

Leaked proposal by the Commission on indirect land use change

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A draft version of the proposal by the European Commission for a Directive on the indirect land use change (ILUC) from biofuels was leaked to the public in mid-September. Both the Renewable Energy Directive and the Fuel Quality Directive would be amended, the latter to include 'ILUC factors'. According to the draft, currently in inter-service consultation but expected to be officially adopted on 17 October, the share of biofuels from food crops in the target for energy consumption in the transport sector by 2020 will be limited to 5 per cent. As a consequence, the use of non-food materials for biofuels would rise at the expense of biofuels produced from food crops.

Background

The prolonged debate within the European Commission on how to tackle the ILUC impacts of EU biofuel use has taken a significant step forward with the long awaited appearance of the proposal on dealing with the indirect land use change (ILUC) of biofuels in EU policy. The proposal is for a revision to both the Renewable Energy Directive (RED)¹ and the Fuel Quality Directive (FQD)². As is well known, the RED established mandatory targets for the share of renewable energy in EU energy consumption in 2020 at a level of 20 per cent, and in the transport sector at 10 per cent. The FQD introduced a target to achieve a six per cent reduction in the greenhouse gas intensity (GHG) of fuels used in road transport by 2020. At present, the Directives do not account for ILUC impacts associated with some biofuel crops but require the Commission to review such impacts and propose changes to minimise them if appropriate. A considerable amount of scientific evidence has been produced to inform these decisions over the past two years. It indicates that emissions caused by ILUC, for some biofuel feedstocks, can negate some or all the anticipated GHG savings which are measured relative to the fossil fuels they replace.

The proposals have been subject to long delays as a result of a lack of consensus on what the most appropriate response should be. Earlier this year, Commission President José Manuel Barroso said that further preparatory work was needed so that the college of commissioners could claim 'full collective ownership' of the proposal (Anon, 2012a). However, a leaked version of the proposal to amend both Directives was widely circulated³

¹ Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources

² Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels

³ Proposal for a Directive of the European Parliament and of the Council amending Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels and amending Council

as it entered into inter-service consultation within the Commission. Further changes are likely, therefore, before it is approved by the Commission and officially adopted on 17 October.

Aiming to curb ILUC impacts substantially by 2020

The proposal aims to start a transition in EU biofuel consumption to achieve more genuine GHG emissions savings relative to the fossil fuels they replace, taking into account the emissions caused by ILUC. It acknowledges that ILUC related emissions can vary substantially between feedstocks. Some of the explicit aims of the proposal are:

- To limit the volume of biofuels produced for the EU market from crops with a risk of ILUC emissions;
- To improve the efficiency of biofuel production processes by raising the threshold for GHG savings in new installations;
- To improve monitoring of and accounting for the estimated ILUC emissions; and
- To incentivise biofuels with low ILUC risk.

The design of the proposal is based on the principle that existing installations for biofuels potentially involving ILUC impacts need protecting until 2020 but not later.

Limiting the use of high-ILUC biofuels from food crops

The Commission has considered several possible ways to move forward in improving the GHG performance of the biofuel production sector. One important part of the proposal focuses on the role of biofuels and bioliquids from food crops (including cereals, starch crops, sugars and oil crops) in attaining the EU target for renewable energy. It is proposed that the share of these biofuels and bioliquids in overall EU energy consumption in the transport sector by 2020 should be limited to no more than 5 per cent, which is just above the current level of consumption of around 4.5 per cent. The introduction of this new limit in the RED would mean that in order to comply with the 10 per cent target for the use of renewable energy in the transport sector, Member States would have to increase the use of biofuels from non-food crops – or rely on other changes to the transport sector, such as wide-spread roll-out of electric vehicles.

Directive 93/12/EC and amending Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources amending and subsequently repealing Directives 2001/77/EC.

Ranking of biofuel feedstocks according to the risk of ILUC emissions

Two main changes are proposed in order to 1) minimise ILUC risks by promoting low- or zero-ILUC biofuels and 2) take into consideration the emissions from ILUC in the GHG calculation methodology by adding 'ILUC factors'. The first point is relevant for the RED, whereas ILUC factors are proposed to be included only in the FQD (but also would become part of Member State reporting under the RED). With regard to promoting low-ILUC biofuels, the double counting provision for biofuels derived from wastes and residues which is already contained in the RED is reinforced by introducing 'quadruple counting'. Multiple counting would incentivise the use of feedstocks with low ILUC risk, which do not require additional land for their production. The use of biofuels from such feedstocks would make it easier for Member States to meet the RED 10 per cent target because their energy content would be multiplied. The feedstocks eligible would be:

- Household waste, agriculture and forestry residues and algae; and
- Other waste and woody crops⁴

The contribution to the target of the first category would be calculated at four times their aggregate energy content. Compared to that, the contribution from feedstocks from other waste and woody crops would be calculated as twice their energy content. As is currently the case, conventional biofuels and bioliquids, ie those based on food crops, will be accredited according to their nominal energy content in counting toward the RED target. This is due to the generally higher estimated ILUC impacts of those feedstocks that also can be used as food crops.

In addition, the annex to the proposal sets out significant differences within the broad class of conventional feedstocks in relation to ILUC emissions, in other words differences in 'ILUC factors'. These involve distinctions between:

- Oil crops, such as rapeseed, soybeans and palm oil;
- Sugars; and
- Cereals and starch crops.

These distinctions have been made because evidence has shown that ILUC impacts from oil crops are likely to be more than four times higher than those from sugars or cereals and starch crops (55 grams of CO₂eq/MJ compared to 13g and 12g of CO₂eq/MJ, respectively)⁵. Several commentators have interpreted this as having the consequence that in practice 'the biodiesel produced from rapeseed, soybean and palm is likely to be ruled out from counting towards the renewables targets while ethanol production will expand' (Anon, 2012b).

⁴ The full list includes, under the first bullet, 'municipal solid waste, aquatic material, agricultural, aquaculture, fisheries and forestry residues and renewable liquid and gaseous fuels of non-biological origin'; and under the second bullet, 'other waste and non-food lingo-cellulosic and cellulosic materials from non-residues'.

⁵ Estimates are drawn from some key studies, such as Laborde (2011) and Fritsche *et al* (2011).

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In light of these distinctions, the Commission's proposal puts forward a new methodology for the accounting and reporting of ILUC emissions. Member States and fuel suppliers will be obliged to report the GHG savings from all biofuels and bioliquids according to this revised methodology. There will be a crucial difference between the two directives in the approach taken. ILUC factors are introduced in the FQD in order to determine whether a biofuel meets the minimum GHG savings target compared to fossil fuels and, consequently, whether fuel suppliers meet the entire 6 per cent reduction target of the FQD. By contrast, under the RED the factors will only form part of the reporting by Member States. In other words, whether or not a biofuel meets the minimum GHG savings target compared to fossil fuels will not be influenced by ILUC emissions (represented by the ILUC factor) under the RED. It is foreseen that there will be a continuous review process aimed at updating and adapting the accounting methodology, including the level of ILUC factors, in light of future scientific developments.

The proposal (in its explanatory memorandum) also states that all subsidies for biofuels produced from conventional feedstocks based on food crops should be cut after 2020 when the current legislation expires. Thereafter they should be subsidised only if they lead to substantial GHG emissions savings and are not produced from crops used for food and feed. One could clearly translate this as zero policy incentive for further investments in conventional biofuels based on food crops, although its exact meaning is not entirely clear.

Curbing ILUC impacts in new biofuel installations

A 'grandfathering' provision has been added to both Directives which aims to discourage further investments in installations with low GHG performance whilst protecting existing investments, for example in biofuel processing plants. According to the leaked proposal, both Directives will increase the minimum GHG saving threshold for biofuels and bioliquids produced in new installations with immediate effect. For example, installations starting operation on 1 July 2012 will have to deliver at least 60 per cent GHG savings relative to fossil fuel. Installations that were already in place before 1 July 2012 would be required to achieve at least 35 per cent GHG savings but would have to improve their performance to 50 per cent saving from 2018. A considerable number of biofuel production plants have been built up to now but not all the capacity is being used.

Reactions

The leaked proposal has received considerable attention in the EU press. Several more neutral commentators concur that if adopted, the proposal will 'represent a major shift in Europe's much-criticized biofuel policy and a tacit admission by policymakers that the EU's 2020 biofuel target was flawed from the outset' (Dunmore, 2012).

However, the main umbrella group for the EU biofuel industry (the EBA) has reacted strongly against what is perceived as a hard blow. It is clear that the impacts of the proposal, on the biofuel sector are likely to trigger considerable opposition. This is hardly surprising in the sense that around 80 per cent of European biodiesel comes from rapeseed oil which will receive the lowest preference in the proposed accounting rules. In addition, almost 80 per cent of the total biofuel market in the EU relies on biodiesel, and only about 20 per cent is

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based on ethanol. This is significant in the context of the present proposal because a large proportion of the feedstocks derived from non-food crops (which receive the highest priority due to their zero ILUC emissions) are suitable only for ethanol rather than biodiesel production. The European Biodiesel Association states for example that 'the setting of a 5 per cent limit on biofuels from food crops was 'preoccupying' and seemed based on 'uncertain and unscientific data'. They consider the prioritisation of non-food materials in new accounting rules unsound and fear that it will risk curbing agricultural production with increase in food prices (Anon, 2012a). An additional emphasis has been placed by the industry on the fact that 'the Commission's proposal threatens an industry that arose as a response to its policies, supports 50,000 jobs' (Anon, 2012c). The leader of the industry states that they 'would be actively campaigning to stop the EU plans' (Anon, 2012d).

Environmental groups have been more welcoming of the final outcome of this hard fought compromise between the Energy/Agriculture and Environment/Climate directorates of the Commission. Transport and Environment, one of the most prominent groups in the ILUC debate, notes that if the proposal is adopted it would 'stop further expansion of current types of unsustainable biofuels' whilst highlighting that the initiative 'fails to do anything about the current volumes of these fuels' (Anon, 2012c). However, the complex proposed remains a compromise; biofuels with a high ILUC factor will of course continue to be used and the absence of ILUC factors in the RED weakens the proposals and worries many organisations. One response was that the proposal will not stop 'an increase in Europe's biofuels made from food, when what we need at this time of food crisis is to stop burning them altogether' (Anon, 2012c). In response to the concerns of the biofuel industry about the threat of a decrease in agricultural production, WWF notes that it is not necessary to abandon existing cropping systems and that 'one can simply use agricultural residues such as straw' (Anon, 2012a).

The proposal is a critical opportunity to address the sustainability of biofuels and take account of ILUC. Whilst there will be debate about the specific measures and details proposed, a robust Directive needs to be adopted to achieve the decisive change now required.

Next steps

Depending on the outcome of the inter-service consultation, the proposal may very well undergo changes and will be finalised at the highest level of the Commission. It is expected that the final proposal will be published on 17 October. It will then have to be approved in the formal policy process by the Council of Ministers and the European Parliament, a process that could take some time.

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