



Curbside Demonstration Project

Q3 2025 Closeout Report – Appendix E

Oct 30, 2025



Agenda



Overview of Curbside EV Charging Project



Utilization Analysis



Uptime Analysis



User Satisfaction



Community Satisfaction



Financial Viability Analysis



Learnings and Recommendations

Overview of Curbside EV Charging Project



Completed

NYC Curbside EV Charging Demo

First ever electric vehicle chargers in NYC installed with the goal of demonstrating demand and need for public L2 curbside chargers

Dates January 2021 – July 2025

Installed 118 7.2 kWh L2 plugs
100 publicly accessible
18 DCAS exclusive

Budget \$13M original budget for construction to operation and maintenance. Only spent \$9M



Demo spent less on construction and made higher revenue than forecasted

Item	Original Forecast (4 year*)	Results (4 year)	Difference	Explanation
Capital Expenses (Design, Construction, Utility service)	\$9.9M	\$5.0M	-\$4.9M	Original forecast based on linear foot trenching cost. Not EV Specific. *Does not include hardware cost
Net Operation Expenses (Electricity Bill, Labor, Maintenance)	\$3.9M	\$4.1M	+\$0.2M	Spent more on Electricity Bills given high utilization
Total Cost	\$13.8M	\$9.1M	-\$4.7M	
Total Demo Revenue	\$1.1M	\$2.6M	+\$1.5M	4-year revenue with a 12% forecasted utilization
Con Ed Revenue Share	\$.65M	\$1.4M		Con Ed Revenue was deducted from Electricity Bill. So, Operations cost would have been \$1.4M more

* Implementation plan forecasted for 4-years, even though original contract was just for 3 years

Demo shows that curbside chargers are essential EV infrastructure and a viable business opportunity

There is high demand for Curbside chargers

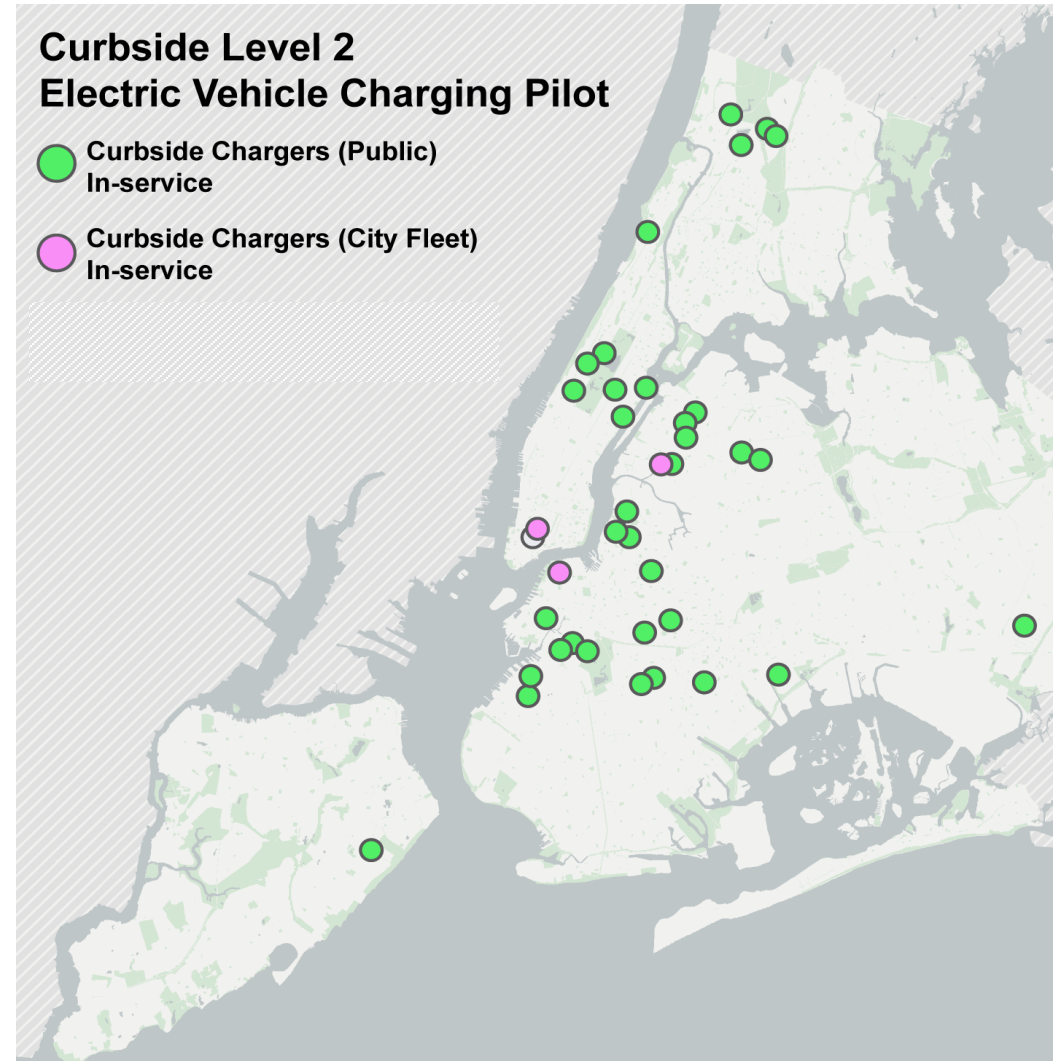
Utilization is at highest level than anywhere else in the country; shows strong market potential in NYC for curbside charging

EV Drivers rely on Curbside and want more chargers

Driver feedback and utilization have pointed that there needs to be more curbside chargers to fulfill high demand

Curbside charging is a financially viable market. PowerReady incentives can help reduce risk and accelerate adoption

By offsetting higher upfront costs, these incentives enable curbside providers to reach profitability more quickly, motivating faster deployment of chargers to capitalize on available support.



Note: Demo analysis focused solely on 100 public L2 plugs

Demo tested three hypotheses focused on how curbside chargers can impact EV ecosystem and adoption

Hypotheses

- Curbside EV Charging can have a significant role in the EV charging ecosystem

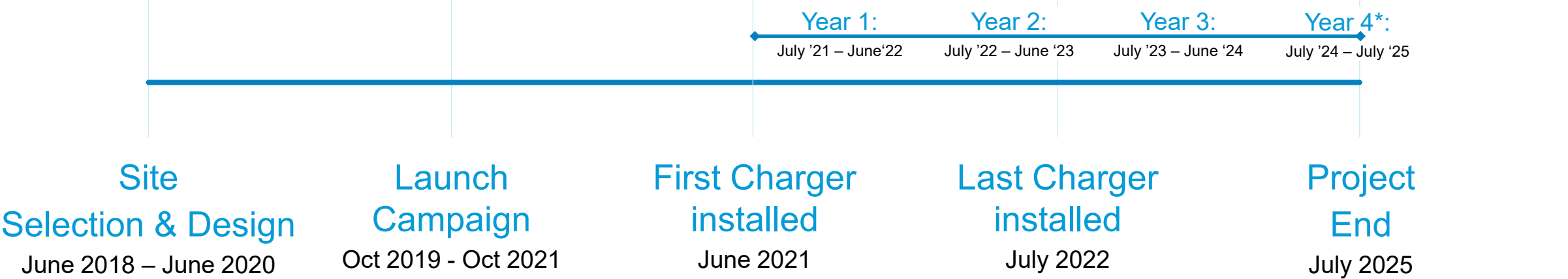
- Community stakeholders will accept curbside EV charging stations

- Curbside EV Charging can be a sustainable business

Demo tested three hypotheses focused on how curbside chargers can impact EV ecosystem and adoption

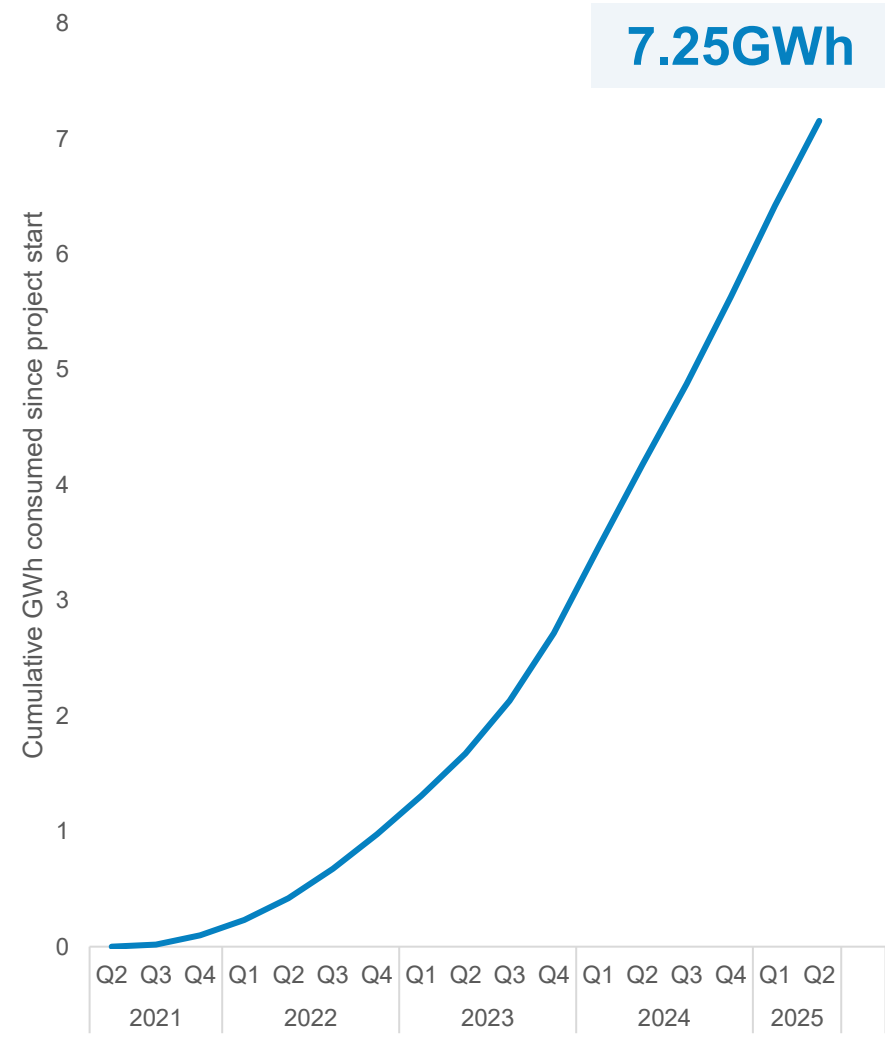
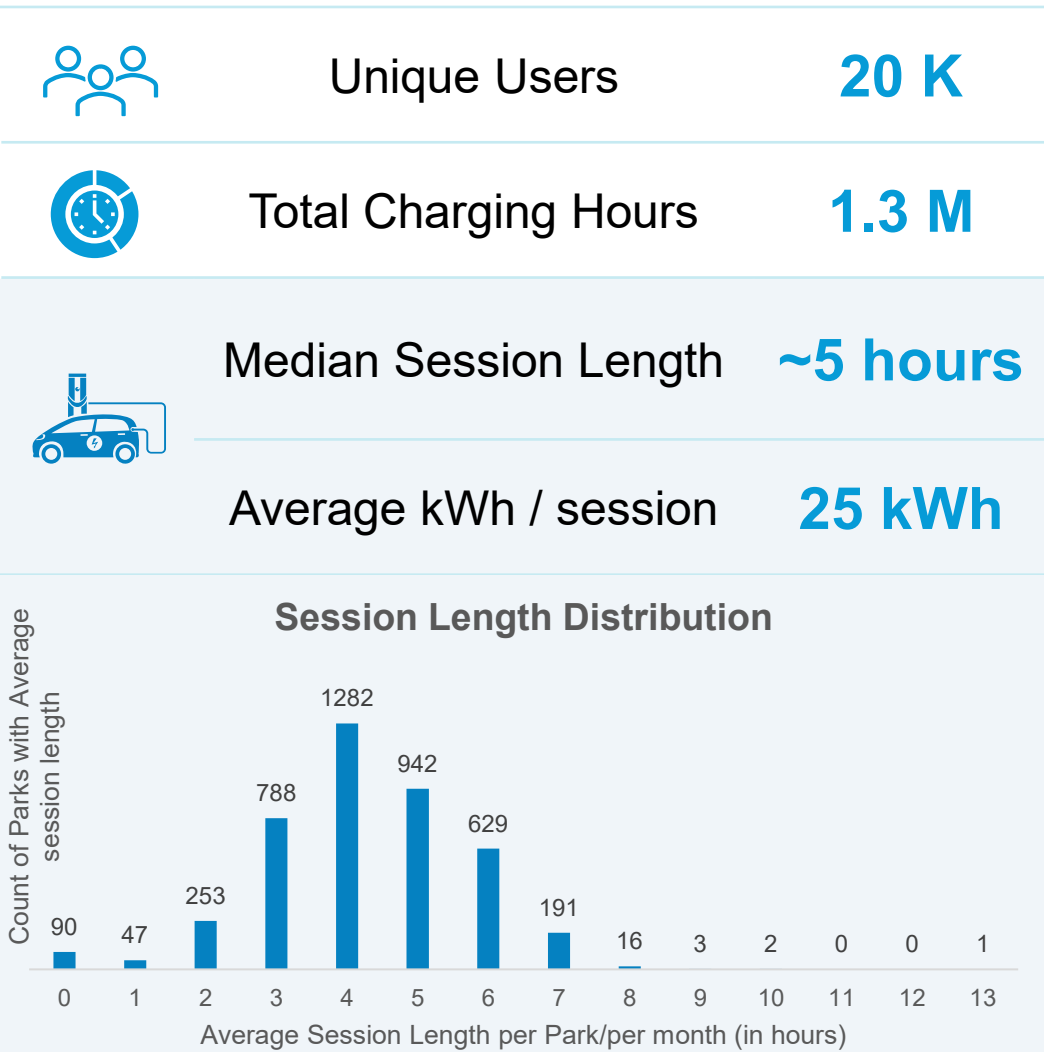
Hypotheses	Metric	Data	Target	Result	Explanation
Curbside EV Charging can have a significant role in the EV charging Ecosystem	Utilization	System Median (% of time that chargers are in use)	Year 1: 8% Year 2: 10% Year 3: 12%	Year 1: 27% Year 2: 43% Year 3: 67% Year 4: 72%	Projections based on existing curbside pilot in LA
	User Satisfaction	FLO Driver Survey - Satisfaction Score	Year 1: 80% Year 2: 85% Year 3: 90%	Satisfaction Score = 62%	Survey indicates that the biggest “dislike” is <u>not enough</u> curbside chargers
Community stakeholders will accept curbside EV charging stations	Community Satisfaction	Community Survey - Satisfaction Score	Year 1: 50% Year 2: 60% Year 3: 80%	Year 1: 24% Year 2: 28% Year 3: 24%	Community survey includes gas car owners and non-car owners who brought down satisfaction score. EV drivers/prospects slightly higher satisfaction but still lower than targeted.
Curbside EV Charging can be a sustainable business	Station Uptime	Operating hours over total hours in a period	Median 95% throughout project length	99% throughout project length	Main priority for Demo to show curbside as a reliable charging option for NYC drivers.
	Financial Viability	Sales Revenue / Operating Expenses	Year 1: 30% Year 2: 60% Year 3: 100%	Year 1: 60% Year 2: 73% Year 3: 87%	100% metric was not achievable under conditions set in implementation plan. Plan suggested “pricing” can be changed to hit metrics, but Con Ed and DOT preferred to keep chargers affordable.

Demo has been in the works since 2018, with four full years of operations



**Project was extended for a fourth year*

Demo saw exponential growth and use throughout project length



Demo's pricing structure prioritized making it an affordable option to encourage EV adoptions

This positively impacts utilization but also limits project revenue

Demo Pricing Structure

\$/kWh Equivalent

Daytime (6am – 9pm)

\$2.50 / hour

\$0.35/ kWh

Overnight

\$1.00 / hour

\$0.14 / kWh

Network ¹	Sample	Pricing			
		Charging Type	Low	Average ²	High
Tesla	6	L2	Free	\$0.45 kWh	\$0.75 kWh
Chargepoint	8	L2	Free	\$0.30 kWh	\$0.50 kWh
Blink	5	L2	\$0.49 kWh	\$0.59 kWh	\$0.69 kWh
Livingston	5	L2	Free	\$0.49 kWh	-
EV Connect	4	L2	Free	\$0.27 kWh	
		L2 (Average)	Free	\$0.45 kWh	\$0.75 kWh

Note: Pricing data pulled directly from the network's websites & apps. Only includes the average price for stations that charge a kWh price. Calculates the average within each pay band

Demo had a robust set of data to draw conclusions from



FLO Data Sources

Report focusing on 100 Public L2

- Session Level Data
- Electricity Bills
- Revenue
- Maintenance Cost & Tickets
- Monthly Utilization
- Charger Uptime



Surveys

Community Survey

Surveyed residents who live near curbside chargers every 6 months

FLO Driver Survey

Surveyed EV drivers who have used FLO Curbside Chargers



External Data Sources

- Open Data Income by Zip Code
- TLC Open Data driver registration
- NYC Open Data monthly EV registrations
- NYC.gov EV charging guidelines

Utilization Analysis

System Median - % of 24 hour period that
chargers are in use

Target: 12% by Year 3

Record breaking utilization proves hypothesis that curbside chargers are vital to the charging ecosystem

Utilization Analysis key takeaways

Utilization surpassed metric of success by over 6x

Projections were based on existing LA curbside charger pilot. Show's that **NYC has much higher demand for curbside chargers**

Most utilized stations in lower-income zip codes after 2024

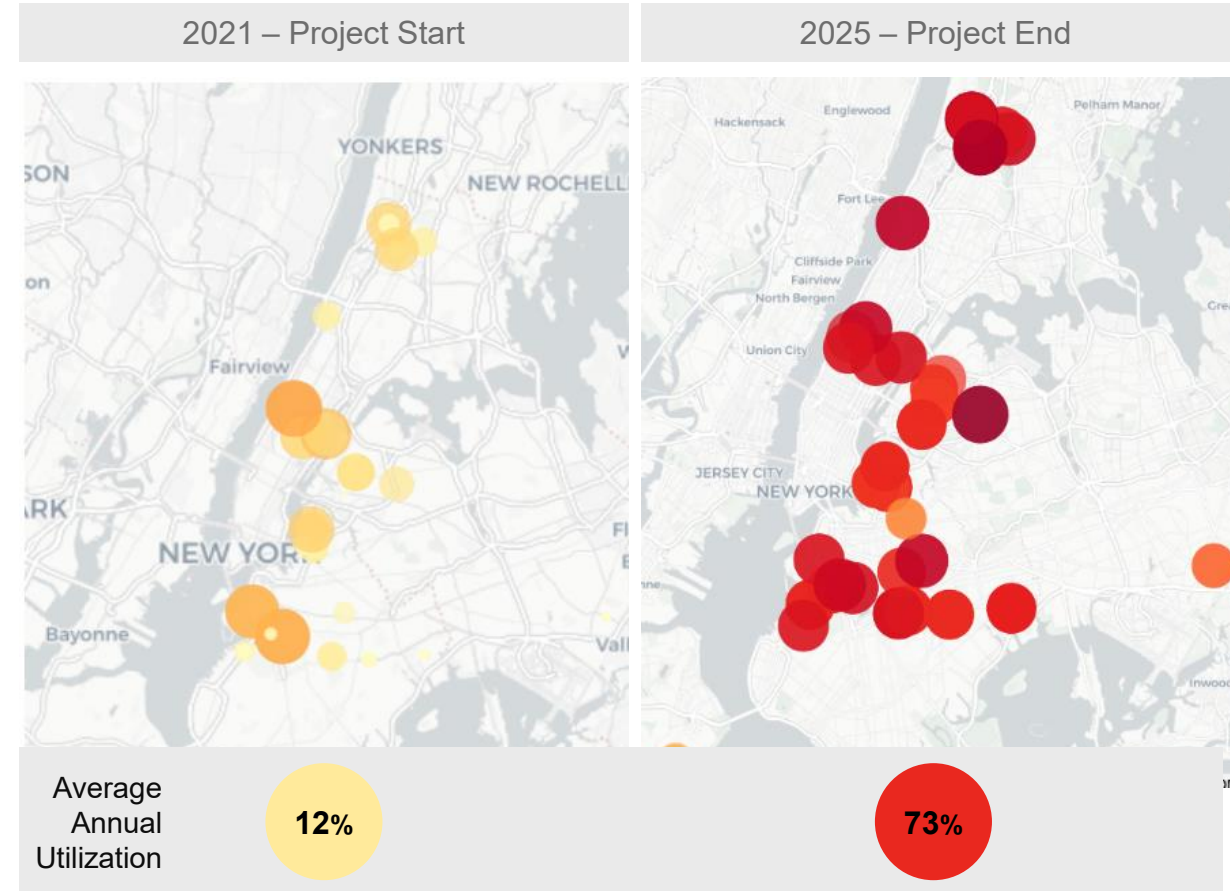
Curbside charging plays a critical role in ensuring equitable access to EV infrastructure for all NYC drivers

Chargers are operating close to capacity

High utilization and low idle time signal strong demand and the need for more chargers to support growing usage. Indicates **demo reached upper limit of utilization**

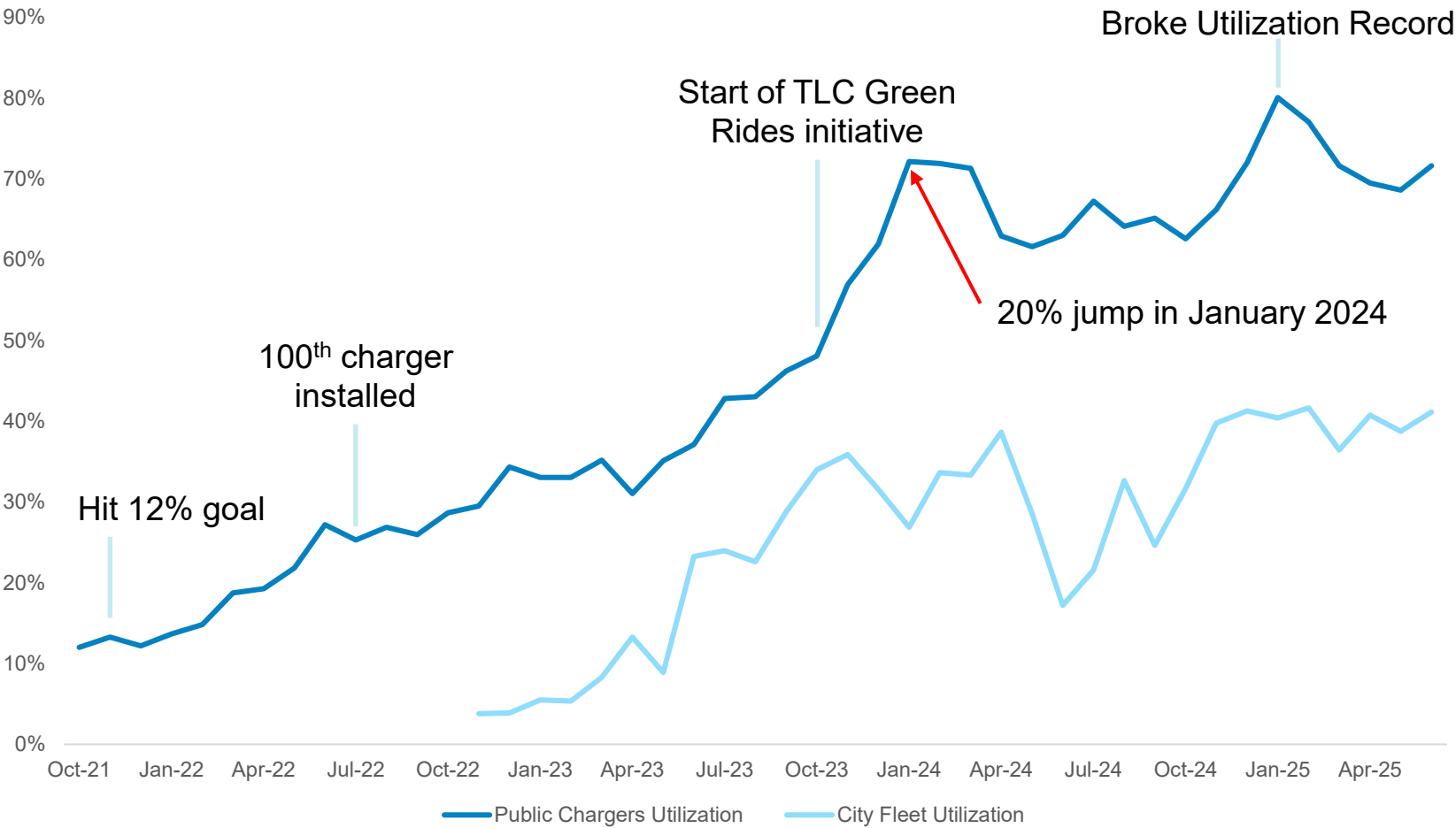
TLC drivers heavily depend on curbside charging

The Green Rides initiative drove a surge in utilization across the Bronx, Queens, and Brooklyn. **Top-performing chargers are concentrated in areas with high TLC license density**



Utilization surpassed 12% target in the first month of pilot and continued to grow. Major increase in January 2024

Utilization per month



Milestones

Max Public Utilization

80%
(Jan 2025)

Highest Station Utilization

99%
Jackson Heights, Queens

Max City-Fleet Utilization

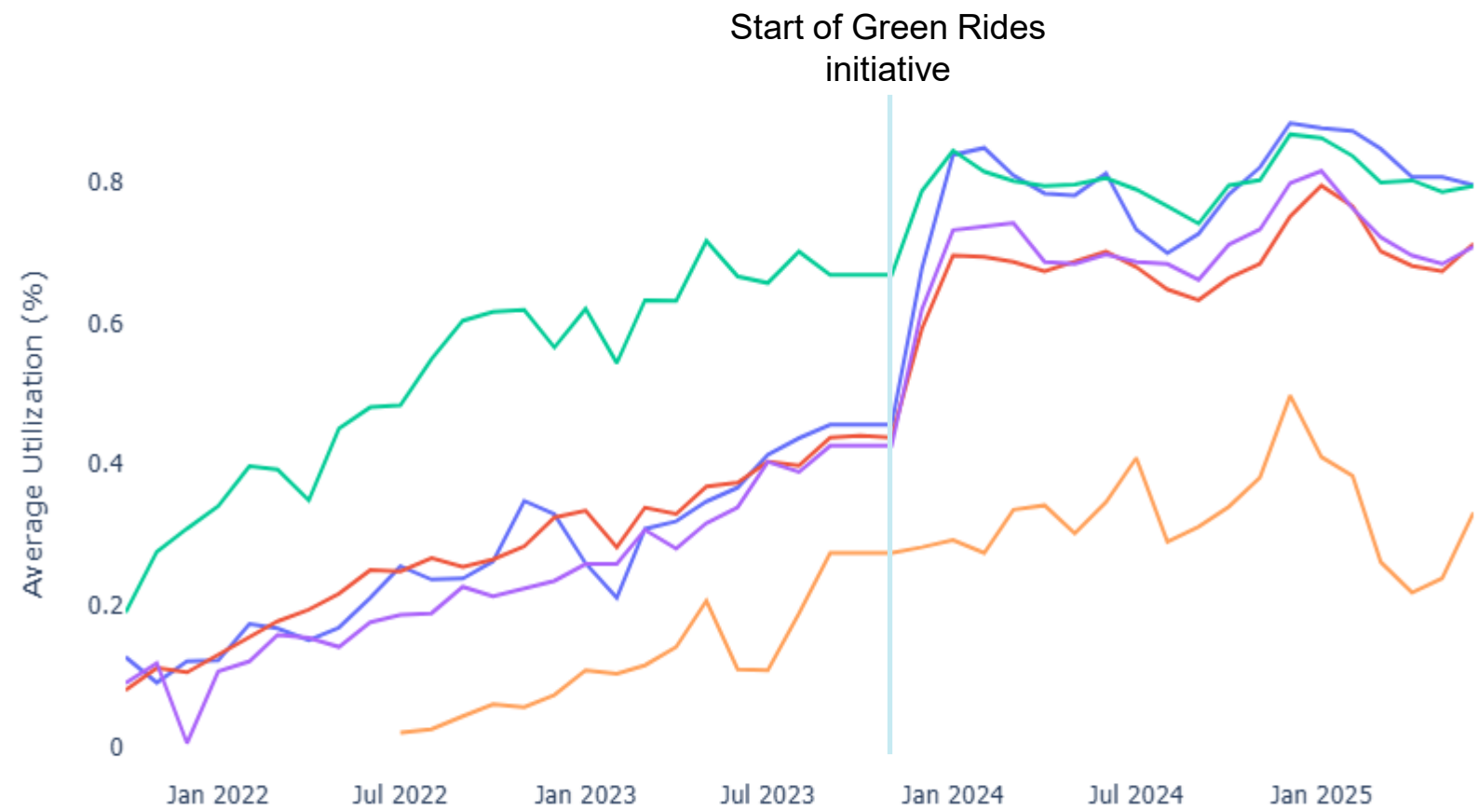
41%
(Jan 2025)

Takeaway:

Utilization trends and behavior significantly changed after **January 2024**

Manhattan initially had highest utilization, but other boroughs caught up after TLC Green Rides Initiative

Average EV Charger Utilization over time by Borough



Average Utilization by Borough

Borough	Average Utilization (From project Start)	Utilization (2025)
Manhattan	66.3%	81%
Brooklyn	47.8%	72.2%
Bronx	52.1%	83.5%
Queens	47.4%	73%
Staten Island (n=1 station)	23%	30.7%

Highest utilized stations in 2025 were in zip codes with lower median income

Total Utilization vs Median Income by Zip code (Year 2025)



Average Utilization by Median Income

Neighborhood Income Level	Utilization
Top 20%	79%
High-Mid 20%	71%
Mid 20%	67%
Low-Mid 20%	79%
Low 20%	75%

Takeaway

Utilization is high across all income groups, showing curbside is an important part of charging ecosystem for **all New Yorkers**

TLC Green Initiative Drivers rely heavily on curbside chargers

Green rides initiative impact on Utilization

➤ Count of Electric FHV's

TLC Announces Green Ride Initiative in October 2023. 10,749 EV's registered TLC's as of July 2024

Utilization Jump

From October 2023 to January 2024, utilization jumped from 50% to 72% system wide

Top utilization stations in TLC dense neighborhoods

4 out of the 5 most utilized stations are in Zip Codes with the highest TLC registration

Supporting Green Initiative Goals of 100% electric rides by 2030

60,000+

EV's needed

~25%

Rely on curbside

70-120

Miles per day

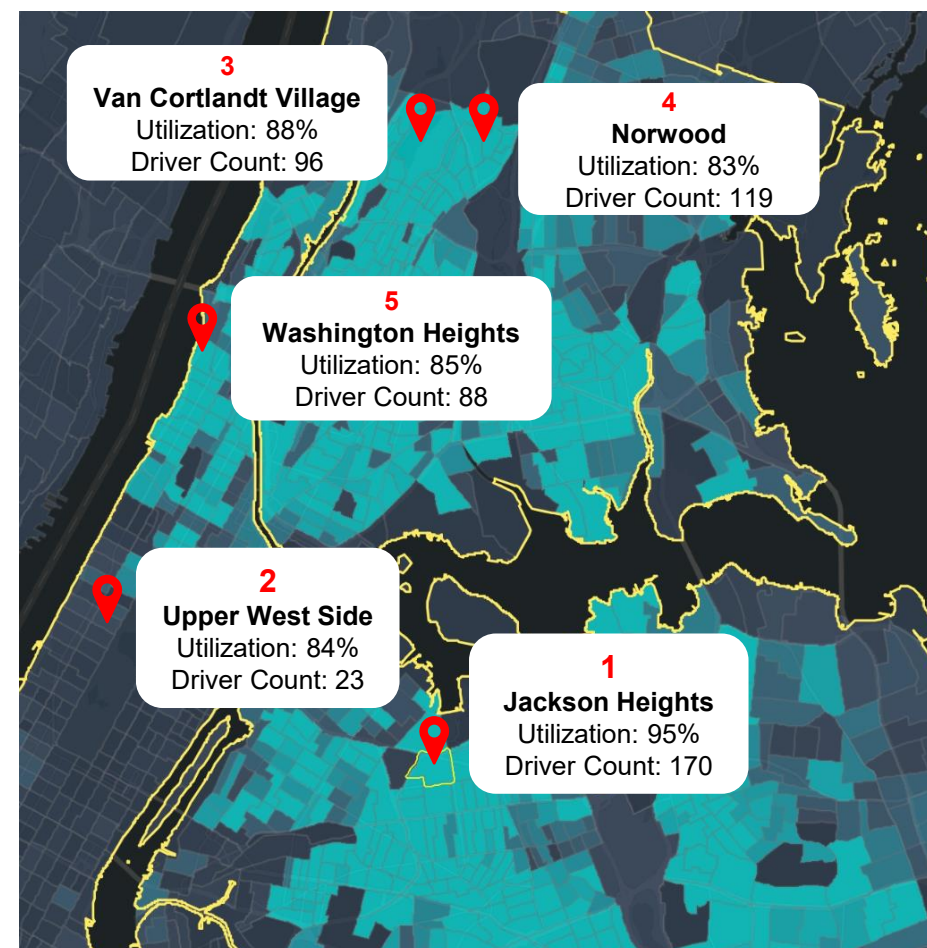
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4k-6k

Curbside chargers
needed

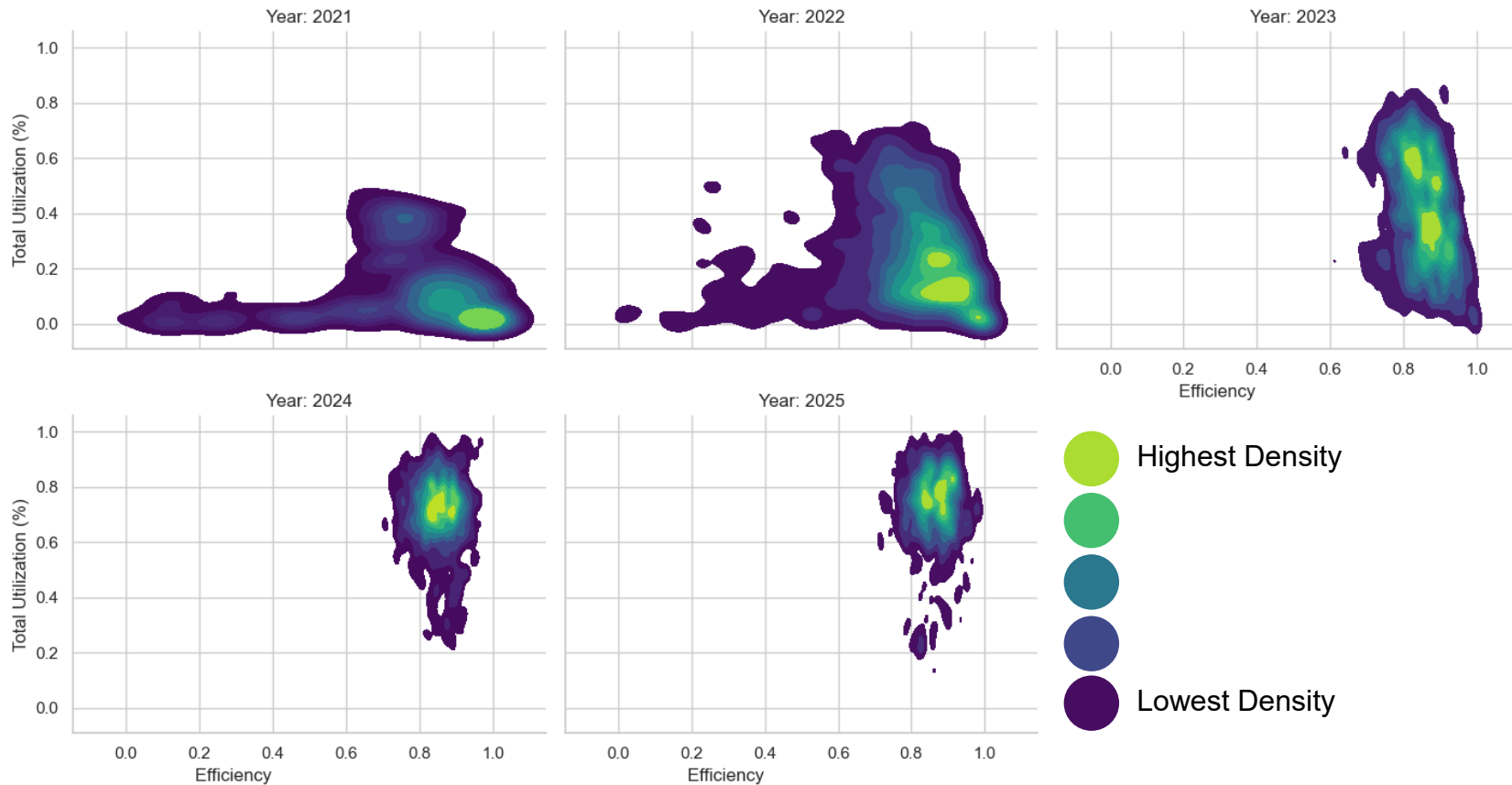
Assumptions: Utilization 50%, 7.2kw chargers, vehicle efficiency = 3.5 miles/kwh

Top 5 most utilized stations



Efficiency averages above 80% at all utilization levels, indicating there is low idle time

Efficiency vs. utilization density plot YoY



Takeaways

Efficiency has steadily improved year over year

Extended idling is not a major issue in NYC, even without incentives to move vehicles post-charge

Efficiency remains high (above 80%) regardless of station utilization level

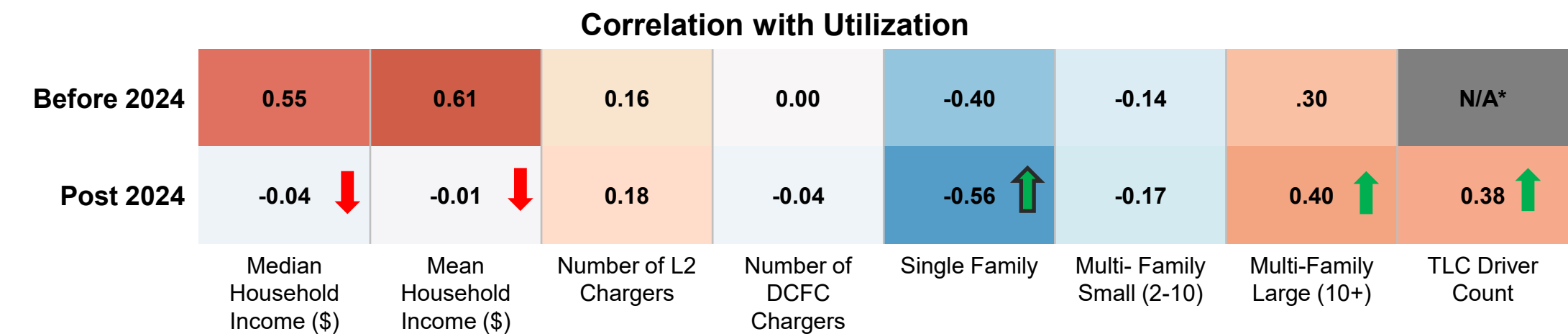
Curbside charger providers should still factor in idling fees. With high utilization, minimizing charger downtime is key to ensuring availability.

Efficiency = % of charging session where car is charging, not idling

Correlation analysis shows that utilization has a higher correlation to TLC than median income after 2024

Utilization patterns changed after January 2024, following the Green Rides initiative. The data was segmented to identify potential new drivers of change

Heatmap of correlations between variables



Takeaway: Before 2024, median income had a strong positive correlation with station utilization -- the higher the income per zip code, the greater the charger use. After Jan. 2024, this correlation became negligible, indicating more equal use across income levels. Instead, post-2024 utilization correlated strongly with fewer single-family homes and moderately correlated to TLC driver counts.

*Didn't have TLC data by year, incorporated after Green Rides initiatives when EV TLC registration hiked

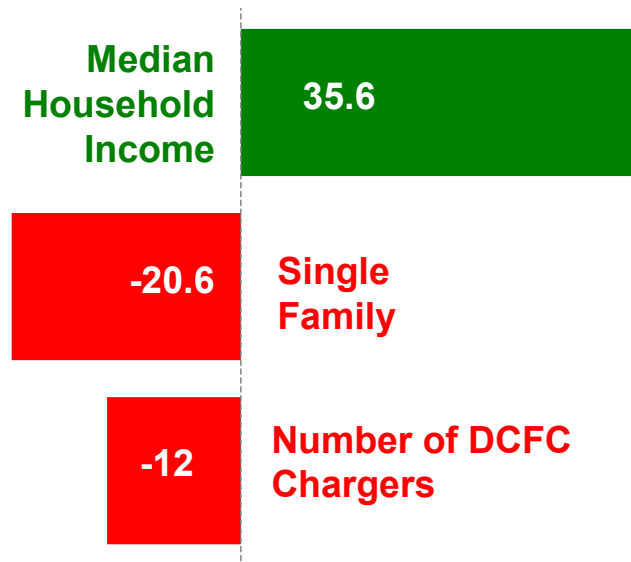
Multi-Family Housing and TLC driver density were the strongest predictors of Utilization after 2024

Regression analysis shows a shift from income-driven to TLC-driven utilization

Multi Linear Regression Coefficients

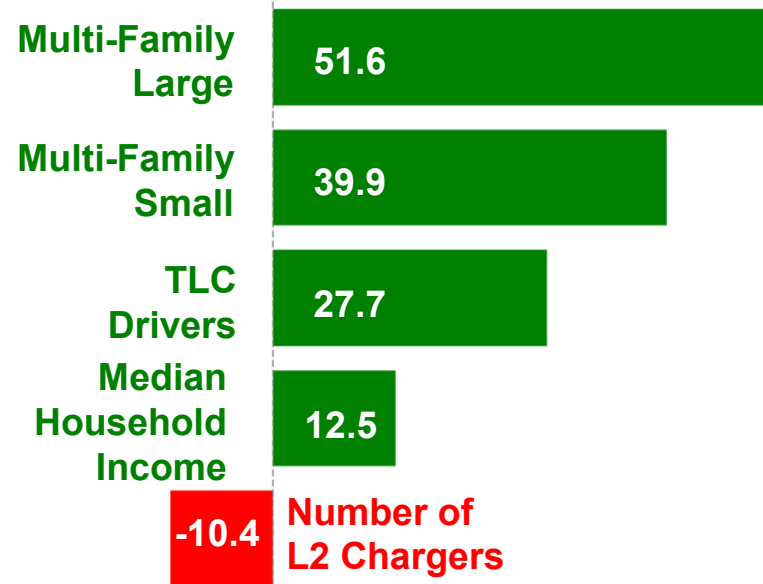
Coefficient Value (Change in Utilization for Full Range Change in Feature [Min → Max])

Before Jan. 2024



From the min to max household income, utilization increases by 35.6 per zip code, independent of other factors

Post Jan. 2024



From the min to max number of multifamily home, utilization increases by 51.6 per zip code, independent of other factors

Takeaways

Before January 2024: Higher median income was the strongest predictor of charger utilization. In contrast, areas with more single-family homes and more DCFC chargers saw lower utilization.

Post January 2024: Multi-family housing and TLC driver presence became the biggest drivers of utilization. Median income still impacted utilization, but much less than before.

Overall Insight: Charger utilization tends to be higher in areas that either have limited access to alternative chargers, higher housing density, or a greater presence of professional drivers. Each of these factors independently contributes to increased usage

Uptime Analysis

Operating hours over total hours in a period

Target: 95% each quarter throughout project length

High uptime was a main priority to show curbside charging as a reliable charging option through demo

Uptime Key Findings

To ensure 95% uptime, focused resources on preventative maintenance

- Per our contract, Flo would have been penalized if uptime was below 95%.
- **Focus on preventative maintenance** reduced corrective maintenance needs

Potential for Economies of Scale

- Low density of chargers made operations less efficient
- Expect that current maintenance operations **could have supported at least double the number of chargers**, improving cost efficiency and lowering per-unit maintenance expenses.

High uptime came with high cost

- Flo hired full time staff, truck and storage unit to support maintenance needs
- Maintenance costs for **Demo were much higher than current industry standard**
- At the time of Demo launch, Flo contract was cheaper than alternatives

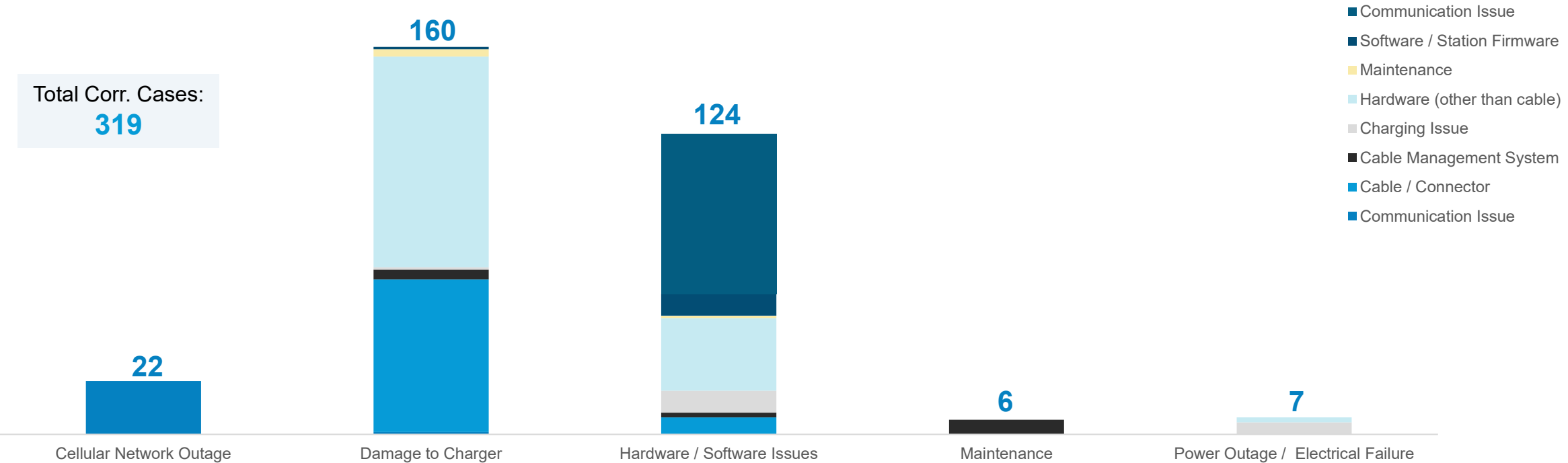


Maintained a high uptime throughout demo, but this has come at a high maintenance cost

Curbside Demo		
System Uptime	Quarterly O&M Cost	Preventative Total Cases
>99%	~\$1,000/plug	3229

National Industry Benchmarking	
Average Uptime	Average Quarterly O&M Cost
~75% - 85%	\$75/plug*

Corrective Maintenance Request by Category of Issue



* Average national cost for L2 chargers from industry study. Not specific to curbside charging or New York City costs

User Satisfaction

FLO Driver Survey – Satisfaction Score

Target: 90% by Year 3

FLO survey provided key findings regarding user satisfaction and charging behavior

User Satisfaction Key Findings

EV Satisfaction strong, dissatisfaction stems from lack of chargers

62% of users are satisfied with FLO chargers - below our 80% target - but overall satisfaction remains strong; **the main concern is insufficient charger availability.**

ICE'ing remains a top concern

Internal Combustion Engine (ICE) vehicles blocking chargers seems to be a consistent problem based on survey results. Suggests that **actual utilization could be higher if access were unobstructed.**

Presence of FLO Chargers positively impact decision to purchase EV's

User feedback indicates FLO chargers influenced EV purchase decisions which was one of demo's core objective.



Background, Objectives and Methodology

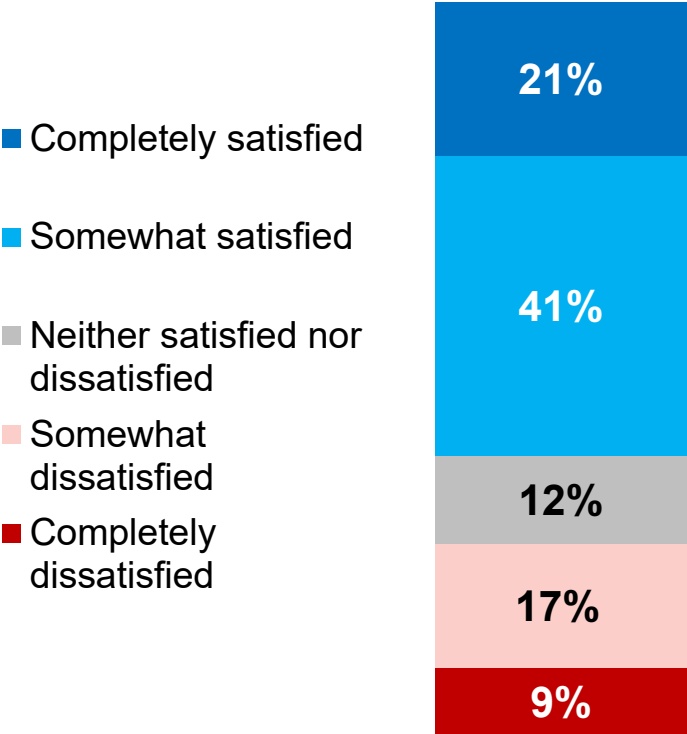


This is a closeout survey, where we asked NYC drivers, who are account holders with FLO for the curbside chargers, about their experience with these chargers.

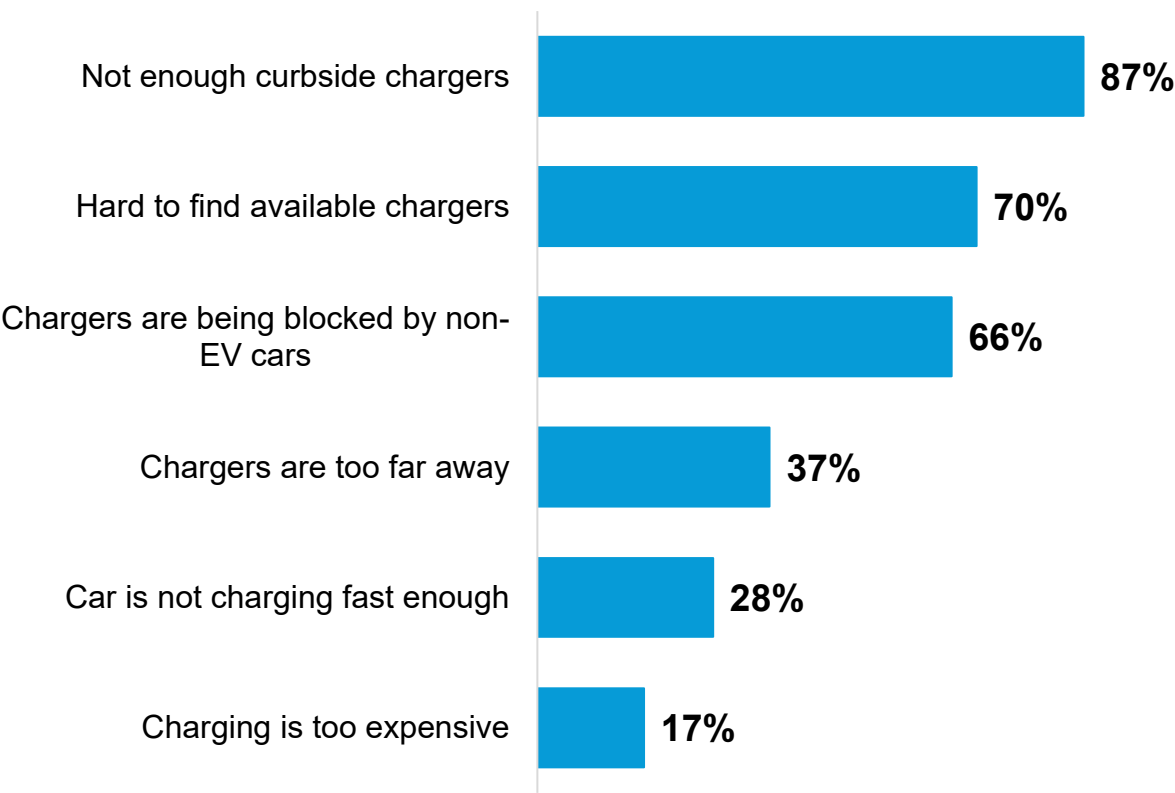
Audience	Con Edison customers in the service territories who are account holders with FLO for the EV curbside chargers
# of Participants	n=676
Response Rate	4%
Testing Period	6/11/2025 – 7/7/2025
Method	Online survey

Most customers are satisfied with using the FLO curbside chargers, though frustrated by lack of chargers and ICE'ing*

Satisfaction of FLO Chargers



Reasons Not Completely Satisfied with Chargers

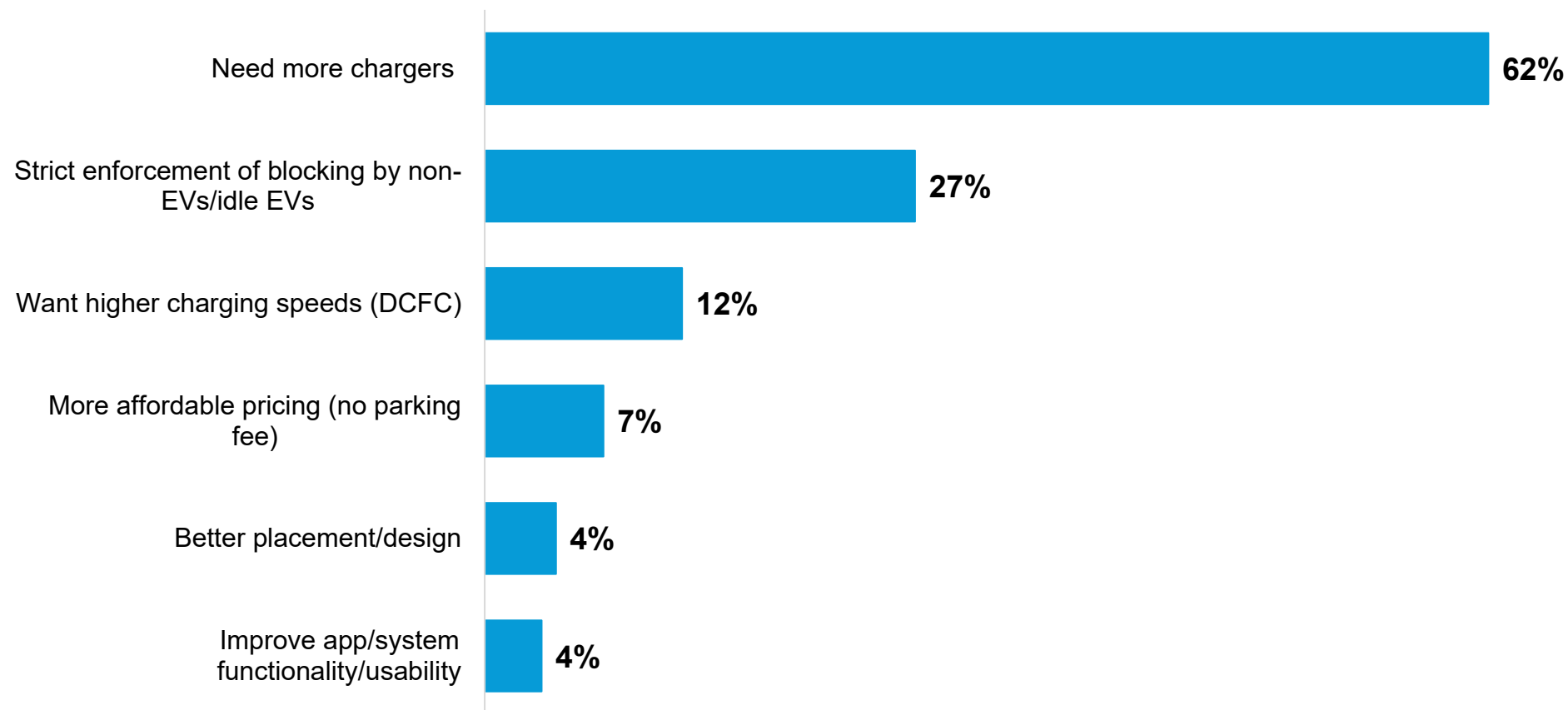


Q1 - Overall, how satisfied are you currently with using the FLO EV Curbside Chargers? (Base: Total n=676)

*Chargers blocked by Internal Combustion Engine Vehicle

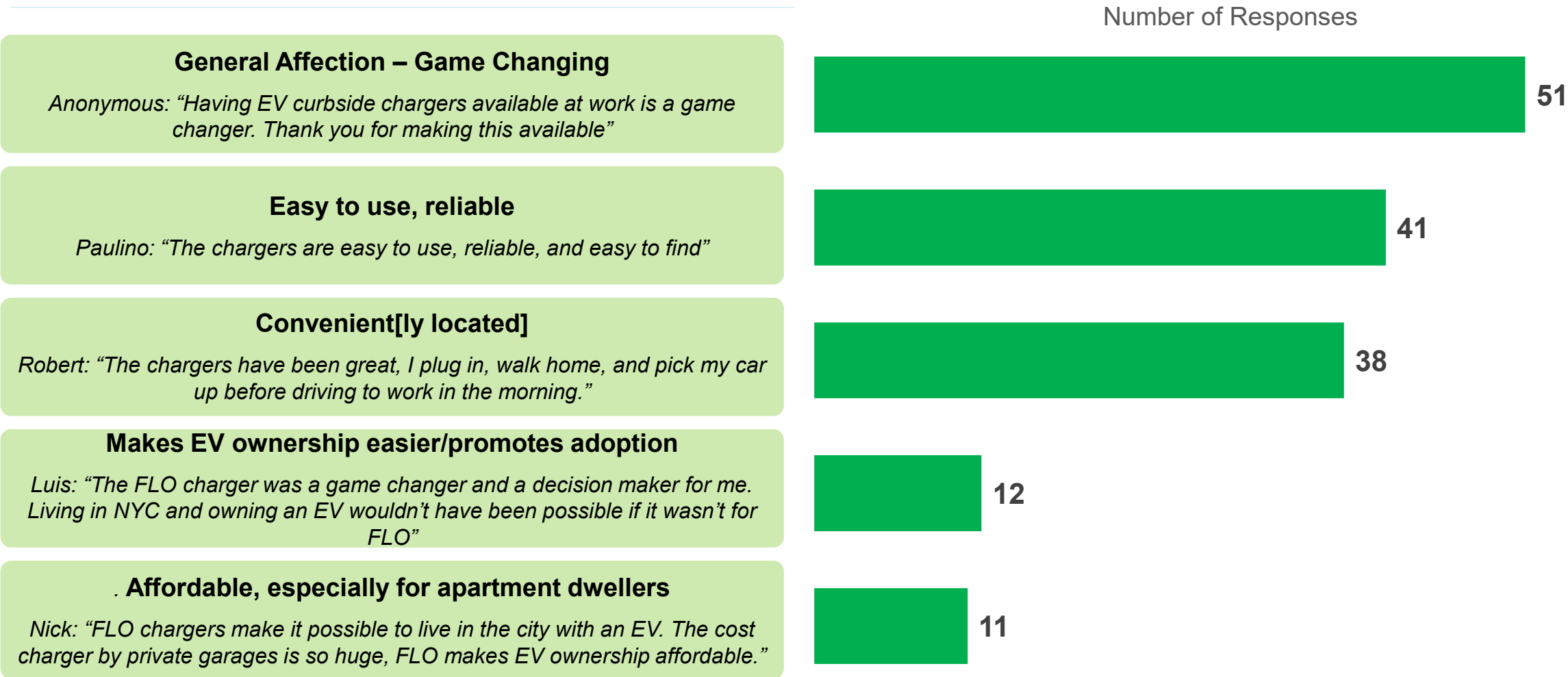
Drivers want to see more chargers and stricter enforcement against ICE'ing

Suggested Improvements



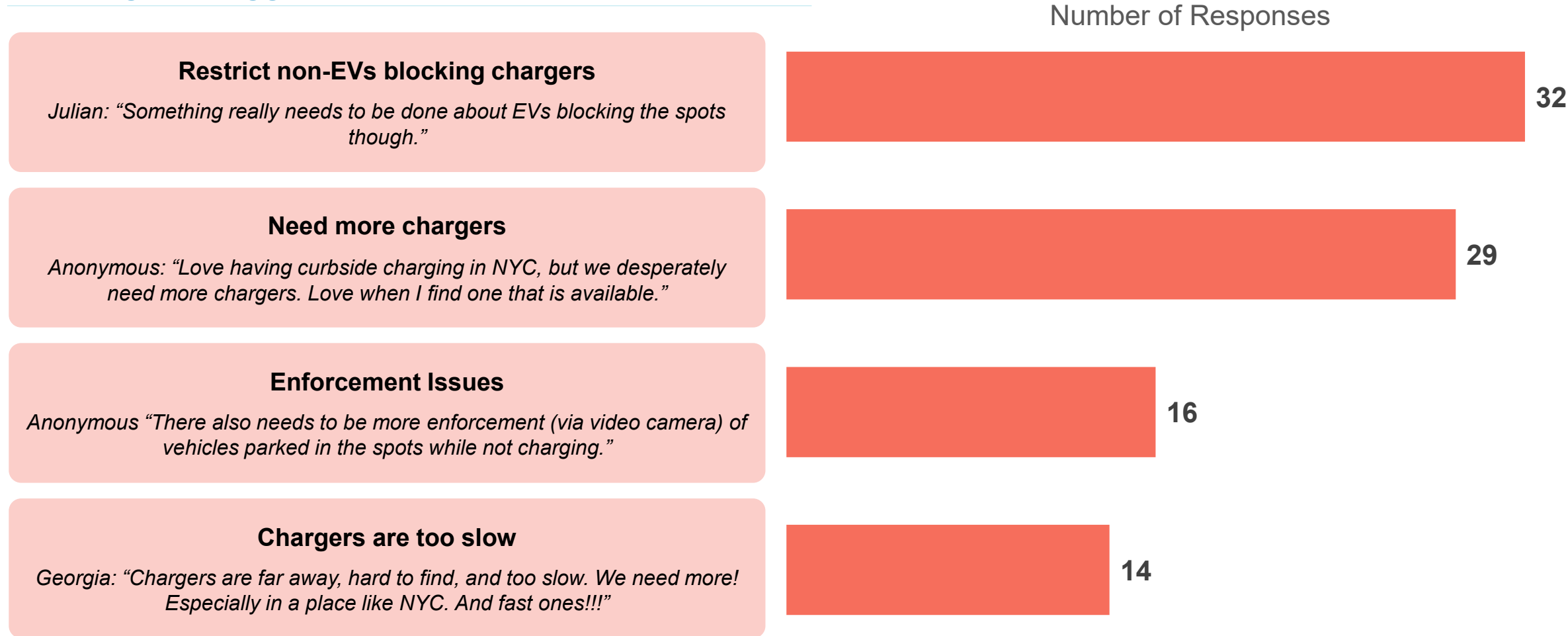
Customers shared positive sentiments about how chargers have helped their transition to EV's

Positive Sentiments of testimonials



ICE'ing was the most significant concern in the testimonial, highlighting strong negative impact on drivers' experiences

Challenges / Suggestions from testimonials



NYC DOT completed a study on ICEing 18 months into the demo, which showed ICE'ing to be a recurring issue

DOT takeaways from 2023 study

ICE'ing occurred on a regular basis

EV's parked 33% of the time and ICE vehicles blocked for 14% of the time (unoccupied otherwise). This study was conducted when utilization levels were lower

75% of ICE'ing lasted less than an hour

Suggests that ICE vehicles took opportunity to park for a quick errand

NYPD have issued tickets to avoid issue

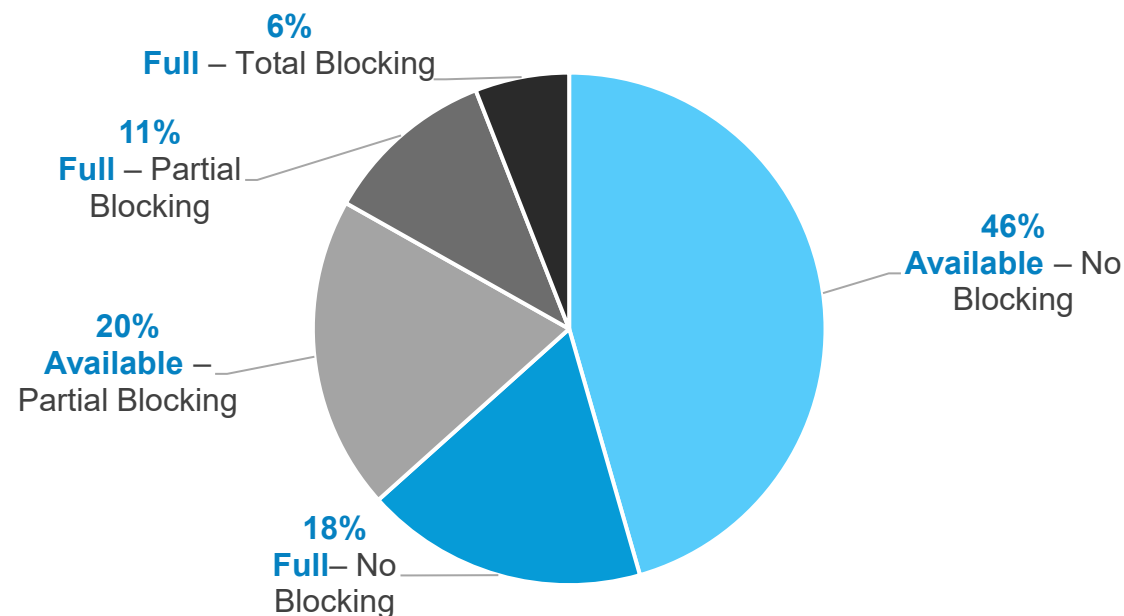
In the first 18-month period, NYPD issued 3,200 summons of non-compliant vehicles blocking chargers

Charger availability

Available = at least one charger is available for use

Full = all chargers used or blocked

Blocking = If one or more chargers at a site is blocked by an ICE Vehicle

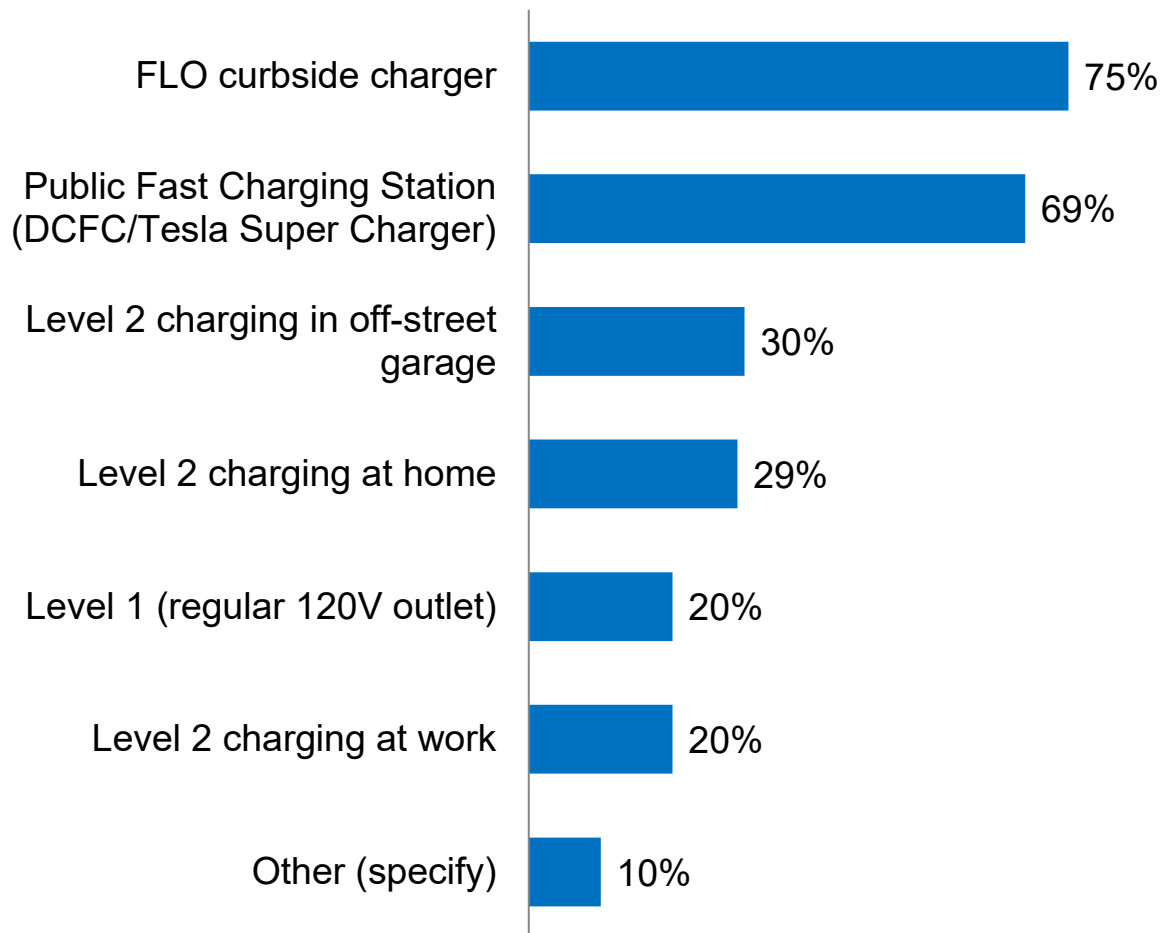


Takeaway: ICE vehicles **fully blocked chargers 6% of the time**, but **partially blocked 30% of the time**. Since then, charger utilization has increased significantly, suggesting that ICE'ing has decreased. However, the surge in demand means that any instance of ICE'ing has a greater negative impact on the driver experience. Strict enforcement of traffic laws is essential to prevent ICE'ing and improve availability

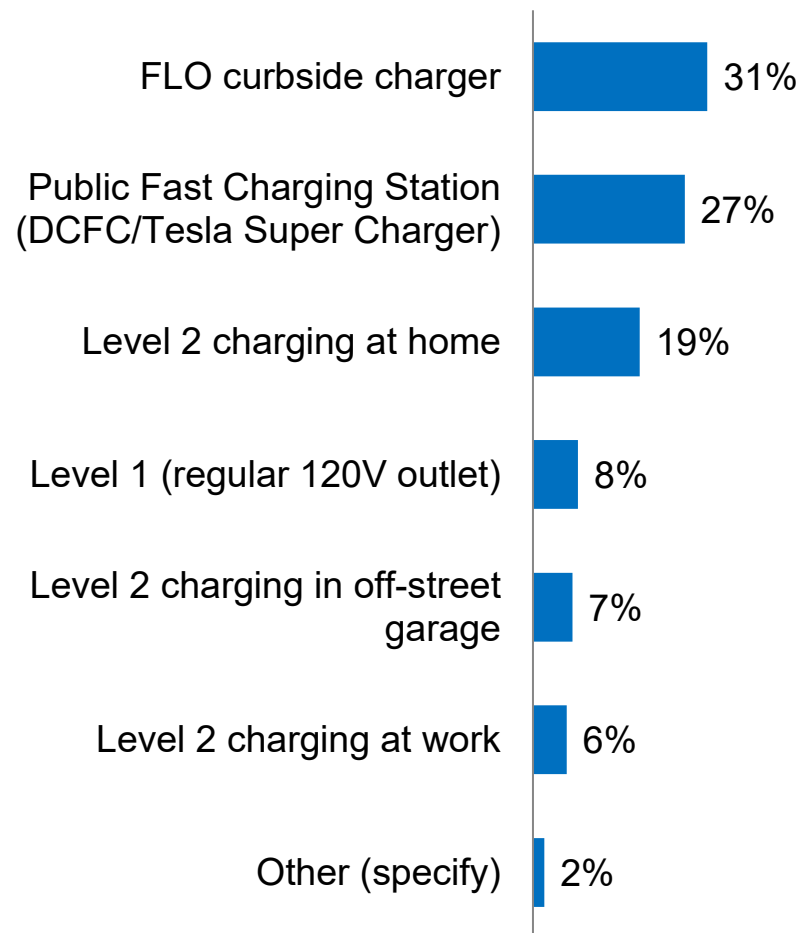
Note: Data based on "ICE'd Out: A Study of Utilization and Violations in NYC's Curbside EV Charging Pilot Program" presented by DOT at ITE Annual Meeting 2024

Drivers using curbside charging typically charge EVs at a FLO curbside charger or a DCFC/Tesla Super Charger

75% of customers selected FLO as one of their top 3 charging locations



30% of customers use ranked FLO #1 as most frequently used

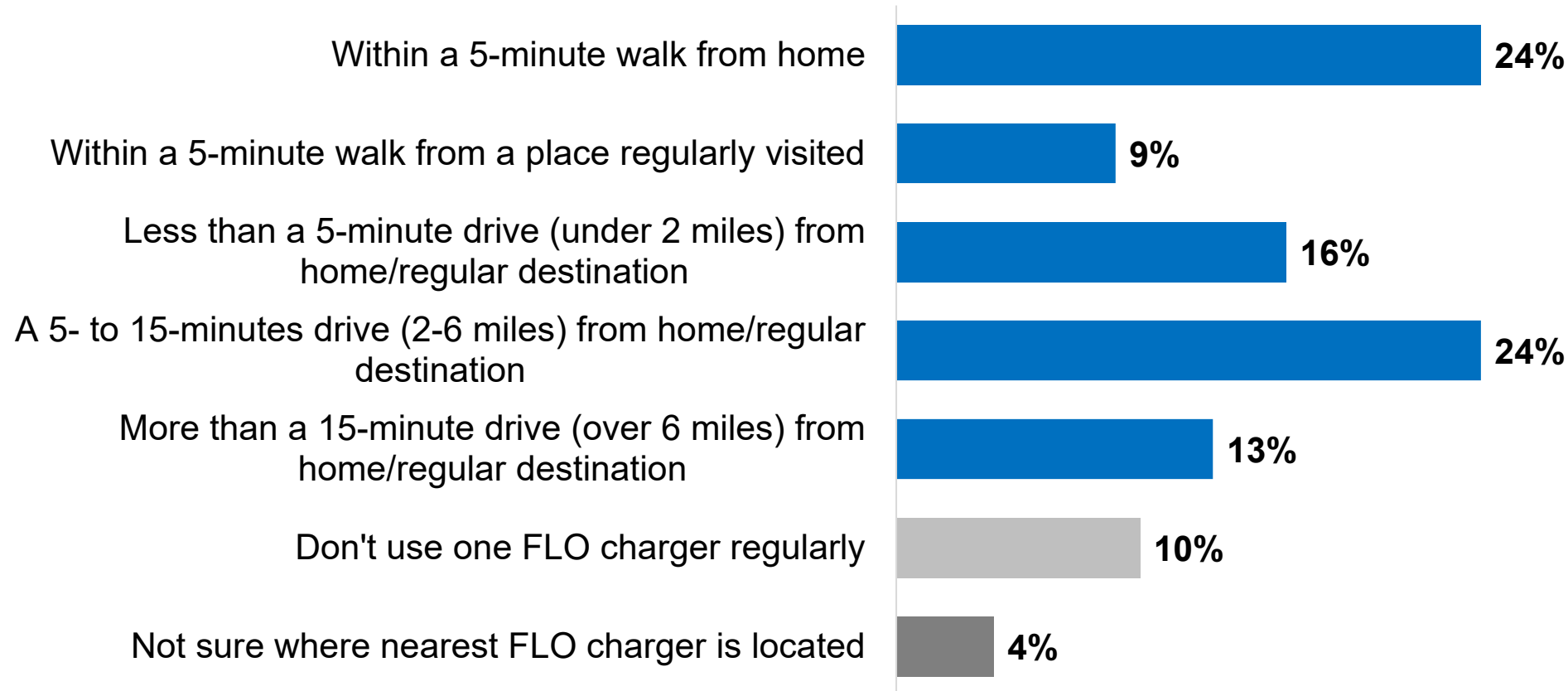


Q8 - Please rank up to three places where you typically charge your EV; a "1" is where you charge your vehicle the most frequently, a "2" is where you charge your vehicle second most frequently and a "3" is if you charge it at a third place. (Base: Total n=676)

The FLO chargers used most regularly are relatively close to customer homes / regular destinations

Indicates that proximity to charger largely impacts use

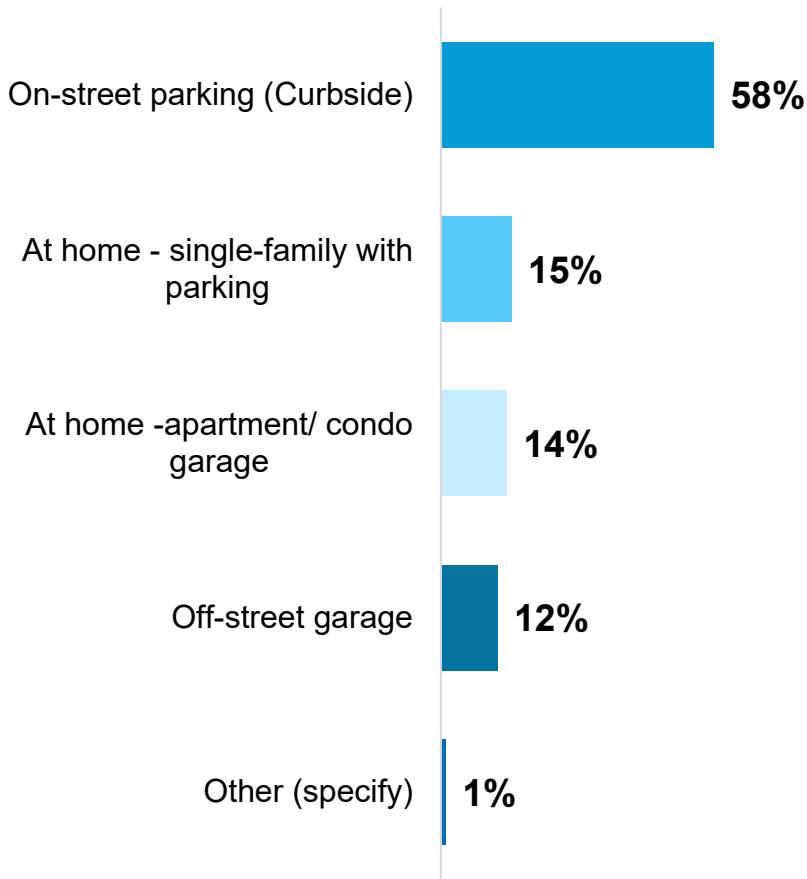
Location of FLO EV Charger Regularly Used



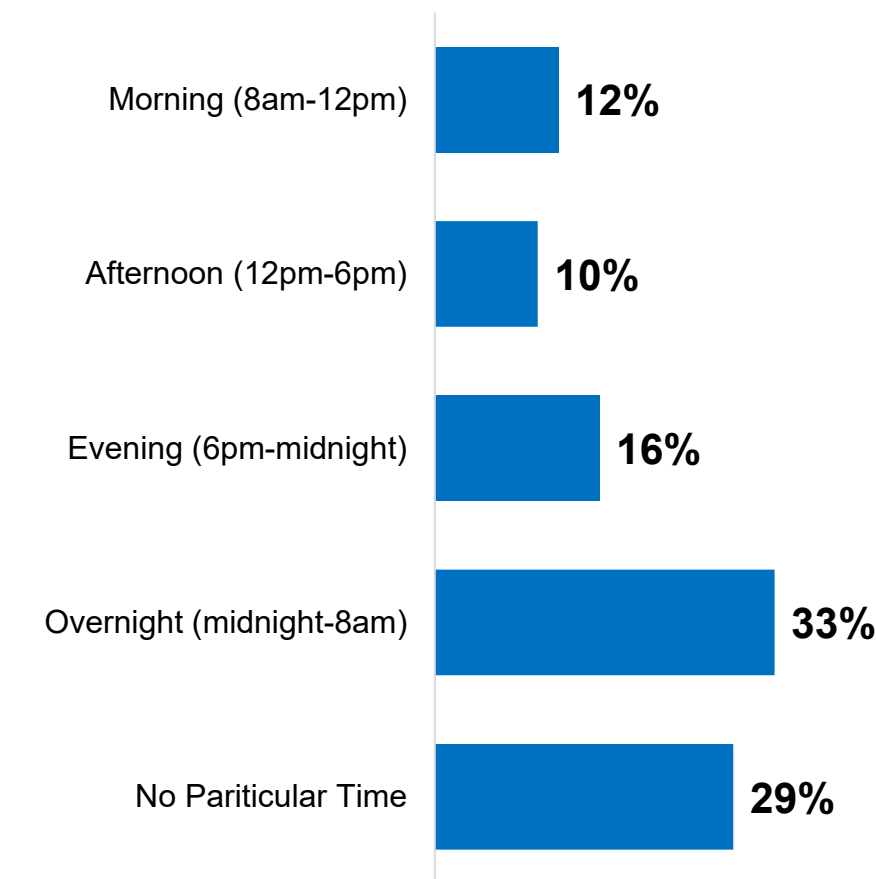
Q10 - Where is the FLO EV charging station located that you use most regularly? (Please select the option that best describes its location relative to your home or regular destinations). (Base: Total n=676)

Most customers rely on on-street parking, charge overnight, and about a third are enrolled in SCNY

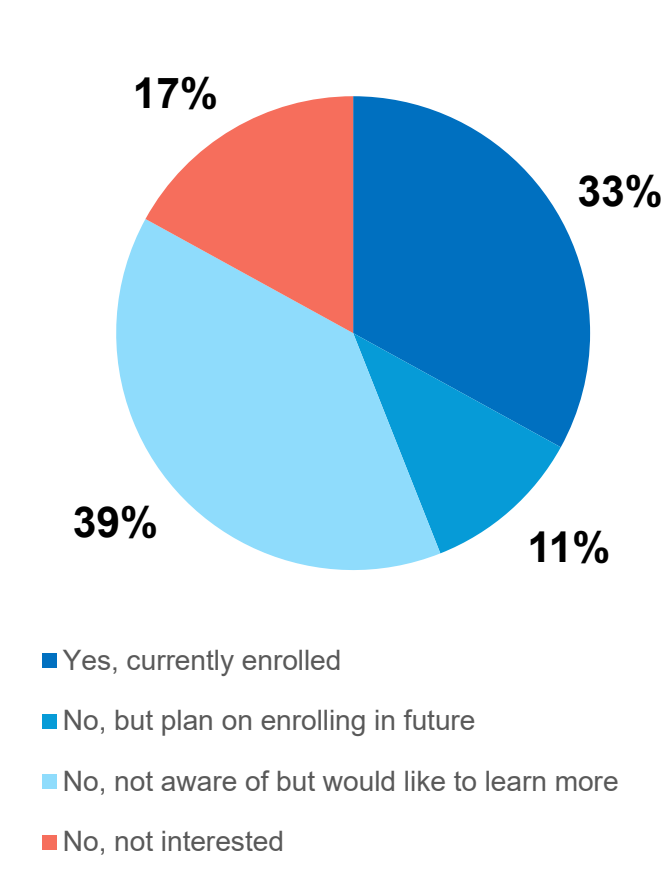
Where I typically Charge my EV



Timeframe EV Is Mostly Charged



Enrolled in SCNY



Q6 - Where do you typically park your EV? (Base: Total n=676)

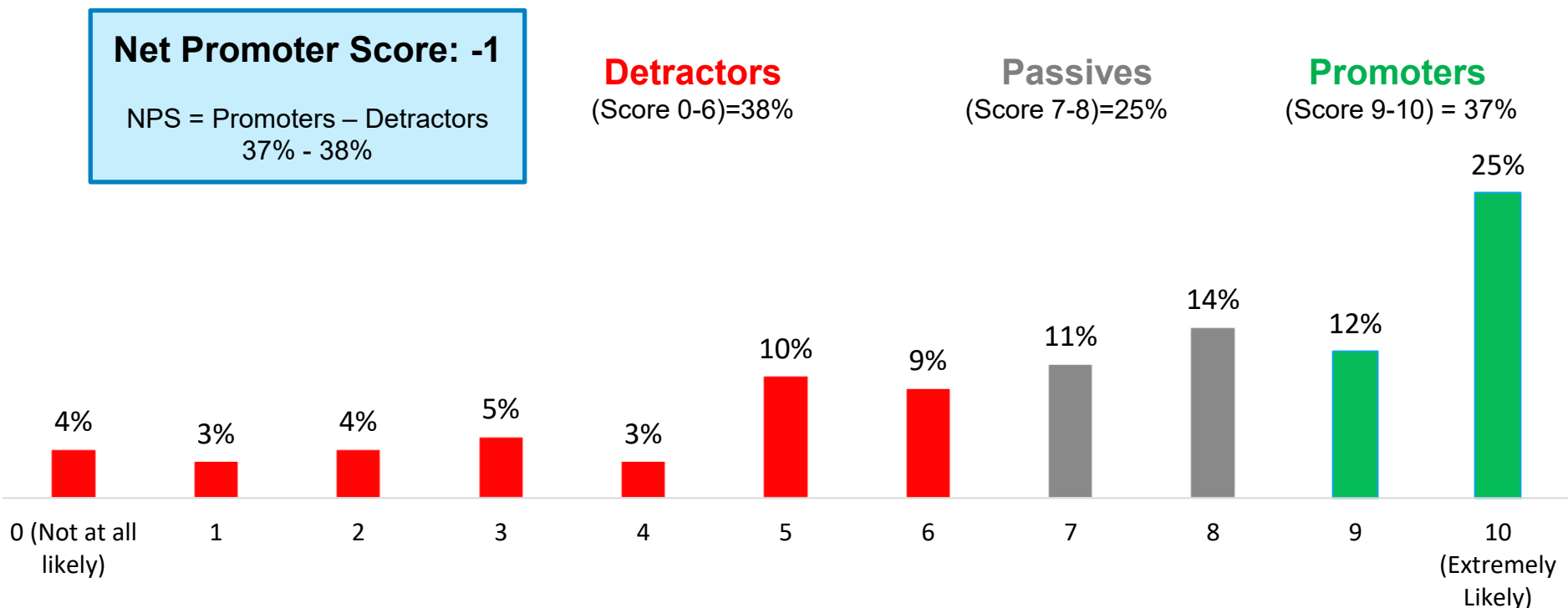
While NPS score was -1, median score was 8 and 25% said they would 10/10 recommend

Lower NPS might be explained by the lack of chargers as expressed by drivers in previous questions

Likelihood to Recommend Curbside Chargers

NPS across other companies

NPS Scale is from -100 to 100



Uber	23
DOORDASH	-28
-chargepoint+	-34

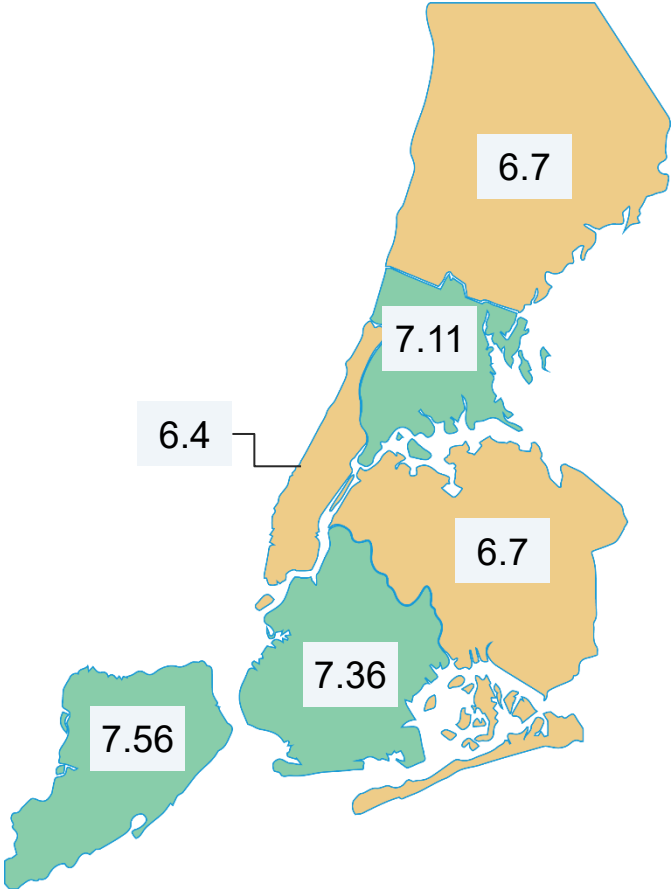
Q3 - On a scale of 0 to 10, how likely are you to recommend FLO curbside charging stations to other EV drivers? (0 being Not at all likely and 10 being Extremely likely). (Base: Total n=676)

Sentiments and likelihood to recommend chargers varied by borough

Sentiments per Borough (AI agent analysis)

Borough	General Sentiment	Common Complaints
Manhattan	<i>The overall sentiment is mixed</i> , with many users expressing dissatisfaction. The average Net Promoter Score (NPS) for Manhattan is categorized as low	- Insufficient Charging Stations - Chargers are frequently occupied.
Brooklyn	Brooklyn generally express a <i>high level of satisfaction</i> with curbside EV charging options, with some willing to recommend the service to others.	- Insufficient Charging Stations - Chargers are frequently occupied.
Bronx	The sentiment in the Bronx is <i>predominantly positive</i> , with many users expressing satisfaction.	- Insufficient Charging Stations - Chargers frequently blocked by non-EV vehicles
Queens	The overall sentiment in Queens is <i>negative</i> , with many users expressing concerns about the availability and accessibility of chargers.	- Insufficient Charging Stations - Chargers frequently blocked by non-EV vehicles

Average Likelihood to recommend (1-10)



**Didn't have enough responses from Staten Island to draw conclusions. No data on which chargers Westchester residents are using*

Community Satisfaction

Satisfaction Score based on
Community Surveys

Target: 80% by Year 3

Community survey shows that awareness of EV's has grown but satisfaction score was low

Community Survey Key Findings

Awareness of EV chargers has increased throughout project

Awareness increased nearly fivefold since baseline, with 33% now aware compared to 7% initially.

Satisfaction remained relatively low (25%) throughout project

Satisfaction score started stayed constant over the program length, but better amount EV owners or prospects

NPS score throughout project was low, but this wasn't a "True" NPS score

Survey respondents did not necessarily use the chargers, so NPS score doesn't capture true customer loyalty to the curbside chargers.



Background, Objectives and Methodology



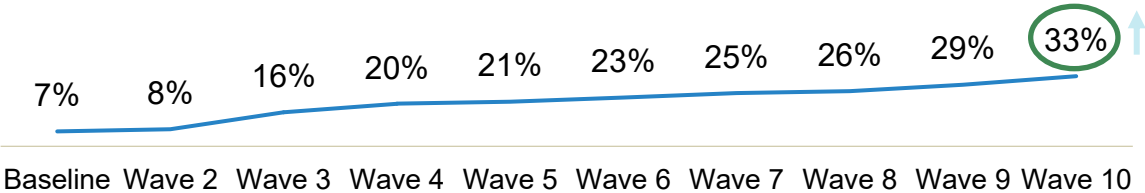
Con Edison's EV curbside charging demo has continually tried to understand how availability of curbside charging impacted perceptions of EVs, the neighborhood and Con Edison. A baseline survey, plus eight additional waves were conducted in Nov 2020, July 2021, Nov 2021, May 2022, Nov 2022, May 2023, Nov 2023, May 2024 and Nov 2024, respectively.

Audience	Residential and Commercial customers within proximity of EV Charging Station installation locations (identified by Con Edison)	
# of Participants	Baseline: N=1,429 total (<i>Residential 95% and Commercial 5%</i>) Wave 9: N=1,507 total (<i>Residential 94% and Commercial 6%</i>) [FINAL] Wave 10: N=718 total (<i>Residential 90% and Commercial 10%</i>)	
Response Rate	Baseline: 2%; Waves 2 & 3: 1%; Waves 4-8: <1%; Wave 9: 3%; Wave 10: <1%	
Testing Period	Baseline: 11/10 – 11/23/2020 Wave 2: 7/7 – 7/27/2021 Wave 3: 11/3 – 11/17/2021 Wave 4: 5/3 – 5/23/2022 Wave 5: 10/12 – 11/14/2022	Wave 6: 5/3 – 6/12/2023 Wave 7: 11/2 – 12/11/2023 Wave 8: 5/1 – 5/31/2024 Wave 9: 10/24 – 12/3/2024 Wave 10: 5/1 – 6/30/2025

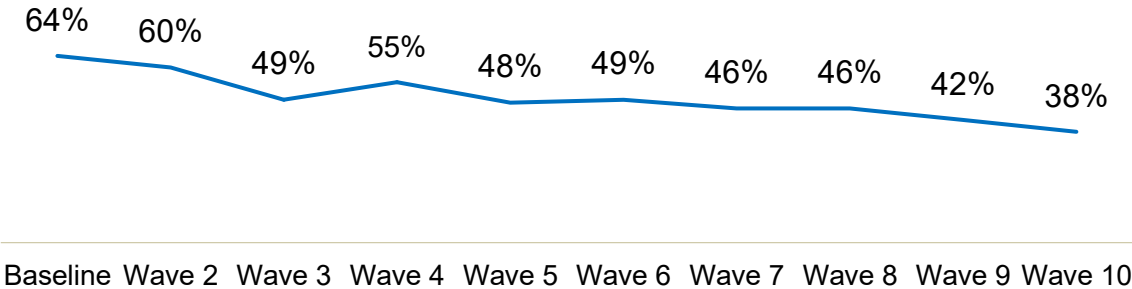
Awareness of EV charging stations on the street in select public parking spaces continues to trend upward

Seen Charging Stations on STREET or Not at All

Seen EV charging stations on the STREET
in select public parking spaces

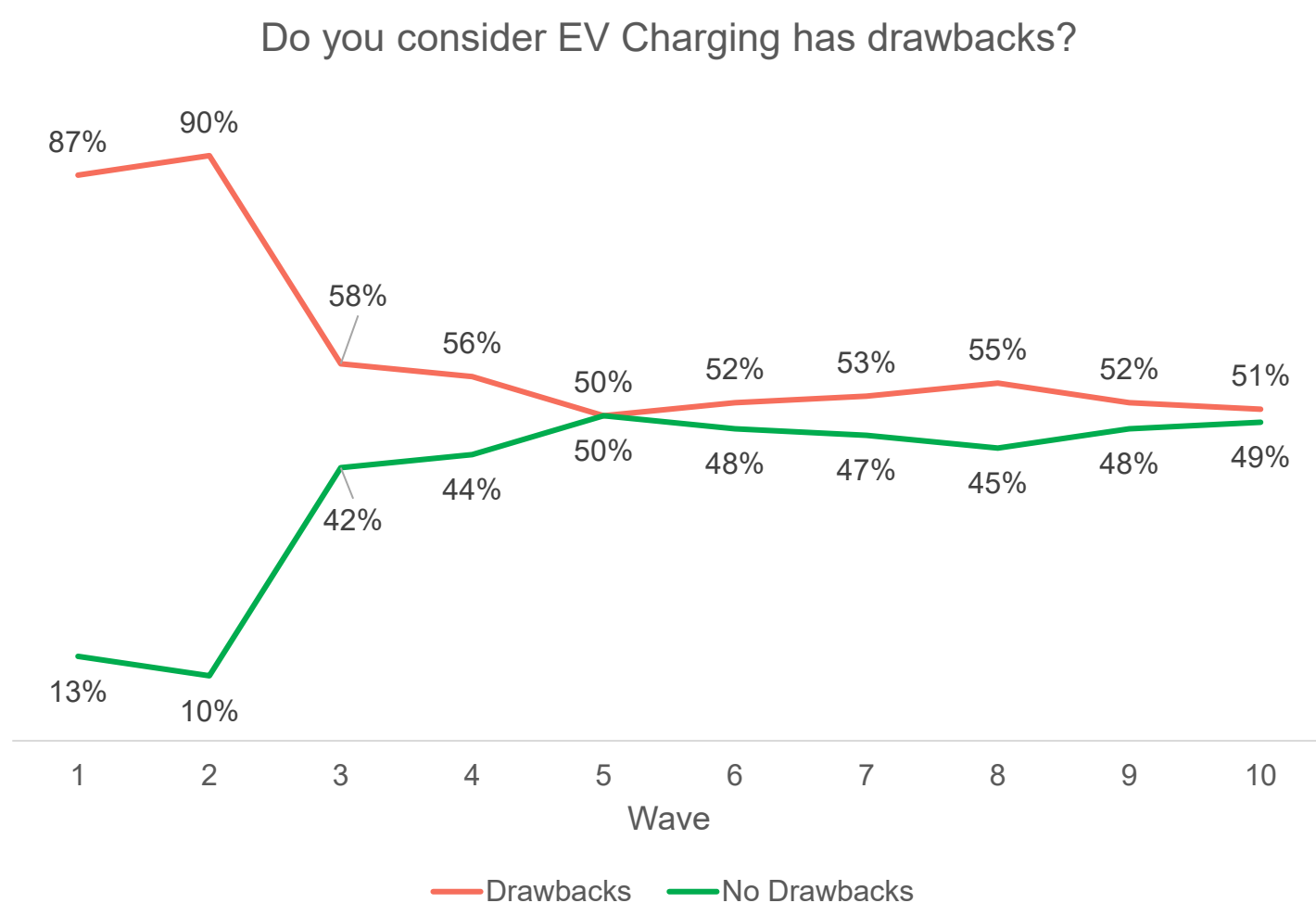


Have NOT seen any EV charging stations
in my neighborhood



Q12 - Please look at the image below, which are examples of what a charging station on the street might look like. Please tell us where, if any place, you have seen any EV charging stations in your neighborhood. Please select all that apply. (Total: Baseline Base: n = 1,429; W2: n = 1,557; W3: n = 1,479; W4: n = 1,492; W5: n = 1,469; W6: n = 1,497; W7: n = 1,498; W8: n = 1,463; W9: n = 1,507; W10: n = 718)

49% of respondents see no drawbacks to EV Charging stations, a significant shift from 13% at project start



Count of responses from Wave 10

Benefits

- ✓ Convenience/accessibility to chargers (n=128)
- ✓ Encourages EV adoption (n = 91)
- ✓ Environmental benefits (n=64)
- ✓ Lower cost to drive/cheaper than gas (n=9)

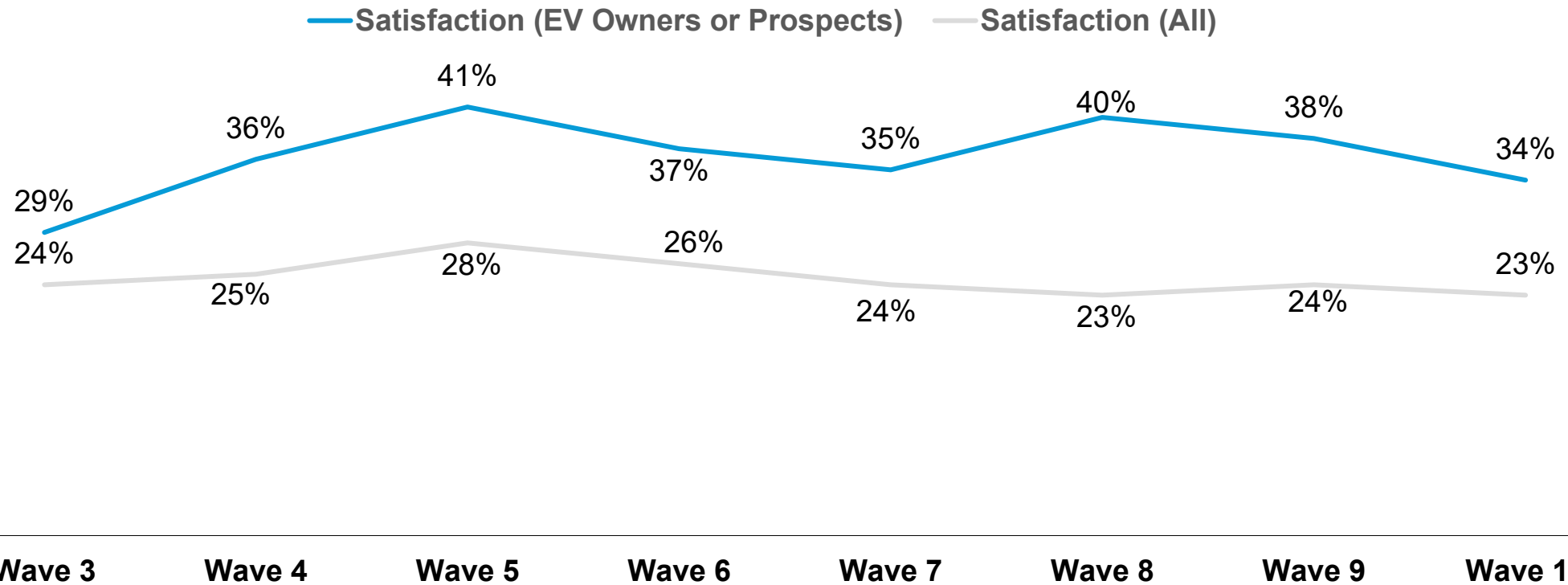
Drawbacks

- ✗ Loss of parking spaces (n = 112)
- ✗ Access/availability of chargers (n = 22)
- ✗ Vandalism/theft (n = 32)
- ✗ Safety concerns (n = 18)
- ✗ Increased traffic/congestion (n = 17)
- ✗ Aesthetic / Visual Impact (n=13)

Satisfaction was relatively low, but higher among EV owners or prospects

Dissatisfaction likely because of loss of parking space and insufficient access to chargers

Satisfaction score over project length



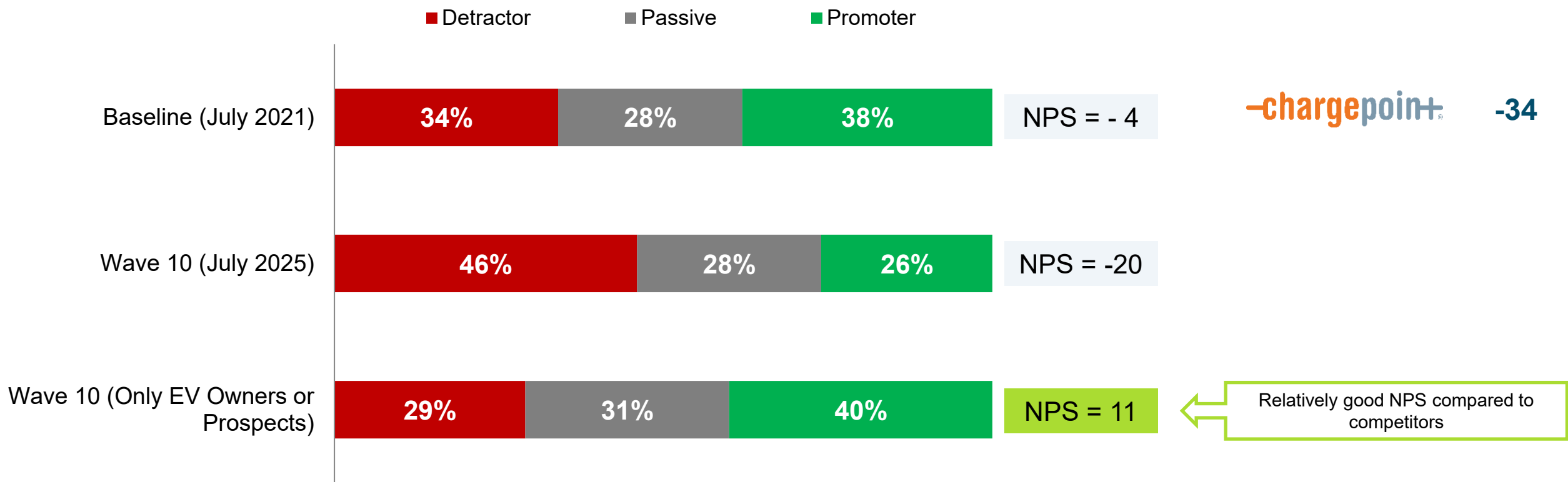
Q17 - How satisfied are you with presence of EV charging stations on the street in your neighborhood? (Base: EV Owners/Prospects W3 = 218; W4 = 268; W5 = 280; W6 = 234; W7 = 246, W8 = 260; W9 = 279; W10 = 143)

Demo did not hit NPS target metrics, but NPS is higher among EV owners and prospects

Question was not asked in a way that would show true experience with curbside chargers

Community NPS Score

Competitors NPS



Q18 - Finally, on a scale of 0 to 10, how likely are you to recommend to other NYers they should support electric vehicle charging stations on their neighborhood streets? (Base: EV Owners/Prospects W3 = 218; W4 = 268; W5 = 280; W6 = 234; W7 = 246; W8 = 260; W9 = 279; W10 = 143)

Financial Viability

Sales Revenue / Operating Expenses

Target: 100% by Year 3

Demo did not surpass metrics of success, but curbside chargers needed additional incentives to breakeven

Financial Metric Key takeaways

Demo came close to meeting its success metric, achieving 87% revenue relative to operating costs.

While the original demo conditions made the target metric unattainable, Demo opted not to adjust its cost structure. Instead, it prioritized uptime and affordability to make curbside service more reliable and accessible for drivers. Despite these constraints, Demo nearly reached the success threshold.

Incentives can help Curbside reach higher profitability

PowerReady enrollment can help cover high upfront costs and reduce financing costs, making it much more appealing for private players to enter the market.

Utilization target range should be between 30% and 60%

There is a diminishing marginal returns above 30% utilization, due to diminishing marginal cost. We recommend new market entrants to aim for a utilization target of 30-50%, but final goal should match the return they are trying



Demo project did not meet metrics of sales revenue / operating expense ratio due to high maintenance cost

Demo prioritized reliability and affordability over financial viability

Demo Conditions

Maintenance Cost

\$1,036/ per charger /per quarter

Priority: High uptime to prove reliability

Revenue Structure

Daytime: \$2.50/hr (equiv. \$0.35/kWh)
Nighttime: \$1.00/hr (equiv. \$0.14/kWh)

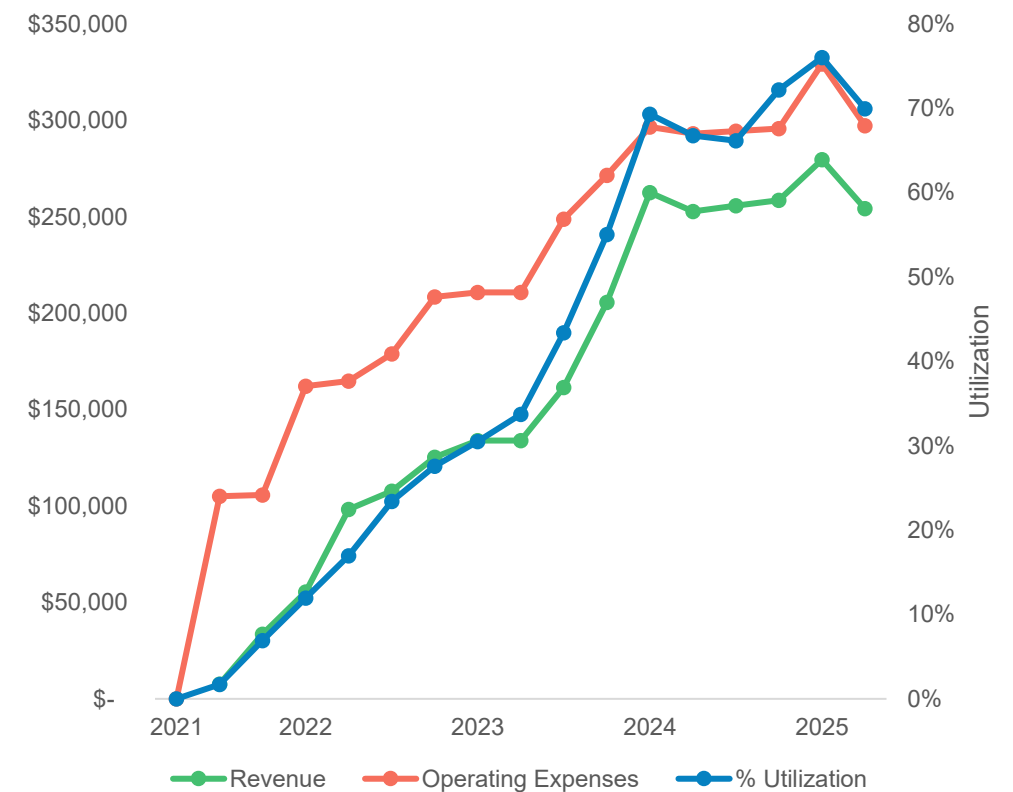
Priority: keep curbside affordable

Under initial demo conditions – the max Revenue/ Operating Ratio would be 90%.

There was option to change pricing structure but Demo chose not to

Sales Rev. / Operating Cost

Year	Target	Achieved
Year 1	30%	60%
Year 2	60%	73%
Year 3	100%	87%
Year 4	N/A	86%



Demo could have achieved financial viability with higher revenue and lower maintenance

Conditions for financial viability

Maintenance Cost

\$300 / charger per quarter

National average is \$75/per charger, but assuming higher NYC cost

Revenue Structure

\$0.45 / kWh

NYC L2 average cost

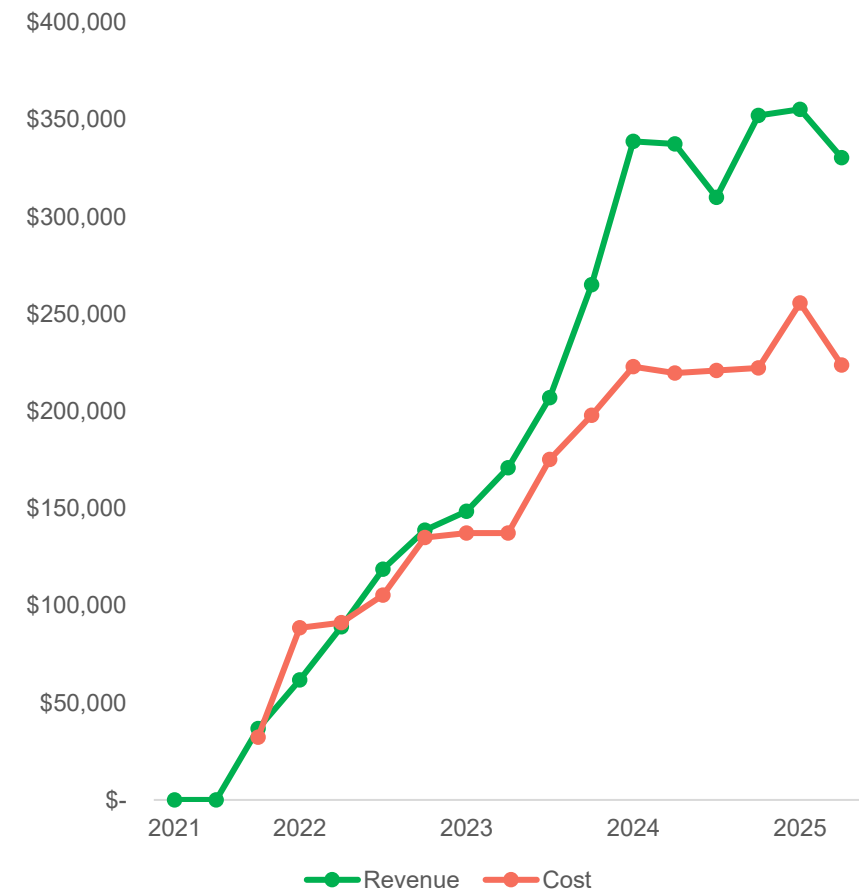
Fixed Conditions

Assumed 20% lower utilization and energy consumption

Rough estimate of how much utilization could decrease from a price increase

Sales Rev. / Operating Cost

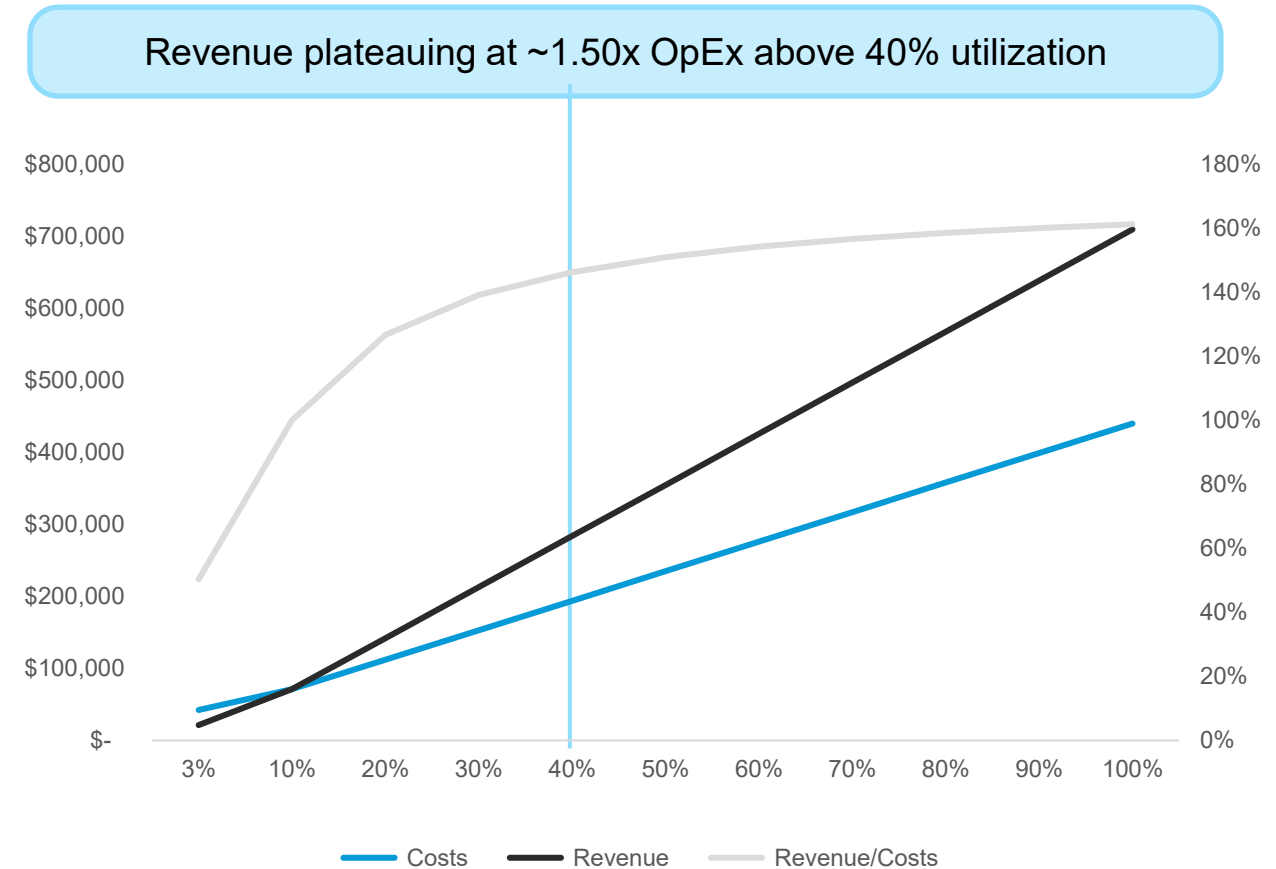
Year	Target	Achieved in this scenario
Year 1	30%	108%
Year 2	60%	121%
Year 3	100%	139%
Year 4	N/A	138%



Marginal returns decline beyond 30% utilization, suggesting this as the lower bound for the target utilization

Quarterly Sales Revenue / Operating Expense

Utilization	Rev	Operational Expense	Rev / Expense
	\$0.45 / kWh	Maint. = \$300/plug Elec. = \$0.26 kWh	
3%	\$ 21,287	\$ 42,299	50%
10%	\$ 70,956	\$ 70,997	100%
30%	\$ 212,868	\$ 152,990	139%
40%	\$ 283,824	\$ 193,987	146%
50%	\$ 354,780	\$ 234,984	151%
70%	\$ 496,692	\$ 316,978	157%
90%	\$ 638,604	\$ 398,971	160%

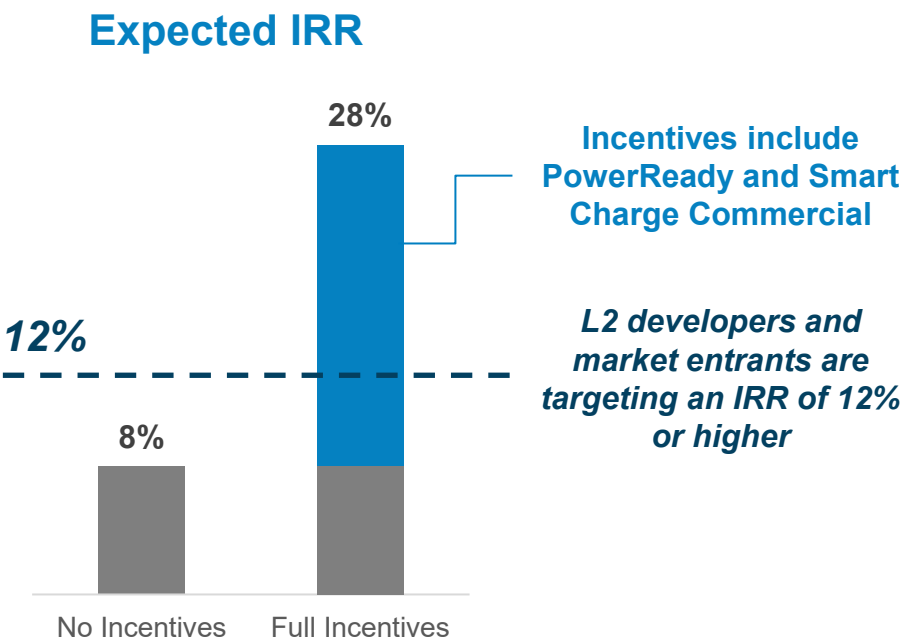
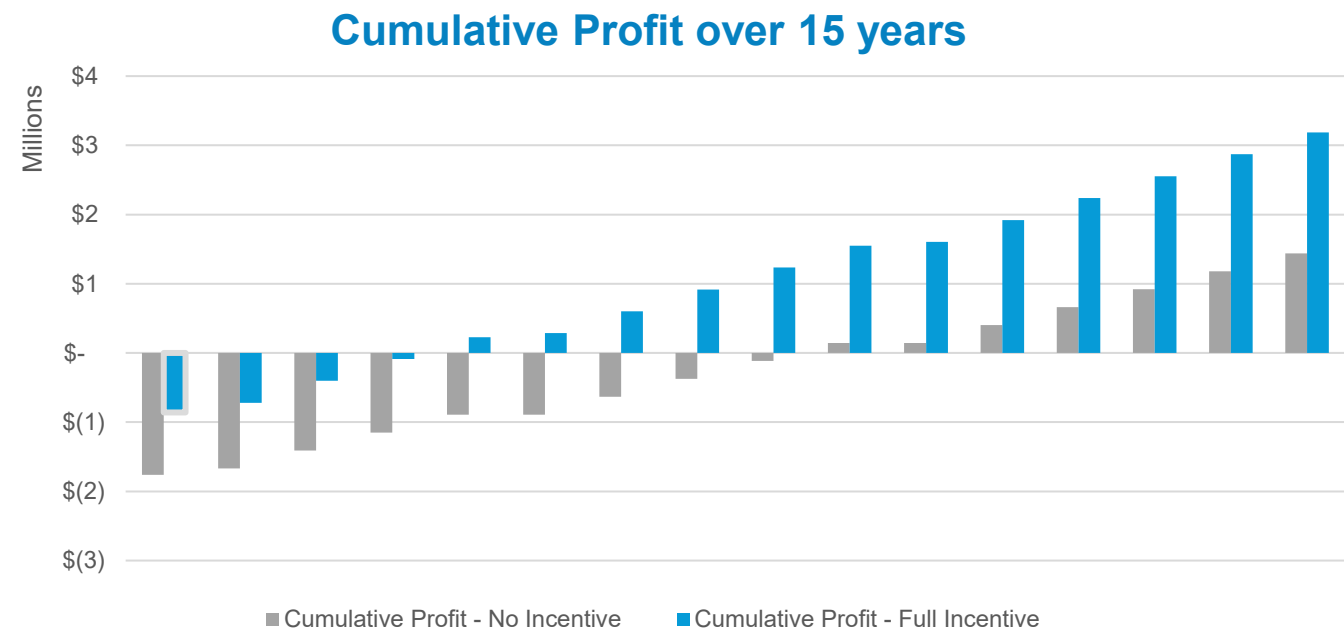


For every \$1 in costs, you will make ~ \$1.5 in revenue after 40% utilization

Con Edison incentives improves curbside charging Internal Rate Return to a level that attracts private investment

Market Entry Assumptions

Number of Plugs	Utilization	Revenue Fee	Idle Fee	Installation Cost	Maintenance Cost
100	45%	\$0.45/kWh	\$0.05/min	\$15k per plug	\$1200 per year



Note: Assumes 7.2kw dual-plug chargers at 50 stations; 15-year life time of station, 95% efficiency given idle fee; Installation costs based on Con Ed Power Ready average (\$15k per station) plus \$5k for sidewalk work and \$10k per station expected in utility side cost given temp service status, 6-month to install chargers and start earning revenue; Maintenance cost calculated from 4x national average (\$300/year) given NYC higher costs; OPEX-other includes maintenance + 5% SG&A; Incentives assume 90% Power Ready funding and SCC Enrollment Bonus + 50% Peak avoidance

Con Edison incentives can lower cost passed on to drivers and improve affordability

Assumed Conditions

CapEx

Installation: \$10,000 / plug

Hardware: \$2,600 / plug

OpEx

Maintenance: \$300/charger/quarter

Electricity: \$0.31/ kWh

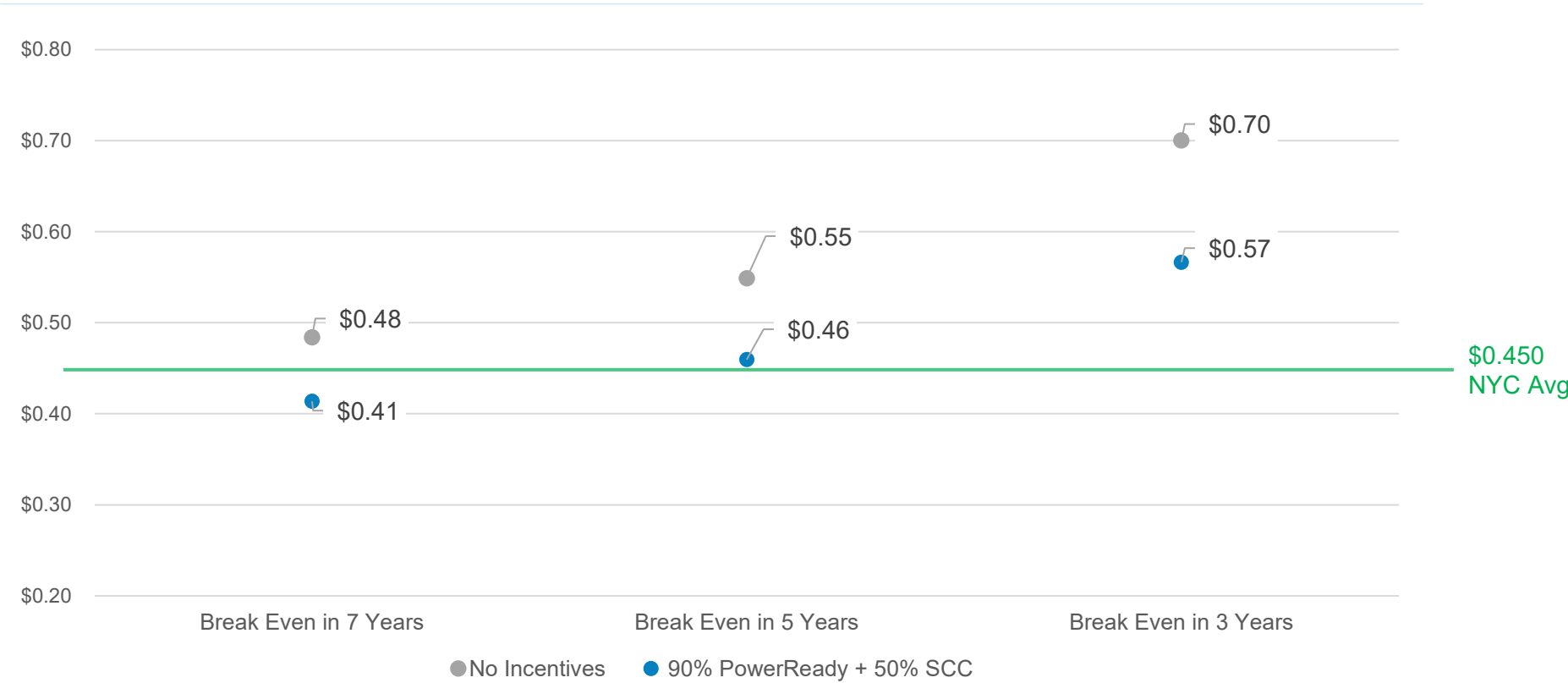
Expected kWh

Utilization: 45%

Efficiency: 95%

Annual kWh consumed: 2.5GWh

\$/kWh rate charged to consumers for operator to break even



Con Edison Incentives can help reduce cost to EV drivers by 15-20%

Note: Same assumptions are previous slide

Learnings and Conclusion

Our conclusion is that curbside is vital for EV adoption, and we recommend steps to accelerate availability

Recommendations



Leverage Power Ready & SCC Incentives to financial viability

Financial analysis shows a clear path to profitability, but PowerReady and SCC can improve Internal Rate of Return encourage more curbside providers to enter the market.



Build more chargers to help us hit utilization sweet spot (30%–60%)

After reaching 30% utilization, marginal gross profit plateaued, indicating that this should be the minimum utilization target for curbside chargers. We recommend aiming for a utilization range of 30% to 60% and setting a target that maximizes revenue and delivers a strong return on investment for curbside charging infrastructure.



Prioritize TLC Collaboration for Site Selection

With TLC aiming for full fleet electrification by 2030 and strong curbside usage by TLC drivers, charger placement should focus on areas with high TLC registration.

Utilization and user satisfaction data showed that people heavily use and rely on curbside chargers and want to get more chargers

Hypothesis #1:

Curbside EV Charging can have a significant role in the EV charging Ecosystem

Metric	Data	Target	Result
Utilization	Median Utilization : % of 24 hr. period that chargers and in use	Year 1: 8% Year 2: 10% Year 3: 12%	Max Utilization Public = 80%
User Satisfaction	Satisfaction	Year 1: 80% Year 2: 85% Year 3: 90%	Satisfaction Score = 62%

Conclusion



EV Drivers heavily rely on curbside and want to see more chargers

Rapid EV adoption has resulted in heavy use of curbside chargers, especially by TLC drivers, and both utilization data and FLO user survey point to EV drivers needing more curbside charging infrastructure



All New Yorkers use curbside EV charging

Utilization started high in Manhattan, but is now highest in the Bronx, Queens and Brooklyn, showing that this is an important part of the ecosystem across New York City Boroughs (with the exception of Staten Island)

Awareness of curbside charging grew across communities, but community sentiment remained mixed

Hypothesis #2:

Community stakeholders will accept curbside EV charging stations

Metric	Data	Target	Result
Community Satisfaction	Satisfaction Score	Year 1: 50% Year 2: 60% Year 3: 80%	Satisfaction Score: 24% across project length

Conclusion



Community’s awareness of chargers increased

One of the demo’s primary goals was to raise awareness, evidenced by 33% of respondents noticing chargers on the street.



NPS and Satisfaction scores did not meet target

While Satisfaction and NPS scores fell short, the survey revealed limited awareness among respondents—some had never seen or used the chargers. This suggests that awareness, not satisfaction, may be a more meaningful success metric.

Make Ready and Managed Charging can improve financial viability for new market entrants

Hypothesis #3:

Curbside EV Charging can be a sustainable business

Metric	Data	Target	Result
Financial viability	Sales Revenue / Operating Expenses	Year 1: 30% Year 2: 60% Year 3: 100%	Year 1: 60% Year 2: 73% Year 3: 87%
Station Uptime	Operating hours over total hours in a period.	Median 95% per quarter	99% throughout project

Conclusion



Curbside charging can be a successful and scalable business model

PowerReady and SCC incentives can help cover upfront infrastructure costs and help significantly reduce upfront cost, making it more enticing for market players and increasing availability for EV drivers

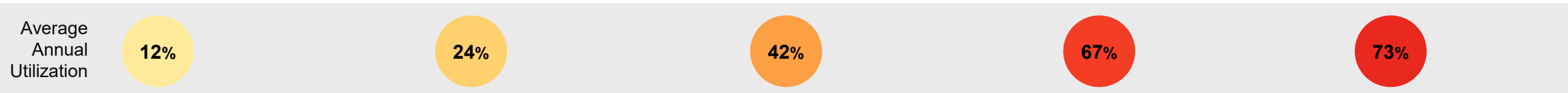
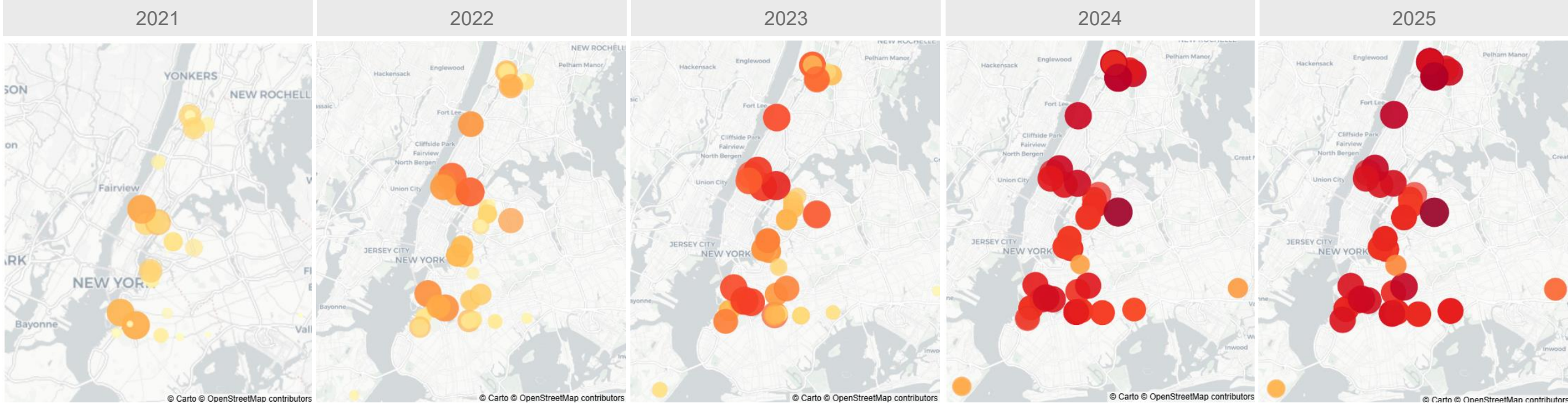
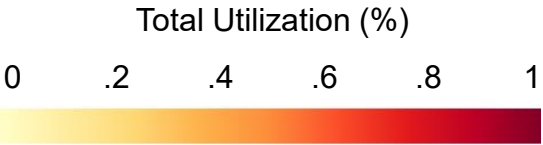


It is possible to maintain high uptime, but comes at a high cost

This project maintained nearly 100% uptime, but the associated maintenance costs may not be sustainable outside a demo environment. We believe it's possible to continue achieving high uptime while identifying a more cost-effective maintenance model, especially as economies of scale improve.

Utilization jumped in 2024, which is aligned with increase of Light-Duty EV's in our service territory

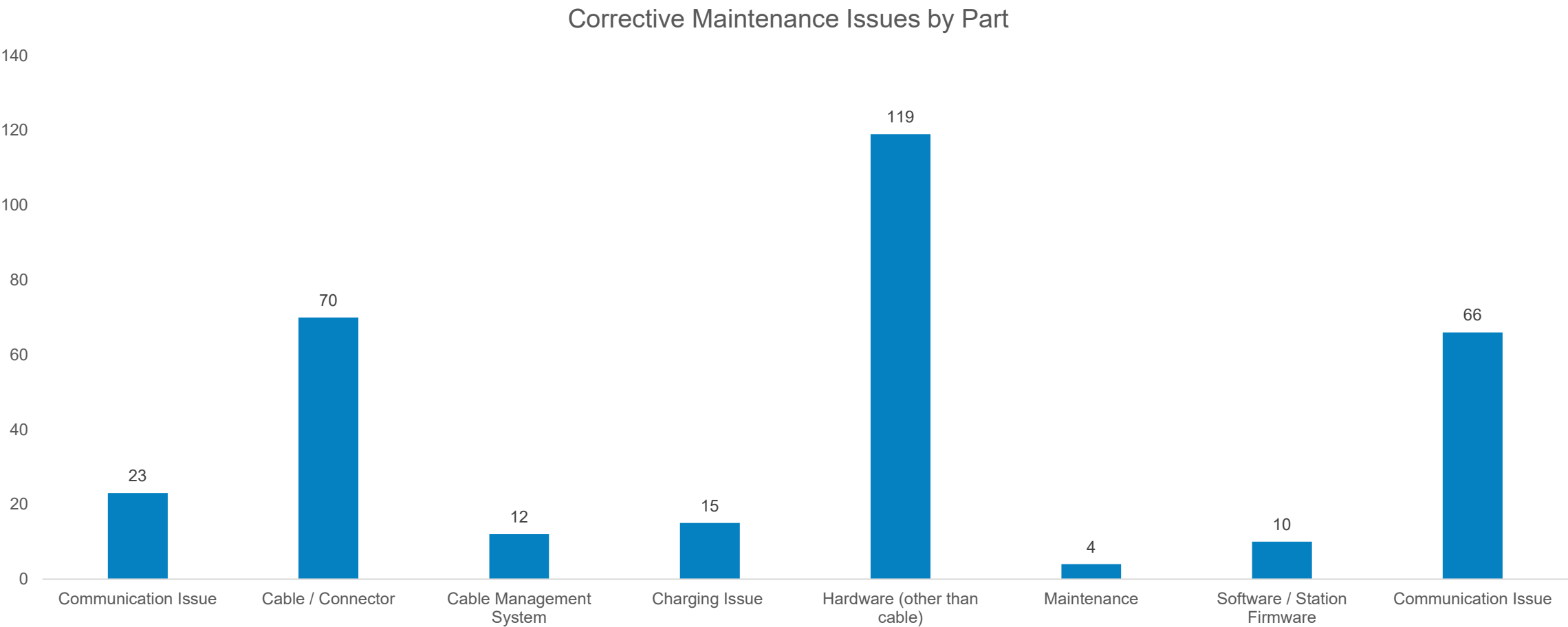
Utilization heat map YoY



Chargers per Borough

Borough	# of Total Chargers
Bronx	12
Brooklyn	53
Manhattan	13
Queens	18
Staten Island	4

Corrective Maintenance Issues by charger component



Financial Projections: Equation to calculate annual kWh consumed

$$\begin{array}{ccccccc} \text{kWh per charger} & & \text{\# of chargers} & & \text{Hours/day} & & \text{Days / Year} & & \text{Annual kWh Max Capacity} \\ 7.2 & \times & 100 & \times & 24 & \times & 365 & = & 6.3 \text{ GWh} \end{array}$$

$$\begin{array}{ccccccc} \text{Annual kWh Max Capacity} & & \text{Utilization} & & \text{Efficiency} & & \text{Expected Annual kWh Consumption} \\ 6.3 \text{ GWh} & \times & 45\% & \times & 80\% & = & 2.5 \text{ GWh} \end{array}$$

Fixed *Variable*