



International
Energy Agency

Secure • Sustainable • Together

IEA WORKSHOP

Biomass Sustainability Governance Introduction

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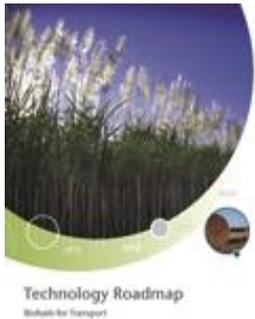
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What's Changed?

- Increasing competition from both fossil fuels (at current low prices)
- Strong deployment and cost reductions for other sources of renewable electricity (wind and solar PV) and good progress in some complementary technologies (e.g. electric vehicles)
- Slow increase in deployment of bioenergy
- Increased attention to the overall carbon savings and sustainability issues relating to bioenergy, including ILUC and food competition leading to policy uncertainty (especially in EU)
- Bioenergy in context of bioeconomy
- Significant technology progress but deployment slower than anticipated



Technology Roadmap
Biofuels for Transport

2011



Technology Roadmap
Bioenergy for Heat and Power

2012

Bioenergy roadmap update

- **First of new series of IEA Roadmaps**
- **Strong collaboration with Bioenergy TCP**
- **Based on IEA 2 DS and B2DS 2017 scenarios**
- **Complementary chapter on bioenergy in ETP 2017**
- **One document covering biofuels and bioenergy.**
- **Publish key findings at European Bioenergy Conference, 12 June 2017**
- **Full document to follow in September**

■ Portfolio of measures needed

- Decarbonisation of electricity sector (?/% RE by 2050)
- Improvements in energy efficiency in buildings and industry
- Electrification of heating/heat pumps
- Electrification of transport
- Increase in bioenergy
- Deployment of CCS

ALL PORTFOLIO NEEDED - NO PICK AND MIX

- **Heat for buildings**
 - Reduction in traditional use of bioenergy
 - Use in integrated heating systems
- **Electricity**
 - Low cost feedstocks
 - Integrated in chp systems
 - Role in grid balancing
- **Transport**
 - Expansion focused on long haul transport (marine and air)
- **Integrated uses**
- **Strong role for BECCS in B2DS**

- Improved understanding and experience of managing bioenergy sustainability in last 5 years and growing consensus in many areas
- Bioenergy can only play its role in low C scenarios if unambiguous carbon benefits
- Need to limit other unsustainable impacts and promote positive side benefits
- Lack of consensus on sustainability leads to policy uncertainty

Goals of Sustainability Governance

- Ensure C savings
- Avoid other negative sustainability impacts
- Provide stable investment climate
- Encourage sustainable production and innovation

- **Review criteria for sustainable biomass**
- **Principles needed to underpin sustainable biomass governance framework**
 - To what extent do current sustainability initiatives cover the principal issues?
 - What's not controlled sufficiently?
 - Do current measures provide stimulus for best practice?
 - Who will cooperate on developing the framework?
- **Further discussion at IEA Bioenergy Workshop 18/19 May, Gothenburg**
- **Conclusion integrated into roadmap main messages**

- **Principles for sustainable bioenergy within a sustainable bio-economy**
- **Current approaches**
- **Panel and open discussion**
- **Breakout sessions**
 - Forestry
 - Agriculture
 - Cross sectoral initiatives
- **Report back**
- **Conclusions and next steps**