

Fleet support guidance

Adapting replacement cycles for battery electric vehicles

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Replacing internal combustion engine vehicles

If you have an internal combustion engine vehicle (ICEV) fleet, it's important to establish and maintain a rolling fleet renewal programme. Today's Euro 6/VI(d) fossil fuel ICEVs will be superseded by cleaner models. This is due to ongoing improvements in emission technology and the introduction of new standards. For example, the Euro 7/VII is in effect from 1 July 2025 for light duty vehicles and 1 July 2027 for heavy duty vehicles.

Deciding when to replace ICEVs involves considering:

- Maintenance costs which increase as the vehicle gets older and mileage increases.
- Their annual loss in value
- The cost of installing and removing accessories or bespoke conversions.

Adapting the replacement cycle for battery electric vehicles

As diesel vehicle engines deteriorate over time, they emit more greenhouse gases. This is not the case for battery electric vehicles (BEVs). As the UK grid decarbonises, greenhouse gas emissions associated with electricity generation for BEVs will fall year-on-year. This means that despite the higher upfront cost of BEVs, they can be kept in use for longer, without negatively impacting the environment. This allows you to spread the cost over a longer period of ownership. It also makes the most of the energy and resources used to make the battery.

This approach has been used for electric drive train components, which also have a long operational life. They have been used across transport modes such as trains and trams for over 100 years. Most batteries can be serviced, and faulty cells replaced, to extend their operational life at full capacity.

To maximise return on investment in BEVs, we recommend aligning replacement cycles with the vehicle's battery warranty. However, if a battery is well maintained it could continue working beyond its warranty period. This may mean planning replacement cycles of eight or even ten years.

You may need to take a different approach to the replacement cycle for electric refuse collection vehicles and heavy duty vehicles. In this case, treat the chassis, drive train, battery, and rig as separate and independently replaceable parts.

We recommend starting procurement by reviewing the need for a vehicle and checking if it can be downsized or replaced with a BEV. Table 1 shows several scenarios you may face when looking to replace an ICEV, and the suggested action.

Table 1: BEV procurement process – scenario and suggested action

Scenario	Action
Low mileage vehicle	Don't replace. Use hire or shared vehicles to reduce costs and carbon.
Oversized vehicle	Do you often need a large vehicle? If not, downsize.
BEV replacement exists and is fit for purpose	Procure BEV. Plan to keep it for longer than ICEV to reduce whole life costs.
No suitable BEV replacement for ICEV	Don't replace until a suitable BEV is available.

Our mission is to address the climate emergency. [Our team of expert fleet consultants can support you.](#) wherever you are on your fleet decarbonisation journey. We work with all types of public and private sector fleets, from cars to heavy goods vehicles, providing bespoke advice and training to transition your fleet towards net zero.