

Proposed amendments to EU Fuel Quality and Renewable Energy Directives

ICCT POLICY UPDATES

SUMMARIZE REGULATORY
AND OTHER
DEVELOPMENTS
RELATED TO CLEAN
TRANSPORTATION
WORLDWIDE.

SUMMARY

Recently (29 September, 2012), we provided an update on a draft proposal from the European Commission to amend Europe's Renewable Energy Directive (RED) and Fuel Quality Directive (FQD) to address indirect land use change. The proposal is in the form of a new Directive that would amend sections of the existing Directives if passed into law. The headline measures in that draft proposal were:

1. The introduction of ILUC factors into the carbon accounting under the Fuel Quality Directive target for reducing the carbon intensity of EU road transport fuels by 6% by 2020;
2. A proposed cap of 5% for the contribution of food based biofuels towards the Renewable Energy Directive target that 10% of energy for transport should be renewable by 2020;
3. A commitment to end market support for food based biofuels beyond 2020.

On 17 October, 2012, the European Commission released a finalized version of that proposal, which will now be submitted to the European Parliament and Council and enter the 'co-decision' process. The final Commission proposal contains some important changes from the draft proposal, and has been described as 'watered down'¹ and as a 'missed opportunity'² by social and environmental NGOs, while despite gaining concessions since the draft was leaked the biofuels industry has called it 'totally unacceptable'³ and an 'unacceptable breach of confidence'.⁴

The final proposal varies from the draft in several key ways. Crucially:

1. ILUC factors would be introduced for reporting, but would not have regulatory effect. In particular, biodiesel would be credited with substantial carbon savings for compliance with the FQD, even while at the same time fuel suppliers would have to *report* that with ILUC included there were no savings.

1 Oxfam
2 Transport and Environment
3 The 'Biofuels Value Chain' coalition
4 Copa Cogeca

2. Language is introduced to make it more clear that the ‘cap’ of 5% is in no sense an absolute limit on the use of biofuels, but only on their contribution to the targets in the Renewable Energy Directive. It would, for instance, be possible (and arguably likely) under this proposal for food-based biofuels to be used above the 5% cap to comply with the carbon savings target in the FQD.
3. The language around the phase out of regulatory support for food based biofuels has been amended. The recitals now commit that “only advanced biofuels with low estimated indirect land use change impacts and high overall greenhouse gas savings should be supported as part of the post 2020 renewable energy policy framework.” This is less categorical than the language in the draft, but the message is still clearly that Europe is looking to move beyond first regulatory support for first generation fuels.

BACKGROUND ON EU DIRECTIVES

In 2009, the EU Commission passed two major directives supporting the increased use of renewable fuels. The [Renewable Energy Directive \(RED\)](#) mandates that 20% of all energy usage in the EU, including at least 10% of all energy in road transport fuels, be produced from renewable sources by 2020. Alongside the RED, an amended [Fuel Quality Directive \(FQD\)](#) was passed requiring that, by 2020, the road transport fuel mix in the EU should be 6% less carbon intensive than a fossil diesel and gasoline baseline. The Directives include sustainability criteria to prevent production of biofuels on recently deforested land or ecosystems with high biodiversity, and also require qualifying renewable fuels to meet a GHG savings threshold of 35% based on a defined lifecycle analysis methodology (see RED, Article 17, Section 2). This methodology does not currently include indirect emissions, but the Directives include a requirement that the Commission propose an appropriate methodology to deal with ILUC.

The biofuel support framework has been controversial, both for the absence of indirect emissions accounting and for the impact of expanding biofuel mandates on global food prices. Groups including the [World Bank](#) have found that biofuels increase food prices and price volatility, leading to calls from several Intergovernmental Organizations, as well as anti-poverty NGOs, to revise targets downwards. [Research for the European Commission](#), has suggested that ILUC emissions significantly reduce the potential carbon savings from biofuels and that biodiesel from vegetable oil is unlikely to deliver any emissions savings at all. Introducing ILUC factors, which are already included in American biofuel legislation, has been suggested as one response to this evidence.

WHAT IS IN THE NEW PROPOSAL?

The RED and FQD require the EU Commission to make a proposal to address indirect land use change by the end of 2010 (RED, Article 19, Section 6). This is the (somewhat delayed) proposal from the Commission in response to that mandate. The proposal will go to the European Parliament and Council of Ministers, both of which have a right to negotiate amendments to the proposal with the Commission (and each other), or to reject the proposal altogether. Only when all three bodies agree will the proposal become a directive.

If passed, the proposal would introduce statutory reporting of indirect land use change based on factors specified by the proposal. As in the earlier draft, grains and other starchy crops (wheat, corn, etc.) would have an ILUC factor of 13 gCO₂e MJ⁻¹ added to

their direct lifecycle emissions profile; sugar crops (sugarcane, sugarbeet) 12 gCO₂e MJ⁻¹; and oil crops (rapeseed oil, palm oil, etc.) 55 g gCO₂e MJ⁻¹ (Annex II, Part A in the proposal, and proposed Annex V in the FQD). For comparison, fossil diesel lifecycle emissions are around 89 gCO₂e MJ⁻¹. Fuel suppliers would be obliged to report these ILUC emissions to the Member States, and the Member States would be obliged to report them in turn to the Commission. Importantly, however, regardless of the size of the reported ILUC emissions they will have no effect on the eligibility of a biofuel for support. To give an example, a batch of sunflower biodiesel reported with 'typical' emissions would have a 'direct' carbon saving value of 60%⁵, making it eligible for reporting to comply with both RED and FQD from either an existing installation or a new post-2014 installation. However, with the ILUC factor for vegetable oil biodiesel, these savings would be completely cancelled out. In that case, a scenario is possible where a company would meet its 6% carbon reduction target under FQD entirely through the supply of sunflower biodiesel, and yet that same company would also report to the Member State that when indirect emissions are included it had delivered no savings. Similarly, it would be possible for a fuel supplier, or even a whole Member State, to report that it had met its whole RED target for using renewable energy without achieving any net carbon savings.

The proposal to include ILUC factors in reporting but not in carbon accounting under the FQD is a change from the draft proposal, in which ILUC was to have been counted under the FQD, which would have created additional value for low-ILUC biofuels.

The ILUC values are based on **modeling results** from the International Food Policy Research Institute (IFPRI) using the economic model MIRAGE⁶. The proposal assumes zero ILUC emissions for any biofuels produced from materials other than starchy crops, sugars and oil crops (Annex I/II, Part B). This is a change from the draft proposal, which explicitly listed feedstocks that would be presumed ILUC free. The proposal also assumes zero ILUC emissions for crops for which direct land use change (dLUC) has been reported. This last exemption is likely to be subject to discussion during co-decision, as it is not necessarily true that a fuel is free from ILUC simply because it has been associated with dLUC.⁷ The proposal would also delegate powers to the European Commission to change the ILUC factors in the Directives and to amend in future the lists of fuels that are and are not considered to have ILUC associated with them.

As well as introducing the reporting of ILUC, the proposal introduces a limit on the contribution of food-based biofuels to the Renewable Energy Directive of 5%. The other 5% required to meet the 2020 target would then have to come from non-food feedstocks such as wastes and cellulosic material, which the proposal states are expected to have smaller indirect emissions implications – or could also be supplied via, for instance, renewable electricity and/or renewable hydrogen (Article 2, paragraph 2, (c)(ii)). The proposal states that this cap is to be put in place explicitly to manage the risk of ILUC emissions, and does not mention a goal of reducing impacts on food security. The press release accompanying the publication of the proposal does, however, identify reducing competition with food as a key aim.⁸ The proposal also explicitly clarifies that the 5% 'cap' under the RED should not be interpreted as an absolute cap on the volume of food-based fuel that

⁵ We assume that the fossil fuel comparator for diesel will be raised from 83.8 gCO₂e/MJ as set in the Directive to 89.1 gCO₂e/MJ as determined in the draft implementing measure for the FQD in due course, but this could change.

⁶ This is not explicitly stated, but is generally recognized.

⁷ See for instance Malins (2012), **A model-based quantitative assessment of the carbon benefits of introducing ILUC factors in the European Renewable Energy Directive**

⁸ http://europa.eu/rapid/press-release_IP-12-1112_en.htm

can be used in Europe – for instance, it would be perfectly legitimate under this proposal for biofuel to be used over the 5% level to meet the FQD, or for market reasons.

The cap on the contribution of food-based fuels to the RED comes with measures to promote feedstocks expected to have lower ILUC impacts. Expanding on the existing system of double counting of fuels from wastes and cellulosic material, the Commission proposes to create two lists of feedstocks for additional incentives:

FEEDSTOCKS FOR QUADRUPLE COUNTING	FEEDSTOCKS FOR DOUBLE COUNTING
Algae.	Used cooking oil.
Biomass fraction of mixed municipal waste, but not separated household waste subject to recycling targets under Article 11(2)(a) of Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.	Animal fats classified as category I and II in accordance with EC/1774/2002 laying down health rules concerning animal by-products not intended for human consumption.
Biomass fraction of industrial waste.	Non-food cellulosic material.
Straw.	Ligno-cellulosic material except saw logs and veneer logs.
Animal manure and sewage sludge.	
Palm oil mill effluent and empty palm fruit bunches.	
Tall oil pitch.	
Crude glycerine.	
Bagasse.	
Grape marcs and wine lees.	
Nut shells.	
Husks.	
Cobs	
Bark, branches, leaves, saw dust and cutter shavings.	

The lists would provide clarity as to which feedstocks are eligible for support compared to the current system, under which some stakeholders have expressed concern that definitions of terms such as ‘residue’ have been unclear.

Given the quadruple counting of some feedstocks, the overall 10% RED target could in theory be met with, for example, 5% rapeseed biodiesel and 1.25% wheat straw ethanol, giving an actual renewable energy content in transport fuels of 6.25%. In due course the Commission will be expected to review the effectiveness of the ‘food cap’ in limiting ILUC, based on which assessment ILUC factors could be fully introduced in biofuel support measures beyond 2020.

A last important element in the proposal is that the GHG savings thresholds under both the RED and FQD for biofuels from plants starting operation from 1 July 2014 onwards would be raised from 35% to 60%. This is a change from the draft in which the increased threshold would have been put in place immediately following passing of the proposal, but given that co-decision could take over a year the practical difference may be limited.

AN ONGOING PROCESS

Now that the proposal has been formally adopted by the Commission, it goes to the European Parliament and Council of Ministers for consideration. These may propose revisions, which must be negotiated between the Parliament, Council and Commission before a finalized Directive can be passed into law.