

Section A: Electricity from renewable sources in transport

1. How do you value the impact of the 10% target for renewable energy in transport by 2020 on the development of electric vehicles?

- Not significant
- Significant, but other policies/developments will be of more importance
- Important, along with other policies/developments
- A key driver

Significant, but other policies/developments will be of more importance

De ontwikkeling van EV biedt grote kansen voor Nederland. De opkomende markt voor EV biedt perspectieven voor onze economie en voor de ontwikkeling van duurzame mobiliteit met potentieel grote effecten op vergaande CO2 emissies en al op korte termijn een bijdrage aan een verbetering van de luchtkwaliteit in de steden. Het biedt ook kansen voor de ontwikkeling van vormen van decentrale energie en daaraan gekoppeld de ontwikkeling van "smart grids". Op dit moment rijden er zo'n 500 elektrische auto's rond en zijn er ca 500 laadpunten. In de komende periode (2015) moet Nederland uitgroeien tot een aansprekende internationale proeftuin met circa 15.000-20.000 elektrische auto's.

Kansen kunnen alleen verzilverd worden als we in staat zijn gezamenlijk op te treden, dwz overheid, markt en kennisinstellingen samen. EV is een systeeminnovatie waarbij het erop aan komt dat alle elementen van het systeem - auto's, infrastructuur, veiligheidseisen, gemeentelijk beleid - samen optrekken. In de proeftuinfase is EV nog niet rendabel: zonder financiële ondersteuning kan het nog niet op grotere schaal worden toegepast.

De proeftuin vormt een opstap naar een verder uitrol van EV, met in 2020 zo'n 200.000 auto's. Veel meer consumenten zullen dan de overstap naar EV kunnen maken door kostprijsverlaging en vertrouwen in het product.

De innovatie Elektrisch Rijden komt niet vanzelf op gang. Een aantal barrières moet worden overwonnen, zoals:

- a. de ontwikkeling van de laadinfrastructuur, het ontbreken van een marktmodel en een business case voor publieke laadpunten en innovatieve laadvormen;
- b. de beschikbaarheid van voertuigen, in het bijzonder voor specifieke doelgroepen;
- c. de actieradius van een elektrisch voertuig is nog beperkt;
- d. de prijs van een elektrisch voertuig is nog hoog. Berekeningen voor de Total Cost of Ownership (TCO) laten overigens zien dat, onder een zo gunstig mogelijk fiscaal regime, voor de zakelijke markt de elektrische auto op dit moment al niet duurder hoeft te zijn dan een conventioneel aangedreven auto.

Het meetellen in de doelstelling en de zwaardere weging (2,5x) van hernieuwbare elektriciteit in vervoer bevordert de investering in infrastructuur. Via het bioticketsysteem kan de ingezette energie meetellen voor de verplichting en hierdoor een extra waarde creëren die het businessmodel voor laadinfrastructuur verbetert.

2. Under what condition do you think it would be justified to count the whole amount of electricity in electric vehicles as renewable?

- a) None
- b) When the electricity is produced fully from renewable energy and without connection to the electricity grid

- c) When the electricity comes with a tradable certificate showing that that amount of renewable electricity was generated
- d) When there is a supply contract showing that that amount of renewable electricity was generated
- e) When there is evidence on a Member State level that the development of electric vehicles has led to that amount of additional renewable electricity generation
- f) Other (please specify):

In addition to options b through e it could be argued that electricity for vehicles produced under the ETS leads to no extra CO<sub>2</sub>, since extra emissions must be compensated under the agreed-upon ceiling, and thus could be regarded as renewable.

In Nederland wordt voor 2011 uitgegaan van 17,4% hernieuwbaar elektriciteit in het Europese net.

3. What benefits do you expect the option you selected under (2) will have:

- Additional renewable electricity generation
- Faster development of electric vehicles
- Other (please specify):
- None, it only changes the accounting method

Please motivate your answer

Other (please specify): Faster market introduction of electric vehicles

The fact that electricity is counted towards the 10% target of renewables in transport, will lead to a (slight) additional income of deployment of electric cars and of the infrastructure needed to supply EV's with electricity.

As a consequence of the faster deployment of electric vehicles and hence increased use of electricity, it will strengthen the ETS system. Also, a faster introduction of electric vehicles contributes to reduction of CO<sub>2</sub>-emissions in the member states (because the emissions will be moved from the car exhaust to –most likely – a power plant under the ETS, which guarantees compensation elsewhere in the ETS system).

4. What costs in terms of administrative burden do you expect the implementation of the option you selected under (2) will have:

- Additional statistics collection in all Member States
- Generating additional information on the basis of existing statistics
- Other (please specify):
- None

- Additional statistics collection in all Member States

It is not straightforward to determine the amount of electricity used in transport, as EV's can be charged in different ways and at different (kinds of) locations including at home. It will require efforts to determine or assess the amount of electricity. Besides, it will require efforts to determine

the amount of renewable energy generated that is not connected to the electricity grid (applicable to option b).

## Section B: Hydrogen from renewable sources in transport

1. Which are in your view the most likely ways to produce hydrogen from renewable sources (partly or fully) by 2020?

- From biomethane, e.g. by steam reforming/partial oxidation
- From a mixture of natural gas and biomethane, e.g. by steam reforming/partial oxidation
- On the basis of renewable electricity, by electrolysis
- On the basis of the electricity mix from the grid, by electrolysis
- From biomass directly, e.g. by gasification/partial oxidation or biological processes
- Other (please specify):
- None are likely to be significant by 2020

None are likely to be significant by 2020

In Nederland wordt veel waterstof geproduceerd vanuit aardgas. Dit waterstof wordt gebruikt in de chemische industrie en in de raffinaderijen. De meest waarschijnlijke route voor Nederland naar duurzame waterstof is het reformen van biomethaan. Op de tweede plaats komt het vergassen van biomassa. Verwacht wordt dat deze twee routes 'niet significant' zullen zijn in 2020.

2. For each option you selected under (2), if it would be used for transport, how would you suggest to calculate its contribution to the 10% target for renewable energy in transport?

Nederland stelt voor dit uit te werken zodra waterstof in mobiliteit beschikbaar komt. Als de duurzame waterstof wordt gebruikt in mobiliteit dan moet er berekend worden uitgaande van een gemiddelde auto hoeveel hoeveel fossiele brandstof er wordt vervangen.

Section C: Biomethane via the natural gas grid in transport
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1. How do you value the impact of the 10% target for renewable energy in transport by 2020 on the development of methane vehicles fuelled by methane from the gas grid?

- Not significant
- Significant, but other policies/developments will be of more importance
- Important, along with other policies/developments
- A key driver

- Significant, but other policies/developments will be of more importance

The other policies that are of more importance are related to the cost price of methane as a transport fuel.

2. Under what condition do you think it would be justified to count the whole amount of methane extracted from the gas grid for the use in vehicles as renewable?

- None, until the time that all methane injected into the gas grid concerned is originating from renewable sources
- When the methane comes with a tradable certificate showing that that amount of biomethane was generated
- When there is a supply contract showing that that amount of biomethane was generated
- When there is evidence on a Member State level that the development of methane vehicles has led to that amount of additional biomethane generation
- Other (please specify):

- When the methane comes with a tradable certificate showing that that amount of biomethane was generated and when the methane was produced without another incentive (subsidy, obliged market share).

Biomethane that is injected into the gas grid should not count double count in national statistics or should not obtain two (financial) incentives like a feed-in-tariff for biomethane production and a financial incentive by transport companies as it can be used instead of other (liquid) biofuels to meet the 10% target for renewables in transport. So if biomethane is to be counted for use in vehicles, it should not be counted / rewarded in another way.

3. what benefits do you expect the option you selected under (2) will have:

- Additional biomethane generation
- Faster development of methane vehicles
- Other (please specify):
- None, it only changes the accounting method

Please motivate your answer

Additional biomethane generation

In particular from biogas production pathways that are not or hardly stimulated in another way.

4. what costs in terms of administrative burden do you expect the implementation of the option you selected under (2) will have:

- Additional statistics collection in all Member States

- Generating additional information on the basis of existing statistics
- Other (please specify):
- None

Section D: Energy content of biofuels
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According to the National Renewable Energy Action Plans, Member States estimate that the contribution of biofuels will be approximately 9.5% of energy consumed in transport, most of which is expected to be biodiesel and bioethanol.

1. Do you think additional types of biofuels need to be listed in Annex III of the Directive? If yes, which ones and could you provide values?

Please provide references for suggested values

Nee

2. Do you think more precision in terms of decimals is necessary in the values in the Annex? If yes, could you provide such values?

Please provide references for suggested values

Yes: precision should be increased to include one decimal.