

Expert says banning petrol and diesel cars is symbolically important

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Credit: University of the West of England

Following the announcement yesterday that the government plans to ban petrol and diesel cars from 2040 Professor Graham Parkhurst, Director of the Centre for Transport and Society at the University of the West of England (UWE Bristol), says that this announcement is symbolically important.

Professor Parkhurst comments, "Given the severe nature of the [air quality](#) problem here and now, this announcement is largely symbolic in that respect.

"The symbolism is important, however, as it confirms that the UK Government has finally accepted the seriousness of the situation, having previously failed to meet its own statutory responsibilities and having fought the need for significant action on air quality through the courts.

"It will need to be the other measures in the air quality action plan that actually improve [urban air quality](#).

"Electric vehicles as currently designed would make an important contribution to improving air quality, but they will not completely remove the problem, as [vehicle](#) brake linings and tyres also make a significant contribution to particulate matter pollution, which also causes health problems.

"The UK announcement only affects pure diesel and petrol internal combustion engine-vehicles. Hybrids are excluded.

"As the Swedish manufacturer Volvo has committed to produce only electric and [hybrid vehicles](#) from as soon as 2019 - the first major manufacturer to make such a commitment - then it shows that at least part of the industry could achieve such a switch for new vehicles much more quickly.

"China is considering tough limits on the share of petrol and diesel sales which could strongly promote alternative fuel cars, as happened in the past in California.

"As well as hybrid vehicles, sales of internal combustion engine vehicles using gas fuels (natural gas, hydrogen) could continue, although there are barriers to take-up of these fuels that make [electric vehicles](#) a better option.

"The main reason for the cautious approach would appear to be concern

about potential increases in the consumer prices of new cars. It is true that battery electric and hybrid vehicles remain considerably more expensive than conventional vehicles. In the case of hybrids this is due to the complexities of having two power systems and the need for further technology to integrate them.

"Battery electric vehicles are actually simpler than diesel and petrol cars; it is just the battery cost and the scale of production that makes them expensive.

"With or without this announcement, the days of governments across Europe relying on Fuel Excise Duty as a key source of taxation are ending; a decline that I first observed in a publication in 2002. As electricity for domestic use is the same as for road use, it would not be straightforward to charge tax on it at different rates for different purposes. The most likely alternative is a pay-as-you-drive road user charge, not limited to cities.

"It would not make sense only to charge for road use in cities or just in places with high congestion. First, the charge would have to be very high if it were only applied in congested places. Second, road use would be so cheap given the current price of electricity that car use would increase sharply if no charge were applied to uncongested roads.

"It is most likely that [road](#) charges will be applied in the context of roads become more of a 'mobility service', with charges being made for allowing travellers to use their vehicles in 'driverless' mode on motorways, possibly in reserved lanes, and/or for charging on the move; trials are underway on the possibility for motorway lanes which allow inductive charging, such as is currently available on a much smaller scale for some battery-powered items such as smartphones and electric toothbrushes."

More information: Parkhurst, G., (2002). The top of the escalator? In Lyons, G., Chatterjee, K., (Eds). Transport Lessons from The Fuel Tax Protests of 2000. Ashgate, Aldershot, 299-321.

Provided by University of the West of England

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