

Science for Environment Policy

Public subsidies for electric vehicle fleets are important for adoption

Public subsidies are important in encouraging organisations to trial and expand electric vehicle fleets, according to new research. The study, based on interviews and reports from 17 organisations, found that the opportunity to test new technology was the most important factor in deciding to trial electric vehicles. However, some smaller independent companies chose not to expand their fleet because of the expense.

Electric vehicles are one of the most promising technologies enabling reductions in greenhouse gas (GHG) emissions in the [transport](#) sector. However, there are a number of barriers, such as cost and uncertainty, to overcome before widespread adoption can be achieved.

Global sales of electric vehicles have reached approximately 225 000, the majority have been bought by governments and companies. As an example, the French government has plans to procure 50 000 electric vehicles for use by public and private organisations. This marks the importance of governments and other large organisations in the early adoption of this technology.

Previous research has identified several reasons why organisations may be ideal candidates for electric vehicle adoption, including high vehicle purchase rates, centralised refuelling stations and a limited number of decision makers.

For this study, the author examined the factors that fleet managers found most important in their initial adoption and subsequent increases in electric vehicle fleets. Thirty- to 60-minute semi-structured interviews were conducted with fleet managers from six public and eight private organisations from across the United States and the Netherlands. These countries were chosen because of their relatively high levels of adoption of electric vehicles. Written reports from an additional three companies, which addressed the standard interview questions, were also used.

The most common reasons for buying electric vehicles were testing new technology, lowering environmental impact, using available government grants and improving public image. Testing of new technologies was the most important factor. Fleet managers from eight of the 14 organisations interviewed said they relied on government grants to overcome uncertainty in testing electric vehicles, suggesting many would not have adopted this technology without such support.

While the majority of organisations were influenced by a desire to reduce their environmental impacts, a small number of fleet managers said their organisation adopted electric vehicles to promote a 'green and eco-friendly' appearance, with no intent to expand their use.

Overall, four organisations did not plan to expand their electric vehicle fleets, and three were undecided. Those that did not choose to expand their fleets were mainly smaller independent companies and fleet managers said that the expense meant that they were not part of a viable business model.

Of the remaining seven organisations which expanded their electric vehicle fleets, there was no single factor identified. Instead their reasons were specific to their organisation, including 'first mover' advantage of adopting innovative technology, specialised capabilities of electric vehicles, (e.g. quiet operation in a warehouse improves the working environment for employees and makes communication easier), or compelling business models for that particular organisation.

These findings highlight the importance of public policy, specifically through the use of grants, in driving adoption of electric vehicles by organisations. More widespread adoption will only be achieved if user uncertainty is overcome. This could take the form of further financial incentives, but also options such as providing vehicles for testing and educational programmes to build personal experience among fleet managers and decision makers.



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Contact:
w.s.sierzchula@tudelft.nl
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