

Are EV-Supporting Programs Revving the Market?

Offering a charging station program does not guarantee more electric vehicle servicing equipment (EVSE) installations or EVs on the road. National Grid used on-the-ground feedback to determine what else is needed to spur EV and EVSE sales.



The Challenge

If you build it, will they come? Not without support. To drive EV and EVSE adoption, you need to know whether and how your efforts are moving the market, and shifting awareness, perceptions, or purchase considerations. In partnership with Energy & Resource Solutions (ERS), ILLUME is helping National Grid drive adoption to meet state goals using feedback from prospective EVSE site hosts and EV buyers.

The Results

In year one of the two-year study, our surveys and in-depth interviews found persistent barriers to EV and EVSE adoption. We learned:

Customers have:

- Strong awareness of EVs but feel they lack sufficient knowledge on whether they will meet their needs, are fun to drive, are more expensive to maintain, and more
- Cost and range anxiety
- Concerns about charging availability
- The belief that current EVs are not a 1:1 replacement of their current vehicles

Prospective EVSE site hosts have:

- Knowledge gaps when it comes to the demand for charging, how EV charging actually works, and projected EV growth
- Concerns about up-front installation costs and high operating costs as demand charges go up
- Worries about utilization and whether they can amortize costs over a large enough EV customer base
- Complex decision-making structures that can create protracted participation processes

What did we hear from prospective EV buyers?

“I drive all day long for work so I would need something that could accommodate long trips.”

“I’m not sure how a long-distance road trip would work, or how my life would change slightly if I got an electric vehicle. I’m not sure how long exactly it takes to charge an electric vehicle.”



The Takeaway

There is work to be done to get more drivers into EVs and more charging stations into communities. By connecting directly with prospective buyers and EVSE site hosts, program sponsors and administrators can discover barriers and levers to move the market. For National Grid, we found:

Easy wins to support greater EV adoption:

- **Increase EVSE visibility** using highway, city, and neighborhood signage to alleviate concerns about EV range and charging availability. Seeing is believing!
- **Promote “fun to drive” features and larger models** to prove EVs can fit different needs and lifestyles. Growing consumer knowledge of EVs helps overcome fears of losing beloved features such as AWD or towing capacity.
- **Organize test drives and neighborhood EV drive events** where current EV owners can discuss their cars. These experiential events help would-be buyers get answers to specific questions and increase familiarity and comfort with EVs.



Easy wins to support greater EVSE site host participation:

- **Make the business case** by explaining both revenue and customer loyalty models to overcome concerns about cost and utilization.
- **Develop incentives** alongside vendors because prospective participants lean on them to navigate EVSE adoption and fill in their gaps in EV and EVSE knowledge.
- **Use case studies** to communicate the value of EVSE site hosting to prove participation benefits.
- **Use pilots to build trust**; consider incentive structures that entice potential site hosts to pilot EVSEs at select locations so they can better understand the business value of investment.



How We Did It

To provide these insights, ILLUME used both in-depth interviews and survey research to learn from the market. Our team reached across National Grid's Massachusetts service territory asking:

- What is residential customer awareness of and knowledge about EVs? What are their attitudes toward EVs? What is their likelihood to adopt?
- What is residential customer awareness and understanding of charging stations?
- What are EV owner motivations for purchasing EVs? What are their experiences with EVs and EV charging?
- What is charging station site host awareness of and motivations for installing charging stations?
- What is site hosts' interest in different ownership models, and barriers to installing Level 2 and direct current fast charging (DCFC) stations?

Through research with a wide range of drivers and prospective and current site hosts, ILLUME is providing National Grid with needed insights to optimize charging station program performance. Hearing directly from the market, National Grid can continually improve the design, ensuring it anticipates and overcomes barriers.

Utilities and program administrators are playing an increasingly important supporting role as state governments set aggressive EV and EVSE market development targets. As our industry helps accelerate EVSE and EV adoption, listening and remaining responsive to real concerns keeps the customers in the driver's seat.

APPROACH BY THE NUMBERS

600+

person
general
population
survey

180+

person
EV owner
survey

5

business
site host
survey

8

utility staff
interviews

4

expert
interviews

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