Electric Vehicles in Car Clubs

Powering the way forward

CoMoUK
supporting shared transport

Executive summary

The UK car fleet is set to change radically in the next two decades, with the sale of new conventional petrol and diesel cars ending in 2030. New hybrid vehicles will still be sold until 2035 providing they can cover significant distances in zero-emission mode, but after 2035 new cars and vans will be purely electric ones, along with any hydrogen-powered vehicles that may exist at that point.

The UK's car clubs are leading the way on transitioning to electric vehicles (EVs), with around 12% of UK car club vehicles already EVs compared to 1.5% of the overall UK car fleet. This allows car club members to use and become familiar with EVs at a fraction of the financial cost of buying or leasing an EV and in a way which cuts miles driven.

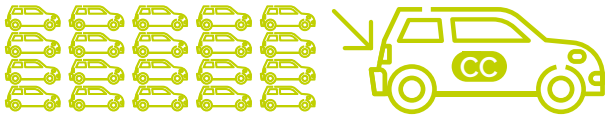
As car club membership continues to rise, increasing numbers of people are able to benefit from easy access to EVs. For the full benefits to be achieved though, support for car club provision needs to be incorporated into EV infrastructure planning.

This guidance makes a series of recommendations to ensure shared EVs can play the fullest role possible in the UK's transition away from internal combustion engines. The key points are:

- Recognising **car club users as a key user group**, given car clubs' decarbonisation and inclusion credentials
- Providing **dedicated chargers for 'back to bay' car club cars**, and easy access to a network of fast or rapid public chargepoints
- Ensuring that the new government-funded Local Electric Vehicle Infrastructure (LEVI) scheme will have **specific guidance and criteria on supporting infrastructure for car club vehicles**
- Making **provision for shared vehicles mandatory when installing four or more chargepoints** in residential areas without private drives, such as flats/terraced streets
- Contractually **requiring prompt repair of chargepoints by providers**, with local authorities giving ongoing support where a contractual agreement ends in order to avoid stranded broken assets
- Provision of **comprehensive information on the driving and charging of EVs** to all car club users by operators.

The list of recommendations can be found on pages 8-9.

REDUCING PRIVATE CAR OWNERSHIP



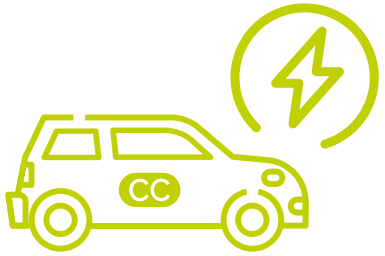
UNITED KINGDOM **20** private cars replaced by each car club vehicle in the UK in 2021

Background

Car club vehicles are ahead of the curve when it comes to transitioning to the type of car fleet we will see in the 2030s. There are currently just under 6,000 car club vehicles in Britain. According to the 2021 CoMoUK car club annual report[1], around 12% of UK car club cars are electric vehicles (EVs), a figure that reaches 18% in Scotland, as opposed to around 1.5% of the overall UK car fleet. This is in spite of car club operators having to compete for a restricted number of available EVs due to a global shortage of semiconductors, combined with the impact of covid lockdowns and labour shortages.

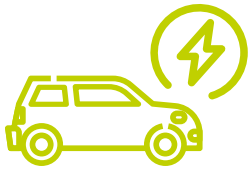
The high number of car club EVs means that members can use and become familiar with them without the up-front and ongoing costs, hassle and space taken up involved in purchasing or leasing an electric car for personal use. They also offer a reliable option, via on-street car club charging, for people who cannot charge an EV at home – around one-third of UK homeowners don't have a driveway or garage to install a home charger, ranging from one in six rural homes to 60% in major cities and town centres. CoMoUK's 2021 car club annual report found that 28% of respondents had already driven a fully electric car club vehicle, and 84% of them reported they were satisfied with the experience. However, only 61% said they were satisfied with the charging experience at the end of a hire, and of those who charged during a hire, the satisfaction was even lower at only 45%.

Car club membership has been rising dramatically: total national membership now stands at around 800,000, with the number of active members (those who have joined, renewed their membership or used a car club vehicle in the last year) almost doubling to 450,000 in the 12 months to October 2021. For each car club vehicle, 20 private cars were removed from the road. Car club users also cut their overall mileage – in 2018, the most recent time this was measured, English and Welsh car club members outside London had a net annual per person mileage reduction of 793 miles.[2]



12%

of the car club cars in the UK are electric



1.5%

of private cars in the UK are electric

1. https://www.como.org.uk/documents/car-club-annual-report-uk-2021
2. https://www.como.org.uk/documents/car-club-annual-report-england-and-wales-2017-18-full

Background

The role of local authorities in promoting EV use in car clubs is crucial. The London Borough of Hackney aims to have 50% of all car club vehicles zero emission from their tailpipe by 2025 while also ensuring there is sufficient car club provision to make car sharing a "desired and available option" for any driver in the borough. The London Borough of Waltham Forest has used funding from the Go Ultra Low Cities fund to install double-headed chargepoints in public locations, with one side available for car club use and the other for public use.

While transitioning to a largely electric fleet remains a key transport priority, this still has to be seen as part of a package of measures aiming to shift transport away from private vehicle use. In the UK Government's 2021 'Decarbonising Transport' plan, transport secretary Grant Shapps emphasised the need to reduce urban road traffic overall.

> *"We cannot simply rely on the electrification of road transport or believe that zero emission cars and lorries will solve all our problems."*
>
> Grant Shapps, UK Transport Secretary 2021

This position was reinforced at the COP26 summit in Glasgow in November 2021, in the declaration on accelerating the transition to 100% zero emission cars and vans, which was signed by national governments, cities, manufacturers and operators.

> *"We recognise that alongside the shift to zero emission vehicles, a sustainable future for road transport will require wider system transformation, including support for active travel, public and shared transport."*
>
> COP26 declaration on accelerating the transition to 100% zero emission cars and vans, 2021

84%

of respondents were satisfied with driving electric car club vehicles

61%

of respondents were satisfied with charging electric car club vehicles at the end of a hire

45%

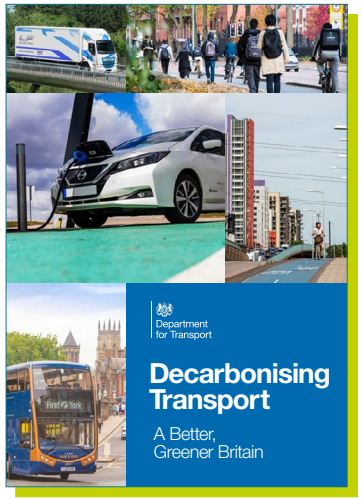
of respondents were satisfied with charging electric car club vehicles during their hire

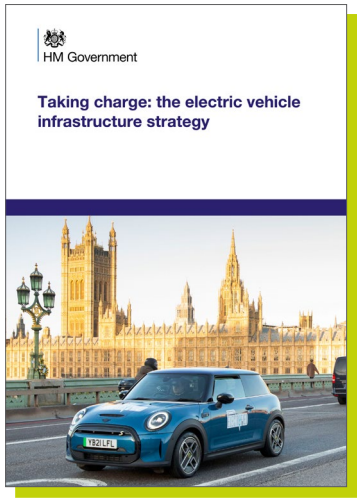
Government policy

Since 2021, the UK government policy has begun addressing the steps and support needed to meet its 2030 and 2035 targets on ending the sale of conventional petrol and diesel vehicles. However, tangible support and measures that would further grow EV shared car use are still needed, both at government and local authority level.

Recent policy announcements include:

- The 2021 Transport Decarbonisation Plan which pledged that the DfT would support car clubs to go fully zero emission and recognised that they could, "lead the transition to zero emission vehicles".
- The Transport decarbonisation: local authority toolkit, aimed at supporting more sustainable transport measures, emphasised the need for local authorities to provide access to EV charging infrastructure when developing car club operations. It stated that, "working with car club operators, chargepoint operators and distribution network operators (DNOs) will be important to enable appropriate provision of charging infrastructure for electric car club vehicles".
- The Electric Vehicle Infrastructure Strategy, which outlined the intention of obliging local authorities to develop and implement local charging strategies. However, no reference was made to the advantages of charging infrastructure for car clubs and shared transport, or what car clubs' needs are.
- The Local Electric Vehicle Infrastructure (LEVI) scheme, which is aimed at supporting the rollout of new EV charging infrastructure. A £10m pilot project will be used to shape the rollout of the full £450m scheme in 2023. The scheme needs to specifically support infrastructure for car club EVs.
- A zero emission vehicle mandate for car manufacturers is being developed, setting targets requiring a percentage of manufacturers' new car and van sales to be zero emission each year from 2024. CoMoUK has proposed that the value of mandate certificates should be increased 20-fold if the ZEV is used by a car club operator, reflecting the number of vehicles (20) currently displaced by each car club vehicle according to CoMoUK's annual research.





Car club electrification needs

Car clubs require access to three particular types of EV charging infrastructure:

1. Dedicated chargers at car club bays. These support 'back to bay' car club cars, which currently make up the majority of British car club cars.
2. Easy access to a wider network of fast or rapid public chargepoints. These support operators with vehicles that are 'back to area' or one way car club cars, as well as car club members who may need to charge quickly during their period of hire.
3. Chargepoints at destinations such as supermarkets or leisure centres, so vehicles can be charged easily while they are resting during the period of hire.

Support for these needs to be planned into EV infrastructure funding, planning and delivery. Failure to ensure sufficient infrastructure for shared electric cars leads to an inability to increase their provision and maximise their potential. This limits their inherent benefits of:

- Supporting people in reducing personal car use and making greater use of public transport and active travel use
- Reducing the number of EVs required to serve the same households
- Delivering more equitable access to EVs by reducing the cost of access, a benefit that can be enhanced by targeting lower income areas
- Reducing the a mount of overall EV charging infrastructure (and therefore investment) needed
- Lowering carbon emissions by reducing the amount of overall mileage driven

Barriers

Each of these barriers needs to be addressed if the full benefit of EVs in car clubs can be met.

Lack of funding

There has been no dedicated funding scheme for EV infrastructure for car clubs. Some local authorities have been able to utilise funding pots with a broader remit, including the Defra Air Quality Early Measures Fund, the Switched on Towns and Cities programme in Scotland, and London's Go Ultra Low City Scheme (GULCS). Local authorities such as Waltham Forest and Oxford have used these funds to provide 'double header' chargepoints that serve car clubs and the private vehicles of local residents.

Grant funding that local authorities can access through the On-street Residential Chargepoint Scheme (ORCS) from OZEV, the Office for Zero Emission Vehicles, specifically excludes car clubs. This has been the major source of funding for pavement-based chargepoints, but despite the many benefits of car clubs and their popularity, they remain excluded from being able to access this source of funding.

Subsidy control

The extent to which financial support for charging infrastructure for car club EVs may count as 'subsidy control' (previously known as 'state aid') has proved a clear obstacle for some local authorities that have avoided doing so over fears of possible litigation as a result. Encouragingly, the DfT's Local Authority Toolkit has now provided some guidance on this, stating that, "subsidy control considerations ... can likely be satisfied if the car club was appointed through a competitive tender or there is a clear need for public funding support".

Poor consumer experience

Difficulties with usage of charging infrastructure, failure to rapidly repair faults, or chargers that do not deliver the promised rate of charge can all mean that a car club user can leave a car uncharged. This causes problems for the next customer, potentially leading to reduced utilisation and/or loss of members, and in turn threatening the viability of car club EVs. Reliability of the chargepoint is key.

EV running costs

Until the supply of EVs significantly increases, the leasing costs of vehicles will remain higher than petrol cars making them financially unattractive. In addition, the operational cost of managing EVs are higher due to the limitations of the charging infrastructure, especially where staff are required for recharging. Revenue from EVs can also be lower than petrol cars, due to downtime needed to recharge the cars.

Payment systems

There is a need to simplify issues regarding payment for charging car club cars including how much it is, who pays for it, and how it is paid for, as these can created an unnecessary extra barrier. Difficulties with charging payment means that the car club vehicles may be left uncharged.

Recommendations

CoMoUK has developed a wide-ranging set of recommendations to ensure car clubs can fulfil their potential in helping support the transition to EVs.

Car club users as key users:
Car club users should be recognised as a key EV user group given car clubs' decarbonisation and inclusion credentials, as is the case in Transport for London's 2030 electric vehicle infrastructure strategy.

Funding:
The Local Electric Vehicle Infrastructure (LEVI) scheme is set to become the major public funding source for new EV charging infrastructure. When fully launched in 2023, this must include targeted funding for EV infrastructure that works for shared car users and operators.

Subsidy control:
Clearer advice from the government on subsidy control is needed to prevent any local authorities using it as a reason for not funding infrastructure for the use of car club EVs.

Engagement:
Local authorities and infrastructure providers should engage early with car club operators and involve them in the planning of infrastructure to ensure shared car use is fully considered.

Residential charging:
When planning residential charging in areas without private drives such as terraced streets and flats, provision for shared vehicles, possibly through the use of double-headed chargepoints serving both car club and private EV owners, should be required. If car club vehicles are absent from the area, then these should be procured to encourage sharing and reduce the pressures caused by private vehicle ownership. Where more than four chargepoints are being installed, provision for shared car use should be mandatory.

Rapid charge:
The availability of reliable rapid (50 kW) and ultra-rapid (100 kW and above) public charge points should always be considered where there are car club vehicles operating. They are particularly important for car clubs given the intensity of car club vehicle use and the need for in-trip charging by users, and some operators use them for end of hire charging.

Other e-transport modes:
New infrastructure should take account of changing transport patterns by ensuring charging capacity for other sustainable shared electric modes such as electric bikes and electric scooters. This is particularly important at mobility hubs, as these bring together public, shared and active transport.

Recommendations

Social equity: consideration should be given to prioritising provision of car club EVs and chargepoints in areas with lower incomes. This helps reduce the risk of social division, as residents are less likely to be able afford private ownership of an electric car.

Complementary policies: where local schemes such as Clean Air Zones, Low Emission Zones, Low Traffic Neighbourhoods, and 15- or 20-Minute Neighbourhoods are being planned, these should include measures aiding shared EV car use as part of an overall sustainable transport package.

Procurement coordination: EV infrastructure delivery maintenance and car club contracts should be coordinated so that the contract length is the same for both.

Maintenance and repair: provision for effective maintenance and prompt repair of chargepoints should be a requirement of any chargepoint provider, along with a requirement for local authorities to plan for ongoing support of chargepoints where a contractual agreement ends in order to avoid stranded, broken assets. There should be direct lines of communication with the providers who manage the charging infrastructure with a 24-hour help line for users. A fast response rate for problem resolution should be set and measured.

Permit pricing: as this plays a significant role in car club viability, car club EVs could be incentivised by reducing permits costs for electric vehicles in a manner similar to the way that permits for private EVs are reduced in some parking areas.

Payment systems: 'Plug and charge' technology should be provided for as the preferred set up for car sharing operations, as this removes barriers for the user and administration for the operator. Where it cannot be used, a roaming payment app which can be integrated with the car club's own system is a possible alternative.

Communication: to encourage and support greater use of EVs, operators should ensure comprehensive information on the driving and charging of EVs is made available to users.

Overstaying: abuse of chargepoints should be discouraged by users being liable for overstay or 'idle' fees at any chargepoints other than designated 'back to bay' chargers.

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