Contents of Presentation

The EU Renewables Directive

1. Sustainability criteria
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• Relevant References and Contact Details
Sustainability criteria for biofuels

**GHG saving of at least 35%**
- 50% from 2017
- 60% for new installations from 2018
- default values and calculation method for actual values included (Annex V)

**No raw material from converted land with:**
- high biodiversity value
  - Primary forest, protected areas, biodiverse grassland
- high carbon stock
  - Forests, peatland, wetlands
The New Renewables Directive

• Calculation of GHG Impact

Article 19 (1)
Defines the method for calculation, using the methodology given in Annex V.C. Typical and default values for GHG emissions for “cultivation”, “transport” and “processing” steps are given in Annex V.D & E

Here, the clear difference between the GHGs for biofuels produced from energy crops and those produced from wastes/residues are clearly seen
Some GHG Savings in the RED

- Default GHG savings compared with fossil petrol/diesel (Annex V.A)

<table>
<thead>
<tr>
<th>Source</th>
<th>GHG Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biogas* from municipal organic waste</td>
<td>73%</td>
</tr>
<tr>
<td>Biogas* from wet manure</td>
<td>81%</td>
</tr>
<tr>
<td>Biogas* from dry manure</td>
<td>82%</td>
</tr>
<tr>
<td>Rapeseed biodiesel</td>
<td>38%</td>
</tr>
<tr>
<td>Palm oil biodiesel (process not specified)</td>
<td>19%</td>
</tr>
<tr>
<td>Palm oil biodiesel (CH₄ capture at mill)</td>
<td>56%</td>
</tr>
<tr>
<td>Sugar beet ethanol</td>
<td>52%</td>
</tr>
<tr>
<td>Sugar cane ethanol</td>
<td>71%</td>
</tr>
</tbody>
</table>

(* in the form of compressed biomethane compatible with natural gas)
Revision of Default Values for Biofuels

Proposals made in 2012 (with Impact Assessment)

revision of default values for existing pathways
amendment of biogas pathways including use of energy crops
The Added Benefit of Waste

- Advanced generation biofuels are biofuels produced from ligno-cellulosic biomass and waste – these fuels count double to 2020 national renewable transport fuels target.
On 17 October 2012, the Commission published a proposal to limit global land conversion for biofuel production, and raise the climate benefits of biofuels used in the EU. The use of food-based biofuels to meet the 10% renewable energy target of the Renewable Energy Directive will be limited to 5%.

* COM(2012)595 final

Additional Proposed Changes to RED

From COM(2012)595 final:

Article 3 (4)

(d) the share of energy from biofuels produced from cereal and other starch rich crops, sugars and oil crops shall be no more than 5%, the estimated share at the end of 2011, of the final consumption of energy in transport in 2020.

(i) biofuels produced from feedstocks listed in Part A of Annex IX (e.g. algae, mixed MSW, but not separated household waste) shall be considered to be four times their energy content;

(ii) biofuels produced from feedstocks listed in Part B of Annex IX (e.g. used cooking oil, animal fats, non-food cellulosic material) shall be considered to be twice their energy content;
Market Support

- European Standards for Biomethane – CEN/TC408

DG ENER mandate to CEN* to formulate new standards supporting the exploitation of biomethane.

Specific targeted standards:
- fuel quality standard for biomethane use in transport applications

Expected drafting completed by the end of 2013

* The European Standards Organisation
Organisation

Expert Groups (EG) (2011 - 2013)

1. Measurement and tracing of the biogenic content of methane in gas grids
2. Characteristics of biomethane for use as a fuel for vehicle engines
3. Characteristics of biomethane for injection into natural gas grids

Enquiry period March 27 - August 27, 2014
Other Relevant Legislation


New Industrial Emissions Directive (IED) 2010/75/EU (24.11.2010) - “recast” IPPC directive and now the guiding directive for BREFs
### Relevant References and Contact Details

**Energy and Climate Change website:**

**Bioenergy and Sustainability**
http://ec.europa.eu/energy/renewables/bioenergy/sustainability_criteria_en.htm

**Europa – Biomass/Biogas/Biofuels:**

**Waste Framework Directive:**

**Industrial Emissions/BREFS:** http://eippcb.jrc.es/reference/

- **Contact Point for Waste and Biomass Related Activities at JRC-Institute for Energy:** http://ie.jrc.ec.europa.eu/

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