

EV Make-Ready Program (MRP) Midpoint Review Kick-Off

Presented by the Joint Utilities of New York in coordination with DPS Staff, NYSERDA, PSEG-LI/LIPA, and NYPA

September 20, 2022

CASE 18-E-0138 - Order Establishing Electric Vehicle Infrastructure Make-Ready Program and Other Programs

Contents For Discussion Purposes Only – Subject to Change



JOINT UTILITIES
OF NEW YORK

Introduction and Overview

Presenter: Zeryai Hagos, Lindsay Weiner

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Agenda and Housekeeping

TOPIC	PRESENTER	TIME
Introduction and Overview	Zeryai Hagos, Lindsay Weiner	10:00-10:10am (10 min)
JU Make-Ready Program Overview	Cliff Baratta, Con Ed	10:10-10:20am (10 min)
Utility-Specific Program Statuses		10:20-10:50am (30 min)
Central Hudson	Michael Valentino	
Con Edison	Cliff Baratta	
Orange & Rockland	Andrew Farrell	
National Grid	Kate Carleo	
NYSEG/RG&E	Jim Kalivoda	
JU Make-Ready Program Successes & Challenges	Lauren Kastner, ICF	10:50-11:10am (20 min)
Other State Updates		11:10-11:30am (20 min)
PSEG-LI / LIPA	Paul DiBenedetto	
NYSERDA	Adam Ruder	
NYPA	John Markowitz	
Q&A	Lindsay Weiner	11:30-11:50am (20 min)
Next Steps	Zeryai Hagos	11:50am-12:00pm (10 min)

Reminders

- All attendees will remain muted
- Use chat function to ask questions of panelists
- This session is being recorded
- Presentation materials will be posted on DMM
- Please email EVSE@dps.ny.gov for more information following this session

Midpoint Review Objectives

Address subject matter described in the Order

- Obtain initial stakeholder feedback
- Convene technical conferences as necessary on topics of note
- Identify issues of concern

Investigate possible improvements

- Examine stakeholder suggestions
- Recognize what is working
- Evaluate feasibility of potential solutions

Optimize Make-Ready Programs

- Recommend program modifications where necessary
- Ensure ratepayer funding is being used efficiently and effectively
- Accelerate growth of EV charging infrastructure and improve driver experience

Midpoint Review Process

1. Stakeholder response to questions in the Notice (October 03, 2022)
2. Technical Conferences and Working Group meetings (Oct – Dec 2022)
3. Staff Recommendations / Whitepaper filed (January 4, 2023)
4. Stakeholder comment deadline (60-day comment period end Mar 2023)
5. Make-Ready 2.0 Order (tentatively June/July 2023 Sessions)

Make-Ready Program Overview

Presenter: Cliff Baratta

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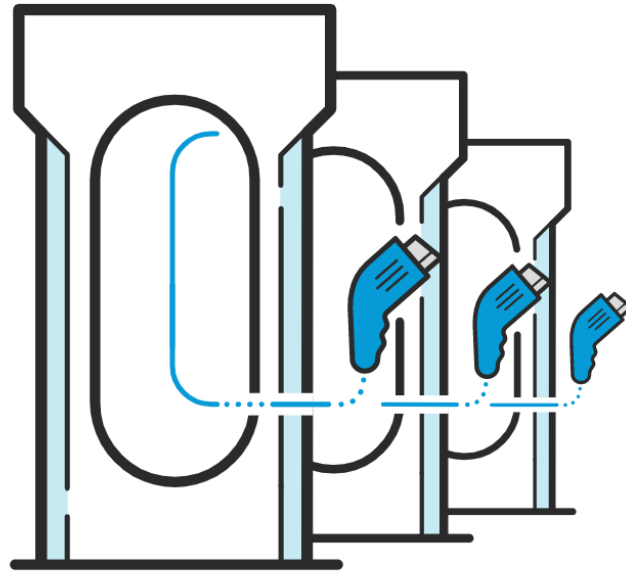


Statewide Make-Ready Program Overview

As Authorized in NY PSC July 16, 2020 Order*

EV Make-Ready Order Authorized Funding

- \$701M program incentives including incentives for customer and utility side work to provide service to Level 2 (L2) and Direct Current fast chargers (DCFC)



5-Year Program Start Date: July 16, 2020

- Any project not under construction as of that date is eligible

Program Plug Goals (2025)

- 53,773 L2 plugs
- 1,500 DCFC plugs

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

Make-Ready and Other Program Components

Focus of the Midpoint Review

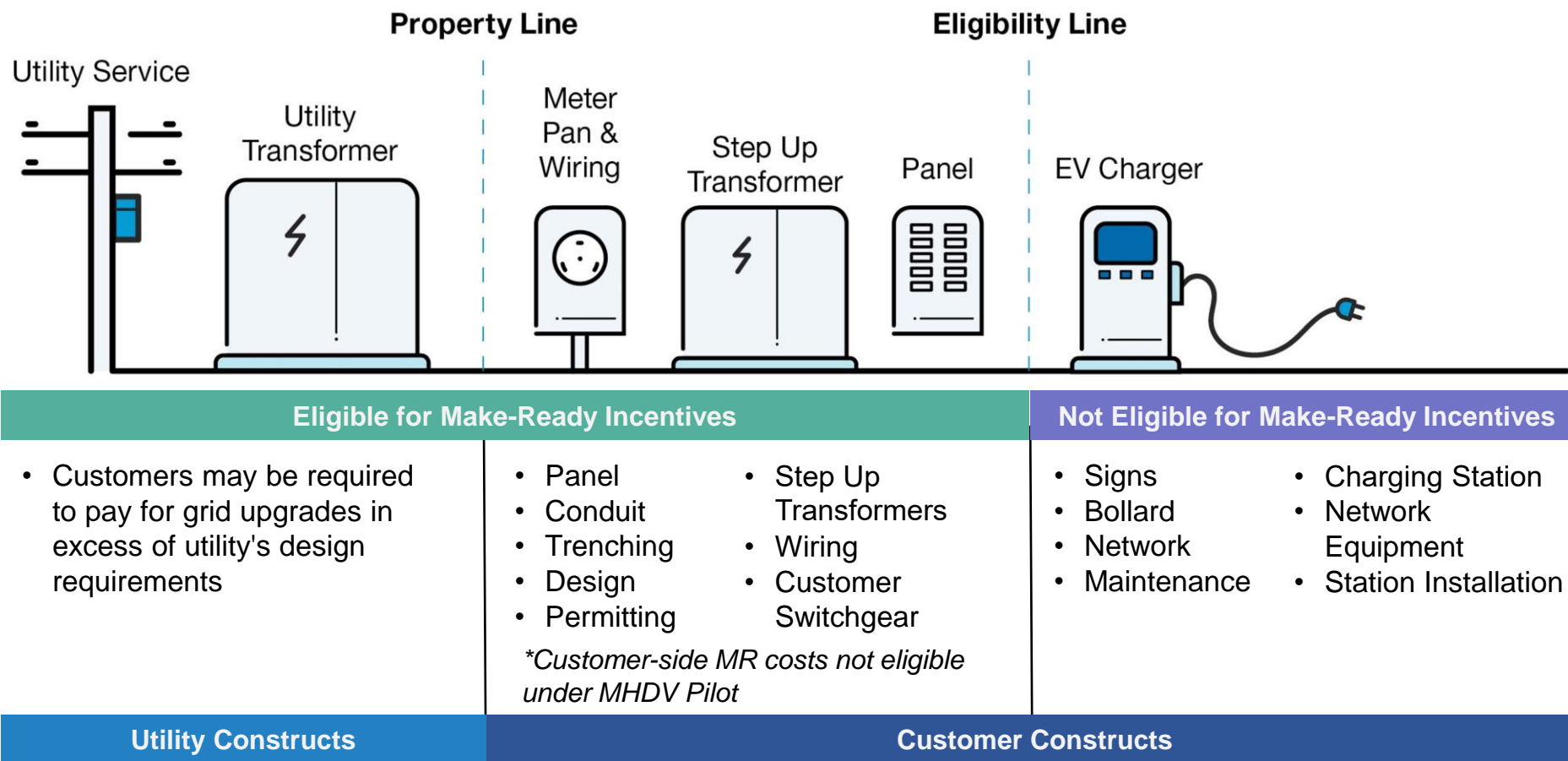


Related programs



Make-Ready Program Eligibility

What's Eligible?



**Maps of disadvantaged community (DAC) boundaries can be found on each utility's Make-Ready Program website.*

How much is covered?

up to
100%

L2 at Multi-Unit Dwellings and Public non-proprietary DCFC in a disadvantaged community (DAC)*

up to
90%

Public non-proprietary L2 and DCFC

up to
50%

Private access or proprietary L2 and DCFC

Central Hudson

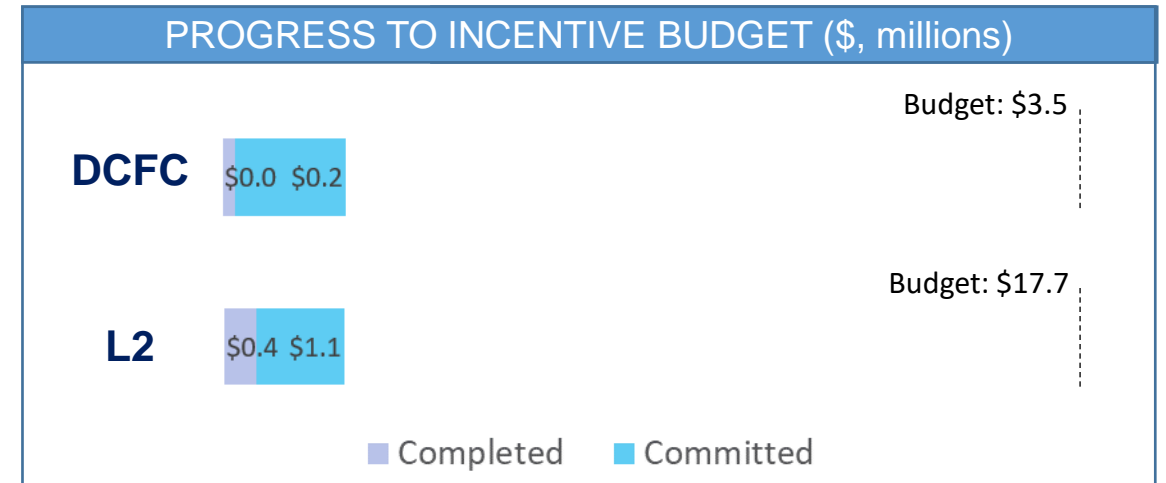
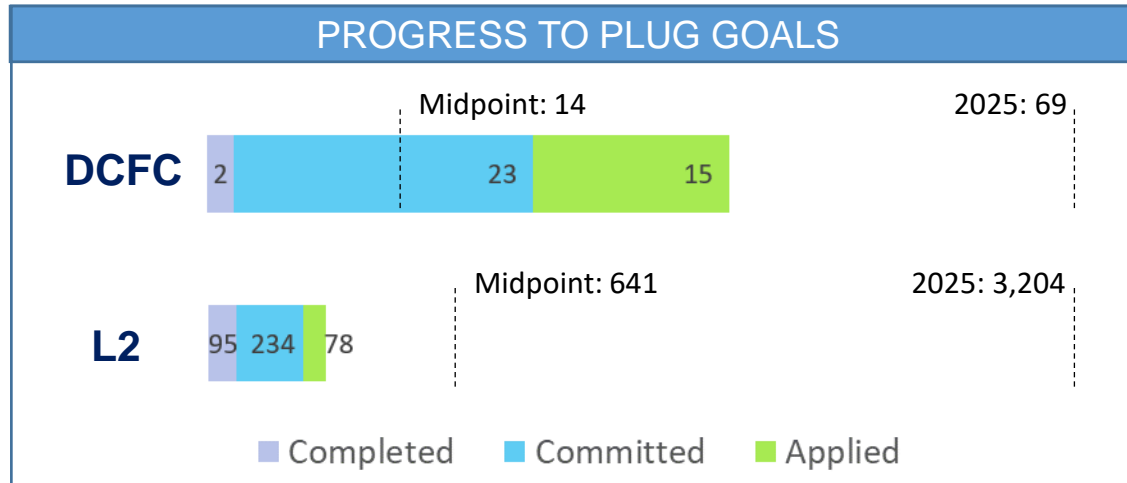
Presenter: Michael Valentino



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Central Hudson Program Status By the Numbers



AVERAGE PROJECT SIZE		
	DCFC	L2
Plugs per site	4	5
kW per plug	182	8

AVERAGE ELIGIBLE COSTS		
	DCFC (\$/kW)	L2 (\$/plug)
Actual	\$147	\$6,434
Baseline	\$367	\$6,000

AVERAGE INCENTIVE		
	DCFC (\$/kW)	L2 (\$/plug)
Average Across All Eligible Incentive Levels	\$127	\$4,822

23% Plugs receiving DAC-level incentive

26 Participating Contractors

1 Fleet Assessments Completed

Central Hudson Program Implementation

Site types reflect Central Hudson's territory of small businesses dotting the beautiful Hudson Valley Region

- Recreation areas, restaurants, wineries, farms, grocery stores, dealerships.
- Increasing demand for large DCFC sites that require forward planning.

Implementation learnings

- Customers are eager to move quickly through the process.
- Coaching applicants to meet program and site requirements helps improve quality of applications.
- Statewide program has helped contractors and customers with multiple properties work seamlessly across the JU territories.
- Continuing to look for ways to engage and support active approved contractors and attract new contractors to participate.

Special features

- Implemented a limited time offer with an increased incentive level to boost participation of L2 chargers.



Rip Van Winkle
Campground
Saugerties, NY

Ulster Savings Bank
Kingston, NY
solar canopy coming soon!



Milea Tasting
Room
Staatsburg, NY

Con Edison

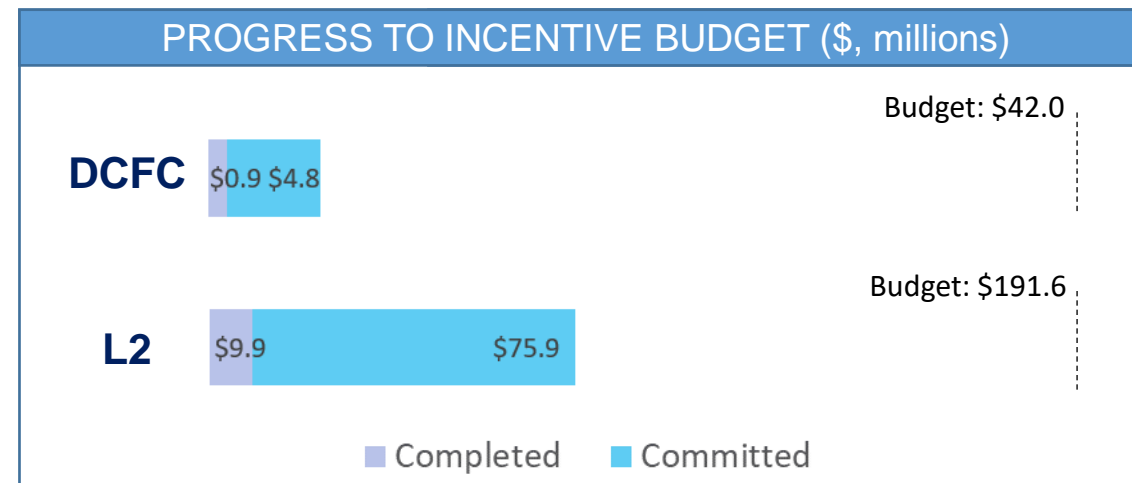
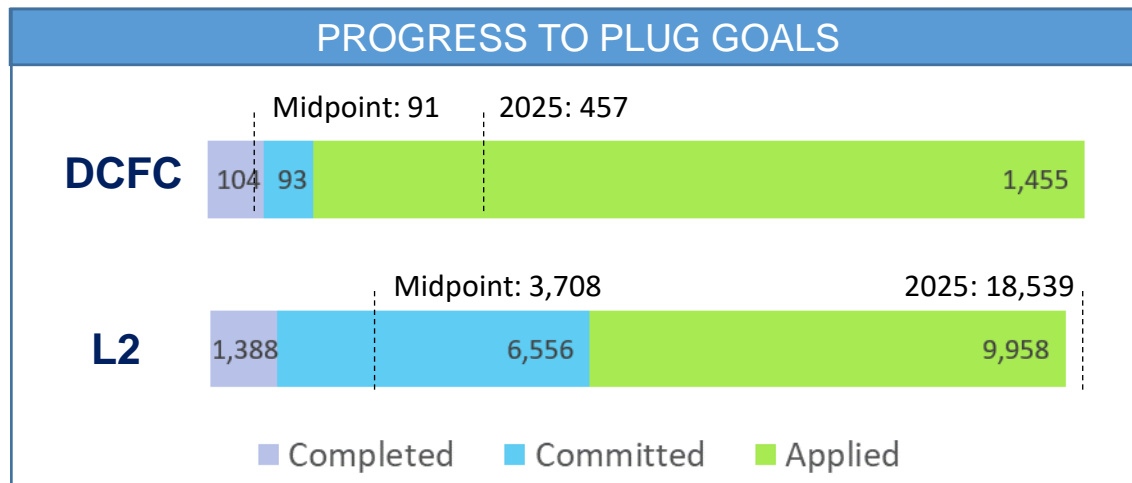
Presenter: Cliff Baratta



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Con Ed Program Status By the Numbers



AVERAGE PROJECT SIZE		
	DCFC	L2
Plugs per site	10	15
kW per plug	178	8

AVERAGE ELIGIBLE COSTS		
	DCFC (\$/kW)	L2 (\$/plug)
Actual	\$617	\$15,695
Baseline	\$667	\$11,257

AVERAGE INCENTIVE		
	DCFC (\$/kW)	L2 (\$/plug)
Average Across All Eligible Incentive Levels	\$258	\$11,259

15% Plugs receiving DAC-level incentive

73 Participating Contractors

42 Fleet Assessments Completed

Note: Contents For Discussion Purposes Only – Subject to Change

PowerReady Program Highlights

Program Trends

- Dense urban environment with few private driveways necessitates a public charging network, including curbside, and chargers in multi-unit dwellings, including in disadvantaged communities (DAC)
- Continued dependence on incentives across all sites
- Strong market need for DCFC, especially for public stations serving ride-hailing fleets and supporting low- and moderate-income (LMI) drivers
- Higher than anticipated costs for L2 plugs

Demand from New Market Segments

- Market, policy, and utility interest in utilizing load management equipment that lowers costs by limiting the max power drawn from the grid
- Market interest beyond light-duty vehicles, including:
 - Micro-mobility, airport ground support equipment, forklifts
 - Medium- and Heavy-Duty Vehicle fleets



Revel Fast Charging Superhub in Brooklyn, supported by Con Edison's PowerReady Program

Orange & Rockland

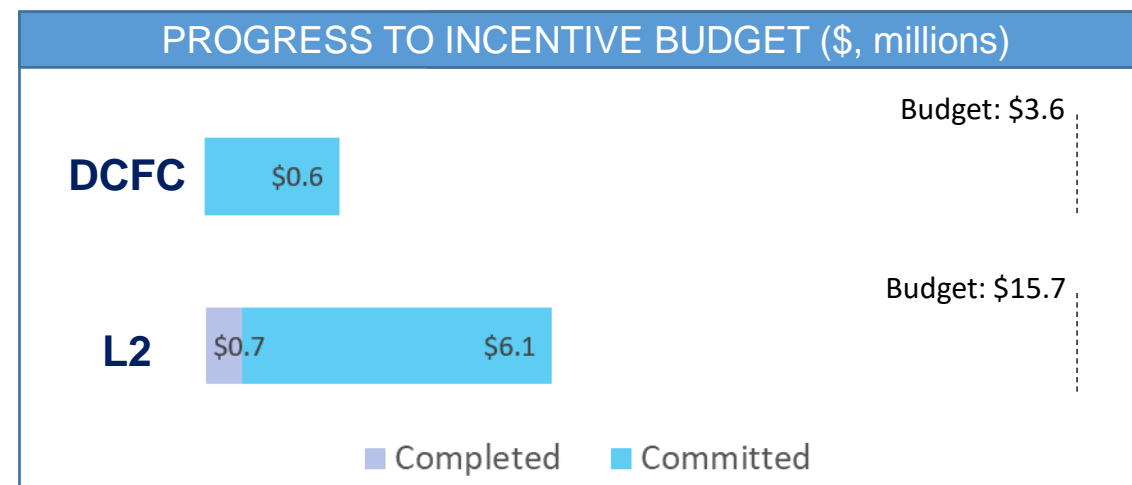
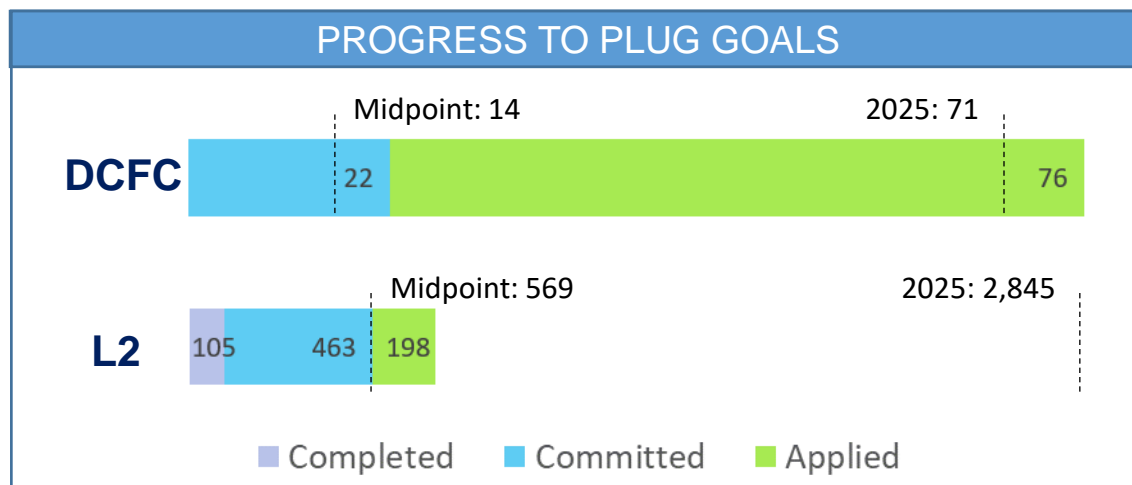
Presenter: Andrew Farrell



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O&R Program Status By the Numbers



AVERAGE PROJECT SIZE		
	DCFC	L2
Plugs per site	6	14
kW per plug	90	7

AVERAGE ELIGIBLE COSTS		
	DCFC (\$/kW)	L2 (\$/plug)
Actual	\$370	\$8,038
Baseline	\$367	\$6,000

AVERAGE INCENTIVE		
	DCFC (\$/kW)	L2 (\$/plug)
Average Across All Eligible Incentive Levels	\$297	\$6,549

63% Plugs receiving DAC-level incentive

14 Participating Contractors

7 Fleet Assessments Completed

Program Status

Strategic Outreach

- Municipal leaders, sustainability coordinators, multifamily property managers, chamber of commerce, business associations

Omnichannel Marketing Approach

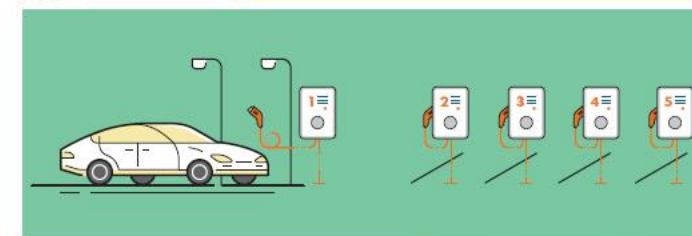
- On bill and on hold messaging, bill inserts, emails, social media, press releases, print, collateral, outreach events, sponsorships, radio interviews, digital advertising

1 Challenge is Project Economics

- Significantly higher cost than baseline has resulted in projects not progressing to contract
- Greater incentives are needed to achieve true 50/90/100% of eligible cost

"Orange & Rockland (O&R) solved some of their most challenging pain points around scaling their EV make-ready programs. As a result, they shortened their "make-ready" program life cycle by 40% and remain on track to increase EV chargers in their service area by 3,000% within five years."

- Jeffrey Ressler, CEO
Clean Power Research



National Grid

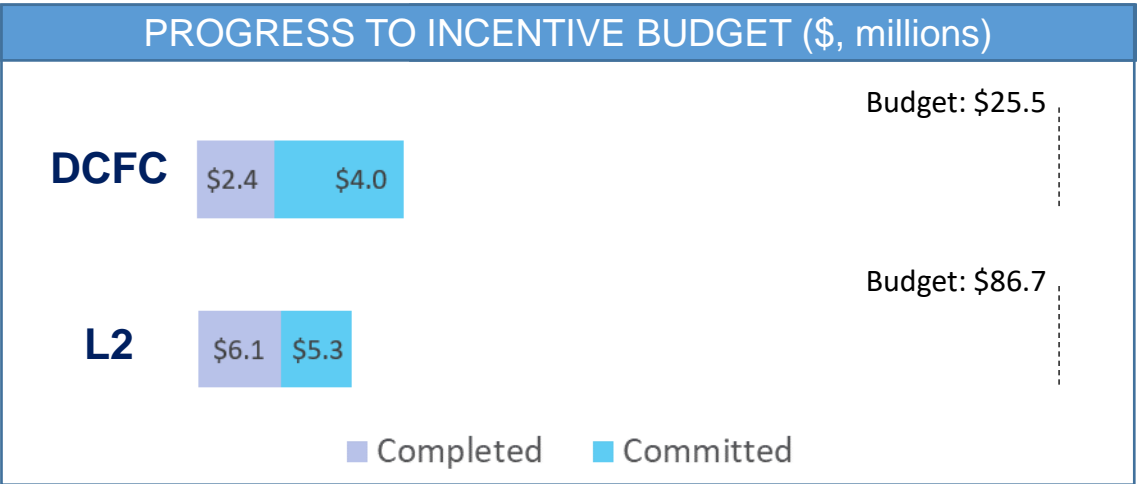
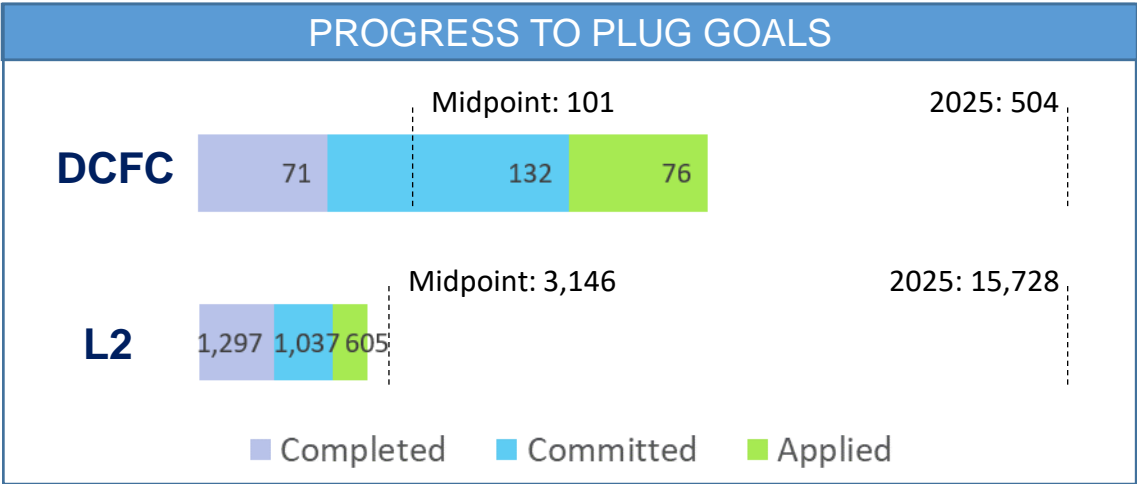
Presenter: Kate Carleo



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National Grid Program Status By the Numbers



AVERAGE PROJECT SIZE		
	DCFC	L2
Plugs per site	4	5
kW per plug	159	8

AVERAGE ELIGIBLE COSTS		
	DCFC (\$/kW)	L2 (\$/plug)
Actual	\$281	\$5,830
Baseline	\$367	\$6,000

AVERAGE INCENTIVE		
	DCFC (\$/kW)	L2 (\$/plug)
Average Across All Eligible Incentive Levels	\$209	\$4,678

16%

Plugs receiving DAC-level incentive

56

Participating Contractors

39

Fleet Assessments Completed

Program Implementation and Customer Success Stories

Program Guiding Principles -

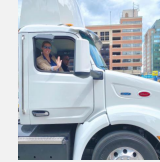
Connecting with Community

- **Installer development:** nurture a robust network of EV service providers – 500+ companies strong
- **EV education:** connect drivers and customers with technology, vendors, financing, and events
- **Customer engagement:** create site host materials, facilitate webinars, develop online tools for ease & efficiency, and celebrate completed projects
- **Facilitating project development:** coordinate customer experience with stakeholders, site owners, designers and installers

Key Program Successes



10 Transit e-Buses, building to 90 (~25% of fleet)



Electrifying class 8 trucks across NY



Enabling EVs with new dealership stations



Energizing towns with public charging



Engaging future drivers with info sessions



Assisting schools with EPA's clean bus program

More National Grid customer success stories: <https://www.nationalgridus.com/news/search-archives/?r=10&q=&a=&page=1>

NYSEG and RG&E

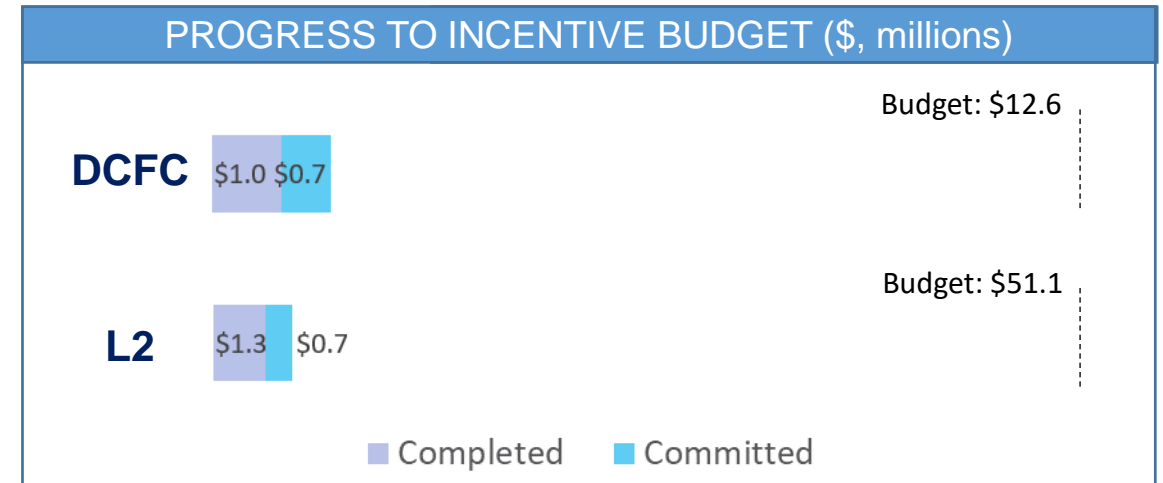
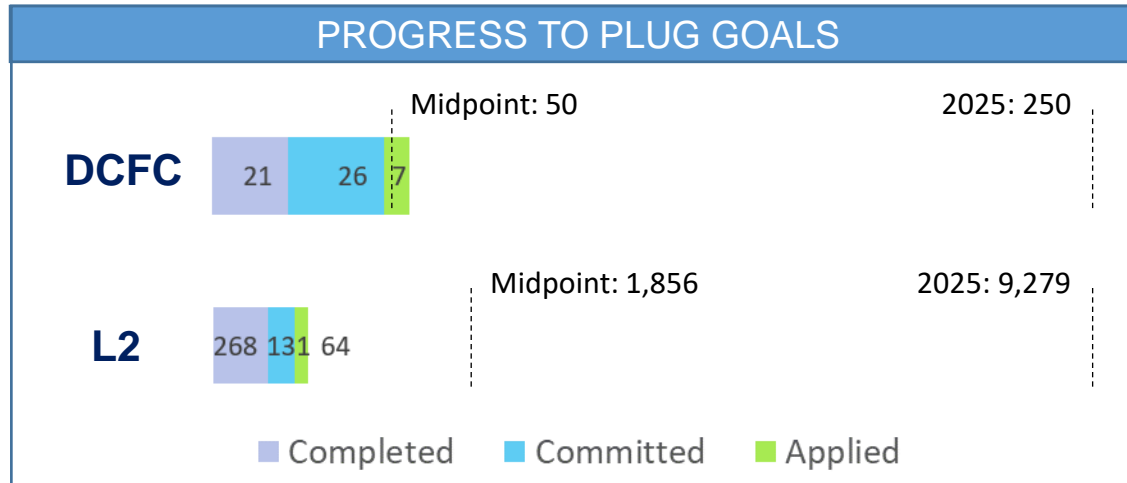
Presenter: Jim Kalivoda



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NYSEG Program Status By the Numbers



AVERAGE PROJECT SIZE

	DCFC	L2
Plugs per site	3	5
kW per plug	172	8

AVERAGE ELIGIBLE COSTS

	DCFC (\$/kW)	L2 (\$/plug)
Actual	\$349	\$6,501
Baseline	\$367	\$6,000

AVERAGE INCENTIVE

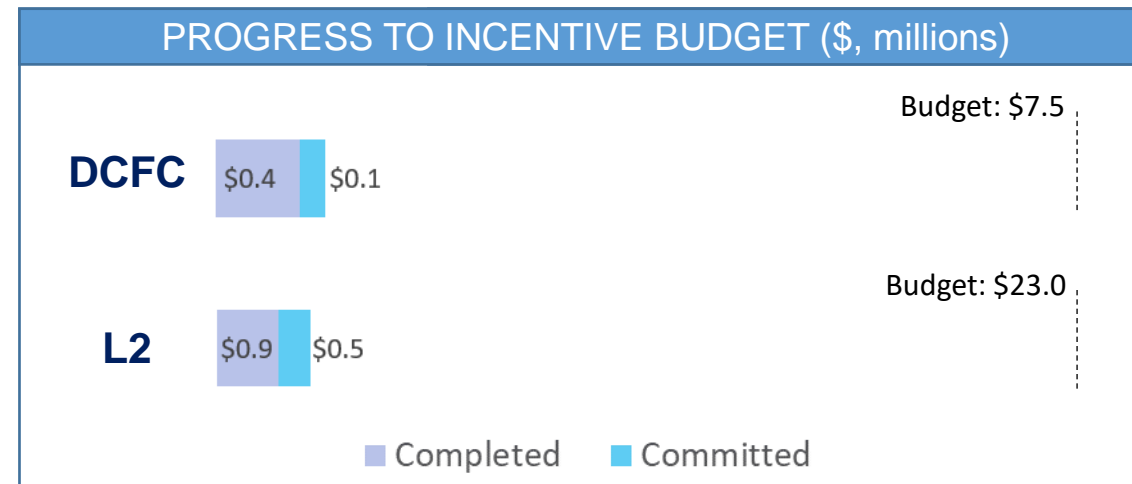
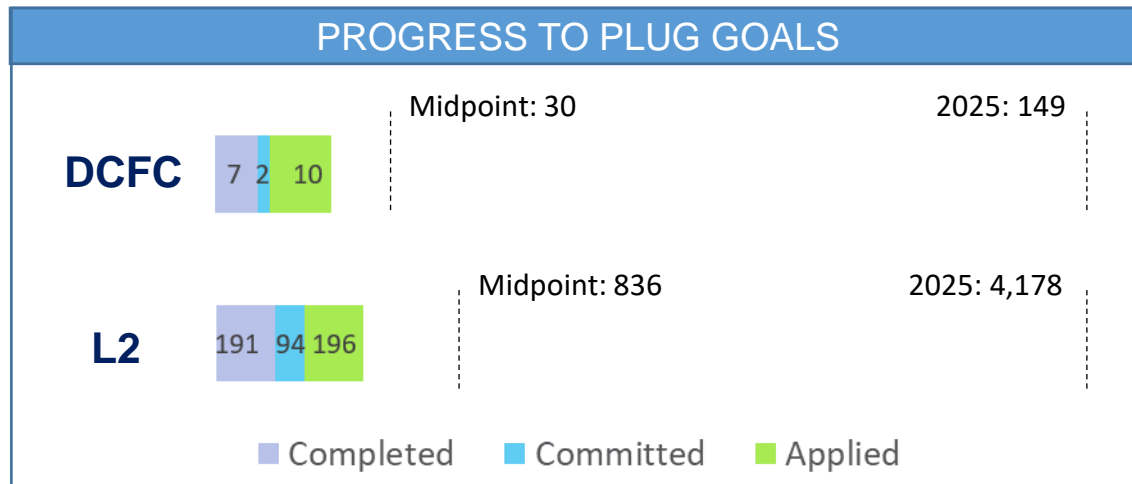
	DCFC (\$/kW)	L2 (\$/plug)
Average Across All Eligible Incentive Levels	\$218	\$4,835

16% Plugs receiving DAC-level incentive

27 Participating Contractors

12 Fleet Assessments Completed

RG&E Program Status By the Numbers



AVERAGE PROJECT SIZE		
	DCFC	L2
Plugs per site	3	5
kW per plug	113	7

AVERAGE ELIGIBLE COSTS		
	DCFC (\$/kW)	L2 (\$/plug)
Actual	\$577	\$5,729
Baseline	\$367	\$6,000

AVERAGE INCENTIVE		
	DCFC (\$/kW)	L2 (\$/plug)
Average Across All Eligible Incentive Levels	\$467	\$4,873

18% Plugs receiving DAC-level incentive

15 Participating Contractors

2 Fleet Assessments Completed

Program Status

• Unique Program Aspects

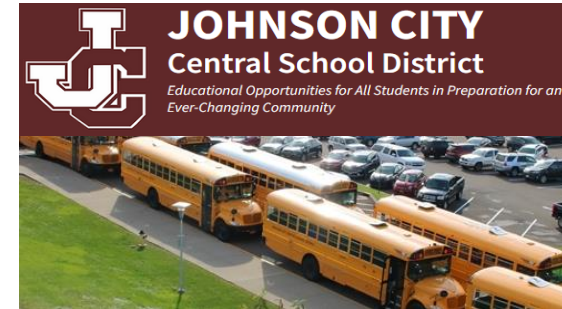
- Fleet Electrification Management Pilot: Twelve organizations participated in a fleet electrification program covering vehicle selection, total cost of ownership, charging infrastructure and funding opportunities. A total of 285 vehicles have been targeted for replacement with electric vehicles.

• Marketing/Outreach

- Contractor Engagement: Quarterly contractor webinars, quarterly contractor newsletters, monthly contractor marketing tactic coordination, electrical distributor “counter days”
- Digital Advertising: Google Display, Google Search, Linked In ads to towns & cities, municipalities, multi unit dwelling property owners and workplaces
- Strategic Outreach: EV press release creation & support, EV trade ally partnerships, EV owned social channels messaging, government affairs support, key account support

• Challenges

- Limited number of active contractors compared to JU approved contractors
- Inflationary and supply chain pressures
- Program applications driven by market externalities such as requirements (i.e., auto dealers) and additional incentive programs (i.e., Charge Ready NY, DEC ZEV).



“We are very excited to bring our plan to life. Having hands-on, expert guidance really helped us to understand our current fleet’s carbon footprint and how we can begin to reduce that footprint each year by making alternate choices for vehicles as older ones age out.” Cliff Butler, Director of Information Services Johnson City Central School District



“Our libraries strive to bring our community together by providing a variety of resources to those we serve. By offering EV charging, we hope drivers will use their dwell time in the library, engage in the robust programming we have, and support nearby businesses. We were amazed to see that on the first day we powered the stations on we had a driver plug in!” Michelle Duell, Director of the Mechanicville District Public Library



Statewide Successes & Challenges

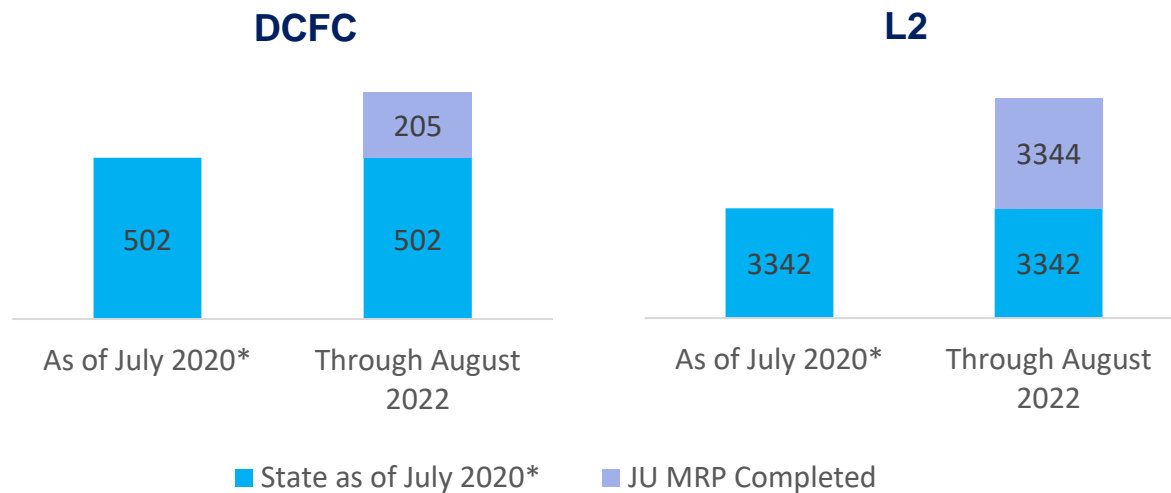
Presenter: Lauren Kastner, ICF

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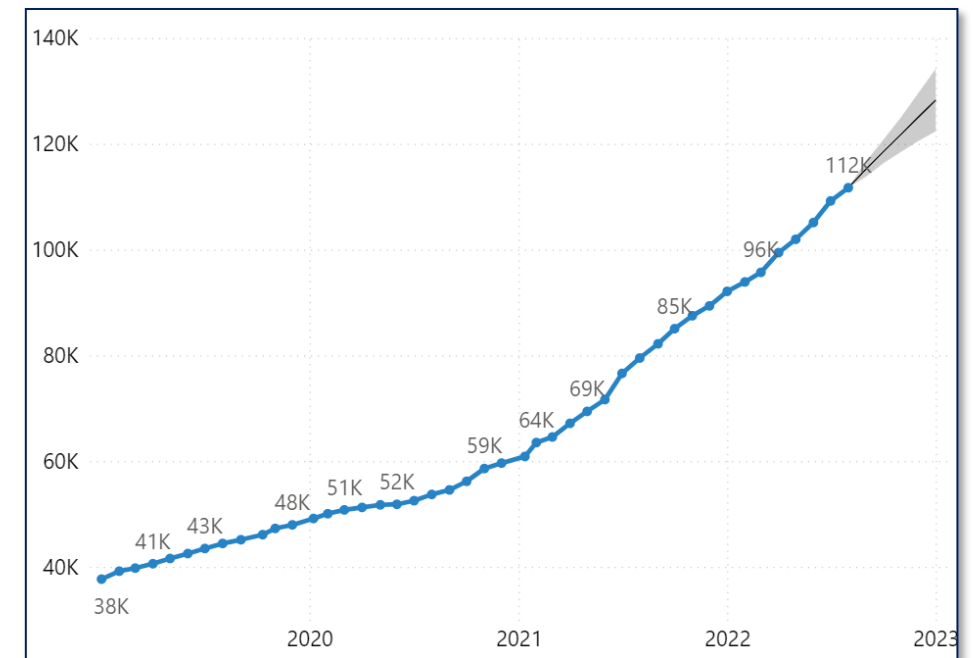
Statewide Make-Ready Program Successes

JU Make-Ready Program investment has contributed to 100% growth of L2 ports and 41% growth of DCFC ports in New York State since July 2020



*July 2020 baseline excludes 1,365 L2 ports and 47 DCFC ports with “unknown” operational start dates reported by EValuateNY

Light Duty EVs on the Road



Source: EValuateNY by Atlas Public Policy

Statewide Challenges Overview

Observed Challenges	Midpoint Review Topics from Order
Meeting state targets requires program enhancements	<ul style="list-style-type: none"> • Program budget and incentive levels • The need for additional phases of the program
Market conditions are impacting customers	<ul style="list-style-type: none"> • Program budget and incentive levels • The need for additional phases of the program
MHDV customers are unable to meaningfully participate	Reviewing implementation requirements and budgets
Fleets want more support to electrify	Reviewing implementation requirements and budgets
Customers are interested in load management	Reviewing implementation requirements and budgets
Demand for other EV charging use cases	Reviewing implementation requirements and budgets

Meeting state targets requires program enhancements

Challenge

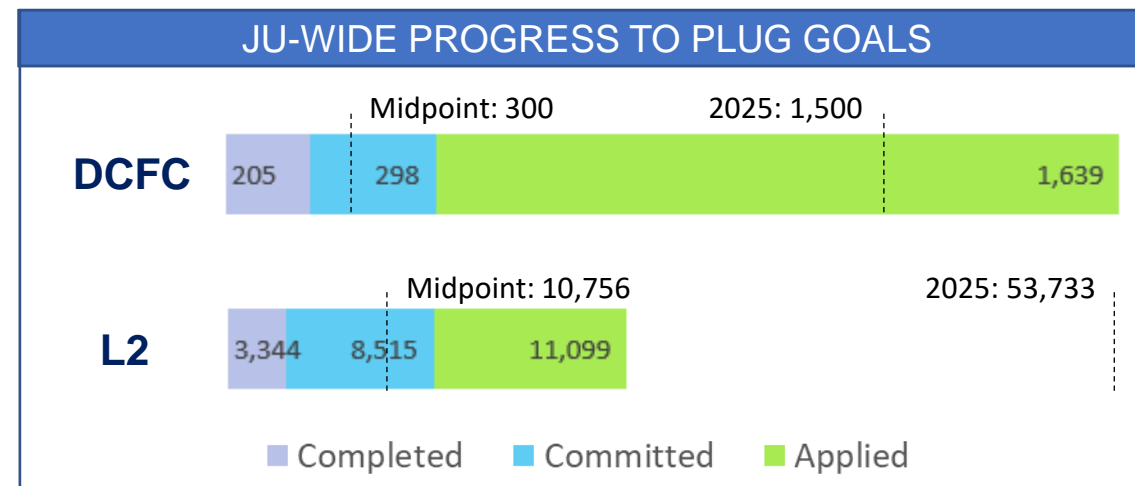
- While pipeline of interested customers is strong, statewide EVSE deployment is behind target
- Existing incentives are not stimulating program participation at expected levels
- Lack of consistently available stackable incentives softened the market

Impact

- Current pace of deployment will misalign utility support with state goals
- Uneven distribution of EV adoption across the state

Opportunity

- With some significant changes to the program budgets, utilities can better support customers and the state in getting to the port target and helping to accelerate EV adoption
- Unique consideration of upstate vs. downstate demand during Midpoint Review and end of program evaluation
 - Expand program budgets to support demand for DCFCs and some targeted L2
 - Align disadvantaged community investment to state equity goals
 - Ensure equipment incentives are consistently available for customers



Market conditions are impacting customers

Challenge

- Make Ready costs are higher than anticipated in the Order
- Some Utilities' programs reflect rising costs over time, due in large part to inflation and supply chain issues that are driving up utility and customer materials costs and delaying deployments

Impact

- Budgets based on lower expected costs do not allow utilities to offer incentives at the full 50%, 90%, or 100% level

Opportunity

- Align budget baselines to actual average costs
- Consider extending program timeframe to hit existing targets and additional goals past 2025

Average Level 2 Plug Make-Ready Cost Compared to Baseline (%)

Central Hudson	+ 7%
Con Edison	+ 39%
National Grid	- 3%
Orange & Rockland	+ 34%
NYSEG	+ 8%
RGE	- 5%
JU Weighted Average*	+ 28%

**Weighted by number of plugs completed and committed*

MHDV customers are unable to meaningfully participate

Challenge

- Utility-side make-ready upgrades are not always required or are minimal for most initial fleet electrification
- Customer-side make-ready costs are not eligible under current MHDV Pilot
- NYTVIP requirement excludes newer vehicles

Impact

- Few MHDV fleets can participate in the MRP today

Opportunity

- Expand MHDV pilot offering and eligibility

96%

*of fleets that have engaged with the utilities have not been able to participate in the MHDV Pilot**

Common reasons:

- Only had customer-side make-ready costs requiring an incentive, no eligible utility-side work needed
- Ineligible for NYTVIP
- Lack of business case to electrify without incentives
- Lack of suitable vehicle availability

**as of June 2022*

Fleets want more support to electrify

Challenge

- Fleet electrification is complex; few fleets can navigate the options
- Significant demand for fleet assessments requires utility resources
- Fleets are looking to the utilities for information

Impact

- Significant potential to support fleet customers with large loads
- Fleets need support taking the first step assessing electrification options and putting a plan into action

Opportunity

- Expand the fleet advisory services to meet volume of demand and needs of fleets
- JU has experience implementing these models elsewhere and there are best practices that can be replicated in NY



Customers are interested in load management

Challenge

- Energy storage and other load management enabling technologies are not eligible under the existing MRP despite demand

Impact

- Greater opportunity to support customers with load management and Non-Wire Alternatives investments

Opportunity

- Expand eligibility to technology that can reduce infrastructure costs (paired energy storage systems, rectifier cabinets, smart panels, etc.)
- Customers can reduce capital and/or operational costs, and in some cases moderate their impact on the grid

Demand for other EV charging use cases

Challenge

- Electrification is rapidly expanding in other vehicle segments
- Utilities are hearing questions from potential EV customers who are not eligible for the MRP

Impact

- New York could expand electrification benefits with greater utility make-ready infrastructure investment

Opportunity

- Consider expanding eligibility for other EV charging use cases such as:
 - **Non-road vehicles:** aircraft, airport ground support equipment, forklifts, construction equipment, etc.
 - **Lightweight EVs** such as electric bikes, scooters, cargo bikes, etc.
 - **Curbside and pole-mounted chargers** for on-road vehicles



Melrose, MA
National Grid

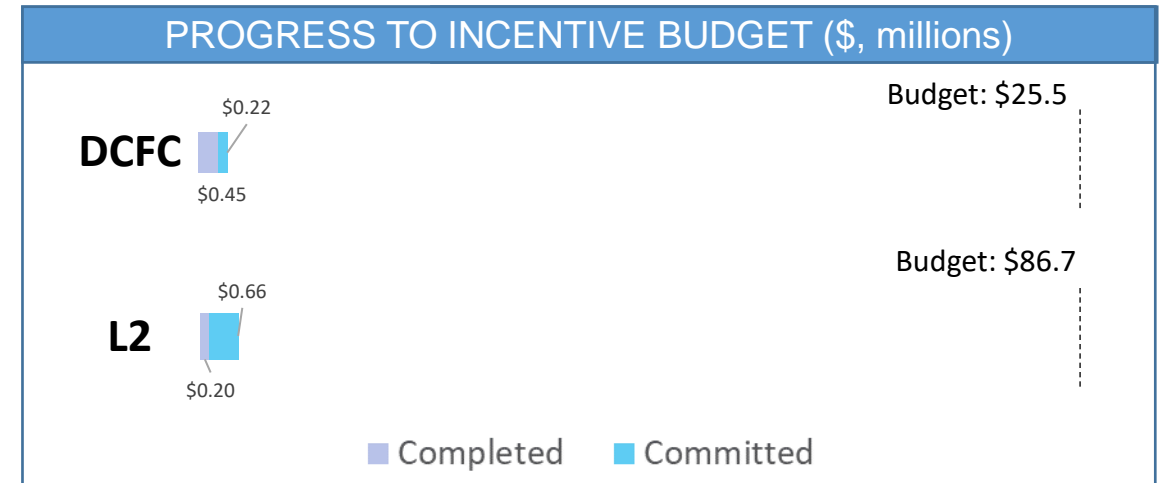
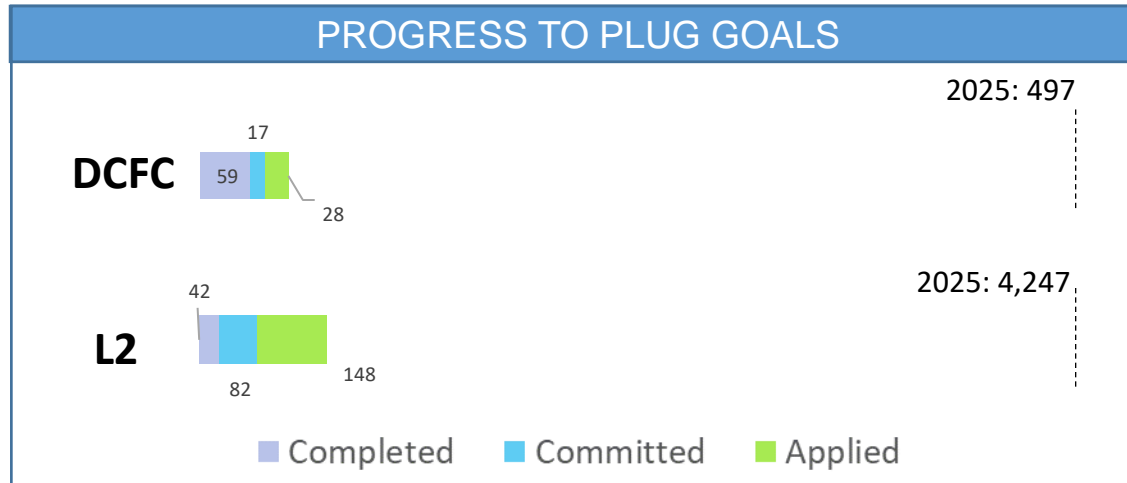
PSEG-LI / LIPA

Presenter: Paul DiBenedetto

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PSEGLI Program Status By the Numbers



AVERAGE PROJECT SIZE

	DCFC	L2
Plugs per site	5	4
kW per plug	106	10

AVERAGE CSMR Costs

	DCFC (\$/plug)	L2 (\$/plug)
Actual	\$19,437	\$7,881

AVERAGE INCENTIVE

	DCFC (\$/plug)	L2 (\$/plug)
Actual	\$9,625	\$6,005

41% Plugs in DACs

Developing a Medium Heavy-Duty Vehicle Make Ready Study – 2023 U2.0 Filing

Fleet Advisory Services to be Stood Up – Targeting Q4

PSEG Long Island Program Status

Program Trends

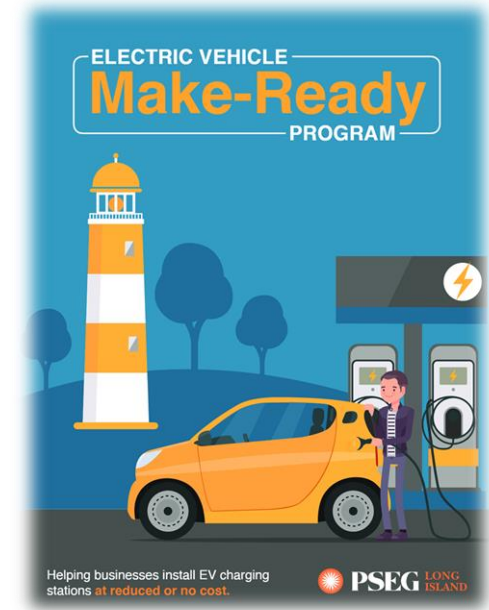
- **DCFC Development:** Corridor and shopping area development from large developers, interest for smaller sites from car dealerships and gas stations
- **L2 Development:** Primarily small business/single digit port installations. Incentive caps are barrier to larger installations

Customer Engagement

- Developer webinar, targeted marketing campaigns, social media promotion, outreach events, partnerships with EV industry and advocacy groups

Future Initiatives

- Development of MDHD MR Program – Proposing in 2023 U2.0 Filing for implementation in 2024
- Fleet Advisory Services



NYSERDA

Presenter: Adam Ruder



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NYSERDA EV Charging Programs

> Charge Ready NY

- \$17 million for Level 2 charging stations
 - \$4,000 per port
 - \$4,500 per port in DACs
 - \$1,500 per port for replacements of older stations
- 3,985 Level 2 charging ports installed between 2018 and 2022 (2,181 since Q4 2020)
 - 2,171 at public locations
 - 924 at workplaces
 - 890 at multi-unit dwellings
- EV charging stations installed in 60 of 62 counties; Capital District received most charging stations (1,404), followed by Mid-Hudson (566), Finger Lakes (470), and NYC (420)

> DCFC Program

- \$11 million for DCFC stations
- Round 1 and 2 focused on 6 upstate REDCs – 4 sites each region, 4 ports per site

New York Clean Transportation Prizes



Clean Neighborhoods

Challenge



Three \$10 million prizes for innovative projects that address air pollution reduction at scale in disadvantage communities



Electric Mobility

Challenge



Three \$7 million prizes to demonstrate innovative, safe, and convenient electric mobility options that help solve disadvantaged community transportation needs



Electric Truck & Bus

Challenge



Three \$8 million prizes to demonstrate electrified solutions in the deployment of medium- and heavy-duty electric vehicles or their replacement through other electrified transportation modes

One additional Prize will be awarded in one of the three categories to a project within LIPA's service territory.

Up to \$85 Million in Clean Transportation Prizes is Available

NYPA

Presenter: John Markowitz



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New York Power Authority

EvolveNY Program

- 106 DCFC stations at 29 locations throughout the State
- 22 of 29 sites received Make-Ready funding
- Make-Ready funding helped buy down total project costs by 29%
- NYPA plans to expand its network of DCFC to 400 chargers through 2025

Transit Work

- NYPA installed bus charging infrastructure at depots of 7 transit agencies in New York State
 - For NFTA, NYPA is building a 23 kV substation that is futureproofed to serve the entire bus depot of 100 buses.
 - NFTA received \$3,000,000 in Make-Ready funding to help buy down the substation and costs to bring feeders to the bus depot.



New York Power Authority



A Program of the New York Power Authority



Q&A

Moderator: Lindsay Weiner



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Next Steps

Moderator: Zeryai Hagos



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Next Steps

1. Stakeholder response to questions in the Notice (October 03, 2022)
2. Technical Conferences and Working Group meetings (Oct – Dec 2022)
3. Staff Recommendations / Whitepaper filed (January 4, 2023)
4. Stakeholder comment deadline (60-day comment period end Mar 2023)
5. Make-Ready 2.0 Order (tentatively June/July 2023 Sessions)

Appendix



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Make-Ready Program Implementation Milestones

Ongoing program implementation by each utility and in close coordination with the Joint Utilities, DPS Staff, and stakeholders

2020

- Commission issued Make-Ready Order (7/16)
- Filed Make-Ready Program Implementation Plans
- Filed Managed Charging proposals (12/4)
- Published Load Serving Capacity Maps (12/31)
- Launched program participant portals
- Launched EV webpages on JU website

2021

- Participated in Customer Experience Working Group (2/4)
- Filed 2020 Annual Reports (3/1)
- Managed Charging Technical Conference (3/17)
- Expanded EV MRP resources on JU website (5/10)
- Filed revised Managed Charging Proposals (6/4)
- JU contracted Atlas Public Policy for data collection
- EV Customer Experience Working Group 11/29
- EV Charging Load Forecasts Technical Conference 12/10

2022

- Supported NYSERDA Clean Transportation Prize
- Coordinated with NYSDOT on National EV Infrastructure (NEVI) planning
- Filed 2021 Annual Reports (4/15)
- Submitted JU comments on the EV Rate Design proceeding on (5/23) and reply comments on (6/3)
- EV Rate Design Technical Session (6/13)
- Managed Charging Order (7/14)
- Technical Standards Working Group (8/18)
- Customer Experience Working Group (8/23)
- **Midpoint Review commences with opportunities for stakeholder input (9/20)**
- File Managed Charging Implementation Plans (9/26)

2023-2025

- Adopt Midpoint Review program changes
- Implement Managed Charging Program
- Implement EV Rate Design Solutions
- Focus on program improvement and customer experience
- File Annual Reports



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*Company Annual Reports and Public Comments can be found via NYSDPS [Case 18-E-0138](#)