Home charging of fleet vehicles

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Background

There are benefits in examining this category of the public sector fleet, for instance:

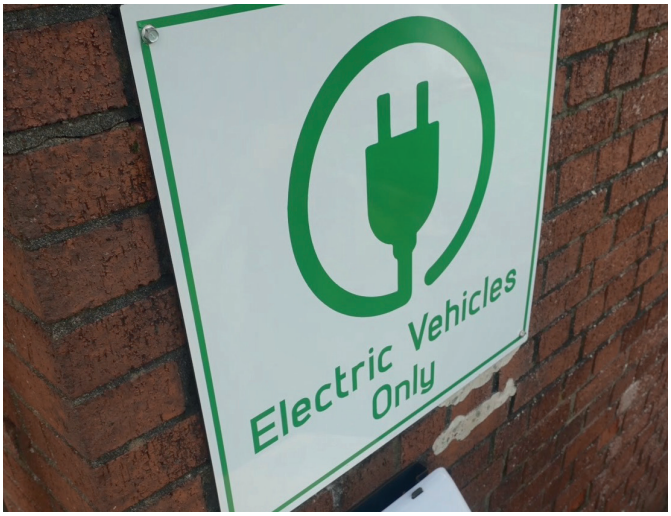
- The reduction in emissions from commuting to a depot,
- Reported improvements in staff retention, especially for adult social care workers,
- Vehicles allocated to staff possibly receiving more care and attention than a pool vehicle.

It is recognised that no single solution will fit all local authorities. Each public sector body has a different geography to serve and varying terrain, which will affect the electric vehicle considerations. In our experience there is also discrepancy in HR policies and practice.

There will also, of course, be different duty cycles for the vehicles and varying requirements for payload e.g., building control vehicle versus a housing repair vehicle. There are also considerations for whether a member of staff has access to dedicated off-street parking or a nearby charging hub or other facility.

This note covers advice on home charging for fleet cars and light commercial vehicles. It does not cover vehicles provided under lease car or salary sacrifice car schemes or any car allocated to an employee with unrestricted private use (effectively a “company car” for tax purposes). These are covered by a separate advisory note.

It does include vehicles that have access to a dedicated driveway and potential solutions for those employees that do not access to their own driveway and home charger.



Webinar on Home Charging

This advisory note is based on a webinar featuring public and private sector contributors who have made considerable progress with this transition themselves, together with a section of FAQs focussed on how this transition might be considered.

The webinar received inputs from (timings in brackets):

- **Tracey Richardson, Leeds City Council (07:50).** Tracey.Richardson@leeds.gov.uk

  This Authority has 333 battery electric vehicles. To date they have transitioned 112 BEVs to home chargers.

- **Matt Dale, Transport Lead for Mitie Plan Zero, Mitie (18:00).** Matthew.Dale1@mitie.com

  Mitie have made huge progress with this agenda including working with their clients to drive the installation of charging infrastructure.

Most of their vehicles go home. They have 6,000 cars and light commercial vehicles and they have 2,000 home charging vehicles and another 1,800 BEVs on order.

- **Izzy Maher, Lancaster City Council (1:06).** imaher@lancaster.gov.uk

  The input from Lancaster covered potential solutions for vehicles that go home but cannot charge on a private driveway.

  Izzy also shared their pool car experience which includes offering the pool cars for community use at evenings and weekends.

Watch the webinar here (1 hour 45 minutes)

Home Charging FAQs

1. Where would you start with transitioning these vehicles?

It is going to take a while to transition all the vehicles, so it makes sense to start with those that are easiest to do, so you can learn and develop for the more difficult ones. Typically, these would include lower mileage vehicles (generally pool cars and small/medium vans) and employees who have an off-road parking space.

2. What would be your top tips for transitioning these vehicles?

Start with looking at mileage and payload, and think seriously about de-cluttering (especially work vans). Every 100kg of payload will reduce the range by around 5%, so think about what do they need to carry to do their job first time 95% of the time.

This includes considering whether equipment can be delivered to site, rather than collected from depot and might include working closely with suppliers who offer a service which includes management of the van contents (e.g. Travis Perkins Managed Services). There might also be other ways of doing short delivery journeys where goods and materials are small (e.g. e-Cargo bikes).

Train your drivers well: the early adopters will either advocate to the others or will make life more difficult down the line. Buy-in from the users is essential and drivers who show an interest in having an EV should be considered first.

Provide charge cards (e.g., allstar one electric) as a back-up to allow occasional use of public charging networks. Use app-based systems (e.g., Zap-Pay) when you are sure this will be acceptable to the users.

Blaenau Gwent County Borough Council fleet

You will need lots of data, but you should have this from vehicle telematics, and it should include dwell time at different locations, start times and key locations where the vehicle spends a lot of time. This can then inform your charging strategy.

3. What are the key considerations when installing home charge points?

You need to do an electrical usage survey to determine suitability for your charge point provider; it can be quicker and more effective to do this yourself. As well as dedicated space to park the vehicle whilst charging, you will also need to establish whether there is a strong enough Wi-Fi connection so all the back-office data can be processed.

Your policy will need to cover wider issues such as whether the charge point can be used for other vehicles, how you will reimburse for electricity and whether you will remove, relocate or leave in place the charge point if the employee either leaves employment or moves house. It is often cheaper to just leave the installation in place.

You need to ensure that you only need to dig once as this is expensive and disruptive and you need to provide the charge point before the vehicle arrives and test it with another vehicle (ideally training the driver how to use it before the vehicle is delivered).

Cost for home charger including all the associated works is in the region of £1,700 – £2,000.

4. Have there been issues with unauthorised use of home chargers? And how would you know?

To date this hasn't generally been an issue for organisations that have installed these. Most currently prevent private use, but that might have to change as more people have their own electric vehicle as well. Some vehicles/charge points have relatively sophisticated software and can see which vehicle has charged but that is not available on all the systems currently on the market. It's likely that this can will be something that can be dealt with through RFID cards in the future.

You should have good data on historic mileage and current data on energy usage/ telematics. It's relatively straightforward to ascertain whether the amount of electricity delivered through the charge point is more than that which would have been required by the vehicle to undertake the logged journeys.

5. With the increasing costs of energy how can you ensure that employees are not out of pocket while they are waiting for reimbursement?

There are different approaches being taken to this but one is to pay a mileage rate to the drivers on a weekly basis.

6. What's the most important consideration that people miss?

Data and back-office IT systems are important, so when you are specifying your charge points you need to ensure that you will have access to high quality data about not only the kWh of electricity supplied, but also the vehicle telematics.

Charging patterns can be helpful too to build a comprehensive picture of how the vehicle is used and charged. For example, Mitie have created an e-insights tool to analyse usage.

7. What options are there for vehicles where there is no home parking space?

This is a potential problem area but there are several different solutions and it's likely that fleets will need to deploy several of them to meet all their needs.

Solutions include: returning to depot at night; providing community charging either close to employees homes or close to key locations where the vehicles spend a lot of time; rapid charging and use of other organisation's workplace facilities.

It is becoming increasingly common for organisations with workplace charge points to share these with others overnight to facilitate charging of other fleets (this something that would potentially work well in the public sector).

There is also an app JustPark that points you to nearby charging facilities (e.g. supermarket car parks) but also private drives of nearby homes which can be “rented” for charging.

Some local authorities permit the installation of a cable tidy like the Gul-e in the pavement, others allow the use of a cable tidy and a few refuse to allow cables to be trailed across the pavement and send out warning letters. The approach is not at all consistent around the UK.

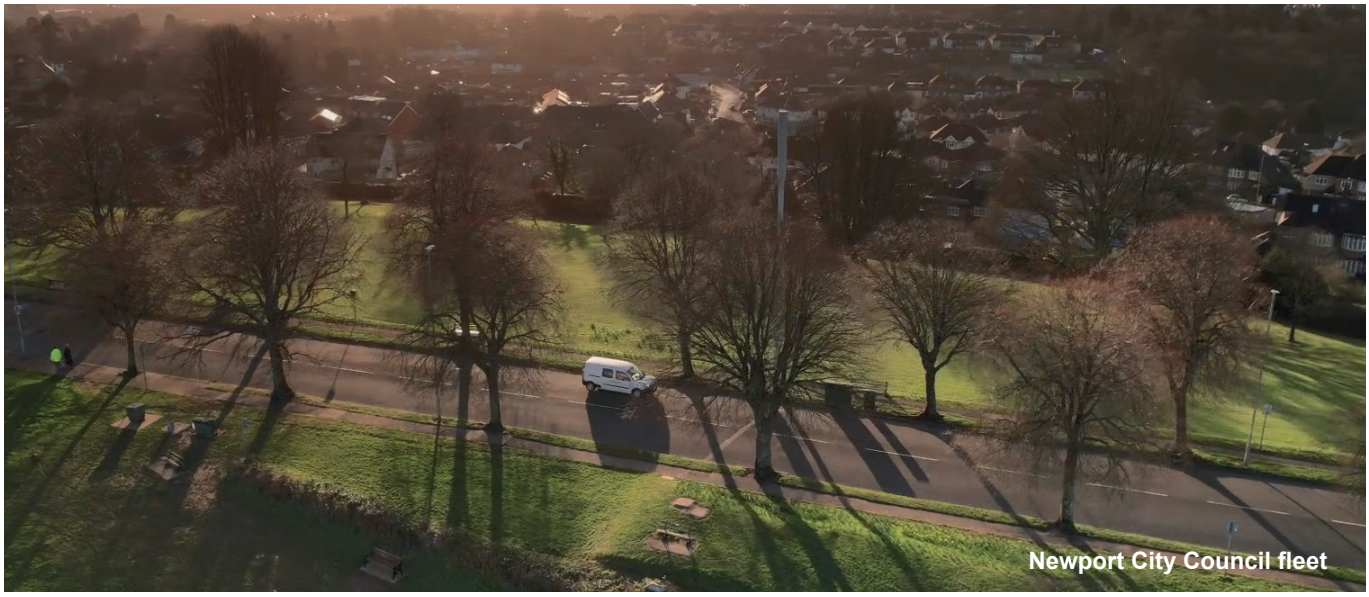
Some EV insurance policies cover the trip hazard associated with the charging cables, others do not, but advice is that it may be covered by domestic personal liability insurance.

8. Are there any more innovative approaches?

There are lots of good examples, but two of the best have been rolled out by Lancaster City Council These are:

a. Working with a local social enterprise (chargemystreet) to provide community charging hubs in locations where council vehicles spend a lot of their working day. The social enterprise paid for the infrastructure with the Council having rights of exclusive use in the daytime and the chargepoints being available to the public overnight and at weekends.

b. Replacement of pool cars (and supplementation of the fleet) with EV pool cars provided by nationwide car club (co-wheels). Staff use their ID badges to access the vehicles and the vehicles are available to members of the public at weekends and during the evening.



Newport City Council fleet