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# The European “Renewable Energy Directive” and international Trade

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**Delegation of the European Commission to the U.S.**



# The European Union



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**27 Member States**  
**490 million people**





# Outline



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- The Present: existing policy instruments
- 1- The EU Climate Change and Renewable Energy package (2008): environmental concerns as a policy driver
- 2- The specific mandate of 10% Renewable Energy in ground transport by 2020: the promise of a growing pie for biofuels
- 3- Sustainability Criteria for Biofuels: science-based and transparent, not an obstacle to trade
- 4- Harmonization of standards: biofuels as a globally-traded commodity
- Conclusion



# The Present: EU policy framework for Renewable Energy



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## Policy papers and legislation related to biofuels

- ▶ Fuel Quality Directive - March 2003
- ▶ Biofuels Directive – May 2003
- ▶ Energy taxation Directive – October 2003
- ▶ Biomass Action Plan – December 2005
- ▶ Biofuels Strategy – February 2006



# 1- The Climate Change and Renewable Energy Package



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- ▶ **Conclusion of the EU Council of March 2007: Action Plan for launching a “New Energy Policy for Europe”**
- ▶ **Commission’s proposal on the Climate Action & Renewable Energy (CARE) package adopted in January 2008**
- ▶ **Agreement at the end of December 2008 between EU Council and EU Parliament**
  - ▶ **Cut GHG emissions by 20% by 2020**
  - ▶ **Improve energy efficiency by 20%**
  - ▶ **Establish a 20% share for renewable energy by 2020**



# 1- The new Renewable Energy Directive: 20% RE by 2020



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**Objective: 20% renewable energy by 2020**

**Scope: It covers:**

- **All Renewable Energy sources: biomass & biogas, wind, solar, geothermal, hydrothermal & ocean energy, hydropower**
- **Sectors: Transport fuel, heating & Cooling, electricity**

**Entry into force of the Directive expected May 2009**

**To be implemented by Member States 18 months after publication at the latest (autumn 2010)**



# 1- The new Renewable Energy Directive: Draft text



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The following sections should be of particular interest:

- **art. 3.3** Legislative language setting up the 10% mandate
- **art.4** National action plans
- **art. 15** Sustainability criteria (35% GHG saving + future targets; other restrictions related to environment and biodiversity)
- **art.16** Verification of compliance with sustainability criteria
- **art. 17** Calculation of GHG savings + Annex VII default values per production pathway
- **art. 20** Monitoring and reporting by Commission (of which: 20.2 food prices, 20.5 (a) international trade, 20.5 (f) indirect land use change)
- [http://ec.europa.eu/energy/renewables/biofuels/biofuels\\_en.htm](http://ec.europa.eu/energy/renewables/biofuels/biofuels_en.htm)



## 2- The 10% mandate of RE in ground transport by 2020



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- **Binding for each Member State**
- **10% of RE in final consumption of petrol, diesel & electricity to goes to ground transportation**
  - **All types of RE are eligible (technologically neutral)**
- **Incentive Mechanisms to boost innovation:**
  - **Second-Generation biofuels from wastes, residues, ligno/cellulosic count x2**
  - **Electricity in cars counts x2.5**



## 2- The 10% mandate of RE in ground transport by 2020



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### Signals for the future:

- Car makers need a signal to build for high biofuel blends;
- industry needs a signal to invest in second generation;
- the oil market needs a signal that we are serious about alternatives



## 3- Sustainability criteria for Biofuels



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- **Objective: ensure that first generation biofuels will generate net benefits → the first scheme of its kind in the world**
- **Condition of eligibility to the mandate & support**
- **So far, applied to Biofuels (liquid & gaseous fuels used in transport)**
- **By end-2009: The Commission shall report & possibly propose sustainability requirements for other biomass and energy uses**



## 3- Sustainability criteria for Biofuels



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- **Growing GHG saving thresholds, from 35% to 50% from 2017 (60% for new plants)**
- **No conversion of wetland, continuously forested area”, peatland (high carbon-stock land)**
- **Avoid losses of highly biodiverse grassland: No use of raw material from primary forest, protected areas, highly biodiverse grassland**
- **Ensure environmental & social standards (cross-compliance, reporting obligations from operators)**



# GHG saving



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- **GHG = CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>**

## Threshold for Greenhouse gas savings

	2009	Autumn 2010	1 April 2013	2017
Production started after January 2008	Directive not in force	35%	35%	50%
Production started before January 2008	Directive not in force	grandfathered	35%	50%
Production started from 2017 onwards	N/A	N/A	N/A	60%



# GHG saving



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## Lifecycle analysis: from cultivation to final use

### The directive sets:

- Default values
- Method for calculating GHG saving

### Biofuel producers can choose to:

- use default values; or
- provide actual values, if so wished

## Land use change, is part of the Lifecycle analysis



# Treatment of co-products



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## **Allocation rather than Substitution**

## **Allocation by Energy rather than Mass or Economic value:**

- **Mass: results are much more generous than other methods**
- **Economic value: creates undesirable uncertainty for investors**
- **Energy: results are comparable to those of substitution (depending on use of co-product)**
- **Agricultural crop residues not counted**



# GHG saving



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**Description and detailed energy and GHG balance of individual pathways - Appendix 2 of the Well-To-Tank (WTT) report Version 3.0 November 2008**

**<http://ies.jrc.ec.europa.eu/uploads/media/WTT%20App%2002%20v30%20181108.pdf>**

**Input data relevant to calculating default GHG emissions from biofuels according to RE Directive Methodology (Spreadsheet using the methodology specified by the European Commission in the draft EU Directive on the promotion of the use of energy from renewable sources)**

**[http://re.jrc.ec.europa.eu/biof/html/input\\_data\\_ghg.htm](http://re.jrc.ec.europa.eu/biof/html/input_data_ghg.htm)**



# Land with high carbon stock



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- **Land use change (positive and negative) is counted in the greenhouse gas calculation**
- **No conversion of:**
  - **Wetland**
  - **‘Continuously forested area’**
  - **Undrained peatland**
- **Commission report in 2010 on how to address indirect land use change**



# Social sustainability



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- **Companies to report on certain social aspects like labour standards etc.**
- **Commission to determine what reporting is appropriate**
- **Commission monitoring on the same issues**
- **Commission monitoring the impacts on food security**
  - **Difficult to link to individual consignments of biofuel**
  - **Effects not necessarily negative**
  - **May raises issues under international (trade) law**
- ▶ **Therefore no criteria, but monitoring rules**



## 4- Biofuels standards and International Trade



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### 1. International Standards for Biofuels

**Brazil, the US and the EU have established expert working groups on international compatible Standards for biodiesel and bioethanol.**

### 2. The International Biofuels Forum

**Brazil, the US, China, India, South Africa & the EU have created the IBF aiming to facilitate international trade of biofuels**

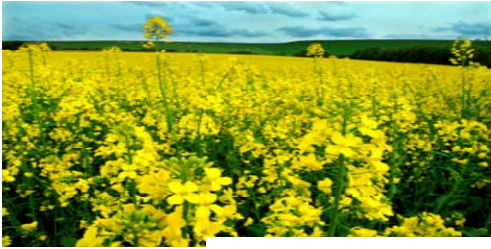


# Looking forward



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- **Renewable energy: a key element of a sustainable future**
  - **Significant reduction of GHG emissions**
- **In the future: more diversified feedstocks – better economic and environmental perspectives**
- **Research and technological development – more advanced and more cost-efficient biomass production technologies**



# Conclusion



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*Thank you for your attention !*

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# What the Commission will do in...



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**2009**

- **Adopt template for NAPs**
- **Report on Biomass sustainability criteria**
- **Criteria for biodiverse grassland**
- **Criteria for degraded land**
- **List of biofuel sustainability reporting requirements for economic operators**
- **Decisions (if applied for) on compliance of national or intl voluntary schemes**



# What the Commission will do in...



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## 2010

- Report on indirect land use change
- Guidance for MS on areas with lower GHG values from agriculture
- Report on feasibility of area lists with lower GHG values in 3rd countries
- Report on operation of sustainability verification methods

## 2011

- Methodology for accounting RES in electric vehicles
- Methodology for accounting RES in hydrogen vehicles



# What the Commission will do in...



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## 2012

- First bi-annual biofuels sustainability reports on impacts in MS and 3rd countries
- First RES progress report, including on biofuels progress
- Report on the effectiveness of sustainability criteria reporting system and operation of the verification systems
- Report on typical and default GHG (new Annex V) and possible adaptation of GHG values to scientific progress

## 2014

- General review report incl. on feasibility of passing to higher GHG threshold, availability of 2nd generation biofuels