

The test scheme for electric cars

During the period 2008-2012, the Danish Energy Agency is providing a subsidy totalling DKK 35 million for testing electric cars.

The purpose of the test scheme is to gain practical experience with the use of electric cars. It is possible to receive subsidies for the acquisition of electric cars and for rechargers used to recharge electric cars.

Measuring instruments display driving patterns

All subsidised electric cars are equipped with the same type of measuring instrument. This makes it possible to monitor usage of electric cars. As part of the test scheme experience is being gathered concerning daily driving patterns, e.g. number of trips, length of the trip, the duration and time of day the electric car is recharged. It is possible to apply for subsidies for collecting additional data on use of electric cars.

Cross-sectoral projects

In addition, it is possible to apply for subsidies for cross-sectoral projects. For example, an application may be made for subsidies for projects that carry out analyses of data collected and projects on communication of experience etc.

Spreading the use of electric cars in Denmark

Experience gained from the test scheme is to help map out any practical barriers to spreading the use of electric cars in Denmark. This includes technical, organisational, economic and environmental factors associated with using, operating and maintaining electric cars. All knowledge gathered via the pilot scheme is to be made available to the public.

Electric cars may exploit wind power

When the wind is blowing, wind turbines in Denmark generate more power than needed. Once wind power has been further developed, electric cars may be able to help exploit the excess wind power - not least in the long run. The purpose of the test scheme is also to analyse the possibilities of using electric cars to store

excess electricity production from wind turbines through intelligent recharging.

Distribution of subsidies from 2009-2012

The subsidy scheme is being administered by the Danish Energy Agency. In spring 2009 support was granted totalling DKK 10 million for 17 projects with a total of 49 electric cars.

In early 2010 about DKK 7 million will be allocated under the test scheme, and after this DKK 5 million is expected to be allocated later in 2010, 2011 and 2012.

Relevant projects

In order to include as many electrically powered vehicles as possible in the scheme, the assessment of project proposals focuses on cost efficiency and own financing. Furthermore, the pilot scheme must ensure the highest possible diversity in the supported projects. Therefore the assessment also concentrates on ensuring that the test scheme covers as many different types of electrically powered vehicles as possible and as versatile use of the vehicles as possible.

Who can apply for subsidies?

The test scheme is aimed at all organisations and enterprises with a fleet of vehicles. All public authorities as well as public and private enterprises and institutions may apply for a subsidy.



Projects covered by the first round of the test scheme

49 electrically powered vehicles; cars, vans, minibusses and lorries. The recipients of subsidies include:

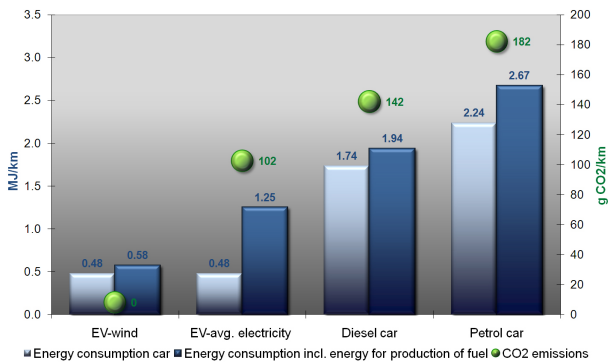
- Two regions
- Six municipalities
- Five private enterprises
- Two organisations/associations
- One knowledge institute (two projects)



Characteristics of electric cars

An electric car is a car run by an electric motor and where the energy derives from a battery onboard the car. The battery is recharged by connecting to the electricity grid.

Electric cars help achieve Danish and EU targets for a society independent of fossil fuels (coal, oil and natural gas). Electric cars may also help secure the energy supply and stabilise the electricity grid.



Source: Energistyrelsens Drivmiddelrapport 2008

There is a huge potential in electric cars as an addition to the existing electricity system by storing excess electricity production from wind turbines. In the long run, electric cars will probably be able to return electricity to the grid when there is a great demand for electricity and the electric car is not being used.

In addition, electric cars are characterised by:

- High energy efficiency
- Low energy consumption per kilometre
- Climate and CO2-friendly
- Low impact on local air quality
- Limited noise (no clutch, gear box, exhaust system or catalytic converter)
- Low operating expenses (no use of engine oil, oil filters, spark plugs etc. and high energy efficiency)
- Batteries continue to constitute a challenge (in relation to range, price, management/service).

EU activities promote the use of electric cars

The 7th framework programme for research and development and the Intelligent Energy Europe II programme will be able to support electric cars and infrastructure to the extent that they fall within current support areas and objectives.

The EU CO2 allowances system means that phasing-in of electric cars moves CO2 transport emissions from being a national problem to being covered by the EU CO2 allowances system.

Electricity based on renewable energy for electric cars counts with a factor of 2.5 in meeting the targets on renewable energy of 10% in transport in 2020. Electric cars count with a higher weight in meeting the target for car manufacturers of 120 g CO2/km. Car manufacturers therefore have extra encouragement to produce electric cars.



Four Danish initiatives in relation to electric cars

- Easing of taxes and duties
- The test scheme for electric cars
- The EDISON project (development of infrastructure)
- Launch of infrastructure for electric cars by private players

Read more about:

- Electric cars in general
www.danskelbilkomite.dk (in Danish)
www.betterplace.com
- The test scheme for electric vehicles
http://www.ens.dk/en-US/ClimateAndCO2/Transport2/test_scheme_/Sider/testscheme.aspx
- Phasing-in of electric cars in the electric system
http://www.danishenergyassociation.com/Theme/Electric_cars.aspx
- The Government's objectives on electric cars
<http://www.trm.dk/sw521.asp>