REV Demonstration Project:

Curbside Electric Vehicle Charging

Q3 2025 Quarterly Progress Report

Dated: October 30, 2025

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1.0 EXECUTIVE SUMMARY

Pursuant to the New York State Public Service Commission's ("Commission") 2015 REV Order,[1] Consolidated Edison Company of New York, Inc. ("Con Edison" or the "Company") submits this third quarter report for 2025 on the progress of the Curbside Electric Vehicle Charging REV Demonstration Project (the "Project"). The Company is implementing the Project as part of the Reforming the Energy Vision ("REV") proceeding. Concurrent with the filing of this report, the Company has filed confidential budget information for the Project with the Commission's Records Access Officer.

1.1 Project Background

Con Edison, the New York City Department of Transportation ("NYC DOT"), and FLO, a subsidiary of AddEnergie, (together "Project Team"), deployed and operated 118 FLO SmartTWO Level 2 electric vehicle ("EV") chargers across New York City ("NYC"). To use the charging network, EV drivers become customers of the FLO brand charging network, which is free to join. FLO offers customer service, billing and payments, and equipment operations and maintenance for the charging stations. Con Edison financed the project and performed project management for the station location design, engineering, construction, and maintenance during the demonstration period. NYC DOT selected the locations, including dedicating "Agency Vehicle Only" regulated parking spots for New York City fleet chargers and public parking spots for the balance of the network.

The Project demonstrated that curbside charging in the public right-of-way can be acceptable to host communities, used by EV drivers, and viable as a business opportunity for investors and other institutions in NYC.

[1] Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Order Adopting Regulatory Policy Framework and Implementation Plan (issued February 26, 2015) (REV Order).

1.2 Project Overview

NYC Curbside EV Charging Network Demo Project

Project Details	
Inception	August 2018
Launch	May 2019
End Date	July 2025[2]
Budget	$13.4M
Budget Reporting	*Filed confidentially* Q3 2025 Spend & Cumulative Spend

Project Phases & Status:

Project Hypotheses:

The **NYC Curbside EV Charging Network** demonstration project tested the use of NYC public parking for EV charging.

Hypotheses included:

(1) Community stakeholders will accept curbside EV charging stations

(2) Curbside EV charging stations have a significant role in the EV charging ecosystem

(3) Curbside EV charging is financially viable and scalable

[2] Project end date extended from July 2024 to July 2025 after NYCDOT extended the demonstration project by one year.

Lessons Learned: Stakeholders

- Engage community stakeholders early in the site selection process and integrate neighborhood preferences into choices, to the extent practicable
- Select sites that meet criteria and do not conflict with other planned work, *e.g.*, street paving, NYC DOT capital projects, such as bike lanes, and other agency capital projects
- Conduct community outreach to raise awareness of and support for curbside chargers

Lessons Learned: Market

- Offer a flexible design that accommodates municipal design requirements while maintaining the fundamental features of the electric vehicle supply equipment ("EVSE")
- Allow time for site design; above- and below-ground interferences can cause delays
- There is customer demand for curbside charging: charging sessions have been recorded at each in-service station and some show significant utilization

Application of Lessons Learned:

Entities looking to build out a public charging network should consider the project's findings listed above.

Issues Identified:

(1) The project team collaborated on a design for the EV charging units, placing customer safety as a top priority. Previously, there was no existing standard for this product and application.
(2) Enforcement of "EV charging only" parking regulation has been difficult. Improved enforcement can improve charging station use.

Solutions Identified:

(1) FLO included physical and electrical breakaway features in its post design to accommodate municipal and utility safety criteria.
(2) The Project Team is developing solutions to increase awareness and enforcement of applicable parking regulations.

Recent Milestones:

The Demonstration Project concluded on July 7, 2025. The remainder of the quarter was dedicated to analyzing the collected data and identifying key insights and lessons that could support the curbside charger market. The following section outlines the main findings from the project.

2.0 Project Findings

Con Edison worked with Project partners to analyze data collected over the course of the Project, identify lessons learned, and share these findings with stakeholders. The demonstration project tracked five main metrics tied to the hypotheses outlined in section 1.2. These metrics of success were defined in the Implementation Plan Filling[3]. The following section presents the main project findings, learnings, and recommendations based on each of the five tracked metrics. For a more detailed analysis, please refer to the attached presentation in Appendix E: Curbside Demonstration Project Closeout Report, which provides an in-depth review of the data collected during the project.

[3]Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, New York City Curbside Electric Vehicle Charging Network Project Implementation Plan (February 10, 2020)

Hypotheses	Metric	Data
Curbside EV Charging can have a significant role in the EV charging Ecosystem	Utilization	System Median (% of time that chargers are in use)
	User Satisfaction	FLO Driver Survey - Satisfaction Score
Community stakeholders will accept curbside EV charging stations	Community Satisfaction	Community Survey - Satisfaction Score
Curbside EV Charging can be a sustainable business	Station Uptime	Operating hours over total hours in a period
	Financial viability	Sales Revenue / Operating Expenses

The project was implemented from July 2021 through July 2025. Each key metric was evaluated against annual goals, with each year defined as a July-to-June period:

- **Year 1:** July 2021 – June 2022
- **Year 2:** July 2022 – June 2023
- **Year 3**: July 2023 – June 2024
- **Year 4**: July 2024 – June 2025 (Note: Year 4 was an extension of the project beyond the originally-planned project term described in the Implementation Plan; no new success metrics were established for this period.)

2.1 Utilization

Utilization was tied to Hypothesis #1, which proposed that curbside EV charging could play a significant role in the broader EV charging ecosystem. Meeting the utilization targets would demonstrate that the chargers were actively used and effectively served the needs of EV drivers. These targets, established in the Implementation Plan, were informed by performance benchmarks from a prior curbside charging initiative in Los Angeles.

2.1.1 Target & Results

Flo submitted quarterly utilization data for its deployed chargers, with performance evaluated against metric targets defined in the Implementation Plan. These targets were based on the system-wide median utilization of public Level 2 chargers. Utilization was measured as the percentage of each 24-hour period during which chargers were actively in use.

Table 1: Annual Utilization Targets

Year	Target	Results
Year 1	8%	27%

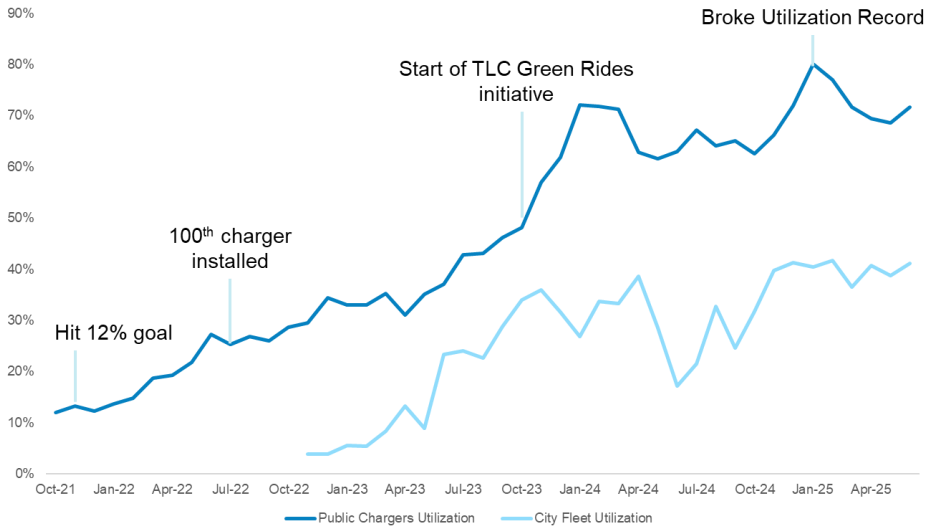
Year 2	10%	43%
Year 3	12%	67%
Year 4	N/A	72%

The Curbside Demonstration Project exceeded its 12% utilization target by a factor of six. This substantial overperformance provides strong evidence that curbside chargers have become a significant part of New York City's EV charging ecosystem. The results support the hypothesis that curbside infrastructure can effectively meet the charging needs of urban EV drivers and contribute to broader system accessibility.

2.1.2 Additional Findings

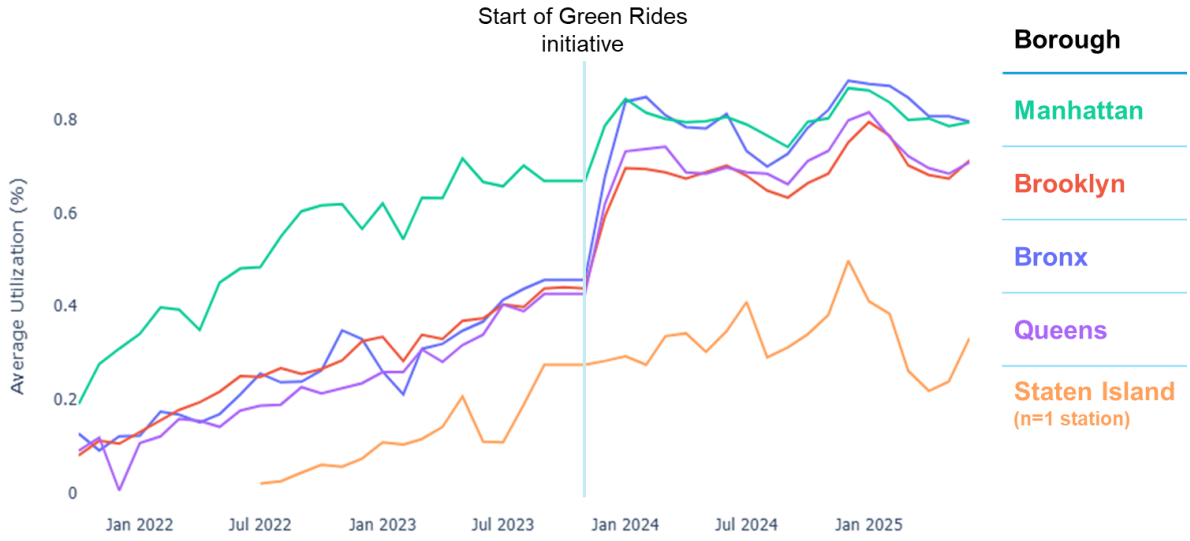
Utilization levels progressively increased throughout the project, reaching a system maximum of 80% in January 2025. A significant increase in utilization was observed between October 2023 and January 2024, coinciding with the Taxi & Limousine Commission's (TLC) announcement of the Green Rides initiative, which released 10,000 new TLC tokens for electric vehicles.

Figure 1: Monthly Utilization



The surge in utilization was most pronounced in the Bronx, Queens, and Brooklyn. While Manhattan led in utilization during the early years of the project (2021–2023), by January 2024, the other boroughs had caught up and, in some cases, surpassed Manhattan's levels. This trend demonstrates that EV adoption is expanding across New York City and that curbside chargers are providing a viable solution for residents citywide. The highest utilized station was located in Jackson Heights, which reached a peak utilization of 99% for multiple consecutive months in 2024.

Figure 2: Monthly Utilization by Borough



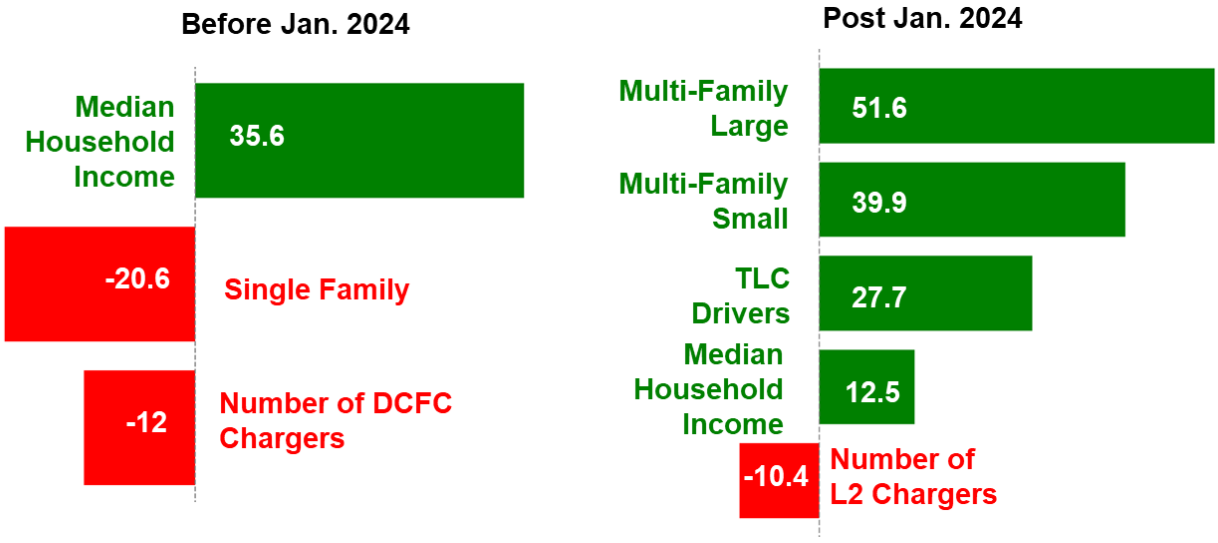
To better understand the factors influencing utilization, a multi-linear regression analysis was conducted to identify the independent variables most strongly associated with charger usage.

Dependent Variable: Utilization

Independent Variables Analyzed:

- Median & Mean Income
- TLC Driver Count
- Count of Multi-Unit vs. Single-Family Homes per Zip Code
- Availability of Charging Alternatives (Count of L2 & DCFC Charging)

The linear regression yielded the following results:



MinMax scaling was applied to all independent variables, so each coefficient represents the change in charger utilization (in percentage points) when the corresponding feature increases from its minimum to maximum observed value (i.e., from 0 to 1 on the scaled range). For example, a coefficient of +35.6 for Median Household Income means that in a given zip code, if Median Income moves from the lowest to the highest observed income level, the model predicts a 35.6 percentage point increase in charger utilization, assuming all other features remain constant. These effects are independent, meaning each feature contributes to utilization on its own.

The regression analysis concluded that charger utilization tends to be higher in areas with limited access to alternative chargers, higher housing density, or a greater presence of professional drivers. Each of these factors independently contributes to increased usage. The factors reported above are the one's with a P-Value below 0.05, making them statistically significant. R^2=50% for the multi- linear regression before and after January 2024, meaning that 50% of the utilization level can be explained by the variables outlined above. An interesting takeaway is that before January 2024, the strongest regression factor was Median Houshold Income, whereas after January 2024, utilization was more strongly defined by Multi-Unit Density and TLC drivers per zipcode.

2.1.3 Takeaways and Recommendations

Utilization was the most compelling metric of success for the demonstration project. The data clearly demonstrates that New York City is an ideal market for curbside charging, offering market participants confidence in high charger usage especially when chargers are strategically sited in areas where the project achieved the strongest results. Below are the takeaways and recommendations regarding utilization.

Takeaways:

1. **NYC drivers have strong demand for curbside chargers:** Utilization exceeded the initial target by a factor of six, with benchmarks originally based on the Los Angeles curbside charging pilot. New York City is a prime location for curbside charging, supporting the large population of drivers who rely on on-street parking.
2. **Curbside chargers serve all New Yorkers, regardless of income:** After 2024, some of the highest utilization rates were observed in low-income zip codes, with consistently high usage across all boroughs. This indicates that curbside charging is an equitable solution, accessible to all New Yorkers.
3. **TLC drivers are highly dependent on curbside charging:** Trends and correlations between utilization and TLC driver counts show that curbside charging is a critical resource for TLC drivers. This underscores the importance of expanding the curbside charging network to support the ambitious goals of the TLC Green Rides Initiative**.**

Recommendations:

1. **Utilization is too high:** Data shows that chargers are operating near capacity, which can negatively impact driver experience if chargers are frequently unavailable. First course of action is to ***increase the number of chargers to reach a better utilization.*** It is recommended to target a utilization rate below or around 50% to ensure availability for EV drivers while still delivering strong returns for market participants.
2. **Prioritize deployment in high-density and high TLC count areas:** Utilization was most strongly correlated with TLC driver counts and zip codes with a higher density of multi-family

buildings. Future curbside charging providers should prioritize these factors during site selection to maximize charger usage and impact.

2.2 User Satisfaction

User satisfaction was a key metric tied to Hypothesis 1, which proposed that curbside chargers should not only be highly utilized, but also deliver a positive user experience, making it convenient to own and charge your EV.

2.2.1 Target & Result

Consolidated Edison and Flo conducted a user satisfaction survey at the conclusion of the demonstration project, running from June 11 to July 7, 2025. The survey was distributed to all users of the Flo Curbside network in New York City, resulting in 676 responses. To encourage participation, a sweepstake for five $100 charging credits was offered, with winners selected after the survey closed.

Table 2: User Satisfaction Targets

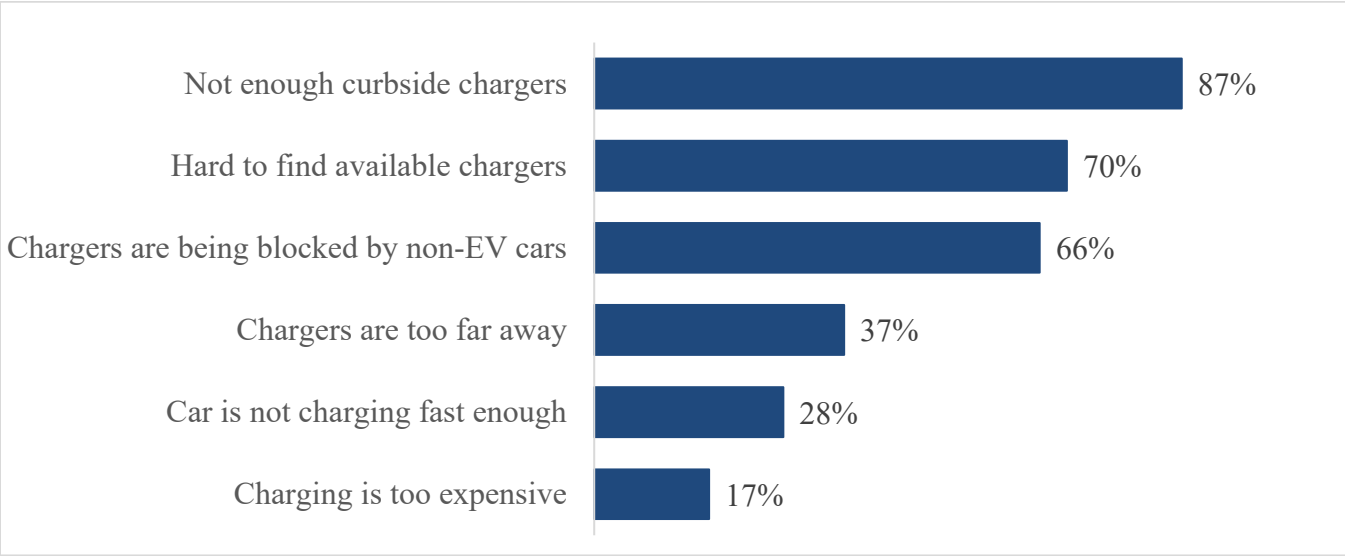
Year	Target	Results
Year 1	80%	N/A – Survey not conducted until project end
Year 2	85%	
Year 3	90%	
Year 4	N/A	62%

While the project did not reach the target of 90% user satisfaction, survey results revealed that the primary source of dissatisfaction was the limited availability of chargers. This suggests that, despite not meeting the satisfaction metric, the underlying issue was high demand and insufficient supply, underscoring the strong reliance on curbside charging and supporting Hypothesis 1.

2.2.2 Additional Findings

A total of 62% of survey respondents reported being either completely or somewhat satisfied with their curbside charging experience. For those who did not select "completely satisfied," a follow-up question identified the main sources of dissatisfaction.

Figure 3: Reasons <u>for not</u> being completely satisfied with chargers

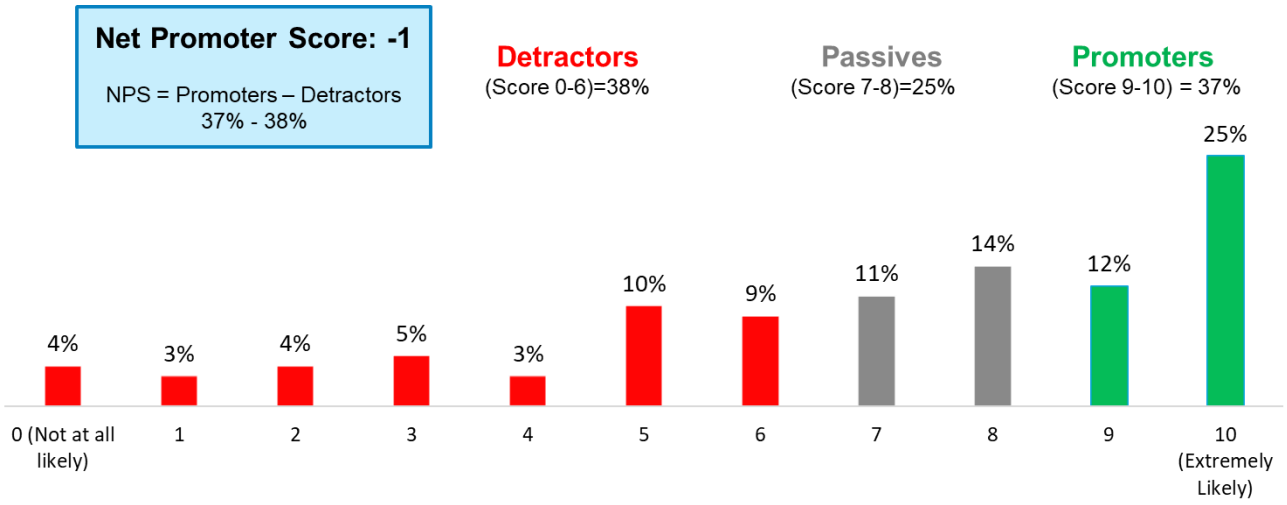


The most common issues cited were limited charger availability and instances of chargers being blocked by Internal Combustion Engine (ICE) vehicles, a phenomenon known as ICE'ing. According to a 2023 NYC DOT[4] study, chargers were fully blocked by ICE vehicles 6% of the time and partially blocked about 30% of the time. Although utilization has increased since the DOT study, suggesting that blocking by ICE vehicles may have decreased as more EVs use the chargers, survey feedback indicates that any occurrence of ICE'ing remains a highly negative experience for drivers. This highlights the need for continued attention to enforcement and access. The DOT report was conducted in 2023, when utilization of chargers was much lower. With a system-peak of 80% utilization, it is expected that ICE'ing levels have gone down since chargers are so highly used by EV's that are plugged in.

The survey also tracked Net Promoter Score (NPS) as an additional measure of user satisfaction. The NPS for the Flo curbside network was -1, with a median score of 8, and 25% of respondents indicating they would "10/10 recommend" Flo chargers. The relatively low NPS may be explained by the fact that drivers are reluctant to promote chargers that are already in high demand and often unavailable. *Given the limited amount of curbside projects, it is difficult to find a comparable NPS score to benchmark against*. When *compared to a broader range of industry players*, this NPS is relatively typical; for example, ChargePoint has a score of -34, DoorDash -28, and Uber 23.

[4] "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

Figure 4: Driver Survey NPS Score Visual



2.2.3 Takeaways & Recommendations

Overall, the survey results underscore that while most users are satisfied with the curbside charging experience, the main concerns are charger availability and access. These findings reinforce the importance of expanding the curbside charging network and implementing measures to reduce ICE'ing, to further improve user satisfaction and support continued EV adoption in New York City.

Takeaways:

1. **EV drivers want more curbside chargers:** 62% satisfaction is below the 80% target, but overall sentiment remains positive. The main concern is insufficient charger availability.
2. **ICE'ing remains a significant issue:** ICE vehicles blocking chargers continues to be a problem, limiting access and negatively impacting user experience. Actual utilization could be even higher if access were unobstructed.
3. **Flo chargers influence EV adoption:** User feedback indicates that the presence of Flo curbside chargers positively impacted decisions to purchase EVs, aligning with one of the demonstration's core objectives.

Recommendations:

1. **Expand curbside charging availability:** The primary concern among drivers is the need for more charging options. Expanding the curbside network will better meet demand and improve user satisfaction.
2. **Strengthen enforcement against ICE'ing:** Although blocking incidents may be less frequent, any occurrence is highly detrimental to the driver experience. Stricter enforcement and ticketing should be implemented to minimize ICE'ing and ensure reliable access for EV drivers.

2.3 Community Satisfaction

The Community Satisfaction metric was designed to test Hypothesis #2: that community stakeholders would accept curbside charging infrastructure in their neighborhoods. The goal of this metric was to

understand whether the community felt positively about the presence of curbside chargers, and to assess whether the project generated any backlash.

2.3.1 Target & Result

Con Edison conducted community surveys every six months throughout the demonstration project, resulting in a total of ten survey waves. Surveys were distributed to both commercial and residential customers within five miles of a curbside charger, in partnership with KL Communications. To encourage participation, respondents were offered a chance to win a $25 Amazon gift card through a sweepstake.

Table 3: Community Satisfaction Targets

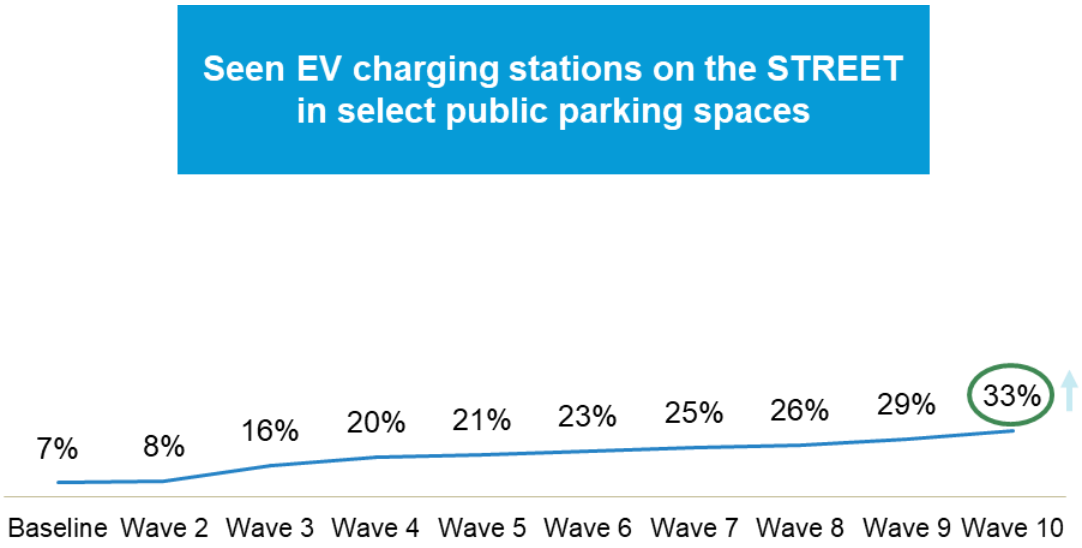
Year	Target	Results
Year 1	50%	24%
Year 2	60%	28%
Year 3	80%	24%
Year 4	N/A	23%

The demonstration project was unable to meet its community satisfaction targets, with scores plateauing at around 25% throughout the project. Further analysis revealed that satisfaction was significantly lower among non-EV car owners, with the primary concern being the loss of parking spaces. While it is disappointing that the project did not reach its community satisfaction goals, this outcome is not unexpected given the competitive nature of parking in New York City. The introduction of curbside chargers inevitably led to some contention given parking spaces are being limited to only EVs.

2.3.2 Additional Findings

A key priority of the demonstration project was to raise awareness of curbside charging, ensuring that community members knew charging options were available if they considered purchasing an EV. Throughout the project, the community survey asked respondents whether they had seen a charging station on the street, using example photos to gauge awareness. From the baseline to the final survey wave, awareness increased from 7% to 33%, indicating a significant improvement in public recognition of curbside chargers.

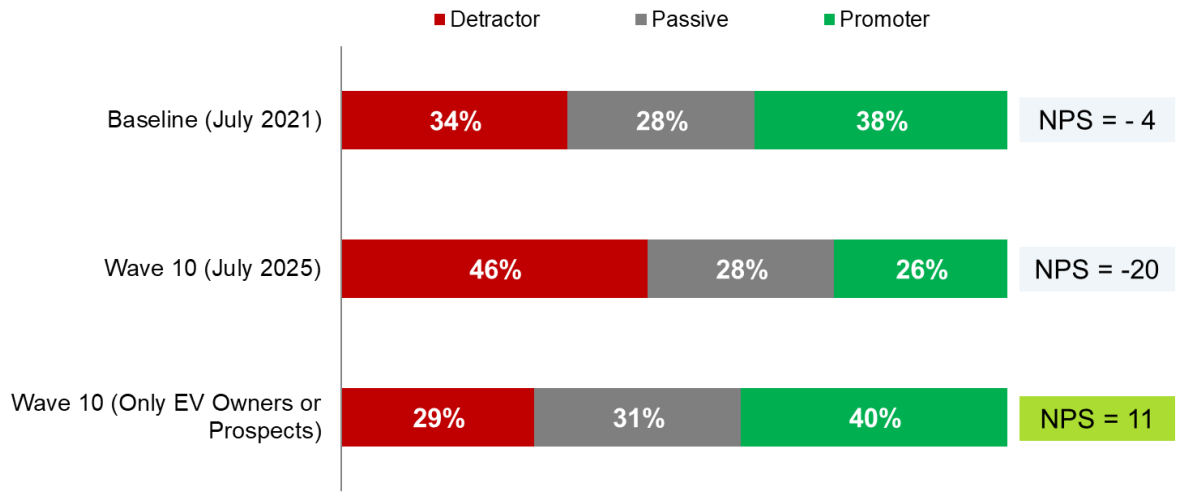
Figure 5: Awareness of chargers over time



The survey also explored perceived benefits and drawbacks of curbside chargers. In the first wave, 87% of respondents identified drawbacks to installing these chargers, but this figure dropped to 50% by the end of the project. The most commonly cited benefits included convenience and accessibility, encouragement of EV adoption, environmental benefits, and lower driving costs. The main drawbacks were loss of parking spaces, limited charger availability, concerns about vandalism and theft, safety issues, increased traffic or congestion, and aesthetic impacts. More details on these responses can be found in Appendix E: Curbside Demonstration Project Closeout Report.

The final metric tracked through the community surveys was Net Promoter Score (NPS). The survey asked: "On a scale of 0 to 10, how likely are you to recommend to other New Yorkers that they should support electric vehicle charging stations on their neighborhood streets?" It is important to note that this phrasing measures advocacy rather than true promotion, as many respondents may not have used or known about the chargers. As a result, the NPS results should be interpreted with caution and may not accurately reflect customer loyalty to the curbside charging network.

Figure 6: Community Survey NPS Score



2.3.3 Takeaways and Recommendations

The community survey results highlight a clear increase in public awareness of curbside EV charging, but also reveals persistent challenges in achieving widespread satisfaction. The findings suggest that while EV owners and prospects view the infrastructure more favorably, broader community acceptance remains limited, likely due to factors such as loss of parking or lack of direct benefit for non-EV drivers.

Takeaways:

1. **Public Awareness of EV Chargers Increased:** Awareness of curbside EV chargers increased significantly, rising from 7% at baseline to 33% by the end of the project. This demonstrates that outreach and visibility efforts were effective.
2. **Satisfaction Levels varied among EV Owners/ Prospects and non-EV owners:** Satisfaction with curbside chargers remained low at around 25% throughout the project, partly attributed to dissatisfaction by non-EV owners. Higher satisfaction was observed among EV owners and those considering EV adoption.
3. **Net Promoter Score (NPS) plateaued:** The Net Promoter Score for curbside chargers was consistently low during the project. It is important to note, however, that many survey respondents were not direct users of the chargers. As a result, the NPS may not accurately reflect true customer loyalty for the curbside charging network.

Recommendations:

1. **Continued Community Engagement:** Early engagement with communities during charger installation was highly effective in communicating the benefits and potential of the project. This practice should be maintained consistently to ensure neighborhoods understand and appreciate the value that curbside chargers bring to their communities.
2. **Recognize the Impact of Dissatisfaction:** While the project aimed for community acceptance, some dissatisfaction among non-EV drivers is expected and can be constructive. Restricting certain parking spaces to EVs may initially cause negative reactions, but this approach supports the broader goal of encouraging EV adoption. Over time, increased access to charging and parking for EV drivers may incentivize more residents to consider switching to electric vehicles.

2.4 Station Uptime

Station uptime was a key metric of success, directly tied to Hypothesis #3: that curbside charging can be a sustainable business. This metric also supported user satisfaction and demonstrated that the reliability of curbside chargers can help make them a critical part of New York's EV charging ecosystem. To ensure consistently high uptime and a positive user experience, Con Edison and Flo established a maintenance contract that emphasized preventative maintenance over corrective actions, aiming to minimize charger downtime from the outset.

2.4.1 Target & Result

Flo reported quarterly uptime metrics throughout the project.

Table 4: Station Uptime Targets

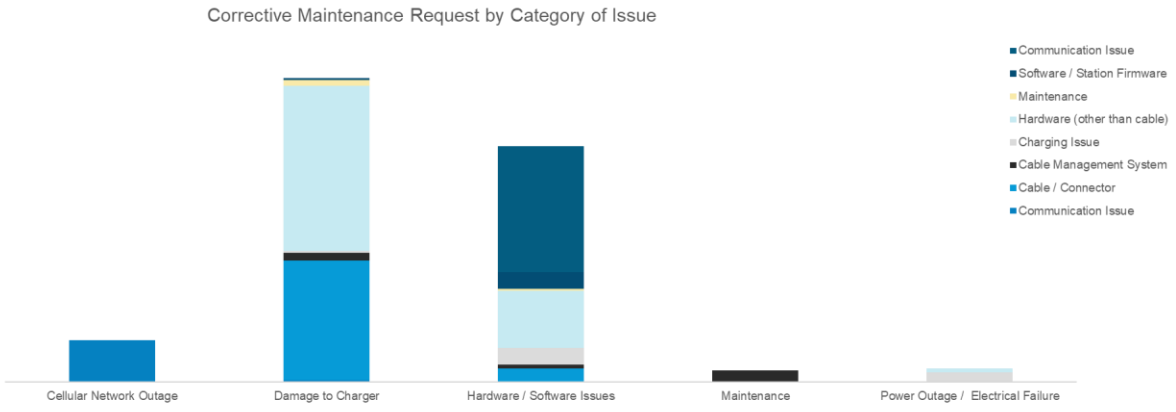
Year	Target	Results
Year 1	Median quarterly Uptime of 95% through project length	Above 99% uptime throughout project length
Year 2		
Year 3		
Year 4		

The demonstration project consistently surpassed its station uptime targets, with curbside chargers achieving over 99% uptime for the entire project duration. This high reliability provided EV drivers with confidence in curbside charging as a dependable option. However, maintaining this level of uptime required significant investment in maintenance, and a detailed breakdown of maintenance cases is provided in the following section.

2.4.2 Additional Findings

The focus on preventive maintenance entailed proactively addressing hardware and software wear and tear before issues could escalate and cause charger downtime, which would then require corrective maintenance. By the end of the project, Flo reported over 3,000 preventative maintenance cases and only 320 corrective maintenance cases. The most common corrective maintenance issue was physical damage to the chargers, with a detailed breakdown of cases shown in Figure 7.

Figure 7: Types of Corrective Maintenance Cases



2.4.3 Takeaways and Recommendations

Charger uptime is a significant challenge for the EV industry. This demonstration, though costly, showed that preventative maintenance can address this issue and ensure a reliable network.

Takeaways:

1. **Preventative maintenance was essential for achieving high uptime:** By focusing resources on preventative maintenance, the project minimized corrective repairs and consistently kept chargers operational for users.
2. **Exceptional uptime came at a significant cost:** The demonstration project's maintenance expenses were much higher than current industry standards, reflecting the investment required to maintain nearly 100% uptime.

Recommendations:

1. **Economies of scale could improve cost efficiency in the future:** The maintenance model used in this demonstration project could potentially support a larger network, suggesting that expanding the number of chargers may help lower per-unit costs and make operations more efficient. For this demonstration, the chargers were spread out across the boroughs, in a future project higher density of chargers can also improve unit economics of maintenance cost.
2. **A preventative-first approach holds strong potential for future projects:** Prioritizing preventative maintenance proved highly effective in achieving near-perfect uptime, addressing one of the industry's biggest challenges. This strategy can serve as a model for future curbside charging initiatives seeking to maximize reliability and user satisfaction, especially if economies of scale are unlocked.

2.5 Financial Viability

Financial viability was the final metric, directly tied to Hypothesis #3: proving that curbside charging can be a sustainable business. The goal was to demonstrate that the project could reach operational profitability, positioning curbside charging as a viable market opportunity. As a first-of-its-kind demonstration, installation and maintenance costs were substantial, with no prior project for direct comparison.

The project maintained a competitive and affordable pricing scheme, charging drivers $2.50/hour during the day (6am–9pm) and $1.00/hour overnight, substantially lower than market competitors. This equates a rate of $0.34/kWh during the day and $0.14/kWh overnight, compared to the NYC L2 average rate of $0.45/kWh[5]. This approach aimed to make curbside charging accessible for EV drivers and encourage broader adoption in New York City.

2.5.1 Target & Result

[5] Details of pricing scheme of L2 competitors can be found in Appendix E: Curbside Demonstration Project Closeout Report

Financial viability was measured by the ratio of Sales Revenue to Operational Expense, with revenue from customer payments and expenses including electricity and maintenance.

Table 5: Financial Viability Targets

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

The demonstration project exceeded financial viability targets in the first two years, but the revenue-to-expense ratio plateaued in year three. High maintenance costs were the primary reason for not reaching 100% operational profit ratio. The project prioritized reliability and affordability over profitability, resulting in higher costs and lower revenue compared to market norms.

2.5.2 Additional Findings

If financial viability had been the primary goal of the demonstration project, adjustments to the revenue model and maintenance costs could have enabled the project to meet or exceed its success targets. For example, applying a revenue rate of $0.45 per kWh (the average for Level 2 chargers in New York City) and reducing annual maintenance costs to $1,200 per plug (about a third of our maintenance costs through the demo. Assuming a 20% lower utilization and energy consumption constant given increased cost per kWh, this demo would have still been profitable and achieved 100% sales revenue/ operating expenses in the first year.

Table 6: Financial Viability under Profit Maximizing Scenario

Year	Target	Results achieved under this scenario
Year 1	30%	**108%**
Year 2	60%	**121%**
Year 3	100%	**139%**
Year 4	N/A	**138%**

The financial analysis also examined optimal utilization levels. Based on observed usage and driver survey feedback, the current utilization rate of approximately 80% was considered too high, as it often made chargers unavailable when needed. The analysis then looked to identify the minimum utilization level required to maintain financial viability to establish a recommended target range.

Using the same assumptions from the profit-maximizing scenario from Table 6, $0.45 per kWh revenue and $1,200 annual maintenance per plug, revenue and operating expenses were calculated across various utilization levels for the 100 chargers to establish the minimum utilization that still ensured profit margin:

Table 7: Revenue / operating expense at each utilization level

Utilization	Rev	Operational Expense	Rev / Expense
	$0.45 / kWh	Maintenance. = $1200/plug/year 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%

The analysis shows that beyond 30% utilization, marginal gross profit grows at a slower pace, with the revenue-to-expense ratio stabilizing around 1.5x after 40% utilization. This indicates that 30% utilization is a reasonable minimum threshold for financial viability. New market entrants should aim for a utilization target above 30% but below 60% to enhance driver experience while achieving the gross profit necessary for a strong return on investment.

Finally, the financial analysis estimated the *internal rate of return (IRR)* for a curbside charging provider entering the current market under recommended conditions. The purpose of this analysis was to demonstrate, based on available data and the maturity of the technology, that the market is prepared for curbside charging deployment*, and how existing incentives can make this even more financially viable.*

Table 8: Recommended Market Entry Conditions

Number of Plugs	Utilization	Revenue Fee	Idle Fee	Installation Cost	Maintenance Cost
100	**50%**	**$0.45/kWh**	**$0.05/min**	**$15k per plug**	**$1200 per year**

Under these conditions, and assuming a 15-year station lifespan, a market entrant could expect an IRR of approximately 8% with no incentives. When applying Con Edison incentives, specifically Power

Ready (PR) and Smart Charge Commercial (SCC), the IRR increases to 28%. based on the return expectations for other infrastructure investments, Con Edison estimates that L2 developers and market entrants are targeting an IRR of 12% or higher. The Con Edison incentives can move the needle towards making this a market opportunity that private investment would be interested in pursuing.

Figure 8: Expected IRR over 15 years

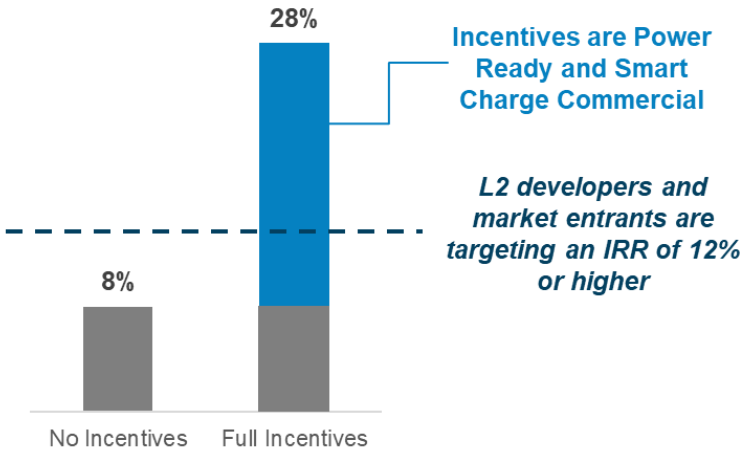
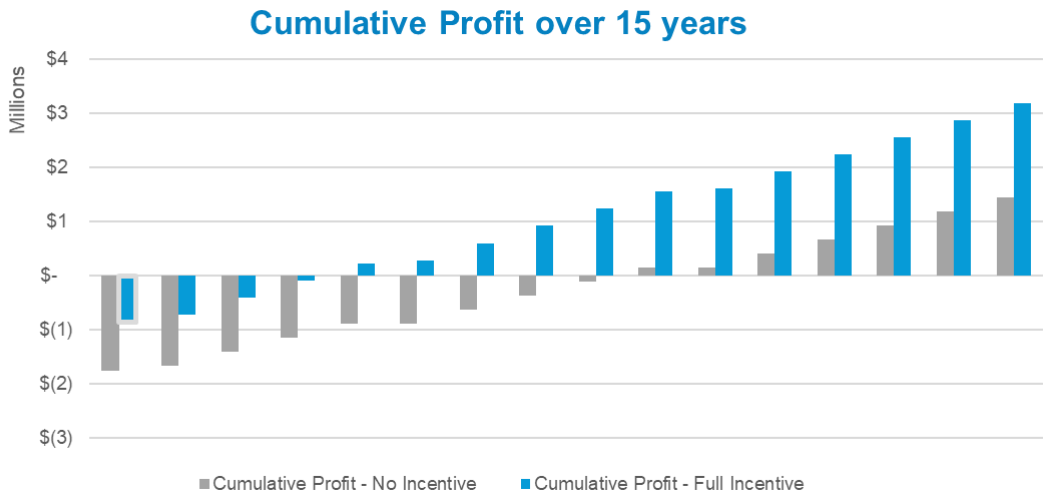


Figure 9: Cumulative Profit over 15 years[6]



The analysis showed that while curbside charging can be financially viable without incentives, the inclusion of PowerReady and SCC programs can significantly improve IRR. This makes the opportunity more attractive for potential providers. It is recommended that discussions be held with

[6] *Incentives assume 90% Power Ready funding and SCC Enrollment Bonus + 50% Peak avoidance. All other assumptions same as footnote 1*

curbside providers to determine whether this level of profitability aligns with their expectations, or if additional factors are being considered.

2.5.3 Takeaways and Recommendations

This demonstration project did not prioritize financial viability, focusing more on reliability and affordability. However, the high success and utilization of the curbside chargers show a strong market potential and financial viability for curbside chargers in New York City.

Takeaways:

1. **Financial targets were not fully met because reliability and affordability were prioritized:** The project reached a maximum of 87% revenue-to-operational expense ratio, falling short of the 100% target due to high maintenance costs and intentionally low pricing to encourage EV adoption.
2. **Incentives can improve profit margins and attract market entrants:** Programs like PowerReady can help offset high upfront and financing costs, making curbside charging more appealing for private sector investment**.**
3. **Optimal Utilization is higher than 30%:** There is a diminishing marginal return above 30% utilization. Market entrants should aim 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, while balancing availability to improve driver experience.

Recommendations:

1. **Maximize available incentives to improve financial viability:** Leveraging programs such as PowerReady and Smart Charge Commercial can reduce upfront and ongoing costs, improving profit margins for future market entrants. Making curbside charging more financially viable for new providers will encourage greater market participation, resulting in more charger availability for EV drivers across New York City.
2. **Target around 50% utilization and implement idling fees:** Setting utilization targets at approximately 50% and introducing idling fees[7] can help balance availability, driver experience, and financial performance.
3. **Engage with potential market participants to refine profit margin expectations.** Future analysis should include direct engagement with other market players to better understand the financial conditions required for broader market participation.

[7]Idling fee refers to a $/minute charge applied to EV"s using curbside chargers for every minute they are plugged in but not charging. If curbside project shifts from a $/hour to a $/kWh revenue model, idling fee's are necessary to ensure cars are not staying after they are fully charged, and using as a free parking spot. More on efficiency (% of session where vehicle is charging) and idling fees can be found in Appendix E: Curbside Demonstration Project Closeout Report.

3.0 SUMMARY OF RESULTS AND RECOMMENDATIONS

Hypothesis	Metric	Summary Result	Recommendations
Curbside EV Charging can have a significant role in the EV charging Ecosystem	Utilization	Utilization exceeded targets by a wide margin, confirming strong demand across NYC. Chargers often operated near capacity, limiting availability.	Expand charger availability and aim for utilization between 30-50% to improve access and user experience, while keeping strong profit margins.
	User Satisfaction	Most drivers were satisfied with the service, but limited availability and ICE'ing were common complaints	Increase the number of chargers and strengthen enforcement against ICE'ing to improve satisfaction, availability and reliability.
Community stakeholders will accept curbside EV charging stations	Community Satisfaction	Awareness increased significantly, but satisfaction remained low, especially among non-EV drivers concerned about parking loss.	Continue community engagement and education, while recognizing that some resistance is likely to persist.
Curbside EV Charging can be a sustainable business	Station Uptime	Uptime exceeded 99% throughout the project, driven by a preventative maintenance model. However, this came at a high cost.	Maintain a preventative-first approach and explore economies of scale to reduce costs and support future expansion.
	Financial viability	The project reached up to 87% revenue-to-expense ratio. Profitability was limited by high maintenance costs and intentionally low pricing.	Incentives such as PowerReady and Smart Charge Commercial should be used to improve financial viability; targeting around 50% utilization and applying idling fees can help balance performance and access; and engaging market participants will help clarify profit expectations.

4.0 APPENDICES

The following appendices are included at the end of this Quarterly Progress Report:

Appendix A: Description of Phases

Appendix B: Work Plan

Appendix C: Checkpoints and Milestones Progress

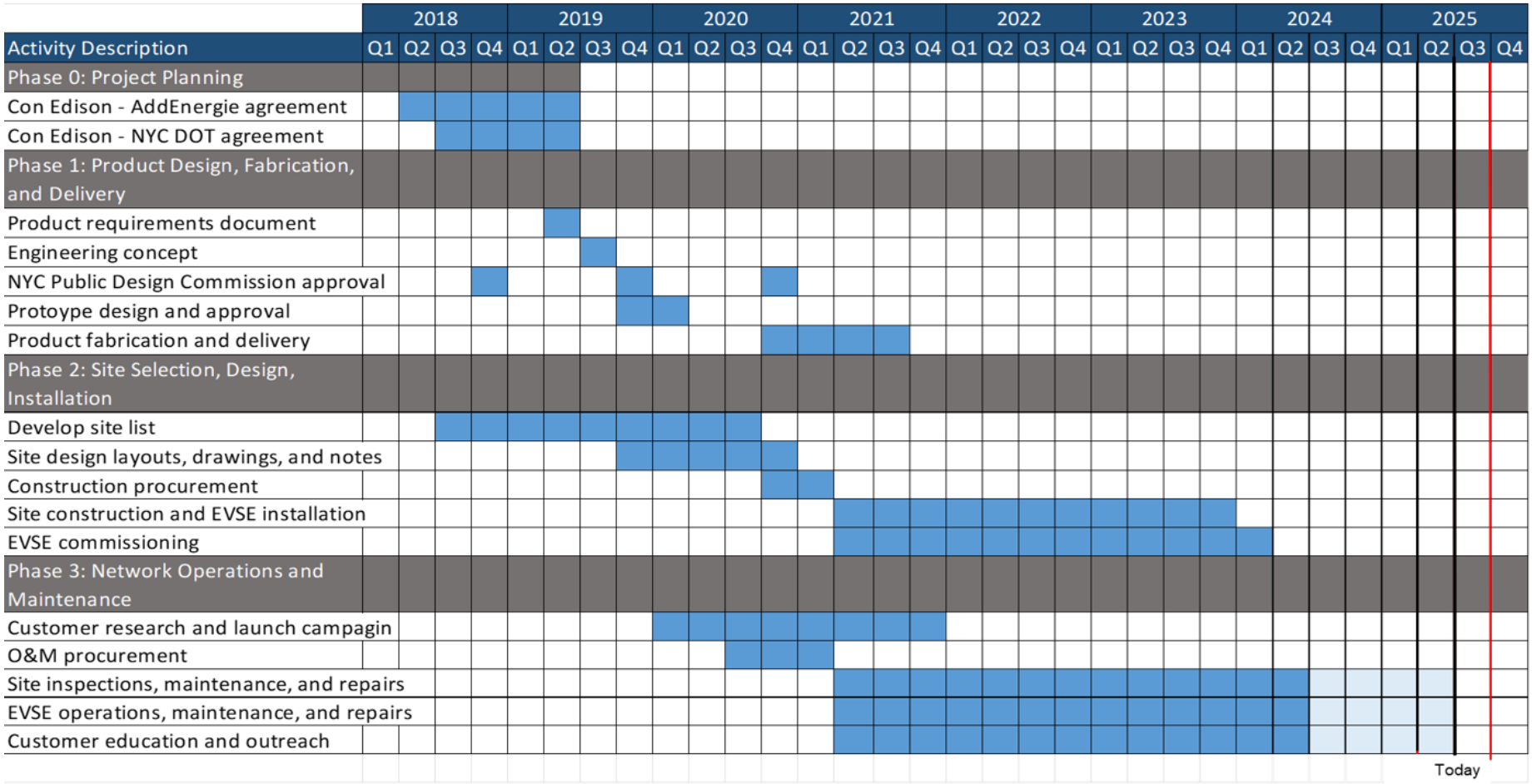
Appendix D: Procedures and Policies

Appendix E: Curbside Demonstration Project Closeout Report

Appendix A: NYC Curbside EV Charging Network Description of Phases

Phase	0. Project Planning	1. Product Design, Fabrication, and Delivery	2. Site Selection, Design, and Installation	3. Network Operations and Maintenance	4. Reporting
Milestone (Stage Gate to Next Phase)	*Agreements Completed* • DPS approval • Partner contracts signed	*Delivery of EVSE product* • Approved product design (Con Edison, DOT, PDC) • Fabrication and delivery to Con Edison	*Design, construction, installation, and commissioning* • DOT approval of sites • Con Edison approval of site designs • FLO commissioning of EVSE units	*Operate EVSE network* • Project ends 3-4 years per demonstration agreement with DOT	*Collect, analyze, and report charging session metrics* • Project ends
Key Elements	• Con Edison – NYC DOT Demonstration Agreement • Con Edison – FLO Agreement • DPS approval of project proposal and implementation plan	• Design concept for "look and feel" external elements • Design concept for internal elements	• DOT community outreach • Con Edison acceptance of Burns McDonnell designs • Con Edison procurement of and management of construction firm	• Con Edison procurement of and management of O&M firm • Marketing and outreach by project partners • FLO EVSE operations, customer service and billing, etc.	• Monthly reports to DOT, per Agreement • Quarterly reports to DPS • Final report
DER Categories	N/A	N/A	• N/A	• Electric vehicles	• Electric vehicles

Appendix B: Work Plan



Note: NYC DOT has exercised their option to extend operations by one year, from July 2024 to July 2025.

Appendix C: Checkpoints and Milestone Progress

Checkpoint/Milestone	Timing*	Status
Delivery of EVSE product	Phase 1 end	
Initiate construction	Phase 2 midpoint	
Procure O&M firm	Phase 3 start	
Implement launch campaign	Phase 2 midpoint	
Conduct customer surveys in host neighborhoods	Phase 2 end	
Complete construction	Phase 2 end	

*Detailed descriptions of the Phases can be found in the Appendices.

Legend

 On Schedule/Completed

 Delayed w/out Major Impact

 Delayed or Stopped – Project Goals Impacted

Planned Activities

Planning

None

Product Design, Fabrication, and Delivery

Delivery of EVSE product.

Status: Green

Expected Target by Phase 1 End: FLO began production and delivery on schedule for planned installation in August 2020.

Actual by Phase 1 End: Final deliveries received in Q2 2021.

Solutions/strategies in case of results below expectations: N/A

Site Selection, Design, and Installation

Initiate construction

Status: Green

Expected Target by Phase 2 Midpoint: Construction firm(s) under contract for planned installation of curbside EV charging stations beginning in August 2020.

Actual by Phase 2 Midpoint: Delayed procurement due to uncertainty around the COVID-19 pandemic. Delay allowed for further charge post design analysis. NYC DOT conducted outreach to community stakeholders prior to the construction phase. Ongoing delays due to site changes, on-site barriers to construction (*e.g.*, scaffolding and other construction), parking restrictions, and changing price of construction work over project duration.

Solutions/strategies in case of results below expectations: Continued engagement with construction management group.

Complete construction

Status: Green

Expected Target by Phase 2 End: All construction was intended to be completed by Summer of 2022

Actual by Phase 2 Endpoint: Phase 2 was completed in January of 2024 due to issues with city fleet site installations. There was one final site installed which began in January of 2024. The were some initial delays due to supply chain issues. The delay was of a minor impact to the success of this project.

Solutions/strategies in case of results below expectations: Continued engagement with construction management group.

Network Operations and Maintenance

Procure an O&M firm

Status: Green

Expected Target by Phase 3 Midpoint: Con Edison and FLO completed site inspection scope of work, reporting mechanism, and checklist. Con Edison procured a maintenance partner for the sites.

Actual by Phase 3 Midpoint: FLO is providing ongoing maintenance and operations services. Reporting key information to Con Edison weekly, monthly, and quarterly

Solutions/strategies in case of results below expectations: Con Edison and FLO have an ongoing operation and maintenance agreement

Implement launch campaign

Status: Green

Expected Target by Phase 2 Midpoint: Complete customer research plan, including selecting target neighborhoods and developing research methodology.

Actual by Phase 2 Midpoint: Customer recruiting for the interviews began in May 2020 and research completed in Q3 2020.

Solutions/strategies in case of results below expectations: N/A; activity is complete.

Reporting

Conduct customer surveys in host neighborhoods.

Status: Green

Expected Target by Phase 2 end: Con Edison Customer Outreach completed utility customer survey for project host neighborhoods, intended to capture public opinion of the Project and general awareness and attitudes on electric vehicles prior to demo project operations. Con Edison plans to run its survey every six months for the duration of the demonstration project period.

Actual by Phase 2 end: Completed the plan. Outreach is ongoing with ninth iteration of survey planned in fall of 2024.

Solutions/strategies in case of results below expectations: If issues emerge preventing the survey outreach, the Project Team will address them as they arise.

Appendix D: Procedures and Policies

Cybersecurity and Personally-Identifiable Information Protection

Consistent with Commission policy related to cybersecurity and the protection of personally-identifiable information ("PII"), each partner agreement executed for the implementation of the Project includes specific protections related to cybersecurity and PII. This protection is critical in encouraging customers to sign up with new and innovative services offered by utilities.

Accounting Procedure Established

On February 16, 2016, in Case 15-E-0229, Con Edison filed an accounting procedure for the accounting and recovery of all REV demonstration project costs.[8] This accounting procedure establishes a standardized framework that will govern how the Company categorizes and allocates the costs of the REV demonstration projects, and will facilitate analyzing each project to determine the overall financial benefits of the program to customers.

Costs, Benefits, and Operational Savings

Budget information for all of the Company's REV demonstration projects is being filed confidentially with the Commission, concurrently with the filing of this document. All costs filed are incremental costs needed to implement the projects. To date, no tax credits or grants have been available to reduce the net costs of the projects, but Con Edison will take advantage of such offsetting benefits when they are available. There are no operational savings to report at this time.

[8] Case 15-E-0229, *Petition of Consolidated Edison Company of New York, Inc. for Implementation of Projects and Programs that Support Reforming the Energy Vision*, REV Demonstration Projects General Accounting Procedure (filed February 16, 2016).

Appendix E: Curbside Demonstration Project Closeout Report

The Company is filling Appendix E as a separate attachment.