ELECTRIC VEHICLE
CHARGING PROGRAM

Community Board 3 TC Briefing
May 14th 2019
Background
CHALLENGE: PRIVATE CARS ARE A MAJOR SOURCE OF GHG EMISSIONS

Transportation: constitute 30% of citywide GHG emissions

Passenger Cars: 83% of on-road transportation GHG emissions
INCREASING THE ADOPTION OF EVS IS KEY TO ACHIEVING CITY’S GHG GOALS

- Goals of 80x50 plan and Paris Climate Agreement Executive Order 26: requires electrification of most of the city’s 1.8 M private light-duty vehicles.
- Mayor’s goal for 20% of new NYC vehicle registrations be EV by 2025: requires more on- and off-street EV charging.
OPPORTUNITY: STARS ARE ALIGNING FOR GROWTH IN EV ADOPTION

• Vehicle cost is falling, driven by cheaper batteries
• Range is increasing, models with 200+ miles per charge
• Model choice is expanding, 32 models on the U.S. market
• EV sales are growing, up 66% in NYC from 2017 to 2018

Example: Hyundai Kona
Price: $26,450 in NYS with tax incentives
Range: 258 miles

Example: Tesla Model 3
Price: $28,750 in NYS with tax incentives
Range: 220 miles

Public Access to charging remains a barrier, as 50% of New Yorkers store their cars on-street.

To increase EV adoption, NYC must expand its public charging network
NYC EV OWNERSHIP

EV Registrations, by Boro (2011 – 2018):
• Bronx: 533
• Brooklyn: 1,882
• Manhattan: 2,971
• Queens: 3,219
• Staten Island: 924
• Citywide: 9,529

*Ownership based on EV sales and registration.
## EV CHARGING: HOW IT WORKS

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>DC Fast</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Requirements</strong></td>
<td>120V (1-3 kW)</td>
<td>240V (3-10 kW)</td>
<td>480 Volts (25-150 kW)</td>
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<tr>
<td><strong>Charging Speed</strong></td>
<td>5 miles per hour, 12+ hours for a full charge</td>
<td>12-25 miles per hour, 4-6 hours for a full charge.</td>
<td>100-600 miles per hour, 30 minutes for a full charge</td>
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<tr>
<td><strong>Location</strong></td>
<td>Home garage</td>
<td>Home garage, on street or parking field</td>
<td>Commercial locations, short stops, near highways</td>
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NYC’S CURRENT EV EFFORTS

- **NYC Clean Fleet:** Mayoral commitment to create largest municipal EV fleet. A total of 1,750 EV purchased to date.

- **Chargers in DOT Lots and Garages:** pursuant to Local Law 160 of 2016, DOT has installed 39 level 2 EV chargers

- **Electric Vehicle Advisory Committee:** pursuant to Local Law 122 of 2013, group meets regularly to discuss EV strategies.
  - **Curbside Level 2 Charging**
  - **Fast Charging Stations**
PROJECT BACKGROUND

Fast Charging Stations
• Gas station model
• Charge in 30 mins or less
• Multiple chargers
• Supplements on-street, at home, and at-work charging

Funding and Deployment
• Mayor committed to 50 fast charging sites by 2020
• City: $10 million capital funding in FY18-20
• To complete rollout of stations, look to public/private partnerships
• DOT is focused on development of the first five stations
Curbside EV Charging Pilot Program
PROJECT BACKGROUND

Project Structure:
- **Partnership**: Con Ed and DOT will install 100 L2 EV charging ports on city streets for a four year demonstration.
- **Purpose**: Encourage EV ownership and test financial and operational feasibility of curbside EV charging.
- **User Cost**: Pay per hour, charge cost comparable to gas

Project Details:
- 100 curbside charging ports citywide for public use
- In CB 3, a maximum of 4 parking spaces will be converted to EV parking
CB 3 SITE SELECTION AND SITES

Site Selection:
• Near major institutions, educational institutes and medical centers, commercial activity – high visibility, turnover, and utilization

Possible Location(s):

- Interfaith Medical (Herkimer St.)
- Woodhull Hospital (Marcus Garvey Blvd)
- Restoration Plaza/Fulton Commercial (Marcy Ave)
- Von King Park/Kosciuszko Pool (Marcy Ave)
Site Selection:
• Near major institutions, educational institutes and medical centers, commercial activity – high visibility, turnover, and utilization

Possible Location(s):

Bed Stuy YMCA (Monroe St.)

PS 129/La Cima Charter (Stuyvesant Ave)
Level 2 Charger Rendering and Signage

- 120 Level 2 charging ports
- Full charge in 4-8 hours
- Con Ed to install and operate
OUTREACH PROCESS

Outreach

- Brooklyn District Managers briefing in February 2019
- CM Cumbo briefing in February 2019
- CM Ampry-Samuel briefing in February 2019
- CM Cornegy briefing in February 2019
- Sen Myrie briefing on May 16, 2019

Public Feedback

- Launch public feedback portal where public can provide feedback on where DOT should or shouldn’t locate chargers

Pilot Zones

- Notify elected officials and community boards where pilot neighborhoods are chosen, offer and conduct briefings on the program and feedback on suggested locations.

CB Engagement

- Outreach to Community Boards and offer presentations and feedback on suggested locations.

Installation

- Fall 2019 for Authorized Parking for City Fleet, followed by installation of curbside public chargers.
THANK YOU!

Visit the NYC DOT Public Portal for FAQs on EV and to add a location for EV:

www.nyc.gov/charge
QUESTIONS?
CURBSIDE CHARGER: HOW IT WORKS

To start a Charge Event:
Once the user authentication is completed and the status light is flashing white

1. Open the flip-up door
2. Remove the connector from its holster
3. Open the vehicle charge port
4. Insert the connector into the vehicle charge port