



EUROPEAN COMMISSION

Brussels, xxx
C(2012) yyy final

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 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 and 2003/30/EC

(Text with EEA relevance)

EXPLANATORY MEMORANDUM

1. BACKGROUND

Directive 2009/28/EC¹ on the promotion of the use of energy from renewable sources (the "Renewable Energy Directive") established mandatory targets to be achieved by 2020 for a 20% overall share of renewable energy in the EU and a 10% share for renewable energy in the transport sector. At the same time, an amendment to Directive 98/70/EC² ("the Fuel Quality Directive") introduced a mandatory target to achieve by 2020 a 6% reduction in the greenhouse gas intensity of fuels used in road transport and non-road mobile machinery.

The contribution of biofuels towards these targets is expected to be significant. Whilst both Directives include sustainability criteria including minimum greenhouse gas saving thresholds, the greenhouse gas emissions associated with changes in the carbon stock of land resulting from indirect changes in land use (ILUC) are not accounted for by the legislation. The Directives invite³ the Commission to review the impact of indirect land-use change on greenhouse gas emissions and, if appropriate, propose ways to minimise it whilst respecting existing investments made in biofuels production.

2. AIMS OF THE PROPOSAL

Scientific work indicates that ILUC related emissions can vary substantially between feedstocks and can negate some or all of the greenhouse gas savings of individual biofuels relative to the fossil fuels they replace⁴. The aim of the current proposal is to start the transition to biofuels that deliver substantial greenhouse gas savings when also estimated indirect land-use change emissions are taken into account. While existing investments should be protected, the aims of the current proposal are to:

- limit the contribution that conventional biofuels (with a risk of ILUC emissions) make towards attainment of the targets in the Renewable Energy Directive;
- improve the efficiency of biofuel production processes (reducing associated emissions) by raising the greenhouse gas saving threshold for new installations;
- encourage a greater market penetration of advanced (low-ILUC) biofuels by allowing such fuels to contribute more to the targets in the Renewable Energy Directive than conventional biofuels;

¹ OJ L 140 5.6.2009

² OJ L 350 28.12.1998

³ Article 7d(6) of Directive 2009/30/EC and Article 19(6) of Directive 2009/28/EC

⁴ Indirect land-use change emissions estimates are calculated through modelling, which, notwithstanding recent improvements made in the science, remain sensitive to and may vary according to the modelling framework and assumptions made.

- improve the accounting of greenhouse gas emissions by obliging Member States and fuel suppliers to report the estimated indirect land-use change emissions of biofuels; and
- provide market incentives for biofuels with low estimated indirect land-use change emissions, as these will contribute more towards fuel suppliers' obligation to reduce their reported emissions by 6% by 2020 in accordance with the Fuel Quality Directive.

The proposal also aims at protecting existing investments until 2020. However, the Commission is of the view that in the period after 2020 biofuels should only be subsidised if they lead to substantial greenhouse gas savings (when ILUC related emissions are included) and are not produced from crops used for food and feed.

3. LEGAL ELEMENTS OF THE PROPOSAL

3.1. Summary of the proposed action

The main features of this proposal regarding the Renewable Energy Directive are:

- the introduction of a limit to the contribution made from biofuels and bioliquids produced from food crops, such as those based on cereals and other starch rich crops, sugars and oil crops, to the Renewable Energy Directive targets to current consumption levels;
- an enhanced incentive scheme in Article 3(4) to promote sustainable and advanced biofuels made from non-land using feedstocks;
- introduction of a methodology for accounting and reporting of estimated emissions from carbon stock changes caused by indirect land-use change, based on the best available scientific evidence, for the purposes of the calculation of the life cycle greenhouse gas emission savings from biofuels and bioliquids, as reported by Member States in Article 22;
- a review process to ensure that this methodology is updated and adapted in light of scientific developments;
- to increase the minimum greenhouse gas saving threshold for biofuels and bioliquids produced in new installations with immediate effect in order to improve the overall greenhouse gas balance of the biofuels and bioliquids consumed in the EU as well as discouraging further investments in installations with low greenhouse gas performance;
- simplification of the calculation of greenhouse gas savings for European biofuel producers, leveling the playing field between EU producers and producers in third countries;
- removal of temporary provisions for addressing indirect land-use change, which were contained in the Directives and are no longer necessary in light of a comprehensive approach being adopted;

- adaptation of the Renewable Energy Directive to the entry into force of the Treaty on the Functioning of the European Union, notably the conferral of powers to the Commission to adopt acts in accordance with Article 290 and Article 291 thereof.

The proposal also includes minor corrections and clarifications with regard to non-biofuel issues.

The main features of this proposal regarding the Fuel Quality Directive are:

- the introduction of a methodology for accounting and reporting of estimated emissions from carbon stock changes caused by indirect land-use change, based on the best available scientific evidence, for the purposes of the calculation of the life cycle greenhouse gas emission savings from biofuels, as described in Article 7a;
- review process to ensure that this methodology is updated and adapted in light of scientific developments;
- increase of the minimum greenhouse gas saving threshold for biofuels produced in new installations with immediate effect in order to improve the overall greenhouse gas balance of the biofuels consumed in the EU as well as discouraging further investments in installations with low greenhouse gas performance;
- simplification of the calculation of greenhouse gas savings for European biofuel producers, leveling the playing field between EU producers and producers in third countries;
- removal of temporary provisions for addressing indirect land-use change, which were contained in the Directives and are no longer necessary in light of a comprehensive approach being adopted;
- adaptation of the Fuel Quality Directive to the entry into force of the Treaty on the Functioning of the European Union, notably the conferral of powers to the Commission to adopt acts in accordance with Article 290 and Article 291 thereof.

The proposal also includes minor corrections and clarifications with regard to non-biofuel issues.

3.2. Legal basis

The primary objective of the Directives is the protection of the environment and the functioning of the internal market. This proposal is therefore based on Articles 192(1) and 114 of the Treaty on the Functioning of the European Union.

3.3. Subsidiarity principle

Articles 19(6) and 7d(6) of the respective Directives invite the Commission to address the issue of indirect land-use change. The overall objective of the Fuel Quality and Renewable Energy Directives is to contribute to the goal of reducing economy-wide greenhouse gas emissions. As a way to achieve that, they create an EU-wide market for sustainable biofuels. The Member States are not able to meet these challenges individually as indirect land-use change impacts necessarily have

transnational aspects which cannot be dealt with satisfactorily by the Member States alone.

3.4. Proportionality principle

The proposal complies with the proportionality principle for the following reasons:

- It does not go beyond what is necessary to achieve the objective of the reduction of lifecycle greenhouse gas emissions from biofuels consumed in the EU, by taking into consideration their indirect impact on land-use change.
- The proposal takes the form of a Directive which sets out the minimum fuel specification for reasons of environmental protection. Other technical aspects of fuel specifications are not addressed in the Directive but are left to be governed by European standards in line with better regulation principles.
- The proposal does not increase the financial or administrative burden on the Union, national, regional or local governments. The requirements in relation to these bodies are not changed from that in the existing Directive.
- In developing the proposals, all major implications have been analysed in the Impact Assessment.

4. BUDGETARY IMPLICATION

The proposal has no budgetary implication for the Union budget.

5. OTHER COMMENTS

This Commission proposal is accompanied by an Impact Assessment.

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

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 and 2003/30/EC

and

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 Directive 93/12/EC

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 192(1) thereof, in conjunction with Article 114 thereof in relation to Article 1(7) to 1(15) and Article 2(3) to 2(19) of this Directive,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national Parliaments,

Having regard to the opinion of the European Economic and Social Committee⁵,

Having regard to the opinion of the Committee of the Regions⁶,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) Article 3(4) of Directive 2009/28/EC⁷ on the promotion of the use of energy from renewable energy sources and amending and subsequently repealing Directives 2001/777/EC and 2003/30/EC (Renewable Energy Directive) requires Member States to ensure that the share of energy from renewable energy sources in all forms of transport in 2020 is at least 10% of their final energy consumption. The blending of biofuels is one of the methods available for Member States to meet this target, and is expected to be the main contributor.

⁵ OJ C , , p. .

⁶ OJ C , , p. .

⁷ OJ L

- (2) In view of the Union's objectives to further reduce greenhouse gas emissions and the significant contribution that road transport fuels make to those emissions, Article 7a(2) of Directive 98/70/EC⁸ relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EC (Fuel Quality Directive) requires fuel suppliers to reduce by at least 6% by 31 December 2020 the life cycle greenhouse gas emissions per unit of energy ("greenhouse gas intensity") of fuels used in the Union by road vehicles, non-road mobile machinery, agricultural and forestry tractors and recreational craft when not at sea. The blending of biofuels is one of the methods available for fossil fuel suppliers to reduce the greenhouse gas intensity of the fossil fuels supplied.
- (3) Article 17 of Directive 2009/28/EC establishes sustainability criteria that biofuels and bioliquids need to comply with in order to be counted towards the targets in the Directive and to qualify for inclusion in public support schemes. These criteria include requirements on the minimum greenhouse gas emission savings that biofuels and bioliquids need to achieve compared to fossil fuels. Identical sustainability criteria are established for biofuels under Article 7b of Directive 98/70/EC.
- (4) Where pasture or agricultural land previously destined for the food, feed and fibre markets is diverted to biofuel production, the non-fuel demand will still need to be satisfied either through intensification of current production or by bringing non-agricultural land into production elsewhere. The latter case represents indirect land-use change and when it involves the conversion of high carbon stock land it can lead to significant greenhouse gas emissions. Directive 2009/28/EC and Directive 98/70/EC should be amended therefore to address indirect land use change given that current biofuels are mainly produced from crops grown on existing agricultural land.
- (5) Article 19(6) of Directive 2009/28/EC and Article 7d(6) of Directive 97/70/EC invite the Commission to review the impact of indirect land-use change on the greenhouse gas emissions associated with the production of biofuels, and in the case of Directive 2009/28/EC also for bioliquids, and to address ways to minimise the impacts, associated with carbon stock changes caused by indirect land-use changes, whilst taking into account the need to protect existing investments.
- (6) Pursuant to this invitation, the Commission adopted a Communication on 22 December 2010⁹ summarising the consultations and analytical work conducted on this topic since 2008. In this report, the Commission identified a number of uncertainties and limitations associated with the available numerical models used to quantify indirect land-use change, whilst acknowledging that indirect land-use change can reduce the greenhouse gas emissions savings associated with biofuels and bioliquids, and as such, recommended that this issue was to be addressed under a precautionary approach.
- (7) Based on forecasts of biofuel demand provided by the Member States and estimates of indirect land-use change emissions for different biofuel feedstocks it is likely that greenhouse gas emissions linked to indirect land use change are significant, and could negate some or all of the greenhouse gas savings of individual biofuels. This is because almost the entire biofuel production to 2020 is expected to come from crops

⁸ OJ L....

⁹ COM(2010) 811.

grown on land that could be used to satisfy food and feed markets. In order to reduce such emissions, it is appropriate to distinguish between crop groups such as oil crops, cereals, sugars and other starch containing crops accordingly.

- (8) Liquid renewable fuels are likely to be required by parts of the transport sector as part of the Union's strategy to reduce its greenhouse gas emissions. Advanced biofuels, such as those made from wastes and algae, provide high greenhouse gas savings with low risk of impacts from indirect land use change and do not compete directly for agricultural land for the food and feed markets. It is appropriate, therefore, to encourage greater production of such advanced biofuels as these are currently not commercially available in large quantities, in part due to competition for public subsidies with now established food crop based biofuel technologies. Further incentives should be provided by increasing the weighting of advanced biofuels towards the Renewable Energy Directive 10% transport target compared to conventional biofuels. In this context, 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.
- (9) To prepare for the transition towards advanced biofuels and minimise the overall indirect land use change impacts in the period to 2020, it is appropriate to limit the amount of biofuels and bioliquids obtained from food crops as set out in part A of Annex VIII of the Renewable Energy Directive and part A of Annex V of the Fuel Quality Directive that can be counted towards the Renewable Energy Directive targets.
- (10) The minimum greenhouse gas saving threshold for biofuels and bioliquids produced in new installations should be increased with immediate effect in order to improve their overall greenhouse gas balance as well as discouraging further investments in installations with low greenhouse gas savings performance.
- (11) The estimated indirect land-use change emissions need to be counted towards the target in Article 7a(2) of Directive 98/70/EC to provide incentives for those biofuels with associated low indirect land-use change impacts. This ensures that the accuracy and credibility of the 6 % reduction target, and of the Union's greenhouse gas reduction goals more generally, are not undermined by ignoring these potentially significant sources of emissions. Biofuels that do not require land for their production, such as those from waste feedstocks, should be assigned a zero emissions factor under such a methodology. In order to maintain a coherent approach between the Renewable Energy and Fuel Quality Directives, the estimated indirect land-use change emissions should also be included in the reporting by Member States under Article 22(2) of the Renewable Energy Directive.
- (12) The Commission should review the methodology for estimating land-use change emission factors included in Annexes VIII and V to the Directives 2009/28/EC and 98/70/EC respectively in the light of adaptation to technical and scientific progress. To this end, and if scientifically warranted, the Commission should consider the possibility of revising the proposed crop group indirect land-use change factors, as well as introducing factors at further levels of disaggregation (i.e. at a feedstock level) and including additional values should new biofuel feedstocks come to market.
- (13) Articles 19(8) of Directive 2009/28/EC and 7d(8) of Directive 98/70/EC include provisions for encouraging the cultivation of biofuels in severely degraded and heavily

contaminated land as an interim measure for mitigating against indirect land-use change. These provisions are no longer adequate in their current form and need to be integrated in this approach to ensure that overall actions for minimising emission from indirect land-use change remain coherent.

- (14) The Commission concluded in its Communication adopted in 2010¹⁰ that it is not feasible to introduce the same rules for using default values in third countries, as those currently in place in the EU. It is therefore appropriate to align the rules to ensure equal treatment for producers regardless of where the production takes place. It is therefore not appropriate to limit the use of default values to areas within the Union to only those areas included in the lists referred to in Article 19(2) of Directive 2009/28/EC and Article 7d(2) of Directive 98/70/EC. Articles 19(3) and 19(4) of Directive 2009/28/EC and Articles 7d(3) and 7d(4) of Directive 98/70/EC are therefore amended accordingly, allowing the lists submitted under Article 19(2) of Directive 2009/28/EC and Article 7d(2) of Directive 98/70/EC to be used for calculation of an actual value.
- (15) The objectives of this Directive, to ensure a single market for fuel for road transport and non-road mobile machinery and ensure respect for minimum levels of environmental protection from use of this fuel, cannot be sufficiently achieved by the Member States and can therefore be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on the Functioning of the European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.
- (16) It is appropriate to adjust the Directives 2009/28/EC and 98/70/EC to the Treaty on the Functioning of the European Union.
- (17) As a consequence of the entry into force of the Treaty on the Functioning of the European Union, the powers conferred under Directives 2009/28/EC and 98/70/EC upon the Commission need to be aligned to Article 290 and Article 291 of the Treaty.
- (18) In order to ensure uniform conditions for the implementation of this Directive, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by the Member States of the Commission's exercise of implementing powers.
- (19) In order to permit adaptation to technical and scientific progress the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of certain matters related to biofuels. It will be of particular importance that the Commission carries out consultations during its preparatory work, including at expert level.

¹⁰ COM(2010)427

- (20) The Commission, when preparing and drawing-up delegated acts, should ensure a simultaneous, timely and appropriate transmission of relevant documents to the European Parliament and Council.
- (21) The Commission should review the effectiveness of the measures introduced by this Directive in limiting indirect land-use change greenhouse gas emissions and addressing ways to further minimise that impact, which could include the introduction of estimated indirect land use change emission factors in the sustainability scheme as of 1 January 2021.

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Amendments to Directive 2009/28/EC

Directive 2009/28/EC is hereby amended as follows:

1. Title of Article 3 shall be replaced by:

'Mandatory national targets and measures for the use of energy from renewable sources'.
2. A new subparagraph shall be inserted at the end of Article 3(1):

'For the purpose of compliance with this target, the maximum joint contribution from biofuels and bioliquids produced from food crops, as set out in Annex VIII part A, shall be no more than the energy quantity corresponding to the maximum contribution as set out in Article 3(4)d.
3. The following shall be added at the end of Article 3(4)b:

This indent is without prejudice to Articles 17(1)a and 3(4)d;
4. A new Article 3(4)d shall be inserted:

'd) for the calculation of biofuels in the numerator, the share of energy from biofuels produced from food crops, as set out in Annex VIII part A, shall be no more than 5% of the final consumption of energy in transport in 2020.

The contribution made by biofuels produced from
 - municipal solid waste, aquatic material, agricultural, aquaculture, fisheries and forestry residues and renewable liquid and gaseous fuels of non-biological origin shall be considered to be four times their energy content;
 - other waste and non-food ligno-cellulosic and ligno-cellulosic materials from non-residues shall be considered to be twice their energy content".
5. The last sentence of Article 5 (5) shall be replaced by:

The Commission shall be empowered to adopt delegated acts in accordance with Article 25 (b) concerning the adaptation of the energy content of transport fuels as set out in Annex III to scientific and technical progress.

6. The last sentence of Article 6 (1) shall be deleted.

7. Article 17 (2) shall be replaced by:

'2. The greenhouse gas emission saving from the use of biofuels and bioliquids taken into account for the purposes referred to in paragraph 1 shall be at least 60 % for biofuels and bioliquids produced in installations starting operation on 1 July 2012 or later.

In the case of biofuels and bioliquids produced by installations that were in operation on 1 July 2012, the first subparagraph shall not apply provided that such biofuels and bioliquids achieve a greenhouse gas emission saving of at least 35% until 31 December 2017 and at least 50% from 1 January 2018.

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

8. Article 17 (3), last subparagraph shall be replaced by:

'The Commission shall be empowered to adopt delegated acts in accordance with Article 25 (b) to establish the criteria and geographic ranges to determine which grassland shall be covered by point (c) of the first subparagraph.

9. Article 18 (4) second subparagraph shall be replaced by:

'The Commission may decide that voluntary national or international schemes setting standards for the production of biomass products contain accurate data for the purposes of Article 17(2) or demonstrate that consignments of biofuel or bioliquid comply with the sustainability criteria set out in Article 17(3) to (5). The Commission may decide that those schemes contain accurate data for the purposes of information on measures taken for the conservation of areas that provide, in critical situations, basic ecosystem services (such as watershed protection and erosion control), for soil, water and air protection, the restoration of degraded land, the avoidance of excessive water consumption in areas where water is scarce and on the issues referred to in the second subparagraph of Article 17(7). The Commission may also recognise areas for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature for the purposes of Article 17 (3)(b) (ii).'

10. Article 19 (3) shall be replaced by:

'3. The typical greenhouse gas emissions from cultivation of agricultural raw materials in the reports referred to in Article 19(2) may be used for the purpose of calculating an actual value. Where a Member States has submitted more than one report, only the latest report may be used for this purpose.'

11. Article 19 (4) shall be replaced by:

'4. For territories outside the European Union reports equivalent to those in Article 19(2) may be submitted to the Commission. The Commission shall treat these as voluntary national or international schemes as referred to in Article 18(4) for the purpose of calculating an actual value for cultivation.'

12. Article 19 (5), last sentence, shall be replaced by:

To this end, the Commission shall be empowered to adopt delegated acts in accordance with Article 25 (b).

13. Article 19 (6) shall be replaced by the following:

'The Commission shall be empowered to adopt delegated acts pursuant to Article 25(b) concerning the adaptation to technical and scientific progress of Annex VIII, including the revision of the proposed crop group indirect land-use change values; the introduction of new values at further levels of disaggregation (i.e. at a feedstock level); the inclusion of additional values should new biofuel feedstocks come to market as appropriate; and the development of factors for feedstocks from non-food cellulosic and ligno-cellulosic materials.'

14. Article 19 (7), first subparagraph, shall be replaced by:

'The Commission shall be empowered to adopt delegated acts pursuant to Article 25 (b) concerning the adaptation of Annex V to technical and scientific progress, including by the addition of values for further biofuel production pathways for the same or for other raw materials and by modifying the methodology laid down in part C'. Article 19 (8) shall be deleted in its entirety.

15. Article 21 shall be deleted in its entirety.

16. Article 22 (2) shall be replaced by:

'2. In estimating net greenhouse gas emission saving from the use of biofuels, the Member State may, for the purpose of the reports referred to in paragraph 1, use the typical values given in part A and part B of Annex V, and shall add the estimates for indirect land-use change emissions set out in Annex VIII.'

17. Article 25 shall be replaced by:

'Art. 25

(1) 'Except in the cases referred to in paragraph 2, the Commission shall be assisted by the Committee on Renewable energy sources. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.'

(2) 'For matters relating to the sustainability of biofuels and bioliquids, the Commission shall be assisted by the Committee on the sustainability of biofuels and bioliquids. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.' (3) Where reference is made to this paragraph, Article 4 of Regulation 182/2011 shall apply.'

18. Article 25 (4) shall be deleted.
19. A new article 25 b) shall be inserted:
'Article 25 b)

Exercise of the delegation

The powers to adopt delegated acts are conferred on the Commission subject to the conditions laid down in this Article.

The delegation of power referred to in Articles 5 (5), 17 (3) (c) third subparagraph, 19 (5), 19 (6) and 19 (7) shall be conferred on the Commission for an indeterminate period of time from [the date of entry into force of this Directive].

The delegation of power referred to in Articles 5 (5), 17 (3) (c) third subparagraph, 19 (5), 19 (6) and 19 (7) may be revoked at any time by the European Parliament or by the Council. A decision of revocation shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

A delegated act adopted pursuant to Articles 5 (5), 17 (3) (c) third subparagraph, 19 (5), 19 (6) and 19 (7) shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of 2 months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by 2 months at the initiative of the European Parliament or the Council.'

20. Annex V, part C, paragraph 7 shall be replaced by:

'Annualised emissions from carbon stock changes caused by land-use change, e_l , shall be calculated by dividing total emissions equally over 20 years. For the calculation of these emissions the following rule shall be applied:

$$e_l = (CS_R - CS_A) \times 3,664 \times 1/20 \times 1/P,$$

where

e_l = annualised greenhouse gas emissions from carbon stock change due to land-use change (measured as mass of CO₂-equivalent per unit biofuel energy);

CS_R = the carbon stock per unit area associated with the reference land use (measured as mass of carbon per unit area, including both soil and vegetation). The reference land-use shall be the land-use in January 2008 or 20 years before the raw material was obtained, whichever was the later;

CS_A = the carbon stock per unit area associated with the actual land-use (measured as mass of carbon per unit area, including both soil and vegetation). In cases where the carbon stock accumulates over more than one year, the value attributed to CS_A shall be the estimated stock per unit area after 20 years or when the crop reaches maturity, whichever the earlier; and

P = the productivity of the crop (measured as biofuel or bioliquid energy per unit area per year).'

21. Annex V, Part C, paragraphs 8 and 9 shall be deleted.

Article 2

Amendments to Directive 98/70/EC

Directive 98/70/EC is hereby amended as follows:

1. Article 7a, paragraph 3 shall be replaced by the following:

'3. Lifecycle greenhouse gas emissions from biofuels, for the purposes of paragraph 2, shall be calculated pursuant to the second subparagraph of Article 7d(1). Lifecycle greenhouse gas emissions from other fuels and energy shall be calculated using a methodology laid down in accordance with paragraph 5 of this Article.'

2. Article 7a, paragraph 5, first subparagraph shall be replaced by the following:

'5. The Commission shall be empowered to adopt delegated acts in accordance with Article 10a concerning in particular '

3. Article 7b, paragraph 2 shall be replaced by the following:

'2. The greenhouse gas emission saving from the use of biofuels taken into account for the purposes referred to in paragraph 1 shall be at least 60% for biofuels produced in installations starting operation on 1 July 2012 or later.

In the case of biofuels produced by installations that were in operation on 1 July 2012, the first subparagraph shall not apply provided that such biofuels achieve a greenhouse gas emission saving of at least 35% until 31 December 2017 and at least 50% from 1 January 2018.

The greenhouse gas emission saving from the use of biofuels shall be calculated in accordance with Article 7d(1).'

4. Article 7b, last subparagraph of paragraph 3 shall be replaced by the following:

'The Commission shall be empowered to adopt delegated acts in accordance with Article 10a concerning the criteria and geographic ranges to determine which grassland shall be covered by point (c) of the first subparagraph.'

5. In Article 7d, paragraph 1, first subparagraph the reference to Article 7a shall be deleted.

6. In Article 7d, the following second subparagraph shall be inserted in paragraph 1:

'For the purposes of Article 7a, lifecycle greenhouse gas emissions from biofuels, shall be calculated by adding the respective value in Annex V to the result obtained pursuant to the first subparagraph.'
7. Article 7d, paragraph 3 shall be replaced by:

"3. The typical greenhouse gas emissions from cultivation of agricultural raw materials in the reports referred to in Article 7d(2) may be used for the purpose of calculating an actual value. Where a Member States has submitted more than one report, only the latest report may be used for this purpose."
8. Article 7d, paragraph 4 shall be replaced by:

"4. For territories outside the European Union reports equivalent to those in Article 7d(2) may be submitted to the Commission. The Commission shall treat these as voluntary schemes as referred to in Article 7c(4) for the purpose of calculating an actual value for cultivation.
9. Article 7d, paragraph 5 shall be replaced by the following:

'By 31 December 2012 at the latest and every two years thereafter, the Commission shall draw up a report on the estimated typical and default values in Parts B and E of Annex IV, paying special attention to emissions from transport and processing.

The Commission shall be empowered to adopt delegated acts pursuant to Article 10a concerning the correction of the estimated typical and default values in Parts B and E of Annex IV.
10. Article 7d, paragraph 6 shall be replaced by the following:

'2. 'The Commission shall be empowered to adopt delegated acts pursuant to Article 10a concerning the adaptation to technical and scientific progress of Annex V, including by the revision of the proposed crop group indirect land-use change values; the introduction of new values at further levels of disaggregation (i.e. at a feedstock level); the inclusion of additional values should new biofuel feedstocks come to market as appropriate; and the development of factors for feedstocks from non-food cellulosic and ligno-cellulosic materials.'
11. Article 7d (7), shall be replaced by the following:

'The Commission shall be empowered to adopt delegated acts pursuant to Article 10a concerning the adaptation to technical and scientific progress of Annex IV, including by the addition of values for further biofuel production pathways for the same or for other raw materials and by modifying the methodology laid down in Part C.'
12. Article 7d, paragraph 8 shall be deleted.
13. Article 8, paragraph 1 shall be replaced by the following:

Member States shall monitor compliance with the requirements of Articles 3 and 4, in respect of petrol and diesel fuels, on the basis of the analytical methods referred to in the version in force of the European standards EN 228 and EN 590 respectively.

14. Article 8, paragraph 3 shall be replaced by the following:

Each year by 30 June, the Member States shall submit a report of national fuel quality data for the preceding calendar year. The Commission shall establish a common format for the submission of a summary of national fuel quality. The first report shall be submitted by 30 June 2002. From 1 January 2004, the format for this report shall be consistent with that described in the relevant European standard. In addition, Member States shall report the total volumes of petrol and diesel fuels marketed in their territories and the volumes of unleaded petrol and diesel fuels marketed with a maximum sulphur content of 10 mg/kg. Furthermore, Member States shall report annually on the availability on an appropriately balanced geographical basis of petrol and diesel fuels with a maximum sulphur content of 10 mg/kg that are marketed within their territory.

15. Article 10, paragraph 1 shall be replaced by the following:

'The Commission shall be empowered to adopt delegated acts pursuant to Article 10a concerning the adaptation to technical and scientific progress of the permitted analytical methods referred to in Annex I or II and of Annex III. '

16. The following Article shall be inserted:

Article 10a

Exercise of the delegation

The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

The delegation of power referred to in Articles 7a(5), 7d(5), 7d(6), 7d(7), 10(1) and in the last subparagraph of Article 7b(3) shall be conferred for an indeterminate period of time from the date of entry into force of this Directive.

The delegation of powers referred to in Articles 7a(5), 7d(5), 7d(6), 7d(7), 10(1) and in the last subparagraph of Article 7b(3) may be revoked at any time by the European Parliament or by the Council. A decision of revocation shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

A delegated act adopted pursuant to Articles 7a(5), 7d(5), 7d(6), 7d(7), 10(1) and to the last subparagraph of Article 7b(3) shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of 2 months of notification of that act to the European Parliament and the Council or if,

before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by 2 months at the initiative of the European Parliament or the Council

17. Article 11 shall be replaced by the following:

'1. Except in the cases referred to paragraph 2, the Commission shall be assisted by the Committee on Fuel Quality. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.

2. For matters relating to the sustainability of biofuels under Article 7c, the Commission shall be assisted by the Committee on the Sustainability of Biofuels and Bioliquids established by Article 25(2) of Directive 2009/28/EC. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.

3. Where reference is made to this paragraph, Article 4 of Regulation 182/2011/EC shall apply.'

18. Annex IV, part C, paragraph 7 shall be replaced by:

'Annualised emissions from carbon stock changes caused by land-use change, e_l , shall be calculated by dividing total emissions equally over 20 years. For the calculation of these emissions the following rule shall be applied:

$$e_l = (CS_R - CS_A) \times 3,664 \times 1/20 \times 1/P,$$

where

e_l = annualised greenhouse gas emissions from carbon stock change due to land-use change (measured as mass of CO₂-equivalent per unit biofuel energy);

CS_R = the carbon stock per unit area associated with the reference land-use (measured as mass of carbon per unit area, including both soil and vegetation). The reference land-use shall be the land use in January 2008 or 20 years before the raw material was obtained, whichever was the later;

CS_A = the carbon stock per unit area associated with the actual land-use (measured as mass of carbon per unit area, including both soil and vegetation). In cases where the carbon stock accumulates over more than one year, the value attributed to CS_A shall be the estimated stock per unit area after 20 years or when the crop reaches maturity, whichever the earlier; and

P = the productivity of the crop (measured as biofuel or energy per unit area per year).'

19. Paragraphs 8 and 9 of Annex IV, part C, shall be deleted.

Article 3

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by twelve months after adoption at the latest. They shall forthwith communicate to the Commission the text of those provisions.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 4

Review

1. The Commission shall, before 31 December 2017, submit a report to the European Parliament and to the Council reviewing the effectiveness of the measures introduced by this Directive in limiting indirect land-use change greenhouse gas emissions associated with the production of biofuel and bioliquids. The report shall, if appropriate, be accompanied by,
 - a legislative proposal based on the best available scientific evidence, for introducing estimated indirect land use change emission factors into the appropriate sustainability criteria to be applied from 1 January 2021; and
 - a review of the effectiveness of the incentives provided for biofuels from non-land using feedstocks and non-food crops under Article 3(4)d of Directive 2009/28/EC.

Article 5

Entry into force

1. This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

Article 6

1. This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President

ANNEX I

The following Annex shall be inserted in Directive 2009/28/EC:

'Annex VIII

Part A. Estimated indirect land-use change emissions from biofuel and bioliquid feedstocks

Crop group	Estimated indirect land-use change emissions (gCO _{2eq} /MJ)
Cereals and other starch rich crops	12
Sugars	13
Oil crops	55

Part B. Feedstocks for which the estimated indirect land-use change emissions are considered to be zero

Feedstocks produced from the following categories will be considered to have estimated indirect land-use change emissions of zero:

- (a) waste defined as any substance or object which the holder discards or intends or is required to discard, including materials that have to be withdrawn from the market for health or safety reasons. Raw materials that have been intentionally modified are not covered by this category.
- (b) agricultural, aquaculture, fisheries and forestry residues.
- (c) residue defined as any substance that is not the end product(s) that a production process directly seeks to produce, and that it is not a primary aim of the production process and the process has not been deliberately modified to produce it.
- (d) aquatic materials.
- (e) when the production of such feedstock has led to 'direct land-use change', i.e. a change in terms of land cover between the six land categories used by the IPCC (forest land, grassland, cropland, wetlands, settlements and other land) plus a seventh category of perennial crops (multi-annual crops whose stem is usually not annually harvested such as short rotation coppice and oil palm), and a e_l value has been calculated in accordance to Part C, paragraph 7 of Annex V.

ANNEX II

The following Annex shall be inserted in Directive 98/70/EC:

'Annex V

Part A. Estimated indirect land-use change emissions from biofuels feedstocks

Crop group	Estimated indirect land-use change emissions (gCO _{2eq} /MJ)
Cereals and other starch rich crops	12
Sugars	13
Oil crops	55

Part B. Feedstocks for which the estimated indirect land-use change emissions are considered to be zero

Feedstocks produced from the following categories will be considered to have estimated indirect land-use change emissions of zero:

- (a) waste defined as any substance or object which the holder discards or intends or is required to discard, including materials that have to be withdrawn from the market for health or safety reasons. Raw materials that have been intentionally modified are not covered by this category.
- (b) agricultural, aquaculture, fisheries and forestry residues.
- (c) residue defined as any substance that is not the end product(s) that a production process directly seeks to produce, and that it is not a primary aim of the production process and the process has not been deliberately modified to produce it.
- (d) aquatic materials.
- (e) when the production of such feedstock has led to 'direct land-use change', i.e. a change in terms of land cover between the six land categories used by the IPCC (forest land, grassland, cropland, wetlands, settlements and other land) plus a seventh category of perennial crops (multi-annual crops whose stem is usually not annually harvested such as short rotation coppice and oil palm), and a e_l value has been calculated in accordance to Part C, paragraph 7 of Annex IV.