EU Policy and Targets for Biofuels

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Structure

1. What is the Commission proposing?
2. How could the target be achieved?
3. Key issues for the effectiveness of the legislation
4. What are the main features of the sustainability scheme?

1. What is the Commission proposing?

What is the Commission proposing?

Energy and Climate Package

In March 2007 the European Council agreed on new EU energy and climate policy objectives and a 3-year action plan to achieve them.

- Ø By 2020, 20% GHG reduction (30% provided there is an international agreement), 20% energy efficiency savings and 20% renewable energy in the EU energy mix (including 10% of biofuels used in road transports)

The EC presented measures to implement these objectives and asked Council and EP to work constructively to find the consensus to adopt and implement them:

- Ø Commission's legislative proposal on internal energy market, adopted on 19 September; A Progress Report endorsed by Energy Council on 3 December.
- Ø Strategic Energy Technology Plan (SET-Plan), adopted by the EC on 22 November, discussed also at the December Energy Council and due for debate/endorsement by the Council in March 2008.

On 23 January 2008 the EC presented its climate change and energy package. It includes a revision to the Emission Trading Scheme and a Directive on renewable energy which will be setting:

1. binding national targets for renewable energy;
2. flexibility rules establishing guarantees of origin and allowing trade in renewable energy;
3. a binding 10% target for biofuels in road transport fuels by 2020 and rules relating to biofuels sustainability.

A separate target for biofuels is needed because:

- biofuels cost more than other forms of renewable energy;
- without a separate biofuel target, their development will fall behind;
- this would mean low reductions in oil use and less GHG benefits in transport;
- to send signals for the future: car makers need a signal to build for high biofuel blends; industry needs a signal to invest in 2nd generation; the oil market needs a signal that the EU is serious about alternatives.

Expected costs and benefits from the 10% target (figures for 2020):

Greenhouse gas savings:	68 million tonnes CO_2eq
Reduced imports of oil from Middle East and CIS countries:	33 million tons
Employment in EU:	up to 120 000 jobs
GDP:	up to + 0.17%
Cost:	€4.3 - €11.6 bn

2. How could the target be achieved?

How could the target be achieved?

A biofuel share of 14% in 2020 is feasible (43 Mtoe):

- **It could be done with 80% domestic raw material or with more imports.**

- **Domestic approach:**

Ø costs more;
Ø delivers more EU jobs;
Ø misses some environmental benefits (Brazilian ethanol – 90% GHG savings);
Ø avoids some environmental risks (soy oil and palm oil).

How could the target be achieved?

A minimum target should be less than the feasible level of 14%:

- **EC proposed a 10% minimum biofuel target based on a more cautious approach to:**

Ø biodiesel from vegetable oil (with limited growth until environmental safeguards are in place);
Ø 2nd generation biofuel (especially "BTL") – slow development assumed.

How could the target be achieved?

How do we get there? – A possible way to achieve the 10% market share!

Ø 20% blend of ethanol	**19 Mtoe in 2020**
Ø 10% blend of biodiesel	**10 Mtoe in 2020**
Ø small BTL contribution	**2 Mtoe in 2020**
	required 31 Mtoe in 2020

How could the target be achieved?

With some availability of 2nd generation biofuel, EU25 could deliver 11% domestically (33-34 Mtoe)!

- **This would require 18 million hectares:**

Ø 7 million from set-aside;
Ø 7 million from (subsidised) cereal exports;
Ø 4 million that would otherwise fall out of agricultural use.

3. Key issues for the effectiveness of the legislation

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1. Minimum environmental standards for biofuels benefiting from public support;
2. Developing of global markets and standards;
3. EU market opening in cereals and ethanol;
4. Technology for 2nd generation biofuels to widen the pool of biofuel feedstocks.

Key issues for the effectiveness of the legislation

In the renewable energy roadmap, the EC identified three factors that need to be taken into account in the design of an optimal legislative framework for the promotion of biofuels:

Ø criteria for the sustainability of biofuels, tools to promote the development of 2nd generation biofuels and other especially desirable biofuels, and ensuring that fuel standards are compatible with the efficient achievement of the 10% target.

The conclusions of the 2007 spring European Council also identified the need to pay attention to these three factors, as did the EP's vote on the Thomsen report.

Key issues for the effectiveness of the legislation

- **It was not the function of the Directive on renewable energy and its accompanying impact assessment to repeat the investigation of whether the 10% biofuels target is appropriate.**

- **The issue to be addressed was how to design a legislative proposal that will ensure that the 10% target is achieved in an optimal way.**

What further action is needed to make it possible to achieve a 10% biofuel share?

- **The EC has already proposed the necessary amendments to the Fuel Quality Directive as far as blending of ethanol is concerned.**

Ø *Proposal under consideration by Council and Parliament*

- **MS have asked for equivalent amendments to be introduced in that Directive for biodiesel blends.**

Ø The EC is recorded of having rejected this on the basis that *"such blends did not give rise to health or environmental problems and therefore such a provision would not be consistent with the scope."*

What further action is needed to make it possible to achieve a 10% biofuel share?

- **The EC has given the European Committee on Standardisation (CEN) a mandate to amend the diesel standard to allow a 10% biodiesel blend.**

Ø *Process may take a long time and may not lead to widespread availability of fuel containing 10% biodiesel*

- **To fill this gap, the EC proposed a provision for the necessary increase from 5% to 10% in the share of biodiesel that can routinely blended in diesel.**

How should the use of 2nd generation biofuels be encouraged?

- In its consultation document, the EC put forward the idea of a bonus for 2nd generation biofuels and asked how these should be defined.
- In the consultation exercise there was widespread support for the idea of a bonus for certain biofuels – though not necessarily those conventionally defined as 2nd generation.

How should the use of 2nd generation biofuels be encouraged?

- **The main options proposed by consultees were the following:**

Ø a bonus for biofuels that are locally produced;
Ø a bonus for biofuels that diversify sources of supply;
Ø a bonus for biofuels that use advanced technologies;
Ø a bonus for biofuels that ease land-availability constraints;
Ø a bonus for biofuels made from inedible raw materials.

How should the set of especially desirable biofuels be defined?

- **Option B *"diversification of sources of supply"* is recommended:**

Ø Today, biofuels are made predominantly from agricultural crops. In order to implement option B it is necessary to give a bonus for the use of 1) (ligno)-cellulosic materials such as wood and 2) organic waste materials which can be supplied domestically and imported.

Ø This will provide further diversification away from both conventional fuels and fuels based on agricultural crops, complementing the bonus for biofuels with good GHG performance that the Commission has proposed as an amendment to the Fuel Quality Directive.

What bonus should especially desirable biofuels receive?

- Support schemes can be divided into “obligations” and “financial support”. The requirements can only apply to obligations, and financial support that does not qualify as state aid.
- It is recommended to introduce a requirement for Member States to give double weighting in their biofuel obligations to biofuels that diversify feedstock sources.

Key issues

Ensure biofuel sustainability

- **The EC is taking the widespread criticism of biofuels in media and public serious but strongly believes that there are good reasons for an ambitious biofuels policy, including the objectives of sustainability, competitiveness and security of supply.**

- **Therefore, as already announced in the Biomass Action Plan, it is <u>essential</u> to put a system in place to tackle problems like:**

Ø high GHG-production techniques;
Ø major biodiversity loss/deforestation.

4. What are the main features of the sustainability scheme?

How should a biofuel sustainability system be designed?

- **In line with the Renewable Energy Roadmap, the proposal for a sustainability scheme should …**

Ø discourage the use of high GHG-production techniques for biofuel production and the conversion of land with high biodiversity value/deforestation for the purpose of cultivating biofuel feedstocks;
Ø avoid any discrimination between domestic production and imports and should not act as a barrier to trade (WTO-rules);
Ø be monitored/reviewed with a view to making it more sophisticated in future;
Ø esp. regarding its possible extension to energy uses of biomass outside the transport sector.

How should a biofuel sustainability system be designed?

- **Concerning the sustainability of biofuels, the following questions are assessed:**

1. *What aspects of the impact of producing biofuels should sustainability criteria cover?*
2. *How should the impact of producing biofuels be measured?*
3. *What should be the required minimum level of performance?*
4. *What should be the consequences of failing to meet the required minimum level of performance?*
5. *How should performance be verified?*

What aspects of the impact of producing biofuels should sustainability criteria cover?

- **The impact assessment accompanying the Directive on renewable energies explored the following effects of biofuel promotion:**

Ø *greenhouse gas impacts;*
Ø *biodiversity impacts;*
Ø *other environmental impacts;*
Ø *food security impacts;*
Ø *social impacts;*
Ø *security of supply impacts;*
Ø *additional impacts from indirect land use change.*

What aspects of the impact of producing biofuels should sustainability criteria cover?

- **In deciding whether or not to include a particular type of impact, the following criteria were used:**

Ø feasibility of associating impacts with individual consignments of biofuel;
Ø international law aspects;
Ø possibility of biofuel production having a negative impact.

What aspects of the impact of producing biofuels should sustainability criteria cover?

- **The assessment has shown that it is not feasible to associate food security impacts with individual consignments of biofuel.**
- **It is also not recommended to include social criteria.**

What aspects of the impact of producing biofuels should sustainability criteria cover?

- **It is recommended to proceed as follows:**

Ø Criteria for GHG impacts, biodiversity impacts and other environmental impacts should be included, if technically feasible, and should be applied to individual consignments of biofuel.
Ø Because the sustainability criteria will then relate only to environmental aspects, they should be described as environmental sustainability criteria.
Ø The Directive also provides for regular monitoring and reporting of the overall food security impacts and social impacts (positive and negative) of the EU policy of biofuel promotion.

How should the impact of producing biofuels be measured?

- **It is possible to measure GHG impacts in a reliable way; an appropriate methodology has been devised, following extensive stakeholder consultation.**

How should the impact of producing biofuels be measured?

- **It is possible to identify certain high-biodiversity habitats in a reliable way, but the scope of this is limited:**

Ø It is concluded that it is desirable to avoid the use of land with high biodiversity value for the production of biofuels, if this use would put the biodiversity in danger.

Ø The key measurement task is therefore the identification of such land.

Ø Forest habitats undisturbed by human intervention hold species that are especially diverse and often threatened elsewhere in their range, as do certain types of grassland. These habitats can be reliably identified.

Ø Beyond this statement, which can command a relatively wide range of support, there is little consensus about how the biodiversity of habitats should be measured.

How should the impact of producing biofuels be measured?

- **It is <u>not</u> possible to define other environmental impacts in a reliable way:**

Ø It has proved impossible to identify a data source that could permit the definition of appropriate substantive criteria for other environmental requirements, such as those relating to soil and water management, in a reliable form.

What should be the required minimum level of performance?

- **It is recommended to lay down the following minimum environmental sustainability requirements for biofuels:**

Sustainability criterion 1 – achieving a minimum level of GHG savings:

- **Biofuels used to fulfil the requirements of the legislation should achieve at least a minimum GHG saving of 35%:**

Ø *defined method of calculation;*

Ø *land use change taken into account; spread over 20 years.*

Sustainability criterion 2 – avoiding major reduction in high carbon stocks through land use change

Ø *Biofuels used to fulfil the requirements of the directive should not use raw material from land that had the status in January 2008 of wetland or forest and no longer has this status.*

Sustainability criterion 3 – avoiding major biodiversity loss from land use change

- **Biofuels used to fulfil the requirements of the directive should not use raw material from land that …**

Ø *had the status in January 2008 of forest undisturbed by human activity or of certain types of grassland;*

Ø *had the status in January 2008 of an area designated for nature protection purposes, unless it can be shown that the production of biofuels did not interfere with those purposes.*

Sustainability criterion 4 – EU environmental law (within! EU)

Ø *Extension of the 'cross-compliance' environmental criteria to all agricultural raw materials produced in the EU and used to make biofuels.*

What should be the consequences of failing to meet the required minimum level of performance?

- **Biofuels that do not meet one of the minimum requirements …**

Ø will not count towards national targets under the Directive on the promotion of renewable energy;
Ø will not be eligible for financial support for the consumption of biofuels;
Ø will not count towards national biofuel obligations.

How should performance be verified?

- **Member States should be responsible for verifying compliance.**

- **The legislation defines types of evidence that MS would have to accept as proof that the criteria were fulfilled. Possibility of accreditation of schemes which MS must accept as evidence:**

1. bilateral and multilateral agreements;
2. industry-based certification schemes;
3. national, multinational or international schemes to measure GHG savings.

- **Verification should be through the mass balance method, review whether to include book and claim.**

- **Limits on MS's ability to set more rigorous standards.**

Thank you very much for your attention!

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