City GHG Goals
GOAL: SLASH GREENHOUSE GAS EMISSIONS

- Climate change poses an enormous challenge to New York City and the region
- 80 x 50 plan commits NYC to reducing GHG emissions 80% by 2050, 40% by 2030
- In May 2017 the Mayor signed Executive Order 26 to accelerate progress on GHG reduction
- After buildings, transportation is the largest source of the City’s GHG emissions
CITY CAN DO MORE TO CUT TRANSPORTATION GREENHOUSE GASES

Transportation GHG Emissions With Peer Cities (tCO₂e per Capita)

Drivers of Transportation GHG Emissions

Source: Compact of Mayors data for cities >100,000 people with established GHG reductions targets and plans

Source: New York City’s Roadmap to 80 x 50
KEYS TO DECARBONIZING NYC TRANSPORT

- **Mode Shift**: Boost cycling, transit, walking, and shared mobility from two-thirds to four-fifths of all trips by 2050
- **Network Efficiency**: Increase efficiency of road and transit network operations
- **Freight Logistics**: Boost efficiency of freight and last-mile deliveries
- **Fuel Economy Standards**: Support stronger motor vehicle fuel economy standards
- **Electrification**: Accelerate electrification of vehicles
City EV Efforts
CURRENT EV MARKET IN NEW YORK CITY

EV Market in NYC
3000 Battery Electric vehicles registered IN NYC

New EV Registrations in New York City 2011-2016

Number of City & Non-City Charging Stations 2011-16
BARRIERS TO EV SALES GROWTH

- **Vehicle Cost**: EVs have been high cost, due to battery prices, and unaffordable to many consumers.
- **Range**: consumers have been leery of buying EVs due to their limited range.
- **EV Charging Infrastructure Access**: a major challenge in NYC, where many car owners park their on city streets.
NYC lags behind other large metro areas on EVs

Credit: International Council on Clean Transportation
GOAL: 20% OF LDV SALES EVS BY 2025

Citywide EV Infrastructure Roadmap being developed in 2018 to guide policy

On-Street EV Chargers:
- NYC DOT/Con Ed partnership for 100+ on-street type II (220V/30-40 Amp/3.7-6.6kW) EV chargers by 2019

Off-Street DC Fast Charging Hubs:
- $10m to begin development of 5 DCFC hubs (480V/200 Amp/50-150kW) in 2018
- $10m to initiate 50 DCFC hubs by 2020

Municipal Garage EV Charging:
- 29 type II chargers now, 14 more by mid 2018; more conduit-ready
OTHER CITY EV POLICY EFFORTS

- **NYC Clean Fleet (DCAS):** 1,000 municipal EVs now; double by 2025
- **MTA All-Electric Bus (AEB) Pilot:** MTA to operate 10 AEBs on 42nd St and Brooklyn
- **DOT Carshare Program:** two-year pilot starting 2018; may offer opportunity for EV carshare
- **Freight Strategies:** explore incentives and remove barriers for E-trucks and E-trikes
- **Workplace Charging:** Requirements for conduit-ready parking spaces and incentives for investment in chargers
NYCx Climate Action Challenge
“Moonshot” Challenge calls on global tech industry to develop and deliver creative solutions to scale EV charging hubs and accelerate the use of EVs Citywide
TRACK 1: EMERGING TECHNOLOGIES

Examples

- Self-charging streets
- Inductive/wireless charging
- 350+ kW charging
- Solar carports
- Connected vehicle solutions
- Vehicle-to-grid technologies
- New charging technologies using existing street, garage, and building infrastructure.
TRACK 2: IMMEDIATELY COMMERCIALIZABLE TECHNOLOGIES

Examples

• 25-150 kW charging
• Solar parking canopies
• Integrated EV charging
NYCx: CLIMATE ACTION CHALLENGE

Important Dates

• **January 15, 2018:** Express Interest

  *60+ groups submitted 35 expressions of interest:* multinationals, university researchers, electrical grid operators, designers, architects, and others.

• **February 16, 2018:** Submit An Application

• **March 16, 2018:** Announce Finalists

• **April 30, 2018:** Announce Winner(s)

NYCx: CLIMATE ACTION CHALLENGE

Up to four finalists to be awarded $20,000 each to develop and present proposals to key NYC agencies as well as in the City of Paris later in the year.

Finalist ideas will be considered for inclusion in NYC EV Infrastructure Roadmap.
THANK YOU!

Questions?

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