



European Commission
JRC - Institute for Energy
David Baxter





Contents of Presentation

- Policy and Legislative Activities
- Relevant References and Contact Details



Policy and Legislative Activities

- The New Energy and Climate Package
- Biomass Action Plan

Other Topics - not presented at this meeting

European Climate Change Programme II
Well-to-Wheels Study



Developments in Biofuels

Green Paper on Urban Transport COM(2007)551 (draft 28.09.07)

Aim: to create "free-flowing and greener cities, smarter urban mobility and an urban transport which is accessible, safe and secure for all European citizens".

By:

- supporting the introduction of clean and energy-efficient vehicles
- promoting 'green public procurement'
- setting harmonised minimum performance standards for the operation of vehicles.

http://ec.europa.eu/transport/clean/green_paper_urban_transport/index_en.htm



Developments in Biofuels

European Parliament (EP) push for compulsory certification of biofuels (10/07)

- EP passed a resolution on the 18 September supporting mandatory blend of biofuels at European pumps.
- EP supports the 10% biofuel objective for 2020, provided the biofuels are produced sustainably.
- Sustainable aspects of biofuels (compulsory certification !!!), and taking into account:
 - water stocks
 - biodiversity
 - carbon reserves (due to a changing land use)
 - social problems (such as rising food prices)

Proposal of 35% minimum reduction of CO₂ emissions



Developments in Biofuels

European Parliament (EP) Report (29.11.2007) on:

“Sustainable Agriculture and Biogas”

- considers biogas as a vital resource
- considers responsible biogas production as a means to avoid problems with animal manure
- calls for priority to be given to biogas production from animal and organic wastes because of high level of sustainability achieved
- supports additional funding for “green electricity” and “green gas”, with equal treatment for green electricity and gas
- promotes new biowaste Directive
- DEMANDS that the Commission and Member States develop a coherent biogas policy



NEW in 2008

Energy & Climate Package (January 23rd, 2008)

COM(2008) 30 final

**COMMUNICATION FROM THE COMMISSION
20 20 by 2020**



Energy & Climate Package

Main Objectives of the Package:

- **Cut Greenhouse Gas Emissions by 20%**
600 - 900 million tonnes CO₂ saving by 2020
200 - 300 million tonnes less fossil fuel used
estimated cost 13 - 18 billion Euro each year
- **Renewable Energy Target of 20% of Total:**
Currently 8.5%
Removal of unnecessary barriers to renewables growth
Implementation of sustainability standards
- **Biofuel for Transport Target of 10%:**
Provided sustainability criteria are met



Energy & Climate Package

- Key Document within the Energy & Climate Package

Commission proposal - COM(2008) 19 - on the promotion of the use of energy from renewable sources

One of the tools:

The Biomass Action Plan (BAP) [COM(2005) 628]



Energy & Climate Package

Sustainability Issues in COM(2008) 19

Article 15

*Environmental sustainability criteria for biofuels and other bioliquids
(page 32/33 of the proposed draft)*

Article 16

*Verification of compliance with the environmental sustainability criteria
for biofuels and other bioliquids (pages 33/34 of the proposed draft)*

Article 17

Calculation of the greenhouse gas impact of biofuels and other bioliquids



CO₂ Emissions from Biofuels Production

Bioethanol:

sugar cane	21	(from Brazil)
sugar beet	43	
maize (corn)	37	

Biodiesel:

rape seed	47	
sunflower	35	
palm oil	36	(from S.E.Asia)
(pure vegetable oil	36)	

**Petrol/diesel
= 83**

Biomethane (as compressed natural gas):

from green waste	16
from wet manure	12

(Units: gCO₂eq/MJ)



CO₂ Emissions from Biofuels Production

Biomethane Production

Biomethane (as compressed natural gas):

from green waste	16
from wet manure	12
from maize (est.)	12 + 20 (for cultivation)

**Petrol/diesel
= 83**

Bioethanol:

maize (corn)	37
--------------	----

(Units: gCO₂eq/MJ)



Other Pertinent Documents

Biowaste:

Development of "European Life Cycle Thinking Guidelines for the Management of Municipal Biodegradable waste"

Stakeholder consultation expected in 2008

If you want to be kept informed, please register at lca-waste@jrc.it

See also:

http://ec.europa.eu/environment/waste/pdf/tor_biowaste_guidelines.pdf



Other Pertinent Documents

The Biomass Action Plan [COM(2005) 628]

Main objective of the Biomass Action Plan is double the share of bioenergy by 2010 (4 - 8%). The plan would reduce oil imports by 8%, prevent greenhouse gas emissions by 209 million tons CO₂-equivalent per year and create up to 300,000 new jobs in the agricultural and forestry sector.

Actions in 2008:

Commission to report on implementation of the BAP
Member States requested to inform the Commission by the summer on all bio-energy activities they are undertaking to develop National Biomass Action Plans (so far 4 countries have reported NBAPs - Estonia, Ireland, UK and Netherlands)



Relevant References and Contact Details

- **Biomass Action Plan:**

http://ec.europa.eu/energy/res/biomass_action_plan/doc/2005_12_07_comm_biomass_action_plan_en.pdf

- **Energy and Climate Change website:**

http://ec.europa.eu/energy/climate_actions/index_en.htm

- **Europa – Biomass/Biogas/Biofuels:**

http://ec.europa.eu/energy/res/sectors/bioenergy_en.htm

- **Contact Point for Waste and Biomass Related Activities at JRC-Institute for Energy:** <http://ie.jrc.cec.eu.int/>

David.Baxter@jrc.nl - Tel/Fax: (+31) 22456-5227/5626



Thank you