



## Petition to support the development of battery, hybrid and fuel cell electric vehicles

*AVERE, CITELEC and EPE want to gather a large number of signatures supporting the following proposition which will be submitted respectively to the European Parliament, the Commission of the European Communities and the European Council of Ministers.*

*Finite oil resources and their political and economic effects are leading to the need to reduce dependency on imported oil and consequently to the development of alternative energy sources. Beside these economic and political aspects, there are major environmental reasons for changing our transport systems: global warming, ozone, acid rain, etc.*

*In today's context of energy supply and climatic change issues, it is essential that the competent European Authorities promote technologies that aim to reduce European energy dependency as well as the impact of human activity on the environment.*

*Electric vehicles (battery, hybrid and fuel cell) clearly are part of these technologies.*

*AVERE, CITELEC and EPE thus request the European Parliament, the Commission of the European Communities and the European Council of Ministers to set up a large programme for development and demonstration of battery-electric and hybrid electric vehicles, so as to highlight their respective and immediate benefits for energy economy and emission reduction, while eliminating the burdens restricting these technologies from real market access.*

*Furthermore, AVERE, CITELEC and EPE ask for such measures to be taken as quickly as possible, taking into account that Europe's major commercial and technological competitors such as Japan, the United States and China are also engaged in similar programmes on a significantly large scale.*

The battery-electric vehicle is an available solution allowing energy savings and emission reductions of up to 50% compared with an equivalent internal combustion engine powered vehicle, while being fully zero-emission where it is used.

Fitted with Lithium or NaNiCl batteries, it can cover a range of 150 to 250 km, which gives it a market share of 20 to 35%. This suits the need of most commuters, second family cars, as well as a majority of light utility vehicles.

Under these market conditions it could be offered at a price normally superior to the conventional vehicle, but the low consumption would allow recovery of this extra cost in less than half of the vehicle life, making a financial profit on the whole life of the vehicle.

The hybrid electric vehicle is an available solution allowing an energy saving of 20 to 30% compared with an equivalent internal combustion engine powered vehicle. This saving can even be increased when the batteries are charged from the electricity grid. Significant emission reductions will be achieved.

It is fitted with NiMH or Lithium batteries, and/or supercapacitors, and has no limitation in range except in pure electric mode. It appeals to the same market as the internal combustion engine vehicle, and can thus, in complement with the battery-electric vehicle, cover the whole market.

Under these market conditions, it could be offered at a price normally superior to the conventional vehicle, but the low consumption would allow recovery of this extra cost in less than half of the vehicle life, making a financial profit on the whole life of the vehicle.

The fuel cell electric vehicle is a long term solution, not available on a commercial basis for the next 15 to 20 years. It follows the continuity of electric vehicle development, the battery being replaced wholly or partially by a fuel cell associated with or without supercapacitors. This technology is interesting since it makes use of hydrogen as an energy vector. However, its energy and environmental performances will be inferior to those attained by battery-electric vehicles, and can probably be compared to those of hybrid electric vehicles.

The association of fuel cell, battery and supercapacitor allows a range between that of battery-electric and hybrid electric vehicles; the fuel cell vehicle can thus be a complement to these types of vehicles. Under these market conditions, it might be offered at a market price comparable to battery-electric or hybrid electric vehicles. Paying back of the extra cost however will strongly depend on the cost of hydrogen in an economy where the direct use of electrical energy (battery and hybrid electric vehicles) will compete with the indirect use of electric or other energies through a transformation in hydrogen.

Battery-electric, hybrid electric and fuel cell electric vehicles have access to a wider range of clean energy sources than conventional vehicles, leading to an environmental impact close to zero as well as to an energy dependency reduction that has never been achieved before.

â€¢ Sign this petition online at: <http://www.cleanvehicle.com>

â€¢ Sign the petition on paper:

Name:	Address:	Signature

Please send signed form to: CITELEC, Pleinlaan 2, B-1050 Brussel. Thank you for your support

This petition is a common initiative of:

AVERE, the European association for battery, hybrid and fuel cell electric vehicles

CITELEC, the association of European cities interested in electric vehicles

EPE, the European power electronics and drives association

For more information: [petition@cleanvehicle.com](mailto:petition@cleanvehicle.com)