

Legal Briefing: Legislative Mandate to the Commission on Indirect Land-Use Change

The Renewable Energy Directive (RED) and Fuel Quality Directive (FQD) contain a legislative mandate to the Commission on indirect land-use change (ILUC). Several questions have arisen regarding the obligations on the Commission in fulfilling this mandate, specifically on requirements related to scientific evidence, methodology, form of the proposal, and timeframe. In this briefing, ClientEarth provides a legal analysis of the mandate to assist policy makers and civil society in ensuring compliance with the text and spirit of the law.

Summary of Findings

- The Renewable Energy Directive and Fuel Quality Directive contain a legislative mandate to the Commission to produce a proposal on ILUC where, as here, it is necessary to address known sources of unaccounted greenhouse-gas (GHG) emissions.
- The proposal must be based on the “best available scientific evidence,” indicating that the unavailability of additional scientific evidence should not be used to justify Commission inaction or delay.
- The Lisbon Treaty and international law contain methods for resolving scientific disputes or uncertainties in the environmental sector—the precautionary principle—which settles these issues in favour of protecting the environment against irreversible damage and providing periodic review and update.
- The proposal must ensure compliance with the GHG-saving criterion by introducing a methodology to account for carbon stock changes caused by ILUC, which the European Union (EU) legislature proposes to achieve by introducing an ILUC factor.

BACKGROUND

In April 2009, on the same day, the EU legislature adopted RED and FQD to reduce GHG emissions and promote renewable energy.¹ RED requires Member States to use renewable energy sources to meet 10% of their transport needs by 2020.² FQD requires a 6% reduction in lifecycle GHG emissions from fuels consumed in the EU by 2020.³ These targets will be met, in large part, through the increased use of biofuels.⁴ In recognition of the potentially detrimental effect of biofuel policies on climate and biodiversity—and certain biofuels more so than others—the EU legislature reaffirmed that it is “essential to develop and fulfil effective sustainability criteria for biofuels and ensure the commercial availability of second-generation biofuels.”⁵ To do so, the Commission must “lay down clear rules for the calculation of greenhouse gas emissions from biofuels and bioliquids and their fossil fuel comparators.”⁶

The EU legislature recognises the systemic miscalculation of GHG emissions from land-use changes resulting from its biofuel policies.⁷ Existing biofuel policies include safeguards—in the form of

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"sustainability criteria"—preventing conversion of forests and other natural areas for the sole purpose of producing biofuels on the converted land. This phenomenon is called *direct* land-use change. Its practice is discouraged. But existing safeguards that prevent direct land-use change encourage another harmful practice whereby biofuel production occurs on existing agricultural croplands, rather than on newly deforested or converted natural areas, and those agricultural croplands lost to biofuel production then move into forests and other natural areas. This phenomenon is called *indirect* land-use change or simply ILUC. Existing laws actually encourage this practice because no safeguards are in place. Moreover, public policies increasing biofuel consumption create demand where little previously existed and, in the process, create an artificial market worth billions, providing significant financial incentives for economic operators to produce biofuels on existing agricultural lands.

There is a lot at stake. Accurate accounting of ILUC shows that many biofuels are less effective at reducing GHG emissions than envisioned and, more often, worse than conventional fossil fuels. This is because biofuels contribute to deforestation, which releases as much as 20% of global carbon dioxide (CO₂) emissions.⁸ In addition to these climate consequences, ILUC holds implications for other sustainability values, namely biodiversity, ecosystem services, and sustainable development.⁹ For these reasons, both RED and FQD contain an ILUC mandate with detailed provisions requiring the Commission to report by 31 December 2010 on ILUC impacts and, if appropriate, make proposals to incorporate those GHG emissions into the statutory framework.

The ILUC mandate envisions amendments to the Directives themselves.¹⁰ The EU legislature strives to take legislative action to incorporate ILUC by 31 December 2012—to be followed by an implementation period—underscoring the urgency to find solutions that ensure consistency between 2020 targets and climate objectives.¹¹ In the final analysis, the ILUC mandate is intended to correct perverse market incentives currently on the books that undermine proliferation of next-generation biofuels and drive EU consumption toward biofuels with higher GHG emissions.¹² At present, the Commission is drafting the report and considering the form of a legislative proposal to fix the accounting system.

MANDATE TO THE COMMISSION ON INDIRECT LAND-USE CHANGE

It is bedrock EU law that policies on the environment must be designed to contribute to the objectives of “preserving, protecting and improving the quality of the environment” and a “prudent and rational utilisation of natural resources.”¹³ The Lisbon Treaty states that EU policies “shall aim at a high level of protection” and be based on “the precautionary principle and on the principles that preventive action should be taken.”¹⁴ In preparing environmental policies, the Union shall take account of “available scientific and technical data.”¹⁵

Upon adopting RED and FQD, the EU legislature omitted an ILUC factor, postponing its inclusion to a later date after additional analysis. This was largely justified on the need to clarify ILUC impacts further, especially the relative contributions from various feedstocks.¹⁶ The EU legislature made clear, however, the foreseeable need for a concrete methodology to calculate GHG emissions from ILUC.¹⁷ As a result, RED and FQD contain a two-fold mandate to the Commission: first submit a report on ILUC and, if appropriate, a proposal. The report will review the carbon stock changes attributable to ILUC—meaning the amount of unaccounted GHG emissions—and address ways to minimise this impact. As noted above, the Commission has until 31 December 2010 to submit the report.¹⁸ For ILUC impacts above negligible levels, it will be appropriate for the Commission to submit a proposal to fix the accounting error. RED provides the methodological framework for discharging those duties and outlines the statutory requirements on any proposal.

The EU legislature makes clear that accurate accounting of GHG savings is paramount. The alternative is unacceptable: GHG reductions attributed to biofuels do not correspond to reality. This would undermine EU authority and credibility on the issue. Renewables in transport are premised on accurate GHG accounting. Recital 85 summarises the causal relationship between biofuel policies, stress on finite land resources, conversion of forests and other natural areas, and GHG implications:

“Global demand for agricultural commodities is growing. Part of that increased demand will be met through an increase in the amount of land devoted to agriculture... Even if biofuels themselves are made using raw materials from land already in arable use, the net increase in demand for crops caused by the promotion of biofuels could lead to a net increase in the cropped area. This could affect high carbon stock land, which would result in damaging carbon stock losses... The Commission should develop a concrete methodology to minimise greenhouse gas emissions caused by indirect land-use changes. To this end, the Commission should analyse, on the basis of best available scientific evidence, in particular, the inclusion of a factor for indirect land-use changes in the calculation of greenhouse gas emissions and the need to incentivise sustainable biofuels which minimise the impacts of land-use change and improve biofuel sustainability with respect to indirect land-use change...”¹⁹

The EU legislature charges the Commission with developing a concrete methodology to minimise GHG emissions caused by ILUC on the basis of the best available scientific evidence. It further requests that the Commission analyse “the inclusion of a factor for [ILUC] in the calculation of [GHG] emissions.” Recital 85 sets the context for the ILUC mandate as it later appears in Article 19(6).

In Article 19(6), the EU legislature sets forth in explicit terms its ILUC mandate to the Commission. In addition to reporting and submitting a proposal, if appropriate, the EU legislature stipulates statutory requirements on any proposal. A proposal that fails to meet these requirements should be considered inadequate as a matter of law:

The Commission shall, by 31 December 2010, submit a report to the European Parliament and to the Council reviewing the impact of indirect land-use change on greenhouse gas emissions and addressing ways to minimise that impact. The report shall, if appropriate, be accompanied by a proposal, based on the best available scientific evidence, containing a concrete methodology for emissions from carbon stock changes caused by indirect land-use changes, ensuring compliance with this Directive, in particular Article 17(2).

Such a proposal shall include the necessary safeguards to provide certainty for investment undertaken before that methodology is applied. With respect to installations that produced biofuels before the end of 2013, the application of the measures referred to in the first subparagraph shall not, until 31 December 2017, lead to biofuels produced by those installations being deemed to have failed to comply with the sustainability requirements of this Directive if they would otherwise have done so, provided that those biofuels achieve a greenhouse gas emission saving of at least 45%. This shall apply to the capacities of the installations of biofuels at the end of 2012.

The European Parliament and the Council shall endeavour to decide, by 31 December 2012, on any such proposals submitted by the Commission.²⁰

Article 19(6) presents only two possible options: do nothing or develop a methodology to account for emissions from carbon stock changes caused by ILUC. There is no other option. It further requires that the methodology ensure compliance with the GHG-saving criterion in Article 17(2). This provision renders other actions, such as extending the use of bonuses, tangential to the core legislative mandate.²¹ Together, Recital 85 and Article 19(6) make clear that the EU legislature envisioned the Commission developing a methodology with the primary objective of introducing an ILUC factor, as discussed below.

The threshold question is therefore whether a proposal is appropriate. If answered in the affirmative, RED stipulates four statutory requirements on the Commission in fulfilling its legislative mandate: (i) be based on the best available scientific evidence; (ii) include a concrete methodology for emissions from carbon stock changes caused by ILUC; (iii) ensure compliance with RED, particularly Article 17(2); and (iv) include safeguards to ensure certainty of investment. Each requirement is addressed in turn.

I. Appropriateness of an Accompanying Proposal

In respect to Union matters, the European Parliament and Council may take decisions on environmental matters on a proposal from the Commission.²² The justification for Commission initiative is to ensure a coherent framework for all initiatives.²³ The Council and the European Parliament may also ask the Commission to put forward a proposal when considered necessary. The text and broad logic of RED and FQD reveal the considerations relevant to the appropriateness determination. The recitals provide the starting point for any analysis. In them, the EU legislature finds that a “net increase in demand for crops caused by the promotion of biofuels could lead to a net increase in the cropped area.”²⁴ Net increases in cropped areas threaten forests and other natural areas, “which would result in damaging carbon stock losses.”²⁵ Under those circumstances, the “Commission should develop a concrete methodology to minimise greenhouse gas emissions caused by indirect land-use changes.”²⁶

Here, appropriateness relates to addressing unintended consequences of climate policies that would convert forests and other natural areas into agricultural lands. This occurs as a result of miscalculating GHG emissions because, fundamentally, the GHG-saving criterion is premised on accurate accounting. For these reasons, appropriateness centres on whether there are increases to cropped area that would undermine the accounting scheme in RED and FQD. If these increases to cropped areas—and their associated GHG emissions—are negligible then a do-nothing approach is justified. If those impacts rise above negligible levels, however, the EU legislature considers it appropriate to address these carbon stock changes with a methodology that accounts for GHG emissions from ILUC. This conforms to the purpose of Article 19, which is to calculate GHG emissions from biofuels to verify compliance with the sustainability criteria, namely the GHG-saving criterion in Article 17(2).²⁷

This emphasis on sustainability criteria is pervasive throughout RED and FQD. Not only does the GHG-saving criterion protect forests and other natural areas, but it ensures GHG reductions and drives next-generation biofuels:

Biofuel production should be sustainable. Biofuels used for compliance with the [GHG reduction] targets laid down in this Directive, and those that benefit from national support schemes, should therefore be required to fulfil sustainability criteria.²⁸

The Community should take appropriate steps in the context of this Directive, including the promotion of sustainability criteria for biofuels and the development of second and third-generation biofuels in the Community and worldwide...²⁹

Compliance with sustainability criteria is a biofuel-specific inquiry. Sustainability is determined by analysing the land the feedstock is produced on or, in the case of ILUC, the feedstock itself. Therefore, focusing on whether the 10% target as a whole results in any GHG reductions is misplaced. Various feedstocks yield varying degrees of ILUC and each biofuel must meet the GHG-saving criterion, not the policy as a whole. If certain feedstocks lead to exceedances of the GHG-saving criterion, then it is appropriate to introduce a methodology for emission from ILUC.

In drafting the report, the Commission launched four studies.³⁰ Those studies reveal, to varying degrees of significance, that it is inappropriate for the Union to ignore ILUC. For example, the recently released study by the International Food Policy Research Institute (IFPRI) found potential for *significant* ILUC impacts.³¹ The IFPRI study uses a global computable general equilibrium (CGE) model to estimate the impact of EU biofuel policies, acknowledging several conservative inputs and assumptions that influence the conclusions.³² For example, first, the IFPRI study assumes that biofuel consumption comprises only a 5.6% share of the mix of biofuels and fossil fuels despite the 10% target.³³ The authors note, however, that “[s]timulations for EU biofuels consumption above 5.6% of road transport fuels show that ILUC emissions can rapidly increase and erode the environmental sustainability of biofuels.”³⁴ Second, it assumes a 55/45 ratio between biodiesel and bioethanol, which makes the overall biofuel policy targets appear more attractive by relying on bioethanol over biodiesel.³⁵ The authors promote investigating the assumption behind the ratio, noting that it “strongly influences the results.”³⁶ In addition, the National Renewable Energy Action Plans, which outline how Member States intend to comply with renewable targets, show much higher reliance on biodiesel across the European Union.³⁷ Third, the IFPRI study only counts CO₂ emissions, not all GHGs such as nitrous oxides from fertilizers and pesticides.³⁸ Despite these limitations, the IFPRI study concludes that there “is indeed indirect land use change associated with the EU biofuels mandate.”³⁹ The IFPRI study further finds that “[i]t is clear... that increased demand for biofuels will have impact on the demand for land and will result in potentially significant land use changes.”⁴⁰

Other studies confirm these conclusions.⁴¹ This includes a comparative model analysis by the Commission’s Joint Research Centre (JRC), which analysed three models considered “scientifically acknowledged and robust tools for policy simulations.” The JRC study concluded that EU biofuel policies are “likely to trigger indirect land use changes worldwide.”⁴² It further found that current and future support for biofuels “is likely to accelerate the expansion of land under crops particularly in Latin America and Asia... [which] carries the risk of significant and hardly reversible environmental damages.”⁴³ Both the IFPRI and JRC studies break down ILUC to the feedstock level.

It is clear from the studies that certain feedstocks have higher impacts over others. These studies further dispel with the notion that ILUC impacts are negligible, which should eliminate the do-nothing option from consideration. For these reasons, under the standard outlined by the EU legislature, it is appropriate to address the under-accounting of GHG emissions that currently beleaguers RED and FQD.

II. Based on the Best Available Scientific Evidence

The proposal must be “based on the best available scientific evidence.”⁴⁴ The operative word is “available.” Any unavailable science or analysis should not preclude a proposal on the matter. The EU legislature requires the Commission to bring together the best available science in a report and, based on the scientific evidence therein, submit a proposal.⁴⁵ That proposal may contain mechanisms for periodic review as more science becomes available, as discussed further below.

There are several policy justifications for basing the proposal on the best available scientific evidence. First, it allows for prompt decision making on an issue of importance to the EU legislature and the EU’s renewable energy policies: carbon stock changes from ILUC. At the present, the admitted omission of this source of GHG emissions threatens to undermine RED and FQD – actual GHG reductions will not correspond to reality and deforestation will work at cross purposes with ongoing EU policies to protect forests, such as the Forest Law Enforcement Governance and Trade (FLEGT) programme,⁴⁶ the Timber Regulation,⁴⁷ and timber procurement policies.⁴⁸ Second, it prevents paralysis by analysis, which leads to business as usual and drives EU consumption toward GHG-intensive biofuels. The focus on the best available scientific evidence sidelines inaction based on the unavailability of additional scientific evidence or uncertainty. On the contrary, the Commission must gather the best scientific evidence available and base the proposal on that. Third, it de-politicises the decision on ILUC, empowering the Commission to establish a level playing field as soon as possible. Only those biofuels actually achieving the GHG-saving thresholds will qualify for the 10% target and associated subsidies. As it stands now, however, this is not the case.

To the extent uncertainty exists, the Lisbon Treaty and governing law provide a method for resolving these uncertainties in the environmental sector: the precautionary principle. For any given range of impacts or uncertainty, the Union shall resolve the issue in favour of the environment, selecting the higher range so as to ensure a high level of protection:

Union policy on the environment shall aim at a high level of protection ... It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.⁴⁹

The precautionary principle is a fundamental principle of EU law. The European Court of Justice has repeatedly affirmed its application. In *The Queen v. Ministry of Agriculture, Fisheries and Food*, the European Court of Justice upheld the Commission's decision banning the exportation of beef from the United Kingdom to reduce the risk of BSE transmission, holding that “[w]here there is uncertainty as to the existence or extent of risks to human health, the institutions may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent.”⁵⁰ In *Afton Chemical Limited v. Secretary of State for Transport*, the European Court of Justice found that “where it proves to be impossible to determine with certainty the existence or extent of the alleged risk because of the insufficiency, inconclusiveness or imprecision of the results of studies conducted... the precautionary principle justifies the adoption of restrictive measures.”⁵¹ The Court reaffirmed that “[i]n those circumstances [where studies reveal uncertain risks], it must be acknowledged that the European Union legislature may, under the precautionary principle, take protective measures without having to wait for the reality and the seriousness of those risks to be fully demonstrated.”⁵² This is particularly relevant here since the impacts are irreversible. EU biofuel policies are expected to result in the conversion of approximately 5.8 to 28.6 million hectares by 2020 under a 30 million tonnes of oil equivalent (Mtoe) scenario.⁵³ Deforestation and conversion of natural areas result in permanent losses of biodiversity and ecosystem services, and the CO₂

released remains in the atmosphere for centuries.⁵⁴ The sustainability criteria underlying the biofuel policies are intended to prevent this, not promote it.

The Commission has also released a communication on the precautionary principle.⁵⁵ In it, the Commission cites scientific uncertainty as a trigger to invoke precautionary action, speaking to situations nearly identical to those presented by ILUC:

Once the scientific evaluation has been performed as best as possible, it may provide a basis for triggering a decision to invoke the precautionary principle. The conclusions of this evaluation should show that the desired level of protection for the environment... could be jeopardised. The conclusions should also include an assessment of the scientific uncertainties and a description of the hypotheses used to compensate for the lack of the scientific or statistical data. An assessment of the potential consequences of inaction should be considered and may be used as a trigger by the decision-makers... The absence of scientific proof of the existence of a cause-effect relationship... or a quantitative evaluation of the probability of the emergence of adverse effects following exposure should not be used to justify inaction.⁵⁶

Another highly relevant inquiry, therefore, is on the nature of the uncertainty on ILUC. There is no uncertainty about the significance of the impacts. Biofuels cause land-use changes that result in the release of large quantities of GHG emissions into the atmosphere.⁵⁷ Nor is there uncertainty that certain biofuels have better GHG performance than others.⁵⁸ The studies consistently show this to be the case. Nor is there uncertainty regarding the relevant impacts of different feedstocks.⁵⁹ Some feedstocks perform better than others. While it is true that different studies modelling ILUC have produced different results for different feedstocks, construing this as uncertainty compelling inaction is misleading. Even at the conservative end of this range, the ILUC impacts cannot be considered negligible and, as a result, would make it appropriate for the Commission to submit a proposal to account for ILUC. It is the only way to create a level playing field. Arguments for absolute certainty in models are red herrings.⁶⁰

It is also significant that uncertainty did not prevent the EU legislature from taking action in other parts of RED and FQD. For example, “default values” for GHG emissions for various biofuels are chosen at indicative levels, to be updated periodically as further reliable data becomes available:

In order to avoid a disproportionate administrative burden, a list of default values should be laid down for common biofuel production pathways and that list should be updated and expanded when further reliable data is available. Economic operators should always be entitled to claim the level of greenhouse gas emission saving for biofuels and bioliquids established by that list. Where the default value for greenhouse gas emission saving from a production pathway lies below the required minimum level of greenhouse gas emission saving, producers wishing to demonstrate their compliance with this minimum level should be required to show that actual emissions from their production process are lower than those that were assumed in the calculation of the default values.

This legislate-and-update approach is applied to the “fossil fuel comparator,” which represents the latest available actual average emissions from the fossil part of petrol and diesel consumed in the Union despite little data on which to base this figure.⁶¹ The EU legislature requires regular revision of the fossil fuel comparator as data becomes available in 2011 and beyond, but the lack of precision did not prevent it from taking action in 2009.⁶² Allowing for periodic review and revision is a typical

method to address uncertainty and evolving scientific evidence. In the United States, California took this approach for ILUC in its Low-Carbon Fuel Standard.⁶³

As it stands now, the best available scientific evidence reframes the ILUC debate: it is no longer a question of whether to address ILUC, but how. Claims regarding uncertainty should be dismissed. The starting values for an ILUC factor can be determined using the best available scientific evidence. As to the form of an ILUC proposal, the answer lies in the remaining statutory requirements.

III. Compliance with RED and Article 17(2)

Any proposal must also “ensure compliance with this Directive, in particular Article 17(2).” Article 17(2) outlines the GHG-saving thresholds under the GHG-saving criterion, which is a sustainability criterion requiring biofuels to meet certain GHG savings compared to fossil fuels. The GHG-saving criterion serves as a filter, promoting biofuels that achieve greater GHG savings over those that achieve less or none. Under RED, the required GHG-saving threshold increases over time, starting at 35% in 2009 before ratcheting up to 50% in 2017 and 60% in 2018 for new installations:

Article 17 Sustainability criteria for biofuels and bioliquids

* * *

2. The greenhouse gas emission saving from the use of biofuels and bioliquids... shall be at least 35%.

With effect from 1 January 2017, the greenhouse gas emission saving from the use of biofuels and bioliquids... shall be at least 50%. From 1 January 2018 that greenhouse gas emission saving shall be at least 60% for biofuels and bioliquids produced in installations in which production started on or after 1 January 2017.

The greenhouse gas emission saving from the use of biofuels and bioliquids shall be calculated in accordance with Article 19(1).⁶⁴

Article 17(2) calculates GHG savings in accordance with Article 19(1), which is based on and incorporates by reference Annex V. Those two sections contain the methodologies for calculating total emissions from biofuel use.⁶⁵ The overall approach compares total emissions from biofuel use against the average emissions from fossil fuels—the fossil fuel comparator—to determine GHG savings. Unless ILUC emissions are accounted for, a gaping loophole exists that misleads consumers and investors to believe that biofuels achieve certain GHG savings where, often, those biofuels do not. Further, meeting the GHG-saving criterion qualifies biofuel producers for subsidies, such as financial support for their consumption under a national support scheme⁶⁶ and investment or operating aid under Community guidelines on state aid for environmental protection.⁶⁷ Where the GHG emissions from biofuels are not fully accounted, this leads to the misappropriation and maladministration of public funds. “Ensuring compliance with [RED], in particular Article 17(2)” really means calculating GHG emissions accurately so as to ensure compliance with the GHG-saving requirement.

IV. Concrete Methodology for Emissions from ILUC-Induced Carbon Stock Changes

The EU legislature further requires any proposal to contain “a concrete methodology for emissions from carbon stock changes caused by indirect land-use changes.”⁶⁸ This is significant. Article 19(1) and Annex V—specifically referenced in Article 17(2)—contain the overall methodological framework whereby nine different “factors” covering lifecycle GHG emissions are summed to yield “total emission from the use of the biofuel” or E_B .⁶⁹

$$E_{[B]} = e_{ec} + e_{[dl]} + e_p + e_{td} + e_u - e_{sca} - e_{ccs} - e_{ccr} - e_{ee},$$

where

$E_{[B]}$ = total emissions from the use of the biofuel;

e_{ec} = emissions from the extraction or cultivation of raw materials;

$e_{[dl]}$ = annualised emissions from carbon stock changes caused by [direct] land-use change;

e_p = emissions from processing;

e_{td} = emissions from transport and distribution;

e_u = emissions from the fuel in use;

e_{sca} = emission saving from soil carbon accumulation via improved agricultural management;

e_{ccs} = emission saving from carbon capture and geological storage;

e_{ccr} = emission saving from carbon capture and replacement; and

e_{ee} = emission saving from excess electricity from cogeneration.⁷⁰

The total emissions from the use of the biofuel are determined by adding lifecycle GHG emissions from cultivation through use—i.e., extraction, cultivation, processing, direct land-use changes, transport and distribution, and fuel use—and then subtracting any GHG savings from soil carbon accumulation, carbon capture and geographical storage, carbon capture and replacement, and excess electricity from cogeneration.

Once total emissions for the biofuel are calculated, E_B , it can be plugged into another formula that compares it against the fossil fuel comparator, E_F , to determine GHG savings. This will determine whether the biofuel fulfils the GHG-savings criterion:

$$GHG\ SAVING = (E_F - E_B)/E_F,$$

where

E_B = total emissions from the biofuel or bioliquid; and

E_F = total emissions from the fossil fuel comparator.⁷¹

The fossil fuel comparator is reported under FQD and has a starting value of 83,8 gCO_{2eq}/MJ.⁷² This value will be superseded by the “latest actual average emissions from the fossil part of petrol and diesel in the Community” when that information becomes available in annual reports submitted under FQD. The first reporting will take place in 2011.⁷³ Under the starting value for the fossil fuel comparator of 83,8 gCO_{2eq}/MJ, a biofuel would have to emit 54,47 gCO_{2eq}/MJ or less in order to

meet the GHG-saving threshold of 35%. The key variable affecting the GHG savings for any given biofuel is its total emissions from use or E_B .

Therefore, in order to conform to the methodological framework in RED, the Commission would need to introduce an ILUC factor, e_{iluc} , into the formula for calculating total emissions:

$$e_{iluc} = \text{annualised emissions from carbon stock losses from indirect land-use change}$$

The EU legislature foreshadowed the inclusion of an ILUC factor in Recital 85.⁷⁴ The ILUC factor would represent “annualised emissions from carbon stock losses from indirect land-use change” and would be based on a methodology similar to the approach taken for the other factors. Modelling produces reliable—if not conservative—values down to the feedstock level, as demonstrated in the IFPRI and JRC studies.⁷⁵ In certain instances, such as biofuels produced from waste and residues, there may be no ILUC-induced emissions. In other instances, the inclusion of an ILUC factor will drive innovation toward next-generation biofuels with lesser land-use impacts, such as algae. The Union has made a commitment to combat climate change by encouraging renewables in transport. The Commission must now advance a methodology that ensures EU biofuel policies reduce GHG emissions to statutory levels.

V. Safeguards to Provide Certainty for Investment

The final requirement provides that the proposal must “include the necessary safeguards to provide certainty for investment undertaken before that methodology is applied.”⁷⁶ These safeguards, however, only apply to a methodology to account for carbon stock changes from ILUC. The safeguards do not apply to any other alternative action. Installations producing biofuels before a certain date will be allowed a multi-year window to come into compliance with the GHG-saving criterion—despite the introduction of a methodology for accounting for ILUC emissions—as long as a GHG-saving threshold of 45% is achieved:

Such a proposal shall include the necessary safeguards to provide certainty for investment undertaken before that methodology is applied. With respect to installations that produced biofuels before the end of 2013, the application of the measures referred to in the first subparagraph shall not, until 31 December 2017, lead to biofuels produced by those installations being deemed to have failed to comply with the sustainability requirements of this Directive if they would otherwise have done so, provided that those biofuels achieve a greenhouse gas emission saving of at least 45%. This shall apply to the capacities of the installations of biofuels at the end of 2012.⁷⁷

The closing of the multi-year window corresponds to the timing that the EU legislature set out for itself to act on any proposal from the Commission: “[t]he European Parliament and the Council shall endeavour to decide, by 31 December 2012, on any such proposals submitted by the Commission.”⁷⁸ The Lisbon Treaty states that the European Parliament and the Council “shall decide what action is to be taken by the Union in order to achieve [its] objectives.”⁷⁹ To date, however, Parliament and the Council are waiting for the Commission to initiate the legislative process to decide on the actions to be taken to achieve RED and FQD’s climate and sustainability objectives. To avoid frustrating the timeline for legislative action, the Commission should submit its proposal as soon as possible, but no later than 31 December 2010.

CONCLUSION

The reduction in GHG emissions is at the core of 10% target for renewable energy in transport.⁸⁰ The statutory requirements in Article 19(6) impose clear requirements on the Commission, providing a roadmap for addressing inaccurate accounting through the introduction of a methodology to account for carbon stock changes caused by ILUC. Studies show significant ILUC emissions resulting from increased demand for biofuels, compelling Commission action as a flagship EU climate policy rests in the balance.

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¹ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (hereinafter “RED” for Renewable Energy Directive), Recitals 1-2; Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC (hereinafter “FQD” for Fuel Quality Directive), Recitals 1-4.

² RED, Article 3(4).

³ Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC (hereinafter “FQD” for Fuel Quality Directive).

⁴ COD/2008/0016.

⁵ RED, Recital 9.

⁶ RED, Recital 80.

⁷ RED, Recital 69; FQD, Recital 22.

⁸ IPCC, 2007 Mitigation of Climate Change, p. 544.

⁹ RED, Recital 85.

¹⁰ See, e.g., RED, Recital 85; RED, Article 19(6).

¹¹ RED, Article 19(6).

¹² RED, Recital 9.

¹³ Lisbon Treaty, Article 191(1).

¹⁴ Lisbon Treaty, Article 191(2).

¹⁵ Lisbon Treaty, Article 191(3).

¹⁶ RED, Recital 85.

¹⁷ RED, Recital 85.

¹⁸ RED, Article 19(6).

¹⁹ RED, Recital 85 (emphasis added).

²⁰ RED, Article 19(6); FQD, Article 7d(6).

²¹ European Commission, Pre-consultation on Indirect Land-Use Change – Possible Elements of a Policy Approach – Preparatory Draft for Stakeholder/Expert Comments (Summer, 2009).

²² Lisbon Treaty, Articles 191-192.

²³ Europa Glossary, Right of Initiative, at http://europa.eu/scadplus/glossary/initiative_right_en.htm (last visited 6 July 2010).

²⁴ RED, Recital 85.

²⁵ RED, Recital 85.

²⁶ RED, Recital 85.

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- ²⁷ See RED, Articles 17 and 19.
- ²⁸ RED, Recital 65; FQD, Recital 10.
- ²⁹ RED, Recital 66.
- ³⁰ European Commission, Directorate-General for Agriculture and Rural Development, Communication Denial Request for Access to Documents (27 November 2009), p. 2.
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- ⁴³ JRC Study, p. 12.
- ⁴⁴ RED, Article 19(6).
- ⁴⁵ RED, Article 19(6); FQD, Article 7d(6).
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- ⁶⁴ RED, Article 17(2).
- ⁶⁵ See RED, Annex V(C).
- ⁶⁶ RED, Article 17(1)(c).
- ⁶⁷ Notice OJ 2008/C 82/01.
- ⁶⁸ RED, Article 19(6).
- ⁶⁹ RED, Article 17(2).
- ⁷⁰ See RED, Annex V(C)(1)(includes clarification on *direct* land-use change factor, $e_{[d]}$, the methodology for which is outlined in Annex V(C)(7) of RED, and the missing *indirect* land-use change factor, e_{iLUC} , referenced in Recital 85 of RED).
- ⁷¹ RED, Annex V(C)(4).
- ⁷² FQD, Annex IV(C)(19); see also RED, Annex V(C)(19).
- ⁷³ FQD, Article 7a.
- ⁷⁴ See RED, Recital 85.
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