

Webinar – Vehicle Availability & Finances

Questions and Answers

Do you have any data around the embodied emissions of an EV? I often hear that the emissions produced in building an EV are quite substantial compared to an ICE vehicle?

The embodied emissions from the glider, which is the seats, the glass and the metal that comprises the vehicle are approximately the same if it's an electric vehicle or a diesel vehicle. The real difference is in the battery as compared with the motor in a petrol or diesel vehicle, the gear box, and the exhaust system which contains some rare metals as well. An electric vehicle, obviously doesn't have an exhaust system. If you compare the EV emissions from battery and motor from petrol/diesel power train (includes those components).

Generally speaking the EV will make up the extra emissions involved in making the EV power train within between 1 or 2 years. Bearing in mind when you purchase a vehicle you may only keep it yourself for 3 – 6 years, but you sell the vehicle and it continues to have a life after you've sold it. When you buy a petrol vehicle you are putting it on the road for the next 20 years, and it continues to produce emissions for those 20 years. So the return effectively if it takes two years to make up the embodied emissions, you still have about 18 years of win thereafter, where the vehicle is continuing to save emissions for the next 18 years.

Reference: <https://www.sciencedirect.com/science/article/pii/S0306261916309813?via%3DIhub>

How do insurance premiums generally compare?

In our analysis haven't included them based on the assumption that they are generally similar across EVs and ICE.

General question, do council fleet/finance managers accept the TCO approach in decision making? Just wondering how it stacks up when councils have to make annual budget decisions, which is all based around upfront costs.

Polled audience;

Untested – 13 councils

Yes – 1 council

No – 2 councils



Is safety an issue, given EVs are a lot quieter?

The first thing is that EVs have built into them a sound generating device, in other words, they produce a noise artificially, a slight whiney noise, when they are going at a low speed. When they're going at a high speed (above 30km), the tyres make a noise similar

Catering for the fact that they aren't making too much noise.

Another point to be aware of is that a lot of people are plugged in on the streets, have headphones. So one can't assume that pedestrians on the road

Has any appetite for bulk procurement been found in your engagement with the manufacturers?

Manufacturers have been able to provide more detail on demand, given the project and the numbers. Bulk procurement there is potential but it's the next step after this project. There are opportunities at the moment, ACT bulk procurement opportunity. Can provide more detail about this. Possibly not a lot of opportunity for a significant discount price, however will share contact details for ACT government.

Where is the sector at with progression of the universalisation of charging connections?

The standard has been adopted by everyone except Mitsubishi (which will probably happen in due course) all others using Type 2. Type 2 is a quicker standard. Called 'type 2' or sometimes called 'CCS2'.