

EV Charging Stations Case Study

LED Lighting + Technology and service solutions provider EMC uses its headquarters as a "living lab" where employees work in environments with the same technologies it offers its customers. While vendor-neutral LED lighting, networked lighting controls and UV-C air duct solutions are found inside the building, EV charging stations available for use by employees and the local community mean the lab extends to the parking lot.

Taking the same vendor-neutral approach it used for the building's interior, EMC installed charging stations from different manufacturers, periodically changing them to test new charging technologies.

The company initially installed a dedicated sub panel to run the EV chargers so it could meter daily charges and monitor the power pulled from each unit. This involved running new cable to the panel and calculating the proper voltage drop needed to deliver correct amperage. While EMC initially planned to run 160 amps, it ultimately went with 200 amps to ensure a fast charge and allow for adding more EV charging stations in the future.

When an Xcel Energy incentives program covered all the infrastructure costs for a DC fast charger, which is capable of charging most electric vehicles 80% in just 20 minutes, EMC added one in a second location on the street side of the building.

With all five charging station ports often in use at once, EMC sees the installation and ongoing management as an opportunity to hone its design, installation and service expertise for current and future customer installations. This includes business models featuring advertising capabilities that create new revenue streams for owners.

The onsite EV charging stations have yielded many learnings for EMC. They include thinking about the future when running electrical: Save now by planning for future expansion that is more than incremental. The experience also makes the service provider more knowledgeable about placement considerations and how to best consider elements like traffic flow and power lines when installing.

EV Charging Incentive Sources

Infrastructure cost offset: Incentives can run up to 100% of the infrastrcuture cost.





Tax credits: Local, state and federal versions support many aspects of EV expansion.

Grants: The Infrastrcuture Investment and Jobs Act of 2021 includes \$7.5 billion in funding to support EV charging infrastructure. Given the magnitude of this funding, we expect demand to be strong.



Bring EV Charging to Your Facilities

Don't let the procurement portion of the project hold you back. Various options exist to ensure you're able to bring EV chargers to your buildings. There are multiple procurement options to help get your project started and keep it running smoothly. EMC will work with you to find the solution that works best for you and your stakeholders through three approaches:

Owner Operator Model

Investment: The building tenant or owner uses their own capital to fund the project. Local and Federal incentives are available to help offset the "make ready" costs (e.g., meter, sub panel, wiring, cement pads) as well as incentives to offset the EV charger itself.

Benefit: The owner has full control over their fleet, employee or customer charging experience including how much to sell the charge for and when to make it available on the network.

Third-party Model

Investment: There are multiple programs available where a third party funds the costs of the project and in turn requires a 10-year commitment for those parking spots and EV chargers. This gives the third party ultimate say in the consumer experience and cost model. Any incentives go to them as they are funding the project.

Benefit: Your company and all stakeholders benefit from having an EV charging infrastructure without any up-front cost as all costs are included.

Charging as a Service (CaaS) Model

Investment: This is a hybrid model where a third party provides funding as a service with no debt. A model is drafted to determine monthly payments, which will be offset by revenue from the EV chargers, with the goal of being cash flow positive. Local and federal incentives go directly to the program to also help offset total cost required for the program and lower monthly payments.

Benefit: The owner remains in control of the consumer experience.

Key Benefits of CaaS



No up-front cost



Cash flow positive accelerated savings



Potentially off-balance sheet financing



No technology, performance or maintenance risks

EMC Headquarters EV Chargers



ChargePoint CT4000 Level 2 Charger



FLO CoRe+ Level 2 Charger



Wallbox Pulsar Plus Level 2 Charger



ChargePoint Express Level 3 DC Fast Charger

