



Department
of Public Service

Make-Ready Program Midpoint Review

Order Summary Stakeholder Session

December 21, 2023

Agenda and Introduction

- Introduction
 - Make-Ready Program Overview
 - Midpoint Review Order Overview
 - Q&A
 - Next Steps
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- All attendees will remain muted
 - Use chat function or raise hand function to ask questions of panelists
 - Dedicated Q&A throughout and at the end of today's presentation
 - This session is being recorded
 - Presentation materials and recording link will be posted on DMM
 - Please email EVSE@dps.ny.gov for more information after this session

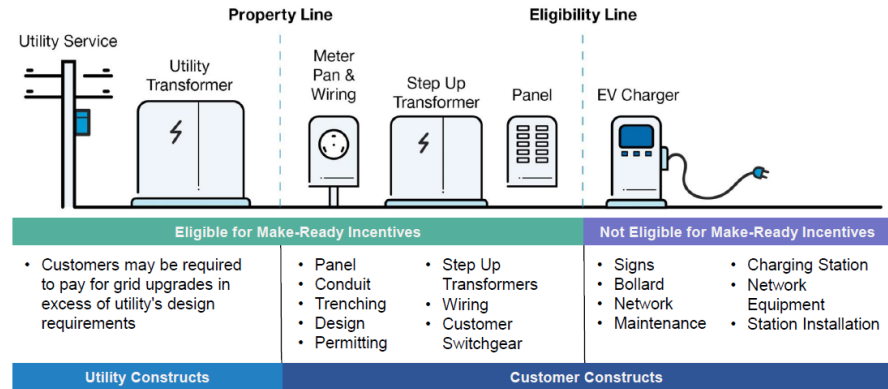
Make-Ready Program Overview

Make-Ready Program Background

Make Ready Order

- In July 2020, the Make-Ready Order authorized a \$701 million budget; primarily funding 'make-ready' infrastructure needed to install charging
- Included \$206M dedicated budget for Disadvantaged Communities (DAC):
 - 20% of make-ready infrastructure funding is allocated to projects serving Disadvantaged Communities
 - Additional programs include Clean Transportation Prizes (\$85M), MHD Pilot (\$15M), & Transit Make-Ready Program (\$10M)
- Order directs Midpoint Review of program budget, incentives and additional needs

EV Make-Ready Program Eligible Costs

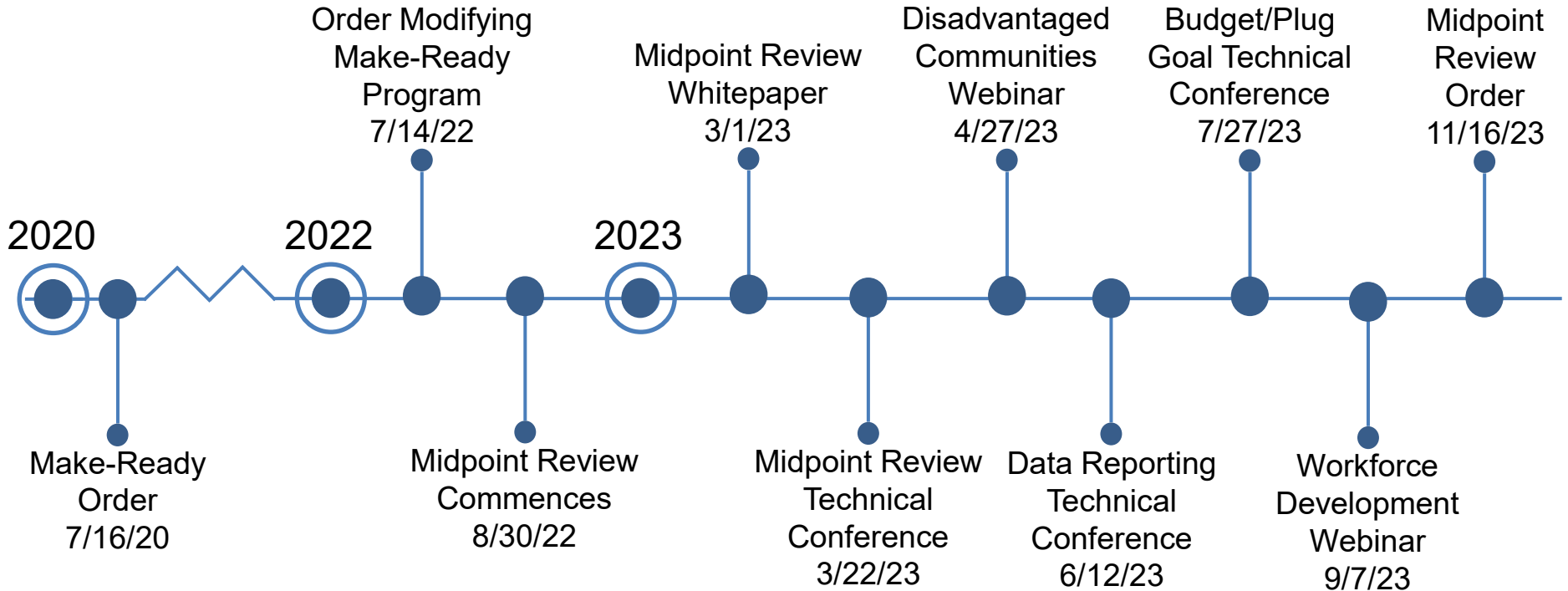


Source: Joint Utilities of New York, November 18, 2022, EV Make-Ready Program Midpoint Review Technical Conference (image modified by DPS Staff).

Three incentive tiers for eligible costs:

- Up to 100% - chargers serving certain DAC use cases
- Up to 90% - public non-proprietary chargers
- Up to 50% - private access or proprietary chargers

Make-Ready Midpoint Review Timeline

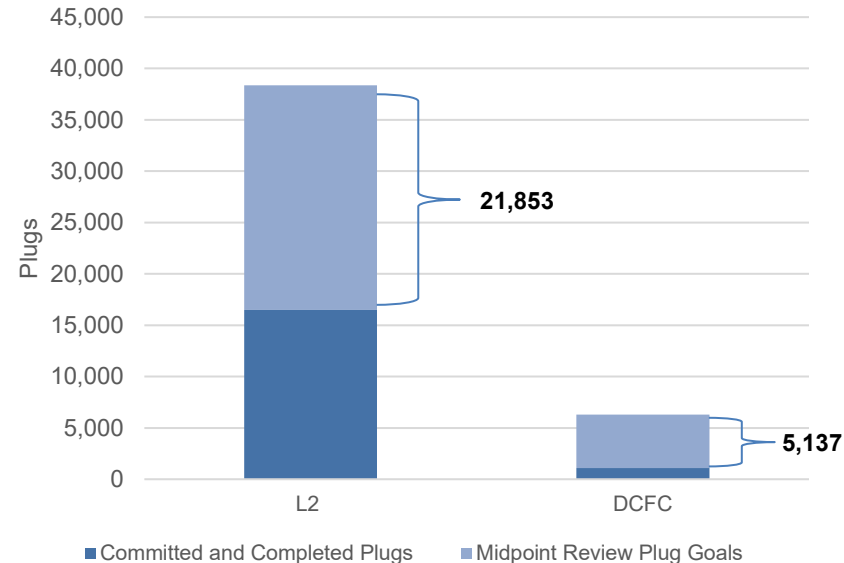


Midpoint Review Order Overview

Midpoint Order Updated Plug Forecast

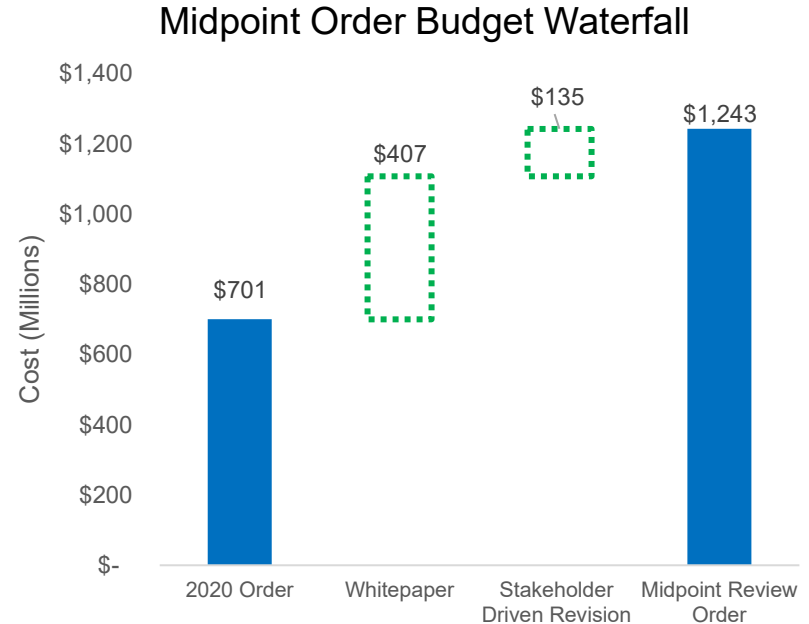
- Make-Ready Order (2020) budgets and plug goals are based on national estimates and NREL's EVI-Pro Lite
 - Make-Ready Order target: 53,772 L2 and 1,500 DCFC plugs statewide by 2025
 - August 2023 data: 16,503 L2 and 1,115 DCFC committed and completed statewide
- Midpoint Review Whitepaper (2023) used historical data to update baseline costs as well as a refined NREL forecast that found an increase in DCFC and decrease in L2 needs based on:
 - New projections of residential charging availability and the first ever multi-unit dwelling (MUD) plug projection
 - Growing demand of electric for-hire vehicles
 - Proliferation of longer range EVs
 - Advances in the availability of higher capacity fast charging

Midpoint Review Identified Incremental Support Needed for 850K EVs



Incremental Budget Increase

- Staff proposed a \$407M incremental budget increase in the Midpoint Review Whitepaper, filed 3/1/23, based on the updated plug forecast and historical program data
- In written comments and technical conferences, Stakeholders encouraged Staff to revisit the Midpoint Review Whitepaper budget to account for:
 - Increases in DCFC costs as more favorable sites are developed
 - Site hosts providing MUD and workplace L2 plugs to the public to maximize incentives
 - Additional MHD Pilot budget needs in DACs
- In the Order, the Commission's revised budget methodology allocates incremental plugs by incentive tier and updates the per-plug baseline
 - Uses data from an Interrogatory Request (IR) filed by utilities in August 2023

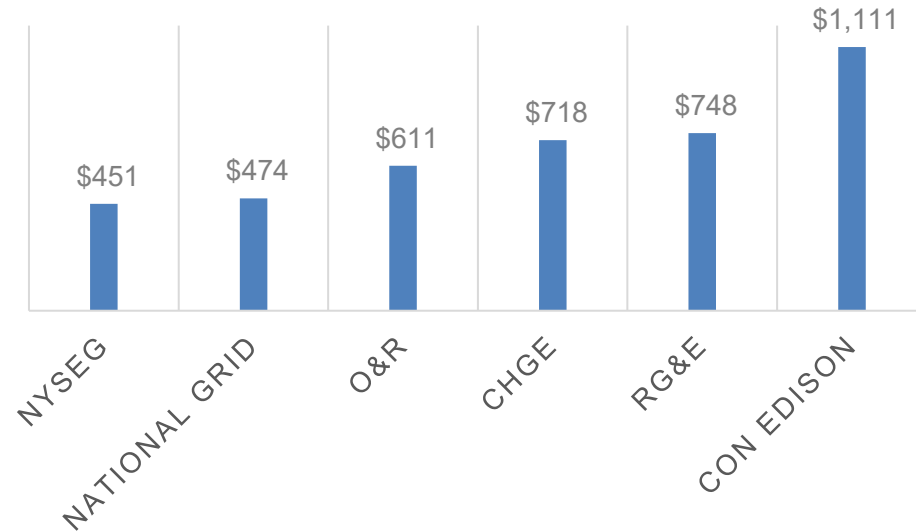


Order Budget \$1.243B (\$542M increase) from 2020 Order

Historical Data Refines the Per-Plug Baseline

- L2 plugs were updated based on weighted average of historical make-ready costs with separate values for upstate and downstate*
- DCFC plug baseline was developed using an average cost/kW to account for the range of DCFC capacities, then scaled the costs to a 150kW DCFC to derive utility specific baselines
 - Utility side baseline developed using only historical data from projects with utility side costs to account for less favorable sites being available and anticipated higher costs
- Updated Midpoint per-plug baseline:
 - L2 - Upstate: \$7,067; Downstate: \$14,801
 - DCFC cost/kW from \$451 to \$1,111 by utility
 - 150kW charger range: \$67,614 to \$166,585 rounded to nearest one

DCFC BASELINE - COST PER KW



Budget Driven by Data and Forecasting

- Midpoint Review Whitepaper analysis allocated plugs by incentive tier based on their location in the NREL forecasting
 - i.e. all workplace and MUDs L2 plugs assumed to be at 50% incentive tier (except MUDs in DACs)
- Building on Stakeholder feedback and IR data, the Commission authorized a budget that allocated incremental plugs by incentive tier using historical data
- Administrative budget maintained at 15%
- Program Restrictions: In Con Edison, incentives capped at up to 6MW and no more than half of plugs at sites with more than 30 plugs
 - In all other utility service territories: up to 3MW and no more than half of plugs at sites with more than 10 plugs

Historical Allocation of Incentive Tier by Plug Type

	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%

Upcoming Deadlines:

- Implementation Plan and Participant Guide: 1/12/24
- Additional Review: 11/17/25 (or sooner if 70% of plugs committed and completed)

Midpoint Budget Summary

	DAC Make-Ready Order	Make-Ready Order Total	Midpoint Review Order DAC	Midpoint Review Order Total	Incremental DAC	Incremental Total
LDV Make-Ready	\$96,096,724	\$480,483,618	\$194,482,706	\$885,609,124	\$98,385,982	\$405,125,506
MHD Pilot	\$15,000,000	\$15,000,000	\$58,000,000	\$58,000,000	\$43,000,000	\$43,000,000
Transit	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$ -	\$ -
Transportation Prizes	\$85,000,000	\$85,000,000	\$85,000,000	\$85,000,000	\$ -	\$ -
Future Proofing	\$ -	\$38,438,689	\$ -	\$43,369,978	\$ -	\$4,931,289
Admin & Fleet Assessment Services	\$ -	\$72,072,543	\$ -	\$136,341,369	\$ -	\$64,268,826
Micromobility	\$ -	\$ -	\$25,000,000	\$25,000,000	\$25,000,000	\$25,000,000
Grand Total	\$206,096,724	\$700,994,850	\$372,482,706	\$1,243,320,471	\$166,385,982	\$542,325,621

Q&A

Disadvantaged Communities Investment

- Midpoint Review Order authorizes \$166M in incremental funding for Disadvantaged Communities
- Brings Disadvantaged Communities investment to 35% of Make-Ready Program budget

**Light-Duty Vehicle
Program Incremental
Funding (\$98M)**

**Micromobility Pilot
(\$25M)**

**Medium- and Heavy-Duty
Pilot Incremental Funding
(\$43M)**

Disadvantaged Communities Investment

- 35% Disadvantaged Communities budget allocation excludes administrative and future-proofing costs
- 35% is minimum threshold of Disadvantaged Community investments

	Disadvantaged Communities Allocation	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
MHD Make-Ready Pilot Program	\$58,000,000	\$58,000,000
Micromobility	\$25,000,000	\$25,000,000
Total	\$372,482,706	\$1,063,609,124
Proportion of Total Program Allocation	35.0%	

*Excluding administrative and future-proofing costs

Disadvantaged Communities – Eligibility Updates

- Light-Duty Make-Ready Program offers enhanced incentives for eligible chargers in Disadvantaged Communities for:
 - Publicly accessible DCFC
 - L2 chargers at multi-unit dwellings (MUDs)
- Midpoint Review Order updates eligibility criteria to better serve Disadvantaged Communities:
 - Eliminates eligibility radius for L2 chargers (“buffer zone”)
 - Expands eligibility to curbside L2 chargers
 - Adds premise-specific eligibility requirements for MUDs

Disadvantaged Communities – MUD Eligibility

- In first years of program, enhanced-tier L2 Budgets were expended rapidly downstate; more slowly upstate
- Con Edison: MUDs in Disadvantaged Communities must meet premise-specific affordability requirements for L2 enhanced incentives
- Upstate: Affordable MUDs outside of Disadvantaged Communities eligible for L2 enhanced incentives

MUD Eligibility Criteria

Building must:

- have affordable housing regulatory agreement in place with state, federal or city entity that requires at least 25% of units to be affordable to households at or below 80% of Area or State Median Income, OR
- demonstrate via rent roll that at least 25% of units have a calculated household income no more than 80% of Area or State Median Income

Disadvantaged Communities: Micromobility Pilot

- New \$25M Micromobility Make-Ready Pilot Program supports affordable electric mobility options
 - Con Edison and O&R to administer downstate pilot program (\$20M):
 - Open to micromobility charging stations in Disadvantaged Communities that are publicly accessible or located in or adjacent to affordable multi-unit dwellings
 - Incentives cover utility-side make-ready costs and up to 50% of customer-side make-ready costs, including cost of fire suppression equipment
 - NYSERDA to administer grant program for less developed Upstate market (\$5M)

Q&A

Queue Management and Waitlist Application Process

- Midpoint Review Order directs the creation of an EV Infrastructure Interconnection Working Group (EVIIWG) that will convene to:
 - Develop a statewide framework for EV interconnection
 - Address application backlog issues and wait times
 - Streamline the interconnection application process
 - Be transparent
- Con Ed to submit a straw proposal to the EVIIWG describing its efforts to streamline the interconnection process – 3/15/24
- Members of the EVIIWG will amend the proposal, as necessary, for public notice and comments and formalize a statewide process
- Once these processes are fully developed the EVIIWG may be subsumed into the existing Interconnection Technical Working Group (ITWG).

Data Reporting Requirements

- Make-Ready Order instituted data reporting requirements across four categories: program participation, plug and charging session data, utility system and billing information, and financial information
- Utility and stakeholder feedback highlighted barriers to reporting, including network challenges, data fees, and issues surrounding customer confidentiality
- Midpoint Review Order directs:
 - Streamlined data reporting requirements to focus on high-value information
 - Includes removal of two categories: utility system and billing information and financial information
 - Utilities to create online tracker of plugs and budget committed and completed
 - Utilities to work with Staff to develop a Data Reporting Compliance Plan, including developing a preferred network list based on ability to collect and provide data as well as educating on consequences to failing to provide data (e.g. incentive clawback)

Revised Data Reporting Requirements

Data Reporting Category	Updated Reporting Requirements*
Program Participation	Reporting Year**
	Site ID**
	Census Tract**
	Whether site is located in a geographic DAC**
	Percent of service applications that have matured into operating stations
	Number of station owners
	Number of sites for which incentives were issued
	Number of plugs installed
	Aggregated kW nameplate capacity**
	Infrastructure costs (by customer and company infrastructure, allocated by make-ready costs and new business costs)
	Site incentive levels**
	Total incentives paid per site**
	Whether the site received funding from the MHD Pilot**
	Whether the site received funding from the Transit Authority Make-Ready Program**
	Whether the site received Operating Cost Relief from a Demand Charge Alternative Program**

*Full list of original data reporting requirements can be found on pages 104-106 of the 2020 Make-Ready Program Order, filed July 16th, 2020 under Case 18-E-0138.

** Data reporting requirement newly adopted or modified in Midpoint Review Order

Revised Data Reporting Requirements (continued)

Data Reporting Category	Updated Reporting Requirements*
Plug & 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**
	Plug outage information (number and duration of outages, separated by expected vs. unexpected, adopting uptime formula from National Electric Vehicle Infrastructure Program)**

*Full list of original data reporting requirements can be found on pages 104-106 of the 2020 Make-Ready Program Order, filed July 16th, 2020 under Case 18-E-0138.

** Data reporting requirement newly adopted or modified in Midpoint Review Order

Plug Outage Calculation

- Midpoint Review Order standardizes the calculation for reporting plug outages
 - Maintains DCFC annual uptime requirement of 95% for plugs and 99% for stations (with at least half of plugs operational)
- Formula Legend:
 - μ = Port uptime percentage
 - 525,600 = Minutes in a year
 - T_outage = Total minutes of outage in previous year
 - T_excluded = Total minutes of outage in previous year from issues outside of operator's control (e.g. utility outage, natural disaster or vandalism).
 - Also includes hours outside of the identified hours of operation of the charging station

Expected Outage Formula (to determine uptime):

$$\mu = ((525,600 - (T_{\text{outage}} - T_{\text{excluded}})) / 525,600) \times 100$$

Unexpected Outage Formula (reported data with excluded removed):

$$\mu = ((525,600 - T_{\text{outage}}) / 525,600) \times 100$$

Formula legend and expected outage formula consistent with NEVI

Private and Proprietary Technology Treatment

- Midpoint Review Order maintains incentive tiers of up to 50% for proprietary plugs and up to 90% for nonproprietary publicly accessible sites
 - To receive the public incentive tier, an equal number of nonproprietary plugs must be present at a site with proprietary plugs
- CCS and SAE J1772 are considered nonproprietary
 - All other plug types, such as CHAdeMO and NACS (previously known as the “Tesla plug”) are proprietary
- Many vehicle OEMs have announced adoption of NACS in coming years
- Staff to convene technical conference in 2024 on proprietary plug technology to learn more about this shift in the market

New Communication Standards in Midpoint Order

- Hardware must be ISO 15118 Parts 2 and 20 capable, effective for new incentive commitments as of 12/16/23; software compliant by 11/16/24
- Hardware compliant with OCPP version 2.0.1 or later, effective by 11/16/24 for new installations
 - No third-party testing requirement for OCPP compliance
- Proprietary extensions allowed as long as EVSE remains interoperable
- Follows broad stakeholder support for these standards
- “Consistent with NEVI requirements” does not mean the Commission would automatically adopt any modifications from NEVI without thorough review and justification

Battery Storage and Vehicle-Grid Integration (VGI) Updates

- Midpoint Review Order deems energy storage and Automated Load Management Systems (ALMS) eligible for Make-Ready Program incentives
 - Bidirectional chargers are not eligible
 - On-site storage must be paired with EVSE and used only for EV charging
- Interconnection Technical Working Group is the appropriate venue to discuss interconnection challenges related to VGI
- Utilities to file VDER Value Stack tariff updates that reflect V2G and VGI eligibility, effective 1/1/24

Customer Complaints

- Commission determined that the utilities should require all Make-Ready Program-funded sites to display easy-to-find and up-to-date contact information for the Electric Vehicle Service Provider (EVSP)
- Directive comes from feedback provided in the Customer Experience Working Group about drivers' difficulty determining who to contact to resolve problems
- Commission declined to require that site host and utility call center information also be listed, as was recommended in Whitepaper, following Stakeholder feedback that three points of contact would be confusing for drivers

Performance Incentives

- Stakeholders expressed general support to maintain existing EAM metrics, but noted that plug deployment thresholds too high to effectively drive utility behavior
 - A tiered structure may be more effective, with a higher share of savings for higher deployment achieved
- The Commission approved a three-tiered EAM structure adopting the Midpoint Review's updated baseline costs, with financial incentives beginning at lower plug deployment levels**
 - EAM measurement period ends December 31st, 2025
 - Summed together EAM awards under both L2 and DCFC metrics are not to exceed 15 Basis Points

EAM Incentive Tier	Level 2 Plug Deployment Threshold	DCFC Plug Deployment Threshold
Minimum – 5% Share of Savings	75% of Utility Plug Deployment Goal	50% of Utility Plug Deployment Goal
Middle – 10% Share of Savings	85% of Utility Plug Deployment Goal	75% of Utility Plug Deployment Goal
Maximum – 30% Share of Savings	100% of Utility Plug Deployment Goal	100% of Utility Plug Deployment Goal

Multi-unit Dwellings, Workplaces, Pay-to-Park Lots, and Residential Make-Ready

- Order maintains existing approach for incentive tier eligibility
- Focus of Make-Ready Program remains publicly accessible infrastructure
- Commission found that the current eligibility rules and incentive levels provide a reasonable balance between prioritizing publicly accessible infrastructure and providing limited support to other significant use cases

NYPA's Role

- Consistent with Make-Ready Order, Commission determined that program requirements appropriately allow NYPA to fill market gaps without interfering where private market is currently willing to build
 - NYPA must file notification of intent to build. 30-day waiting period to allow developers to note any co-location conflicts
- Stakeholders suggested that a developer should be allowed to present an MOU as proof of buildout, but the Commission found that since an MOU is non-binding, it does not provide enough proof that a private entity would fill the near-term need in the area.

Medium- and Heavy-Duty and Fleet Programs

Medium- and Heavy-Duty Pilot

- Incremental \$43M increase to \$67M total for up to 90% utility-side and up to 50% customer-side make-ready; Includes \$9M authorized in Con Ed Rate Case
- Customer-side included; capped at baseline established for light-duty Make-Ready program
- Expanded eligibility to include publicly accessible locations as well as depots in disadvantaged communities (including school bus depots)
- Maintain need for qualifying incentive with a scrappage requirement for non-publicly accessible locations; expanding qualifying programs to include EPA's Clean School Bus Program

Fleet Assessment Services

- Utilities to develop a single online application portal for fleet assessments by 3/15/24
- Utilities to work with Staff to identify capacity at school transportation facilities

Transit Authority Make-Ready

- Eligibility expanded to include electric make-ready needs for hydrogen dispensers for fuel cell buses

Action on these topics to be taken up in MHD Proceeding (23-E-0070)

Load Serving Capacity Maps

- Commission directed utilities to expand the Electric Vehicle Load Serving Capacity Maps into “Electrification Load Serving Capacity Maps” in Order Directing Energy Efficiency and Building Electrification Proposals on 7/20/23 (18-M-0084)
 - Utilities to work with Staff to develop updated maps by 1/16/24
 - Maps to be updated annually going forward

Power Sharing and Futureproofing

- Midpoint Review Order adopts:
 - Futureproofing: 8% overall cap from DCFC budget with 10% site-specific caps
 - Power Sharing: allow for more customer-side built-out by establishing a minimum utility-to-customer-side-ratio of minimum plug count
- There was not enough information to modify futureproofing allowances
- The current program design does not prohibit power sharing

Q&A

Next Steps

Ongoing EV Charging Proceedings

Passenger Vehicle Charging Infrastructure (18-E-0138)

- Make-Ready Program: Primarily funding electrical infrastructure needed to install EV charging with programs targeted to disadvantaged communities
- Residential Managed Charging: Incentivizing customers to charge their vehicles off-peak at home when there are less impacts on the grid
 - Ongoing device testing initiative with filing in October 2024

Beneficial Rates for EVs (22-E-0236)

- Commercial Managed Charging: Incentivizing customers to charge their vehicles off-peak with focus on fleets and public stations
- Demand Charge Rebate: Rebate to reduce the demand portion of a customer's bills by 50% for some EV charging use cases
- EV Phase-in Rate: Time-of-use rate with demand charges blended in over time as a customer's load factor increases

Electrifying MHD and Planning for Vehicle Charging Load (23-E-0070)

- TBD: Initiating Order on April 20, 2023, establishing a proceeding to address challenges to truck and bus electrification as well as proactively planning for load from EV charging
 - Comments received from stakeholders on June 5th and reply comments on June 26th
 - Technical Conferences on MHD on 10/26, Proactive planning on 11/2 and 11/9

Next Steps

- Forthcoming Make-Ready Program Engagements:
 - Electric Vehicle Infrastructure Interconnection Working Group launch by March 15th, 2024
 - Proprietary technology technical conference in 2024
- Program review by November 17th, 2025

Appendix

Midpoint Order Updated Plug Forecast

	Midpoint Plug Targets					
	Revised Midpoint Review Plug Targets		Completed and Committed Plugs*		Incremental Plug Needs	
Utility	L2	DCFC	L2	DCFC	L2	DCFC
Central Hudson	2,037	416	674	68	1,363	348
Con Ed	21,371	3,157	9,924	547	11,447	2,610
National Grid	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 of August 2023

