



A car fleet independent of fossil fuels - development and policy instruments **Summary**
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Transport Analysis

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Publisher: Brita Saxton

Publication date: 2015-04-26

Summary

To reduce the climate impact of road traffic and achieve our transport policy objective of *limited climate impact*, Sweden's vehicle fleet needs to transition to renewable fuels and increase its energy efficiency. A significant preponderance of greenhouse gas emissions from the transport sector derives from domestic road traffic, which means that changes in the emissions from Sweden's vehicle fleet have a major influence on the transport sector's climate impact. A transition to alternative fuels is also necessary if we are to achieve our goal of a fossil fuel-independent vehicle fleet by 2030.

Sales of ethanol-powered vehicles increased rapidly in the 2000s, and such vehicles comprise the majority of Swedish automobiles that can be powered by an alternative fuel. On the other hand, sales of new ethanol-powered vehicles began to decline in 2009, and the number of ethanol vehicles on the road decreased in 2015. Alternatively, plug-in hybrids, electric hybrids, and purely electric cars have become increasingly common since 2012. Growth in the number of natural gas-powered vehicles cars has remained relatively stable in recent years, although they still account for a very small share of all vehicles.

Growth in the number of vehicles powered by alternative fuels has been low, despite a comprehensive package of policy instruments and incentives intended to boost their sales. This low growth is attributable to the sales of ethanol-powered vehicles having ended, even as sales of electric cars, electric hybrids, plug-in hybrids, and natural gas-powered vehicles are insufficient to offset the lost ethanol vehicles. In the case of natural gas-powered vehicles, the rate of growth is also inhibited by the fact that many such vehicles are deregistered each year because they are leaving Sweden. This trend has been growing over the last four years. This trend currently pertains to relatively few vehicles, but if sales of natural gas-powered vehicles should increase and foreign sales follow the same pattern, a significant number of environmentally friendly vehicles could be sold abroad, reducing their contribution to the share of environmentally friendly vehicles in the Swedish vehicle fleet.

A clear majority of the exported cars was relatively new, most of them not even five years old, and 90 percent of them were owned by companies. It is thus primarily service and company cars which are being sold abroad after a few years. As a result, there's a risk that cars that have been the subject of fiscal incentives in order to increase its share of the vehicle fleet are not available at the Swedish second-hand market. The intended effect of the fiscal incentives might be weakened because some of these vehicles quickly leave Sweden. There is also a risk that the forecasts that form the basis for decisions on instrument design is based on false assumptions about the Swedish car fleet development.



Transport Analysis is a Swedish agency for transport policy analysis. We analyse and evaluate proposed and implemented measures within the sphere of transport policy. We are also responsible for official statistics in the transport and communication sectors. Transport Analysis was established in April 2010 with its head office in Stockholm and a branch office in Östersund.