



Department  
of Public Service

# New England Restructuring Roundtable

## Transportation Electrification Panel

December 13, 2024

# NY's Nation-Leading Climate Policy

Climate Leadership & Community Protection Act (CLCPA)

**Net Zero GHG emissions by 2050**

**40% reduction in GHG emissions by 2030**

**100% zero GHG emissions electricity by 2040**

**70% renewable electricity by 2030**

**9,000 MW of offshore wind by 2035**

**3,000 MW of energy storage by 2030**

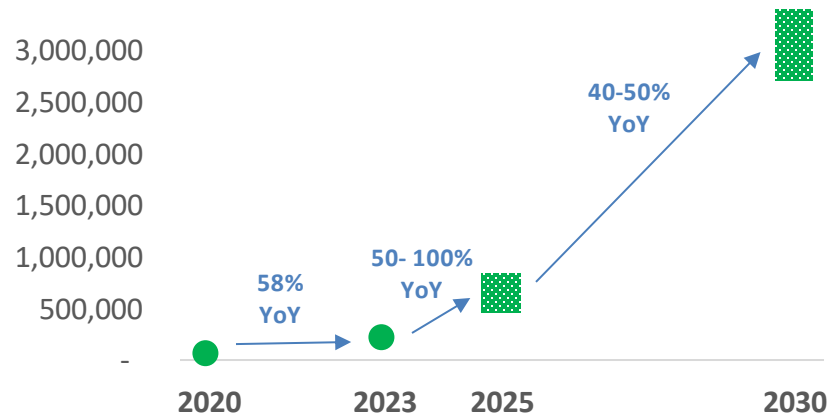
**6,000 MW of distributed solar by 2025**

**185 TBtus on-site energy efficiency by 2025**

**35-40% of benefits to Disadvantaged Communities**

## Battery & Plug-in Hybrid EVs in NY

*Historic and Future ZEV Count Anticipated by DEC regulations and CLCPA GHG targets*



Source: Atlas Public Policy EvaluateNY and NYS Climate Action Council Integration Analysis; range of forecasts depicted in 2030

Ambitious ZEV growth is required... supporting charging infrastructure deployments is a suitable role for the utilities

# PSC Support for Transportation Electrification

## Lower Upfront Costs

*Case 18-E-0138, 23-E-0070*

- **\$1.2B Make-Ready** incentive programs approved
  - 38,356 L2 and 6,252 DCFC in IOUs by 2025
  - \$372M for Disadvantaged Communities
- At-scale **MDHD make-ready** program under development, proposal expected in mid-2025

## Beneficial Utility Rates

*Case 22-E-0236, 24-E-0165<sup>1</sup>*

- **“EV Phase-In Rate”** start as volumetric TOU and blends in demand charge as station utilization increases
- **Residential TOU & demand-based rates** available statewide, on an opt-in basis
- Commercial & Residential **Managed Charging Programs** authorized in all 6 NYS IOUs

## Proactive Planning

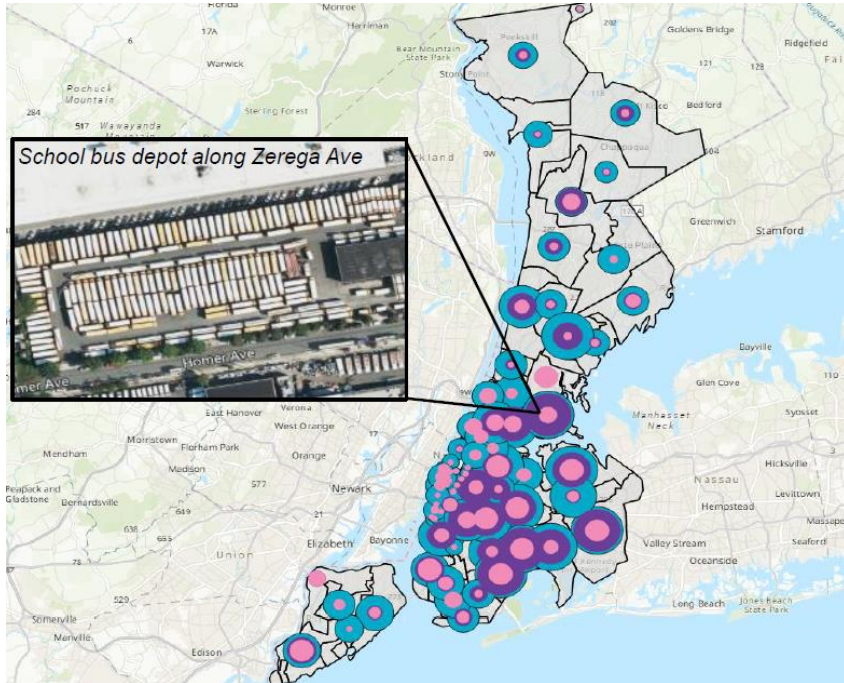
*Case 24-E-0364, 18-E-0138<sup>2</sup>*

- Identify and develop **local T&D upgrades** needed to meet electrification targets
- New, **bottoms-up load forecasting** approach
- New York IOUs must file proposed planning framework **Dec 2024** and urgently needed projects by Nov 2024

1 – Grid of the Future proceeding to develop & maintain a plan that encourages investment in flexible resources to reduce costs and improve system reliability

2 - Other supportive measures include electrification capacity maps, fleet assessment services, and site analysis for all school bus operators in NYS

# Con Edison estimates there are ~80,000 MDHD & fleet vehicles in service territory



## Zerega Avenue Example

- >2,000 school buses in 2 square miles of the South Bronx
- ER visits due to respiratory illness 2-3 times higher than citywide avg. due to elevated PM2.5 and NOx levels
- State law requires 100% ZEV purchase of school buses by 2027, full fleet conversion by 2035

### Legend

- Number of fleet HDVs
- Number of fleet MDVs
- Number of fleet LDVs<sup>1</sup>

# Lead times for T&D far exceed construction timelines for EV charging & MDHD EV orders

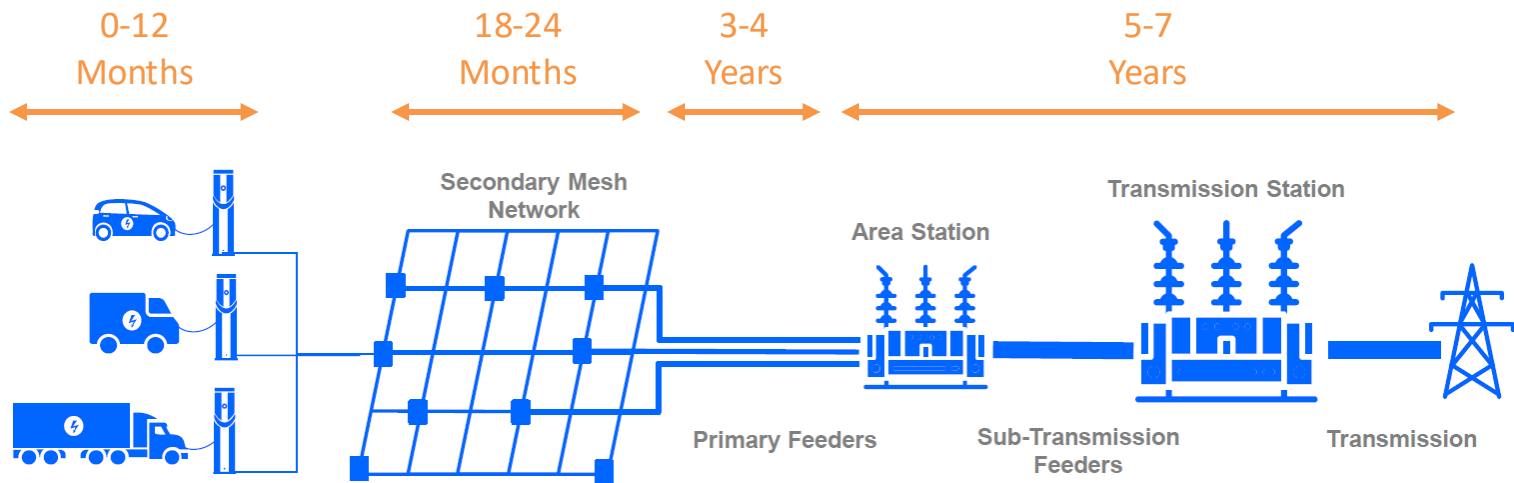


Image from Joint Utilities of New York Nov 2, 2023 Technical Conference in case 23-E-0070

Proactive planning approach needed to avoid long interconnection delays







# Con Edison proposed sequence of urgent T&D upgrades for Zerega Ave. MDHD EV load

Need Year <sup>39</sup>	Build time (Start Year) <sup>40</sup>	Distribution System Infrastructure <sup>41</sup>	Area Substation Infrastructure	Sub-Transmission Infrastructure	Transportation and Building Electrification Share of Incremental Substation Load <sup>42</sup>
<b>Zerega Avenue, Parkchester No. 1, and Parkchester No. 2 Projects</b>					
As early as 2025	2 yrs. (2025)	(3) New 13kV network feeders and associated equipment			Parkchester No. 2: 70%
2028	3 yrs. (2025)		(1) fourth transformer at Parkchester No.2	(1) 138kV supply feeder	
By 2030		(3) New 13kV network feeders and associated equipment	(1) fifth transformer at Parkchester No. 1		Parkchester No. 1: 43%

Con Edison Urgent Projects Proposal, Nov. 13, 2024, Page 21, Case 24-E-0364

Construction timelines 2-3 years in advance of the need

# Managed Charging Programs By Utility

	 Central Hudson <small>A FORTIS COMPANY</small>					
<b>Passive Program</b>	✓ Off-peak kWh credits	✓ Off-peak kWh & monthly credits	✓ Flat monthly credit for 85%+ off-peak charging	✓ Monthly off-peak credits & demand response credits	✓ Off-peak kWh & monthly credits	✓ Monthly off-peak credits & demand response credits
<b>Active Program</b>	✓ NWAs		✓ Flat monthly credit for utility scheduled charging	✓ Monthly credits based on charging flexibility		✓ Monthly credits based on charging flexibility

Widespread adoption of managed charging could avoid \$13B<sup>1</sup> in distribution system costs by 2050



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# Thank You