relion

Electric Vehicle Supply Equipment

WHAT TO CONSIDER

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Are you looking to install or optimize electric vehicle supply equipment (EVSE)?

YOU'RE IN THE RIGHT PLACE.

Does the project seem daunting, or have you just realized it's not as simple as plugging in your Tesla at home?

WE'RE HERE FOR YOU.

So, are you considering transitioning your fleet to electric? Great idea! But be careful; it's essential to think about the ins and outs of the charging infrastructure. This guide will help you understand all the important aspects: from assessing your needs to on-site implementation, including how to make the right equipment selection. The goal? To enable you to create a solid plan that will support your transition to electric, optimizing both efficiency and costs. We're here to help you manage everything like pros!

The world is going electric, and corporate fleets are at the forefront. This is an opportunity not to be missed to reduce your carbon footprint, save money, and comply with upcoming environmental standards. **But for it to work, you need a good charging infrastructure.**

Electric vehicle supply equipment (EVSE) is all the equipment needed to charge your electric vehicles. But beware, it's not just about installing a charging station and that's it. You need to think about your current needs, future growth, operational requirements, and long-term reliability.

In this guide, we will provide you with all the keys to successfully setting up or optimizing your EVSE. By following our advice, you'll ensure a smooth transition to electric and make the most of your investment.

LET'S GO!

Throughout your reading, if there are any elements you'd like more information on, feel free to contact us at info@relioncharging.com or at 1 (438) 803-6269.

Step 1

INFRASTRUCTURE NEEDS

Let's start from the beginning. WHAT ARE YOUR NEEDS? Your goals? What are you aiming to accomplish with your electric fleet? And most importantly, are you technically limited because of your electric supply? To start your project on the right foot, consider the following points.

CHARGING NEEDS ASSESSMENT

Consider:

1. **Your fleet:** How many electric vehicles do you have? What types? What range will you need?
2. **Your habits:** How far do your vehicles travel each day? What are their typical/ outlying routes?
3. **Your charging windows:** When can you charge? Overnight? Between trips?
4. **Your growth plans:** How do you envision your fleet evolving over the next 5-10 years?

With all this information, you'll be able to determine how many charging points you need, at what speed they should charge (Levels 1 & 2 and/or fast charging), and where to place them.

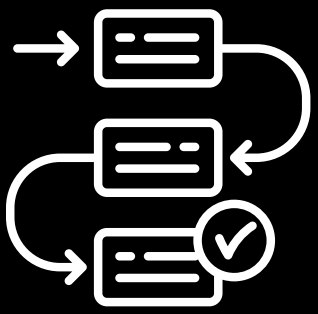
ELECTRICITY NEEDS AND GRID CAPACITY

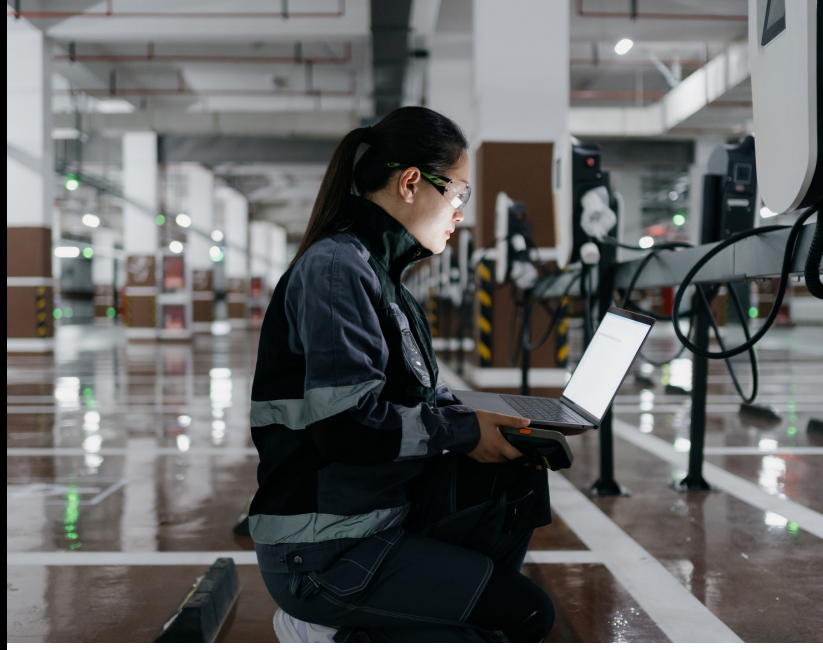
Charging a fleet requires a lot of power, especially if you're aiming to install DCFC (fast-charging level 3) chargers. Moreover, if your infrastructure needs upgrades, consider the lead time for your EVSE deployment, especially if you require service improvements from your electricity provider.

1. **Your current electrical capacity:** Can your current installation support the load needed to recharge your vehicles?
2. **Necessary improvements:** Do you need to reinforce your electrical infrastructure?
3. **Grid capacity:** Can your electricity provider keep up?
4. **Load management:** How can you balance your charging schedule to avoid peaks and optimize costs?
5. **Future expansion:** Plan space to grow now! Later, it may be TOO late. You've been warned!

Step 2

SITE EVALUATION AND PLANNING





Now that you have determined your electric vehicle charging station (EVSE) needs, it is time to analyze the feasibility of your site. Installing chargers is not enough; several elements must be taken into account TO ENSURE OPTIMAL PERFORMANCE OF YOUR ELECTRIC VEHICLE FLEET.

PROPER POSITIONING OF YOUR CHARGERS IS KEY!

Imagine digging trenches to lay cables, repaving, pouring concrete for the charger base, and installing the charger, only to realize come winter that your charger blocks snow removal. IT HAS HAPPENED.

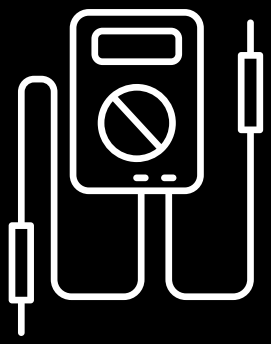
Therefore, it's essential to think about:

1. **Proximity to the electrical grid:** The closer, the cheaper to install.
2. **Vehicle parking and accessibility:** Align the chargers with your parking habits and ensure that vehicles and technicians can easily access them.
3. **Weather:** In Canada, cold and snow are real factors. Consider snow removal and frost; for instance, cables lying on the ground aren't ideal. Many charger providers offer retractable cables and systems to keep them overhead.
4. **Site layout:** For safety, consider space and orientation of spaces, pedestrian access, lighting, weather protection, and signage, as many people are new to charger use; clarity is key.
5. **Permits and compliance:** The last thing you want is a fine, delay, or additional costs, so consider zoning authorization, electrical permits, safety inspections, and coordination with the electricity provider.

HAPPY DRIVERS = A *HAPPY* FLEET MANAGER!

Step 3

EQUIPMENT SELECTION



With your technical needs identified and your charging locations analyzed, it's time to make the right choices regarding equipment and suppliers to avoid regretting your investments. Imagine doing all this work only to find out your charger software limits your usage. MAKE THE RIGHT CHOICES!

CHARGING STATION FEATURES

When choosing your chargers, consider:

1. **Charging speed:** It should meet your operational needs, considering the number of vehicles, battery size, and recharge time available.
2. **Connector types:** Ensure that they are compatible with your vehicles.
3. **Connectivity:** Smart chargers for remote monitoring are essential for fleet performance tracking.
4. **Durability:** Choose equipment suited to your environment. Canada isn't California!
5. **User interface:** The simpler to use, the better!

SCALABILITY AND LONGEVITY

Think ahead and keep these elements in mind:

1. **Modular systems:** Some charging systems allow you to increase the quantity of connectors and power.
2. **Power sharing:** Choose systems that can intelligently distribute energy.
3. **Software and equipment interoperability:** VERY important to ensure that your equipment and software use recognized communication standards that allow you to adapt and follow the progressive evolution of technologies and best practices, as well as the arrival of new ones.

SUPPLIER SELECTION

A good partner is crucial; therefore, evaluate them based on product range, reliability, support, integration capabilities, and experience.

- Choose someone who has worked on similar projects and that ensures the highest possible reliability.

Step 4

OPERATIONAL CONSIDERATIONS

Great, your planning is progressing well. You've chosen suppliers; now it's time to consider how you'll operate your EVSE to maximize benefits. It's a significant investment, so the better you manage it, THE BETTER YOU'LL ENJOY THE ADVANTAGES OF USING EVS!

CHARGING MANAGEMENT STRATEGIES

Good management is the key to efficiency. EV fleet operation can initially seem more complicated than traditional internal combustion engine vehicles, but with the right processes and strategies, you can ensure that things run smoothly.

Consider:

1. **Charging schedule and planning:** Set up smart charging schedules. Some software solutions can assist with this.
2. **Load balancing:** Use systems to distribute energy efficiently if you have multiple stations and vehicles charging simultaneously.
3. **Priority charging:** Set rules to prioritize certain vehicles according to operational needs.
4. **Off-peak charging:** Take advantage of lower electricity rates during off-peak hours.

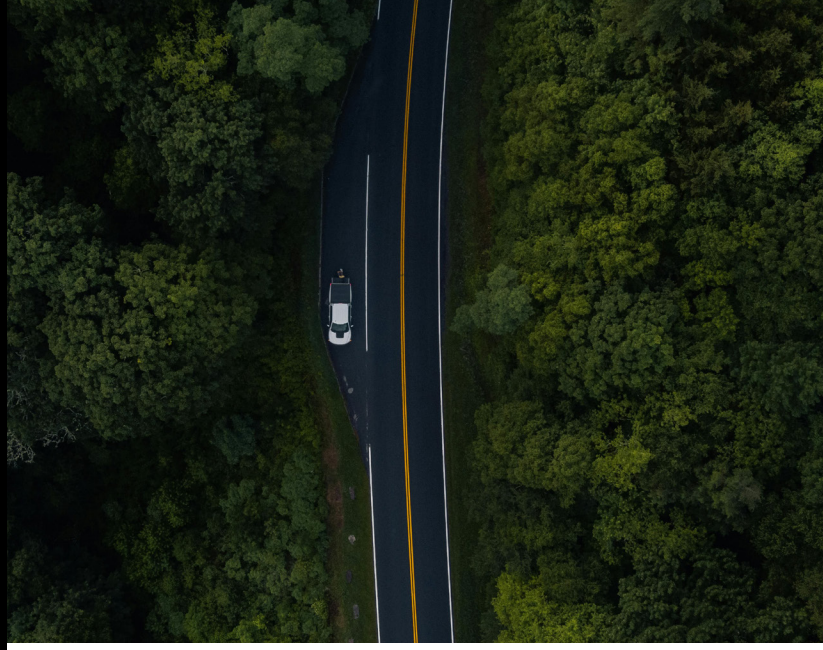
MAINTENANCE AND SUPPORT

As a fleet manager, you want to minimize risks and ensure seamless operations. Equipment reliability is key!

1. **Fault detection and resolution tools:** Having the right tools will allow you to keep your vehicles on the road continuously and thus ensure the reliability of your operations.
2. **Remote monitoring:** Use connected systems for quick technical or mechanical issue detection.
3. **Documentation, training and expertise:** Make sure you have access to these directly or through a partner to maintain the health of your infrastructure.
4. **Team training:** Teach your team how to use and troubleshoot equipment.
5. **Data tracking:** Optimize operations by tracking driver usage habits, fuel consumption, and vehicle performance.

Step 5

COST AND RETURN ON INVESTMENT CONSIDERATIONS



Electrifying a fleet brings benefits not only for drivers and the environment but also for your bottom line! So, how do you ensure the right choices for your project? BY CALCULATING THE RETURN ON INVESTMENT PERIOD (ROI). This calculation will show how long it will take for your investments to recoup initial and operational costs.

To calculate the ROI, consider the following:

INITIAL INVESTMENT

Implementing a complete EVSE system can be costly, so accurate calculations are essential.

Consider the following:

1. **Equipment:** Charging stations, power distribution units, etc.
2. **Installation:** Site preparation, electrical upgrades, labor.
3. **Permits and compliance:** Fees for required authorizations.
4. **Software and integration:** Charging management systems and integration with your existing software.
5. **Financial incentives and rebates:** Don't forget government or energy provider aids and potential revenue from carbon credits.

OPERATIONAL COSTS

Operational cost calculation is as important as initial costs since these come back year after year. EVs offer fuel savings and reduced maintenance, so consider these benefits in your calculations.

Recurring expenses include:

1. **Electricity costs:** The main expense, influenced by local rates and your charging habits.
2. **Maintenance and repairs:** Regular upkeep and possible part replacements.
3. **Network and software fees:** Subscriptions for connected services.
4. **Staff training:** Ongoing team training.

CONCLUSION

With good planning and thoughtful implementation, YOUR CHARGING EQUIPMENTWILL BECOME AN ASSET TO YOUR SUCCESS!

So there you have it! Setting up charging equipment for your fleet is a challenge, but it's essential for going electric. Considering all aspects - from infrastructure needs to future planning - YOU'LL BUILD A ROBUST AND SCALABLE CHARGING INFRASTRUCTURE.

The key is to maintain a holistic vision balancing current needs with future technological advances and fleet expansion. Following this guide, you'll develop a strategy that maximizes electrification benefits while minimizing challenges and costs.

The electric vehicle world is evolving fast, so stay up to date with new technologies and best practices. Keep flexibility in your strategy, regularly re-evaluate needs, and adapt infrastructure accordingly.

If you have specific questions or comments,

CONTACT US *DIRECTLY*

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