of reducing the incentive tier from up to 90% to up to 75% of eligible costs for downstate. EVgo comments that the cost of installing infrastructure is much higher downstate as compared to upstate. EVgo note the need for continued support in the market downstate.

Customer Complaints

EVgo recommends putting the electric vehicle service provider's information on the charger only and not the information of the site host or utility. Typically, the EVSP is

best positioned to address customer issues, and providing the contact information of other entities may be confusing to customers. EVgo also recommends that there be a separate stakeholder process to harmonize reliability and uptime requirements across the Make-Ready program and the related state and federal programs.

Communication Standards

EVgo recommends that the Make-Ready program adhere to the federal standards outlined in the NEVI program. The NEVI program specifically requires compliance with OCPP 2.0.1 a year after the program's final rule is published in the Federal Register (i.e., February 28, 2024). The NEVI program does not require third-party certification for communication standard compliance due to issues with limited capacity. EVgo states that the requirements for third-party certification compliance would benefit from Stakeholder discussions. Similarly, the NEVI program requires ISO 15118 for hardware only, and phases in ISO15118-2 software requirements by February 28, 2024. The NEVI rules also forgo third-party certification due to lack of capacity.

Application Process and Queue Management

EVgo states that there is value in a Stakeholder process that addresses queue management. EVgo recommends that the Stakeholder working group convene within 30 days once a Commission Order is issued on the Midpoint Review and that the recommendations be submitted to the Commission within 60 to 90 days after the Order.

Data Reporting

EVgo recommend that the Make-Ready program be consistent with federal NEVI program data reporting and frequency of reporting requirements and that a technical conference on data reporting would be productive.

Fermata Energy LLC (Fermata)

Fermata offers several recommendations that will support V2X infrastructure that will allow drivers to charge and discharge their vehicles.

Fermata recommends that all the utilities update their VDER tariffs to clearly define V2G as eligible for compensation; as of now, only some utilities have this stated explicitly in their tariffs. Fermata recommends that make-ready funds be available for the additional requirements that utilities are making on V2X projects.

Fermata notes the recent UL1741-SB requirement for all inverter-based resources and notes that it may be 18-24 months before any V2X charger meets this requirement and therefore recommends the Interconnection Technical Working Group issue a waiver for this requirement and if not, Staff should ensure the additional costs for V2X projects, such as protective relay devices, design, and testing costs, be covered by the Make-Ready Program. Fermata recommends establishing a V2X specific interconnection working group and further recommends that as part of the Fleet Assessment Services utilities give customers an estimate of potential V2G revenue under the VDER tariff. Fermata states that utilities should be able to use the EAM to cover the higher costs for V2G projects if the UL waiver is denied.

First Student, Inc. (FS)

First Student begins its comments by announcing its aggressive goal to electrify at least half of its more than 46,000-vehicle fleet by 2035, as well as expressing general support for the DPS Whitepaper recommendations.

Program scale

First Student supports the proposal to expand the MHD pilot through increased utility funding and extended pilot programs.

Program eligibility

First Student supports Staff's recommendation to make eligible up to 50% of customer-side make-ready costs for MHD projects in Disadvantaged Communities and contends that the program could be made even more effective by eliminating the Disadvantaged Community's requirement altogether or by making eligible 100% of customer-side costs statewide.

First Student supports eliminating NYSERDA Truck Voucher Incentive Program participation as an MHD eligibility requirement, as well as expanding eligibility to include

participants in the EPA Clean School Bus program. First Student argues that removing all such eligibility conditions would allow participants to combine such federal and state funding sources with other grant opportunities and recommends that, at a minimum, participant eligibility be expanded to include all EPA award rounds (not just the first round).

Franklin Energy Services LLC (Franklin Energy)

Franklin Energy states its general support for the DPS Whitepaper recommendations.

Incentive levels

Franklin Energy expresses concern that incentive levels are insufficient to encourage adequate installations of L2 chargers statewide, even if the proposed adjustments are adopted. Franklin Energy argues that site hosts still need to cover several prohibitive costs, including incentive structure cost sharing, costs that exceed the baseline level, ineligible EVSE costs, and energy costs, and that such costs may only be recovered from drivers after upfront and ongoing costs of installations have been paid. Franklin Energy maintains that such costs are a deterrent to site development, particularly in utility service territories with lower EV adoption rates and where developers are less motivated to develop infrastructure. Moreover, Franklin Energy also argues that incentive levels should be more generous in utility service territories that have development constraints and higher construction costs. To alleviate these barriers, Franklin Energy recommends reconsideration of both the baseline and maximum incentives for L2 installations.

Micromobility

Franklin Energy supports the proposal of $25 million for micromobility charging hub funding, stating that it encourages low-cost transportation electrification and extends such benefits over a variety of socioeconomic levels that complement and offset the usual emphasis on passenger vehicle electrification. Franklin Energy also recommends the addition of charging and fire suppression equipment as eligible micromobility costs and the development of baseline incentives inclusive of these, and generally endorses micromobility incentives to account for more limited cost recovery

opportunities for this vehicle range. Lastly, Franklin Energy advocates independent laboratory testing requirements for micromobility to address fire safety issues.

Workforce development

Franklin Energy supports Staff's commitment to workforce development but is concerned that the proposal to incorporate workforce development costs into make-ready incentives may inadvertently reward or punish site hosts for external factors outside of their control, particularly the availability of eligible contractors or scheduling problems. Franklin Energy also anticipates greater program administration complexity resulting from Staff's workforce development recommendations, in addition to greater cost uncertainty for site hosts. Instead, Franklin Energy recommends a $5 million budget for workforce development to be directed toward new workers from Disadvantaged Communities but favors an alternative approach that absolves site hosts of workforce development obligations and uses funding to conduct and incentivize training independently.

FreeWire Technologies (FreeWire)

Energy storage

FreeWire reiterates its confidence that the integration or co-location of energy storage with EV charging infrastructure offers significant benefits, as articulated in its Make-Ready Program Mid-Point Review comments, including reduced costs, valuable grid benefits, and accelerated deployment. FreeWire is encouraged by the discussion of these benefits by Staff in the Whitepaper and notes that they and other parties strongly espouse incentives to encourage the deployment of this technology, as well as citing efforts in other jurisdictions in support of this approach. FreeWire states its support for incremental incentives for battery energy storage technologies deployed in concert with EV infrastructure but warns that prudent program design is needed to encourage desired market activity. FreeWire recommends a standardized approach in determining eligibility and incentive levels to ensure unambiguous economic information and market confidence that will facilitate widespread deployment and cost-efficient project development. FreeWire worries that tailoring such analyses to

individual sites will result in developer reluctance and market uncertainty.

Gravity, Inc. (Gravity)

Clarifying Terminology

In introducing its filed comments, Gravity articulates disappointment and frustration with the EV charging industry in general, and what it views as inadequate and misleading language and information used to describe it. Firstly, Gravity criticizes the gradated charging hierarchy of "level 1, 2, and 3" as misleadingly disconnected from actual charging performance, while condemning terms like "ultra-fast" and "super-fast" on semantic grounds by noting that these only seem "fast" when compared with wall-charger home charging options. Gravity contends that kilowatt capacity and maximum amperage are the only terms that precisely convey charger performance.

Charging Use Case Solutions

Gravity argues that policymakers must address problems presented by two primary use cases for EV charging corridor charging and charging co-located with existing parking facilities. For the former, Gravity contends that corridor charging should be designed to deliver an 80% charge in less time than a gas station fill-up, which will require charging capacities of at least 500 kW, far greater than the current NEVI guidelines of 150 kW and the 2020 Make-Ready Order consideration of 50 kW or greater as fast charging. Gravity also cautions that current power-sharing guidelines are too rigid for corridor sites and should be based on maximum capacity of existing chargers rather than maximum simultaneous capacity at a site.

Because of these concerns, Gravity warns that EV charging infrastructure being installed under current guidelines is in danger of rapid obsolescence and that all corridor charging sites should adhere to a minimum 500-kW standard, with the ability to update to at least 750 kW, and with flexible power sharing capacity.

For the second use case discussed, Gravity recognizes that charging at existing public parking facilities represents a significant departure from conventional gas refueling practices, as gas stations have always been destination sites for drivers.

Gravity reasons this new model for vehicle "refueling" made possible by EV charging demands that cars should be capable of charging wherever they are parked. Gravity observes that the very first generation of neighborhood charging sites are currently being funded and developed, to a low-capacity standard making use of 7-kW chargers that require vehicle dwell times that often exceed those customary for metered and garage parking. Gravity argues that charging speeds should match existing dwell times at these locations and that adequate charging performance in such situations requires a maximum capacity of at least 90 kW and no minimum on simultaneously capacity. Gravity also notes that public charging infrastructure is not currently integrated into the power management of associated buildings, which increases grid constraints and generates prohibitive charging costs for drivers. Gravity recommends that the total maximum capacity charge for each site needs to be the total of all energy demands, inclusive of EV charging, to avoid demand peaks that result in excessive charging costs. Gravity also advocates for funding for air-cooled DC charging, which it notes are an order of magnitude faster and more powerful than AC charging, and which can be used without increasing total site capacity. Gravity observes that there is a large demand for replacing AC charging with DC in residential buildings and that the Make-Ready Order disincentivizes this trend.

Battery Storage and Bidirectional Charging

Regarding battery storage and bidirectional EV charging, Gravity recommends that all EV charging equipment should be easily upgradeable for DC bidirectionality, or at a minimum, utility funding should be allocated to incentivize this infrastructure. Furthermore, Gravity recommends that utilities should be encouraged to allow co-location of EV load and commingling and balancing of EV charging load with other loads.

Highland Electric Fleets, Inc. (Highland)

MHD budget and scope

Highland supports greater funding to scale the current MHD Pilot and commends Staff's proposed increase to $54 million, which it anticipates will abet additional MHD electrification

efforts statewide, particularly when coupled with the new MHD proceeding.

MHD Customer-side costs

Highland recognizes that customer-side make-ready costs represent a significant barrier to fleet electrification for many operators and supports Staff's interim recommendation to allow customer-side incentives up to a 50% level for projects in Disadvantaged Communities. However, Highland restates its argument that a comparable incentive could be expanded to all participants to reduce impediments to program participants and to encourage greater fleet electrification.

MHD eligibility

Highland commends Staff's proposal to stimulate greater MHD program flexibility by allowing federal EV program participation as a qualifying condition, which represents an expansion of current eligibility requirements that are premised on participation in the NYSERDA Truck Voucher Program Incentive Program or NYCDOT New York City Clean Trucks Program.

Electric school bus support

Highland applauds Staff for its acknowledgment that school transportation electrification constitutes a significant element of overall MHD electrification work. Highland endorses actions in this area as recommended by Staff, including interagency and utility collaboration and allocation of external funding sources, and generally supports greater engagement and coordination between various entities in these efforts.

Fleet assessment services

Highland reiterates its Midpoint Review comments in support of expanding fleet assessment efforts beyond their current structure and is encouraged that Staff recommends expansion and modification of existing services into more standardized utility programs. Highland cites its experience working with educational entities on school transportation electrification and relates that many operators have an incomplete understanding of the scale of such endeavors, which any additional utility support can address.

Joint Utilities of New York (JU)

The JU broadly support the Whitepaper's recommendations and only respond to questions for which they have comments. The JU note that since the make-ready program began, they have supported approximately 15,171 L2 and 824 DCFC across New York. The JU comment that the EV charging market remains highly sensitive to incentives and note that National Grid's average monthly application intake for L2 chargers dropped by 45% after NYSERDA Charge Ready NY program funds were exhausted in September 2021. The JU state that the DCFC market meaningfully responds to higher incentives as project costs increase and the number of viable sites with existing adequate service capacity decreases. The JU comment that as site capacity requirements increase across installations, the need for incentives will increase beyond the levels Staff recommends in the Whitepaper budget.

The JU support the overall approach to updating baselines but recommend establishing a single DCFC baseline incentive across upstate utilities for consistency and to prevent prioritization of development in one utility's jurisdiction over another. The JU support the Whitepaper recommendation for different baselines between Con Edison and O&R. The JU note the Whitepaper's recommended new charger goals and emphasize that they still support incentivizing public L2 charging as a key component of expanding charging access through the make-ready program.

The JU state that the Whitepaper's budget setting methodology do not reflect the current program status, as a significant number of newly committed and completed projects have transpired, leading to a net reduction in the average per-charger funding level. The JU recommend that the final budget be developed with the most current data to reflect the realized cost of committed projects.

The JU comment that the NREL assumptions on the percent of L2 chargers in the private tier do not reflect the actual share of projects already committed. The JU state that their data shows a significantly higher uptake of publicly accessible chargers at the up-to-90% level and note this as a positive outcome of the make-ready program's signals to the market. The JU comment that the tier distribution assumptions used in the Whitepaper would result in underfunded projects given this market trend. The JU point to a National Grid estimation that

the up-to-90 and up-to-50% tiers would effectively need to be reduced to 35% to remain within budget and conserve funds to meet the charger goals, which would not provide customers enough support to spur participation to meet program goals. The JU comment that the decrease in the public tier incentive from 90% to 75% downstate may not sufficiently drive projects since this would effectively offset any benefit from the increased L2 baseline. The JU state that because the Whitepaper budget does not include an incremental budget allocation for that incentive tier, tradeoffs between incentive tiers would be necessary. The JU recommend the ultimate budget methodology allow that 25% of the overall program budget can be spent on eligible chargers at the enhanced tier, and at the new charger baseline levels, without adversely impacting the rest of the program budget. The JU is concerned that the recommendation to reduce the downstate DCFC public tier incentive to 75% is incongruous with the Whitepaper proposal to increase the DCFC goal.

The JU present options for an L2 budget methodology that aligns actual program data with the charger goals in the Whitepaper. Scenario one determines the number of chargers the proposed budget could support based on program data to date, whereas scenario two determines what budget would be necessary to support the proposed charger goals. The JU emphasize that the most current information should be used to develop the budget prior to an order, and that the scenarios provided are illustrative. Other than their recommendations to increase the enhanced incentive tier cap across the total budget to 25% and the use of a common Upstate Utilities baseline, the JU do not recommend an alternative methodology for DCFC budgets or charger goals. The JU recommend that administrative budgets for newly proposed programs, such as for micromobility, be set and 15% of their respective budgets.

The JU support the Whitepaper recommendation to continue make-ready program expenditures beyond 2025 if the charger goals have not been met and recommend that even if charger goals are met by 2025, the program be allowed to continue if the authorized budget is not fully spent. The JU state that the charger goal achievement of one utility should not impact another utility’s ability to continue make-ready program expenditures. The JU propose that the Commission conduct a limited subsequent review process in the second half of 2024 to revisit targets, budgets, and rules associated with make-ready

program funding to continue buildout of EV charging and avoid an incentive cliff.

The JU support the Whitepaper recommendation for a stakeholder process to develop a coordinated interconnection framework and note that Con Edison has worked closely with stakeholders on recommendations to provide transparency into program status.

The JU recommend increasing the budget allocation for Disadvantaged Communities to 25% for L2 and DCFC projects statewide. If eligibility tightens significantly as recommended in the Whitepaper, the JU are confident that incentives will be appropriately targeted. As discussed previously, the JU propose aligning the total program budget with this updated allocation. The JU support the Whitepaper recommendations on enhanced tier eligibility and propose that buildings meeting the AMEEP criteria be eligible for the enhanced tier regardless of location.

The JU support introducing a micromobility infrastructure incentive program. The JU comment that the proposed $25 million would support significantly fewer ports than the Whitepaper's 18,000 port estimate because some ports are expected to be installed on the sidewalk or street, requiring new utility service. The JU recommend that customer-side and utility-side make-ready costs as well as associated customer-side costs such as the charging dock, any housing, and fire suppression systems, be eligible for incentives. The downstate utilities propose to jointly administer the proposed $20 million downstate fund. The upstate utilities propose to jointly administer the proposed $5 million allocation through a funding structure other than make-ready incentives, such as pilot programs, research and development, or grants, given the nascency of the upstate market and the likelihood that projects would be more in need of funding for equipment and other customer-side costs. The upstate utilities propose to collaboratively procure a single, third-party vendor to issue RFPs and solicit respondents. Under the proposal, personnel from the upstate utilities would serve on a review panel to evaluate and approve submissions in accordance with established project funding criteria, developed with Staff. The JU recommend that the Commission authorize an additional program administration budget equal to 15% of the micromobility budget.

The JU support funding for a workforce development effort and recommend that NYSERDA administer the program as they have significant experience administering workforce development programs. The JU recommend that the program consider ways to build a strong workforce to support the operation and maintenance of the chargers installed more broadly.

The JU note the Whitepaper recommendation to include a mechanism to re-examine MUD incentives due to any local changes that impose make-ready requirements on buildings. The JU recognize the importance of re-examining incentives over time but suggest that program modifications due to policy changes be minimized when possible as MUDs already face significant hurdles to upgrade their buildings. The JU expect that significant incentives will remain necessary to support these properties.

The JU caution that communication standard requirements should not be overly restrictive to maintain choice as the market evolves. The JU suggest that while the 8% overall cap on future-proofing costs remain in place, utilities be allowed flexibility in allocating site-specific funds based on customer needs. The JU state that this would enable the make-ready program to support cost effective planning by customers who have developed concrete, viable, and cost-efficient long-term plans. The JU note that load management technologies, including energy storage, load management software and hardware, fused switches, and rectifier cabinets should be eligible equipment for the make-ready program. The JU comment that incentives for load management technology provided under the make-ready program would be coordinated with the load management technology program that will be offered as ordered in the EV Rate Design Proceeding. The JU support the Whitepaper recommendation for the Technical Standards Working Group to identify solutions to remove barriers inhibiting V2G adoption.

The JU support the scheduling of one or more technical conference to discuss the barriers in obtaining and providing data. The JU propose the following topics for consideration during the meeting(s): 1) the importance of reliable access to all utilization data; 2) the benefits and costs of obtaining L2 station interval data versus session data; 3) challenges of monitoring uptime of DCFC and stations; 4) challenges of energy and non-energy operating costs reporting; 5) benefits and costs of developing load profile graphs from interval load data; and 6) extending the time allowed for utilities to create annual report from 60 to 90 days.

The JU recommend that drivers be directed to the entity responsible for EV charger operations and maintenance to allow for the most effective resolution of driver issues.

The JU propose a modified STS EAM structure to incentivize cost efficient achievement at different levels of charger achievement. The JU propose that the minimum achievement for the modified STS EAM be set at the level identified in the 2020 Make-Ready Order, consistent with the current STS construct target, given the increased charger goals. The JU comment that if the Commission is seeking a performance incentive around Transit Authority Make-Ready Program progress, it may be better to establish a separate EAM with a different mechanism to drive achievement in a more direct way. The JU propose using the current single-tier 30% STS level for mid achievement in the proposed earnings scale to encourage and incentivize utilities to hit a higher target that provides higher earnings.

The JU see value in a residential program outside the existing commercial make-ready program for addressing the needs of Disadvantaged Communities upstate. The JU comment that such program could focus on customers in one to four family residences in Disadvantaged Communities and potentially for customers qualifying for the Energy Affordability Program outside of Disadvantaged Communities. The JU recommend exploring a program model for upstate that provides rebates to eligible customers to offset some customer-side make-ready costs such as wiring upgrades. The JU comment that programs design could include turnkey installation services.

The JU support the Whitepaper recommendation to increase the MHD Pilot budget to $54 million. The JU support allowing customer side incentives for projects in Disadvantaged Communities and propose to 1) offer incentives up to 100% of customer side costs rather than the Whitepaper recommendation of 50% and 2) expand geographic eligibility beyond Disadvantaged Communities, given routes often traverse Disadvantaged Communities more heavily than other areas even if the hub is located elsewhere. The JU recommend removing all vehicle eligibility requirements for the Pilot. If vehicle requirements remain, the JU recommend including participants receiving New York State Environmental Bond Act of 2022 funding. The JU recommend a clarification that L2 chargers are eligible for participation in the MHD Pilot for Con Edison.

The JU agree with the Whitepaper proposal to accelerate planning efforts for school bus electrification and have already begun discussions with NYSERDA and other stakeholders and internal utility planning teams to enable grid capacity for NYS school districts. The JU support the establishment of a statewide list of school bus depots that can electrified with current capacity as well as an electrification plan for grid-constrained sites. The JU note that in discussions with some transit agencies already electrifying their fleets, transit agencies have expressed concern around battery electric vehicle ranges, particularly upstate, and have determined that the only way to comply with NYS requirements for full fleet electrification is through the deployment of hydrogen fuel cell buses, as off-depot charging costs are prohibitive. The JU recommend that the Commission consider whether hydrogen fuel cell infrastructure is eligible for make-ready funding with electric transportation options are not viable.

The JU largely support Whitepaper recommendation around the Fleet Assessment Services but note that creating a single web-based form would be duplicative of ongoing efforts by some utilities to create their own portals to integrate with internal systems. The JU recommend the Commission allow for additional incremental administration budget to support an expanded volume and scope of fleet assessment services above and beyond the 15% make-ready program administration budget.

The JU notes that the analysis for the capacity data on the load capacity maps is reliant on a one-time annual snapshot of summer peak load, and therefore would not change from quarter to quarter. The JU are open to discussing how to make the maps more useful and timelier, with the understanding that this could require significant engineering and IT resources to implement.

The JU comment that many installations currently use software and hardware solutions to allow for power sharing across multiple dispensers and conclude that the current make-ready program structure does not discourage power sharing.

Livingston Energy Group LLC (Livingston Energy)

Livingston Energy Group, LLC (Livingston Energy) is a New York based company that provides turnkey deployments of EV charging stations.

Waitlisted Applications

Livingston Energy agrees with Staff's proposal to form a working group to address issues with interconnection queuing in the Make-Ready program.

Micromobility Make-Ready Program

Livingston Energy recommends that the micromobility make-ready program include fundings to develop safer micromobility chargers as well as making fire suppression systems eligible for funding. They note that fire suppression systems can cost between $10,000 to $300,000 and recommend that these systems be eligible for make-ready funding for EVSE sites as well.

Workforce Development

Livingston Energy supports the creation of a Make-Ready Workforce Development program that serves Disadvantaged Communities. Livingston Energy recommends that workforce incentives be made available to both utilities and EV charging station developers. Livingston Energy has hired employees through both NYSERDA and Hudson Valley Community College sponsored workforce programs. Livingston Energy also has an ongoing partnership with local colleges to assist in workforce development.

Power Sharing

Livingston Energy supports power sharing and proposes that hardware and software capability be verified to make sure chargers can dispense maximum energy while sharing power. They also recommend allocating up to the 50% incentive level in Disadvantaged Communities for customer-side costs related to power sharing.

Futureproofing

Livingston Energy recommends increasing the future-proofing budget limit to above 10% of project costs. They state that future-proofing should be standardized and that non-proprietary chargers should be defined as a cost saving measure by the Commission.

Data Collection

Livingston Energy supports robust data collection. They recommend that Make-Ready data be made available to the public

for transparency on which sites and which EV developers have the best uptime and performance.

NYPA's Role

Livingston Energy comments that NYPA's monthly charging station development filings do not provide EV developers enough time to respond. They also believe that the information NYPA files does not provide enough information for developers to determine whether there are sites they are pursuing that conflict. They recommend that NYPA's eligibility for Make-Ready funding be curtailed.

New York Battery Storage Technology Consortium, Inc. (NY-BEST)

NY-BEST agrees with the Midpoint Whitepaper's recommendation to increase the budget to $1.108 billion and update the L2 and DCFC targets to 43,122 and 6,302, respectively. NY-BEST strongly agrees with the recommendation to include energy storage as eligible for make-ready incentives, noting the benefits of storage to reduce demand charges and manage peak load at charging stations. NY-BEST recommends not evaluating energy storage projects on a case-by-case basis to determine their eligibility for make-ready funds to promote certainty for project developers and requests the Commission to provide clearer guidance on this topic.

NY-BEST states that VGI technology is commercially available today and that focus should be on its commercialization and not on pilot projects. NY-BEST recommends the formation of a VGI focused group to address barriers to VGI, such as interconnection and economics, and help bring this technology to scale. NY-BEST recommends a waiver to the recent adoption of UL1741-SB in New York State for inverter-based distributed energy resources as presently there are no compliant V2X chargers.

NY-BEST supports the recommendation to increase the MHD budget and states that the proposed $54 million budget may be depleted quickly, and more funding may be needed. NY-BEST supports allowing customer-side infrastructure to be eligible for make-ready funds. NY-BEST recommends focusing the pilot program on government-owned vehicles, such as transit agencies or school buses and further recommends the creation of a

dedicated subprogram and funding source for electric school buses.

NY-BEST recommends that interconnection issues for EVSE and VGI be addressed in the existing Interconnect Technical Working Group rather than the Midpoint Whitepaper's recommendation to establish a new stakeholder process for these topics. NY-BEST states that bi-directional chargers are like energy storage in that they withdraw and inject energy so having separate working groups for load and generation is ineffective.

NY-BEST supports the Midpoint Whitepaper's recommendation to establish a $25 million micromobility make-ready program.

New York League of Conservation Voters and Environmental Advocates of New York (NYLCV EANY)

NYLCV EANY commend the increased DCFC plug target in Con Edison's service area and propose changes to encourage higher-volume sites which they see as necessary to meeting the target and better suited to urban environments. NYLCV EANY recommend keeping the 90 percent tier downstate, removing the 30-plug cap, and providing funding for blockhouse installations to this purpose. NYLCV EANY recommend increasing funding for sites in DACs, noting the portion of for-hire-vehicle drivers who live in these communities.

New York League of Conservation Voters (NYLCV), Transportation Alternatives, and Hell's Kitchen Chelsea Coalition for Pedestrian Safety (CHEKPEDS)

The New York League of Conservation Voters (NYLCV), Transportation Alternatives, and Clinton Hell's Kitchen Chelsea Coalition for Pedestrian Safety (CHEKPEDS) strongly support the inclusion of micromobility infrastructure in the Make-Ready Program. NYLCV, Transportation Alternatives, and CHEKPEDS cite research that finds that e-bikes are part of the climate solution and that the reduction in vehicles mile traveled (VMT), needed to lower emissions, can come from increasing the availability of bikes, scooters, and other forms of micromobility.

NYLCV, Transportation Alternatives, and CHEKPEDS point out the many benefits of micromobility including a comparison to

electric vehicles: e-mobility can charge 40-70 e-bikes for the same amount of energy as a charge to one EV, and those bikes can travel up to 2,000 to 3,000 miles before needing to recharge. However, NYLCV, Transportation Alternatives, and CHEKPEDS, state the e-mobility is not without challenges such as the requirement of the number of batteries that need to be purchased by the program operator so that there is adequate e-bikes available to customers when one needs to have a battery exchange in order to charge. NYLCV, Transportation Alternatives, and CHEKPEDS Battery exchange is usually completed by a technician that travels to sites in a van or small truck, which adds to more vehicles on the road. Therefore, NYLCV, Transportation Alternatives, and CHEKPEDS state that docking is one solution that can allow e-bikes to stay in operation for a longer period and can be installed near public charging facilities for delivery workers and other residents in need of charging. Hence, NYLCV, Transportation Alternatives, and CHEKPEDS advocate for the allocation of $25 million for micromobility infrastructure, stating that this amount should be the floor and that additional funding should be provided.

New York Power Authority (NYPA)

NYPA strongly supports many of the proposed modifications to the Make-Ready Program proposed in the Midpoint Whitepaper and offers several recommendations for improvement.

NYPA notes the importance of DCFC charger deployment to help reduce range anxiety and agrees with the Midpoint Whitepaper's recommendation to increase the target of DCFC statewide from 1,500 to 6,302. NYPA also recognizes the importance of DCFC deployment for for-hire vehicle fleets.

NYPA supports the Midpoint Whitepaper's recommendation to extend the authorized Make-Ready Program funds beyond December 31, 2025, if a utility has not met their charger goals. NYPA points out issues with supply chain and labor shortages which have resulted in delays in EV charging infrastructure deployment and that allowing for this extension with provide developers with some flexibility if factors beyond their control prevent the timely installation of charging infrastructure.

NYPA agrees with the Midpoint Whitepaper's recommendation to increase the MHD Pilot Program from $24 million to $54

million, allow customer-side incentives up to 50% for projects in Disadvantaged Communities and add the EPA Clean School Bus Program to the list of qualifying voucher programs that determine if a MHD pilot project is eligible. NYPA states their desire to share their experience from electrifying transit agencies with Staff, utilities, and other state agencies as they seek to electrify school bus fleets.

NYPA supports requiring OCPP version 1.6 or later as this reduces the risk of stranded assets but has concerns that this requirement could be a short-term barrier to charger deployment as there are a limited number of independent third-party test facilities. NYPA recommends that Staff phase in this requirement to allow for testing of equipment within three years of commercial operation with the option for DPS to modify this timeline if the market does not mature at a sufficient pace.

NYPA recommends that that only the service provider's contact information be placed on EV chargers funded through the Make-Ready Program, as it is the service provider who is in best position to provide the customer with immediate relief for their issue. NYPA states that the Midpoint Whitepaper's proposed requirement to provide contact information for the service provider, site host, and utility customer service will be more confusing than useful for drivers.

Nuvve Holding Corporation (Nuvve)

VGI

Nuvve deploys vehicle-to-grid charging technology. They have deployed two pilots in Bay Shore, New York. Nuvve recommends that a VGI Working Group be formed to deal with vehicle-grid integration interconnection issues directly (in lieu of dealing with these issues through the TSWG).

However, Nuvve recommends that charging systems be built into the existing ITWG framework to avoid a siloed process. They note that the requirement set out by the ITWG to meet UL 1741-SB certification for interconnection is major barrier as there are no bidirectional chargers on the market that meet this requirement. UL 1741-SB certification will take between 18 to 24 months. Challenges raised by the UL 1741-SB certification requirement include timeline for certification, an accumulated stock of UL 1741-SA chargers, regulatory uncertainty for support

for VGI and a limited number of units expected to be deployed in earlier years. Nuvve recommends that the Commission waive the requirement for UL 1741-SB until a later point in time determined by the ITWG.

Nuvve recommends that the VGI Working Group be tasked with adoption strategies to encourage vehicle-to-grid integration for school buses due to this market segment's maturity. Nuvve also supports Staff's Whitepaper recommendation to update the VDER tariff to clearly define VGI as eligible. They recommend that the Commission directs utilities to develop a V2G VDER calculator to help customers quickly estimate potential revenues.

MHD Pilot

Nuvve supports Staff's proposal to increase the light-duty as well as the medium- and heavy-duty make-ready program budgets. They support expanding the MHD Pilot program eligibility to include customer-side costs but encourage expanding customer-side eligibility to sites outside of Disadvantaged Communities. They also recommend that targeted make-ready funding be made available for bidirectional charging, particularly in the school bus segment.

PowerFlex

Waitlisted Projects/Application Process

PowerFlex supports Staff's idea to create a stakeholder process or working group to address application technical challenges. Building off prior experience with application portal access and submission issues, PowerFlex suggests the following:

- Separate applications by stage instead of one general application
- Clearly indicate the character limit
- Allow larger document files to be uploaded
- Allow customers to assign the rebate to a contractor or network provider while also applying under a customer name

- Make eligible funding clearer by showing a preliminary qualifying amount earlier in the process
- Inform applicants of wait time and likelihood of funding

Communication Standards

PowerFlex reasons that proprietary extensions should be allowed as part of OCPP if they are made public for any vehicle or customer to use. PowerFlex also conditionally supports adoption of ISO 15118 within the program, suggesting a phased approach for implementation like what has been done in California. PowerFlex iterates that the market in NY needs time to adopt this protocol as new technologies and software become more widely available.

Battery Energy Storage/Advanced Technologies

PowerFlex recommends that load management technologies that delay the need for infrastructure buildout be eligible for incentives under the make-ready program. PowerFlex suggests the program be technology agnostic towards load management technologies, as technologies beyond just batteries also provide benefits.

Data reporting

PowerFlex favors holding a technical conference to discuss streamlining data reporting requirements.

Driver Complaint Process and Procedures

PowerFlex suggests that the network provider, app QR code and support helpline number be included in each charger.

Power Sharing

PowerFlex comments that sites should be allowed to power share to obtain cost saving benefits and avoid utility-side infrastructure buildout. PowerFlex recommends the Commission not mandate a utility-to-customer side ratio, as load management varies by site, and not cap or limit power sharing capability but rather allow each site decide control power sharing.

re:Charge

Micromobility

re:Charge is a New York based electric micromobility charging company. re:Charge notes that micromobility is an important part of reaching the State's climate goals due to its environmental benefits and efficiency relative to larger EVs. re:Charge also states that micromobility can provide equitable transportation access to low-income communities, particularly as EVs remain at a much higher price point. re:Charge cites research findings that air quality benefits from transitioning to electric models may be offset due to the heavier weight of electric models that generate greater concentrations of particulate matter from brakes and tire wear.

re:Charge highlights the various challenges faced by micromobility, including the costly operational realities of swapping batteries in shared mobility use cases as well as fire risks from lower quality electric bike and scooter batteries. Re:Charge notes that federal and state funding currently prioritize EVs, and that enabling micromobility make-ready could help address the disparities in funding allocation.

re:Charge highlights that several micromobility deployments could benefit from the micromobility make-ready program, including an electric bike lending library serving low-income communities in Buffalo, NYCHA's micromobility charging demonstration project, as well as bike share systems operated by CDTA and Citi bike.

re:Charge recommends that the micromobility make-ready program be established by the Commission. re:Charge suggests that the program should offer incentives and assistance to install metered service at sites. re:Charge recommends that the Commission approve a higher allocation for micromobility make-ready upstate, and that the overall program budget be increased. re:Charge suggests that NYSERDA's Charge Ready program offer incentives to purchase micromobility chargers. re:Charge advocates for co-location of micromobility charging with electric vehicle charging and states that efforts should be undertaken to streamline make-ready construction at co-located sites at the same time. re:Charge encourages outdoor micromobility charging installations to offset the need for fire suppression systems.

Revel

Program Budget and Incentive Level

Revel states that it is uniquely expensive and difficult to install EV charging in New York City, noting that permitting as well as cost of real estate and construction are barriers. They also note that most of the sites they developed earlier on did not require capacity upgrades.

As Revel look to expand their network, most of the sites they are surveying now require additional capacity. For sites for 15 chargers or less, Revel can invest in a step-up transformer to increase the voltage from 208V to 480V service. For larger charging installations, Revel must purchase a blockhouse, typically between $1.5 to $3 million dollars. The cost of the step-up transformers and blockhouses are a significant fixed cost Revel must bear. Revel is focused on expanding their network to larger sites to offset other fixed costs such as leasing, permitting and project management. For the economies of scale to capture the cost of a blockhouse, Revel states that they must install over 60 fast chargers at that site.

Revel recommends that additional make-ready funding be made available for sites that require additional capacity and where the voltage must be increased from 208V service to 480V on the site. Revel does not specify the amount of funding that would sufficiently offset this barrier.

South Bronx Unite

MHD

South Bronx Unite raises concerns that installing charging in their community could result in wealthier EV owners coming into their neighborhoods to charge. The South Bronx has low vehicle ownership rates, and given the higher price point of EVs, are unlikely to be early adopters. Further, the South Bronx has been disproportionately burdened by pollution from vehicles, and want solutions that address these historic wrongs, and does not support those that exacerbate the problem. They encourage the deployment of fast charging stations that prioritize MHD vehicles as this sector is a major source of pollution that negatively impacts the health of residents (particularly in Mott Haven and Port Morris).

Although South Bronx Unite encourages a focus on MHD, they note it is also important to make sure there is access to both L2 and DCFC charging with equitable deployments across communities. In particularly, South Bronx Unite emphasizes that the community would not benefit from only having L2 chargers installed, and some DCFC should be included.

Workforce Development

South Bronx Unite recommends that programs include workforce development opportunities for their community and cautions again strict requirements that could render their residents ineligible to participate.

SWTCH Energy, Inc. (SWTCH)

SWTCH provides charging and energy management solutions to customers. They have utilized make-ready funding to install infrastructure in New York. SWTCH supports including MUDs in the programmatic charger goals. They state that installing charging where vehicle already dwell for long periods of time, such as at MUDs and workplaces, is crucial to increasing EV penetration.

SWTCH believes that MUDs should get a higher incentive level as it is a market segment that is hard to reach. They propose that all upstate MUD and workplace chargers receive the up to 90% incentive level. They note that these chargers are made available to multiple users and therefore merit the public incentive tier. They also propose that an additional incentive be offered by utilities for upstate if NYSERDA incentives are not available for chargers installed at MUDs and workplaces. Overall, SWTCH recommends that utilities have the flexibility to adjust incentive amounts based on actual project costs.

SWTCH supports including load management as eligible for incentives, including both software and hardware solutions. They also encourage Staff to make sure all chargers funded by the program comply with third-party certified open communication standards. SWTCH suggests that only SAE plug types and OCPP compliant hardware be considered non-proprietary.

Tesla

Proprietary Plugs and Fleet Charging

Tesla supports Staff's suggestion to continue funding proprietary chargers through the 2020 Make-Ready Order. They note that 78% of BEVs in New York State are Teslas and are largely served by Tesla Superchargers.

Tesla seconds Staff's recommendation to keep the 50% incentive tier for proprietary sites and 90% for publicly accessible ones.

Tesla requests that OCPP and ISO 15118 not be required for participation in the "up to 50%" incentive level for "non-publicly accessible sites and proprietary technology". This tier should allow charging operators the flexibility to choose their own communication protocols.

ISO 15118

Tesla suggests that currently, the ISO 15118 requirement should remain hardware ready-only. Tesla notes that the California Energy Commission has established hardware-ready guidance for their incentive programs for Plug and Charge capabilities. Tesla advocates that full implementation of the ISO 15118 should not be mandated yet, as standards are still developing. Tela states that any decisions regarding ISO 15118 should pertain to ISO 15118-2, the more common version.

OCPP

Tesla notes that an OCPP requirement can hinder vertically integrated electric vehicle service providers and EV charging providers from participating in the Make-Ready Program, as there are two versions of OCPP (OCPP 1.6 and OCPP 2.01) which are not back backward compatible. Tesla urges the Commission to consider charging requirements on an individual basis to avoid unintentionally blocking participation. Tesla recommends that OCPP not be required for participation in the up to 50% incentive tier and should be given additional flexibility.

Data Reporting

Tesla agrees that reporting on 15-minute interval meter data is important for accuracy and regulators. Tesla states this requirement should be limited to the utility companies, as they have existing systems to meet the requirement. Tesla recognizes this ask is burdensome for EV charging providers and states they should not also be subject to the requirement.

Tesla strongly urges the Commission to remove the requirement to report financial information on charging stations. Tesla reasons it is inappropriate to ask private companies to disclose financial information about their operations to the utilities.

Vehicle-Grid Integration Council (VGIC)

VGIC recommends that the JU update the VDER tariffs to include compensation for VGI and request that this would ensure that V2G exports are compensated across all utility territories in New York. VGIC supports Staff's proposal for incentivizing cost-reducing advanced technology if it provides grid and ratepayer benefits. VGIC states that the adoption of technology such as the Automated Load Management (ALM) solutions, including those that integrate battery storage, will help avoid or defer the need to upgrade certain customer-side and utility-side make-ready infrastructure, resulting in savings for EV customers and ratepayers. VGIC points out that these types of Make-Ready Program incentives would complement the potential incremental incentives approved in the demand charge alternative proceeding. However, VGIC raises concerns about the lack of clarity regarding the eligibility of cost-reducing advanced technologies, particularly because a cost-effectiveness analysis for each project would be prohibitive and can lead to project installations delays. To address this concern, VGIC recommends that the JU implement a solution to qualify these advanced technologies for make-ready incentives. VGIC recommends reconvening the VGI Working Group to identify and propose solutions to barriers of VGI, including the interconnection process for V2X systems and related technical standards which would benefit from stakeholder input and discussion. VGIC also recommends that the VGI WG address a broader set of VGI issues, including economics, consumer education, and permitting. VGIC states that more effort should be applied to explore the resiliency benefits of VGI including incorporate VGI into existing demand response programs.

VGIC points out that power sharing is an important ALM solution and can help deploy additional chargers at the same site capacity, helping to limit infrastructure upgrade costs while expanding charging availability however, power sharing is only one approach to ALM. VGIC states that instead of focusing

exclusively on power sharing a more inclusive definition of ALM encompasses the range of potential solutions such as battery storage, rectifier cabinets, and other hardware- or software-based approaches. VGIC requests that Staff correct the use of the term "vehicle-to-grid integration," and instead state "vehicle-grid integration strategies," because V2G is a discrete sub-topic to VGI more broadly.

VGIC recommends offering rebates for V2X-capable EVSE and associated infrastructure because of its ability to bolster grid reliability, and lower system costs. VGIC states that the VGI WG be convened by Q4 2023 and be tasked with a deadline in Q2 2024 to develop appropriate incremental incentives. VGIC states that the VGI Working Group could develop ways to increase customer understanding of this technology and develop comprehensive set of marketing, education, and outreach and technical assistance activities related to V2X.

VGIC states concern over the JU requiring interconnecting DERs to be certified to UL 1741 SB on January 1, 2023, particularly because of the limited availability of V2G-capable DC EVSE currently on the market. VGIC recommends a temporary exemption for V2G DC EVSE from the UL 1741 SB requirement.

VGIC supports the proposal to increase the overall budget of the MHD Make-Ready Pilot as well as extend the incentives to apply to both utility-side and customer-side make-ready infrastructure. However, VGIC recommends limiting eligibility to segments with the greatest need and public benefit, such as school buses and municipal fleets because of the limited funding. VGIC also recommends that ALM technologies, including those that incorporate battery storage, be eligible for make-ready incentives under the MHD Make-Ready Pilot.

REPLY COMMENTS

United and ACE NY Reply

United and ACE NY comment that the JU's proposed modification to allow up to 100% of customer-side cost be covered seems appropriate. United and ACE NY urge the Commission to carefully review how the JU intends to coordinate between the load management technology programs ordered in the EV Rate Design Proceeding and load management in the Make-Ready Program, and if necessary, provide stakeholders the opportunity

to comment on any utility proposals. United and ACE NY suggest that the interaction between programs could be a good subject for a technical conference or other setting. United and ACE NY generally support the JU's proposed EAM structure though do not have sufficient information to fully endorse it. United and ACE NY believe it is worthwhile to explore whether the JU's proposed structure is more suitable than the current approach and would welcome the opportunity to examine the EAM structure for the make-ready program and for EAMs more generally.

ChargePoint Reply

Proprietary extensions within OCPP

ChargePoint agrees with ACE NY and PowerFlex to allow proprietary extensions to OCPP. ChargePoint disagrees with ATE's recommendation to both eliminate the ability for networks to use proprietary extensions and enable "unhindered" ability for site hosts to switch network providers stating that ATE's comments demonstrate a misunderstanding of OCPP and proprietary extensions. ChargePoint states that ATE's analogy of a locked phone is misleading and ChargePoint maintains that proprietary extensions to newer versions of OCPP do not increase the risk of stranded assets or inhibit a customer's ability to switch networks if a provider were to go out of business.

The Commission should avoid overly prescriptive efforts to encourage reliability

ChargePoint recommends holding a Technical Solutions Working Group with Stakeholders before adopting any requirements meant to improve the reliability of stations. ChargePoint disagrees with ChargerHelp's recommendations that 1) reliability standards should align with the NEVI Program, 2) reliability standards should apply to L2 stations, and 3) site hosts should invest in maintenance contracts that include service level agreements. ChargePoint states that requirements for "service level agreements" is unclear because the term is undefined. ChargePoint states that these tools may already be provided and that site hosts may already be capable of self-maintaining EV charging equipment. ChargePoint is concerned that unnecessary requirements may increase costs, cause confusion for site hosts, limit customer participation, and delay the goals of the make-ready program.

Lack of transparency and information are slowing down port deployment

ChargePoint supports EVgo, and Livingston Energy and the City's comments on the interconnection process as an issue. ChargePoint states that further Stakeholder discussion is necessary for accelerating energization timelines and getting greater transparency into program operation.

ISO 15118 requirements should be hardware-only at this time

ChargePoint agrees with ACE NY, Tesla, and EVgo that implementation of the ISO 15118 standard should apply to hardware-only requirements and highlights its states that by aligning compliance requirements with other large-scale EV infrastructure programs may moderate equipment costs, deliver consistent customer experience, and provide time for industry compliance.

The City of New York (City) Reply

In lieu of reply comments the City re-submitted 1) Attachment 1: a map of existing public L2 chargers, and 2) Attachment 2: the NYC DOT Curbside L 2 EV Charging Pilot: Evaluation Report (Evaluation Report). The Evaluation Report documents a joint effort between the City and Con Edison of proof of concept and curbside utilization of L2 chargers through a Pilot Program launched in June 2021. The City states that since the launch of the Pilot, the City has seen promising results on the efficacy of curbside charging and revealed that one of the biggest challenges with curbside charging is how often chargers are blocked from being used, most often because of illegally parked vehicles. The Evaluation Report demonstrates that curbside charging stations fill an immediate charging need in areas with limited off-street parking.

EDF Reply

Eligibility and Geographic Restrictions

EDF agrees with the City, EJSC, and the JU in their initial comments, in that MHD Pilot eligibility should be designed to prioritize MHD electrification in disadvantaged and environmental justice communities and that the restrictive eligibility requirements of the program limit the potential solutions to electrification of the MHD sector. EDF agrees with

United and ACE NY regarding supporting publicly owned and public-serving fleet, however publicly owned fleets are unlikely to have access to funding like the equally sized private fleets. EDF states that restricting the funding to public fleet would defeat the purpose of the pilot by impeding addressing near term needs and data collection. EDF states that the pilot program supports the electrification of both private and public fleets as well as school buses and has been fundamental to commencing the MHD Proceeding (Case 23-E-0070) in which full scale programs will build from the pilot, and therefore funding should not be restricted to public fleets. EDF argues against United and ACE NY and NY-Best comments stating that limiting the pilot would hinder data collection such as costs, interconnection challenges, operational charging needs etc., which provide valuable insights to what the scale and scope of a full-scale program should consist off for the State to meet its targets.

EDF agrees with the City that addressing local air pollution in Disadvantaged Communities and environmental justice neighborhoods is an issue that must be prioritized, in the MHD Pilot and in the MHD proceeding, stating that make-ready support on both sides of the meter would accelerate truck and bus electrification without placing additional burden on ratepayers to recover these costs.

MHD Incentives

EDF agrees with commenters in increasing make-ready support for the MHD Pilot on the utility and customer side and strongly agree with the City's suggestion that the MHD make-ready incentives should match that of the light-duty program. EDF reasons that customer-side make-ready incentives outside of Disadvantaged Communities are important because where a vehicle is driven has a larger impact on air pollution than where it is charging and that providing incentives to build depots in Disadvantaged Communities may increase truck traffic there.

EDF does not agree with the JU's recommendation to include hydrogen make-ready infrastructure. EDF states that battery development and production will push the industry to optimize battery energy density and EV range.

Capacity Maps and Planning

EDF agrees with commenters that concur with quarterly updates to hosting capacity maps. EDF disagrees with ATE's statement that the capacity maps are meant only to provide a speculative availability of capacity, as this disregards the number of entities that may install chargers in a location near other fleets and will use the maps to decide if electrification is feasible. EDF recommends that Staff identify other improvements to the maps such as greater temporal and spatial granularity for the map and how the map modifications could integrate with the utilities' forecasting and planning work. EDF also agrees with EJSC's recommendations that the utilities proactively identify MHD fleet clusters that will require distribution upgrades so that upgrades will not suspend fleet electrification.

Fleet Assessment Services

EDF agrees with multiple commenters including the JU and EJSC that more robust fleet assessment services are needed. EDF states that when electrifying fleets, school buses should not be the only focus due to the many types of fleets that are looking to install charging infrastructure. EDF states that by focusing only on school buses the utilities may not have information on the electrification plans from other fleets, thereby creating inaccurate load forecasting and grid planning efforts. Regarding the administration budget, EDF agrees with other commenters that recommend that the administrative budget reflect the needs of the utilities across all their programs within this proceeding.

Vehicle-Grid Integration, DERs and Futureproofing

EDF agrees with the City's recommendation that make-ready programs should support the deployment of technologies that provide benefits to the grid, such as managed charging, V2G technologies and DERs. EDF states that these types of technologies lower the cost of grid upgrades and decrease ratepayer impact.

JU Reply

Micromobility

The JU recognizes the benefits of a micromobility program to residents of Disadvantaged Communities but points out that

charging infrastructure should not be limited geographically. Therefore, the JU recommends funding a micromobility program to incentivize infrastructure for Disadvantaged Communities, but without the requirement that it be located within a Disadvantaged Community.

Residential Make-Ready Program

JU agrees with ATE's comment which supports developing a residential make-ready program that is funded separately from existing incentive programs. JU asserts that residential make-ready program incentives should be authorized, as high costs are a barrier to residential customers to make electrical upgrades.

Load Serving Capacity Maps

The JU does not support the recommendation that utilities upload load-serving capacity maps on a quarterly basis. The capacity data is based on a one-time annual snapshot of summer peak load and does not change quarterly. The JU suggests that if map users want additional data, they should contact the utility or access the site advisory services.

Design and Engineering Standards

Con Edison is responsive to the City's comment emphasizing the importance of fast-charging projects for EV adoption in NYC. Con Edison will continue to improve operations to reduce interconnection timelines by assessing design and engineering standards.

Data Reporting

The JU supports the Whitepaper's recommendation to schedule more technical conferences to discuss the learnings and challenges of collecting data. This will equip each utility to develop its own advanced metering infrastructure to collect Tesla's suggested "15-minute interval meter data".

Private and Proprietary

The JU supports Tesla's stance backing the original PSC determination on proprietary charger type eligibility and continued funding of 'non-publicly accessible sites and proprietary technology' at the 'Up to 50%' partial tier level'. However, the JU notes that if there is a drastic change in charger technology, such as the widespread adoption of non-proprietary charger types, Staff should consider revising charger standards and incentive levels.

Program Process and Transparency

The City suggests that the utilities develop a public-facing dashboard showing information about incentives, remaining budgets, queue length and eligibility requirements, and develop policies to help transition projects in the program queue from the committed to installed phase.

NYPA Reply

NYPA does not support ChargePoint's recommendation to lower the requirement for a developer to prove they are planning to develop at a site from a signed site-host MOU. NYPA explains that a MOU is not legally binding, and thus does not offer the level of commitment to develop a site that a signed-site agreement does.

NYPA disagrees with Livingston Energy that the monthly site status submission to DMM does not allow enough time for EVSE developers to assess a particular location and states that the 30-day inquiry period is sufficient time for a developer to determine if a NYPA project may cause a co-location issue. NYPA also states that the 30-day period is not the only opportunity developers can inquire about potential sites with NYPA and urges developers to regularly check the EVolveNY website to request additional information on sites.

NYPA disagrees with Livingston Energy claim that NYPA's monthly filings are inaccurate and maintains that their filings are up-to-date. NYPA requests additional information from Livingston Energy as to what information in the filings are allegedly inaccurate.

SWTCH Reply

SWTCH supports EnergyHub's view that make-ready incentives should be paired with requirements for participation in load management programs. SWTCH supports EnergyHub's suggestion that the utilities leverage a software platform capable of supporting a diverse set of EV OEM/EVSE providers to facilitate customer choice while enabling a more cost-effective collection of standardized data. SWTCH supports the JU's recommendation that the Commission use the most up-to-date data prior to authorizing a new budget. SWTCH believes a subsequent program review as suggested by the JU is an appropriate mechanism to allow utilities to request additional funding if needed and continue timely buildout of charging infrastructure.

SWTCH reiterates support for OCPP and comments that functional interoperability of OCPP requires that the network provider enable the charging station owner to reassign its units to another network provider. SWTCH disagrees with commenters who suggest OCPP requirements should be delayed due to a supposed lack of Buy America-compliant, OCPP-certified chargers. SWTCH attests that these chargers are available on the market today. SWTCH notes that the federal government has instituted a waiver on certain elements of the Buy America requirements due to supply chain concerns. SWTCH asserts it would be unnecessary and counterproductive to institute exceptions or delays to OCPP implementation due to Buy America availability concerns, when the federal government is addressing these concerns through its waiver process.

Tesla Reply

Tesla supports ATE's recommendation to maintain the current support levels for proprietary and non-proprietary plugs to avoid regulatory uncertainty. Tesla notes its publication of its North American Charging Standard (NACS) design in November 2022, and Ford's more recent announcement that it will adopt the NACS port in future EVs. Tesla requests consideration of NACS as a non-proprietary plug standard eligible for public tier incentives given this development.

Tesla supports the JU's recommendation to remove all vehicle eligibility requirements for the MHD Pilot and notes the Truck Voucher Incentive Program requirement as particularly challenging due to the scrappage requirement.

Tesla states that in its experience, Tesla has found qualified product lists to add rather than reduce the administrative burden of incentive programs. Tesla states that qualified product lists can unintentionally restrict customer choice if otherwise eligible equipment have not submitted all paperwork and followed, often burdensome, approval processes. Tesla supports PowerFlex's proposal of a phased approach to ISO 15118 implementation, which aligns with Tesla's recommendation of a hardware ready-only requirement. Tesla recommends that any requirement for communication standard compliance should align with the NEVI Program timeline (March 2024) at the earliest.

Tesla recommends that the 15-minute interval data required should be from the utility-owned meter. Tesla states that while alternatives may be necessary for sub-metered stations, placing the 15-minute interval data requirement on the utilities may be the simplest path forward. Tesla suggests that for L2 stations, either interval data or session level data may be appropriate, rather than requiring both.

VGIC Reply

Incentives for Cost-Reducing Advanced Technologies

VGIC agrees with other parties that supported incentivizing cost-reducing advanced technologies such as battery storage. VGIC states that developing a simple, standardized and streamlined process to determine incentive eligibility and amounts could assist site hosts when determining the deployment, cost-effectiveness and the financial viability of projects. VGIC supports EJSC recommendation that site hosts must quantify the cost and potential savings of the advanced technologies to receive an incentive, but states that it may be too burdensome and can lead to project delays. VGIC states it may be less of a burden to quantify the net benefits to the grid at the portfolio level rather than at the level of individual sites. VGIC states that once the market is developed with advanced technologies and the benefits are easily quantifiable, EJSC's recommendations regarding costs and benefits evaluations should be revisited.

As discussed in initial comments, VGIC recommends using a more comprehensive definition of advanced technologies such as ALM solutions. VGIC states that ALM refers to an array of cost-reducing advanced technologies including g software- and hardware-based approaches. Furthermore, VGIC states that co-located, or integrated storage includes technologies such as power sharing, rectifier cabinets, and other solutions, all of which can reduce the peak demand of chargers. VGIC asserts that ALM technologies lower the make-ready costs and recommend that the incentives be available for both customer- and utility-side, however there should not be a minimum utility-to-customer-side ratio.

Stakeholder Processes to Address Barriers to VGI

VGIC states that most stakeholders support holding stakeholder processes addressing the barriers to VGI, and

proposes, with agreement from Nuvve and NY-BEST, that most VGI-related issues would be better addressed in a VGI WG, rather than the TSWG.

VGIC agrees with Nuvve and NY-BEST that the splitting up of interconnection and V2X concepts between working groups could potentially result in disjointed and conflicting rules. Therefore, VGIC recommends that the ITWG address EVSE interconnection, the VGI WG address VGI-related issues such as customer education, demand response participation, resiliency use cases, and other incentives, pilots, or programs and the TSWG continue to focus on its current effort on EV and EVSE metering accuracy testing.

Support for Bidirectional Charging

VGIC agrees with other parties that utilities should update the VDER tariffs to extend eligibility for compensation to V2G. VGIC reiterates that additional actions are needed for the bidirectional charging market to expand such as a temporary waiver of UL 1741-SB requirements for V2G DC EVSE, and the development of a V2G VDER calculator, as discussed by NUUVE, which can also be included as part of the Fleet Assessment Services, as discussed by Fermata Energy. VGIC agrees with the City that bidirectional charging should be considered an "advanced technology" and, therefore, eligible for make-ready incentives.

MIDPOINT REVIEW BUDGETS

	Table 1 - Make-Ready Program Budget by Utility						
	Overall	CHGE	Con Edison	National Grid	NYSEG	O&R	RG&E
DCFC Make-Ready	$542,124,727	$32,653,583	$347,217,624	$67,664,610	$31,345,270	$22,514,669	$40,728,971
L2 Make-Ready	$343,484,397	$12,243,877	$237,833,197	$40,800,534	$20,723,056	$17,708,845	$14,174,887
Future Proofing	$43,369,978	$2,612,287	$27,777,410	$5,413,169	$2,507,622	$1,801,174	$3,258,318
Admin & Fleet Assessment Services	$132,841,369	$6,734,619	$87,757,623	$16,269,772	$7,810,249	$6,033,527	$8,235,579
Transit Authority Make-Ready	$10,000,000		$2,960,000	$5,090,000			$1,950,000
Total	$1,071,820,471	$54,244,366	$703,545,855	$135,238,084	$62,386,197	$48,058,215	$68,347,754

Table 2 - DCFC Baseline Costs by Utility

	Cost per kW			Cost per 150kW Baseline		
Utility	Customer Side	Utility Side	Total	Customer Side	Utility Side	Total
CHGE	$658.36	$59.27	$717.64	$98,755.00	$8,891.00	$107,646.00
Con Edison	$980.76	$129.80	$1,110.56	$147,115.00	$19,470.00	$166,585.00
National Grid	$440.96	$32.65	$473.61	$66,144.00	$4,897.00	$71,041.00
NYSEG	$409.07	$41.68	$450.76	$61,361.00	$6,253.00	$67,614.00
O&R	$592.77	$18.35	$611.13	$88,916.00	$2,753.00	$91,669.00
RG&E	$712.08	$35.48	$747.57	$106,812.0	$5,323.00	$112,135.00

Table 3 – Disadvantaged Communities Budget	
Program	DAC Allocation
Light-Duty Make-Ready Program	$194,482,706
Clean Transportation Prizes	$85,000,000
MHDV Make-Ready Pilot Program	$58,000,000
Micromobility Downstate w/ Admin	$23,000,000
Micromobility Upstate w/ Admin	$5,500,000
Total Program Budget	$1,243,320,471

Table 4 – Disadvantaged Communities Allocation		
Program	Disadvantaged Communities Programs	Total Program Allocation
Light-Duty Make-Ready Program	$194,482,706	$885,609,124
Clean Transportation Prizes	$85,000,000	$85,000,000
Transit Authority Make-Ready	$10,000,000	$10,000,000
MHDV Make-Ready Pilot Program	$58,000,000	$58,000,000
Micromobility (w/o admin)	$25,000,000	$25,000,000
Total	$372,482,706	$1,063,609,124
Disadvantaged Communities Allocation	**35.0%**	

	Table 5 – Upstate Micromobility Administrative Budget by Utility				
	Overall	CHGE	National Grid	NYSEG	RG&E
DCFC Make-Ready	$500,000	$86,230	$208,319	$100,003	$105,449

Table 6 - Summary of Midpoint Review Order Budget

Programmatic Allocation	Midpoint Review Order Disadvantaged Communities	Midpoint Review Order Total
DCFC Make-Ready	$125,785,827	$542,124,727
L2 Make-Ready	$68,696,879	$343,484,397
MDHD Pilot	$58,000,000	$58,000,000
Transit	$10,000,000	$10,000,000
Transportation Prizes	$85,000,000	$85,000,000
Future Proofing	$ -	$43,369,978
Admin & Fleet Assessment Services	$ -	$136,341,369
Micromobility	$25,000,000	$25,000,000
Grand Total	$372,482,706	$1,243,320,471

REVENUE REQUIREMENT IMPACT

	Table 7 – 2026 Revenue Requirement Impacts ($ Millions)			
	2020 Make-Ready Order Total Budget	**Midpoint Review Order Total Budget**	**% Total Delivery Revenues**	**% Total Revenues**
CHGE	$4.02	$8.41	2.31%	1.36%
Con Edison	$42.95	$112.94	1.86%	1.19%
National Grid	$12.15	$10.59	1.46%	0.73%
NYSEG	$22.10	$22.10	1.23%	0.78%
O&R	$3.67	$7.83	2.22%	1.40%
RG&E	$6.11	$10.54	2.41%	1.38%

PERFORMANCE INCENTIVES

	Table 8 - EAM Progress by Utility					
	Level 2 Plugs EAM			**DC Fast Charger EAM**		
	Mid-Point Targets			**Mid-Point Targets**		
	Required	Achieved	Earned	Required	Achieved	Earned
CHGE	641	137	$0	14	20	$183,666
Con Edison	3,708	1,584	$0	91	92	$360,207
National Grid	3,146	1,761	$0	101	143	$530,411
NYSEG	1,856	321	$0	50	28	$0
O&R	569	123	$0	14	2	$0
RG&E	836	265	$0	30	9	$0
Total	**10,115**	**4,054**	**$0**	**286**	**274**	**$890,618**

	Table 9 - Change in Plug Completion Status							
	Level 2 Completed Plug Count				**DCFC Completed Plug Count**			
	White paper	**12/31/22**	**Δ**	**Growth Rate**	**White paper**	**12/31/22**	**Δ**	**Growth Rate**
CHGE	133	137	4	3%	12	20	8	67%
Con Edison	947	1,584	637	67%	55	92	37	67%
National Grid	1,517	1,761	244	16%	112	143	31	28%
NYSEG	298	321	23	8%	27	28	1	4%
O&R	113	123	10	9%	2	2	0	0%
RG&E	219	265	46	21%	9	9	0	0%

	Table 10 – Comparison of Completed and Committed Plugs					
	Level 2			DCFC		
	2020 Order	7/31/2023	2023 Order	2020 Order	7/31/2023	2023 Order
CHGE	3,204	674	2,037	69	68	416
Con Edison	18,539	9,924	21,371	457	547	3,157
National Grid	15,728	3,641	7,439	504	338	1,329
NYSEG	9,279	842	3,526	250	128	594
O&R	2,845	768	1,546	71	43	340
RG&E	4,178	654	2,437	149	41	466

Level 2 EAM metric

$$EAM\ Award = \Big\{\Big[\Big(\frac{Baseline\ Cost}{plug}\Big)(Incentive\ \%_{Public})\big(Plugs\ incented_{Public,actual}\big) + \Big(\frac{Baseline\ Cost}{plug}\Big)(Incentive\ \%_{Non-public})\big(Plugs\ incented_{Non-public,actual}\big) + \Big(\frac{Baseline\ Cost}{plug}\Big)(Incentive\ \%_{Enhanced})\big(Plugs\ incented_{Enhanced,actual}\big)\Big] - \big[(\$\ incentive_{Public,actual}) + (\$\ incentive_{Non-public,actual}) + (\$\ incentive_{Enhanced,actual})\big]\Big\}(Share\ of\ Savings\ \%)$$

Table 11 – L2 Baseline Per-Plug Incentive Costs		
Plug Type	**Upstate**	**Downstate**
Baseline Cost / plug	$6.360.30/plug	$14,801.00/plug
Public Level 2 Incentive %	90%	90%
Non-public Level 2 Incentive %	50%	50%
Enhanced Incentive %	100%	100%

Table 12 – L2 Share of Savings Plug Deployment Targets			
Target Level	**Minimum**	**Middle**	**Maximum**
Share of Savings	5%	10%	30%
Utility Plug Deployment Goals			
Central Hudson	1,528	1,732	2,037
Con Edison	16,029	18,166	21,371
National Grid	5,580	6,324	7,439
NYSEG	2,645	2,998	3,526
O&R	1,160	1,315	1,546
RG&E	1,828	2,072	2,437

DCFC EAM metric

$$EAM\ Award = \left\{\left[\left(\frac{Baseline\ Cost}{kW}\right)(Incentive\ \%_{Public})(kW\ incented_{Public,actual})\right.\right.$$
$$+\left(\frac{Baseline\ Cost}{kW}\right)(Incentive\ \%_{Non-public})(kW\ incented_{Non-public,actual})$$
$$\left.+\left(\frac{Baseline\ Cost}{kW}\right)(Incentive\ \%_{Enhanced})(kW\ incented_{Enhanced,actual})\right]$$
$$-\left[(\$\ incentive_{Public,actual}) + (\$\ incentive_{Non-public,actual})\right.$$
$$\left.\left.+(\$\ incentive_{Enhanced,actual})\right]\right\}(Share\ of\ Savings\ \%)$$

Table 13 – DCFC Baseline Per-KW Incentive Costs						
Plug Type	**Central Hudson**	**Con Edison**	**National Grid**	**NYSEG**	**O&R**	**RG&E**
Baseline Cost / kW	$717.64 /kW	$1,110.56 /kW	$473.61 /kW	$450.76 /kW	$611.13 /kW	$747.57 /kW
Public Incentive %	90%	90%	90%	90%	90%	90%
Non-public Incentive %	50%	50%	50%	50%	50%	50%
Enhanced Incentive %	100%	100%	100%	100%	100%	100%

Table 14 – DCFC Share of Savings Plug Deployment Targets			
Target Level	**Minimum**	**Middle**	**Maximum**
Share of Savings	5%	10%	30%
Utility Plug Deployment Goals			
Central Hudson	208	312	416
Con Edison	1,579	2,368	3,157
National Grid	665	997	1,329
NYSEG	297	446	594
O&R	170	255	340
RG&E	233	350	466

	INCENTIVE TIER					BASELINE							PROGRAM PERFORMANCE INPUTS						COMPUTATION OF EAM			
	Level 2 Plug Targets*			Plugs	EAM Tier	Average Make-	Public L2		Non-Public L2		Enhanced L2		Public L2		Non-Public L2		Enhanced L2		Target Program Cost	Actual Program Cost	Share of	EAM Award
Utility	Minimum	Middle	Maximum	Installed		Ready Cost	Incentive %	Target Incentive	Incentive %	Target Incentive	Incentive %	Target Incentive	# Plugs Participating	$ Incentive Spent	# Plugs Participating	$ Incentive Spent	# Plugs Participating	$ Incentive Spent			Savings	($ 000s)
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]=[7]*[8]	[10]	[11]=[7]*[10]	[12]	[13]=[7]*[12]	[14]	[15]	[16]	[17]	[18]	[19]	[20]=([9]*[14]+([11]*[16])+([13]*[18])	[21]=[15]+[17]+[19]	[22]=f[6]	[23]=([21]-[20])*[22]
Central Hudson	1528	1732	2037		NONE	$ 7,067	90%	$ 6,360.30	50%	$ 3,533.50	100%	$ 7,067.00							$ -	$ -	0%	$ -
Con Edison	16029	18166	21371		NONE	$ 14,801	90%	$ 13,320.90	50%	$ 7,400.50	100%	$ 14,801.00							$ -	$ -	0%	$ -
National Grid	5580	6324	7439		NONE	$ 7,067	90%	$ 6,360.30	50%	$ 3,533.50	100%	$ 7,067.00							$ -	$ -	0%	$ -
NYSEG	2645	2998	3526		NONE	$ 7,067	90%	$ 6,360.30	50%	$ 3,533.50	100%	$ 7,067.00							$ -	$ -	0%	$ -
O&R	1160	1315	1546		NONE	$ 14,801	90%	$ 13,320.90	50%	$ 7,400.50	100%	$ 14,801.00							$ -	$ -	0%	$ -
RG&E	1828	2072	2437		NONE	$ 7,067	90%	$ 6,360.30	50%	$ 3,533.50	100%	$ 7,067.00							$ -	$ -	0%	$ -

* Minimum = 75% of 2025 L2 deployment Target; Middle = 85% of L2 deployment target; Maximum = L2 deployment target

Input Cell

EXAMPLES

Definitions:

Scenario 1 Did not hit plug goals, did not achieve run-rate savings.
Scenario 2 Did not achieve minimum plug goal, achieved 50% run-rate savings.
Scenario 3 Achieved minimum plug goal, did not achieve run-rate savings.
Scenario 4 Achieved minimum plug goal, achieved 50% run-rate savings.
Scenario 5 Achieved middle plug goal, achieved 25% run-rate savings.
Scenario 6 Achieved maximum plug goal, achieved 10% run-rate savings.

	INCENTIVE TIER					BASELINE							PROGRAM PERFORMANCE INPUTS						COMPUTATION OF EAM			
	Level 2 Plug Targets			Plugs	EAM Tier	Average Make-	Public L2		Non-Public L2		Enhanced L2		Public L2		Non-Public L2		Enhanced L2		Target Program Cost	Actual Program Cost	Share of	EAM Award
	Minimum	Middle	Maximum	Installed		Ready Cost	Incentive %	Target Incentive	Incentive %	Target Incentive	Incentive %	Target Incentive	# Plugs Participating	$ Incentive Spent	# Plugs Participating	$ Incentive Spent	# Plugs Participating	$ Incentive Spent			Savings	($ 000s)
Secenarios:	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]=[7]*[8]	[10]	[11]=[7]*[10]	[12]	[13]=[7]*[12]	[14]	[15]	[16]	[17]	[18]	[19]	[20]=([9]*[14]+([11]*[16])+([13]*[18])	[21]=[15]+[17]+[19]	[22]=f[6]	[23]=([21]-[20])*[22]
1	16029	18166	21371	16028	NONE	$ 14,801	90%	$ 13,320.90	50%	$ 7,400.50	100%	$ 14,801.00	5610	$ 74,730,249	6411	$ 47,444,606	4007	$ 59,307,607	$ 181,482,462	$ 181,482,462	0%	$ -
2	16029	18166	21371	16028	NONE	$ 14,801	90%	$ 13,320.90	50%	$ 7,400.50	100%	$ 14,801.00	5610	$ 37,365,125	6411	$ 23,722,303	4007	$ 29,653,804	$ 181,482,462	$ 90,741,231	0%	$ -
3	16029	18166	21371	16029	MINIMUM	$ 14,801	90%	$ 13,320.90	50%	$ 7,400.50	100%	$ 14,801.00	5610	$ 74,730,249	6412	$ 47,452,006	4007	$ 59,307,607	$ 181,489,862	$ 181,489,862	5%	$ -
4	16029	18166	21371	16029	MINIMUM	$ 14,801	90%	$ 13,320.90	50%	$ 7,400.50	100%	$ 14,801.00	5610	$ 37,365,125	6412	$ 23,726,003	4007	$ 29,653,804	$ 181,489,862	$ 90,744,931	5%	$ 4,537,247
5	16029	18166	21371	18166	MIDDLE	$ 14,801	90%	$ 13,320.90	50%	$ 7,400.50	100%	$ 14,801.00	6358	$ 63,520,712	7266	$ 40,329,025	4542	$ 50,419,607	$ 205,692,457	$ 154,269,343	10%	$ 5,142,311
6	16029	18166	21371	21371	MAXIMUM	$ 14,801	90%	$ 13,320.90	50%	$ 7,400.50	100%	$ 14,801.00	7480	$ 89,676,299	8548	$ 56,933,527	5343	$ 71,173,569	$ 241,981,549	$ 217,783,394	30%	$ 7,259,446

Notes:

1. Scenarios reflect Con Edison budgets, plug deployment goals, and historical mix between plugs at the public incentive tier (35%), non-public tier (40%), and disadvantaged community tier (25%).
2. Results of Scenarios 1-3 show that to earn any incentive, a utility must achieve at least minimum plug deployment goal and achieve cost savings.
3. Results of Scenarios 4-6 show that utility reward increases with increasing plug deployment, even if per-plug savings decrease (as might be necessary to achieve the next-higher tier of Share of Savings).
4. Note that the earned incentive amount would be converted to the equivalent number of basis points, and added with any earnings achieved for the DCFC component. The sum of Level 2 and DCFC basis points shall not exceed 15.

Example Inputs

DCFC Make-Ready Program EAM

	INCENTIVE TIER					BASELINE							PROGRAM PERFORMANCE INPUTS						COMPUTATION OF EAM			
	DCFC Plug Targets*						Public DCFC		Non-Public DCFC		Enhanced DCFC		Public DCFC		Non-Public DCFC		Enhanced DCFC					
Utility	Minimum	Middle	Maximum	Plugs Installed	EAM Tier	Average Make-Ready per kW	Incentive %	Target Incentive ($/kW)	Incentive %	Target Incentive ($/kW)	Incentive %	Target Incentive ($/kW)	kWs installed	$ incentive spent	kWs installed	$ incentive spent	kWs installed	$ incentive spent	Target Program Cost	Actual Program Cost	Share of Savings	EAM Award ($ 000s)
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]=[7]*[8]	[10]	[11]=[7]*[10]	[12]	[13]=[7]*[12]	[14]	[15]	[16]	[17]	[18]	[19]	[20]=([9]*[14])+([11]*[16])+([13]*[18])	[21]=[15]+[17]+[19]	[22]=f[6]	[23]=([21]-[20])*[22]
Central Hudson	208	312	416		NONE	$ 717.64	90%	$ 645.88	50%	$ 358.82	100%	$ 717.64							$ -	$ -	0%	$ -
Con Edison	1579	2368	3157		NONE	$ 1,110.56	90%	$ 999.50	50%	$ 555.28	100%	$ 1,110.56							$ -	$ -	0%	$ -
National Grid	665	997	1329		NONE	$ 473.61	90%	$ 426.25	50%	$ 236.81	100%	$ 473.61							$ -	$ -	0%	$ -
NYSEG	297	446	594		NONE	$ 450.76	90%	$ 405.68	50%	$ 225.38	100%	$ 450.76							$ -	$ -	0%	$ -
O&R	170	255	340		NONE	$ 611.13	90%	$ 550.02	50%	$ 305.57	100%	$ 611.13							$ -	$ -	0%	$ -
RG&E	233	350	466		NONE	$ 747.57	90%	$ 672.81	50%	$ 373.79	100%	$ 747.57							$ -	$ -	0%	$ -

* Minimum = 2020 Order DCFC deployment target (2025); Middle = 50% of 2023 Order DCFC deployment target; Maximum = 2023 Order DCFC deployment target

Input Cell

EXAMPLES

Definitions:

Scenario 1 Did not hit plug goals, did not achieve run-rate savings.
Scenario 2 Did not achieve minimum plug goal, achieved 50% run-rate savings.
Scenario 3 Achieved minimum plug goal, did not achieve run-rate savings.
Scenario 4 Achieved minimum plug goal, achieved 50% run-rate savings.
Scenario 5 Achieved middle plug goal, achieved 25% run-rate savings.
Scenario 6 Achieved maximum plug goal, achieved 10% run-rate savings.

	INCENTIVE TIER					BASELINE							PROGRAM PERFORMANCE INPUTS						COMPUTATION OF EAM			
	DCFC Plug Targets*						Public DCFC		Non-Public DCFC		Enhanced DCFC		Public DCFC		Non-Public DCFC		Enhanced DCFC					
Scenario	Minimum	Middle	Maximum	Plugs Installed	EAM Tier	Average Make-Ready per kW	Incentive %	Target Incentive ($/kW)	Incentive %	Target Incentive ($/kW)	Incentive %	Target Incentive ($/kW)	kWs installed	$ incentive spent	kWs installed	$ incentive spent	kWs installed	$ incentive spent	Target Program Cost	Actual Program Cost	Share of Savings	EAM Award ($ 000s)
	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]=[7]*[8]	[10]	[11]=[7]*[10]	[12]	[13]=[7]*[12]	[14]	[15]	[16]	[17]	[18]	[19]	[20]=([9]*[14])+([11]*[16])+([13]*[18])	[21]=[15]+[17]+[19]	[22]=f[6]	[23]=([21]-[20])*[22]
1	1579	2368	3157	1578	NONE	$ 1,110.56	90%	$ 999.50	50%	$ 555.28	100%	$ 1,110.56	104,148	$ 104,096,343	92,313	$ 51,259,563	42,606	$ 47,316,519	$ 202,672,425	$ 202,672,425	0%	$ -
2	1579	2368	3157	1578	NONE	$ 1,110.56	90%	$ 999.50	50%	$ 555.28	100%	$ 1,110.56	104,148	$ 52,048,171	92,313	$ 25,629,781	42,606	$ 23,658,260	$ 202,672,425	$ 101,336,212	0%	$ -
3	1579	2368	3157	1579	MINIMUM	$ 1,110.56	90%	$ 999.50	50%	$ 555.28	100%	$ 1,110.56	104,214	$ 104,162,310	92,372	$ 51,292,324	42,633	$ 47,346,504	$ 202,801,138	$ 202,801,138	5%	$ -
4	1579	2368	3157	1579	MINIMUM	$ 1,110.56	90%	$ 999.50	50%	$ 555.28	100%	$ 1,110.56	104,214	$ 52,081,155	92,372	$ 25,646,162	42,633	$ 23,673,252	$ 202,801,138	$ 101,400,569	5%	$ 5,070,028
5	1579	2368	3157	2368	MIDDLE	$ 1,110.56	90%	$ 999.50	50%	$ 555.28	100%	$ 1,110.56	156,288	$ 117,157,861	138,528	$ 57,691,371	63,936	$ 53,253,573	$ 304,137,073	$ 228,102,805	10%	$ 7,603,427
6	1579	2368	3157	3157	MAXIMUM	$ 1,110.56	90%	$ 999.50	50%	$ 555.28	100%	$ 1,110.56	208,362	$ 187,432,787	184,685	$ 92,296,698	85,239	$ 85,196,721	$ 405,473,563	$ 364,926,207	30%	$ 12,164,207

Notes:

1. Scenarios reflect Con Edison budgets, plug deployment goals, and historical mix between plugs at the public incentive tier (44%), non-public tier (39%), and disadvantaged community tier (18%).
2. Results of Scenarios 1-3 show that to earn any incentive, a utility must achieve at least minimum plug deployment goal and achieve cost savings.
3. Results of Scenarios 4-6 show that utility reward increases with increasing plug deployment, even if per-plug savings decrease (as might be necessary to achieve the next-higher tier of Share of Savings).
4. Note that the earned incentive amount would be converted to the equivalent number of basis points, and added with any earnings achieved for the Level 2 component. The sum of Level 2 and DCFC basis points shall not exceed 15.

Example Inputs