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Information Services

25

tips to electrify a fleet

Fleet consultant **John Burdekin** explains the fleet policy considerations and driver training required to transition successfully to electric vehicles



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DRIVER EDUCATION

1 New driving behaviour

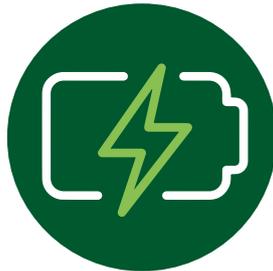
To optimise the performance of electric vehicles, drivers need to adopt a slightly different approach behind the wheel, compared to driving a vehicle with an internal combustion engine. The basics of driving an EV are the same in terms of accelerating, braking and steering, but subtle changes deliver significant dividends. EVs have



phenomenal torque from the first dab of the accelerator pedal, but accelerating harshly empties the batteries more swiftly, while a more sensitive right foot will maximise range. Watching the range figures rise on the dashboard by driving as economically as possible can become an 'addictive' activity during journeys.

2 Regenerative braking

Train drivers to maximise the benefits of regenerative braking, which slows an EV and recharges its batteries at the same time. This involves lifting off the accelerator to slow down, rather



than depressing the brake pedal. One-pedal driving soon becomes a relaxing way to drive (and it also extends the life of brake discs and pads).

3 Smooth driving

Encourage drivers to maintain the momentum of an EV in order to minimise energy consumption. Moving a vehicle from standstill requires more energy, so if drivers can keep the



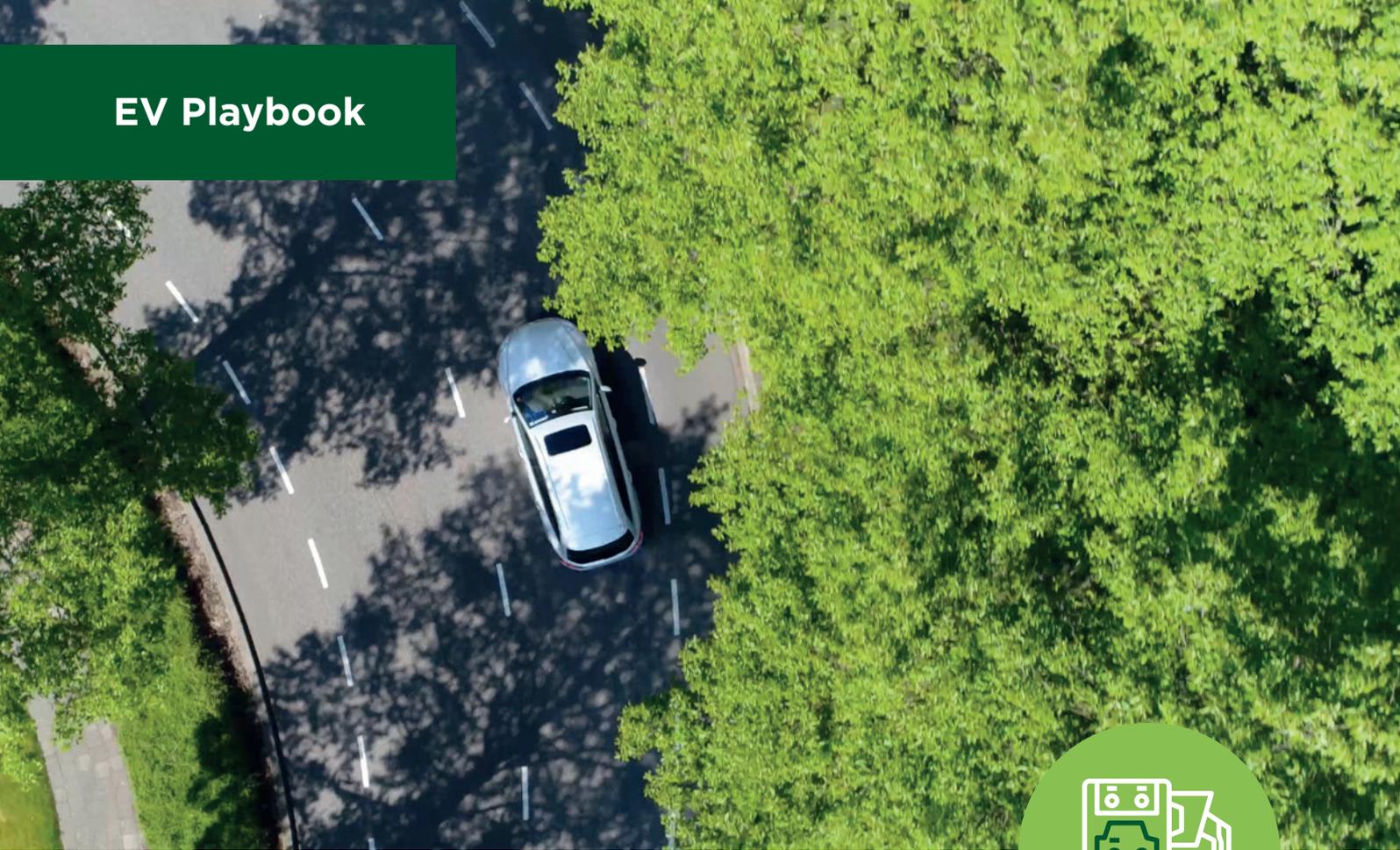
wheels turning by slowing earlier, braking more gently and driving more smoothly, they will extend the vehicle's range further than abrupt, stop-start driving.

4 Risk assessment

Alert drivers to the risk they present to other road users, including pedestrians and cyclists, because of the near-silent approach of EVs. And warn drivers about the instant



acceleration of EVs, which can pose a higher risk in the hands of a driver who is new to the technology. These are important elements of an employer's duty of care to its staff.



MAXIMISE RANGE

5 Don't drain batteries unnecessarily

EV drivers need to be conscious of significant drains on the battery, such as heating. Using an app to pre-set the desired in-vehicle temperature, or to pre-warm heated seats and steering wheels, while an EV is plugged into a charger saves the power in the battery for propulsion. Likewise, using air conditioning sparingly while driving, will extend range.

6 Save weight

The lighter a vehicle the better when it comes to maximising range, so drivers need to avoid carrying unnecessary cargo in an EV. Extra load requires more power from the batteries, shortening range, so if possible e-LCV drivers should only carry the tools and parts required for the day ahead.

7 Fit specialist EV tyres

Specialist EV tyres are designed to deal with the extra weight (due to the battery pack) and instant torque of an EV. These tyres also roll more quietly, so drivers reap the benefits of a silent motor; and they have a low rolling resistance to maximise range. Drivers should be urged to check tyre pressures regularly; under-inflated tyres can have a negative impact on vehicle range.

8 Realistic winter range

Inform drivers that cold weather drains battery performance – in winter expect to achieve about 70% of an EV's summer range. Official WLTP figures for maximum vehicle range are typically optimistic, and not based on freezing temperatures.



RECHARGING BATTERIES

9 Driver recharging duties

Drivers have to accept the new responsibilities that come with driving an EV, including where they will charge the vehicle. A fleet policy should ask drivers to sign a document confirming they have thought about and planned where they will plug-in their EV.

10 Cost effective charging

There is a clear hierarchy to cost effective charging. The cheapest is home charging, followed by workplace charging. If drivers have to pay to use public chargers, then slow, kerbside chargers, as well as destination chargers at supermarkets, gyms, hotels and retail parks are typically cheaper than faster motorway charging stations.

'The speed of evolution in EV adoption makes it challenging for fleets to top-up their knowledge but accessing learnings from early EV adopters makes it possible to act quickly'

Jon Burdekin, Managing Director
Jon Burdekin Fleet Consulting

11 Competitive charging tariffs

Employees who home charge their EVs need to focus on the pence per kilowatt hour of their domestic energy tariffs. These can vary substantially, with a growing number of energy providers offering specialist EV tariffs that offer cheap overnight rates for recharging batteries.

12 Public charging solutions

About 30-40% of EV drivers will not have off-street parking where they can install a home charger. These drivers will need to plug in their vehicles either at work or at a public charging station. Electricity tariffs for public charging vary wildly, so it pays to identify the cheapest public charging stations, in the same way drivers should choose to refuel with petrol or diesel at the cheapest pump prices. These decisions all contribute to the wholelife cost savings of EVs.

13 When to recharge

EV batteries perform best with regular charging top-ups from about 20-80% of capacity, rather than near 0-100%, so encourage drivers to take advantage of all recharging opportunities, even if their vehicle is only going to be plugged in for an hour or so. EV batteries are typically covered by long warranties and battery degradation is minimal – perhaps 15% after five or six years – so it's not an issue for fleet drivers.

14 Journey planning

EV drivers need to pay more attention to journey planning, plotting where they may need to recharge their EV on an app, such as Zap-Map or their vehicle manufacturer's own app. This avoids range panic as the batteries run low. Having a Plan A, B and C takes care of situations such as a charger being occupied or out of service.

FLEET POLICY

15 Driver duties

A successful EV policy involves placing the right person in the right vehicle at the right time, so ask drivers (and their managers if necessary) to sign to acknowledge that they are aware of the range limits of the EV they intend to order, and that this will not impact their productivity at work, even when the range is impacted by cold weather or heavy cargos.

16 Mileage reimbursement

Decide how much to reimburse EV drivers for business miles and find a solution for calculating this figure. In most instances, HMRC's official AER rate of 4p per mile no longer covers the actual cost of electricity, even for drivers with home chargers who can take advantage of low-cost domestic energy tariffs. In particular, the official rate significantly under-estimates the true energy cost for electric vans. Specialist fuel management companies, such as TMC, can help fleets establish a fair and accurate mileage reimbursement policy, based on the true cost of the charging used.

17 Charging exclusions

Set a charging policy. Will you allow drivers to plug-in their cars at high-cost, ultra-fast motorway chargers?



'Educating fleet operators on EV adoption is our number one priority and with 48% of fleets already updating their driver policy to include electric driving ,charging and reimbursements, we are well on our way to a greener future'

Ian Richardson, Managing Director
360 Media Group Ltd



THE BUSINESS CASE

18 Wholelife costs

Base company car choice list on wholelife costs (also known as total cost of ownership - TCO), rather than purchase price or lease rates of vehicles. The zero emissions of an EV and the low emissions of a plug-in hybrid car deliver both significant tax benefits to the driver and major savings in employer National Insurance contributions. There are also substantial savings both in electricity costs per mile and in service and maintenance expenditure, compared to equivalent petrol or diesel vehicles.

19 Holding periods

Consider the holding period of EVs you are adding to your fleet. A longer holding period lets you amortise the higher acquisition cost and depreciation of EVs over a longer period, and take advantage of the low service and maintenance costs of EVs, compared to ICE vehicles, in years four, five and six - most EV batteries are guaranteed for at least seven years. However, a seven-year holding period may deny you access to improved battery technology that will launch in the next few years, such as vehicle-to-grid bi-directional charging and faster recharging speeds.

20 All-staff solutions

Salary sacrifice schemes for employees who do not qualify for a company car can be an effective way to shrink the wider corporate carbon footprint. These schemes heavily favour low and zero emission cars, which in turn reduces the carbon impact of staff commuting to work.

21 Cash allowance or company car?

Employees who take a cash allowance and use it to lease an EV could well find that it is more cost effective to move back into the company car scheme and pay benefit in kind tax (currently based on just 1% of the official P11D price of the car), rather than pay income tax on the cash allowance and VAT on the personal lease.

22 Net zero, CSR and winning business

Corporate, social responsibility (CSR) is going to become a progressively more important element of a business's DNA. Large companies with carbon net zero agendas are looking for their entire supply chains to follow their lead. EVs are not only beneficial to air quality and the environment - they will increasingly be good for retaining and winning business. Fleet electrification is a powerful CSR signal that an organisation is pursuing a positive carbon reduction strategy.

23 Lease or buy?

The decision to purchase or lease EVs demands careful tax consideration. Businesses enjoy 100% first year capital allowances on electric company cars that they purchase, but cannot recover the input VAT as they can with lease rentals. For electric light commercial vehicles, the current super deduction allowance gives purchase or contract purchase arrangements the edge over leasing, although other considerations, such as cash flow and residual value protection may make leasing more attractive than purchase.



TAKE DRIVERS WITH YOU

24 Identify an EV ambassador

Find an EV pioneer in your business to serve as an ambassador for battery technology, promoting the driving experience and the environmental performance of zero tailpipe emission vehicles to their peers and colleagues.

For more top tips on EV adoption, register for the Green Rooms Masterclass series www.360mediagroupltd.com

25 Myth busting

Bust the myths to reassure drivers. Expect to be asked if EVs can be driven in the rain or put through a car wash - the answer is yes. Don't laugh when a driver asks if he can drive when the vehicle is plugged in - just ask how long his charging cable is! More serious questions include will the battery last - yes. Will the battery catch fire - no. Can the national electricity grid cope with the demand for power from all these new EVs - yes.





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