Utility EVSE Planning

Coordinate EV charging infrastructure early on with your electric utility.

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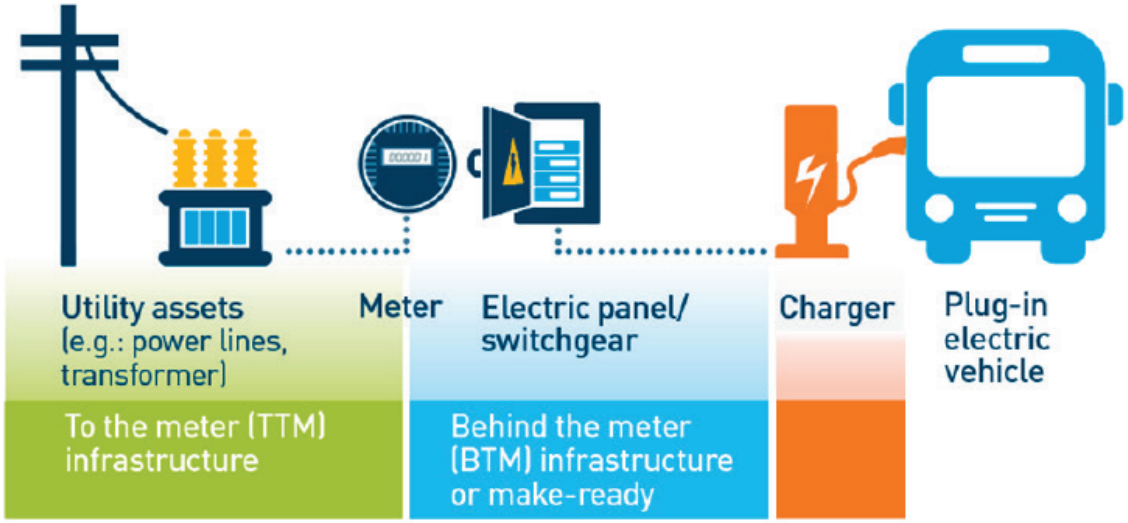
Charging Levels

Type	Size	Image	Similar to	Contact Utility?
Level 1 120 VAC	1.4 kW		Hairdryer	No
Level 2 240 VAC	3 – 19 kW		Dryer, Water Heater	Maybe
DCFC	50 kW – 350 kW +		Small Office Bldg	Yes
Extreme High Power DC	1 MW +	TBD	High Rise Office, Retail Mega-Center	Yes

Infrastructure Planning Areas

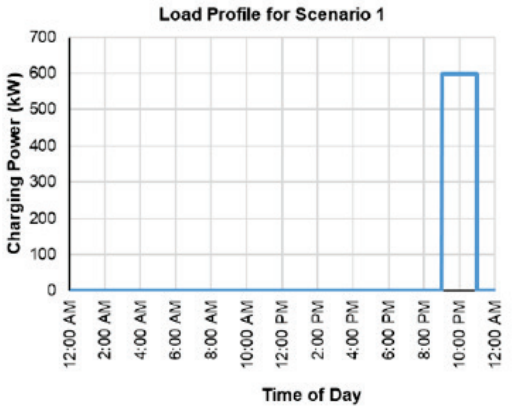
- EV Charging Equipment (EVSE) Required
- Facility Electrical Infrastructure
- Utility Service Infrastructure
- Distributed Energy Resources

Big Benefits Require Careful Planning

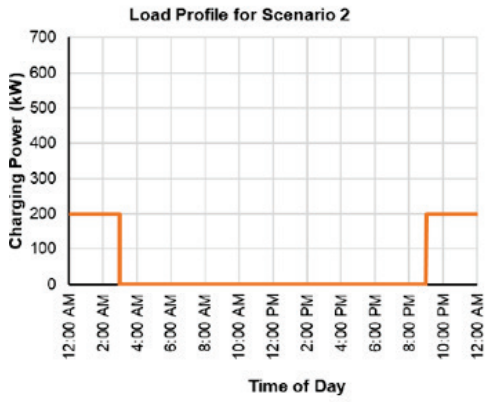


Chargers and supporting infrastructure must be designed.
Utility rate options need to be analyzed.
Timing of vehicle procurement must align with infrastructure upgrades.

Planning Scenario



4 EV trucks charging at 150 kW
Charge for 2 hours 9pm to 11pm
Peak demand 600kW @ $10kW
Energy delivered: 1,200 kWh @ .05kWh
Monthly electric bill: $7,800
Effective cost: $0.22/kWh



4 EV trucks charging at 50 kW
Charge for 6 hours 9pm to 3am
Peak demand 200kW @ $10kW
Energy delivered: 1,200 kWh @ .05 kWh
Monthly electric bill: $3,800
Effective cost: $0.105/kWh

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1. Engage with your utility early and often.
   Service upgrades can take anywhere from a few months up to two years, so it is important to engage us as soon as possible to accomplish your electrification goals most efficiently.

2. Get the economics right.
   EVs require greater initial investment than traditional fleet vehicles. However, fuel cost savings can be significant. Your utility can help customers evaluate the best electric rates and charging schedule to optimize the business case

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3. Before buying the EV, plan how to charge it.
   Your utility can help fleet operators make a holistic evaluation of their electricity supply costs and any infrastructure upgrade costs prior to embarking on a fleet electrification project.

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4. Choose a charging solution that meets your needs.
   Fleet customers must consider right-sizing, interoperability and site design when evaluating charging infrastructure options.

5. EV fleets require cooperation between fleet operators and energy managers.
   Just as fleet managers must work closely with other fuel sources, managers of electric fleets will also want to work closely with their facility and energy managers.

6. Electricity as a fuel means thinking about fuel availability in new ways.
   Certain situations will require customers to plan for different approaches to managing their fuel supply, including backup generation or redundant electric services.

7. EV fleet operators have many options to manage costs.
   You can manage your costs by optimizing your operating profile of charging solutions and schedules, as well as working with your utility to find the best rate for your business.


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