

Will the EU Ban Fossil-Fuel Cars from Cities?

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April 25, 2011

Europe mulls a radical idea to reduce emissions. Can we learn something from its example?

On March 28, the European Commission – the executive arm of the European Union – issued “Roadmap to a Single European Transport Area.” If adopted by the European Parliament, this white paper becomes the EU’s transportation policy, binding on its member states. A controversial goal in the document is to “halve the use of ‘conventionally fuelled’ cars in urban transport by 2030; phase them out in cities by 2050; achieve essentially CO₂-free city logistics in major urban centres by 2030.”

The controversy arose in part because of an [inaccurate headline](#) in Britain’s *The Telegraph*: “EU to ban cars from cities by 2050.” The actual article noted that the ban would apply only to conventionally fuelled cars.

Norman Baker, a junior transport minister, responded, “We will not be banning cars from cities any more than we will be having rectangular bananas.” He added, “It’s right that the EU sets high-level targets for carbon reduction, however, it is not right for them to get involved in how this is delivered in individual cities.”

(The reference to bananas referred to a long-time U.K. controversy about European Union regulations, which include a requirement that the highest-rated fruit be “free from malformation or abnormal curvature.”)

Should conventionally fuelled cars be banned from Europe’s cities? Should all cars be banned? What about in Canada?

The main reasoning behind the white paper’s proposals concerns oil:

Oil will become scarcer in future decades, sourced increasingly from uncertain supplies. ... If we do not address this oil dependence, people’s ability to travel – and our economic security – could be severely impacted with dire consequences on inflation, trade balance and the overall competitiveness of the EU economy.

There is also concern about emissions and noise, particularly in cities. The gradual phasing out of conventionally fuelled vehicles from the urban environment is proposed as a “major contribution to significant reduction” in oil dependence and emissions.

This proposal is not what it seems, even when you get beyond the newspaper headlines. Conventionally fuelled cars do not include hybrid vehicles, which have an electric motor and an internal combustion engine (ICE), but all of the power for the electric motor comes from the ICE and thus from the ICE’s fuels.

A hybrid car uses about 20 per cent less fuel than its ICE-only equivalent. Thus, the goal of eliminating conventionally fuelled vehicles could result in no more than about a 20 per cent reduction in oil use and emissions – far short of the EU's 2050 target of achieving a 60 per cent cut in greenhouse gas emissions.

As well as hybrid cars, the white paper speaks to cars with electric motors powered from the grid and powered by on-board fuel cells, but not to the use of biofuels.

Fuel cells can be discounted for mobile operations because of their cost, unreliability, and inefficiency. This leaves vehicles powered by batteries charged from the grid and vehicles powered directly from the grid while in motion, such as streetcars and trolley buses.

The last type of powering has not yet been adapted to personal vehicles. It may well be by 2050 on account of its high efficiency and low operating cost. However, powering personal vehicles from the grid while in motion would present difficulties within urban areas.

At the moment, use of battery vehicles seems more feasible. Their major drawbacks are range and cost. Range is not such an issue within urban areas and the cost of batteries could fall. On the face of it, replacing urban automobiles with battery-powered vehicles could be a plausible strategy. Emissions from the vehicle would fall, as would oil consumption. Cars with ICEs could be used outside cities.

A challenge posed by any kind of road vehicle is the expected growth in traffic. Without further intervention, travel by car is to grow by about 30 per cent by 2050, resulting in a [50 per cent increase](#) in congestion costs.

Although the white paper asserts that “curbing mobility is not an option,” curbs on urban use of cars may be required to maintain essential freight movement. The document's preferred method of limiting traffic is road charging, as has been imposed in London and Stockholm. There, initial traffic reductions of some 30 per cent were recorded.

Canada east of Manitoba is more dependent on oil than Europe. Almost every drop used comes from or via another country. Unlike European countries except Norway, Eastern Canada has no access to a petroleum reserve. The six eastern provinces are extraordinarily vulnerable to increases in the price of oil and interruptions in supply. In early 2011, the price of a barrel of oil is rising faster than ever before.

Eastern Canada is well endowed with electricity generated from renewable sources. Switching away from conventionally fuelled vehicles would make sense, and cities would be a good place to start. Curbs on the movement of cars in city centres could well make the centres function better.

This item was published online on April 25, 2011, at <http://www.themarknews.com/articles/4796-will-the-eu-ban-fossil-fuel-cars-from-cities?page=1>.

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