



Your EV Road Map

A COMPLETE GUIDE TO
FLEET ELECTRIFICATION





A revolution is coming that will transform your fleet.

Whether you think of it as fleet **electrification**, energy transitioning or “going green,” adding electric vehicles (EVs) to your fleet is possible. Much like the shift from the horse and buggy over 100 years ago, the conversion away from fossil fuel-powered vehicles to an electric-powered future will result in monumental changes to your fleet, how it is managed and the technology that supports your business.



It may seem futuristic, but the number of electric motor vehicles on the roads is growing exponentially. By the end of the decade, experts expect that plug-in vehicles will make up **12% of those in fleets**. This is a predicted increase from 2 million to over 70 million by 2030.

Some think the effort is considerable. Others think about moving to EVs like moving to cell phones from landlines. As the lead architect for EV infrastructure

at GM recently noted, people don't worry about charging their cellphone. They think “about the convenience of plugging it in at night” or while they work. That convenience is just one of the benefits.

This guide outlines the other benefits, challenges and planning involved in transforming your organization's fleet.



Why moving to EVs is beneficial to your organization.

The energy transition is gaining momentum. There are noticeably more EVs, both private and commercial, on the road and growing numbers of charging stations in parking lots. Those leading the way may have wanted to reduce their carbon footprint, become more energy self-reliant, embrace new technology or have other motives.

What about you and your firm? Joining the energy transformation offers economic benefits as well as environmental ones, much like the growing number of solar panels dotting commercial and residential properties. Here are some benefits of fleet electrification to consider:

- The total cost of ownership can be lower for light-duty EVs than comparable conventional vehicles. EVs have a higher purchase price, but the lower maintenance (and fuel) costs make them even more attractive. According to Consumer Reports, lifetime ownership savings can be between \$6,000 and \$10,000 for some EVs.
- Tax benefits on federal, state and local levels can be considered on many models of EVs. The IRS tax credit ranges from \$2,500 to \$7,500. The federal credit is phased out once a company has sold more than 200,000 of the qualifying vehicle. General Motors has already passed this threshold.
- The growing bans on conventional combustion-engine vehicles are growing. Many governments, including California's, are phasing out the sale of those cars, trucks and buses in their jurisdictions.
- Concurrently, automakers are going electric. General Motors expects to bring over 20 new EV models to market in North America in the next few years. Globally, industry experts expect EVs to reach 60% of new car sales by 2040.
- Managing when EVs are charged could save billions of dollars. Relying on available EV telematics and establishing a practice of charging vehicles when it's cheapest can cut the cost of ownership and costs for your firm considerably.
- Synchronizing solar and EV charging could provide enough power even in colder climates. (Nordic countries have enthusiastically embraced EVs.)
- EVs lead to employee satisfaction. Those who drive EVs are very happy with them. According to AAA's EV owner survey, 96% of those who purchased or leased an EV would buy or lease another in the future.



Things to consider with **fleet electrification**

There have been challenges (and myths) that early adopters faced in shifting to EV fleets. However, most are untrue or becoming obsolete as the EV charger infrastructure and experience grows.



Availability of charging locations

A 2018 survey found that 58% of respondents indicated that their top reason to not purchase an EV was fear of running out of power. Nearly half cited concerns about charging station availability. In the years since, the charging infrastructure and availability of stations have expanded rapidly. The number of charging outlets in the U.S. jumped from 20,000 in 2018 to **nearly 100,000 in February 2021**. California leads the way in the number of public and private charging outlets. But **New York, Florida and many other states** are catching up.

Additionally, many EV users **charge** their vehicles at home using a special wall-mounted charger. This works for most EV owners who routinely drive well below the 150-250-mile capacity garnered from a single charge daily. This also works for commercial fleets doing local routes. Accordingly, organizations moving to fleet electrification are including workplace and home-based charging capabilities into their transition plans. Furthermore, many are implementing strategies for long-haul charger infrastructures to accommodate greater ranges between charges.



EV charging times

The **time required to charge an EV** varies based on the type of charger employed. Ultra-fast commercial chargers can get drivers back on the road for another 100 miles in less than half an hour. Conversely, the slower versions at homes and in workplace parking lots do take longer and assume the vehicle will remain there for at least a few hours. So, for those users, EV charging presents no downtime, since the car would be sitting there anyway. The demand for fast on-demand chargers is part of the charger infrastructure changes being introduced as demand increases.



Grid capacity

The Department of Energy **estimated** that high increases in EV usage by 2050 could increase electricity consumption by 38%. However, **the National Grid** claims that electricity demand would only increase by about 10%, which is within the current manageable load fluctuation. Yes, power generation capacity must accommodate EVs without straining the grid. However, electric autos and trucks are often charged at off-peak hours, which helps reduce capacity issues.



Weather issues

EVs have become very popular in California and Florida, with mild weather alleviating concerns that freezing temperatures can impair driving ranges. An AAA **study** showed that cold temperatures do decrease the driving range in EVs. (Of course, bad weather impacts MPGs in gas-powered cars too.) While the extreme cold does impact vehicle efficiency, the experience with and popularity of EVs in Nordic countries shows this issue should not be a deterrent.





Designing a transformation strategy for fleet electrification

Transforming your fleet from gas to electric is a major transition that requires a clear strategy for building your own charger infrastructure, purchasing vehicles, supporting drivers and tracking results. Additionally, it is important that all stakeholders understand that you are not trying to be trendy or “go green.”

You are moving from a fleet that depended on old fossil fuels to one that literally empowers your organization for the future. Key elements to incorporate in your fleet electrification strategy include:

- A procurement goal to have X amount of EVs in your fleet by 2030.
- Your planned timing and approach (phased, geographic, all at once).
- Budgeting for and procurement of key components for vehicles, charger hardware, control and monitoring solutions, signage, internal software requirements, and training.
- Plans for managing chargers and your network. This includes real-time visibility into outages or other issues and reliable analytics to ensure maximum performance.
- On- and off-site energy management to ensure efficiencies, i.e., load-sharing capabilities and cost-effective charging capabilities.
- Consideration of on-site generation, such as solar panels to minimize costs during peak periods, such as summer in warm climates.
- Ongoing support services including maintenance, health and safety, and support for drivers, such as a call center.
- Service Level Agreements with EV infrastructure providers to ensure expectations are met.
- If your fleet drivers typically take vehicles home for personal and business use, incorporate policies on how take-home cars are charged and EV costs reimbursed.
- A project partner that has successfully accompanied other firms on their energy transformation journey.





Partner with Qmerit to make the transition successful

Developing your strategy, building your EV infrastructure, buying the vehicles and ensuring your on-site energy capabilities are adequate are only some of the challenges you will need to overcome. It's even more complex if you have multiple sites to address, long-range routes to manage and other complications to tackle.



Fleet managers need to ensure the move to EVs reflects well on their company and employees. Installations need to be carefully planned, cost-conscious and safe. Turning to EV experts and establishing the right partnership is critical to bringing that strategy to a successful reality.

What should you look for in a fleet electrification partner? You want to engage with an experienced firm that will help you:

- **Address and overcome the complexities involved in transforming your fleet.** Qmerit serves as a single point of contact for charger installation services across the U.S. and Canada, providing turnkey solutions. We have a network of installers who we carefully vetted and certified in the latest electric vehicle technologies. They work with our customer care specialists to spare our clients from having to manage home charger and other installations fleet-wide. We assume the administrative burden by handling management, billing, paperwork and more.
- **Help ensure that you budget accurately and control expenses throughout the project.** Qmerit's predictable pricing (with fixed, upfront rates for common home configurations) enables you to budget accurately. Our installers leverage group buying power to control costs and keep our pricing highly competitive.
- **Deliver safe, quality installations.** Qmerit's certified installers are licensed, insured and rigorously screened. They follow industry best practices, manufacturer guidelines and local building regulations. The installers also handle any required permitting in your area as well as any inspections needed. This spares your drivers the hassle and ensures compliance.
- **Ensure your drivers are satisfied with their new norm.** With our concierge service, Qmerit manages every detail for your drivers. We help ensure they are educated on home charging. We work with them throughout the process from price quotes to installation, billing and follow-up.
- **Establish reporting capabilities and data collection.** Capturing and analyzing the usage, mileage and other charging infrastructure data are important components to ensure your fleet electrification strategy hits targets and refines goals. Most charging networks provide data on utilization to site hosts online for analysis. Data can also be garnered from non-networked charging sites by installing a separate meter or third-party software to capture data analytics, or using other options that charging infrastructure manufacturers offer. The resulting data can track progress towards emissions and energy goals and evaluate the need for additional charging infrastructure in the area. Qmerit constantly collects feedback from your personnel about their experience and our service to ensure we are delivering quality support. Fleet owners and managers can track project progress and quality ratings in real time through our digital dashboard.
- **Protect and enhance your brand image.** The vehicles, chargers and other aspects of your EV infrastructure that carry your logo convey your brand identity to passersby. You cannot afford any malfunctions or issues to mar your image. We have improved the Qmerit technology platform and processes over a decade of national EV infrastructure rollouts to ensure we continue to meet our exacting standards for safety and service quality as well as your own.




@Home EV fleets made simple

Qmerit prides itself on helping organizations shift from reliance on outdated fossil fuels to an environmentally secure and sustainable electricity-dependent future. Indeed, working with Qmerit can make your energy transformation effort successful. The energy transition is our mission, and we partner with and connect stakeholders to deliver exceptional charger installation experiences for EV fleet managers, those who need turnkey Charge @Home installation solutions for their personnel.

Supporting fleet electrification is relatively new for our competitors, but the Qmerit team's efforts to support greater energy efficiency go back more than 20 years. During that time, we have become a nationally respected leader in the arena.

The future is clearly electric. As demand for EVs and charging stations grows exponentially in the coming years, you do not want your fleet to become obsolete. It is time to explore what transforming your fleet away from dependence on fossil fuels involves and develop a realistic strategy for your organization's energy transition. **Talk to Qmerit** about your future fleet as well as the EV infrastructure and maintenance requirements to support it.

Accelerate your energy transition, fleet electrification and EV charging infrastructure implementation.

 **Contact Qmerit today at (888) 272-0090 or email us at info@qmerit.com.**

