TRANSPORT & ENVIRONMENT

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Briefing

Biofuels and ILUC

Context

Two EU laws adopted in 2009 promote the use of biofuels in the EU, ostensibly for the purpose of reducing greenhouse gas (GHG) emissions from the transport sector. However, both the Renewable Energy Directive (RED) and Fuel Quality Directive (FQD) could lead to higher, not lower greenhouse gas emissions unless the issue of Indirect Land Use Change (ILUC) is resolved.
In October 2012, the European Commission published a proposal trying to address the problem. The proposal formally relieves member states from the need to further support or mandate food crop-based biofuels above today's level of about 5%. While this is a step in the right direction, it still fails to properly account for GHG emissions from ILUC. This means that regulations still favour bad biofuels over good ones in three ways:

- the FQD still stimulates fuel suppliers to blend high-ILUC biofuels such as conventional biodiesel in their petrol and diesel;
- the RED still incentivizes member states to expand use of high-ILUC - but non-food - biofuels;
- cleaner, low-ILUC biofuels are still not properly incentivized, in particular in the FQD.

What is ILUC?

The production of biofuels can indirectly cause additional deforestation and land conversion. When existing agricultural land is turned over to biofuel production, agriculture has to expand elsewhere to meet the existing (and ever-growing) demand for crops for food and feed. This expansion happens at the expense of forests, grasslands, peat lands, wetlands, and other carbon rich ecosystems. This results in substantial increases in greenhouse gas (GHG) emissions from the soil and removed vegetation.

What should the EU do?

Environmental groups are calling on the European Parliament and Council to strenghten the Commission's proposal to ensure that only biofuels that reduce GHG emissions can count to the targets and receive public support. In order to achieve this, they should:

- introduce 'ILUC factors' for different biofuel sources so the FQD and RED incentivize biofuels on the basis of their environmental performance;
- refine definitions for biofuels that are truly low-ILUC;
- scrap quantity targets for biofuel in transport (in the RED) completely and just continue with greenhouse gas reduction targets defined in the FQD.

Background

Biofuels and the Renewable Energy Directive (RED)

The current RED requires EU member states to source 10% of transport energy from renewable sources, mainly biofuels, by 2020. The law includes 'sustainability criteria' that dictate the minimum CO2 savings biofuels should achieve relative to fossil fuels in order to qualify for the scheme (and receive state subsidies). These criteria only account for the emissions that occur when land is converted specifically to grow biofuel crops (direct land use change).

Although the official objective of the October 2012 proposal from the European Commission is to deal with ILUC emissions from biofuels, it only requires member states to report these emissions; it does not include them within the sustainability criteria.

Instead, the Commission decided to relieve Member States of the need to source more than 5% of the renewable energy mandate from food-based crops, and introduced double- and quadruple-counting of some types of "advanced" biofuels.

Biofuels and the Fuel Quality Directive (FQD) – Article 7a

The FQD requires fuel suppliers to reduce the carbon footprint of transport fuels by 6% per unit of energy by 2020. It was expected that using more biofuels would be an important way for suppliers to meet that target. The same biofuels sustainability criteria agreed for the RED apply. In the current proposal, the Commission proposes no measures to address ILUC under the FQD.

What is at stake?

Many conventional biofuels, in particular many types of biodiesel, have such high ILUC emissions that including these emissions would cause them to no longer pass criteria for GHG savings. An area of additional land up to the size of Ireland will be cleared, most likely in the developing world, to grow the lost food crops [1]. Development groups such as Oxfam have warned of devastating impacts on poor communities in the developing world [2].

Is there a scientific consensus that ILUC is a real problem?

Numerous scientific and public bodies agree that ILUC is real and should be accounted for when calculating the GHG emissions from biofuels [3]. The European Commission has ordered five separate studies of its own and consulted extensively with scientists who also agreed that ILUC is a problem, and separate ILUC CO2 'factors' for each type of biofuel crop would be the best way of tackling the issue. The latest study for the Commission's trade department by the International Food Policy Research Institute (IFPRI) assesses the impact of various policy options for dealing with ILUC [4]. It concludes that "emissions related to land use changes driven by biofuels policies are a serious concern". It also says that biofuels in terms of environmental benefits "may not be the best tool to achieve initial (climate) targets".

What will be the impact of the current proposal to address ILUC?

The current proposal does not include ILUC in the calculation of GHG emissions, but instead says Member States do not have to source more than 5% of the 10% RED target from food-based biofuels. Since fuel suppliers can still count high-ILUC biofuels including biodiesel towards their 6% GHG reduction target in the FQD and give them financial support, it is unclear what environmental impact this proposal will have.

Industry complaints that billions of investments will be lost are untrue. An independent report from consultancy Ecofys shows that if use of biofuels in Europe is frozen at today's levels i.e. slightly below 5%, 95% of investments in current biodiesel installations would be paid back at the end of 2017. Plants built between the years 2003 and 2008 would also be expected to turn a profit [6].

From a business economics perspective, it therefore makes sense to include ILUC factors in the GHG emissions calculation in both Directives from 2017 onwards.

Are biofuels being unfairly targetted?

Biofuels were introduced as a measure to reduce GHG emissions - but scientific evidence shows many do not. The amount of biofuel used in Europe is mandated by law and the fuels themselves are often subsidised with public money. Many activities have a negative impact on the climate, such as eating beef or flying. But unlike for biofuels the EU has not passed laws forcing everyone to get 10% of their calories from eating beef, or fly for at least 10% of their transport!

Wouldn't it be better to ditch biofuels targets altogether?

Yes. Whilst there are good and bad biofuels the problem with a quantity target is that it treats all biofuels the same. T&E has consistently backed carbon-reduction targets for all transport fuels, such as the FQD over technology-specific volume targets such as the RED's biofuels mandate. Getting rid of 10% target in RED and accounting for ILUC from biofuels under the FQD, remains our preferred approach.

Contact

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Footnotes

1. http://ec.europa.eu/clima/policies/transport/fuel/docs/com_2012_595_en.pdf
2. See IEEP report briefing - http://www.transportenvironment.org/publications/impacts-europes-biofuel-plans-carbon-emissions-and-land
3. See Oxfam report - http://oxfameu.blogactiv.eu/2011/09/29/the-eu-must-urgently-fix-biofuels-policy-driving-scramble-for-land-in-poor-countries/
4. See T&E briefing on scientific reports on ILUC - s http://www.transportenvironment.org/what-we-do/what-science-says-0
5. See DG Trade website - http://trade.ec.europa.eu/doclib/docs/2011/october/tradoc_148289.pdf
6. http://www.transportenvironment.org/sites/te/files/media/ecofys_2012_grandfathering_iluc.pdf

www.transportenvironment.org/biofuels