

2024 Charging Forward Report

The state of e-mobility in Europe — spotlight on the United Kingdom



A new chapter in EV charging

As the adoption of electric vehicles (EVs) and EV charging has increased among consumers and businesses alike, e-mobility is entering a new phase of growth. Market expectations and customer considerations have evolved in exciting ways. **We are no longer operating in a nascent industry.**

EVs accounted for 21% of all cars sold in Europe in the first quarter of 2024, and sales are expected to reach 3.5 million in Europe by the end of the year — 10% more than in 2023.¹

Institutions and drivers are now confident that EVs are not a passing trend. Robust EV charging solutions, powered by software, have evolved to better meet the needs of drivers as well as e-mobility service providers (eMSPs), Charge Point Operators (CPOs) and site hosts.

Businesses now understand the opportunity they have to shape and capitalise on the future of sustainable transportation. They also understand the financial value of implementing EV charging. Charging services can draw customers to their locations, create new revenue streams and generate cost savings. They know that what's good for the planet is also good for business.

In brief, our industry is embarking on a new chapter. In this next era, our goal remains the same: to make it easier for everyone — from drivers to businesses and institutions of all sizes — to go electric with flexible, reliable and future-ready EV charging solutions. And after more than 17 years as a leader in electrifying transportation, we couldn't be happier to be at the forefront of a now mainstream industry creating omnipresent, convenient and reliable charging solutions.



Charge on,
Rick Wilmer
President and CEO, ChargePoint

¹ BNEF, Electrified Transport Market Outlook 2Q 2024

CHAPTER 1

State of the market

EVs are on the move

Inside this chapter:

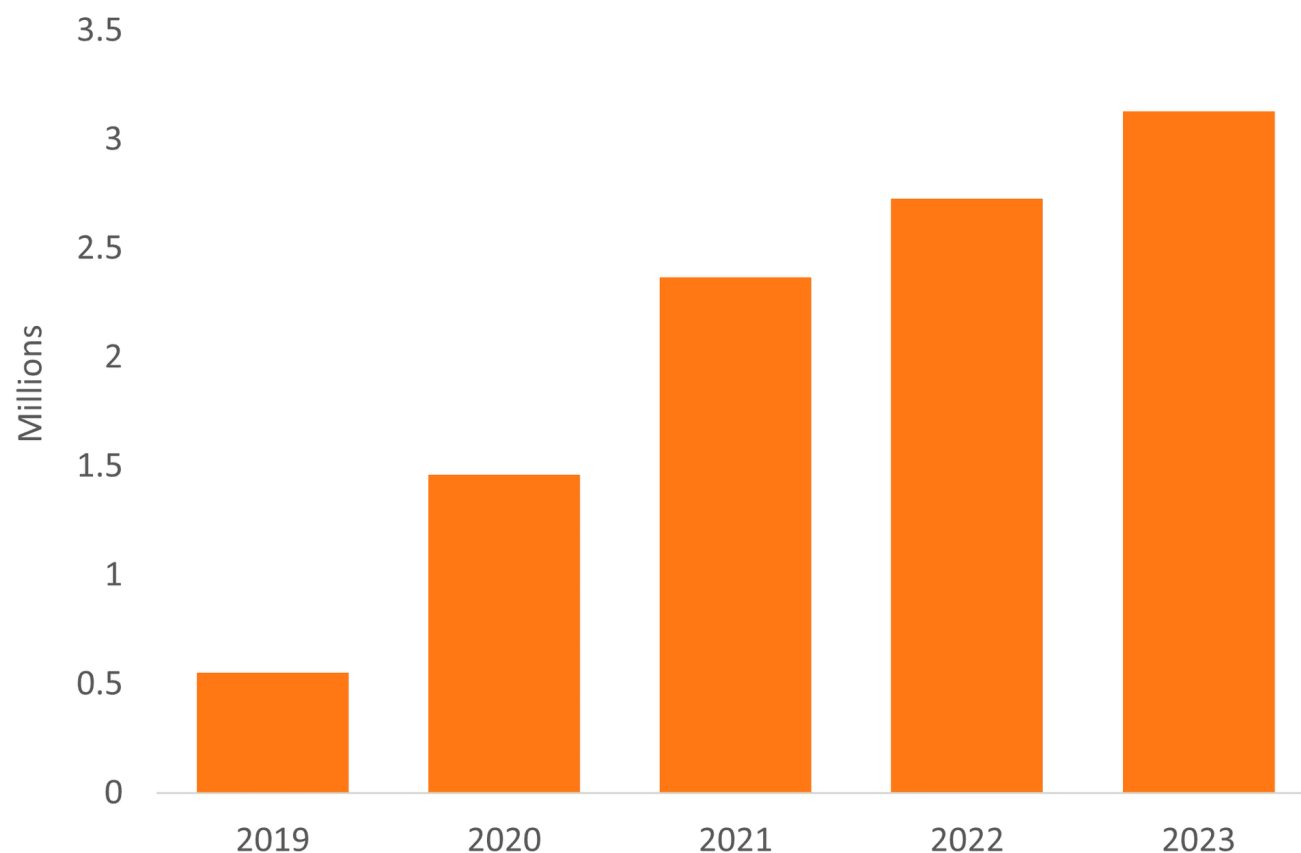
- E-mobility enters new phase in Europe
- Charging infrastructure and EV drivers keep pace



E-mobility enters new phase in Europe

STATE OF THE MARKET | [THE EUROPEAN POLICY LANDSCAPE](#) |

[THE MARKET ECOSYSTEM](#) | [WHY CHARGEPOINT](#)



European EV sales have been increasing steadily since 2019.

Contrary to what you may have read in the media, the EV market is still growing.² Passenger EVs are now a common sight and come with all the features that were once considered a barrier to adoption. Commercial and municipal vehicles offer fleet operators a way to save money while simultaneously delivering considerable progress towards meeting global climate targets.

Nearly 14 million passenger EVs were sold globally in 2023, up from 10.4 million in 2022, and 3.1 million of these vehicles were sold in Europe*, making it the second largest region for electric vehicles.³

From 2022 to 2023, Europe saw a 15% increase in EV sales, resulting in more than 24% of all vehicles sold in Europe during 2023 being electric.³

*Throughout this report, "Europe" or "European" refers to the 27 countries in the European Union as well as the United Kingdom; "European Union" or "EU" refers to only those 27 countries, exclusive of the United Kingdom.

Battery electric vehicles (BEVs) accounted for 63% of all European plug-in vehicle sales in 2024 Q1.⁴

Honda saw an increase in EV adoption in the first quarter of 2024, with nearly 20% of all its cars sold in Europe being electric. This is up from a 5% penetration rate in 2023 for the automaker.⁵ This uptick was driven by the United Kingdom and the zero-emission vehicle (ZEV) mandates that went into effect in 2020.⁶

Global EV growth continues to outpace internal combustion engine (ICE) vehicle sales, with more than 30% YOY growth in EVs compared with <5% growth in ICE vehicle sales. BNEF predicts there will be nearly 60 million EVs on the road globally by the end of 2024.⁷

EV sales in the United Kingdom were up 13% in 2024 Q1 compared with 2023 Q1, resulting in 24% of all vehicles sold in the first quarter being electric.⁸

In the United Kingdom, 25% of vehicles sold throughout 2023 were electric, and in 2024 Q1, it became the largest EV market in Europe as it relates to volume of vehicles sold, with over 130,000 EV sales in the quarter.⁹



I like that ChargePoint is hardware-agnostic and has such a strong focus on software. There's so much potential in terms of adding feature sets and ways to make use of roaming and charging data to give us more insight into the end driver."

Jason Simpson
CEO, [RAW Charging](#)



2, 4, 5, 6, 8, 9 BNEF, *Electrified Transport Market Outlook*, 2Q 2024

3, 7 BNEF, *Long-Term Electric Vehicle Outlook*, 2024

Charging infrastructure and new EV drivers keep pace

In this new era, **EV adoption has surged, creating a need for greater access to charging infrastructure.** More ubiquitous and reliable charging infrastructure has, in turn, given consumers more confidence to go electric, increasing the number of EVs on the road.

Globally, the number of EVs per charging point rose to 10.3.¹⁰ There are over 722,000 public charging points accessible to drivers using the ChargePoint app in Europe, which represents more than 82% of all public chargers in the region.¹¹

The United Kingdom now has 21 electric vehicles on the road for every public connector in the country. This is up by more than 120% compared with 2019 when there were just over nine EVs on the road for every public port.¹²

With twice as many EVs in the UK per public EV charging port than the global average, the time is now to invest in EV charging infrastructure to support this rapid growth.

The good news is the United Kingdom, France and Germany each installed more public charging ports in 2023 compared with 2022.¹²

According to the European Alternative Fuels Observatory (EAFO), there are over 63,000 AC and 13,000 DC public ports, accounting for more than 77,000 total public ports in the United Kingdom at the beginning of July 2024 — an increase of 6% from the end of 2023.

^{10, 12} BNEF, Long-Term Electric Vehicle Outlook, June 2024

¹¹ ChargePoint network, Jan. 2024



CHAPTER 2

The European policy landscape

How regulations are advancing e-mobility

Inside this chapter:

- Regulations spur next chapter in e-mobility across Europe
- EV charging policy is scaling in the UK



Regulations spur next chapter in e-mobility across Europe

While demand for EVs and EV charging continues to grow across Europe, the dynamic policy landscape is generating many tailwinds and a few headwinds for EV charging growth. Even though elections in specific regions may evolve regional and national regulations, the larger trend remains strong: **People, businesses and governments want EVs and EV charging across Europe.**

While net-zero goals may shift in scope and new regulations and incentives come into play, the rapid ascent of EV charging adoption and demand is matched by the urgent growth of CO₂ emissions. Emissions from road transportation have continued to climb since the pandemic changed how people live, work and shop, reaching 940 gigatons of CO₂ across Europe in 2023.¹³

Luckily, regional and national policy are rapidly changing how people and goods move across the region.

¹³ BNEF, Long-Term Electric Vehicle Outlook, June 2024



EV charging policy is scaling in the UK

The UK continues to invest in the EV revolution. Here's an overview of some of the key policy initiatives catalysing electrification across the region.



14 BNEF, Long-Term Electric Vehicle Outlook, June

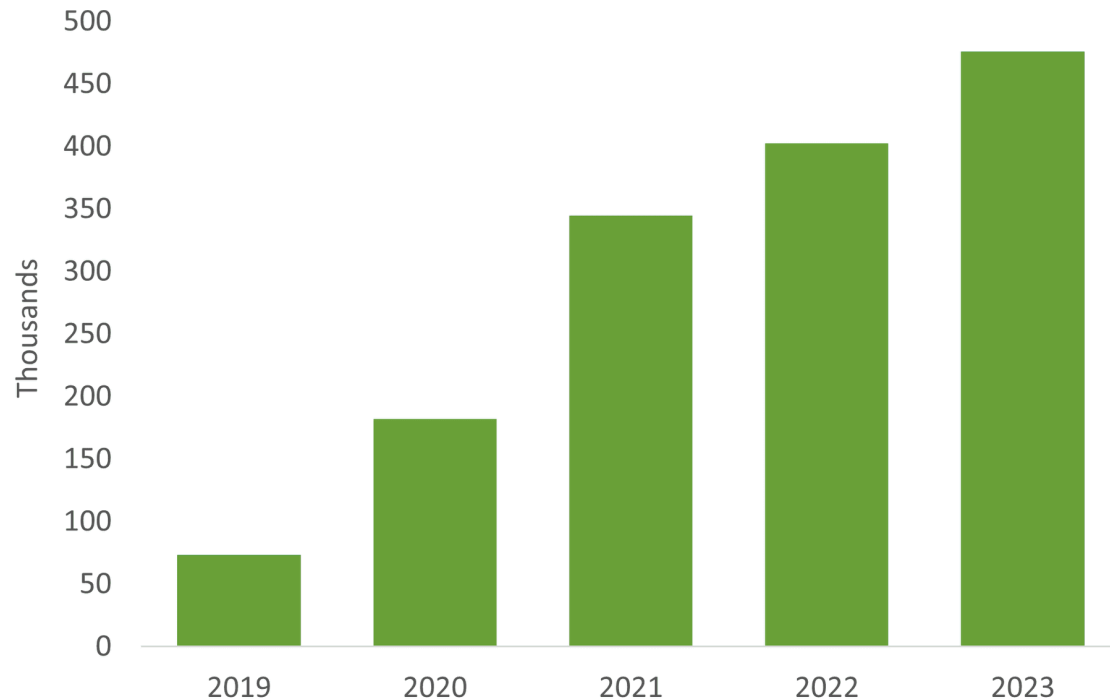
2024

UK Public Charging Regulations

- + Adopted in 2023
- + Ensures consumers using public charging points across the United Kingdom have a consistent and positive experience
- + Includes important requirements, from roaming to contactless payment standards, to create a harmonised consumer experience across the UK

Why does this matter?

With a November 2024 compliance deadline, the time is now for organisations to ensure their EV charging infrastructure adheres to requirements so that everyone across the United Kingdom has a more consistent EV charging experience.



EV sales in the UK grew 13% between the beginning of 2023 and 2024.¹⁴

¹⁴ BNEF, Long-Term Electric Vehicle Outlook, June 2024

UK 2035 ban on ICE vehicles

- + Adopted in 2020
- + Bans sales of all new internal combustion engine vehicles
- + Cuts greenhouse gas emissions (GHG) by 78% compared with 1991 levels

Why does this matter?

Cleaner air. Soon polluting vehicles will no longer hit the streets across the UK, creating a more sustainable transportation future. Businesses will have an opportunity to meet the demand for EV charging infrastructure and attract new customers.



Utilities are increasingly offering special tariffs to EV drivers and EV charging is one of the biggest winners of UK local flexibility tenders.”

— BNEF Long Term Electric Vehicle Outlook, June 2024



UK building requirements

- + Adopted in 2022
- + [Part S of Schedule 1 to the Building Regulations 2010](#) requires new buildings with more than 10 parking spaces to provide at least one EV charging point.
- + While Part S only applies to England, Scottish lawmakers introduced [similar EV charging infrastructure requirements](#) for commercial buildings in June 2023.
- + The government has also invested in extensive electrification subsidies for British office buildings, including the [Workplace Charging Scheme \(WCS\)](#) and [Electric Vehicle Infrastructure Grant for Staff and Fleets](#).

Why does this matter?

Establishing EV charging infrastructure during construction is more cost-effective than retrofitting a building down the road. This regulation supports future-ready properties and makes it easier for businesses to offer EV charging to customers.



We like the flexibility of the software. That was a big factor. We saw the value in the software.”

— Cat Binder, Buildings, Facilities and Fleet Manager, [Clearmark Solutions](#)



CHAPTER 3

Market ecosystem

EVs are changing the world for the better

Inside this chapter:

- Electric transport is good for the economy
- Electric transport is good for cities
- EV charging is good for business



Electric transport is good for the economy

The e-mobility sector has entered a new phase, typical of many emerging industries, where a fragmented market with dozens of early stakeholders is ripe for consolidation. Mergers and acquisitions could mean that larger industry players will help shape the sector over the next five years.

Regardless, **local economies stand to benefit from the momentum in EV charging** through the creation of job opportunities in green energy and the development and installation of charging infrastructure.

In 2023, the European Union and the United Kingdom invested £326 billion into the clean energy transition. Of that investment, £142 billion, or 44%, went towards electrified transportation.

The European Union had the second-largest economy for global energy transition investment in 2023 with £270 billion, 43% (£116 billion) of which was towards electrified transport. This was a 43% increase in investment in electrified transport compared with the £81 billion invested in 2022.¹⁵

BNEF predicts £826 billion more will need to be invested in Europe by 2030 to reach net-zero goals.

[According to a study done by EuropeOn](#), an electric contractors' association, around 200,000 electricity-related jobs will be created in Europe by 2030 to support the electrification of transport. In addition, [the European Commission](#) is predicting up to 4 million new battery-related jobs will be created by 2025, driven by the formation of the European Battery Alliance.



In 2023, **£25.5 billion** was invested into electrified transport in the United Kingdom.¹⁶

^{15, 16} BNEF, *Energy Transition Investment in Europe*, 2024

Electric transport is good for cities



[According to the European Commission](#), nearly a quarter of all GHG emissions in Europe are tied to transportation, and 76% of overall transport emissions in the EU are from road transport

specifically. In the United Kingdom, [according to GreenMatch](#), 28% of all emissions are from road transport.

EVs are a significant piece of the puzzle when it comes to emissions reductions, benefiting cities with reduced air and noise pollution. In addition, EVs can be integrated with renewables like solar and wind power, helping cities decrease their dependence on fossil fuels and resulting in a more sustainable energy grid.

As of August 2023, [the city of London](#) had more than 1,000 e-buses on the road.

[According to the European Environmental Agency \(EEA\)](#), GHG emissions of electric vehicles can be 17% to 30% lower than the emissions of petrol and diesel vehicles. And the emissions to produce electric vehicles is expected to continuously decrease and could be cut by at least 73% by 2050.

EV charging is good for business



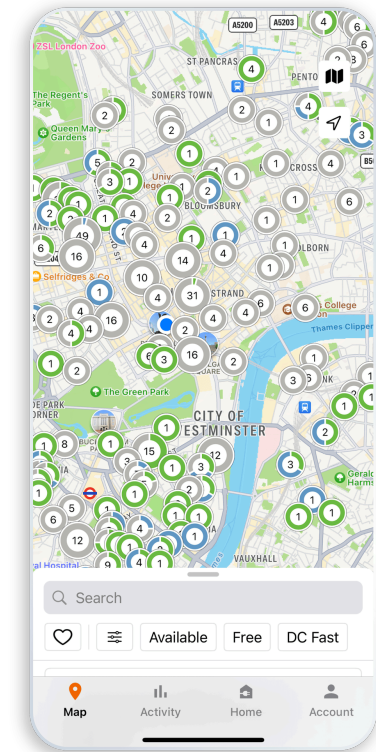
EV charging can certainly be a standalone offering, as with charging hubs set up for the primary purpose of allowing EV drivers to plug in and get a charge, but more and more organisations, from workplaces and retailers to fleet operators and auto OEMs, are realising that **EVs are here to stay, and charging can enhance their existing business.**

Commercial real estate

EV charging is a valuable amenity that helps attract and retain tenants while increasing property values at multifamily communities. Developers can benefit by achieving green certifications and complying with the latest environmental building codes.

Retail and hospitality

EV charging allows businesses to attract customers to their locations. Custom branding and integration with an organisation's loyalty programs can promote customer engagement and encourage repeat visits, helping to put businesses on the map for millions of EV drivers across Europe.



EV drivers can access 23,000+ public ports in the UK using the ChargePoint app.¹⁷

¹⁷ Internal ChargePoint data

Fleets lead the charge

Commercial fleet

While diesel bans and sustainability goals have spurred fleet operators to make the switch to electric, a lower total cost of ownership (TCO) is an added motivator. Fueling an EV is around a third of the cost of its fossil fuel counterpart, while maintenance costs are a whopping 40% less.¹⁸ EV charging management software integrates with other fleet systems — including telematics — to help reduce costs, ease complexity and optimise operations every step of the way.

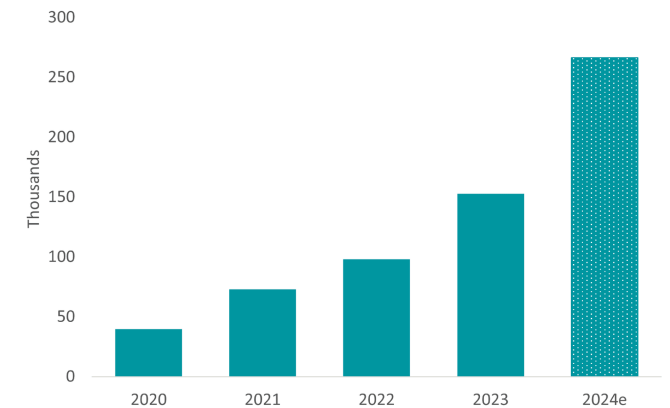
Fleet mobility

Many organisations are now offering electric options as part of their company car fleet. In some regions, employees who choose electric can get significant tax breaks. Integrated charging software makes it easy for employers to set up, monitor and pay for the charging activities of all the drivers who use a company car, no matter whether they charge at home, at work or in public.

¹⁸ ChargePoint internal data

¹⁹ BNEF, Long-Term Electric Vehicle Outlook, 2024

Forecast for yearly EV sales for commercial vehicles and eBus in Europe



European electric bus and commercial vehicle sales — Globally, at the end of 2023, more than 2.3 million electric buses and commercial vehicles were on the road.¹⁹



Faced with the challenge of converting a hundred buses to 100% electric in one year, ChargePoint has established itself as a simple and effective solution for all our charging needs. ChargePoint now allows us to monitor in real time the autonomy of the vehicles, the charging at the terminals and our energy consumption.”

Sandrine Boutry
Energy Transition Director, Keolis Alpes Maritimes



CHAPTER 4

Why ChargePoint

What's good for the planet is good for business

Inside this chapter:

- Flexible, reliable and future-ready

- EV charging solutions



Flexible, reliable and future-ready EV charging solutions

Flexible

When it comes to EV charging options, we aim to meet you where you are. Whether you drive a passenger EV or manage a fleet of light-duty vans, are brand new to e-mobility or are looking to update your existing systems, charging should be easy. That's why we offer purpose-built, end-to-end EV charging solutions, with charging stations, software and service options for just about any scenario out there.

Reliable

We put each of our charging stations through rigorous environmental testing to ensure that our customers — and their customers — get a charge every time they plug in. We provide 24/7 proactive station monitoring and predictive analytics for our solutions and leverage applied artificial intelligence to ensure greater charger performance and fast incident response

Future-ready

We are the EV charging platform that can partner with your business now and into the future. We've been pioneering EV charging since 2007, before the first mass-market EV hit the road. Our EV charging solutions are designed to meet your immediate needs, and scale with you over time as your organisation evolves.



What's good for the planet is definitely good for business, and we're excited to continue moving forward in this next chapter of EV charging. We hope you are too.

Thank you for reading the

2024 Charging Forward Report

Want to learn more? Visit
chargepoint.com.

Connect with a ChargePoint expert