BIOMASS FUTURES

INTELLIGENT ENERGY EUROPE

Lunch Workshop

Designing Policy to meet Europe's Future Bioenergy Needs – How can the Biomass Futures project inform future European bioenergy policy?

Biomass Futures Final policy workshop, 20 March 2012, European Parliament, Brussels

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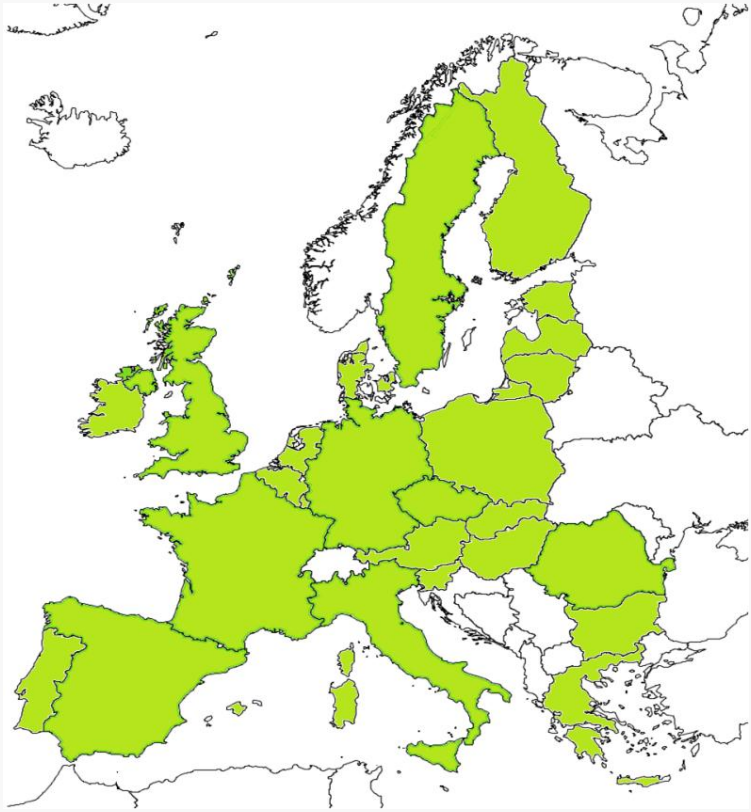
EIE/08/ 653/ June 2009- March 2012

Institute for European Environmental Policy

Outline

- Introduction to Biomass Futures
- Policy framework
- Supply: domestic potential and global impacts
- Demand: Integrating heat, electricity and transport sectors
- Addressing sustainability concerns
- Appetiser: Policy conclusions



Introduction Biomass Futures

Renewable Energy Directive → **NREAPs**

EU policy framework

- Implementation and future policy design

How to meet 2020 targets? What impacts?

Potential for 2030 and lessons learnt?

- RED/NREAPs and ETS (zero emissions rating of bioenergy) represent strong demand drivers
- Various sectoral policies on the supply side
- Remaining policy and knowledge gaps that hinder implementation and design of future policy: Policies to foster sustainable mobilisation of existing potentials, sustainability issues currently unaddressed, how to promote the most resource efficient bioenergy solutions (also post-2020)

Policy gaps I: domestic sustainable supply potential

- Gap of knowledge about EU domestic supply potential, ie estimates derived based on coherent datasets and methodologies across the EU
- Starting point: EEA, BEE, CEUBIOM, EUWOOD projects; Biomass Futures integrate further biomass categories, geographical detail, sustainability constraints
- Alterra as part of Biomass Futures estimates sustainable biomass potentials, *next presentation*:
  - Diverse feedstock types (prunings, wastes, landscape care wood, manure, rotational crops, forestry residues, etc)
  - Maps for EU27 on NUTS2 level
  - Biomass cost-supply curves for EU and Member States

Policy gaps II: Global context

- How does the EU bioenergy demand translate onto world markets and what footprint does it leave there?

- IIASA modelling using GLOBIOM and taking into account Biomass Futures EU estimates of potential (*afternoon workshop*):

  - How do biofuel markets within and outside of the EU evolve under different sustainability constraints (incl a global *no deforestation* scenario)?

  - Impacts on agricultural production, trade and prices

  - Resulting emission pathways taking into account savings from displaced fossil fuel use and land use change emissions

Afternoon

Policy gaps III: Meeting demand from RE-H, RE-E and RE-T

- Incomplete analysis of the competition for least-cost biomass between sectors including imports and intra-EU trade; no information on most promising refined segments within three markets for future uptake (*afternoon*)

- Biomass Futures ECN work covers supply for RE-H, RE-E and RE-T including trade and imports to meet NREAP demand + 2030 (*presentation 3*)

  - How high is the share of the mobilised domestic bioenergy potential in MS?

  - NREAP split between the three sectors in line with policy incentives?

  - Effects of sustainability criteria on how to meet policy demand

Policy gaps IV: Reconcile renewable energy development and sustainability concerns

- Need to form agreement between different parts of society on what sustainable bioenergy means and how to get there: *crucial for all bioenergy, future post-2020 policy*

- Some impacts addressed in modelling; additional Biomass Futures work on sustainability indicators by Oeko-Institut (*presentation 4*)

  - Also addresses water, soil, social issues for all bioenergy

  - Indirect effects are included through ILUC factors (domestic and imports)

- Perspectives on the broader bioeconomy (*Afternoon workshop*)

Sustainability criteria in the scenarios

- **Reference**: Existing RED criteria (only for biofuels)
- **Sustainability**: make existing RED criteria more stringent, extend them to all bioenergy, increase mitigation requirement to 70% and 80%, address ILUC
- **Global sustainability**: Extend stricter sustainability requirements to imported biomass as well

Appetiser: Policy conclusions

- *Presentation 5* today: How results can assist policy making
- Europe has a significant sustainable biomass potential
  - Most categories under-mobilised
  - feedstock mix currently does not reflect potential sustainable feedstock mix
  - residues potentials and their mobilization regionally dependent
- Current policy initiatives are not sufficient to reach the targets set in NREAPs (administrative barrier, limited technological learning)
- Strengthening sustainability criteria, including iLUC effects and expanding them to electricity and heat sector results in significant changes in feedstock mix and trade

Agenda

12:30 – 12:40	Registration
12:45 – 12:50	Welcome by the Chair
12.50 – 13.05	Bioenergy policy maps and gaps and the Biomass Futures project – Bettina Kretschmer, IEEP
13.05 – 13.20	Atlas of biomass supply for 2020 & 2030 – Berien Elbersen, Alterra
13:20 – 13.35	Bioenergy markets: the policy demand for heat, electricity and biofuels, and sustainable biomass supply. Results from alternative bioenergy demand scenarios for 2020 and beyond – Ayla Uslu, ECN
13.35 – 13.50	Supplying sustainable bioenergy: The Biomass Futures sustainability indicators – Uwe Fritsche, Oeko-Institute
13.50 – 14.05	How can Biomass Futures results assist the bioenergy policy agenda? – Calliope Panoutsou, Imperial College London
14.05 – 14.15	Conclusions
14.15 – 14.45	Discussion time

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Thank you!

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