



Department
of Public Service

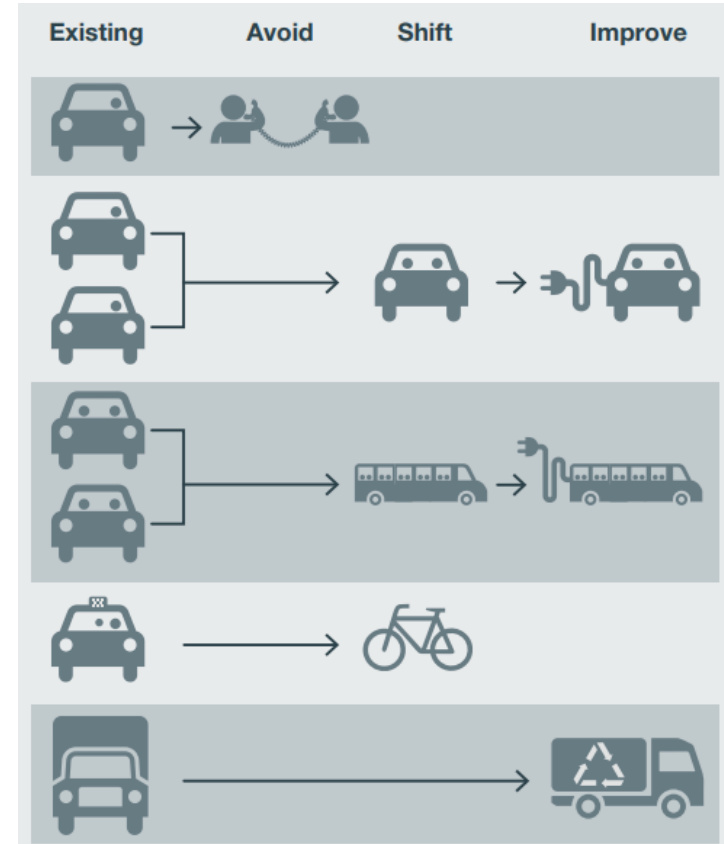
Transportation Electrification and Decarbonization

New York Bar Association

04/20/23

Decarbonizing Mobility

- In 2019 the transportation sector contributed 28% of statewide emissions
- Eliminating tailpipe emissions from vehicles mitigates the impacts of climate change globally as well as reducing air pollution locally
- Strategies for transportation emission reduction:
 - **Avoid:** Adopt telecommuting policies & deploy delivery lockers
 - **Shift:** Switch from single-passenger vehicles to carpooling, mass transit, cycling and walking
 - **Improve:** Adopt zero-emission cars, buses, bikes and trucks



Electric Vehicle Adoption Targets

- Zero-emission vehicles adoption and reducing the number of vehicles on the road overall are core policy targets supporting New York State's goal of net zero emission by 2050
 - EVs are more efficient than fossil-fuel powered vehicles and don't produce tailpipe emissions
 - Growing market with 160,017 EVs currently¹ on the road in New York (50% YoY increase)

Electric Vehicle Targets in New York

- Advanced Clean Cars II: All new sales of passenger cars to be zero-emission by 2035
 - Interim goal: 850,000 zero emission vehicles on the road by 2025²
- Advanced Clean Truck: All medium- and heavy-duty vehicles for sale in the State to be zero-emission by 2045, interim goals begin in 2025
- New York State's school bus fleet to be zero-emission by 2035

New York State Department of Public Service Staff make recommendations that support zero-emission vehicle adoption within the Public Service Commission's regulatory powers.

1 – As of 4/2/2023

2 – 2013 Light-Duty ZEV Memorandum of Understanding

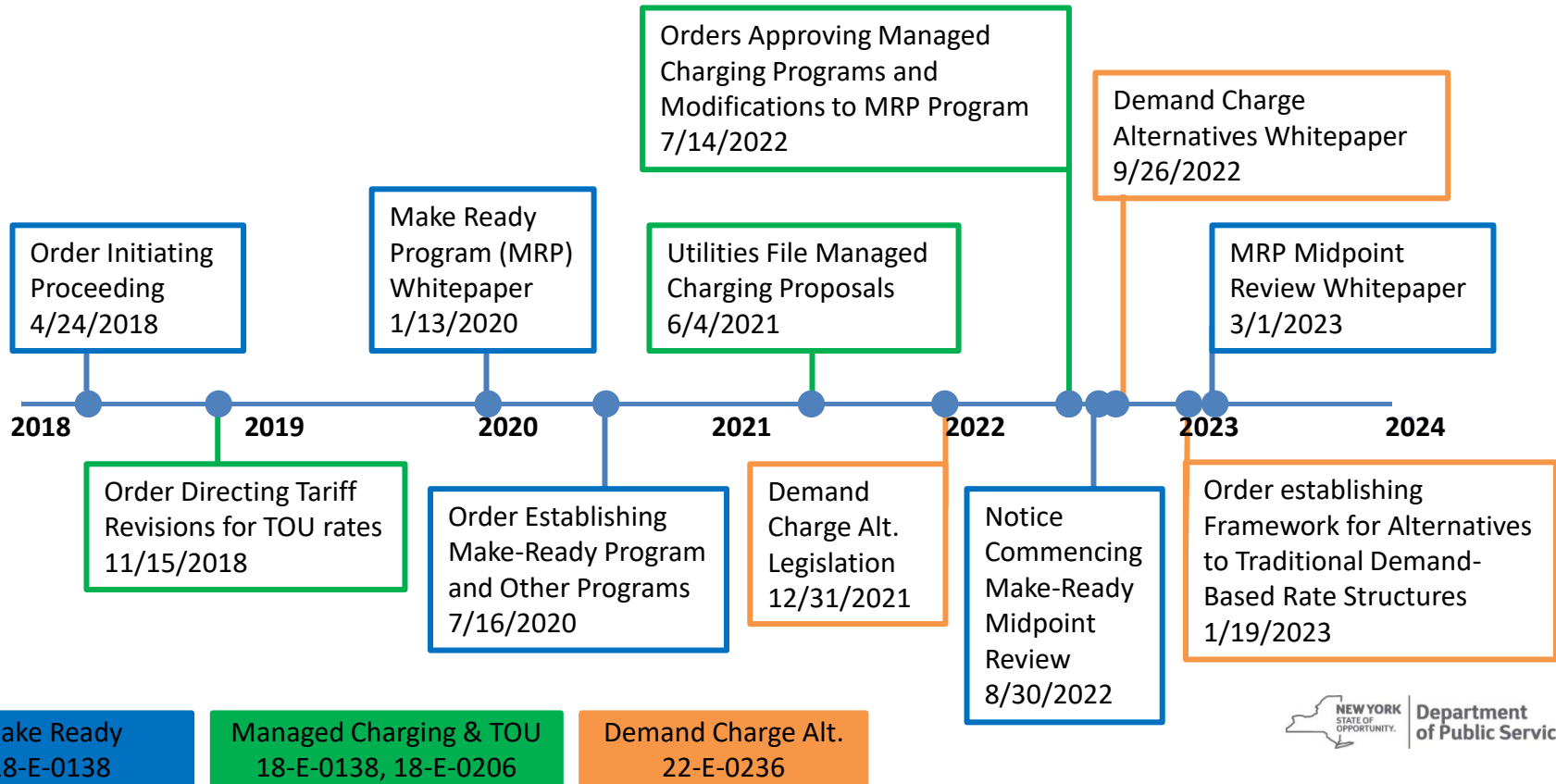
Commission Overview

- NYS Department of Public Service (DPS) Staff advises the Public Service Commission (PSC) on matters related to investor-owned energy, telecommunications and water utilities
- The PSC has jurisdiction over investor-owned utilities, including the six major electric utilities as well as regulatory oversight of electric service operations on Long Island
- The majority of transportation related matters are covered by either utility rate cases or open subject matter specific proceedings
 - Rate cases: Utility filing to address cost of operating the electric distribution system and allocating costs to customer rate classes

NYS PSC's mandate is to ensure that:

1. Services are safe and reliable
2. Companies make appropriate and necessary investments
3. Services are provided at just and reasonable rates
4. Preservation of environmental values and the conservation of natural resources

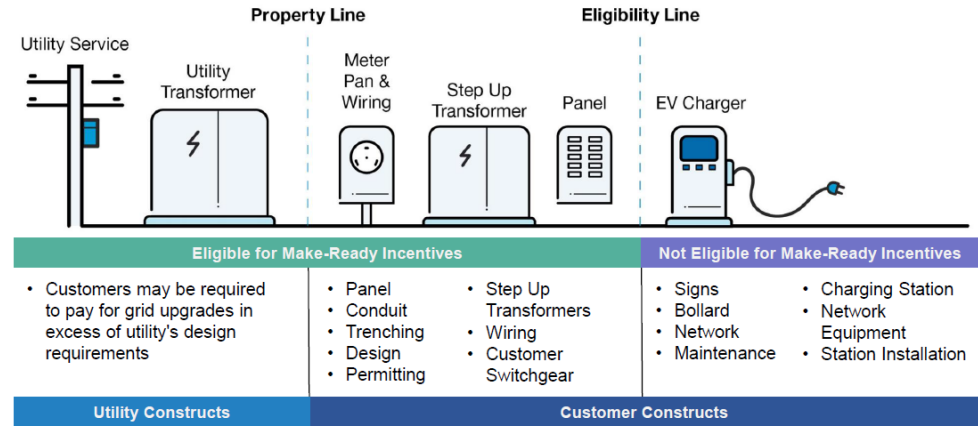
Commission timeline for EV proceedings



Make-Ready Order Adopted July 16, 2020


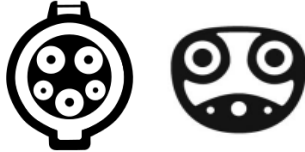

- \$701M budget; \$206M dedicated to disadvantaged communities
 - Budget sized to support >50,000 L2 and 1,500 DCFC
 - Primarily funds eligible costs of make-ready for light-duty vehicle charging
- \$24M Medium- and Heavy-Duty (MHD) Pilot and \$10M Transit Authority Make-Ready Pilot
- Fleet Assessment Service provides site feasibility and rate analysis
- \$85M Prize Competitions, including Clean Neighborhood Challenge, Electric Mobility Challenge and Electric Truck and Bus Challenge

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).

Plug Overview

	Level 1 	Level 2 	Level 3 (DCFC) 
Power Requirements	120V (1-3 kW)	240V (3-10 kW)	480 V (25-350kW or more)
Charging Speed	~12+ hours for a full charge	~4-6 hours for a full charge.	~30-50 minutes per charge
Typical Use Case	Home garage	Home garage, on street or parking field	Commercial locations, short stops, near highways
Make-Ready Incentive Level (non-Disadvantaged Communities Tier)	N/A	Up to 50% if plug are non-publicly accessible or use proprietary technology; Up to 90% if plugs are publicly accessible and use non-proprietary technology	
Make-Ready Incentive Level (Disadvantaged Communities Tier)	N/A	Up to 100% L2 at Multi-Unit Dwellings	Up to 100% Public non-proprietary DCFC

Make-Ready Program Midpoint Review

- Commenced on August 30th 2022
- Make-Ready Order directs Midpoint Review to assess and evaluate:
 - Budget, incentive levels and other programmatic elements
- Midpoint Review Whitepaper released on March 1st 2023
 - Staff recommends an incremental budget increase of \$407M based on updated plug forecast and increasing the disadvantage communities carveout to 35% of the proposed budget for consistency with the CLCPA
 - Proposed investments include an additional \$30M for a Medium- and Heavy Duty Make-Ready Pilot and \$25M for a micromobility make-ready program
- Comments due on May 15th 2023

Managed Charging Program

- Order Approving Managed Charging Programs with Modifications adopted in July 2022
 - Further modifications approved in an order on February 16th 2023
- Managed charging programs focus on residential customers who can feasibly shift their charging load to off-peak hours:
 - Passive Programs: Charging pattern controlled by customer behavior (e.g. TOU rates, off-peak credits and demand response)
 - Active Programs: Utility or aggregator-controlled vehicle charging (e.g. continuous control or optimization)
- Staff facilitating a Technical Standards Working Group that will create a framework to test the telematics and EV chargers used in these programs for accuracy with Staff filing recommendations by October 1st 2024
 - First of its kind exploring the accuracy of telematics for use in a managed charging program

Demand Charge Alternatives

- Demand charges are assessed based on the maximum kW of power consumed at a single point in time
 - Major fixed cost for fast charging station developers while utilization remains low
- On January 19th 2023, Commission Order Establishing Framework for Alternatives to Traditional Demand-Based Rate Structures which:
 - Orders utilities to develop a 50% demand charge rebate for all commercial EV charging use cases upstate and only DCFC downstate until the EV phase-in rate is in place
 - Orders Con Edison and O&R to implement a commercial managed charging program; remaining upstate utilities to propose a commercial managed charging programs within 180 days (allowing more time to develop their programs)
 - Adopts the EV phase-in rate which blends in demand charges with a time-of-use rate as the charging station's load factor increases with utilities filing tariffs within 180 days
- Utilities to submit demand charge rebate filing and O&R and Con Edison their commercial managed charging program filing by May 19th 2023

Discussion