Accelerating Electric Vehicle Adoption in New York City
The City’s goal is to reduce greenhouse gas emissions 80% by 2050 based on 2005 levels.

In May 2017 the Mayor signed Executive Order 26 to uphold commitment to Paris climate agreement.

As of 2016, Transportation accounts for nearly 30% of citywide greenhouse gas emissions.
90% of emissions from NYC's transportation system comes from private cars
EV Market in New York City

Current: Less than 1% of new vehicle registrations are EVs
Goal: 20% new vehicle registration are EVs by 2025

EV Registrations in New York City February 2018

Source: NYSERDA
## EV Charging Types

<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 V (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>200-600 miles per hour, 30-50 minutes per charge</td>
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<tr>
<td><strong>Location</strong></td>
<td>Home garage; low density areas, most of Staten Island</td>
<td>Home garage, on street or parking field; long-term parking facilities in all five boroughs</td>
<td>Commercial locations, short stops, near highways; addresses range anxiety</td>
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</table>
EV Ownership and Publicly Accessible EV Charging Locations

Lagging US Peers
- NYC ranks last among 25 major metros in chargers per capita

Fast Charging
- Only 8 fast charging stations, compared to 50 gas stations

Unique Conditions
- 53% of NYers park on street some of the time
EV Charging Initiatives
Guiding Principles for EV Initiatives

**Integrate** EV efforts into City’s emission reduction goals

**Support** development of charging network to spur EV adoption

**Structure** public support to maximize EV charging and minimize City’s upfront capital expense

**Wind down** public support for charging infrastructure as EV market matures
Electric Vehicle Fast Charging

- 5 fast charging hubs
- Up to 10 chargers per site
- One hub per borough
- Phase One: First site to be announced this year
- Phase Two: remaining hubs announced
- Phase Three: scale to 50 fast charging locations by 2020
Level 2 On-Street Charging

- Demonstration project by Con Edison in partnership with NYCDOT
  - Includes Level 2 charging next to curbside parking
  - Agreement announced with NYCDOT for 100+ parking spaces
  - Installation to start in 2019
EV Charging in Private Parking Lots

• Local Law 130 of 2013 mandates that at least 20% of parking in new garages will have conduit installed for future EV charging
Clean Fleet
NYC Clean Fleet – EV Initiatives

• City leading by example with goal to reducing fleet emissions by 80% by 2035
• Goal: 2000 EV sedans in City fleet by 2025
  • Ahead of schedule - 1500 EVs in fleet by July 2018
NYC Clean Fleet – EV Initiatives

- City has 500 level 2 chargers for fleet use
- Largest charging network in New York State
- Among the chargers are 37 solar carports
- 11 will be publicly accessible
- May 2018 - $10M committed to install Level 3 chargers
Citywide Utility Support
Business Incentive Rate (BIR) - EV Quick Charging Station Program

- Seven year program offering 34-39% reduction in electricity rate
- 30 MW total allocation
- Chargers must be accessible to the general public
- Must be paired with economic incentive from government entity
Topics for Discussion
Emerging Topics

- Affordability and impact on LMI communities
- Load management and peak demand
- Balancing energy efficiency targets and growing EV penetration
- Multimodal electrification