

ALL COSTS

Revealing the real-life cost of petrol, diesel and electric

Winter 2024



Welcome to the first **Allstar AllCosts** report, in which we reveal the real-life costs for electric, petrol and diesel vehicles on the road today.

The data in this report has been calculated from millions of fuel transactions and hundreds of thousands of on-the-road charging events throughout the Allstar network, and at-home charges, over the last quarter.

As a result, we're able to build a complete picture of different user and vehicle types, providing businesses of all sizes with valuable insight on a quarterly basis into the costs of going electric, or continuing to run petrol and diesel vehicles.

For more than 40 years, Allstar has been instrumental in managing fuel payments for company vehicles. As businesses embark on the biggest change in that time, with the transition to alternative power, we have harnessed those decades of expertise, and mined our unrivalled data to ensure every fleet can make this journey armed with all the information and guidance they will need.

For this first issue, we're looking at the costs of public and home charging, and how they may be changing. We've identified the most and least expensive public charging, the average cost of home charging, and how widely tariffs can differ.

Charging in public can cost over 20 times more than at home (our data shows home tariffs as low as 4p per kWh, while some public rates exceed £1), but there are other factors behind the numbers.

For example, how long can a driver use an ultra-low tariff at home? For a full charge, will they need to charge at peak rates too? Or how fast are the most expensive public chargers, and actually, is paying more to get back on the road much quicker of greater benefit to the business than the energy cost anyway?

In future issues, we will investigate issues such as these in more detail.

We've also looked at petrol and diesel prices for the period, and applied all these figures to show fleets in pence-per-mile terms what it costs to run the smallest car to the largest van, using all powertrain types.

Over the forthcoming reports, we'll build the picture even further to show whether EVs are more economical to run, or not, than their petrol and diesel counterparts.

What powers vehicles is a major factor in the overall fleet budget and as experts in payments, we can use our data to draw a comparison between fuel and EV charging costs as an initial step. However, there are other considerations, and so over time we'll also look at Total Cost of Ownership, examining other costs that affect the financial position of the cars and vans you choose to run.

We'll delve deeper into our data to look at scenarios that businesses will come across in their working day, and examine wider issues such as managing business expenses better, service, maintenance and repair trends, as well as highlighting exciting new car and van models.



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Some key terms...

AER

The Advisory Electric Rate is the pence-per-mile amount, determined by HMRC, that employees can reclaim energy costs for electric vehicle business mileage back from their employer.

kWh

The capacity of an EV's battery is measured in Kilowatt Hours (kWh).

kW

The output speed of chargers (ie the amount of power they can deliver) is measured in Kilowatts (kW).

mi/kWh

Miles per Kilowatt Hour (mi/kWh) is the figure showing how many miles a vehicle can go on 1 kWh.

P per kWh

Pence per Kilowatt Hour (kWh) is the cost for every 1 kWh.

PPM

Pence-per-mile is the calculation of the p per kWh divided by mi/kWh to show how much each mile costs.

ULEZ

The Ultra Low Emission Zone, now encompassing most of Greater London, in which drivers of non-qualifying vehicles must pay a charge to enter.

VAT

Value Added Tax (VAT) is applied to domestic electricity at 5%, electricity used in public charging at 20%, as well as petrol and diesel at 20%.

WLTP

The Worldwide Harmonised Light Vehicle Test Procedure (WLTP) laboratory test measures fuel consumption and CO2 emissions from passenger cars, as well as their pollutant emissions, providing official figures for use by manufacturers, governments and other regulatory authorities.

ALLEV

The average charging costs for home and public last quarter



We've collected all the data from hundreds of thousands of charges taking place at home and in public through the Allstar network, working out the real-life cost for drivers and businesses of plugging in, by quarter.

Our headline figures here show what it cost to charge an EV from October to December, compared to July to September.

Charging at home

Average cost, p per kWh

28p

↓ Down 3p
Summer 23 = 31p

Highest recorded cost	↑ ↓	Lowest recorded cost
50p		4p
Summer 23 = 50p		Summer 23 = 3p

The average cost of home charging **has dropped by 3p per kWh recently**, making plugging an electric vehicle in at home even better value. Typically, a 70kWh battery would cost £19.60 to fully charge at the average cost of 28p per kWh.

There are still huge variances in domestic pricing though. The highest price recorded was 50p, just as it was in the previous quarter, which means that same vehicle would cost £35 to charge while the cheapest rate, 4p, would come to less than £3.

Calculate pence-per-mile (PPM) costs for an EV achieving an average of 3 miles per kWh and you get 9ppm at the 28p tariff, 17ppm at the 50p one and below 2ppm from the lowest 4p tariff.

Clearly, this wide spread of PPM costs makes it hard for a business to budget, and to reimburse accurately without visibility on every tariff.

Charging in public

Average cost, p per kWh

70p

↑ Up 3p
Summer 23 = 67p

Highest recorded cost	↑ ↓	Lowest recorded cost
£1.20		17p
Summer 23 = 96p		Summer 23 = 19p

Public charging costs have remained fairly static over the past few months, but Allstar data shows that, as with home charging, there are big variances in tariffs **and it can cost up to 20 times more than domestic energy, too, in some instances.**

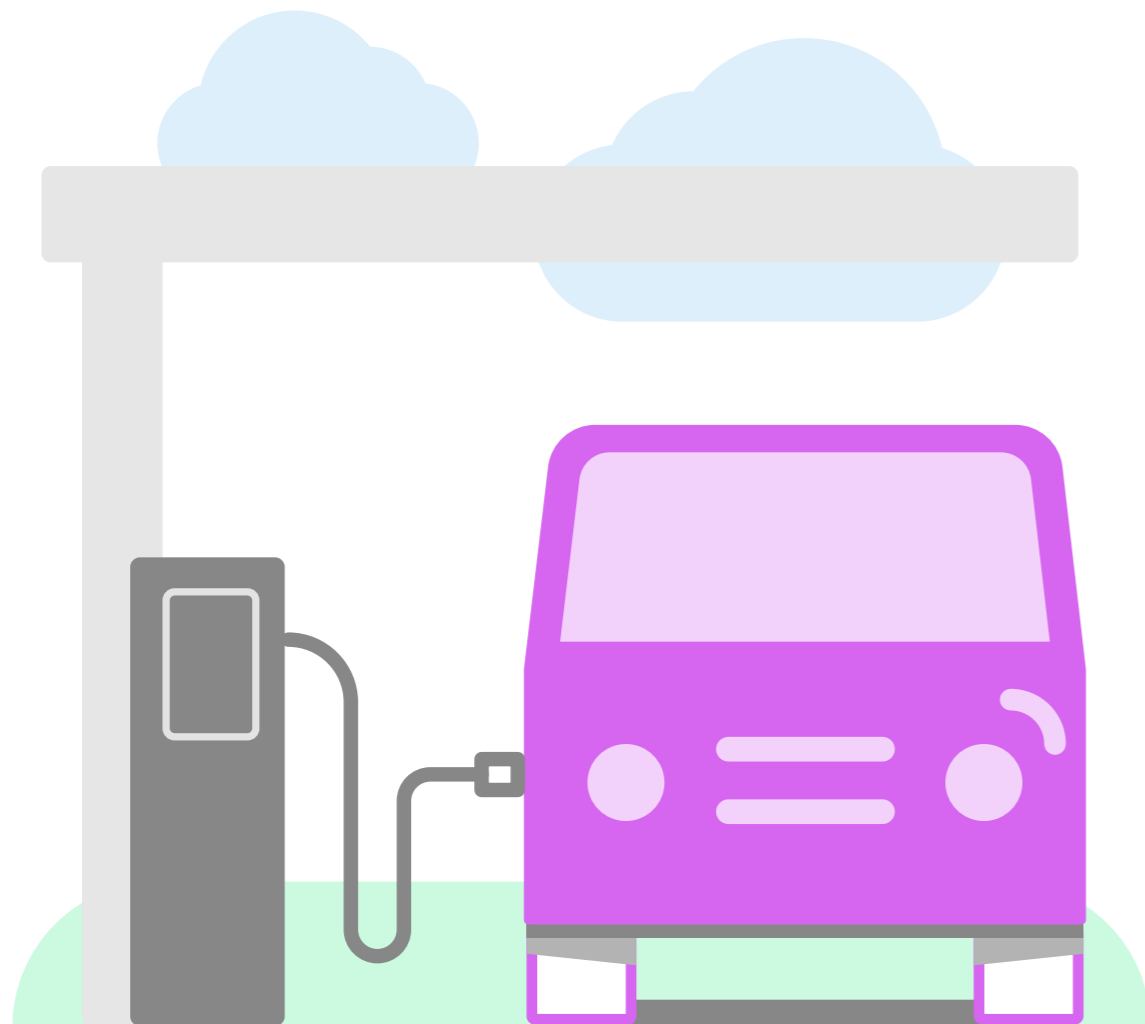
Generally, the higher the price per kWh, the faster the charger, but this is not always the case. It pays to ensure that the two factors have been carefully compared against each other beforehand.

On the Allstar network, drivers can see which chargers are free, their indicative speed and unit cost, allowing them to decide if a lower price but slower charge is the right approach, or whether paying more to be stopped for less time suits.

Don't forget VAT!
Our AllCost figures include VAT (5% domestic, 20% public, 20% fuel).

ALLFUEL

The average fuel costs for petrol and diesel last quarter



At Allstar, we've been collecting fuel pricing data for decades, and with the need for businesses to compare petrol, diesel and electric vehicle charging, we've looked at millions of transactions throughout the UK using an Allstar card and calculated the average cost of fuel.

This way, businesses can get a clear picture of what's going on price-wise, comparing fuel to energy and informing their plans for transitioning to electric.

Petrol

Average - pence per litre

150.6p

↑ Up 2.5p
Summer 23 = 148.1p

Highest recorded cost 167.1p Lowest recorded cost 135.1p

Diesel

Average - pence per litre

158.5p

↑ Up 5.9p
Summer 23 = 152.6p

Highest recorded cost 173.43p Lowest recorded cost 152.2p

On the face of it, over the last two quarters, the price of petrol seems not to have varied much. But beyond the average numbers, there are major changes. September, October and November saw petrol prices rise quickly, with the highest seen at over 167p per litre.

They then **dipped again in December**. Factors such as governments reducing oil production and the war in Ukraine and the Israel/Palestine conflict mean prices are in constant, wide-ranging flux.

The average UK price of diesel in October was more than 10p per litre higher than it was in December and prices have fallen so much that after the autumn highs, **winter diesel prices are nearly down to those seen in the summer**.

With the current levels of geopolitical instability, predicting where prices might go in the future is difficult though.



Don't forget VAT!

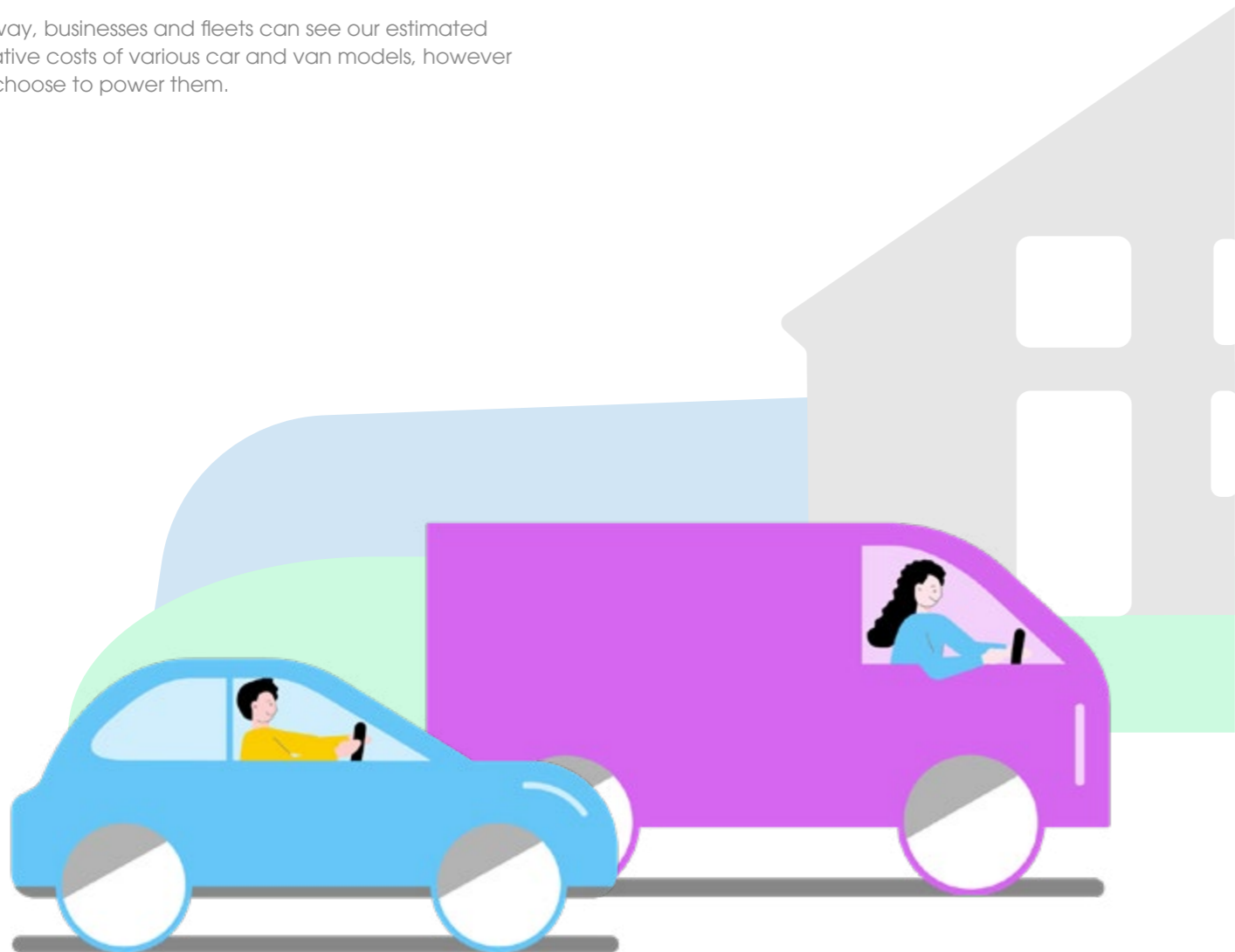
Our AllCost figures include VAT (5% domestic, 20% public, 20% fuel).

ALLCOST Cars and Vans

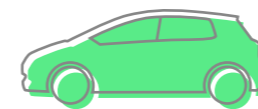
Pence-per-mile figures for cars and vans, based on our real-life electric and fuel costs

We've created baskets of cars in each sector, collated their official lab-tested WLTP fuel economy or energy efficiency figures, and then applied a 20% deduction to them, in order to more closely replicate their efficiency in everyday driving.

That way, businesses and fleets can see our estimated indicative costs of various car and van models, however they choose to power them.



Cars



Supermini

Real life efficiency

Electric	3.1mi/kWh
Petrol	43.1mpg
Diesel	48.5mpg

Cost per mile

EV home	9.0ppm
EV public	22.5ppm
Petrol	15.9ppm
Diesel	14.9ppm

Electric superminis, perhaps not surprisingly, may be very cheap to run if they can be plugged in at home, but note that even the most efficient way of charging the most efficient cars is still **only just level with the Advisory Electric Rate for reimbursement of charging costs.**



Family

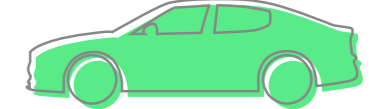
Real life efficiency

Electric	2.9mi/kWh
Petrol	43.4mpg
Diesel	48.1mpg

Cost per mile

EV home	9.7ppm
EV public	24.1ppm
Petrol	15.8ppm
Diesel	15.0ppm

The pence-per-mile profile of family cars closely matches that of superminis, with **petrol and diesel costs broadly similar.** Not unusual, with the vehicle size and powertrains in the two closely aligned.



Executive

Real life efficiency

Electric	3.1mi/kWh
Petrol	34.9mpg
Diesel	44.2mpg

Cost per mile

EV home	9.0ppm
EV public	22.5ppm
Petrol	19.6ppm
Diesel	16.3ppm

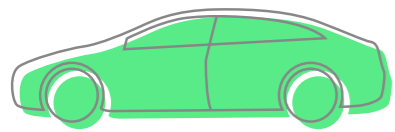
As cars get bigger and heavier, petrol efficiency can be hit far more than other powertrain types: the engines get larger and need to work harder. **Diesel and electric costs have barely changed** though.



Don't forget VAT!

Our AllCost figures include VAT (5% domestic, 20% public, 20% fuel).

“Our analysis shows that if you have large panel vans which can only be charged in public, pence-per-mile costs could be very high.”



Luxury

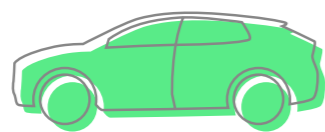
Real life efficiency

Electric	2.5 mi/kWh
Petrol	25.7mpg
Diesel	33.5mpg

Cost per mile

EV home	11.2ppm
EV public	28.0ppm
Petrol	26.6ppm
Diesel	21.5ppm

In the very largest, heaviest cars, **charging at home is by a distance the most economical way** to run them - nearly half the price of any other method. While other costs have risen, luxury cars are only 2p per mile more expensive than superminis by charging this way.



Crossover

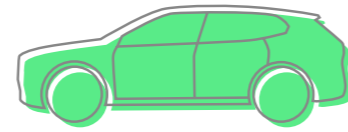
Real life efficiency

Electric	2.8 mi/kWh
Petrol	38.3mpg
Diesel	39.2mpg

Cost per mile

EV home	10.0ppm
EV public	25.0ppm
Petrol	17.9ppm
Diesel	18.4ppm

Crossovers are often based on the same platform as family cars, but their **extra size and weight adds cost**. This can be reduced through home charging too: a crossover would be £90 more than a family car over 30,000 miles charged this way, compared to £270 more in public.



SUV

Real life efficiency

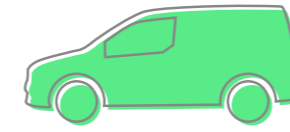
Electric	2.7mi/kWh
Petrol	31.5mpg
Diesel	34.6mpg

Cost per mile

EV home	10.4ppm
EV public	25.9ppm
Petrol	21.7ppm
Diesel	20.8ppm

Big, heavy **SUVs are easily the most expensive cars to run**. Petrol versions are especially so, and choosing one over an electric SUV charged at home will see it cost about £3,400 more in fuel over 30,000 miles.

Vans



Compact van

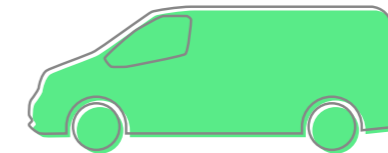
Real life efficiency

Electric	2.3mi/kWh
Petrol	33.9mpg
Diesel	40.9mpg

Cost per mile

EV home	12.2ppm
EV public	30.4 ppm
Petrol	20.2ppm
Diesel	17.6ppm

Vans are usually less efficient than cars, and especially so with electric models, it appears. Even compact vans charged at home using the average domestic tariff are **well above the Advisory Electric Rate**.



Panel van

Real life efficiency

Electric	1.8mi/kWh
Diesel	30.4mpg

Cost per mile

EV home	15.6ppm
EV public	38.8ppm
Diesel	23.7ppm

Our analysis shows that if you have large panel vans which can only be **charged in public, pence-per-mile costs could be very high**. Bear in mind this figure has 20% VAT applied though.



Tracking the cost of running your fleet

We'll be tracking and comparing the costs of cars and vans each quarter as prices for electric, petrol and diesel change over time in upcoming issues of AllCosts.



Don't forget VAT!

Our AllCost figures include VAT (5% domestic, 20% public, 20% fuel).

ALLCHANGE

EV or ICE? How choosing pump or plug can affect running costs

When can you make the switch to electric? While there are other cost factors at play, such as funding, SMR, tax and insurance, fuel and electricity are major contributors to the total cost of ownership.

We've modelled some scenarios based on driver profiles and routines, using our AllCost recorded figures for the period, to see how ICE or EV could influence whether these drivers make the change...



Annabel
Small business owner

	Small diesel van	Small electric panel van
Miles a year	12,000	12,000
Efficiency	Diesel 40.9mpg	2.3mi/kWh
Cost per mile	17.9ppm	90% home (10,800 miles @ 12.2ppm) £1,318 10% public (1,200 @ 30.4ppm) £365
Total cost	£2,112	£1,683

Running a single van mostly on local jobs and taking it home at the end of each day, our business owner would have the opportunity to plug in overnight, which means the vast majority of electric mileage could be powered that way.

Verdict

This van driver **could easily go electric and save a considerable sum**, due to the fact they can access home charging most of the time.

However, they need to be aware that if they need to increase public charging, at 30.4ppm, that equation could soon change.



Don't forget VAT!

Our AllCost figures include VAT (5% domestic, 20% public, 20% fuel).



Chris
Delivery driver

	Large diesel van	Electric van
Miles a year	12,000	12,000
Efficiency	Diesel 30.4mpg	1.8mi/kWh
Cost per mile	23.7ppm	100% public (12,000 miles @ 38.8ppm) £4,656
Total cost	£2,844	£4,656

Constantly on the road, this delivery driver spends his time on all sorts of roads, from urban locations to country lanes, and is often heavily laden too.

He doesn't have the ability to charge at home, so it would all need to be done on the public network or by charging at work.

Verdict

Using only public charging means this driver is still far **better suited to diesel**, with electric costing approximately £1,800 more over 12,000 miles.

It shows the importance of being able to put in place cheaper home (or workplace) charging for certain vehicle types and usage profiles to make them viable.

“If they move to electric, they could charge domestically a lot of the time, with top-up charges when on the road.”



Rachel
Sales director

	Large petrol SUV	Large electric SUV
Miles a year	15,000	15,000
Efficiency	Petrol 31.5mpg	Electric 2.7mi/kWh
Cost per mile	21.7ppm	80% home (12,000 miles @ 10.4ppm) £1,248 20% public (3,000 miles @ 25.9ppm) £777
Total cost	£3,255	£2,025

Driving an executive petrol SUV, this sales director does a couple of longer trips to see clients each week, but otherwise stays close to home.

As a result, if they move to electric, they could charge domestically a lot of the time, with top-up charges when they are on the road.

Verdict

As this driver could mostly charge from home, it is over **£1,200 cheaper a year to run an electric SUV** than a petrol one, making it a serious consideration.



Don't forget VAT!

Our AllCost figures include VAT (5% domestic, 20% public, 20% fuel).



Darren
Engineer

	Petrol family hatchback	Electric family hatchback
Miles a year	18,000	18,000
Efficiency	Petrol 43.4mpg	Electric 2.9mi/kWh
Cost per mile	15.8ppm	60% home (10,800 miles @ 9.7ppm) £1,048 40% public (7,200 miles @ 24.1ppm) £1,735
Total cost	£2,844	£2,783

This engineer is called by clients to deal with technical problems at various sites.

As a result, they often don't know where they are going to be from one day to the next, which makes getting into a regular charging routine difficult, as can be seen by the amount they charge in public.

Verdict

There's nothing much in it between petrol and electric for this driver. In fact, with the amount of time they would need to spend on public chargers factored in, **petrol might still be the better option.**

With the result so close, however, the final decision might depend on other factors, such as total cost of ownership, or the company's sustainability policy if their small business has one.

FEATURE

Driving an EV to the country? Be careful where you charge.

Analysis of average public charging costs, using data held by Allstar of 69 regions throughout the UK, has found that driving an electric vehicle in rural areas is often either more expensive than urban ones, or the cheapest in the country.

In the top ten of most expensive areas to charge, Bristol was the only urban centre, with Scottish areas heavily represented too.

Not surprisingly, Greater London, which has both a 100% EV discount for the Congestion Charge until 2025 and expanded ULEZ, is the busiest area for plugging in, with more than four times as much public charging happening there than the next highest, Greater Manchester.

While many things in London are more expensive than the rest of the country, charging isn't. It averages 75p per kWh, putting it on a par with the West Midlands.

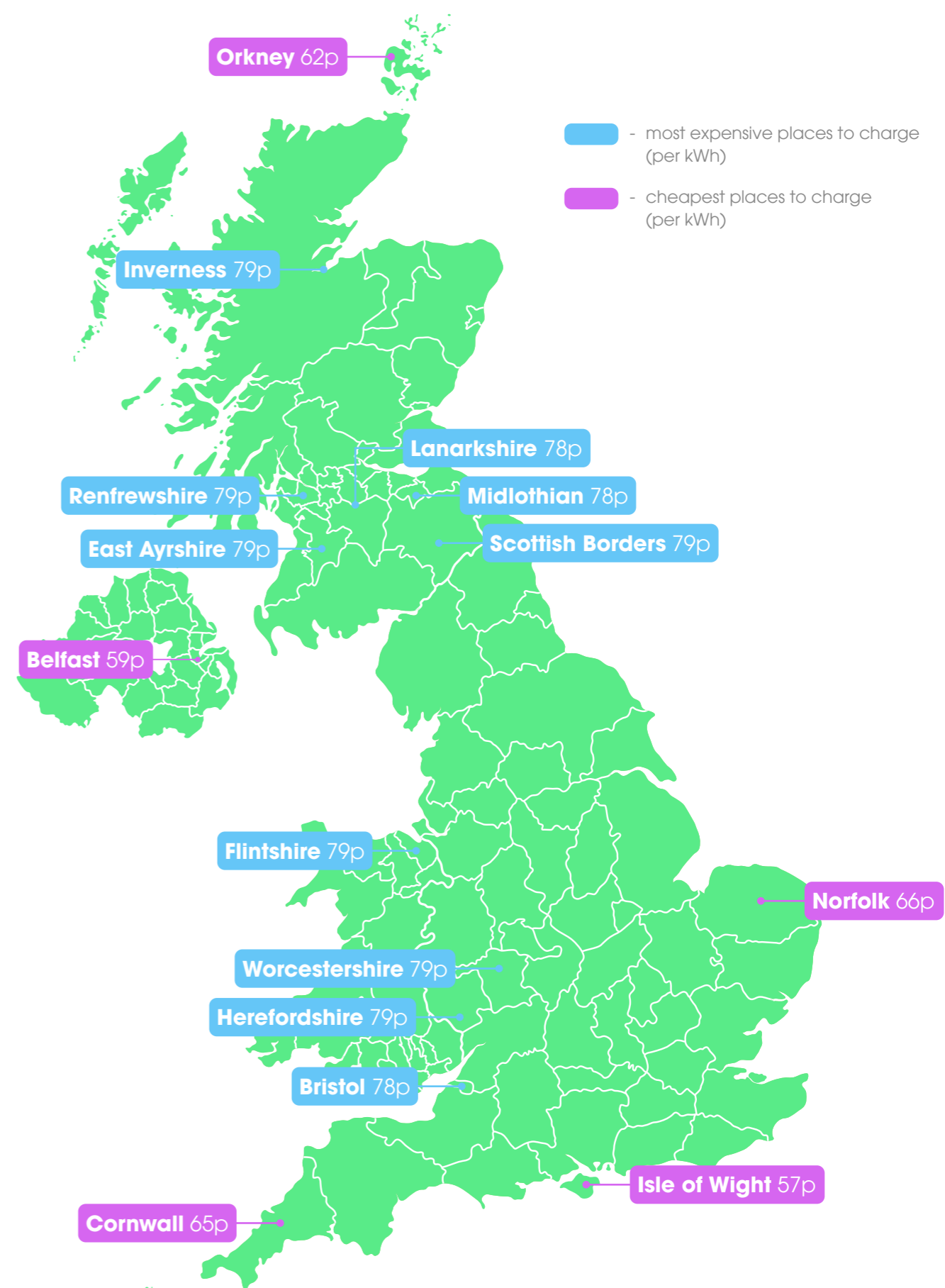
Ironically, despite rural charging often being more expensive, if drivers want the cheapest prices, they might need to head to the furthest reaches of the UK.

Among the 10 cheapest areas for charging were **Norfolk, Cornwall, Belfast, Orkney and the Isle of Wight.**

As a result, charging a 70kWh EV on the Isle of Wight would cost £39.90, but take a trip across the Solent to Dorset, and the same charge would cost £53.20, where the average cost per kWh was 76p.

This disparity in charging costs shows how important it is to understand exactly where your drivers are plugging in, the networks they are using, and what it is costing.

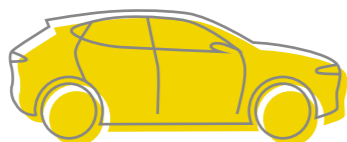
Planning for, and accessing cheaper charging could save your business money. With **Allstar Chargepass®**, all your charging data is at your fingertips, giving you the power to determine your own charging strategy that is cost effective and operationally efficient.



ALLNEW

10 cars in 2024

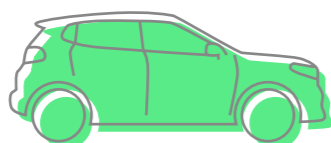
As drivers and employers discover they are able to electrify after all, lots of exciting new cars will be available to them in 2024. We've picked 10 of the most interesting newcomers this year.



Alfa Romeo Brennero

> EV

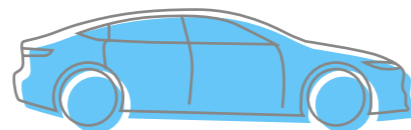
On sale early in 2024, the Alfa Romeo Brennero is the first electric compact SUV from the Italian firm.



Citroen e-C3

> EV

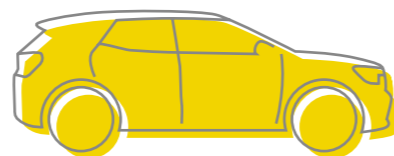
The e-C3 supermini is likely to be priced very competitively - starting at around £23,000 - making it one of the cheapest electric cars on the market.



Audi A6 e-tron

> EV

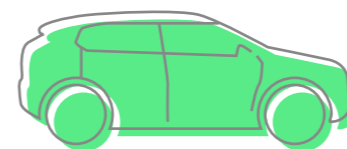
The long awaited electric A6 will be a stalwart of the company car park. It will come as an Avant estate too, for those drivers tired of SUVs.



Ford Explorer

> EV

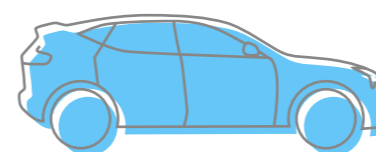
Ford's second electric car is due in mid-2024. An SUV that is bigger than the Mustang Mach-E, it is likely to be priced from around £40,000.



Kia EV3

> EV

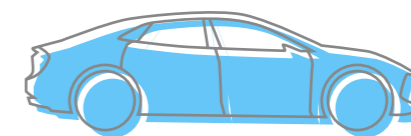
Kia has had great success in the electric car market and the EV3 baby SUV will replace the outgoing Soul.



Polestar 3

> EV

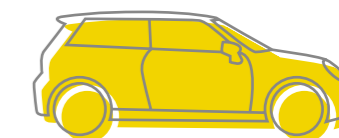
The third Polestar is a sporty SUV, based on the same platform as the Volvo EX90. It's due in the second half of the year.



Lotus Emeya

> EV

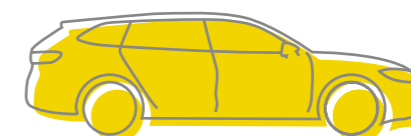
Thinking about a four-door electric saloon? Lotus hasn't often graced the company car choice list, but it might with the Emeya.



MINI Cooper

> EV

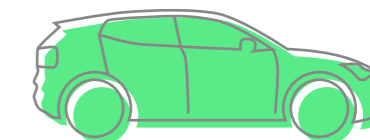
The all-new MINI will hit the streets in the Spring. Longer range than the current MINI Electric, at 250 miles, and later on a petrol version too.



Volkswagen Passat

> Plug-in Hybrid / Diesel

An estate-only model, the dependable fleet car is being moved upmarket, and will have two plug-in hybrid options, and diesel too.



Volvo EX30

> EV

Volvo's smallest ever SUV is also an EV, with a minimalist interior almost free of buttons and near-300-mile range.

ALLEVERYWHERE

Allstar Chargepass® is the UK's only flexible solution that lets businesses handpick payment solutions based on their fleet's needs for electric vehicle charging and refuelling.

Whether your fleet is embarking on its electric vehicle transition by already managing a mixed fuel fleet, or is fully electric but requires a cost-effective way to charge without relying on public charging, Allstar Chargepass® is here and waiting to keep fleets moving across the UK. Charge with Allstar Chargepass® - your partner in the electric vehicle revolution.

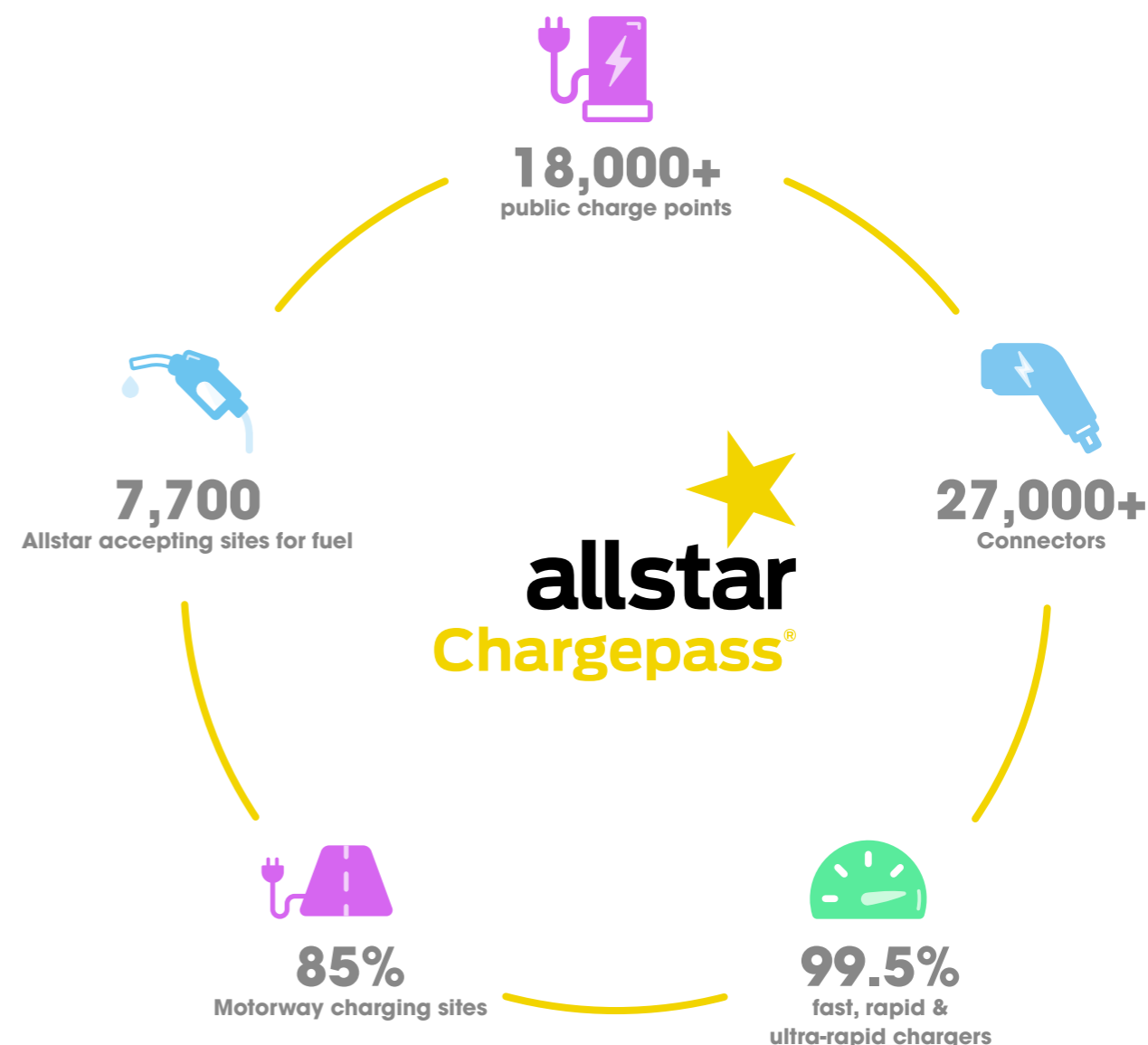
The Allstar UK charging network

Did you know that Allstar already works with multiple charging networks, ensuring that your drivers can access the speed of charging they need, at the price that suits?

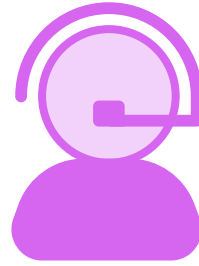
They can pay for all charging, petrol and diesel using the **Allstar One Electric** combined fuel and electric charging card.

At home, **Allstar Homecharge** is the fair and accurate way to pay for the cost of drivers' electric vehicle charging at home. Payments for home charging are made directly to their energy supplier, so drivers are never out of pocket or have expense claims or receipts to submit*.

*In order to comply with HMRC Vehicle Fuel benefit businesses may require a process to identify and reclaim payments for private use.



Taking the next step...



If you want to find out about **Allstar Chargepass®** and how one payment solution can be used for all your fleet's needs, get in touch with our expert team today:

- **0370 419 5101**
- **allstarcard.co.uk**