

Cars: Recommendations for policy design

Environment

Energy: About one third of the total final energy consumption today is being spent by the motor-driven street traffic and mostly through automobiles. Although there are new more efficient cars on the market, the increasing traffic performance is far from being out-balanced by them. The energy-consumption caused by the increasing traffic growth exceeds the gains in consumption that newer models allow to achieve.

Eco rating: The Eco rating system takes into consideration the harmful impacts including all emissions and noise (see selection criteria). Topten displays the 10 best cars in 8 categories. A complete list of European cars can be found on www.ecomobiliste.ch (French) or www.autoumweltliste.ch (German).

Motors and fuels

Petrol or diesel motors: a diesel motor is more efficient than a petrol motor but the petrol motor emits far less substances which are harmful to human health than the diesel motor. Compared with petrol motors the diesel motors emit carcinogenic soot particles and up to six times more contagious nitrogen oxides. Therefore Topten and ATE strongly advise against using diesel automobiles without particle filter. In the rating, models without particle filter have no chance to be listed among the Topten cars.

Natural gas motors: The main advantage of the gas consumption lies in fewer CO₂-emissions compared to petrol or diesel motors. (An automobile which is driven on bio gas produced from green waste does not even emit CO₂ at all). Natural gas has overall only half the harmful impact on the environment compared to petrol and even 70% less than diesel.

Hybrid motors: Vehicles with this kind of motor are working with two engines, a combustion one and an electric one. Therefore they are fuel-efficient and emit less harmful substances. By driving downhill the combustion engine is being turned off. The electric motor serves as a generator, the batteries are filled up and furthermore the speed of the car is being decelerated.

Liquefied Petroleum Gas (LPG) motors: LPG is a crude oil side product which emerges during the oil refinement. This fuel consists of propane and butane whereas the chemical composition varies strongly. This fuel is liquefied under pressure and transported in pressure tanks.

Personal driving

You can save fuel and money as follows:

1. by driving in the highest possible gear,
2. by accelerating at full speed,
3. by switching into a higher gear early enough (at around 2'500 rotations) and by switching late into a lower gear
4. by driving with foresight and continuousness and therefore avoiding brake- and switch-manoevres without need.

Infoplus

Aktualisierung der Bewertungskriterien der VCD-Auto-Umweltliste (Eine gutachterliche Stellung des IFEU, Institut für Energie und Umweltforschung Heidelberg GmbH), Mai 1997

www.ecomobiliste.ch (French), ATE Suisse Association Transport et Environment, «Guide pour l'achat écologique d'une voiture», see the paper « le systeme d'évaluation de 'EcoMobiListe »

www.autoumweltliste.ch (German), VCS Verkehrsclub der Schweiz, «Leitfaden zum ökologisch bewussten Autokauf», see the paper « [Bewertungssystem der Auto-Umweltliste](#) »

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