# Charging ahead with EV fleets

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Electric vehicle (EV) adoption is having a natural uptick among fleet managers as the world transitions to a greener future. Alongside the benefit of reduced emissions, EVs are also cost-effective thanks to decreasing battery and charging costs, and government-supplied tax credits.

These benefits have fueled a 35% compound annual growth rate for EV adoption in fleets, but high standards for functionality and accessibility still need to be met, supported by a reliable and expanding electric vehicle charging infrastructure.

**60%**
of vehicle sales predicted to be EVs by 2030[1]

**~14m**
new electric cars registered globally[2]

**58%**
of consumers are intent on buying an EV[3]

## What's driving EV adoption?

**Environmental benefits**

EVs generally emit less carbon than their internal combustion engine (ICE) counterparts, making them a more sustainable choice. And while building a battery electric vehicle (BEV) currently tends to emit more carbon than building an ICE vehicle, the overall emissions are lower over the vehicle's lifetime. It typically takes just one year of using a BEV for it to reach carbon parity with its ICE counterpart in greenhouse gas emissions*.

**Cost efficiency**

The most expensive component of an EV is its battery, and these are getting steadily cheaper. Plus, EV owners typically spend about half as much on charging as ICE owners do on fuel over 15,000 miles.

Governments are also actively making EVs cheaper than ICEs through tax credits, subsidies and exemptions from registration and company car taxes, with some even introducing new taxes on ICE vehicles themselves.

**Practicality**

Improvements in battery density, charging speed and infrastructure are making EVs more practical for fleet operations. Fast EV chargers are becoming more readily available and governments are investing in public EV infrastructure, such as the U.K.'s Workplace Charging Scheme, which provides financial support for businesses installing charging stations.

*Can vary by region depending on how electricity grids are powered

1. International Energy Agency, By 2030 EVs represent more than 60% of vehicles sold globally, and require an adequate surge in chargers installed in buildings. September 2022.
2. International Energy Agency, Global EV Outlook 2024.
3. EY Global Mobility Consumer Index, September 2024.

## Who is leading the EV shift?

Several pioneering initiatives and early adopters are leading the way in the transition to EV fleets, demonstrating diverse strategies and approaches.

| Company | What they're doing |
|---|---|
| FedEx | • Plans to convert its entire parcel pickup and delivery fleet to zero-emission electric vehicles by 2040[4] |
| JD Logistics | • Deployed approximately 20,000 new energy vehicles across 50 cities in China by the end of 2021[5]<br>• Invested in a new fleet of hydrogen-powered trucks in 2024, positioning themselves as a market leader in medium- and heavy-duty electric vehicles[6] |
| United States Postal Service | • Aims to have 66,000 EVs by 2028[7]<br>• Intends to have 100% of vehicles purchased from 2040 onwards to be zero-emission<br>• Investing in over 14,000 charging stations[8] |
| Royal Mail | • Plans to increase from 5,000 fully electric vans to 7,100 fully electric vans by the end of 2025[9]<br>• Aims to achieve net zero by 2040 |

## What challenges are they facing?

Despite the promising trends and early successes, EV fleets face several challenges that need to be addressed to ensure a smooth transition.

**Lack of standardization**

The absence of a unified approach to payment systems, pricing and authentication across charging networks creates inefficiencies. Fleet managers must navigate these fragmented systems, making it difficult to manage payments consistently and educate drivers on varying processes and platforms.

**Data management**

EVs generate unique, granular data – on metrics such as charging duration and energy consumed – that is critical for fleet operations. Fleet managers need advanced software solutions to extract and integrate this data into existing fleet management systems, which can be a complex and resource-intensive process.

**New payment locations**

Unlike ICE vehicles, where payments are straightforward at public fuel stations, EV charging introduces new complexities. On average, 20% of EV charging occurs in public, while 80% happens at residential buildings or fleet depots.[10] These locations come with new requirements, such as channels for tracking depots' operating costs and reimbursing fleet drivers for energy costs.

## How are we addressing those challenges?

Mastercard is uniquely positioned to help shape the evolving future of fleet mobility. We have a long-standing presence in the industry through Mastercard's fleet solutions, which support clients ranging from small businesses to large multinational corporations in managing fuel spend, maintenance and driver expenses efficiently and securely.

Our role as a trusted global payments partner for fleets gives us deep insight into the needs of fleet operators. As our clients transition from internal combustion engine vehicles to electric fleets, we recognize the emerging pain points. "The shift to electric fleets is not just about replacing vehicles, it's about transforming the entire ecosystem. As a global payments leader, Mastercard is working closely with the industry to simplify the charging experience, ensure payment interoperability, and unlock the data fleet operators need." – Mark Aquilina, SVP, Corporate Solutions, B2B Transportation, Mastercard.

We, along with partners like Corpay, are working to solve these growing pain points. "At Corpay, we're committed to simplifying the EV transition—empowering fleets with seamless, reliable EV charging and payment experiences. We're excited about the role we're playing with our key partners in shaping the future of fleet mobility."- Alan King, Group President, Global Fleet, Corpay

Through strategic partnerships as well as our contributions to industry standards and regulatory discussions, we are helping make EV charging more seamless, accessible and secure, ultimately modernizing the payment layer across EV charging networks.

4. FedEx Continues Advancing Fleet Electrification Goals with Latest 150 Electric Vehicle Delivery from BrightDrop | FedEx Newsroom
5. Slide 7, McKinsey Fleet EV Charging Pre-Read Briefing
6. JD Logistics' Hydrogen-Powered Trucks Redefine Transportation Norms | Green Hydrogen News
7. Slide 7, McKinsey Fleet EV Charging Pre-Read Briefing
8. USPS Intends To Deploy Over 66,000 Electric Vehicles by 2028, Making One of the Largest Electric Vehicle Fleets in the Nation - Newsroom - About.usps.com
9. Royal Mail news
10. Trends in electric vehicle charging | iea