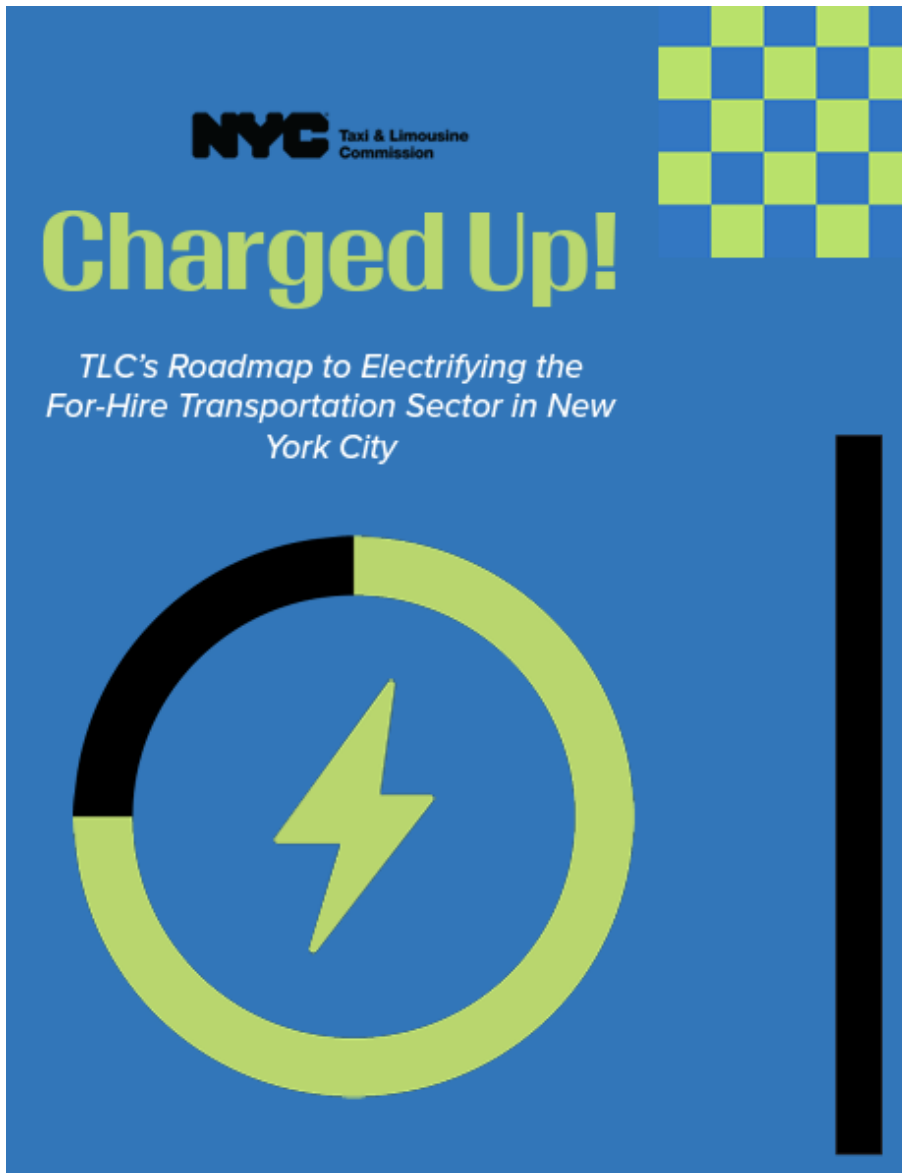




TLC's Green Rides Initiative

Presentation by James DiGiovanni, Assistant Commissioner for Policy
New York City Taxi and Limousine Commission
Public Hearing on Green Rides Initiative Proposed Rules
September 20, 2023



nyc.gov/chargedup

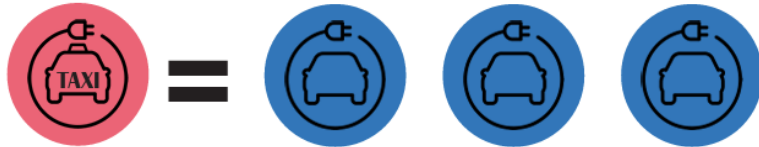
Exploratory Research on Electrification and State of Industry

- TLC report issued December 2022 identifying:
 - Why electrification?
 - Current EV state-of-play for TLC-licensed industry
 - Costs of electrification
 - EV charging landscape
 - Potential EV-centric regulations
 - Obstacles and opportunities to electrify the TLC-licensed fleet
- TLC gained insight on EV policy through this research and stakeholder feedback on the published report

Why Electrify TLC-licensed Vehicles?

Benefits for the public:

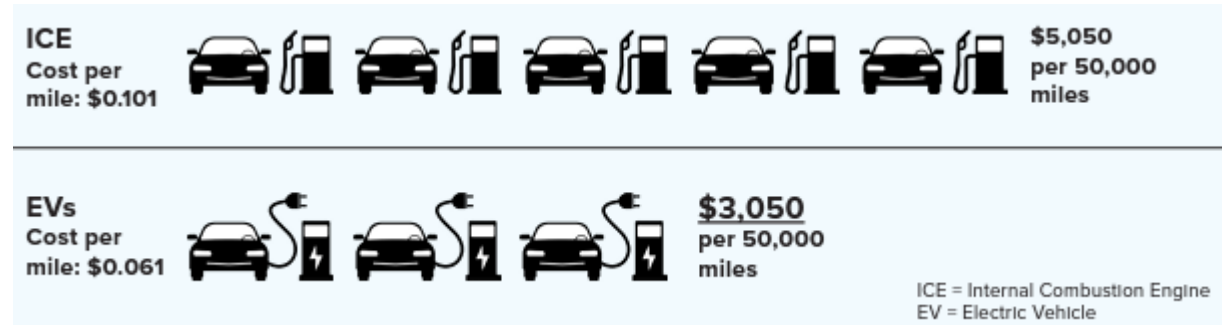
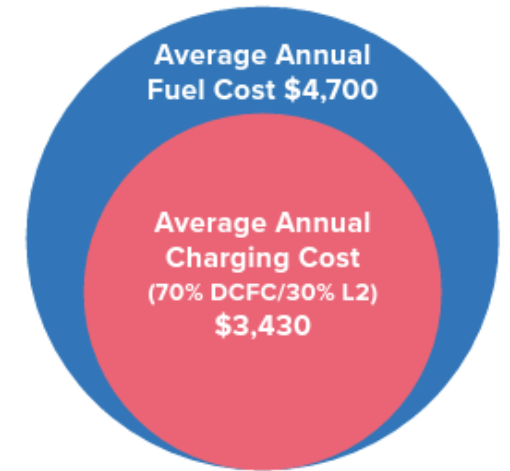
- TLC-licensed vehicles produce about 600,000 tons of CO₂ per year, 4% of the City's transportation emissions
- Electrifying one rideshare vehicle = electrifying three personal vehicles



- More rideshare EVs will spur charging infrastructure development also used by private vehicles



Benefits for drivers and industry:

- Fuel savings
- Maintenance savings
- Take advantage of state and federal incentives

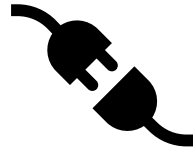


State of Electrification: New York and TLC

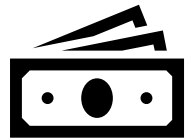
- Currently about 2,500 FHV EVs, about 3% of the fleet
- Most are through TLC's issuance of EV-only FHV licenses
- Low but growing rapidly and much higher percentage than for private vehicles in New York
- NYS is requiring 100% of new car sales to be EVs by 2035, 35% by 2026
- Current growth of TLC EVs has been smooth: TLC-licensed EVs have similar trip patterns and earnings as gas-powered vehicles

EV FHV		Average Trip Length	Average Trip Duration	Average Fare
		EV: 5.6 miles	EV: 20 minutes	EV: \$27.05
ICE FHV		ICE: 5.4 miles	ICE: 19 minutes	ICE: \$27.05

Identifying Obstacles and Crafting Solutions



Charging Infrastructure



Vehicle Costs



Wheelchair Accessibility

DC Fast Charging & Driver Residence

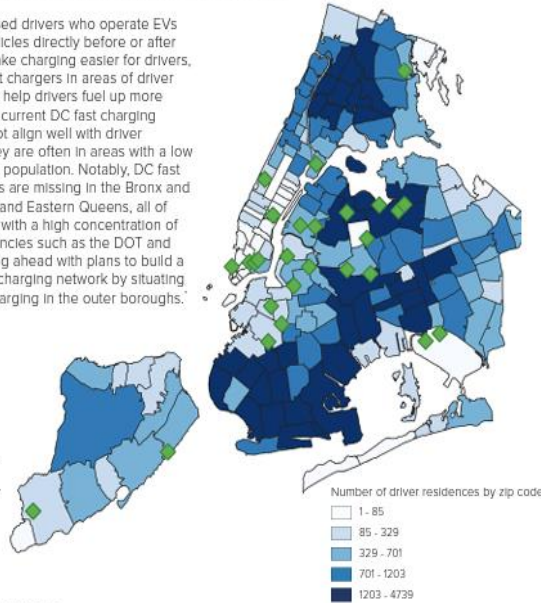
Figure 12: TLC-Licensed Driver Residence and DC Fast Charging Stations

Driver Residence by Zip Code and DCFC Stations

Many TLC-licensed drivers who operate EVs charge their vehicles directly before or after their trips. To make charging easier for drivers, installing DC fast chargers in areas of driver residence could help drivers fuel up more seamlessly. The current DC fast charging network does not align well with driver residence as they are often in areas with a low density of driver population. Notably, DC fast charging stations are missing in the Bronx and south Brooklyn, and Eastern Queens, all of which are areas with a high concentration of drivers. City agencies such as the DOT and DCAS are moving ahead with plans to build a more equitable charging network by situating more DC fast charging in the outer boroughs.

Source: TLC Data and Alternative Fuels Data Center (AFDC), U.S. Department of Energy

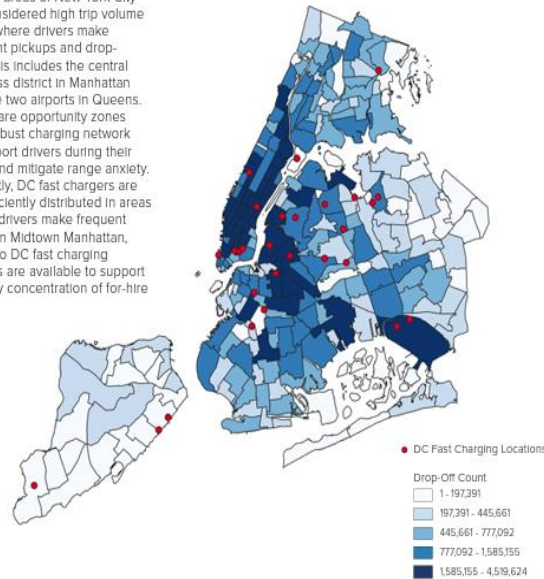
* "Electrifying New York", NYC DOT



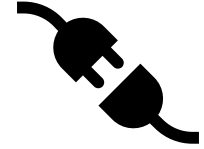
DC Fast Charging in High-Volume Trip Areas

Figure 13: TLC Drop-Off Count by Taxi Zones and DC Fast Charging Stations

Certain areas of New York City are considered high trip volume areas where drivers make frequent pickups and drop-offs. This includes the central business district in Manhattan and the two airports in Queens. These are opportunity zones for a robust charging network to support drivers during their shifts and mitigate range anxiety. Currently, DC fast chargers are not efficiently distributed in areas where drivers make frequent stops. In Midtown Manhattan, only two DC fast charging stations are available to support a heavy concentration of for-hire trips.

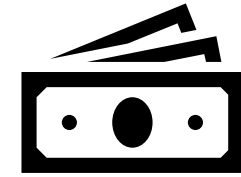


Source: TLC Data and Alternative Fuels Data Center (AFDC), U.S. Department of Energy



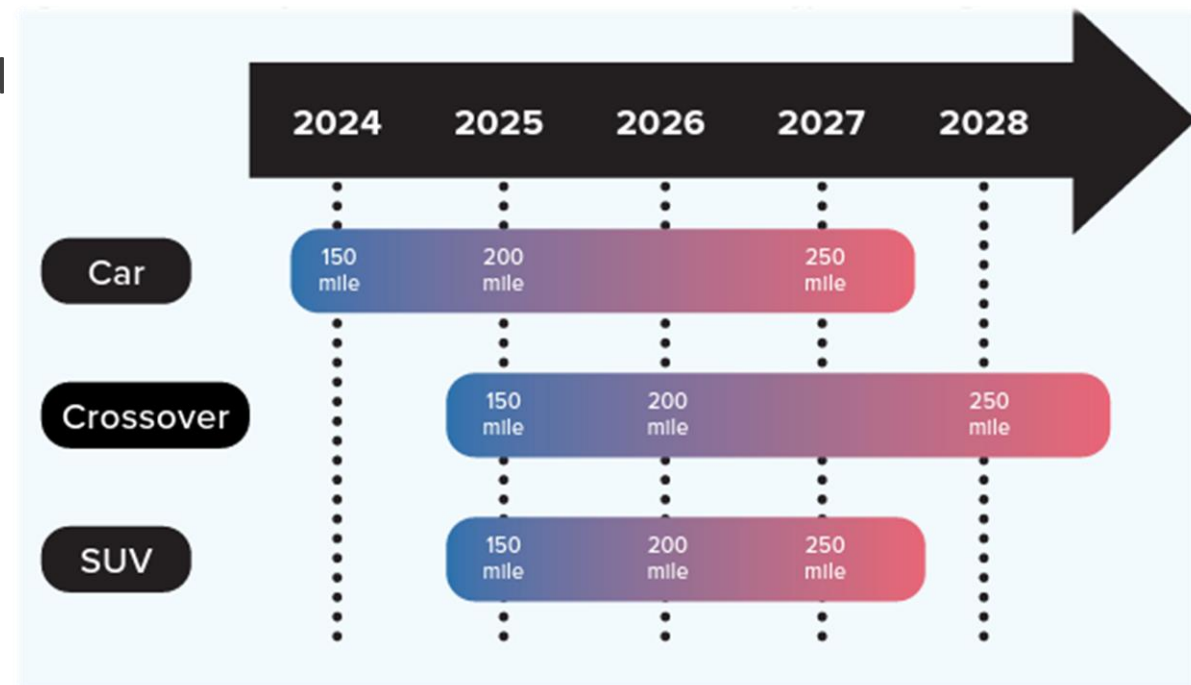
EV Charging Infrastructure

- TLC analyzed existing charging infrastructure and how it matches trip patterns and driver residence areas
- Conclusions:
 - Drivers live in areas not well served by EV infrastructure
 - Trips are more likely to occur in areas with EV chargers
 - Existing chargers often have low utilization, showing lack of demand
 - **Chicken-and-egg: infrastructure and vehicles need to grow together**



Vehicle Costs

- EVs are currently more expensive than comparable internal combustion engine (ICE) vehicles
- EVs on market are already getting cheaper, and new less expensive EVs continue to be released
- Price parity between comparable EV and ICE vehicles will occur in about 2027
- Phased approach allows EV fleet to grow as vehicles get less expensive
- If electric vehicle and charging market grows slower or faster than expected, we can adjust
- TLC also has tools, like our driver pay rules, to account for driver expenses and make sure vehicle costs are not borne by drivers





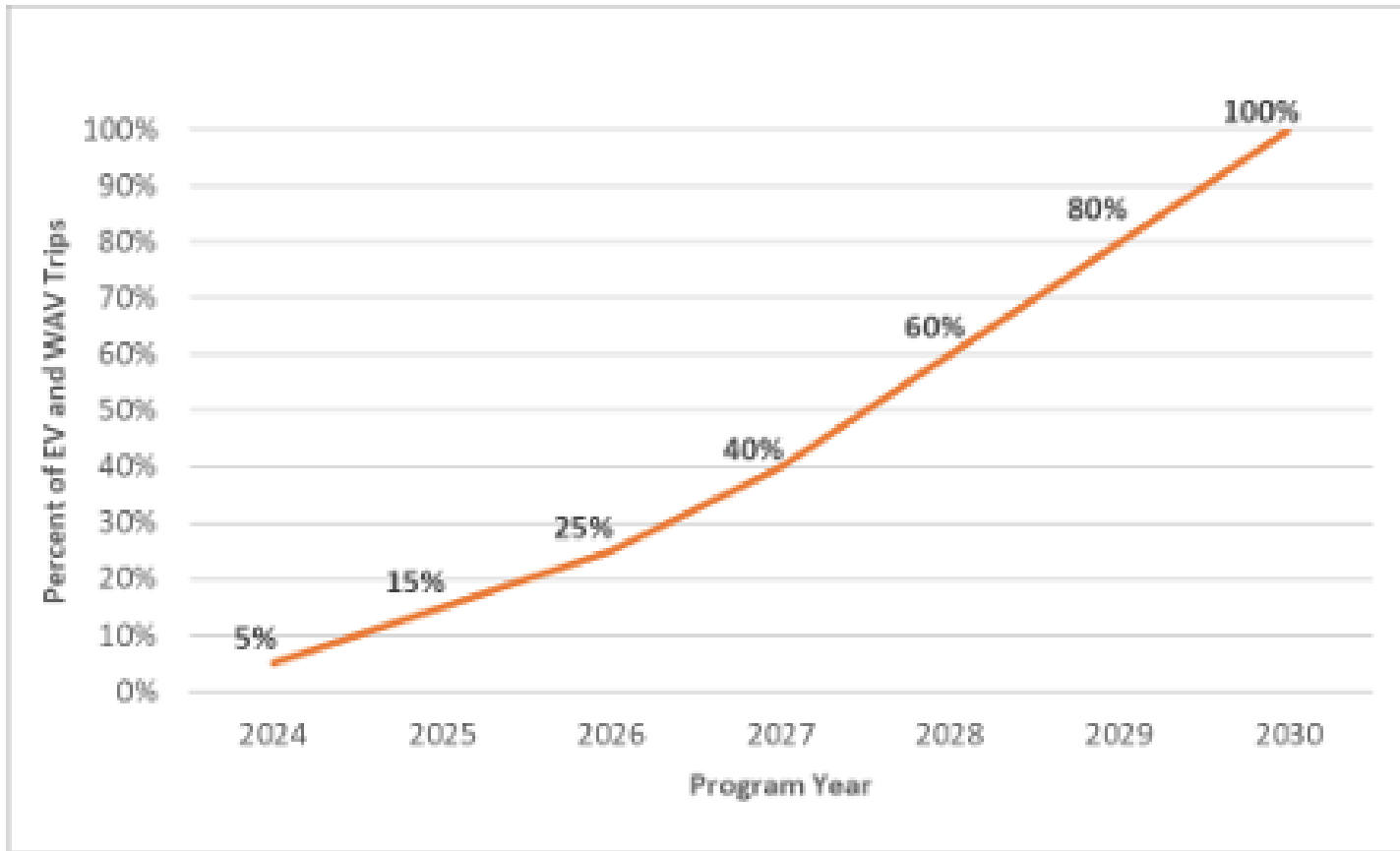
Wheelchair Accessibility

- Accessibility is a top priority for TLC
- **There are currently no WAV EVs available on the U.S. market; TLC cannot mandate what does not exist, and our climate crisis and air quality issues are too urgent to wait until the ideal vehicle comes to market, whenever that will be**
- TLC strongly urges vehicle manufacturers and converters to take advantage of the significant opportunity for an electric WAV to dominate the TLC-licensed fleet
- TLC's existing FHV accessibility rules require Uber and Lyft to fulfill 80% of WAV requests in 10 minutes or less and 90% in 15 minutes or less
 - FHV WAV fleet is now over 6,000
 - These rules are not altered in any way by the Green Rides Initiative; companies cannot avoid these requirements by focusing on EVs
- TLC will continue to evaluate its vehicle and dispatch requirements in light of existing vehicle availability; should an electric WAV become available, TLC can adjust these rules
- The Green Rides Initiative is likely to result in more WAV FHVs because over time the only way to opt out of driving or dispatching to an EV will be with a WAV

Crafting the Green Rides Initiative and Determining the Benchmarks

- Phased Approach:
 - Gradual expansion of rideshare EVs to spur demand for public and private charging infrastructure
 - City and private sector will know that demand for EV charging in NYC will grow in next seven years and will be willing to plan and invest now; it can take years to plan and install EV charging
- An Evolving Market:
 - Price parity in about 2027, so benchmarks accelerate at that point
 - NYS EV sales mandate beginning in 2026
- Accessibility:
 - Encourage the continued growth of the WAV fleet and provide drivers with options, at least until electric WAVs are available
 - Essential that these rules further TLC's existing accessibility mandates: WAVs will be a more attractive option for high-volume companies and drivers who do not want to shift to EVs yet
- Vehicle Retirement: about seven years, higher mileage ones sooner, so vehicles gradually convert
- New Licenses: WAV and EV licenses to spur growth of WAV and EV fleets

Benchmarks, Evaluation, and Compliance



- 100% of trips dispatched by high-volume companies (currently Uber and Lyft) must be EV or WAV by 2030
- Benchmarks and evaluation along the way to ensure steady progress
- Compliance percentage determined on calendar year basis
 - Example: in early 2025, add up all trips a company dispatched in 2024, determine percent that were WAV or EV
- If company does not meet benchmark, fines and corrective action plan

NYC

**Taxi & Limousine
Commission**

Questions?
