



LowCVP's Andy Eastlake

A lifetime of low carbon

Fleet managers will be familiar with the term 'total cost of operations' (TCO), whether or not they already have, or are considering introducing, electric vehicles in their fleet. Since private buyers have had the opportunity to buy an EV, the term TCO has entered into mainstream discourse.

EVs are still, generally, more expensive to buy but money can be recouped in the form of lower running costs. The total cost of ownership is often lower for an EV than a conventional ICE car depending on its usage pattern. Less familiar, perhaps, but based on a similar idea is the concept of vehicle 'total life-cycle emissions'. With the rise of electrification, this has become increasingly important as most vehicle emissions are transferred from the tailpipe to the power generation source and vehicle production.

Over the last few weeks there have been several misleading headlines in leading newspapers suggesting that EV life-cycle emissions can be worse than those of conventional vehicles.

While in extreme circumstances that can be the case, the impression given is that electrification may not be delivering emissions benefits. For example, by selectively comparing a luxury Model S Tesla powered by the highest carbon electricity, against a small petrol hatchback, it is possible to make this kind of argument. The LowCVP recently took the Financial Times to task (supported by the authors of the MIT report on which the article was based) over such a misrepresentation, pointing out that the article was highlighting an inappropriate comparison, presumably to attract attention. In fact, the life-cycle emissions of an EV operated in the UK compared with a similar size conventional car are, typically, around half even when the extra 'embedded' emissions associated with its manufacture are taken into account. Moreover, with the electricity grid rapidly decarbonising in the UK – and around the world – associated electric vehicle emissions are on a sharply downward trajectory. And – particularly important right now, of course – is that EVs don't add to air pollution in the worst affected areas.

We need to consider, too, the energy required to extract increasingly hard-to-reach fossil fuels from the ground which adds to the life-cycle CO₂ emissions of conventional vehicles. With recent announcements (from Tesla) of 200kWhr batteries in cars and, perhaps, 600 kWhr, or more, in commercial vehicles, understanding the carbon embedded carbon in these products will become even more important to policy makers.

Over the last ten years, the LowCVP has worked with a number of the leading organisations looking at life-cycle emissions of different automotive technologies and has produced several leading reports. We're continuing this work and will be reporting next year on our latest findings. It's important, though, that the fleet decision-makers of today are discerning when they review the evidence around EVs and other new car technologies; that they're not swayed by the occasional attention-grabbing headline. Please read further and look at all the evidence. We can ill afford to lose the drive and enthusiasm for progress that's needed to make our low carbon transport system a reality.

FURTHER INFORMATION

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