EV INFRASTRUCTURE IN A DENSE URBAN ENVIRONMENT: NY CITY’S APPROACH

June 2018
Electric Vehicles in NYC
GREENHOUSE GAS EMISSION TARGETS

- **City Goal**: NYC committed in 2015 to reduce GHG emissions 80% by 2050 based on 2005 levels.

- **Paris Accord**: Mayor committed NYC to Paris climate accord and accelerating the 80 x 50 program.

  *To continue to be a leader in reducing GHG emissions, NYC must aggressively adopt green technology.*
NYC’S TRANSPORTATION GHG EMISSIONS

- **Transportation**: ~30% of NYC GHG emissions
- **Private vehicles**: 90% of transportation emissions
- **Registered vehicles**: 2.2 million light duty vehicles

*Increasing EV market share is key to achieving GHG reduction in transportation.*

**Mayoral Goal**: 20% of new vehicle registrations will be EVs by 2025
NYC Clean Fleet – EV Initiatives

Concept:
• City leading by example with goal to reducing municipal fleet emissions by 80% by 2035
• Goal: 2000 EV sedans in City fleet by 2025

Progress:
• Program is ahead of schedule: 1,500 EVs in fleet as of May 2018
• City has 500 level 2 chargers for fleet use, including 37 solar carports
• Plan 50 solar carports for fleet by end of 2018
• Plan 100 DC fast chargepoints for the City fleet.

Source: NYC
REMAINING BARRIER: ACCESS TO CHARGING

Lagging US Peers

- NYC Ranks last among 25 major metros in chargers per capita

Fast Charging

- Only 7 fast chargers in NYC, compared to ~50 gas stations in Manhattan

Unique Conditions

- 53% of NYers park on street some of the time

Map of Publically-Accessible Charging
DC Fast Charging Station Initiative
FAST CHARGING STATION INITIATIVE

Multiphase Approach

Mayor de Blasio has committed to development of up to 50 fast charging stations by the end of 2020.

Phase I: One Station
March 2018

Phase II: One Station in Every Borough
January 2019

Phase III: Up to 50 Stations Citywide
January 2020
January 2021
ZONES: UTILIZATION

Potential Sites

Final Score for Utilization Scenario

Low

High
PHASE I & II: A STATION IN EVERY BOROUGH

2018-19: On City Property Using a Contractor

**Siting:** City property (parking field)

**Implementation:** City will seek an operator to construct, operate, and maintain OR City will own and maintain
PHASE III: UP TO 50 TOTAL STATIONS

2018-20: On Mix of City and Private Property

Public Property: Franchise, concession, or other

Private Property: Rebate or other incentives
On-Street L2 Charging
# ON-STREET EV CHARGING: CON ED PARTNERSHIP

- **Funding**: Public Service Commission (PSC) has authorized $25 million in ratepayer contributions for 3 years
- **Purpose**: Maximize electric vehicle miles traveled (eVMT) and demonstrate sustainable value proposition for Con Ed.
- **Partnership**: Con Ed and DOT will install 120+ L2 EV chargers on city streets.

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<th>Con Ed Responsibilities</th>
<th>DOT Responsibilities</th>
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<td>• Select hardware and service providers</td>
<td>• Curb regulations to encourage efficient usage</td>
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<tr>
<td>• Collaborative site selection with DOT final approval</td>
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<td>• Charger procurement, installation, maintenance and operation</td>
<td>• Community outreach with Con Ed support</td>
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<td>• Collection of revenue and provision of electricity</td>
<td>• Assistance with Public Design Commission approval</td>
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