Powering the Fleet: Designing Charging Depots for Small Businesses

For plumbing companies, delivery services, and contractors in New Jersey, the business case for electric vehicles (EVs) is becoming undeniable. The fuel and maintenance savings of electric vans (like the Ford E-Transit) can significantly boost the bottom line. However, buying the vans is the easy part. The challenge lies in fueling them. Unlike a gas fleet that fills up at a public station, an electric fleet needs a "depot"—a dedicated place to charge overnight so the vehicles are ready for the morning shift.

Setting up a charging depot at your business premises is a complex infrastructure project. It involves more than just bolting chargers to the wall. It requires an analysis of your fleet's "dwell time" (how long they sit parked), their daily mileage, and the available power capacity of your building. A poorly planned installation can lead to uncharged vans and lost revenue. A well-planned one becomes a seamless part of your daily operations.

Level 2 AC vs. Level 3 DC Fast Charging

The first decision is speed. Many business owners assume they need expensive DC Fast Chargers (Level 3) to fill vans quickly. However, for a fleet that parks overnight for 10-12 hours, Level 2 AC charging is often the superior choice. It is significantly cheaper to install, easier on the vehicle batteries, and puts less strain on the building's electrical service.

EV Charger Installation in New Jersey for fleets focuses on reliability and scale. We typically recommend installing a dedicated Level 2 station for every vehicle bay. This ensures that every driver can plug in at the end of the shift without playing musical chairs with the vans. For businesses with 24-hour operations, a mix might be appropriate—mostly Level 2 for overnight, with one DC Fast Charger for quick mid-day top-ups.

Load Management to Avoid Demand Charges

Commercial electricity bills are different from residential ones. You pay for usage (kWh), but you also pay "demand charges" based on your highest peak power draw during the month. If ten vans all plug in at 5 PM and start charging at full speed simultaneously, your demand spike will be massive, leading to a shocking electric bill.

The solution is networked smart chargers with load management software. This software balances the load. It might charge the vans at a lower rate initially, or stagger the start times so they don't all

overlap. It ensures all vans are full by 6 AM, but it smooths out the power curve to keep your demand charges low. This software intelligence is the key to making the ROI of electrification work.

Future-Proofing for Growth

You might start with two electric vans today, but you will likely have ten in five years. Installing infrastructure for just two is a mistake. It is far more cost-effective to run the heavy conduit and install a large sub-panel now that can support the future ten chargers. We call this "make-ready" infrastructure.

This approach minimizes disruption to your business yard. You dig the trenches and lay the pipe once. As you buy more vans, you simply click in new chargers. It demonstrates a strategic vision that impresses stakeholders and ensures your infrastructure never holds back your business growth.

Conclusion

Electrifying your fleet is a journey to profitability and sustainability. The charging depot is the foundation of that journey. By choosing the right charger speeds, managing your electrical load, and planning for expansion, you turn your parking lot into a strategic asset.

Call to Action

Get your business ready for the electric future—contact us to design and install your commercial fleet charging depot.

Visit: **https://www.sperryelectricnj.com/ev-charger-installation**