

Madrid/ Brussels 30th June 2011

Public consultation on accounting methods and conditions for the 10% renewable energy in transport target and on the need for additional types of biofuels being listed in Annex III of the Renewable Energy Directive

NGVA Europe (Natural & bio Gas Vehicle Association Europe) is a NGO representing more than 130 companies, associations and individuals from 35 countries.

NGVA Europe is the only association representing the interests of the European NGV (Natural Gas Vehicle) related industry with relation to the use of natural gas (both gaseous and liquid) and biomethane in transport. Information on our organization and its activities can be found at www.ngvaeurope.eu

We are registered in the Register of interest representatives with the number: 1119946481-54

Section A: Electricity from renewable sources in transport

Average or marginal supply of energy and fuels

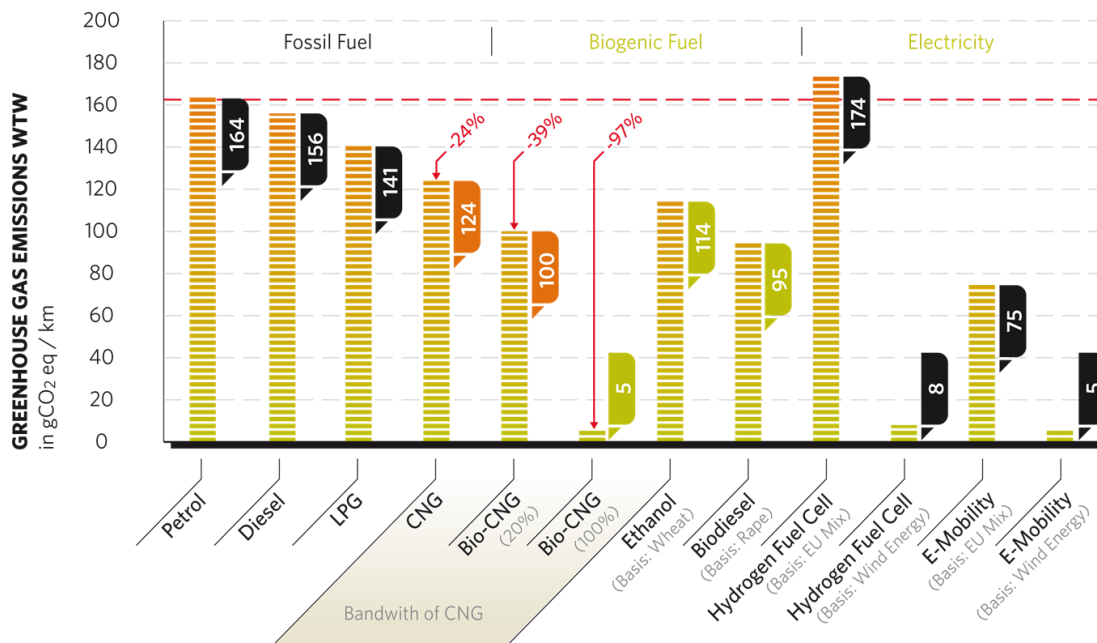
“For the contribution of electricity from renewable sources, the Directive prescribes that the average share of electricity produced from renewable energy sources (Member States or EU level) has to be taken into account in the calculation. In addition, the Directive requires the Commission to present by December 2011, if appropriate, 'a proposal permitting, subject to certain conditions, the whole amount of the electricity used to power electric vehicles to be counted towards the 10% target'. This public consultation, in section A, seeks views on what conditions could reasonably be applied for this.”

Comment:

We find the EU approach concerning fuels and electric power inconsistent. In various alternative fuel studies the EU has advocated that the well-to-tank performance should be based on marginal fuel supply based on figures prepared via the JEC consortium concerning well-to-wheels performance of various fuels. Why should electric power be treated differently (average instead of marginal supply), or perhaps even fully counted as 'renewable'?

Arguments could certainly be found both for the 'marginal' and for the 'average' approach, but we believe that the same approach should be chosen both for electric power and for fuels. We would furthermore like to point out that, in most of Europe and based on today's EU energy mix, electric vehicles today offer less GHG emissions savings compared with CNG/LNG vehicles when considering the whole WTW-cycle, and are far less environmental friendly in terms of CO₂/g km when comparing electric with methane vehicles using a mix of natural gas and biomethane. Biomethane produced from manure even has a negative CO₂ balance. For details, see graph (1) on WTW of vehicle fuels.

(1) Well-To-Wheel balance of vehicle fuels



Source: DENA

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

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

Comment: NGVA Europe is clearly in favour of increasing the share of renewables in the transport sector, nevertheless there are other technologies with a more significant weight and potential especially in the short and medium term. In that way, we would like to make clear that electric vehicles are very much constrained by technology developments regarding a) limitation on applicability of EV technology to different segments because of range, payload and cargo space requirements; b) necessity of huge investments both in vehicle technology and charging infrastructure to cope the needs of a mature and economically feasible alternative.

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

- None

Comment: repeating the comment we made prior to the questions, we believe that the EU approach concerning fuels and electric power is inconsistent. In various alternative fuel studies the EU has advocated that the well-to-tank performance should be based on marginal fuel supply based on

figures prepared via the JEC consortium concerning well-to-wheels performance of various fuels. Why should electric power be treated differently (average instead of marginal supply), or perhaps even fully counted as 'renewable'? Many studies have made clear that with the current and expected energy mix, electric vehicles would be less environmental friendly than vehicles using other technologies like NGV technology, as 100% renewable energy is not yet available. Most experts furthermore agree that the actual CO₂ effect of increased use of electric vehicles must be calculated on the basis of marginal electric power, not the actual production of renewable electric power. This means that every electric vehicle sold will in fact for a long time ahead actually increase greenhouse gas emissions.

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

- Other (please specify)

Comment: a neutral and balanced approach for all the alternatives. Technology neutrality is also a principle the European Commission is following.

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

- None

Section B: Hydrogen from renewable sources in transport

According to the National Renewable Energy Action Plans, only one Member State estimates that hydrogen from renewables will be used in transport by 2020.

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

- On the basis of renewable electricity, by electrolysis

Comment: we believe that the most feasible and logical option to produce hydrogen is by renewable electricity when there is a temporary surplus of it during certain periods of time during the night i.e. Other renewable products like biomethane should be kept for their use as transport fuels.

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?

Comment: following the same approach chosen for the other alternatives.

Section C: Biomethane via the natural gas grid in transport

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?

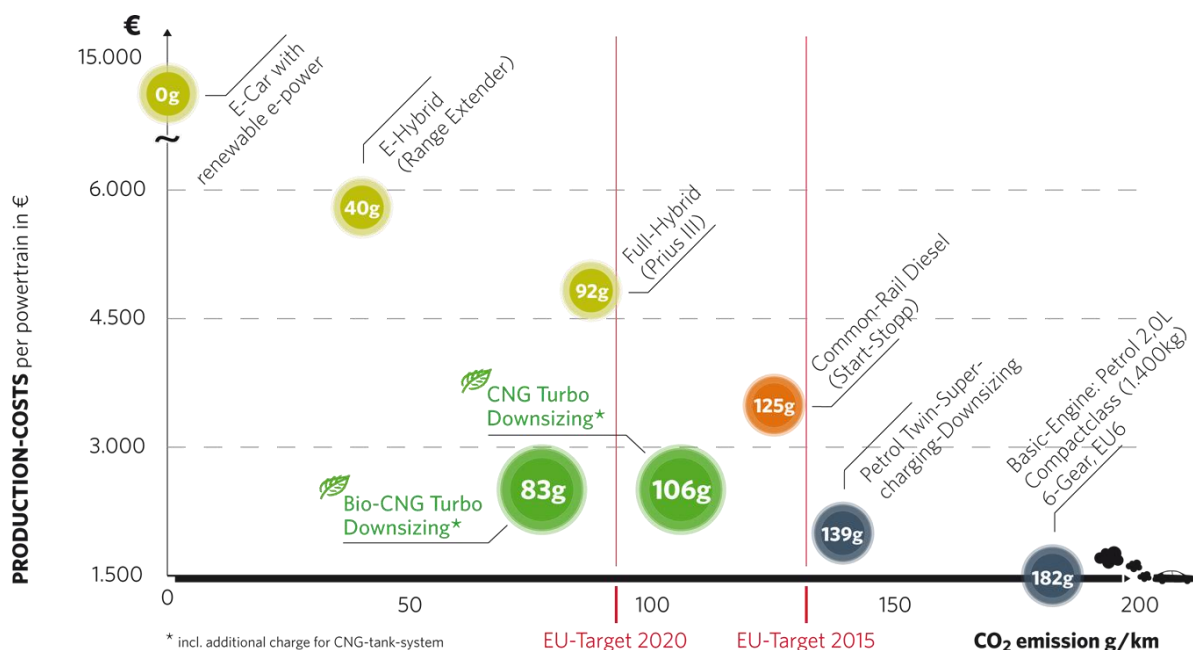
- A key driver

Comment: From NGVA Europe we'd like to once more stress the great potential of biomethane (Natural Gas from renewable origin) in Europe. When compared to other biofuels, its main advantage is that it can be produced from many different sources, with a higher efficiency and it can be mixed with no blending limitation due to the fact that its chemical composition is exactly the same than NG. For more information please take a look at:

<http://www.ngvaeurope.eu/members/fact-sheets/Biomethane-potential.pdf>.

The huge potential of Bio Natural Gas becomes especially important when considering emission savings in relation with production costs per available powertrains. There is no cheaper way for the Member states to reach 10% RES target than with Bio Natural Gas as a motor fuel.

(2) Production costs per powertrain



Source: CAR Study

Concerning biomethane, we therefore do not agree with the proposal. One should instead follow the same principles as for 'green electricity', i.e. consider the biomethane used by the party which is actually buying the 'green gas'. The national Swedish legislation in force since January 1st 2011 uses the concept of a virtual grid for NG/biomethane. Deliveries of biomethane either into the national natural gas grid, or directly to a local grid or a methane refuelling station, all create a credit in the

national accounts. Purchases of biomethane when drawing gas from the complete virtual grid create a debit. Debits must over time not exceed credits. The will to buy 'green gas' is very high within the automotive sector, meaning that all upgraded biomethane gas in practise goes to this sector. There are, however, at the same time certain volumes of not upgraded biogas which is consumed to generate heat and/or electricity, or just flared.

Sweden provides monthly reports (six weeks after the end of each month) of methane gas sold as a transportation fuel. All figures for natural gas and biomethane are also monitored on a monthly basis:

Please see: http://www.scb.se/Pages/TableAndChart_310205.aspx

	Biogas	Natargas	Summa
Final 2009	42 251 770 (62%)	25 736 680	67 988 450
Final 2010	59 147 203 (64%)	33 665 555	92 812 758

Source/Källa: SCB

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?

- Other (please specify):

Comment: Biomethane is, contrary to the case of electricity, always from renewable sources. The variety of feedstock that can be used to generate biogas (Biowaste, manure, sewage sludge, etc.) is avoiding additional CO₂ released to the atmosphere. That is also the case when using landfill gas as a feedstock. Therefore any percentage of biomethane being injected into the gas grid should be acknowledged. Member states using e.g. a mix 80% NG/20% biomethane would reduce 39% CO₂ in methane vehicles (already the case for the city of Berlin). Therefore, in return, in countries where biomethane is injected into the gas grid, OEMs producing and offering these vehicles should therefore be rewarded with CO₂ Super Credits accounting for the CO₂ fleet average and the tailpipe emission of these vehicles should be adjusted at national level (revision of the Labelling Directive). The CO₂ advantage of biomethane has to be tied to the CO₂ intensity of the grid. We should however avoid to set binding injection targets, as the feedstock availability and production capacity differs from country to country.

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

- Additional biomethane generation
- Faster development of methane vehicles
- Significant job deployment in the Member states

Comment: we also expect an important growth in the share of renewables if the proper legislative and fiscal treatment is provided.

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

- Other (please specify)

Comment: legislation permitting the correct introduction of biomethane into the grid and the use of biomethane as an automotive fuel is needed (fuel quality standard). Nevertheless, this work has already started at CEN level through the EC mandate M/475 given to the CEN to develop these specifications. Examples of already working experiences on these points can be withdrawn from many Member states like Sweden, Germany, etc.

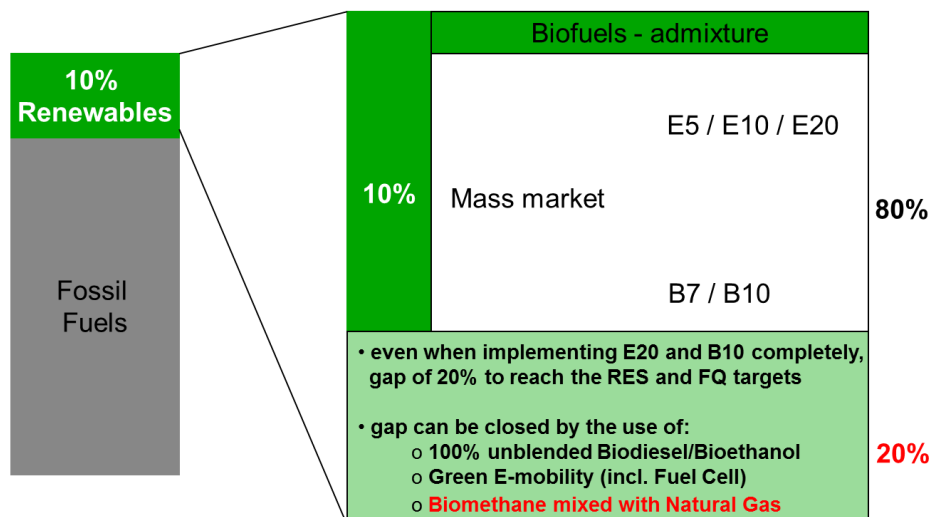
Section D: Energy content of biofuels

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.

Comment:

In relation to the National Renewable Actions Plans and the measures foreseen to reach to the 10% RES target in transport, it is foreseeable that Bio Ethanol and Biodiesel alone will not be enough. E10 and B7 are now only stepwise being introduced into the European markets and, in addition to that, the case of Germany has also shown several difficulties. It is also important to mention that the manufactures of OEM vehicles (ACEA) want to stay with E10 and B7 from a technical point of view. Even if higher blending ratios would be achieved, European Member States would still look at a considerable gap of approx. 20% renewable energy they would need to reach their renewable target in transport. This is where natural gas mixed with biomethane can help as an already available and viable alternative.

(3) How to reach the 10% RES target in transport



(1) EU-RED: Renewable Energy Directive 2009/28/EG; EU_FQD: Fuel Quality Directive 2009/30/EG

(2) Calculation based on 1PJ = 278*10⁶ kWh; 10kWh = ca. 1 liter Diesel oder 1,2 liter Benzin

Source: NGVA Europe

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?

No comments available

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?

No comments available

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