

INDIRECT LAND USE CHANGE IMPACTS OF BIOFUELS - CONSULTATION

Introduction

The Renewable Energy Directive and Fuel Quality Directive require the Commission, by the end of 2010, to submit a report to the European Parliament and to the Council

- reviewing the impact of indirect land use change on greenhouse gas emissions of biofuels¹ and
- addressing ways to minimise that impact.

The report shall, if appropriate, be accompanied by a proposal based on the best available scientific evidence, which could also contain a concrete methodology for emissions from carbon stock changes caused by indirect land-use changes.

In the summer of 2009 the Commission sought views on possible elements of a policy approach to address such impacts in a "pre-consultation", without taking a view on whether such action would in fact be needed. All the contributions received were made public and can be found at

http://ec.europa.eu/energy/renewables/consultations/2009_07_31_iluc_pre_consultation_en.htm

The Commission has also launched a number of analytical exercises in order to better understand the magnitude of these impacts:

- *Global trade and environmental impact study of the EU biofuels mandate*
- *Impacts of the EU biofuel target on agricultural markets and land use: a comparative modelling assessment*
- *The impact of land use change on greenhouse gas emissions from biofuels and bioliquids – literature review*
- *Indirect land use change from increased biofuels demand – comparison of models and results for marginal biofuels production from different feedstocks*

The final versions of these reports can be found at

http://ec.europa.eu/energy/renewables/studies/land_use_change_en.htm

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¹ The requirement in the Renewable Energy Directive also applies to bioliquids. References to 'biofuels' in this consultation document should be taken as also applying to bioliquids.

Next steps

In order to ensure that the contents of the report and any accompanying recommendations or proposals reflect the latest thinking and available evidence on this subject, the Commission is now seeking the views of stakeholders and other interested parties on a number of questions, listed below:

1) Do you consider that the analytical work referred to above, and/or other analytical work in this field, provides a good basis for determining how significant indirect land use change resulting from the production of biofuels is?

In answering this question you may for example wish to comment on:

- projected volumes of conventional and advanced biofuels in 2020
- assumptions around EU vehicle fleet and infrastructure in 2020, including diesel/petrol split and pace of introduction of new technologies
- models' treatment of crop yield growth "in the baseline" and in response to growth in demand;
- the underlying land use data
- the carbon stock values used in modelling and type of converted land
- models' treatment of co-products
- significance of the results in terms of hectares of land use change and emissions

Comments from Spain:

Spain considers this analytical work is only a first step in order to know the current status of scientific knowledge about indirect land use change. It does not provide a scientific basis for quantifying ILUC because there is not a scientific consensus on this issue. Further work is needed to improve our understanding of and ability to quantify possible indirect effects resulting from the production of biofuels.

2) On the basis of the available evidence, do you think that EU action is needed to address indirect land use change?

Comments from Spain:

Spain agrees with this statement from the report on literature review conducted by DG Energy ([The impact of land use change on greenhouse gas emissions from biofuels and bioliquids – literature review](#), page 10): “*It will never be possible to physically observe indirect land use change. It will never be possible, looking forward, to say that the introduction of a biofuel policy will lead to the conversion of a particular, identified piece of land. It will never be possible, looking back, to say that the introduction of a biofuel policy was the cause of a particular identified piece of land being converted. It follows that the assessment of the impact of land use change requires the use of modelling*”.

Taking into account the aforementioned paragraph, using terms like “available evidence” in the title of the question does not seem appropriate, because there will never be such a thing. Indirect land use change has been described as a theoretical effect which could exist under certain conditions, according to some generic models. Besides, current models show huge

divergences in their results. These models were not designed to quantify this issue and, as a consequence, they don't work properly. They have many uncertainties and, in most cases, required input data are not available.

In line with that rationale, Spain does not support any EU legislative action to be taken at the present time. The first work needed in order to address indirect land use change in a rigorous way is to support new analytical assessments, new complete studies intended to develop accurate models that can be globally accepted by the scientific community.

3) If action is to be taken, and if it is to have the effect of encouraging greater use of some categories of biofuel and/or less use of other categories of biofuel than would otherwise be the case, it would be necessary to identify these categories of biofuel on the basis of the analytical work. As such, do you think it is possible to draw sufficiently reliable conclusions on whether indirect land use change impacts of biofuels vary according to:

- feedstock type?
- geographical location?
- land management?

If so, please say which, and indicate the evidence used to reach your conclusion.

Comments from Spain:

Spain considers it is not possible to draw reliable conclusions on indirect land use change impacts from the current scientific knowledge, which is consistent with the position expressed earlier about questions (1) and (2).

4) Based on your responses to the above questions, what course of action do you think appropriate?

A. Take no action for the time being, while monitoring impacts including trends in certain key parameters and, if appropriate, proposing corrective action at a later date

Please say how the monitoring should be done and what these parameters should be.

B. Take action by encouraging greater use of some categories of biofuel

Please say which biofuels, why and what sort of encouragement should be given.

C. Take action by discouraging the use of some categories of biofuel

Please say which biofuels and why, as well as what sort of measure should be taken, for example:

- increasing the minimum greenhouse gas saving threshold for biofuels

- imposing additional sustainability requirements on certain categories of biofuel (these could, for example, require the use of practices that can help mitigate indirect land use change impacts)
- attributing a quantity of greenhouse gas emissions from indirect land use change to all biofuels that use land²

If the latter, please say how this should be calculated, and demonstrated – for example:

- a factor based on the estimated (modelled) land use change from a *marginal* extra quantity of crop production;
- a factor based on the *average* land use change from crops over some recent period;
- a factor based on any other consideration.

Please also say

- whether it should be reviewed and if so how often
- whether it should be implemented with any accompanying measures

D. Take some other form of action

Please say what action and why

Comments from Spain:

Spain proposes the following tasks to be carried out:

E. Take no legislative action for the time being and support new studies and assessments intended to get more information about indirect land use change and to develop a transparent, accurate, science-based model to quantify its impacts (positive or negative). These works must help to achieve a high level of scientific consensus on the methodology used to depict indirect land use change effects with a minimum degree of uncertainty.

The existing required level of greenhouse gas savings in the Directive 2009/28/EC is considered to be enough, especially taking into account that the assumptions made during the process of drawing up the Directive were very conservative for the production of biofuels and bioliquids (e.g. typical values vs. default values or the consideration of co-products in the second paragraph of Annex V.18).

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In commenting, respondents are invited to justify their responses to all questions by reference to available science.

This paper is without prejudice to the Commission's final position.

² It should be pointed out that in fact, what is calculated by the modelling work on this topic is the quantity of additional "land use change", not "indirect land use change", in a scenario with biofuels.

You are invited to submit comments to the mailbox ec-land-use-change-biofuels@ec.europa.eu by 31st October 2010. If respondents wish to submit confidential responses, they should indicate clearly which part of their submission is confidential and should not be published on the Commission's website. All other submissions, not clearly marked as confidential, will be placed on the website by the Commission.