



Electrifying the UK

Ensuring the transportation revolution benefits everyone

Tackling air pollution from transport has become one of the most fundamental and pressing issues in the UK today. To clean the air and mitigate the effects of climate change, the country urgently needs to phase out combustion engines and ramp up deployment of electric vehicles (EVs).

Yet many barriers prevent people on lower incomes from buying EVs. How can the UK bridge the gap between the affordability of cleaner EVs and internal combustion engine vehicles? Environmental Defense Fund Europe (EDFE) and Frontier Economics sought to answer this question in a collaborative report that examines how to equitably transition away from fossil fuel vehicles to EVs. Thoughtful, targeted policies can reduce barriers to EV adoption, and help people on lower incomes save millions of pounds each year.

EV cost barriers

The Government recognizes the need to electrify transport, but there is a lot of work still to be done: the number of zero or near-zero emission vehicles on the road in the UK is less than 1 in 200 or 0.6% of total vehicles.

Existing market conditions and financing options remain strongly in favour of internal combustion engine vehicles, which is slowing EV sales and preventing low- and middle-income people from entering the market.

One barrier: EVs' future resale value is far less favourable than conventional cars', largely because those who determine second-hand values have much less data for EVs. Between 2015 and 2018, the majority of EVs were worth less than half of their upfront price.

Another factor that prevents people on lower incomes from being able to afford an EV is an underdeveloped second-hand market. Lower-income households are more likely to purchase used vehicles, but less than 3% of those on the market are ultra-low emission vehicles. Moreover, mostly due to a lack of familiarity, second-hand car dealers are not properly equipped to sell EVs.

There's also a lack of attractive financing options for EVs. For example, except for one cleaner vehicle, the list of cars that have an attractive interest rate attached are internal combustion engine vehicles.

All of these factors result in wealthy people buying EVs at higher rates than people on lower incomes.

Recognising opportunities

Targeted Government action to make EVs more accessible will help people on lower incomes save money on motoring.

For example, our analysis shows that if policies result in half of new car sales shifting to electric across all income levels, low to middle income households would save nearly £350 million in total every year in fuel and maintenance costs.

With targeted action, low to middle income households could save nearly £350 million in total every year in fuel and maintenance costs.

There are two jurisdictional examples that can be seen as potential models throughout the UK: Scotland and the State of California.

Scotland rolled out an interest-free EV loan programme that offers up to £35,000 for a new fully electric or plug-in hybrid vehicle.

California introduced a rebate program for cleaner vehicles to defray their higher upfront cost, with a special focus on helping people on lower incomes. When purchasing a clean vehicle, people and businesses can receive a point-of-sale rebate – between \$1,500 and \$5,000, with a \$2,000 “add-on” for low-income customers.

Both programmes have seen substantial success, and can be adapted to maximise EV growth in the UK.

Policy recommendations

The Government must put in place policies that make EVs more affordable and accessible, especially for people on lower incomes.

- 1) *Continue to reduce the upfront cost of EVs:* Follow the example of rebate and loan programs in California and Scotland, respectively – as well as continue to run plug-in grants and homecharge schemes in the UK, with a particular focus on lower-income households.
- 2) *Establish better financing options for EVs:* Put in place robust policies to enhance financing options for and resale value of EVs, such as continuing to reduce emission standards for vehicles and establishing sales mandates.
- 3) *Ensure better dissemination of information:* Strengthen programmes run by the Office of Low Emission Vehicles to certify car dealerships that have the demonstrated knowledge necessary to sell EVs.

By facilitating the transition to cleaner vehicles and improving the opportunity for lower- and middle-income families to harness important benefits from electric transport, the UK can begin reducing harmful pollution and build a healthier, more equitable transport system.

You can find the [full report here](#).

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