

Choosing a charger is just the beginning of the EV infrastructure journey

How building managers are navigating the complexity of electric vehicle (EV) adoption.



The Story

There's no question that electrification – and electric vehicles (EVs) in particular – are a vital component of any credible climate change strategy. And at first blush, enabling greater use of EVs may seem like an easy and relatively straight forward exercise. Plug and play, right?

But as any building manager who's decided to get in the EV game could likely attest, it's never a simple exercise. Choosing the right EV chargers is only the first of many issues to wrestle with and decisions to make. One Ottawa condo complex, for example, was determined to contribute to decarbonization and to respond to resident interest in EVs. But the condo board quickly bumped up against the limits of the building's electrical capacity.





The condo board struggled with the challenge of providing simultaneous charging for multiple EVs when the additional load exceeded the limits of their existing electrical system. The condo was strapped for cash, so it decided to work with an energy solutions company that helped find a cost-effective solution. Capacity sharing proved key, with the power flow to each individual vehicle being reduced when many cars are charging simultaneously, and increased when fewer vehicles are charging. This was enabled through the installation of smart, power-sharing panels and chargers. The board and its advisor also found a metering solution that will accurately divvy up the costs between tenants. To assist further, the energy solutions company helped the condo board apply for available government rebates and incentives.

Through its own perseverance, and its partnership with the energy solutions provider, the condo board was able to future-proof its building with effective and equitable EV capacities. This building and its residents, current and future, are now well positioned in the face of what is clearly strong and accelerating momentum towards transportation electrification.

This is driven in part by the federal government's broad objective to achieve net zero emissions, and by its recently accelerated mandatory target requiring all new light-duty cars and passenger truck sales to be zero-emission by 2035.

Government agencies, public safety organizations, and many other entities are looking at these developments and seeing how they can go electric. And as they do so, the EV charging industry is only becoming more crowded and complex. Multiple vendors have emerged in the marketplace, including original equipment manufacturers (OEMs) of EVs and chargers, and many others. For property managers who are making decisions about EV charging that will have long-term implications, there's a dizzying array of options. So, what do they do and who do they turn to?

Two additional scenarios reflect how key decision-makers took a bold step to seek the advice of an energy solutions company, one that was laser-focused on helping them navigate the hurdles and pain-points of a rapidly evolving EV charging world.



- 1 A European embassy knew it wanted to install EV chargers at multiple locations but had no idea how to go about it. It worked with an energy solutions company that completed a comprehensive “EV Readiness Assessment”, which included: determining the available electricity capacity, assessing the state of the electrical vault, and confirming whether an upgrade to the electrical infrastructure was needed. The solutions provider also helped the embassy determine whether it needed detailed analytics or simple data; whether fast, regular, or slow charging was appropriate; and more. In the end, the embassy found a solution that will meet its needs for years to come, and has installed EV chargers at its multiple diplomatic posts across Canada.**



2 Spurred on by Canada’s mandate to reach net-zero greenhouse gas emissions by 2050, a federal government agency wanted to install EV chargers for its fleet and staff. But here’s the twist: the agency wasn’t interested in owning or maintaining the chargers. So, the energy solutions company jumped in and offered an “operate and maintain” arrangement that met the agency’s unique needs: leasing the chargers to the agency, looking after bill collection, and serving as a single point of contact for maintaining the equipment and responding to any issues. The government agency was thrilled because it was able to avoid some major headaches, including an upfront capital investment and the ongoing responsibility for maintaining and repairing equipment.

The journey to effective EV enablement doesn’t usually follow a straight and simple path, and the landscape is only getting more complex. But it can be navigated with the right advisor – one that will help deliver on each organization’s objectives, and will structure a solution aligned with each customer’s specific long-term needs.

Is your organization interested in electric vehicle charging?

Contact Envari Energy Solutions to learn more about electric vehicle infrastructure services. envari.com | 613.225.VARI



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