energy saving trust

Report
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Delivery programmes to decarbonise transport

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Executive summary

The transport sector is the UK's highest emitting sector and the only one whose emissions have increased since 1990.[1] If we are to reduce emissions at the speed and scale required to meet net zero by 2050, then the transport sector must be supported to decarbonise.

Energy Saving Trust has been leading the decarbonisation of transport for the past 30 years and have worked closely with the UK and devolved governments on accelerating the rollout of electric vehicles (EVs) and charging infrastructure for households and businesses, as well as incentivising active travel.

The transport schemes and programmes we deliver across the UK support local authorities, businesses and individuals make the switch to low carbon transport. This has included grants and loans to purchase electric cars, taxis, bikes and vans and install EV charging infrastructure. For example, in England, through our work with the Local Electric Vehicle Infrastructure Fund, we administered £57 million to local authorities in 2023/24 on behalf of the UK Government by approving public and private sector funding for critical EV charging infrastructure.

We also provide expert and impartial fleet advice to businesses and public sector organisations across the UK to help them lower their emissions to meet carbon reduction commitments. Through our website and the Home Energy Scotland service in Scotland, we also provide advice to homes to help people reduce their transport costs and carbon footprint and. The programmes we deliver in Scotland on behalf of the Scottish Government achieved an estimated lifetime carbon saving of around 63,000tCO_2e over 2023-24. This is the equivalent to removing 168.6 million petrol car miles from the road and achieving lifetime cost savings of around £43 million.[2]

Our work also recognises the importance of modal shift (shifting the demand for cars into public transport and active travel) to meet the UK-wide target to meet net zero by 2050, as well as equivalent separate targets for Wales and Northern Ireland and Scotland's target to reach net zero by 2045. This will also be important to deliver additional benefits, such as cleaner air. It's important for the move to sustainable transport to be inclusive, accessible, and affordable and contribute to a just energy transition.

[1] Mind-the-gap.pdf

[2] See Energy Saving Trust, 'Transport Scotland Programmes Evaluation 2023-24', June 2024.

Our work, such as the Plugged in Communities Grant Fund, which improves the provision of public transport in rural areas, provides a template that could be replicated across the UK. Since 2022, projects supported by the fund have saved 8058.49tCO_2e, equivalent to removing over 20 million petrol car miles.[3]

Version control

Version number	Purpose/Change	Author(s)	Date
1.0	Published version	Mason Steed	February 2025

[3] Plugged-in communities grant fund - Energy Saving Trust

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Contents

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1. UK wide schemes

1.1. Local authority schemes

1.1.1. On-street residential chargepoint scheme (ORCS)

For many EV drivers, charging at home usually happens off-street in private garages or driveways. However, in many parts of the UK, off-street parking is not an option for many residents. To help overcome this, the on-street residential chargepoint scheme (ORCS) was the first government scheme that provided grant funding for local authorities to install residential chargepoints.

Between 2017-2024, funding was administered by Energy Saving Trust, with support from OZEV and we worked closely with local authorities to ensure they met OZEV's eligibility criteria before final submission. The fund is now closed, but the maximum grant size for 2023/24 was £200,000 and grants were capped at £7,500 per chargepoint.[4]

By installing chargepoints on-street or in public car parks, residents without off-street parking now have access to chargepoints close to home.

1.2. Commercial schemes

1.2.1. Fleet decarbonisation consultancy

Fleets will need to make big changes to both their vehicles and operations to reach net zero. In particular, government fleets have an obligation under the Government Fleet Commitment to electrify and the wider public sector is also looking at how it can electrify its fleet.

Our commercial fleet decarbonisation consultancy services support public and private sector organisations, including 41 NHS trusts and 22 housing associations, by providing detailed analysis of the client's fleet and operations, with solutions to tackle any barriers, and recommendations for the changes needed including the viability of fleet electrification. Over the last six years, we have carried out

[4] On-street residential chargepoint scheme - Energy Saving Trust

fleet decarbonisation work for 140 local authorities and 175 other organisations, providing rich insight and data on which solutions and products work best in different contexts. Many of our clients keep in touch and return to us for further advice and guidance.

1.2.2. Electric Vehicle Approved (EVA)

EVA accreditation helps car dealerships make the switch to selling electric vehicles.[5] This is an independent scheme delivered with the National Franchise Dealer Association that shows customers that a car dealership or repair garage has EV expertise. It's a set of standards for retail and aftersales that tells customers what they should expect from an EV dealer. Dealerships pay an annual fee and need to pass our auditing frameworks to obtain accredited status.

The accreditation includes having the knowledge to give customers advice about which vehicles suit them best and the expertise to service and maintain EVs. By becoming Electric Vehicle Approved, car dealerships give consumers who might feel uncertain about buying an EV more confidence and reassurance.

1.3. Expert research

1.3.1. Electric Vehicle Smart Charging: consumer research

As part of ensuring that the energy system can meet future electricity demand, the UK Government developed the EV Smart Charging Action Plan[6]. In order to support the aims of the action plan, the Department for Energy Security and Net Zero commissioned Energy Saving Trust to undertake some research in 2024 to gain an understanding of UK consumer knowledge of smart charging.

We explored different consumer groups' understanding of smart charging concepts, their attitudes towards smart charging, and how they currently

[5] How can your car dealership get ready for the move to electric vehicles? - Energy Saving Trust
[6] Electric vehicle smart charging action plan - GOV.UK

charge. These insights helped us to develop and test messages to effectively build consumer awareness and encourage uptake of smart charging.

Some of the key findings from our research include[7]:

- awareness and understanding is fairly low amongst consumers, employees and fleet managers
- domestic consumers are likely to smart charge but may not necessarily associate their experiences with the phrase "smart" charging.
- between 70% and 90% of domestic consumers smart charge to some extent (primarily overnight)
- smart charging not widely done in the workplace; only around 12% of EV users who charge at work are able to schedule their own charging
- fleet managers tend to focus on adopting EVs in the first instance, they are not yet focusing on optimising charging
- in terms of message provision, research found that energy suppliers, online EV forums, and friends and family are the preferred channels for advice

1.3.2. EV design and disability inclusion report

One in five people in the UK live with a disability and by 2035, there'll be around 2.7 million disabled drivers or passengers, many of which rely on cars for their independence and wellbeing. With the sales of new petrol and diesel vehicles due to end in 2030, it needs to be easy for everyone to make the switch to EVs.

As earlier research has focused on how accessible EV charging infrastructure is for disabled drivers and passengers, on behalf of Motability, we carried out research to explore the barriers disabled people face when using EVs, with a spotlight on people who use a wheelchair accessible vehicle (WAV).[8]

We carried out surveys with WAV dealerships and people who use WAVs, and we did five in-depth user interviews to understand the different challenges that disabled people face when it comes to the design of EVs. To explore the main

[7] Electric vehicle smart charging: consumer research

[8] EV design and disability inclusion report - Energy Saving Trust

barriers to accessible vehicle design, we also interviewed 12 representatives from stakeholders within the automotive industry.

Some of the findings highlighted that disabled people's needs aren't fully thought about when designing EVs and that WAV users in particular have concerns about finding suitable EV models that meet their needs. It was found and that the locations of the battery and charging socket on EVs are an accessibility design concern and that new technologies and autonomous features don't consider disabled drivers' adaptation needs. There's also limited communication between the conversion and adaptation industry and vehicle manufacturers.

Our key recommendations to address these challenges are:

- The conversion and adaptation industry should work together with disabled drivers and passengers and the wider automotive industry to develop and set up guidelines on accessible EV design.
- Support from the UK Government is essential and, in particular, changes should be made to the zero emission vehicle (ZEV) mandate, which will mean that manufacturers will have to sell a number of EVs before 2030. This will offer more certificates for wheelchair assisted base vehicles and encourage the production of suitable vehicles that can be converted. The UK Government should also strengthen the plug-in car grant to improve the financial support available to make electric wheelchair assisted vehicles more affordable.

2. Schemes in England

2.1. Local authority schemes

2.1.1. Local Electric Vehicle Infrastructure (LEVI) fund

The UK Government's LEVI fund supports local authorities in England to work with the chargepoint industry, to deliver a step-change in the deployment of local, primarily low power, on-street charging infrastructure across England and improve the commercialisation of local charging infrastructure. Private companies have increased their own rollout of chargepoints in recent years, leading to a growth in the private electric vehicle market. These public chargepoints will particularly help residents who don't have off-street parking and need to charge their EVs.[9]

Our role is to lead the support body that comprises of Cenex and PA Consulting, delivering advice and guidance to local authorities to submit excellent applications for public funding. The grants provide funding that contributes to the costs of delivering chargepoints and for local authorities to employ and train new staff specifically to plan and deliver chargepoint infrastructure.

In 2023/24, we administered £57 million to local authorities, which means an extra 3,4000 public chargepoints in England. Continuing to support local authorities with critical EV infrastructure will be a key part of providing confidence to drivers and businesses and the UK's car industry.

[9] https://energysavingtrust.org.uk/wp-content/uploads/2023/02/LEVI-Capability-Fund-Info-Pack.pdf

2.1.2. Local government support programme (LGSP)

Energy Saving Trust is funded by the UK Government's Office for Zero Emission Vehicles (OZEV) to deliver this programme, which aims to help English local authorities to decarbonise transport, improve air quality and increase electric vehicle adoption.[10] We offer local authorities free advice and support to help them facilitate the EV transition, deliver a public electric vehicle chargepoint network or to engage with businesses and the community on EVs or sustainable travel.

[10] Local government support programme - Energy Saving Trust

3. Schemes in Scotland

Energy Saving Trust manages several sustainable transport programmes on behalf of Transport Scotland which are available to households, businesses, and local authorities. Our loans and grants have proven to be influential on the purchases of electric cars, electric bikes, electric taxis and electric vans. Our workplan with Transport Scotland is directly contributing to Scotland's target of 20% reduction in car km by 2030.

Collectively, the transport programmes we deliver in Scotland had more than 13,000 interactions with consumers and businesses in 2023-24, achieving estimated lifetime carbon savings of around 63,000tCO2e, equivalent to removing 157.5 million petrol car miles and lifetime cost savings of around £43 million.[11]

3.1. Household schemes

3.1.1. Domestic chargepoint funding

This scheme has now closed but allowed people to claim up to £400 for a grant if they were an EV owner living in a rural or remote area or to purchase a used EV through the used EV fund.[12]

This grant has had a significant impact in helping to promote chargepoint installations, with 91% of respondents reporting that the grant had influenced their decision to install a chargepoint at their property. Furthermore, 17% of respondents reported they would not have purchased an EV in the absence of the home charge point grant.

3.1.2. Low emission zone support fund

Energy Saving Trust offers households within a 20km radius of the low emission zones (LEZ) (Glasgow, Edinburgh, Aberdeen and Dundee), up to £3,000 towards the safe disposal of non-compliant vehicles. The scheme is funded by Transport Scotland and administered by Energy Saving Trust. This scheme gives an

[11] See Energy Saving Trust, 'Transport Scotland Programmes Evaluation 2023-24', June 2024.
[12] Domestic chargepoint funding - Energy Saving Trust

incentive to low-income households to take their older, more polluting vehicles off the road.

As part of the £3,000 grant to dispose of non-compliant vehicles:

- £2,000 is available to eligible households to dispose their non-compliant vehicle at an authorised facility.
- Travel Better grants of up to £500 can be made available for each adult in the household up to £1,000.[13]

The impact of the LEZ support fund shows that it encourages modal shift, customers who have chosen to scrap their older, polluting vehicles typically reduce the number of journeys they would ordinarily take by car and instead travel using other shared or active travel modes.

3.1.3. Used EV loan

For people who are considering getting a used EV, we provide a fund on behalf of Scottish Government to provide interest-free loans which are repayable over five years.[14] The Used EV Loan can help people purchase used vehicles with set maximum loan amounts:

- Electric moped costing £5,000 or less are eligible for £5,000
- Electric motorcycle costing £5,000 or less are eligible for £5,000
- Electric car costing £25,000 or less are eligible for £25,000
- Electric van coting £30,000 or less are eligible for £25,000

The loan influenced almost all (99%) of respondents' decisions to purchase an EV, with 66% stating that they had been thinking about buying a used EV and the loan helped them to make that decision. 29% said they would not have considered an EV without the loan. The loan also contributed to the displacement of petrol or diesel cars as half the respondents said they would have purchased a petrol (35%) or diesel car (15%) in the absence of the loan.

[13] Low emission zone support fund for households - Energy Saving Trust

[14] Used electric vehicle loan - Energy Saving Trust

3.1.4. Impartial advice - Home Energy Scotland

Home Energy Scotland is an advice service funded by the Scottish Government and managed by Energy Saving Trust. Home Energy Scotland provides people with free, impartial and tailored advice, including on sustainable transport such as active travel. In 2023, this advice saw respondents increase active travel by 40% and reduce car journeys by 24%.[15]

Importantly, the service supports households to find funding (such as those listed above) they are eligible for that will help them with the upfront costs of switching to more sustainable travel.

3.1.5. Plugged-in communities grant fund

Transport Scotland's plugged in communities grant fund supports community transport organisations in Scotland to purchase or lease zero emission vehicles, from cars to minibuses. 100% of the costs can be covered, up to £75,000 per vehicle, excluding VAT. The fund supports organisations in both urban and rural areas.

Since launching in 2021, more than £3 million of grant funding has been provided to support 39 different organisations purchase 53 electric vehicles. Since 2022, projects supported by the plugged in communities' fund have saved 8058.49tCO2e, equivalent to removing over 20 million petrol car miles. This funding is enabling them to expand low carbon transport options within their local communities and provide transport services where it otherwise may not be available.

3.1.6. Ebike grant fund and loan

Energy Saving Trust supported Scottish residents and businesses promoting active travel for over six years, ending in 2024, delivering over 4,000 ebikes and nearly £10 million of funding.[16]

As e-bikes have an electric motor, it's accessible to those who may not be able to cycle a regular bike due to mobility, health, distance or geography. Each year,

[15] Home Energy Scotland advice network - Energy Saving Trust

[16] Apply for the ebike Loan - Energy Saving Trust

we run a survey on trial participants' experiences and last year, 31% of respondents were disabled.

The upfront cost of an ebike is a key barrier to purchasing one so the interest free loan, funded by Transport Scotland, was a huge success. 95% of respondents reported that the loan had some impact on their decision to buy an ebike and 42% wouldn't have been able to afford one without the loan.

E-bikes also help promote active travel and increase the use of shared transport. 93% of respondents reported cycling more and 63% reported they were driving less since purchasing their ebikes, with over a third (38%) replacing more than half of their car journeys. You can read some of our case studies here.

3.2. Schemes for businesses

3.2.1. Factored development chargepoint funding

Property managers in Scotland can receive up to 50% towards the cost of buying and installing an EV charging point, with funding from Transport Scotland, at communal residential parking areas. The fund which is administered by Energy Saving Trust helps people have better access to EV charging. To qualify for funding, charge points must be installed by an installer who is approved by Energy Saving Trust and the OZEV.[17]

3.2.2. Low carbon transport business loan

Energy Saving Trust offers transport businesses interest-free loans on behalf of the Scottish Government to buy an electric or hydrogen vehicle, which is repayable over six years.[18] The amount available is:

- electric cars are eligible for a maximum loan amount of £30,000 (electric cars must cost £50,000 or less, including VAT)
- electric mopeds and motorcycles are eligible for £10,000

[17] Factored development chargepoint funding - Energy Saving Trust
[18] Low carbon transport business loan - Energy Saving Trust

- electric utility vehicles are eligible for £15,000
- electric vans and electric hearses are eligible for £35,000
- hydrogen cars are eligible for £50,000
- other hydrogen vehicles are eligible for £75,000

The loan amount available depends on how a business is registered; limited companies, can borrow up to £150,000 and sole traders or partnerships can borrow up to £75,000.

3.2.3. Low emission zone support fund

The low emission zone support fund is funded by Transport Scotland and administered by Energy Saving Trust. It offers an incentive for eligible businesses to take their older, more polluting vehicles off the road. Grants of £2,000 are available to sole traders and micro businesses with nine or fewer full-time employees. Following vehicle disposal and successful receipt of the fund, eligible businesses may be offered an additional £1,000 towards the purchase of a purpose-built cargo or electric cargo bike only, to support specific business needs.[19]

3.2.4. Low emission zone Retrofit Fund

The low emission zone retrofit fund by Transport Scotland provides eligible micro businesses, who operate within one of Scotland's four low emission zones, with support to retrofit their existing non-compliant vehicles. This retrofit is done with clean vehicle retrofit accreditation scheme (CVRAS) approved solutions that meet the minimum standards of the low emission zones.[20]

Grants are available to cover up to 70% of the cost of a vehicle retrofit, subject to the following terms and conditions:

- Up to £5,000 per light commercial vehicle and wheelchair accessible taxi that are installing retrofit exhaust after-treatment systems.

[19] Low emission zone support fund for households - Energy Saving Trust
[20] Low emission zone retrofit fund - Energy Saving Trust

- Up to £10,000 per wheelchair accessible taxi installing re-powering technology.
- Up to £16,000 per heavy goods vehicle or refuse collection vehicle.

3.2.5. Switched on taxis loan

Businesses considering switching to an electric taxi or hackney cab can be eligible for an interest-free loan, repayable over six years. The switched on taxis loan is funded by Transport Scotland and helps drivers switch to new and used EVs.[21]

The loan is available to operators and owners of hackney cabs and private hire taxis. The loan amount available varies depending on how a business is registered and the interest in purchasing a new or used EV.

3.2.6. Used electric vehicle loan

Businesses who want to get a used electric or hydrogen vehicle can receive an interest-free loan, by Transport Scotland, which is repayable over five years.[22] The loan allows businesses to receive the following amounts:

- electric cars and vans (must cost less than £30,000)
- electric mopeds and motorcycles (must cost less than £5,000)
- electric utility vehicles (must cost less than £10,000)
- hydrogen vehicles (must cost less than £30,000).

[21] Switched on Taxis Loan

[22] Used electric vehicle loan - Energy Saving Trust

3.2.7. Scottish Zero Emission Bus challenge fund

Energy Saving Trust has been involved in work connecting rural communities with low carbon transport options through the Scottish Zero Emission Bus challenge fund (ScotZEB2), which we administer on behalf of Transport Scotland. The aim of the programme is to deliver 253 new vehicles and 124 charge stations to bus operators across Scotland. This includes public service buses, home-to-school buses, community buses, transport-to-health buses and tourist and private-hire coaches. The goal of the programme is to create a self-sustaining market for ZEVs within Scotland, with a focus on reinforcing the sector with jobs, supply lines and 3rd party charging. The programme is supporting operators from SMEs up to larger commercial bus operators.[23]

[23] https://www.transport.gov.scot/public-transport/buses/scottish-zero-emission-bus-challenge-fund/

4. Schemes in Wales

4.1. Public sector schemes

The Welsh Government Energy Service supports public sector organisations across Wales to accelerate their transition to zero emission vehicles. The service is funded by the Welsh Government and delivered by a consortium led by Energy Saving Trust and Carbon Trust, with support from local partnerships.[24]

The service provides comprehensive technical support and strategic guidance to meet Welsh Government's ambitious targets of transitioning all new cars and light vans to zero emission vehicles by 2025, and heavy goods vehicles by 2030 where practicable.

The service has delivered detailed fleet reviews for all Welsh local authorities, using data-driven analysis to develop cost-effective transition plans. This systematic approach has helped organisations understand their specific needs and opportunities whilst identifying practical solutions to challenges such as depot electrification and grid capacity. Through the administration of around £21 million in grant funding, the service has enabled the procurement of zero emission vehicles and the installation of charging infrastructure at public sector depots across Wales.

In 2023/24, the service expanded its support through strategic initiatives including collaborative procurement approaches and the development of specialised fleet management solutions for smaller organisations. The team maintains interactive dashboards to track progress and shares best practices through regular Communities of Practice sessions. This comprehensive approach, combined with technical expertise and funding support, continues to drive public sector fleet decarbonisation in Wales, delivering both environmental benefits and operational cost savings.

[24] Welsh Government Energy Service - Energy Saving Trust

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