

ComEd Curbside Charging Pilot EM&V Executive Summary

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Acknowledgments

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Executive Summary

Purpose

The ComEd Curbside Charging Pilot was designed to evaluate the feasibility, performance, and scalability of a ComEd-led, turnkey delivery model for electric vehicle (EV) charging infrastructure located within public rights-of-way (ROW). The pilot sought to determine whether expanding the utility's role beyond traditional front-of-the-meter responsibilities could reduce customer barriers and accelerate equitable deployment of public charging infrastructure.

What Was Tested

ComEd provided an end-to-end solution that included behind-the-meter design, construction, contractor management, and municipal coordination. ComEd also subsidized charging equipment and covered three years of networking and maintenance costs. This approach was evaluated across four publicly accessible sites in partnership with three municipalities.

Key Findings

The pilot demonstrated that while a turnkey delivery model can address certain upfront customer barriers, curbside charging presents unique challenges that limit scalability and cost-effectiveness:

- Permitting, zoning, and governance requirements varied significantly across municipalities, leading to redesigns and schedule delays.
- Civil design and construction requirements drive higher costs, limiting utility cost-effectiveness.
- Municipal hesitation remained high despite ComEd-funded design and construction, driven by uncertainty around ownership, maintenance, revenue models, and political readiness.
- Publicly accessible off-curb parking locations generated stronger interest and proved more viable than true curbside installations.
- Internal coordination across multiple functions reduced execution efficiency and limited the realization of potential turnkey benefits.

Key Takeaways

- Curbside EV charging is structurally more complex than private-site or off-curb public charging and requires tailored program design.
- Turnkey delivery alone is insufficient to overcome municipal knowledge gaps, risk concerns, and site readiness challenges.
- Broader definitions of curbside-adjacent locations may improve feasibility while still meeting public access and equity objectives.

Path Forward

The findings suggest that future curbside efforts would benefit from targeted customer selection, expanded education and advisory services, standardized technical approaches, and flexibility related to site eligibility, timelines, and cost-sharing mechanisms.