An Essential Guide provided by
SaveMoneyCutCarbon Club

EV Easy Guide

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An essential guide for businesses when considering their EV options

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EV Easy Guide

Electric Vehicle Charging doesn't have to be rocket science.

EV Jargon Buster

If you are confusing your BEVs from your PHEVs, or your Granny Chargers from your Destination Chargers then you have come to the right place. Here's a list of common EV terms and their meanings:

- **BEV =** Battery Electric Vehicle or Fully Electric Vehicles, vehicles for which the only means of propulsion are via the batteries and electric motor.
- **PHEV =** Plug-In Hybrid Vehicle is a vehicle which has an internal combustion engine but also a small battery (normally around 10kWh) which charges via a wallbox. PHEVs normally have a fully electric range of around 20 25 miles
- **Mild Hybrid =** Mild Hybrid Vehicles are powered by internal combustion engines 100% of the time, they are only supported by a small 48v battery for acceleration and cruising, and they cannot drive on electric power alone.
- **ICE =** Internal Combustion Engine.
- **Type 1 –** Type 1 is a charging socket type, mostly found on vehicles from Asia such as Nissan.
- **Type 2 –** Type 2 is a charging socket type, mostly found on European brands such as VW and BMW.
- **AC Charging =** Alternating Current (AC) charging station can charge up to 22kW to the on board vehicle charger.
- **DC Charging =** Direct Current

"The WCS helps with initial costs to purchase and install EV charging points."

(DC) charging station supplies up to 150kW current direct to the vehicle battery.

- **Fast Charging =** Fast Charging is 7-22kW AC charging via a traditional EV wallbox.
- **Rapid Charging =** Rapid charging is charging on DC chargers normally 43-350kW in capacity.
- **Destination Charging =** locations where charging is offered as a service by a third party
- **Granny Charger =** a charger with a 3-pin plug suitable for UK Electrical sockets, affectionately known as a granny charger, as it's the charger you will likely use when visiting granny.
- **Regenerative Breaking =** An energy recovery system found in most electric vehicles that helps charge the batteries while the vehicle is slowing down or coasting.
- **Single Phase =** The electrical system found in most domestic properties. In a single phase system the power is supplied through two wires, one delivers the power, the other completes the return path, meaning charging speeds of up to 7.2kW.
- **Three Phase =** The electrical system largely found in commercial and industrial properties, with a three-phase supply that can carry a larger load. There is little fluctuation in power delivery, meaning charging speeds of up to 22kW.

Grants

Workplace

The Workplace Charging Scheme (WCS) has been opened up to small and medium sized businesses as well as the charity sector, Earlier this year, the government announced an investment of up to £50 million for small businesses and landlords.

The WCS helps with initial costs to purchase and install EV charging points. It is available to qualifying businesses, charities and public sector organisations who can apply for vouchers of up to 75% of the costs up to £350 per charging point, up to a maximum of 40 across all sites. Franchisees are eligible, with maximum of 10 from each franchise that can apply.

The grants also cover some costs if firms choose not to go for a full purchase-installation package from an approved supplier but buy their own EV chargers. They can claim for the installation, as long as the chargers meet minimum technical requirements.

Home

The Electric Vehicle Homecharge

Type 1 or Type 2

- Type 1 – Type 1 is a charging socket type, mostly found on vehicles from Asia such as Nissan
- Type 2 – Type 2 is a charging socket type, mostly found on European brands such as VW and BMW.

1 **Home**
The Electric Vehicle Homecharge Scheme (EVHS), which provides up to £350 towards the installation of a charging point, is being expanded to target people in rented and leasehold accommodation.

2 **Tax breaks**
Now is the time for businesses to make the transition to EV and make the most of the financial advantages from Super Deductions benefits.

3 **Cost-effective EVs**
There's no argument about the cost-effectiveness of EV and companies making the move early have seen 20-25% savings

"Now is the time for businesses to make the transition to EV"

Scheme (EVHS), which provides up to £350 towards the installation of a charging point, is being expanded to target people in rented and leasehold accommodation.

Grants of up to 75% of the costs (up to £350) of purchase and installation of approved charging points are available for people who own a new eligible electric vehicle or a second-hand EV purchased since October 1st, 2016. This is not available if they have claimed against the previous charging point scheme.

The main requirement is that a person owns, leases, or has ordered a qualifying vehicle and has dedicated off-street parking at their property. A person may apply for 2 charging points at the same property if they have 2 qualifying vehicles.

The scheme is also open to people who have been given a company car or who lease an eligible EV from the same date. It also covers those named by their employer as the primary EV user for a period of at last six months after October 1st, 2016.

In both schemes, the work must be carried out by an approved installer, and the equipment must also be on the Office for Zero Emission Vehicles approved list

Tax breaks

Now is the time for businesses to make the transition to EV and make the most of the financial advantages from Super Deductions benefits. These allow companies to cut their tax bill by up to 25p for every £1 they invest.

They are designed to encourage companies to invest in productivity-enhancing plant and machinery assets that will help them grow, and to make those investments now.

The Super Deductions cover EV chargers so firms can not only move to EV at less cost but also can harness free renewable energy to help charge their vehicles.

Companies investing in EV chargers can claim a 130% super-deduction capital allowance. The scheme will run until March 31st 2023, so the pressure is on to implement without delay.

Add to that the lower Benefits in Kind (BiK) rates for EV drivers compared with internal combustion engine (ICE) vehicles. The company-car tax on electric vehicles is just 1% for 2021-22 – a big saving and worth moving quickly to make the most of.

Cost-effective EVs

There's no argument about the cost-effectiveness of EV and companies making the move early have seen 20-25% savings because their electric fleet vehicles are more efficient, use more affordable fuel and cost much less to maintain. By 2040, electric fleets should have a 15-25% lower total cost of ownership than those with Internal Combustion Engine (ICE) vehicles.

What's more, electricity is less expensive and the prices are more predictable than diesel or petrol.

The number of EV models, both medium and heavy-duty, double over the next two years, so every need should be covered, while rapidly expanding public charging networks, ultra-fast charging, and smart chargepoint solutions will make any range anxiety a distant memory.

The number of renewables tariffs continues to grow and many suppliers are providing the facility for companies to optimise charging times for the most efficient, least expensive use of energy. The smart charging solutions available mean

> "Companies also benefit massively from the superior technology of EV"

that you can have peace of mind as well as optimising cost-savings.

While the costs of EV lifetime ownership are already cheaper than fossil-fuel vehicles, we're seeing a rapid reduction in battery costs that should mean many EVs will have a similar price to ICE vehicles within four years.

Companies also benefit massively from the superior technology of EVs, with fewer moving parts that need much less maintenance, including no oil changes and practically no part replacements. That means fleet vehicles spend more time on the road and less time in the garage.

Green benefits

The move to EV also helps companies with their sustainability goals and also to keep ahead of evolving government regulations around the electrification of the transport sector. Moving to electric fleets also gives a clear signal to customers and clients that you are actively working on environmental impacts.

EVs can reduce carbon emissions by more than 50% if the electricity used is from renewable sources. Going electric mean that firms can have the best of both worlds, with cost-effective and efficient fleets while demonstrating to green-aware consumers that the need to protect the planet is paramount.

Destination chargers

Destination charging enables private and sectors to offer EV charging as a service to the growing number of EV drivers. EV charging-as-a-service opens up a valuable revenue stream, with "Destination chargers" that are open to the general public, allowing the business owners to offer charging

> "By the end of 2021 we will have over half a million fully electric (BEV) and plug-in hybrid (PHEV) vehicles on the road."

as a low-touch revenue generating service.

Cables

Cables can be type 1 or type 2, 16 Amp or 32 Amp and Single or Three Phase. All these elements play a part in what the cable is capable of delivering to the vehicle. The type refers to the kind of connection between car and cable.

Type 1 is a five-pin plug with a clip and normally found on EVs manufactured by Asian brands, with the exception of newer Nissans.

Type 2 is a seven-pin plug with a flat top edge - this connector is typically found on European and American brands such as BMW.

The same EV cable be used for different brands of EV car as long as the type is correct for that vehicle. For example, a Mini and Range Rover both use type 2, and the same cable could be used to charge both vehicles.

Cable length makes no difference to charging speeds or charging capability. It's just a longer length for accessing charging units.

Different EV models for different needs

Here's a snapshot of some EV models – both car and van – with potential users and charging needs.

By the end of 2021 we will have over half a million fully electric (BEV) and plug-in hybrid (PHEV) vehicles on the road. This number has almost doubled in the past 18 months, and the rise has been helped by company car drivers making the switch to more sustainable vehicles.

Not all the drivers are making the switch for Environmental Social Governance (ESG) commitments – government tax incentives combined with a host of better vehicles being offered by manufacturers have made the switch a bit of a no-brainer.

Company car

When people think of company car drivers, most imagine salespeople driving up and down motorways in a Mondeo or 3 Series BMW – but truth be told many people use company cars for many different reasons.

Annual mileage (2019) in a company car for business 4,200 miles, commuting 9,400, private 4,900. Total: 18,400*.

*[Source: Department for Transport statistics, National Travel Survey]

Sales executive covering large area in the Midlands, driving around 375 miles a week.						
New EV model	Skoda Enyaq iV 60	**Real-world Range:**	205 Miles	**Full Charge:**	2 times a week	
DC Charging 10-80%	33 Minutes (100kW DC)		**0-100% AC Charging**	9 Hours 30 Mins (7.2kW)		
Cost Per Annum (Electric) 19500 Miles	5707.32 kWh to travel 19.5k Miles	**Standard Electricty Tariff**	£827.56 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£275.85 £0.05 Per kWh	Electric - Skoda Enyaq iV 60
Cost Per Annum (Petrol / Diesel) 19500 Miles	2216.22 Litres to travel 19.5k Miles	**Petrol Priced @ 141.20p per Litre**	£3060.38	**Diesel Priced @ 137.19p per Litre**	£2475.30	**Petrol:** Skoda Kodiaq 1.5Tsi **Diesel:** Skoda Kodiaq 2.0TDi 150 DFPR

Skoda Enyaq iV 60

Price – Starting at £31,995 (Inclusive of OZEV Plug In Vehicle Grant)

Expected in summer 2021, the new Skoda fully electric SUV will boast a range of up to 310 miles. Expected to launch with 3 battery sizes and 5 power variants, the Enyaq will offer an entry-level version aimed at families, alongside a 82 kWh battery variant offering longer distances. A four-wheel drive VRS version is also expected to cater for those looking for a bit more performance.

Senior Manager, 40-mile daily commute to main office (200 Miles a week).						
New EV model	Tesla Model 3 Standard Range	**Real-world Range:**	220 Miles	**Full Charge:**	Once a week	
DC Charging 10-80%	25 Minutes (145kW DC)		**0-100% AC Charging**	5 Hours 30 Mins (11kW - 3 Phase Charger Req)		
Cost Per Annum (Electric) 10000 Miles	2590.91 kWh to travel 10k Miles	**Standard Electricty Tariff**	£388.64 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£129.55 @ £0.05 Per kWh	Electric - Tesla Model 3 Standard Range
Cost Per Annum (Petrol / Diesel) 10000 Miles	2216.22 Litres to travel 10k Miles	**Petrol Priced @ 141.20p per Litre**	£1475.62	**Diesel Priced @ 137.19p per Litre**	£1075.05	**Petrol:** BMW 320i **Diesel:** BMW 320d SE

Tesla Model 3

Price – Starting at £40,990

The Tesla Model 3 is one of the best electric vehicles on the market, boasting great performance, market-leading range and some of the finest on-board tech to ever feature in an automobile. The Model 3 Performance model is capable of 352 miles, 162 mph and a 0-60 mph time of 3.1 seconds, that is a tenth of a second quicker than a 2020 Ferrari Portofino. Even the entry level Model 3 is capable of a 0-60 of 5.1 seconds, which is still very quick for 4-door family hatchback. But it's not just a pocket rocket, the entry level Tesla is also autonomous ready, meaning once legal it will be capable of driving itself to that business meeting at the other end of the M1, so you arrived refreshed and ready as the car has taken the strain out of that long drive and standard rush-hour traffic. When you have driven a Model 3 it comes as no surprise to know that they have sold over 800,000 of these cars in around 3 years.

Company director, 50-mile daily commute to main office (250 Miles a week)

New EV model	Mercedes EQS 580 4MATIC	**Real-world Range:**	380 Miles	**Full Charge:**	Once a week	
DC Charging 10-80%	32 Minutes (200kW DC)		**0-100% AC Charging**	11 Hours (11kW - 3 Phase Charger Req)		
Cost Per Annum (Electric) 13000 Miles	3687.89 kWh to travel 13k Miles	**Standard Electricty Tariff**	£553.18 £0.15 Per kWh	**On EV / Economy7 Tariff**	£184.39 @ £0.05 Per kWh	Electric - Mercedes Benz EQS 580 4MATIC
Cost Per Annum (Petrol / Diesel) 12500 Miles	1712.99 Litres to travel 13k Miles	**Petrol Priced @ 141.20p per Litre**	£2418.74	**Diesel Priced @ 145.20p per Litre**	£2217.32	**Petrol:** Mercedes Benz S500 4Matic **Diesel:** Mercedes Benz S400D 4Matic

Mercedes Benz EQS 580 4MATIC

Price – Starting at £115,000

For as many decades as I have been alive the Mercedes Benz S-Class has been not only been the pinnacle of German luxury, but also a technological pioneer. Reliable ABS, Airbags, Seat Belt Pre-Tensioners and Traction Control were all technologies first introduced by previous S-Class models. The flagship Mercedes was often heralded as being a guide to what to expect as standard in family cars of the future. As you would expect from a flagship Mercedes, the front seats come with 19 adjustment motors and 10 massage programs, as well as the luxurious seats the EQS also has a 1.4 metre hyperscreen dashboard, which comprises three digital screens built into one. The 112kWh battery has a real-world range of around 380 miles. And the 516hp motor is capable of a 0-60 time of 4.3 seconds. AWD and rear wheel steering deliver precise handling for a vehicle of its size and weight. As you would expect from a S-Class, its powerful, comfortable, luxurious, and filled with cutting edge technology.

Engineer, 250 miles a day covering across a region (1,250 Miles a week)

New EV model	Ford Mustang Mach-E ER RWD	**Real-world Range:**	270 Miles	**Full Charge:**	Once a day	
DC Charging 10-80%	43 Minutes (150kW DC)		**0-100% AC Charging**	9 Hours 30 minutes (11kW - 3 Phase Charger Req)		
Cost Per Annum (Electric) 65000 Miles	21185.19 kWh to travel 65k Miles	**Standard Electricty Tariff**	£3,177.78 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£1,059.26 @ £0.05 Per kWh	Electric - Ford Mustang Mach-E ER RWD
Cost Per Annum (Petrol / Diesel) 65000 Miles	7,776.05 Litres to travel 65k Miles	**Petrol Priced @ 141.20p per Litre**	£10979.79	**Diesel Priced @ 145.20p per Litre**	£8938.57	**Petrol:** Volkswagen Tiguan Elegance 1.5 TSI 150 PS 7-Speed DSG **Diesel:** Volkswagen Tiguan Elegance 2.0 TDI 150 PS 7-Speed DSG

Ford Mustang Mach-E Extra Range RWD

Price – Starting at £49,980

The Mach-E is Ford's first purpose-built fully electric vehicle, with a range of up to 379 miles and All Wheel Drive (AWD). The performance is expected to match its Mustang moniker with a 0-60 mph time of 5.1 secs. Launching with two battery options (76kWh or 99kWh), it will also boast up to 150kW rapid charging capability to ensure your charging time while on the road is minimised, allowing up to 73 miles for every 10 minutes charging. Inside the Mach-E it will comfortably seat 5, with its hatchback boot and 100-litre "Frunk" (Frunk = front boot to us Brits, it's basically extra storage space where we used to keep the internal combustion engine). Can the Mach-E pick up where the Mondeo left off, or has it priced itself out of that sector, instead aiming its sights at the Model 3 or Polestar 2 market? Time will tell.

Technican, 200 miles a day covering across a region (1,000 Miles a week)

New EV model	Hyundai Kona Electric 64 kWh	**Real-world Range:**	245 miles	**Full Charge:**	Once a day	
DC Charging 10-80%	44 Minutes (77kW DC)		**0-100% AC Charging**	7 Hours (11kW - 3 Phase Charger Req)		
Cost Per Annum (Electric) 52000 Miles	21185.19 kWh to travel 52k Miles	**Standard Electricty Tariff**	£2,037.55 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£679.18 @ £0.05 Per kWh	Electric - Hyundai Kona Electric 64 kWh
Cost Per Annum (Petrol / Diesel) 52000 Miles	5105.66 Litres to travel 52k Miles	**Petrol Priced @ 141.20p per Litre**	£7209.19	**Diesel Priced @ 145.20p per Litre**	N/A	**Petrol:** Hyundai Kona 1.0 TGDi 48V MHEV Ultimate **Diesel:** No Diesel

Hyundai Kona Electric

Price – Starting at £27,950 (Inclusive of OZEV Plug-In Vehicle Grant)

The Hyundai Kona Electric is already in its second guise, and it feels the new model has been designed with the electric platform in mind rather than the ICE (Internal Combustion Engine) platform. This is clear with the sleeker, more aerodynamic updated design and like many of its competitors it comes with two battery options, a 39kWh and 64kWh. The latter is the one which will appeal more to the company car driver, as it will offer up to 250 miles in range. It will also feature 150kW charging capability, meaning it can go from 10% battery to 80% in around 40 minutes. Hyundai have their eyes firmly set on mass adoption rather than outright performance, and with the Kona that's clear. Don't be mistaken though, it's no tortoise. It still offers 201 bhp and a 0-60 of 7.6 seconds, but when compared with its counterparts It's distinctively slower. It is, however, a lot cheaper, with the entry level 39kWh battery version coming in under £30,000 with the Plug-in Grant.

Medical Specialist, 90 miles a day covering across a region (450 Miles a week)

New EV model	Vauxhall Corsa-e	**Real-world Range:**	170 Miles	**Full Charge:**	3 times a week	
DC Charging 10-80%	31 Minutes (99kW DC)		**0-100% AC Charging**	7 Hours 30 Minutes (11kW - 3 Phase Charger Req)		
Cost Per Annum (Electric) 23500 Miles	6220.59 kWh to travel 23.5k Miles	**Standard Electricty Tariff**	£933.09 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£311.03 @ £0.05 Per kWh	Electric - Vauxhall Corsa-e
Cost Per Annum (Petrol / Diesel) 23500 Miles	2042.66 Litres to travel 23.5k Miles	**Petrol Priced @ 141.20p per Litre**	£2884.23	**Diesel Priced @ 145.20p per Litre**	£2197.15	**Petrol:** Vauxhall Corsa 1.2 Turbo Petrol **Diesel:** Vauxhall Corsa 1.5 Diesel

Vauxhall Corsa-e

Price – Starting at £21,485 (Inclusive of OZEV Plug In Vehicle Grant)

Vauxhall have committed to having a fully electric version of each of its models by 2024, and they have started their new fully electric journey with one of their most popular models in their line up - the Corsa. Boasting an impressive 209 mile range, it puts other vehicles in its price range (Mini Electric and MG ZS EV) firmly in its shadows, it also boasts 100kW charging, meaning it can go from 10% battery to 80% battery in around 27 minutes. Tailored to those with a more local requirement (healthcare professionals and mobile security, for example) the Corsa-e is a great vehicle for those who don't log the big motorway miles on a daily basis, although with its class-leading specs, it's more than capable.

Security Specialist, 120 miles a day covering across a region (600 Miles a week)						
New EV model	Volkswagen ID.4 Pure	**Real-world Range:**	175 miles	**Full Charge:**	4 times a week	
DC Charging 10-80%	29 Minutes (100kW DC)		**0-100% AC Charging**	8 Hours 30 Minutes (7.2kW)		
Cost Per Annum (Electric) 31000 Miles	9211.43 kWh to travel 31k Miles	**Standard Electricty Tariff**	£1,381.71 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£460.57 @ £0.05 Per kWh	Electric - Volkswagen ID.4 Pure
Cost Per Annum (Petrol / Diesel) 31000 Miles	2042.66 Litres to travel 31k Miles	**Petrol Priced @ 141.20p per Litre**	£4011.85	**Diesel Priced @ 145.20p per Litre**	£3258.35	**Petrol:** VW Golf 1.5eTSI mild-hybrid petrol **Diesel:** VW Golf 2.0 Tdi 7 Speed DSG

Volkswagen ID.4 Pure

Price – Starting at £32,150 (Inclusive of OZEV Plug-In Vehicle Grant)

The ID.4 is Volkswagen's first fully electric SUV and is built on the groups MEB platform (modular electric drive matrix). This is shared architecture is the basis for the VW Groups I.D range of vehicles, as well as the platform for other manufacturers in the group. The ID.4 Pure is the entry-level variant of the electric SUV and comes with a 52kWh battery which delvers 175 miles real-world range. The 109kW motor delivers a 0-62mph of 10.9 secs, and is capable of towing up to 1000kg. With a 5-star Euro NCAP safety rating its hardly surprising it was voted World Car of the Year 2021. Like its sister vehicle the ID.3, which is also built on the MEB platform, the ID.4 is delivered with a net carbon neutral balance, all you need to do is fill it with carbon neutral power.

Private car

[DfT data 2019] Type of average mileage - Business 300, Commuting 2,500, Private 4,400. Total annual: 7,200.

Retail Manager, 50 miles a day across a region (250 Miles a week)						
New EV model	Kia e-Niro 39 kWh	**Real-world Range:**	145 miles	**Full Charge:**	2 times a week	
DC Charging 10-80%	43 Minutes (50kW DC)		**0-100% AC Charging**	6 Hours 30 Minutes (7.2kW)		
Cost Per Annum (Electric) 12500 Miles	9211.43 kWh to travel 12.5k Miles	**Standard Electricty Tariff**	£504.31 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£168.10 @ £0.05 Per kWh	Electric - Kia e-Niro 39 kWh
Cost Per Annum (Petrol / Diesel) 12500 Miles	885.12 Litres to travel 12.5k Miles	**Petrol Priced @ 141.20p per Litre**	£1249.80	**Diesel Priced @ 145.20p per Litre**	N/A	**Petrol:** Kia Niro Self Charging Hybrid 1.6 Gdi **Diesel:** No equivalent model

Kia e-Niro 39 kWh

Price – Starting at £30,345 (Inclusive of OZEV Plug-In Vehicle Grant)

Kia are no strangers to the world of EVs, launching the 64kWh variant of the e-Niro back in 2018 to great adulation, so rather than going for a bigger battery with more range, they went the other way with the second variant by putting in a smaller battery with less range. Some may find this very odd, but it's a stroke of genius. With the 39kWh variant Kia have got a perfect vehicle for those looking for a small urban SUV. Not only is the pricing very reasonable for the vehicle size and range, the specification is also very good, with the entry level trim boasting 17 inch alloy wheels, automatic lights and wipers, dual-zone climate control, rear parking sensors and camera, as well as a 8-inch infotainment system with DAB Radio, Apple CarPlay and Android Auto. Even though the battery is smaller, it's still no slouch, with the 134Bhp motor helping to deliver a 0-60mph time of 8.2 seconds. A great value electric car with a high level of specification and decent range.

GP Doctor, 80 miles a day across a region (400 Miles a week)						
New EV model	Audi Q4 e-tron 35	**Real-world Range:**	175 miles	**Full Charge:**	3 times a week	
DC Charging 10-80%	30 Minutes (100kW DC)		**0-100% AC Charging**	8 Hours 30 Minutes (7.2kW)		
Cost Per Annum (Electric) 21000 Miles	6240 kWh to travel 21k Miles	**Standard Electricty Tariff**	£936 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£312 @ £0.05 Per kWh	Electric -Audi Q4 e-tron 35
Cost Per Annum (Petrol / Diesel) 21000 Miles	885.12 Litres to travel 21k Miles	**Petrol Priced @ 141.20p per Litre**	£3063.59	**Diesel Priced @ 145.20p per Litre**	N/A	**Petrol:** Audi Q3 Technik 35 TFSI CoD 150 PS Manual **Diesel:** Audi Q3 Sport 35 TDI 150 PS S Tronic

Audi Q4 e-tron 35

Price – Starting at £40,750

As you would expect from Audi, the Q4 E-Tron 35 is most definitely one of the nicer looking fully electric vehicles on the market, available with two body styles, three powertrains and four trim levels. There is a model to cater for most. The entry level Sport model is still very well equipped with a 10.6 inch infotainment system, and also Audi's great virtual cockpit as standard. An augmented head up display is available as an option. It utilises the VW groups MEB platform, which is tried and tested across a number of different vehicles now. 100kW charging as standard ensures a top-up is done in around half an hour, and in with the environment in mind, Audi have chosen an environmentally friendly suede-like fabric for the front seats, made from recycled plastic bottles.

Parent - main child carer, 20 miles a day (100 Miles a week)						
New EV model	Honda e	**Real-world Range:**	105 Miles	**Full Charge:**	Once a week	
DC Charging 10-80%	36 Minutes (56kW DC)		**0-100% AC Charging**	5 Hours 15 Minutes (6.6kW)		
Cost Per Annum (Electric) 52000 Miles	1411 kWh to travel 5.2k Miles	**Standard Electricty Tariff**	£221.71 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£70.57 @ £0.05 Per kWh	Electric - Vauxhall Corsa-e
Cost Per Annum (Petrol / Diesel) 52000 Miles	401.34 Litres to travel 5.2k Miles	**Petrol Priced @ 141.20p per Litre**	£566.70	**Diesel Priced @ 145.20p per Litre**	N/A	**Petrol:** Kia Picanto 1 - 1.0 DPi ISG **Diesel:** No equivalent model

Honda e

Price – Starting at £27,660 (Inclusive of OZEV Plug-In Vehicle Grant)

The Honda e first debuted at the 2017 Frankfurt motor show, and it was one of the stars of the show, its retro styling is apparent to those who remember the original 1970s Honda Civic. But it wasn't just the nod to its predecessor than won it applause, it was the next-generation technology that Honda had incorporated. Hidden door handles, streamlined side camera mirror system and dual screen digital dashboard which can be personalised for individual users. The tech doesn't stop there - the little Honda also has lane assist, adaptive cruise control and auto braking. it's a little pricier than its competitors in the electric city car sector, but it does come with 4 doors which should appeal more to parents than its 2-door rivals. Drivers may be put off by the low range, but the fact that most drivers commute less than 25 miles a day wasn't lost on Honda.

Teacher, 35 miles a day (175 Miles a week)

New EV model	Vauxhall Mokka-e	**Real-world Range:**	155 Miles	**Full Charge:**	2 times a week	
DC Charging 10-80%	31 Minutes (99kW DC)		**0-100% AC Charging**	5 Hours (11kW)		
Cost Per Annum (Electric) 91000 Miles	2641 kWh to travel 9.1k Miles	**Standard Electricty Tariff**	£396.29 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£132.10 @ £0.05 Per kWh	Electric -Vauxhall Mokka-e
Cost Per Annum (Petrol / Diesel) 91000 Miles	804.84 Litres to travel 9.1k Miles	**Petrol Priced @ 141.20p per Litre**	£1136.43	**Diesel Priced @ 145.20p per Litre**	£935.63	**Petrol:** Vauxhall Mokka 1.2 Turbo 6 Speed **Diesel:** Vauxhall Mokka 1.5 Turbo Diesel 6 Speed

Vauxhall Mokka-e

Price – Starting at £30,540 (Inclusive of OZEV Plug-In Vehicle Grant)

Vauxhall (now part of the Stellantis Group, which also owns Peugeot, Citroen and DS Automobiles) has clearly picked up some style tips from its French cousins. The new Mokka-e has a striking design, especially when compared with its rather drab looking predecessor. It's not all show however - its 50kWh battery is good for 155+ miles, and the 99kW DC charging means a top-up takes only 30 minutes. The interior quality is very good and equipment level is also great, with a 7-inch colour touch screen and Apple CarPlay/Android Auto as standard, electronic climate control, adaptive cruise control and panoramic rear view camera and parking sensors. The 134bhp front wheel drive motor is also good for a 0-60mph of 8.7 seconds, so it's no slow poke, a stylish and reasonably priced offering from Vauxhall which should definitely be on your test drive list.

Mobile Hairdresser/Beautician, 90 miles a day covering across a region (450 Miles a week)

New EV model	Volkswagen ID.3 Pure Performance	**Real-world Range:**	170 Miles	**Full Charge:**	3 times a week	
DC Charging 10-80%	44 Minutes (50kW DC)		**0-100% AC Charging**	7 Hours 30 Minutes (7.2kW)		
Cost Per Annum (Electric) 23500 Miles	6220.59 kWh to travel 23.5k Miles	**Standard Electricty Tariff**	£933.09 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£311.03 @ £0.05 Per kWh	Electric - Volkswagen ID.3 Pure Performance
Cost Per Annum (Petrol / Diesel) 23500 Miles	885.12 Litres to travel 23.5k Miles	**Petrol Priced @ 141.20p per Litre**	£3041.24	**Diesel Priced @ 145.20p per Litre**	£2470.04	**Petrol:** VW Golf 1.5eTSI mild-hybrid petrol **Diesel:** VW Golf 2.0 Tdi 7 Speed DSG

VW ID.3 Pure Performance

Price – Starting at £27,120 (Inclusive of OZEV Plug-In Vehicle Grant)

The ID.3 is Volkswagen's people's car for the electric generation, clearly designed as an electric successor to the VW's stalwart, the Golf. This is even referenced in the ID.3's name, with the 3 representing the fact that this is the manufacturer's third major launch in its history, following the Beetle and the Golf. The ID.3 will come in a range of specifications and battery sizes to suit every need, and yes they are planning a fast one akin to the current "R" models. The ID.3 is the first car to use VW's new MEB platform, which will be the base for over 70 electric models in the coming years. The Pure Performance ID.3 comes with a 45 kWh battery and 50kW DC charging capabilities. This vehicle will be a game changer - despite its lack of clever tech and gizmos, it will bring EV to masses in the same way that its ICE (internal combustion engine) predecessors did.

Vans

There are currently around 4.5 million vans in use in the UK [1], and the fleet has grown 50% since 2009, twice the growth-rate of the car market, and the new light commercial vehicle sector is now worth £10 billion a year in the UK, with 900,000 used vans also sold annually.

Just how important vans are to the nation's work was laid out in a 2019 study of van usage by the SMMT, in which it found a total of 3.4 million British workers could not do their jobs without one, meaning 11% of UK GDP comes from workers who rely on a van. More than half a million employees are driving one as their main job – contributing a £56 billion boost to the UK economy from wages alone.

[Source: https://www.smmt.co.uk/wp-content/uploads/sites/2/SMMT-Motor-Industry-Facts-JUNE-2020-FINAL.pdf]

Britain is set for its second mass commercial EV adoption. In fact, Milk & More, one of the remaining milk doorstep delivery companies in the UK, has been one of the first to switch to electric vans. With more than 500+ electric vans they boast one of the largest electric fleets in the UK.

The Plug-in Van grant will also make the purchase of these vehicles easier for those looking to make the switch to zero emissions. The grant will pay 20% of the purchase price of qualifying vehicles up to a maximum of £8,000. To qualify, the vehicles need to have CO2 emissions of less than 75g/km and be able to travel at least 10 miles without any emissions at all.

More than half of vans (58%) are owned by businesses, and DfT research [1] found that the primary usage of licensed vans was for carrying equipment, tools and materials (41%), followed by delivery/ collection of goods (16%). Over half (55%) of business-owned vans were new, with 34% owned outright and 21% owned via a hire purchase agreement. Most privately owned vans (81%) were second-hand.

Half of all vans (50%) operate locally, within 15 miles of their base on a typical day, reflecting ownership of sole traders and micro businesses, while fewer vans used dual carriageways and motorways regularly, with only 40% and 22% of vehicles using these roads four or more days per week, respectively. Annual mileage has remained stable, at an average of 13,000 miles per year.

[Source: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/916508/provisional-van-statistics-2019-20.pdf]

Self Employed Delivery Driver, 115 miles a day across a region (575 Miles a week)

New EV model	Fiat eDucato 79kWh	**Real-world Range:**	145 Miles	**Full Charge:**	Once a day	
DC Charging 10-80%	1 Hour 40 Minutes (50kW DC)		**0-100% AC Charging**	7 Hours 30 Minutes (11kW - 3 Phase Charger Req)		
Cost Per Annum (Electric) 30000 Miles	16,344.83 kWh to travel 30k Miles	**Standard Electricty Tariff**	£2,451.72 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£817.24 @ £0.05 Per kWh	Electric - Fiat eDucato 79kWh
Cost Per Annum (Petrol / Diesel) 30000 Miles	3,479.08 Litres to travel 30k Miles	**Petrol Priced @ 141.20p per Litre**	N/A	**Diesel Priced @ 145.20p per Litre**	£5051.63	**Petrol:** No equivalent model **Diesel:** Fiat Ducato 2.3 Multijet 120

Fiat eDucato | Payload: Up to 1,900 kg

Price – Starting at £47,675 (excluding VAT and inclusive of Plug-in Van Grant)

BD Auto had previously converted Ducatos to electric via certain Fiat dealers, and Fiat Professional Vehicles have now taken the build inhouse having see the customer response to the converted vans. The eDucato will be available with two battery sizes on launch, a 47kWh and 79 kWh battery, offering up to 223 miles in range. The eDucato also comes with 10 year / 150,000 mile warranty, it will be available to order in over 32 different variants including panel van, chassis cab and minibus. The eDucato will be available later this year and should provide some healthy competition to the eTransit.

Plumber / Electrician, 70 miles a day covering across a region (350 Miles a week)

New EV model	Vauxhall Vivaro-e	**Real-world Range:**	190 Miles	**Full Charge:**	2 times a week	
DC Charging 10-80%	45 Minutes (100kW DC)		**0-100% AC Charging**	6 Hours 15 Minutes (11kW - 3 Phase Charger Req)		
Cost Per Annum (Electric) 18500 Miles	9276.32 kWh to travel 18.5k Miles	**Standard Electricty Tariff**	£1,391.45 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£463.82 @ £0.05 Per kWh	Electric - Vauxhall Vivaro-e 75kWh
Cost Per Annum (Petrol / Diesel) 18500 Miles	2230.29 Litres to travel 18.5k Miles	**Petrol Priced @ 141.20p per Litre**	N/A	**Diesel Priced @ 145.20p per Litre**	£3238.38	**Petrol:** No equivalent model **Diesel:** Vauxhall Vivaro 1.6 CDTi BiTurbo ecoFLEX 120

Vauxhall Vivaro-e / Citroen e-Dispatch / Peugeot e-Expert

Payload: Up to 1,226 kg

Price – Starting at £ £27,723 (excluding VAT and inclusive of Plug-in Van Grant)

The Vivaro-e, which shares its underpinnings with sister brands Citroen and Peugeot, is the 2021 international van of the year. Available in both a 50kWh and 75kWh battery variant, with the larger battery boasting a claimed range of 205 miles, this has set the bar high for other brands to follow. With up to 100kW rapid charging, the Vivaro-e can charge the 50kWh variant to 80% in just 30 minutes. It also boasts a 7.4kW on-board charger (with the option an 11kW upgrade for faster turnaround) meaning the van is always ready for the working day.

Removals Specialist, 150 miles a day covering across a region (750 Miles a week)

New EV model	Ford E-Transit	**Real-world Range:**	175 Miles	**Full Charge:**	Once a day	
DC Charging 10-80%	35 Minutes (125kW DC)		**0-100% AC Charging**	6 Hours 30 Minutes (11kW - 3 Phase Charger Req)		
Cost Per Annum (Electric) 39000 Miles	15,154.29 kWh to travel 39k Miles	**Standard Electricty Tariff**	£2,273.14 @ £0.15 Per kWh	**On EV / Economy7 Tariff**	£757.71 @ £0.05 Per kWh	Electric - Ford E-Transit
Cost Per Annum (Petrol / Diesel) 39000 Miles	4,075.72 Litres to travel 39k Miles	**Petrol Priced @ 141.20p per Litre**	N/A	**Diesel Priced @ 145.20p per Litre**	£5917.95	**Petrol:** No equivalent model **Diesel:** Ford Transit 2.0 TDCi EcoBlue 105 PS (77kW)

Ford E-Transit | Payload: Up to 1,967 kg

Price – TBC Expected 2022

Ford currently only a have a PHEV Transit on offer with a small range of up to 35 miles. However the e-Transit, Ford's first fully electric commercial vehicle is due on sale early 2022. The e-Transit will boast a 67kWh usable battery capacity, and will boast a range of around 217 miles, which is considerably more than other electric vans of a similar size. The Ford will boast an 11kW onboard charger, meaning an 8-hour overnight charge on a 3-phase supply. It will also have 115kW rapid charging capability, meaning it will go from 0% to 80% battery in around half an hour on a 125 kW rapid charger. There are 25 different configurations of the e-Transit in the European market, including panel van, chassis cab and double cabs. As with the rest of the range, there is also multiple length and height options. The panel van will have a maximum payload of 1,616 kg, and the chassis cab up 1,967 kg. Ford has added a great option on this vehicle that the UK tradespeople will appreciate - "Pro Power Onboard" allows the vehicle's battery to be used as a mobile power source, providing up to 2.3kW for operating tools and charging other equipment.

Worthy Mentions

Great vehicles which didn't particularly fit any of our categories, or they weren't close enough to release, but we felt they deserved a mention as they will help with electric vehicle adoption.

Hyundai IONIQ 5 Project 45

Range – Up to 290 Miles

Price – Starting at £45,000 (estimated)

Hyundai's first purpose-built electric vehicle is expected to hit our roads towards the end of the summer, and the first model to reach our shores will be the eagerly awaited "Project 45 First Edition" priced at £45,000. Don't rush out to the dealer just yet though as this limited edition Project 45 launch model has already sold out all 3000 units before launch. Hyundai are expected to announce more models and pricing later in summer 2021, with two battery options (58kWH and 72.6kWh). The big selling point for company car drivers with the Ioniq 5, however, will be its charging speed. With its 350kW charging capability akin to a Porsche Taycan, the Hyundai will charge from 10% to 80% in around 18 minutes. And it's packed full of next-generation technology including a 3-pin socket between the back seats, capable of delivering 3.6kW, ideal for charging your laptop or electric scooter for that last mile of your commute.

Audi RS e-tron GT

Range – Up to 250 Miles

Price – Starting at £110,950

Launched in summer 2021 the Audi RS E-Tron GT is a 4-door coupe with 4-wheel drive and 590HP, with a 0-60 of 3.5 seconds. The RS GT will provide supercar like performance in a 4-door coupe and will offer some more alternatives in the luxury electric vehicle sector, alongside the Tesla Model S and Porsche Taycan. Like any Audi with an RS moniker it's ridiculously quick and handles like it's on rails. Despite its hefty 2.3 tonne package, the RS E-Tron GT drives well and handles the twisty stuff with relative ease, helped by 4-wheel drive and 4-wheel steering. With 270kW DC charging capability the Audi can also go from 10-80% battery in around 21 minutes.

Lucid Air Grand Touring

Range – Up to 410 Miles

Price – Starting at £125,000 (TBC)

The Lucid Air is designed to be the next generation of luxury vehicle with ultrafast 300kW charging, getting 300 miles of range in around 21 minutes. It will also boast a 34-inch, 5K glass cockpit display, a 21-speaker sound system with Alexa-enabled voice controls. The 110kWh battery is one of the largest production vehicles and when partnered with Lucid's motors is capable of delivering up to 670hp. In dual format they can boost the total power to 1080bhp, that's more power than a Bugatti Veyron, and it will even match the Veyron on a 0-60 run a 2.5 seconds. All this hypercar power and tech in a 4- door saloon for a fraction of the price, what's not to like?

Nissan Ariya

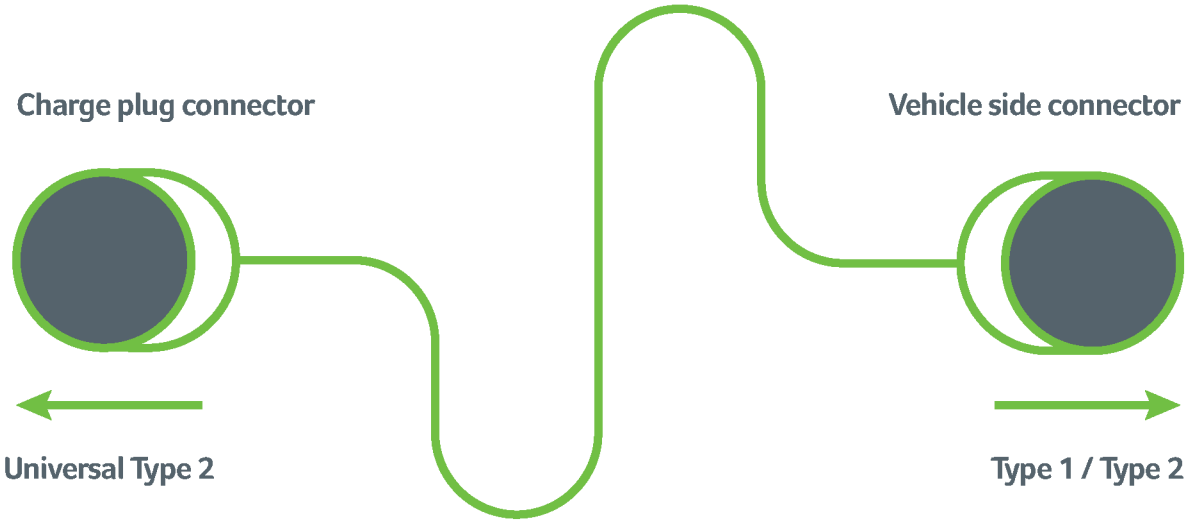
Range – Up to 275 Miles

Price – Starting at £40,000 (TBC)

The Ariya is a new fully electric crossover from Nissan, and it's not pulling any punches, with its bold styling and elegant lines it represents a big step for the company. With both 2WD and 4WD variants available, alongside a 63kWh and 87kWh battery pack, combined with 5 different trim levels, there will be a Ariya for everyone. The 63kWh battery will get 7.4kW charging and the 87kWh will get 22kW charging and the Ariya will also be capable of receiving a 125kW, meaning around 35 minutes for a rapid charge. It's not quite the tech level of the Ioniq 5, but what it lacks in gadgets, it makes up for with faster charging and faster acceleration. This could be a great electric replacement for the Nissan Qashqui, which has sold very well as an ICE crossover.

Charging Options

There are different types of charging units: ultra-rapid, rapid, fast and slow chargers measured by power in Kilowatts (kW). The vehicle determines the charging speed therefore it is important to understand the vehicles charging capability. Similar to mobile phone charging cables EVs have two connecters one that connects to the vehicle and one that connects to the charging point. The type of connector required will vary depending on the EV and the power/speed of the charger.



"The vehicle determines the charging speed"

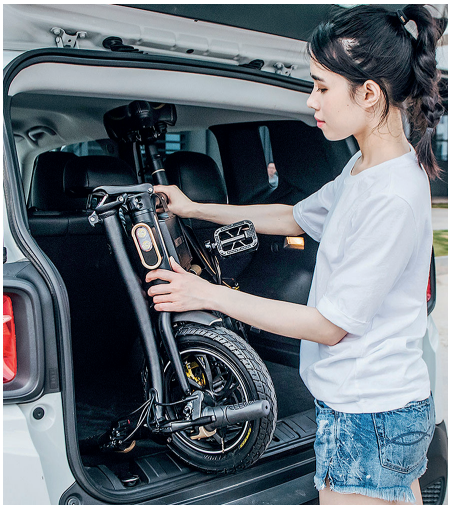
Power Output	Competencies	Kilowatts (KW)	Estimated Charge Time
Ultra Rapid Charging	• Provides DC charging • The fastest way to charge an EV • Vehicles must have Ultra-rapid charging capability • Often found at motorway services • Cables are tethered to the charging unit	Typically either 100 kW, 150 kW, or 350 kW.	From 10 minutes
Rapid Charging	• There are two types of Rapid charging, AC and DC • Often found at motorway services or locations close to main routes • Only to be used on vehicles with rapid charging capability • Cables are tethered to the charging unit • Can typically charge a vehicle to 80% from as little as 20 minutes (some EVs may take an hour to charge on a standard 50 kW rapid charge point)	Rapid AC charging uses more power, at 43kW. Rapid DC chargers work at 50kW or more. AC charging is limited by vehicle on-board charger size.	From 20 minutes
Fast Charging	• Fast chargers provide AC charging • Most units have untethered cables however some home and workplace units have cables attached • Found at supermarkets, car parks or places where you would be parked for more than an hour	Fast chargers are typically powered at 7-11kW or 22kW. AC charging is limited by vehicle on-board charger size.	7kW: 4-9 hours 22kW: 1-2 hours
Slow Charging	• Often used at home to charge overnight • Majority of units are untethered and a 3 pin plug is required to connect to the charging point	Slow chargers are typically powered at 2kW-6kW.	2kW: 6-18 hours

Public Charging Points

EV technology is always evolving and new charging methods such as wireless and motorway charging lanes are being developed and trialled to minimise charging times. If your vehicles or sites are located in built up areas or near to main roads, you will likely find a suitable charge point nearby.

	Ultra Rapid	Rapid	Fast	Slow
DC or AC	DC	DC / AC	AC	Plug
Charging Speed	100 kW, 150 kW, or 350 kW	50kW+	7-11kW or 22kW	2kW-6kW
Charging Time	Equivalent to drinking a coffee	Equivalent to drinking a coffee	Hours	Overnight
Typical Location	Petrol Station	Petrol Station	Car Park	Home
Cable requirements	Tethered	Tethered	Untethered	3 pin plug

E-Bikes and E-Scooters



e-bikes and e-scooters

e-bikes are the perfect addition to anyone's electric future. They are small and light enough to swiftly manoeuvre around busy streets with enough range to get you to work and back, saving money and helping the planet. They're healthier and fun too. The small yet powerful motor boosts with assisted peddling, and that means the journey is no sweat. A great model is our Inmotion P2 Folding Commuter eBike.

e-scooters are great fun, environmentally-friendly and should be an ideal "last-mile solution" to speed commute times and cut car journeys. The government is running trials in 32 towns, cities, local authorities and combined mayoral authority areas to find out more about how they can work successfully. We have a range of e-scooter models to suit all needs, with prices from £349 to £699.

Your next step

Talk to our expert team about your EV charging requirements on:

0333 123 5464

- We are brand agnostic, so we'll work with companies to find the right solutions for their needs, rather than just selling an own-brand charger. We only work with major manufacturers that meet our standards of quality and ongoing product support.
- Be aware of the new regulations being introduced that many well-known EV companies aren't compliant with.
- We're experienced in working with businesses on renewables and demand side reduction - as EV will increase the load on your electrics, so decreasing the other energy you're using is key.
- Professional project management, putting the customers' needs first.
- Finance solutions available to spread the cost.
- Warranty and maintenance packages available.