



# Sustainability of biofuels and bioenergy – EU activities

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**Biomass Futures- Workshop 12 April 2011**

# Content

- **Introduction**
- Biomass role in 2020 according to National Renewable Energy Action Plans
- Biomass sustainability

# ● Renewable Energy Directive (2009/28/EC)

- Part of the EU climate and energy package
- A single, comprehensive Directive to achieve 20% renewable energy in the EU in 2020
  - » Combat climate change
  - » Security of energy supply
  - » Green jobs and innovation
- Mandatory renewable energy target for each Member State
- Specific 10% target for renewable energy in transport
- Biofuel sustainability scheme

# ● RED implementation

## ● Member States to:

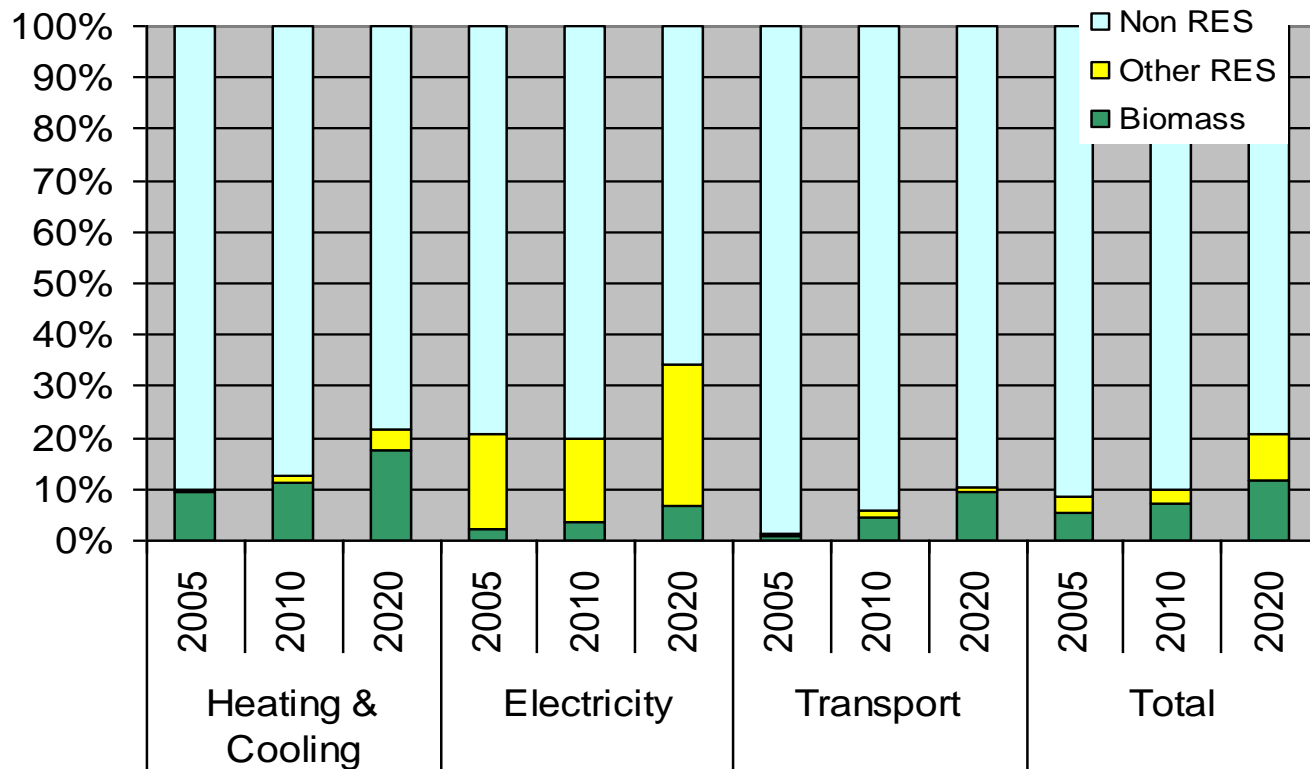
- » **Transpose** into national legislation by 5 December 2010
- » Draw up **national renewable energy action plans (NREAPs)** by 30 June 2010
  - Binding template published by the Commission:  
<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32009D0548:EN:NOT>
  - To facilitate monitoring of the Directive and provide stability for investment
  - To date, **all 27** plans have been received and publically available  
[http://ec.europa.eu/energy/renewables/transparency\\_platform/transparency\\_platform\\_en.htm](http://ec.europa.eu/energy/renewables/transparency_platform/transparency_platform_en.htm)

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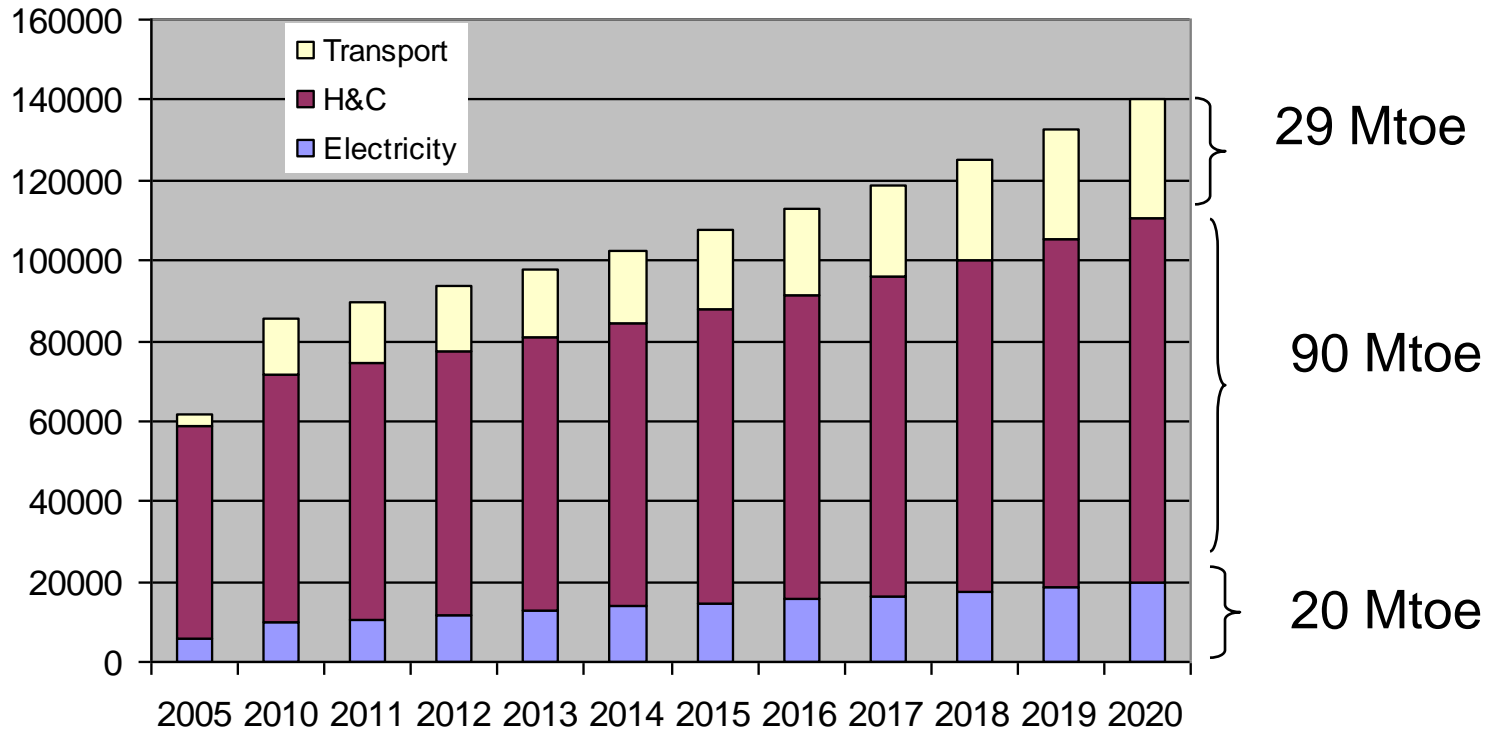
# Increase of EU energy consumption from biomass - Provisional findings

**Biomass contribution to final energy consumption (%)**



# Increase of EU energy consumption from biomass - Provisional findings

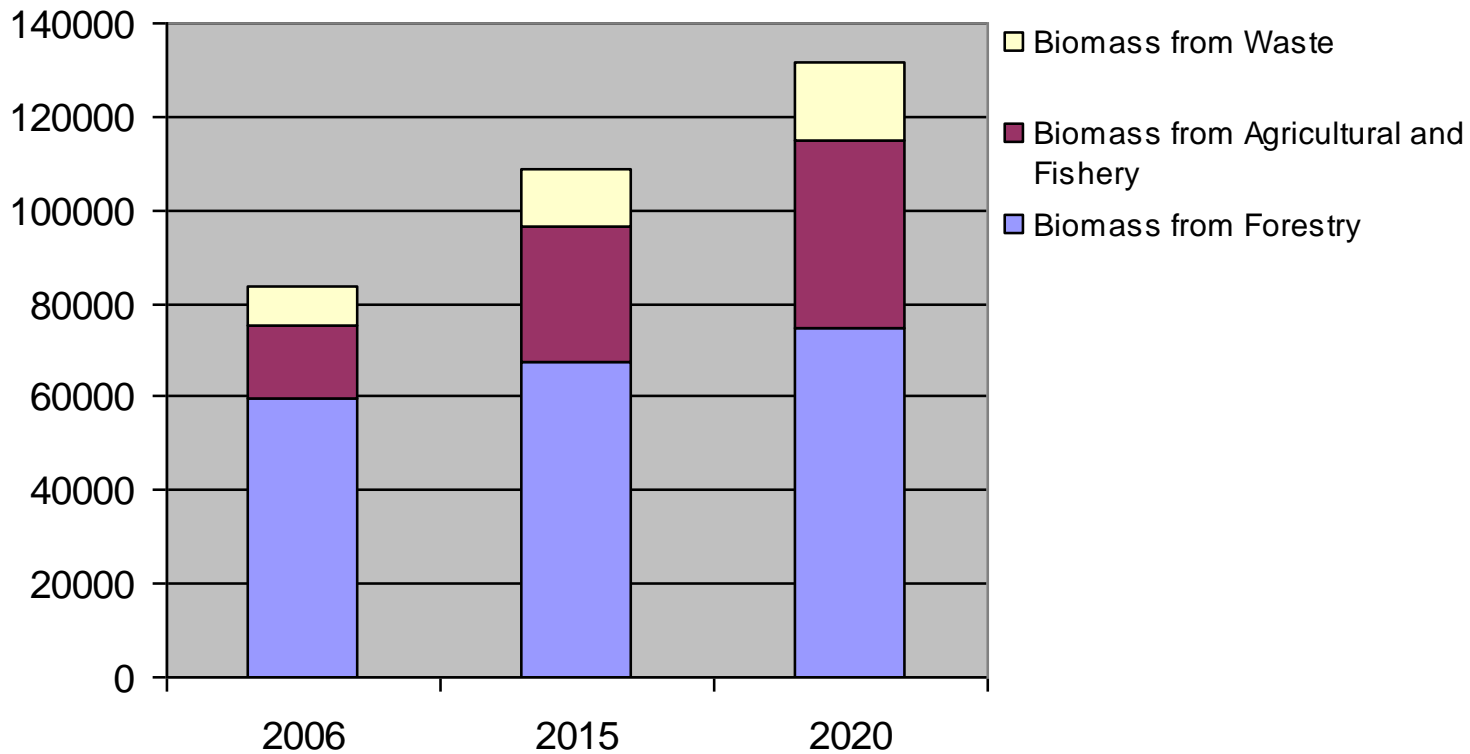
**Biomass in EU final energy consumption 2005-2020 (ktoe)**



# Sources of EU biomass energy supply

Provisional findings

## Primary energy from biomass supply (ktoe)



d|r

Source: 25 NREAPs



2006: domestic biomass + imported biomass – exported biomass  
2015 and 2020: domestic biomass



# ● Role of solid biomass imports

- Less than 5% of solid/gaseous biomass is imported to EU in 2009
- Imports (pellets, wood chips) likely to increase quite significantly by 2020
- Ongoing work on possible role of solid biomass imports for Heating and Cooling and Electricity sectors in 2020

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# ● EU biofuels sustainability criteria

- GHG saving of at least 35% (50%-60% from 2017/18) compared to fossil fuel
  - » Calculation methodology and 'default values' included
- No conversion of land with high carbon stock
  - » Continuously forested areas, wetlands, peatlands
- No raw material from land with high biodiversity value
  - » Primary forest, nature protection areas, highly biodiverse grasslands
- Have to be met in order to:
  - » **Count** toward the targets (10% and the '20%')
  - » **Count** toward obligations (put on suppliers)
  - » Be **eligible** for financial support (for their consumption)

# ● Implementation of the criteria

- By 5 December 2010
- Auditing & providing information
  - » according to EU Member States rules
  - » or alternatively the Commission can accredit 'voluntary schemes' (or international agreements) as sufficient.
- Application of the sustainability criteria to the harvest of 2010 should be possible as auditing can in principle be done retrospectively

# ● Voluntary schemes

- The Commission is in dialogue with about 30 initiatives
- 16 schemes submitted to the Commission
- 7 schemes likely to be recognized by early Autumn
- 9 other schemes under evaluation

# ● What is indirect land use change?

- If biofuel feedstock is produced on land directly converted from another status, this is considered in the sustainability criteria.
- If it is instead cultivated on existing agricultural land, it may then displace other crop production some of which ultimately may lead to conversion of land into agricultural land.
- This can lead *indirectly* to land use change.

# ● Preliminary conclusions and next steps

- COM(2010)811: report on indirect land-use change related to biofuels and bioliquids
- There are deficiencies and uncertainties associated with the modelling
- Indirect land-use change can have an impact on GHG savings of biofuels
- The Commission will present an impact assessment by July 2011, focussing on several policy options
- If appropriate together with a legislative proposal for amending the Directives (RES Directive and FQD Directive)

# ● Report COM(2010)11 (February 2010)

- National biomass sustainability schemes can be developed
  - » EU recommended criteria: in almost all respects the same as biofuels criteria
  - » Waste exempted from GHG saving recommendation
  - » Energy installations below 1 MW exempted from recommendations
- No need for a binding EU scheme
- Commission to revisit the issue by the end of 2011



# ● EU work on solid and gaseous biomass sustainability

- Ongoing **external study** on benchmarking biomass sustainability criteria for energy purposes
- **Public consultation** (ended 29 March): around 160 contributions received
  - » Imports
  - » Recent policy developments
  - » National / regional rules in place regarding solid and gaseous biomass sustainability
  - » Need for EU additional measures
  - » [http://ec.europa.eu/energy/consultations/index\\_en.htm](http://ec.europa.eu/energy/consultations/index_en.htm)

# ● Conclusions

- Biomass will play a significant role in reaching the EU 20% renewable energy target by 2020
- Solid biomass imports may increase by 2020
- Sustainability criteria for biofuels and bioliquids under implementation (Directive transposition in MS and voluntary schemes recognition)
- Coming report on ILUC: summer 2011
- Coming report on solid and gaseous biomass sustainability: December 2011



# Thank you for your attention

[http://ec.europa.eu/energy/renewables/index\\_en.htm](http://ec.europa.eu/energy/renewables/index_en.htm)

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