

Net Zero's Impact on Forecourt Transactions

Ivan Donn
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Wet Fuel Sales vs EV Charging

ICE

- 32.5m cars (41m vehicles)
- 7,400 miles pa
- 36 mpg (petrol)
- 933 litres pa
- Approx 19 transactions of £70
- Approx £1,330 fuel spend
- £40 billion in annual fuel sales

EV

- 1.3m cars (Oct 2024)
- 8,300 miles pa
- 3.5 miles per kWh
- 2370 kWh pa
- £592 peak cost
- £237 off-peak cost
- £600m spent on home charging
- Just £119 spent on public chargers
- £149m total spend on public charging
- 91% reduction in transaction turnover per vehicle

ICE vs EV Peak Rate Home Charging

A gallon of petrol

- £6.25
 - £2.89 fuel cost
 - £2.40 fuel duty
 - £1.0 VAT (20%)
- 45 kWh of energy
- 36 MPG
- 1.25 kW per mile
- 17p per mile (62% tax)
- 10.8p tax per mile

Electricity (peak kWh)

- 26.72p
 - 25.4p fuel cost
 - 0.0p fuel duty
 - 1.3p VAT (5%)
- 82 miles for same cost
- 0.28 kW per mile
- 7p per mile
- 0.4p tax per mile

ICE vs EV

Off-Peak

Home

Charging

A gallon of petrol

- £6.25
 - £2.89 fuel cost
 - £2.40 fuel duty
 - £1.0 VAT
- 45 kWh of energy
- 36 MPG
- 1.25 kW per mile
- 17p per mile
- 10.8p tax per mile (62% tax)
- 164g CO2 per km

Electricity (off peak kWh)

- 8.5p
 - 8.1p fuel cost
 - 0p fuel duty
 - 0.4p VAT
- 257 miles for same cost
- 0.28 kW per mile
- 2.4p per mile
- 0.1p tax per mile
- 45g off-board CO2 per km

PAYG Prices for Rapid (CCS) Chargers

	85p/kWh		79p/kWh
	79p/kWh		79p/kWh
	85p/kWh		69p/kWh
	79p/kWh		53p/kWh
	79p/kWh		15p/kWh - 95p/kWh

- AC lamp post chargers typically priced around 50p per kWh

Mass adoption
hinges on the
cost of public
chargers

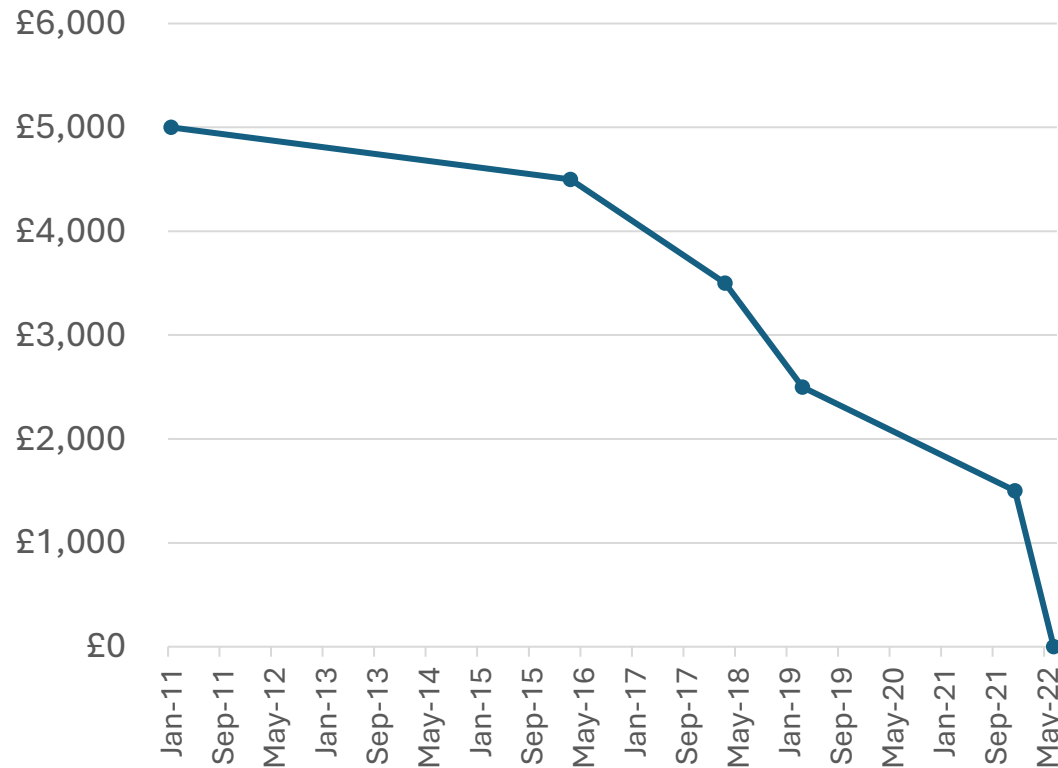
Price/kWh	Cost/Mile	Equiv MPG
£0.10	£0.029	222.46
£0.20	£0.057	111.23
£0.30	£0.086	74.15
£0.40	£0.114	55.62
£0.50	£0.14	44.49
£0.60	£0.171	37.08
£0.70	£0.200	31.78
£0.80	£0.229	27.81
£0.90	£0.257	24.72
£1.00	£0.286	22.25

Charging and roaming

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- Around 72k chargers at 36k locations as of Oct 24
 - Subscription mainly offered by Tesla, Shell Recharge and BP Pulse
 - Typically around £10 per month with discounts of around 20% vs PAYG (Lowest rate at 50p per kWh for Tesla)
 - Especially attractive to high-mileage drivers and those with no access to home charging
 - Likely to become more popular as sales extend beyond the home charging market
 - Networks that issue RFID cards generally support roaming
 - Most sites that accept Contactless also support some fuel cards
 - Assists receipting and cost management, which has poor support

Incentives – the end of the road

EV Grants 2011 to 2022



From 1st April 2025

- Free Road Tax ends
 - £10 in 1st year (Band A)
 - £190 pa thereafter
- Expensive Car Tax supplement exemption ends
 - £410 pa for 1st five years
- Total annual cost for a new EV over £40k = £600pa

Road Tax is likely to exceed the entire annual cost of home charging

Public Charge Point Regulation 2023

- Comes into effect on 24th Nov
- Key requirements: -
 - **Pricing Transparency**
 - Maximum price must be visible at charge point
 - **Contactless Support**
 - Any new charger of 8kW and above
 - All existing chargers of 50kW and above
 - **99% reliability**
 - 14 mins per day or 88 hours per year of total downtime
 - Annual report must be submitted
 - Fines of £10k per individual breach
 - **24/7 helpline**
 - Quarterly reporting requirement

Government Policy

- Strong incentives remain for businesses and fleets
- Direct consumer incentives largely removed
 - Salary Sacrifice hugely preferable to PCP due to tax and NI savings
- VAT on public charging is discriminatory and to the detriment of growth targets
- Introducing Road Tax in 2025 is too early and will harm growth
- Tough manufacturer targets and penalties are leading to huge discounts and losses, which are damaging

Conclusions

Every switch from ICE to EV will result in the loss of around £1,100 of fuel-related card transactions

A rapid transition to EVs is only possible with energy price alignment

- No evidence this has been identified as a priority

Introduction of road tax for EVs is at best a zero-sum game for the payments industry

Servicing revenues will be eroded by around 50%

- Any upside from accelerated tyre or brake wear is wishful thinking

2030 target cannot be achieved without a huge hit to the economy

- Parity with vehicle cost, range and energy costs needed to effect a rapid transitions