

National Grid Clean Transportation MA Phase III Proposal

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It Comes Down to Clean Air and Climate Change

Our Vision


A future in MA where clean transportation is universal and the environmental and public health benefits are shared by all our customers and communities.

Our Guiding Principles

- Our programs support a cleaner environment and reduce GHG emissions
- Our customers and communities have equitable and affordable access to clean transportation choices
- Smart integration allows for grid optimization, customer savings, and enables a clean energy future

Alignment

- Align our work with state policies and commitments, ensuring we provide the necessary support to reach the state's ZEV goals, CECP targets, and a net-zero future by 2050.
- Expand our stakeholder partnerships to leverage existing and future efforts



Transportation is the single biggest source of GHG emissions in MA and a leading cause of air pollution.

Overview of Phase 3 Programs: Enabling universal access to EV charging and clean transportation choices



Public & Workplace Programs

Support customers to deploy publicly-available chargers and install & operate the stations more cost-effectively.

Why?

Limited public charging is one of the biggest barriers to EV adoption.

Residential Programs

Provide grid-optimized charging access and enable EV ownership for all residential customers.

Why?

Necessary to enable EV adoption, but barriers exist for >50% of customers.

Fleet Programs

Includes support for public & private fleets. Provides customers with a transition plan, guidance, & funding.

Why?

One MHDV EV truck or bus can reduce >8x more CO₂ and >30x PM_{2.5} than a passenger vehicle.

Public & Workplace Program: Enable Ubiquitous Publicly-Available Charging

Estimated Ports Enabled	Workplace	Public	Total
L2 Ports	4,700	2,500	7,200
DCFC Ports	N/A	150 - 500	150 - 500
Total Port Count	~4,700	~2,800	~7,500

Public – any parking location that is publicly accessible including:

- retail shopping, parking garages, 'park-n-rides,' street parking, public venues, destination parking, and others

Workplace – any parking for employees including:

- parking areas restricted to employees, some university parking, and other private locations
- non-profit and municipal workplaces to receive public level of EVSE funding

** L1 ports will be considered on a case-by-case basis*

Public & Workplace Program: Multi-Pronged Approach to Solve Market Challenges

Program Incentive Level	Workplace	Public	EJC
L2 Utility-Side Make-Ready		100%	
L2 Customer-Side Make-Ready		100%	
L2 EVSE	Municipal: 50% of installed costs for ports 3 - 10 Non-municipal: 50% of installed costs for ports 5 -10		100% of installed costs for up to 10 ports
DCFC Utility-Side Make-Ready	N/A	100%	
DCFC Customer-Side Make-Ready	N/A	100%	
DCFC EVSE	N/A	Up to \$40,000/port for up to 150 kW	
<p><i>*L1 will follow the same % incentive levels for utility-side and customer-side make-ready, no EVSE rebate</i></p> <p><i>**Proprietary plugs will receive 50% customer make-ready (65% for mixed-plug sites) and 100% utility side make-ready, no EVSE rebate</i></p>			

EVSE Incentives

- Align with Eversource on L2 incentives, requiring purchase of initial ports for some Public and Workplace customers
- EJC DCFC Incentives for 150-kW (and above) goes up to \$80,000/port
- Networking required for all ports (with \$480/port networking rebate for public L2, EJC L2, and MUD L2)

DCFC Commitment in EJCs (with National Grid Ownership)

- up to 20 DCFC in 10 EJCs

Co-located Energy Storage Incentives

- Small scale program to avoid lengthy system upgrades and enable DCFC in areas with grid constraints.

Residential Programs: Comprehensive support for at-home charging, tailored by housing/parking and customer segment. Ambitious multi-family EVSE goals are a ~15x increase from Phase 1.



	1-unit (SFH)	2-4 units ("Duplexes")	5+ units (MFDs)
MA Resi. Customers	750K / ~63%	228K / ~20%	202K / ~17%
EVSE financial support (participation in managed charging programs required*)	Up to \$700 for 240V upgrades	Up to \$1,400 for 240V upgrades	Make-ready program: NG covers service upgrade + 100% make-ready + EVSE rebate up to \$2K/port <i>(aligned w/ public & workplace make-ready)</i>
	Up to \$300 for qualifying EVSE		
EVSE support for LI/EJC customers	100% cost coverage for EVSE + 240V upgrades (up to \$1,700)	100% cost coverage for EVSE + 240V upgrades (up to \$2,700)	<i>If equity group*</i> , EVSE rebate up to \$4K/port
Est. # of customers supported	~15,000 customers (+2% of segment)	~5,000 customers (~2.5% of segment)	~3,800 L2 ports enabled, plus 200 EV Ready Site Plans

* There will be good cause exceptions for customers in 2-4-unit properties. For example, if they have shared parking or do not own or lease an EV.

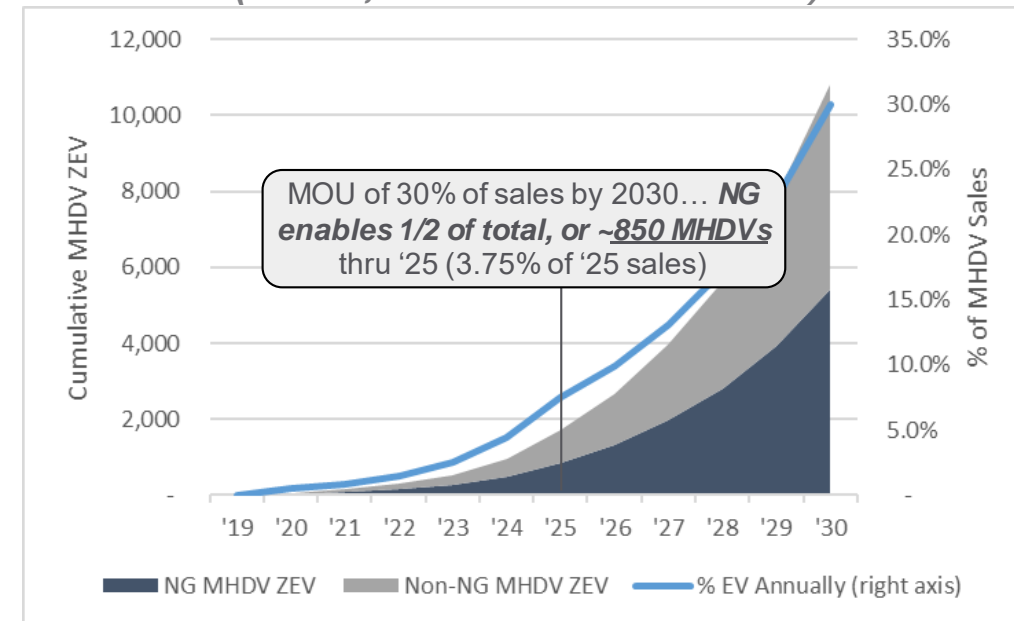
- ✓ LI/EJC eligibility for 1-4 units: 1. account enrolled in discount rate or 2. reside in a property that meets at least one of the EJC criteria outlined by the State. If in a 1-unit property, must own or lease a new or used EV with a purchase price of less than \$50,000.
- ✓ Equity group eligibility for multi-family dwellings: bldgs. in state-defined EJCs, with 50% or more residents on discount rate, or designated public/low-income housing.

Fleet Segment: Accelerate Planning, Infrastructure, & Assist EJCs



	Fleet Assessment Services*	Fleet Make-Ready	EJC School Bus Rebates
Ports / Vehicles Supported	~150 private & non-profits, 25 more public in '25 + tools & support for <u>fleets</u> of all sizes ~2,625 vehicles	612 Ports (181 DCFC + 431 L2) ~850 MHDV ~1,150 LDV	300 buses (scaling up to 100% of annual EJC replacements)
Incentive Levels**	50% cost for private No-cost for non-profit	Up to 100% Make-Ready (Utility- and Cust-Side) Up to 50% EVSE Rebate	Incremental cost: up to ~\$175k / bus
EJC Support***	Target 40% EJC fleets	40% of ports @ EJCs Up to 100% (Make-Ready and EVSE Rebate)	Schools or contractors that serve primarily EJC communities

Cumulative MHDVs Enabled by NG Program
(add'l 1,150 fleet LDV not shown)



* Fleet assessments build upon the active program: 100 public fleets, including one federal fleet (Veterans Administration (VA) Boston Medical Center). Online tool development costs, vendor management, and customer experience management shared with Eversource.

** Fleet program also includes an off-peak rebate (\$0.03 - \$0.05 / kWh) to reduce on-peak charging load (customers also eligible for ConnectedSolutions DR)

*** EJC eligibility aligns with MOR-EV Trucks: Fleets either registered in OR operate >50% of time within census block groups that meet the State's EJC Criteria

National Grid-Owned EVSE on Utility Poles (Pilot Program)

National Grid's ownership of pole-mounted EV chargers will allow for faster and cheaper deployment by simplifying the end-to-end process, while utilizing existing infrastructure to expand access for communities.

Core Program Components

- **Scope:** National Grid partners with 10 municipalities to deploy 225 Level 2 charging ports
- **Equitable Community Access:** Solution for customers w/o dedicated parking (i.e., private garage space)
- **Reduced Costs:** ~70% cheaper to install than pedestal charging; overall 30% lower project costs
- **Simplified Deployment:** Less complex & faster if National Grid owns charger
- **Held-for-Sale:** After 4 years NG will offer to sell charger to municipality or another third party
- **Exposure:** Provides high visibility for EV and non-EV drivers



Dual pole-mounted charging station installed in Melrose, MA

Additional Offerings

Off-Peak Charging Rebates

- Currently offer 3 or 5-cent per kWh to residential EV drivers to incentivize off-peak charging (9PM-1PM).
- Propose to expand program to include up to 1,000 Fleet Vehicles.
- Proposed to allow participants to opt-in to utility-controlled 'flexible scheduling' to maximize rebates.
- Propose to extend program one year through 2025, to align with rest of Phase 3 effort.

Workforce Development and Electrician Trainings

- Co-sponsored initiatives between National Grid, Eversource, and Unitil.
- Propose to create workforce development program to facilitate new EV workforce entrants, targeting underrepresented groups. Expect 75 participants.
- Propose to train existing electricians about commercial and residential EV infrastructure installation and utility programs. Expect 1,000+ trainees.

DCFC Commitment for EJCs

- National Grid is committed to the deployment of DCFC in up to ten underserved or high-need EJCs.
- These communities will be identified at the start of the Phase III Program and the Company will work with its communities, stakeholders, EV charging developers, and the industry to support deployment in EJCs.
- If needs are unmet by the second year of the Program, National Grid will deploy, own, and operate up to 20 DCFC in these communities.

Targeted Low-Income/Environmental Justice Community (LI/EJC) Offerings

Segment	Increased Incentives	Unique Offerings
<p>Public & Workplace</p>	<ul style="list-style-type: none"> • 100% make-ready costs and up to \$4,000 rebate for EVSE (compared to \$2,000 for non-EJC) installed in EJC 	<ul style="list-style-type: none"> • Commitment of 20 DCFC in 10 EJCs (with option for National Grid ownership) • Utility-owned pole-mounted EVSE installed in at least 5 EJCs
<p>Residential</p>	<ul style="list-style-type: none"> • Make-ready and EVSE support of up to \$1,700 for 1-unit properties (compared to \$700 for non-EJCs) and up to \$2,700 for 2-4-unit properties (compared to \$1,400 for non-EJCs) • 100% make-ready costs and \$4,000 rebate for EVSE (compared to \$2,000 for non-EJCs) installed at MUDs in EJCs 	<ul style="list-style-type: none"> • Turnkey installation and increased financial support for LI/EJCs to cover costs of residential make-ready and managed-charging capable L2 EVSE • EV Site Plans will help large MUDs (most of which are in EJCs) develop a plan for EVSE
<p>Fleet</p>	<ul style="list-style-type: none"> • 100% make-ready costs and & up to \$4,000 L2 rebate for EVSE (compared to \$2,000 for non-EJC) 	<ul style="list-style-type: none"> • 300 EJC school bus incremental cost rebates (~\$175k / bus)

Rate Solutions- G-1 Adjustment and Demand Charge Alternative

G-1 Rate adjustment for separately metered EV Chargers

- This service is for small commercial and industrial customers with average usage less than 10,000 kWh per month or 200 kW of demand.
- Transformer surcharge would be waived, as transformer upgrade costs are covered in the make-ready program

Demand Charge Alternative Offering (10 years)

- Available to all new and existing separately metered DCFC and L2 EVSE customers on the General Service Demand Rate G-2 (average use will exceed 10,000 kWh/month, but not exceed 200 kW of Demand) and the General Service Time-of-Use Rate G-3 (>200 kW of Demand). Customer enrollment window is anytime within the first 9 years of the program.
- For first year of enrollment, all customers receive a 100% discount on their demand charges. After participating for at least 12 months, the customer's discount level will be determined annually by assessing their load factor using the previous year average (see discount levels in table below). Customers may move up or down annually depending on their average load factor.
- Customers are provided up to 10 years of discounts, provided they continue to meet load factor eligibility requirements ($\leq 15\%$ load factor).
- The customer's maximum monthly on-peak 15-minute demand rates will be billed fully, with a separate line item on their bill for the discount (100%, 50%, 25%, or 0%), depending on the customer's annual assessed load factor based on their annual average. A volumetric charge will be included, based upon the customer's discount level.
- If customer's load factor based on their previous year's average were to rise above 15%, the customer would not receive a discount for that year. However, the customer would remain enrolled and could receive the discount again, if load factor were to drop down below 15%.

Load Factor Threshold	Enrollment Years	Demand Charge Discount
None	1	100%
$\leq 5\%$	2 to 9	100%
$\leq 10\%$	2 to 9	75%
$\leq 15\%$	2 to 9	50%
$\geq 15\%$	2 to 9	0%

Formula for monthly load factor calculation:

$$\frac{\text{Monthly kWh}}{\text{Monthly Max15-Minute Demand} \times \text{Monthly Hours}}$$

Thank you!

We appreciate your support and engagement. Please feel free to reach out if you have questions.

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