

DANISH ENERGY AGENCY RESPONSE TO

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:

Danish Energy Agency Response to consultation on a number of questions concerning indirect land use change.

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

Answer of Danish Energy Agency: The analytical work presented by the Commission shows that the production of biofuels can be expected to cause indirect land use changes which in their turn cause greenhouse gas emissions. The analyses all point in the same direction, namely that indirect land use change effects will occur.

The size of the effects varies across the analyses due to different assumptions, methodology and data, and there are still aspects that no studies have addressed. These issues have significant impact on the studies' results.

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

Answer of the Danish Energy Agency: On the basis of the answer to question 1, the DEA believes that EU action is needed though the basis for action should be further ensured.

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

Answer of the Danish Energy Agency: The analytical work indicates that ILUC-effects vary between biofuels for instance due to the kind of crops/materials used as a raw material.

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

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.

Please say what action and why

Answer of the Danish Energy Agency: Based on the results of the analytical work initiated by the Commission and referred to above it is not sufficient to monitor and to postpone action to a later date.

The DEA still urges the Commission to put forward a proposal for measures that could minimize the ILUC effect, as requested in the Renewable Directive.

The regulation should support the use or introduction of low-risk biofuels, such as biofuels based on residues, waste and/or lignocellulosic materials (second generation biofuels).

As for crop based biofuels a pragmatic approach at this stage could be to propose the same ILUC factor for all high risk crop based biofuels. The factor could at a later stage be increased or reduced for specific biofuels when more analytical work is available.

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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.

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.