FAQs?

What are Commercial EV Charging Stations?

- Commercial EV charging stations are charging stations available for use by the public. They are located in parking lots or garages at commercial or retail locations.
- These stations, operated by businesses, municipalities, or other organizations, may be available for use by anyone with a compatible EV, often for a fee.
- They are typically faster than residential charging stations and can provide a full charge in a shorter amount of time.

How are Commercial EV Charging Stations Different from Home EV Chargers?

- Commercial EV Charging stations have a higher power level than home EV chargers meaning they can charge a battery much faster, often in a matter of hours.
- Homeowners own their chargers whereas, businesses typically operate commercial EV charging stations and may require a fee to use them.
- Commercial EV charging stations are often connected to a network that allows more functionality such as remote monitoring, billing and payment, and other features. Home chargers are standalone systems without these features.

Are Commercial EV Charging Stations Profitable?

- It depends on the location of the charging station, the number of users, and the cost of electricity.
- Commercial EV charging stations can be profitable if located in high traffic areas with many users.
- The cost of electricity and the price at which it is sold can also affect profitability.
- As more EVs hit the streets, and demand for charging stations increase, profits may also increase.

Does Frequent Charging Damage an EV Battery?

- Frequent charging does not damage the battery of an electric vehicle as long as the charging is done within the limits specified by the manufacturer.
- Modern batteries are designed to withstand thousands of charge cycles. This will reduce the battery's capacity over time but that is to be expected.

How Do You Monetize a Commercial EV Charging Station? There are several ways, which include:

- **Pay-Per-Use:** EV drivers pay a fee for each charging session.
- **Advertising:** Advertising space can be sold on charging stations.
- **Sponsorship:** Businesses can sponsor charging stations and have their branding displayed.
- **Subscription-based:** EV drivers can pay a monthly or annual subscription fee to access a network of charging stations.
- **Charging as a Service:** Some businesses offer a charge as a service to other companies and municipals which may include the infrastructure, maintenance, and billing.

DECISION MADE?

Check with your local utility for any special rates or programs.

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It's time to
GET YOUR WORKPLACE CHARGED UP
FOR ELECTRIC VEHICLES!

Electric Vehicles are no longer a thing of the future. They are here and they are NOW!

WHY WORKPLACE CHARGING?

Workplace charging offers numerous benefits to employers, employees, and building owners. Understanding how these benefits bring value to all stakeholders is critical for a successful charging project.

BENEFITS OF ELECTRIC VEHICLE (EV) CHARGING STATIONS FOR BUSINESSES:

1. **DEMONSTRATE COMMITMENT TO ADVANCING TECHNOLOGIES:** Employers can help increase the convenience and affordability of driving electric for their employees.
2. **DEMONSTRATE COMMITMENT TO SUSTAINABILITY:** Fifty-two percent of employees believe that their employers should be doing more for the environment. Lower your organization's carbon footprint by encouraging employees to drive electric.
3. **BOOST CUSTOMER TRAFFIC BY PUTTING YOUR BUSINESS ON THE MAP:** Public EV chargers are listed on EV charging station maps (ChargeHub, PlugShare, OpenCharge Map) and are a good way to attract people to your business.
4. **CUSTOMERS STAY LONGER:** Retail businesses can benefit from customers browsing for longer periods of time while their EVs simultaneously charge.

IS WORKPLACE CHARGING RIGHT FOR YOU?

Here are some points to consider when evaluating workplace charging:

- Assess the need for charging by surveying your employees. Ask employees whether they own an EV and where they charge it or if they are considering buying an EV, would access to a charger at work make them more likely to buy an EV?
- Plan ahead to meet future demand. Five to ten percent of your employees will own an EV within the next couple of years and it's only growing.
- Choosing the right EV chargers for your business is crucial. Ensure vendors meet your specific needs by knowing your goals and outcomes.
- Create smart access and pricing policies that are easy and scalable.
- Your charging stations may get busy, so consider networked charging which allows employees (and customers) to check charging status from their smart phones, get in line to charge, and get updates when charging is done.
- Always consult with your utility, an electrical contractor, charging equipment provider, and other stakeholders as necessary.

SELECTING A LEVEL OF CHARGING FOR YOUR WORKPLACE?

When determining which type(s) of charging equipment to provide at your workplace, important considerations include EV system cost, proximity of electricity service to parking areas, potential electrical upgrade requirements, EV security, and potential maintenance. Perhaps most importantly, employers must take into account the commuting distances of their employees.

LEVEL 2 CHARGING AND DC FAST CHARGING at the workplace can provide EV drivers with a high level of range security. Many available mobile applications notify EV drivers when their batteries are fully charged.

LEVEL 2

20–80 MILES PER HOUR OF CHARGING*

240 V plug (residential)
208 V plug (commercial)
Requires installation of additional charging equipment.

POWER OUTLET: Nema 14-50

VEHICLE PORT: J1772

Level 2 (L2) chargers output between 3-19 kW of power. L2 chargers can add 18-28 miles of range each hour, fully recharging an EV in 4-8 hours.

DC FAST CHARGER

40 MILES PER 10 MINUTES OF CHARGING*

480 V AC input
Rate of charge depends on type of car and charger amperage.

208 V plug (commercial)
Requires installation of additional charging equipment.

POWER OUTLET: DC Fast Charger

VEHICLE PORT: J1772 Combo, CHAdeMO, Tesla

DC Fast Chargers are typically used for public charging and they are much faster than Level 2 (AC) chargers. Charging times are dependent on the battery size and the output of the charging station. Other factors like temperature of the battery and the state of the charge will offset the charge time. Usually people spend 30-50 minutes at a DC Fast Charger.

Tip: DC Fast Charge is available in most new Battery Electric Vehicles (BEV) however, the rate of DC fast charging can vary greatly (50kW-300kW). Make sure to ask about the capability of the vehicle you are considering.

*Range depends on vehicle, speed, cargo weight, and heating and AC use.

WORKPLACE CHARGING INSTALLATION

Installing commercial EV charging stations requires coordinating with numerous contractors, understanding utility requirements, and identifying the various tax credits and incentives to reduce costs. Points to consider with workplace installations:

Step One: Site Analysis

- **Site location:** Locate as close as possible to the electrical service while ensuring that spaces are conveniently located for drivers.
- **Lighting and shelter:** Provide lighting and shelter as necessary for the safety and convenience of EV users.
- **Electrical infrastructure and utility needs:** Is the electrical service adequate or does your utility need to bring in additional power?

Step Two: Infrastructure Planning

- An infrastructure analysis is required before the installation can happen.
- Work with an electrical contractor to draft a one-line diagram and document the electrical distribution for your site.
- Share with your utility.

Step Three: Charging Solution

- Choosing the right charging vendor to meet your specific needs.
- The type of charger – level 2 or DC fast charging.
- DC Fast Charging maybe used as part of a strategy to alleviate charging congestion.

Step Four: Final Prep and Installation

- Obtain all available incentives and tax credits.
- Schedule the project and order materials.
- Ensure project management of infrastructure work e.g., running conduit, etc.
- Conduct training on any interfaces.
- Engage your employees and customers on how they can take advantage.

WORKING WITH AN ELECTRICAL CONTRACTOR

A certified electrical contractor should carry out the installation of EV infrastructure at your workplace. The electrical contractor will serve as the point of contact in coordinating local permitting, inspections, utility upgrades (if needed), equipment purchasing, and installation of the EV infrastructure equipment. Your contractor should understand the relevant codes and standards and obtain approval from your local building and utility departments.

MINNESOTA LAWS AND INCENTIVES

Please visit the following site for more information on Minnesota's State and Federal Incentives.

Alternative Fuels Data Center:
https://afdc.energy.gov/laws/all?state=MN