

POLICY CONSIDERATIONS FOR ELECTRIC VEHICLES

Learnings from the *Smarter Fleets Program – Electric Vehicles in Local Government*

Electric vehicles are not that different from internal combustion engine vehicles in terms of how they are driven and managed as part of a fleet. However, there are a few differences that mean an organisation may consider updating its policies in order to take full advantage of the benefits electric vehicles have to offer.

FINANCIAL CONSIDERATIONS

Use whole-of-life cost comparisons

Due to constrained capital budgets, some fleet managers focus primarily on the upfront cost when selecting vehicles, with less emphasis on running costs. However, in order to minimise the overall cost of a fleet, comparisons between vehicles must be done on a whole-of-life basis.

Whole-of-life costs include upfront purchase and on-road costs, registration, servicing, tyres, insurance, fringe benefits tax, and fuel/electricity costs, minus any residual value recouped upon resale. The time value of money (ie discount rate and inflation) should also be factored in to provide a more accurate estimate.

Compared to internal combustion engine vehicles, electric vehicles are more expensive (for the time being) to purchase, but cheaper to run due to the lower cost of electricity compared with fuel, and reduced servicing costs. Electric vehicles are already less expensive on a whole-of-life basis in some scenarios; for example for vehicles that travel high annual distances. As purchase costs continue to fall, electric vehicles will become less expensive for use in a broader range of scenarios.

Revisit the balance of capital vs operating budgets

In order to realise the cost saving opportunities of electric vehicles, the capital budget for purchasing vehicles may need to be increased, with an associated reduction in operating budget.

Holding period

Electric vehicles show greater savings when held for longer periods, as savings on operating costs accumulate over time and the capital cost is spread over a longer period. By holding an electric vehicle for longer than the typical fleet hold time for an internal combustion engine vehicle, the average cost per kilometre for an electric vehicle drops by about 5 per cent – 8 per cent per year, for each additional year the vehicle is held.

However, cost is not the only factor in a decision to hold or trade-in a vehicle. Other considerations may include safety (newer models are generally safer than older ones), reliability, image (older vehicles may show their age) and new features available on newer models.

Modelling shows that it is worth considering a fleet holding time of five years for electric vehicles.



REIMBURSING EMPLOYEES FOR CHARGING AT HOME

Similarly to existing arrangements where organisations pay for petrol for fleet vehicles, organisations should consider adopting a suitable policy to reimburse employees for electricity used to charge fleet vehicles at home. The policy should be determined in part through consultation with the staff.

One approach is to install a metered charging system at the employee's home that can be remotely read. This allows accurate amounts to be calculated, and eliminates the need to access the employee's electricity account, which avoids privacy concerns. Chargers with the necessary capabilities are now available at a reasonable cost. For further information on chargers, see the *Electric Vehicle Charging Fact Sheet* in this series.

An alternative approach may be to pay a negotiated amount, based on the estimated distance travelled, energy consumption per kilometre and electricity price. While administratively simple, some care is required to achieve a fair estimate.

Modelling suggests that the time-of-use Tariff 93 provides the cheapest option for charging at home. For further details, including actions an organisation may consider to encourage and support employees to change to this tariff, see the *Electric Vehicle Charging Fact Sheet* in this series.

DRIVER TRAINING

While electric vehicles are easy to drive, they have some differences that can cause issues until users become more familiar with them. Providing staff with training will ensure electric vehicles have a smooth integration into fleet vehicle pool systems. Training may also assist to increase general fleet efficiency through improved driving practices and

ensuring more efficient vehicles are prioritised when allocating pool vehicles.

The time required for training for a battery electric vehicle is only about 30 minutes. Training takes a little longer - about 60 minutes - for plug-in hybrid electric vehicles, since they operate in a wider range of modes that have significant implications for the performance of the vehicle.

Training topics specific to electric vehicles may include:

- Charging options, procedures at public chargers, and finding chargers when travelling.
- Understanding vehicle range. For example, how the remaining range is shown on the dashboard, and how this may differ from actual achieved range due to changes in speed, hills, air conditioner use, etc.
- Remembering to switch them off after use, since users may not realise they have left them on as the vehicles are silent when not in motion.

As training does not take long and will benefit users, your organisation could consider introducing a requirement that staff have undertaken training and orientation of the specific electric vehicle before they can drive that vehicle. Organisations should maintain a register of staff that have been trained. As electric vehicles become more common in the fleet, the longer-term objective would be to train all staff who may need to drive a fleet pool vehicle.

Organisations may wish to recognise electric vehicle training provided by other fleet operators that have similar policies and training standards, avoiding the need to 'retrain' when staff change employers. An agreed common training program or use of third party training/certification could give employers confidence in staff skills.

This document was prepared by Sustainable Living Tasmania to summarise the general information provided to councils during the Smarter Fleets Program – Electric Vehicles in Local Government.

The Smarter Fleets Program supported 10 Tasmanian councils to prepare to introduce electric vehicles into their fleets. The Program provided tailored information and analysis of the participating councils' existing fleets to calculate the environmental benefits and cost reductions that electric vehicles can offer.

The Program ran from July 2018 to June 2019 as a partnership between the Tasmanian Government and Sustainable Living Tasmania and was funded by the Tasmanian Government. This information is correct as at October 2019, but is general in nature so it may not be relevant to your fleet.