



CITY OF CLEVELAND

Mayor Justin M. Bibb

**MAYOR'S OFFICE OF
SUSTAINABILITY**

EV Charging – 4 city locations

April 17, 2025

Mayors Office of Sustainability



Why EV Charging Stations Matter In Cleveland

- ❑ More EV and Plug-In Hybrid (PHEV) ownership in region
- ❑ Reduce transportation emissions and improve air quality
- ❑ Equitable access for residents – neighborhood locations
- ❑ Visitors to businesses --- "top off" while visiting restaurant, entertainment area, etc.
- ❑ Cleveland's reputation as a sustainable city – tangible evidence of progress on climate action



EV Charger locations – City-Owned – CPP supplied



Canal Basin

- INSTALLED, NOT ACTIVATED
- 2 dual port Level 2 Chargers installed, 4 spaces
- **Downtown visitor location (Capital funding)**



Fredrick Douglas Recreation Center

- INSTALLED, ACTIVATED
- 1 dual port Level 2 Charger installed –
Neighborhood resident location (OH EPA)



Willard Garage

- NOT YET INSTALLED – Q1 2025
- 1 dual port Level 2 Charger
- **Downtown location (NOACA IIJA)**



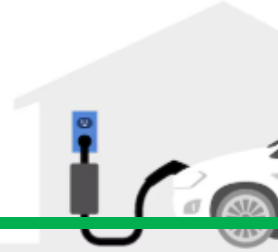
West Side Market

- NOT YET INSTALLED – Q1 2025
- 1 dual port Level 2 Charger
- **Downtown resident location (NOACA IIJA)**

Types of Electric Vehicle Charging Stations

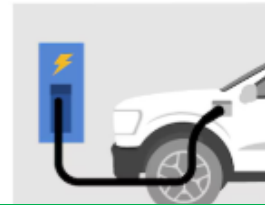
AC - Level 1

- 120V
- Location: Anywhere with a standard outlet
- Range: 3-5 miles per hour
- Charging time from 20%: 30-50+ hours for a BEV and 5-6 hours for a PHEV



AC - Level 2

- 208V-240V
- Location: Home, work, or public station
- Range: 10-20 miles per hour
- Charging time from 20%: 3-8 hours



DC Fast - Level 3

- At least 400-1000V
- Location: Public station
- Range: 80% of capacity
- Charging time: 15-60 minutes or more



EV Charger types

- Level 1 chargers - plug in at home
 - 120V AC outlet
 - Comes with the vehicle
 - 5-6 hrs for Plug-in hybrid,
 - 5 miles of range added in 1 hour
-
- Level 2 chargers - residential and commercial settings
 - 240V or 208v AC line, breaker switch
 - Most common in Public charging
 - 1-2 hours PHEV, 5-6 hours BEV
 - 25 miles of range added in one hour
 - Lifespan 15-20 years with regular service
-
- Level 3 chargers
 - DC Fast Charging
 - Most common in Highway service areas, dealerships and Fleet charging
 - BEV only – 20min – 1 hour to fully charge
 - 180-240 miles added in 1 hour
 - Lifespan 15-20 years with regular service

City of Cleveland Program for EV Charging fee Structure

EV CHARGING STATION FEE CALCULATION

Revenue stream

- Charging Fees

=

Expenses

- Electricity Cost - CPP
- Operation Cost
- Maintenance Cost (including upgrades)

Charging Fee = Electric Charge + Operations + Maintenance

Anticipate initial range of price for customer would be \$0.25 - \$0.40 per kWh



Local Level 2 EV Charging Station rates – range downtown from \$0.16–\$0.60/kWh

North Point Garage

- \$0.61 kWh
- \$3.00 idle=(parked but not charging) fee after 30 mins

PNC Garage –Vincent Ave

- \$0.49 kWh
- \$1.50/hr Idle fee

Terminal Tower Parking

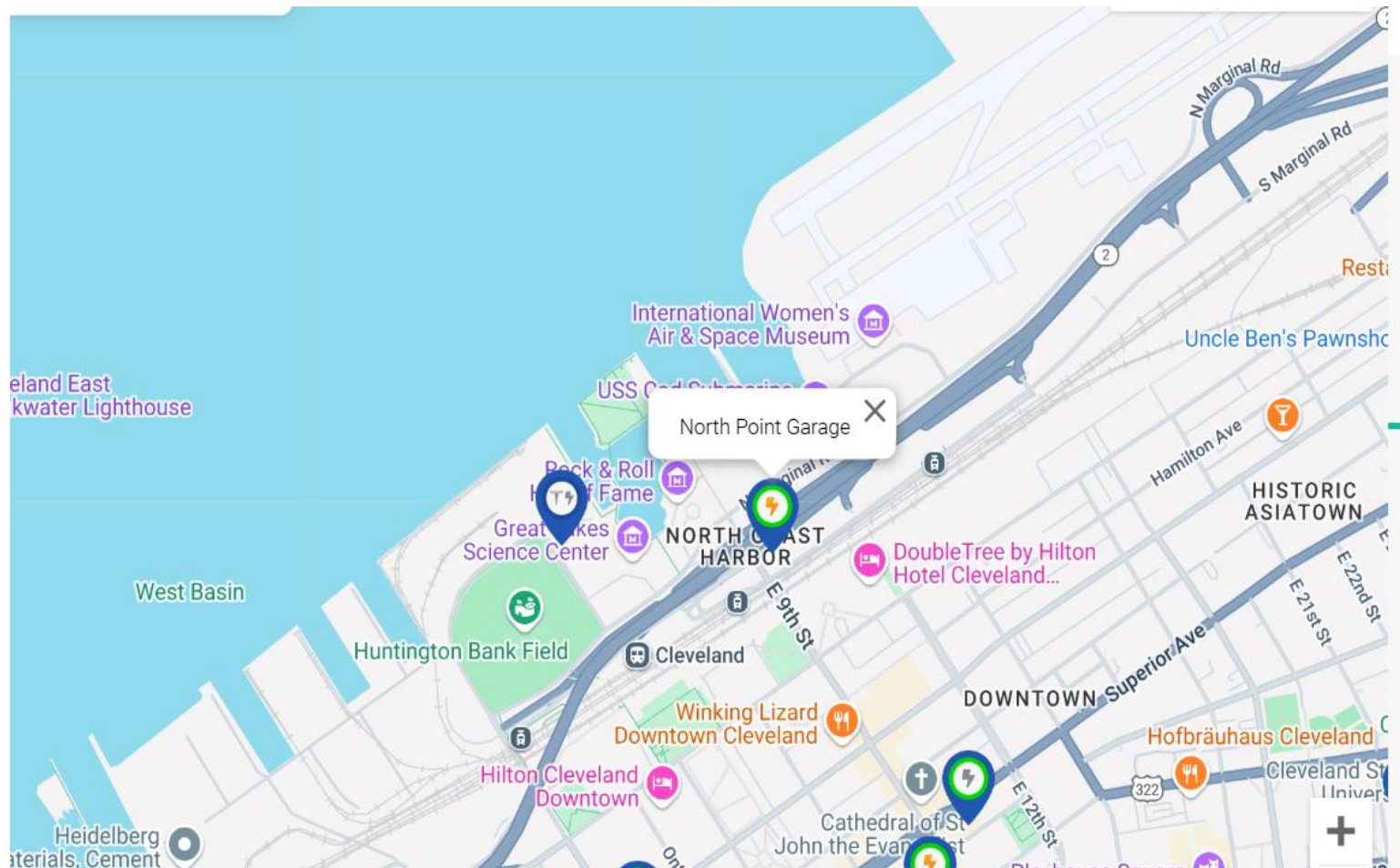
- \$0.40kWh
- \$35.00/hr Idle fee after 120 mins

Tower City

- \$0.16 kWh

Tri-C Metro

- \$.24 kWh



Local Level 2 EV Charging Station rates Greater Cleveland

1 - Baldwin Wallace

- \$0.39 kWh

2 - City of Fairview Park

- \$5.00 per hr 1st hour
- \$2.50/hr after 1st hour

3 - Trinity Block Detroit Ave

- \$0.30 kWh

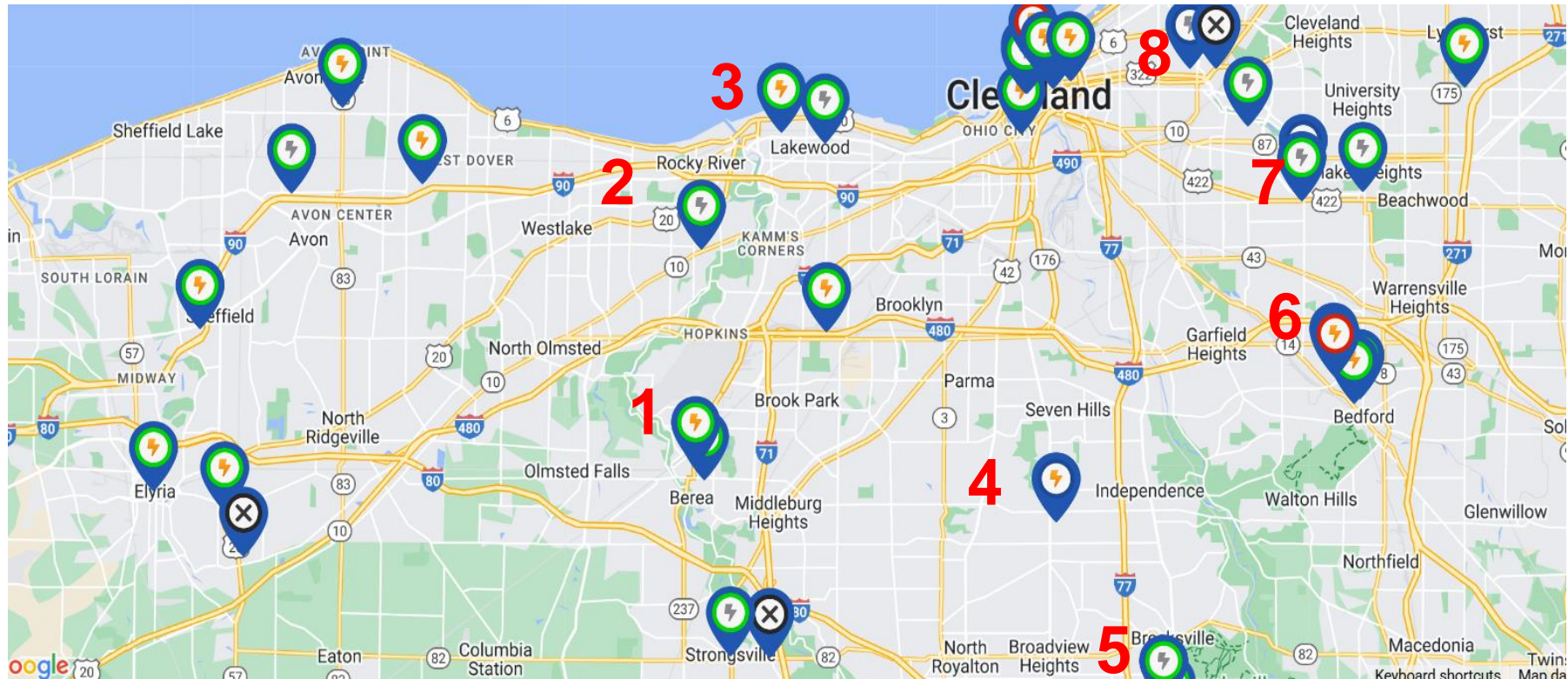
4 - Meijer – Seven Hills

- \$0.00 first 60 mins
- \$2.00/hr after 60 mins

5 - Digeronimo Companies

Brecksville

- \$.30 kWh
- \$4.00 hr idle fee



6 - Kia of Bedford

- \$0.61 kWh

7 - Shaker City Hall

- \$0.20 kWh

8 - University Hospitals Garage

- Cost free for 2 hours –
Currently offline

Q & A



Thank you!

