

## METERING (Employer Facing)

An electric vehicle supply equipment (EVSE) deployment\* is billed in accordance with the amount of energy expended during onsite vehicle charging periods. Typically, an EVSE deployment is metered separately from other electrical equipment located on the site to help accurately track the amount of energy being supplied and delivered to the vehicles charging. A multitude of factors, including the provider and deployment setup, will impact the billing rate, but the main factor is energy used, or kilowatt-hours (kWh), during the billing cycle. This makes accurate metering of the EVSE deployment crucial for the owner to accurately track usage and bill users accordingly.

An employer may opt for separate metering of an EVSE deployment if the use case is spread between distinct operational groups (e.g. distribution, warehousing, delivery) or if an employer is sharing the investment and use of a deployment with multiple users at the given site, building, or location. This will allow flexibility in metering and, ultimately, the cost allocation for the deployment as it relates to use, operation, and maintenance. Employers opting for a dedicated utility meter for their EVSE deployment may use this meter for accurate data collection and tracking as opposed to installing smart chargers, which are data- and network-capable, as long as electricity draw on the new utility meter is restricted to installed EVSE and not other uses, such as lighting. This can save on cost, since smart chargers often require recurring subscription fees to access this data.

Electric vehicle (EV) sales continue to increase, according to Argonne National Laboratory. Because of this, utilities play an important role in supporting the projected future growth of charging infrastructure and managing energy efficiency optimization for charging stations and the electrical grid. It's important to engage with utilities early in the infrastructure planning process. Utilities can mitigate grid impacts by offering managed charging (also called demand response). This allows a utility to remotely control EV charging by increasing, decreasing, or turning off charging to help meet the needs of the grid. In addition, utilities can offer incentives or unique ownership models for charging equipment and installation.

DESCRIPTION	WHO DOES BILLING?	DOES EMPLOYER PAY FOR THE COMMUNICATION SERVICE?	INSTALLATION COSTS	EXTRA ONGOING COSTS?	PROS	CONS
<b>Utility submetering (meter separate or inside the EVSE)</b>	Utility	Utility company covers	Low	Yes, monthly metering fee from utility	Utility handles metering and billing	Requires that utility has such program available
<b>Third party system and billing, property owner buys the system</b>	Service Provider	Yes	Varies based on the service provider	Yes, often consisting of flat annual service and percentage of billing	Simple for employer and user, provides more data, enables multiple users	Requires upfront investment and ongoing costs can be considerable

\*Refers to the collective group of chargers and related infrastructure on a single site

## PAYMENT SYSTEMS (Employee Facing)

Employers that provide workplace charging must decide if and how employees will pay for charging station use. Many existing workplace charging programs are free for employees. However, fees can help offset capital and operational costs associated with workplace charging and help workplaces offer increased benefits to employees through lower rates or discourage non-workplace employees from using the stations. It may also increase the perception of fairness, as not all employees can use EV charging. If your workplace would like to bill for the exact amount of electricity dispensed from chargers, a smart charger with a payment system will be required.

If an employer incorporates a payment system, it is important to develop a fee structure that is not a major barrier to use. In fact, a fee structure may help relieve charging station congestion, motivating fully charged vehicles to vacate the charger and allow others to charge at the station. Charging employees at a rate slightly above local residential electricity rates is recommended as it allows people who cannot charge at home the benefit of the economic advantage of driving electric while discouraging those employees who do not truly need to charge at work from occupying the stations longer than needed.

It is important that employers choose which scenario is right for them and clearly state the policy in relevant employee educational material. It's important to have a consistent policy in the case of EV charging prices because employees factor these anticipated costs (or lack thereof) into their decision to purchase EVs. Employers should check with their accountant or chief financial officer to determine any tax implications of providing free charging to employees.

DESCRIPTION	WHO DOES BILLING?	DOES EMPLOYER PAY FOR THE COMMUNICATION SERVICE?	INSTALLATION COSTS	EXTRA ONGOING COSTS?	PROS	CONS
<b>Free Charging</b>	N/A	No	Low	No	Simple, no extra costs	Not recommended since station availability will likely become a problem
<b>Flat Billing</b> (per kWh/hourly/daily/etc.)	Employer	No	Low	No	Simple, inexpensive	Employer must set up a clear policy
<b>Usage-Based Billing</b>	Employee or Employer	No	Low	Yes	Simple, inexpensive, pay as you go	Fewer features, unknown return on investment (ROI)