



HM Government

NEW RULES FOR BIOLIQUIDS, WASTES & RESIDUES UNDER THE RENEWABLES OBLIGATION

Response of the UK Government, the
Scottish Government and the Northern
Ireland Department for the Economy to the
consultation

11 December 2017

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This response and the original consultation can be found at:

<https://www.gov.uk/government/consultations/new-rules-for-bioliquids-wastes-and-residues-under-the-renewables-obligation>

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Executive Summary

Overview

This Government response summarises the responses to the consultation on new rules for bioliquids, wastes & residues under the Renewables Obligation (RO) scheme and sets out the collective decision of the UK Government, the Scottish Government and the Northern Ireland Department for the Economy (hereafter referred to as “Government”) on each issue.

The consultation

A public consultation ran from 23 October to 13 November 2017. It set out how the UK intends to implement in the RO the straightforward requirements from EU Directive 2015/1513 (informally called the Indirect Land-use Change - ILUC - Directive). Comments were only sought on proposals where there were options on the way forward. Comments were also sought on the wording of the draft legislation that will bring the changes into force.

Seven responses were received. A detailed summary of the responses is in chapter 3. A high level summary is as follows:

- Question 1: Three respondents thought that in future years there would not be any significant change from the current level of use of bioliquids. Four did not comment;
- Question 2: Two respondents thought that crop-derived bioliquids should be covered by the RO's current 4% supplier cap on bioliquid ROCs¹, regardless of the generating technology that they were used in. Two disagreed and three did not comment;
- Question 3: Three respondents agreed that no changes were needed at the present time to the current level of the supplier cap on bioliquid ROCs under the RO. One thought the cap should increase and three did not comment;
- Question 4: Two respondents were not aware of any generating stations that were, or intended to be, accredited under the RO and had used, or intended to use, consignments of bioliquid which had a greenhouse gas (GHG) emission saving of at least 35% but less than 50%. Two respondents were aware of the occasional use of consignments within this range but the consignments were not eligible for support under the RO. Three did not comment;
- Question 5: Four respondents agreed that the RO should retain the UK's current date for achieving a minimum of 50% GHG emission savings. One had no preference over retaining the current date or temporarily lowering the UK's current requirements from 50% to 35% GHG emission savings. Two did not comment;
- Question 6: Two respondents agreed that generators over 50kW should provide Ofgem with information on the energy content of crop-derived bioliquids. One disagreed and four did not comment;

¹ An explanation of ROCs (Renewables Obligation Certificates) is given in paragraphs 1.6-1.8 below

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- Question 7: Three respondents agreed there was no need to change the current reporting requirements for microgenerators (up to 50kW). Four did not comment;
- Question 8: Two respondents agreed that there was no need to define the terms 'sugars' and 'oil crops' in the RO legislation as they were already sufficiently well understood. One disagreed and four did not comment;
- Question 9: No comments were received about not amending the current references to Annex 5 to the Renewable Energy Directive in the RO legislation that relate to the greenhouse gas criteria for solid and gaseous biomass. (The consultation document proposed that no changes were needed because the references already refer to Annex 5 as amended by the ILUC Directive);
- Question 10: Six respondents agreed that the draft implementing legislation included with the consultation document was clear. One did not comment.

Government decisions

The straightforward changes that must be made to the RO legislation in order to correctly implement the ILUC Directive will be implemented as set out in the consultation document. They are summarised here for ease of reference:

- (i) **Amend the existing definition of 'waste' in the RO legislation** to take account of the new definition introduced by the ILUC Directive. This will make it clear that substances will not be considered to be waste where they have been intentionally modified or contaminated to fall within the definition of waste set out in Article 3(1) of Directive 2008/98/EC. This new definition of 'waste' will apply in relation to bioliquids, and solid and gaseous biomass;
- (ii) **Add a definition for 'starch-rich crops'**. This is needed to explain what is meant by starch-rich crops for the data collection requirement for bioliquids (as set out in (xi) below) (which will also enable monitoring of the RO's 4% supplier cap on bioliquid ROCs (as set out in (viii) below) to take place);
- (iii) **Clarify the meaning of 'residue from processing'**. This will make it clear that substances will not be considered to be processing residues where they are the primary aim of a production process or they result from a production process that has been deliberately modified in order to produce the residue. The aim is to avoid incentivising a deliberate increase in processing residues at the expense of the main product. This definition will apply in relation to bioliquids, and solid and gaseous biomass and is relevant to the meaning of 'residue from agriculture, aquaculture, fisheries or forestry' in (iv) below. In practice, Ofgem already use this clarification when deciding whether or not a substance is a residue from processing;
- (iv) **Clarify the meaning of 'residue from agriculture, aquaculture, fisheries or forestry'**. This will make it clear that references to residue from agriculture, aquaculture, fisheries and forestry are to residue directly generated by agriculture, aquaculture, fisheries and forestry and do not include residues from related industries or processing residues. This definition will apply in relation to bioliquids, and solid and gaseous biomass. The distinction is needed because residues directly generated by agriculture, aquaculture, fisheries and forestry are required to comply with both the greenhouse gas emission savings thresholds and the land criteria in Article 17 of the Renewable Energy Directive in order to receive support under the RO. However, residues from related industries or processing residues are only

required to comply with the greenhouse gas emission savings thresholds. In practice, Ofgem already use this clarification when deciding whether or not a substance is a residue from agriculture, aquaculture, fisheries and forestry;

- (v) **Amend the requirement for certain bioliquids to meet 60% minimum greenhouse gas emission savings compared to fossil fuel in order to receive support under the RO.** The savings required for bioliquids produced in an installation that started production between 6 October 2015 and 31 December 2016 are increased in the RO legislation from the current level of 50% to 60%, where the bioliquid is used to generate electricity from 1 January 2018 onwards (the new requirements are set out at (x) below);
- (vi) **Remove the current restriction on the use of default values when calculating the greenhouse gas emission savings from the use of bioliquids.** This will allow default values to be used irrespective of whether the biomaterial from which the bioliquid is made was cultivated within or outside the European Union; and
- (vii) **Remove the existing definition of ‘disaggregated default values for cultivation’.** This term relates to the restriction on the use of the default values in (vi) above. It is now redundant.

Full details are set out in Chapter 2.

After carefully considering the consultation responses where there were options on the way forward, Government has decided to take the following actions;

- (viii) **Leave unchanged the current exemptions from the 4% supplier cap on bioliquid ROCs produced from cereal and other starch-rich crops, sugars and oil crops, and from crops grown as main crops primarily for energy purposes on agricultural land.** This means that generation from bioliquids derived from these crops will be exempt from the cap where ROCs are issued in respect of generation:
 - By a microgenerator station (up to 50kW);
 - By a qualifying combined heat and power (CHP) station below 1 megawatt;
 - From advanced fuel; or
 - By energy from waste with CHP.

But they will be covered by the cap if used in other technologies;

- (ix) **Leave unchanged the current level of the 4% supplier cap on bioliquid ROCs under the RO.** However, we will monitor the use of crop-derived bioliquids so that action can be taken in future if it looks like the ILUC Directive’s 7% limit (on the contribution from crop-derived biofuels and bioliquids that can be taken into account for the purpose of compliance with the UK’s 2020 targets under the Renewable Energy Directive) will be exceeded;
- (x) **Leave unchanged the UK’s current date for achieving 50% savings for certain bioliquids.** Taking account of the new requirements for 60% savings set out in (v) above, the new percentage savings will be:
 - Bioliquid produced by an installation that started producing liquid fuel from biomaterial before 6 October 2015:
 - 35% in the case of bioliquid used to generate electricity before 1 January 2017;

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- 50% in the case of bioliquid used to generate electricity on or after 1 January 2017;
- Bioliquid produced by an installation that started producing liquid fuel from biomaterial on or after 6 October 2015:
 - 35% in the case of bioliquid used to generate electricity before 1 January 2017;
 - 50% in the case of bioliquid used to generate electricity on or after 1 January 2017 but before 1 January 2018;
 - 60% in the case of bioliquid used to generate electricity on or after 1 January 2018;
- (xi) **Require generators over 50kW to provide Ofgem with information on the energy content of bioliquids sourced from starch-rich crops, sugars, oil crops and other crops grown as a main crop primarily for energy purposes on agricultural land.** This is necessary to monitor compliance with the ILUC Directive's 7% limit on what can be taken into account for the purpose of compliance with the UK's 2020 targets under the Renewable Energy Directive and to ensure the UK Government can satisfactorily report to the European Commission on the use of bioliquids;
- (xii) **Leave unchanged the current reporting requirements for microgenerators (up to 50kW capacity).** This means that microgenerators will not need to provide any additional information beyond the existing requirements;
- (xiii) **Do not define the meaning of 'sugars' and 'oil crops' in the RO legislation;** and
- (xiv) **Leave unchanged the current references in the RO legislation to Annex 5 to the Renewable Energy Directive that relate to the greenhouse gas criteria for solid and gaseous biomass.** This is because the references in the legislation already refer to Annex 5 as amended by the ILUC Directive.

Full details are set out in Chapter 3.

Next steps

We are aiming to lay the UK-wide implementing legislation before the UK Parliament in December. We anticipate that it will come into force UK-wide on 1 January 2018.

Chapter 1 – Introduction

Background

- 1.1 In 2015, the European Union enacted Directive 2015/1513² to address concerns about the impact of indirect land-use change caused by the growing of crops for use as transport biofuels, or bioliquids used for the generation of electricity and/or heat. In relation to bioliquids, it amends Directive 2009/28/EC on the promotion of the use of energy from renewable sources (commonly called the Renewable Energy Directive)³. Directive 2015/1513 is informally called the ‘Directive to reduce indirect land-use change for biofuels and bioliquids’ and is referred to in this document as the ILUC Directive.
- 1.2 Indirect land-use change occurs where energy crops (such as cereals or oilseed rape) intended to be used for the production of fuel are grown on agricultural land and displace agricultural production to previously un-cropped land (such as grasslands and forests). This risks cancelling out the greenhouse gas savings that result from using the bioliquid because grasslands and forests typically absorb high levels of carbon dioxide. By converting these land types to crop land, atmospheric carbon dioxide levels may increase.
- 1.3 In addition, the ILUC Directive increases the minimum greenhouse gas savings threshold for biofuels and bioliquids to discourage further investments in installations with low greenhouse gas performance. It also addresses concerns about the creation of waste fuels and processing residues through the deliberate modification or contamination of a substance.

Implications of the result of the EU referendum

- 1.4 On 23 June 2016, the EU referendum took place and the people of the United Kingdom voted to leave the European Union. Until exit negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the Government will continue to negotiate, implement and apply EU legislation. The outcome of these negotiations will determine what arrangements apply in relation to EU legislation in future once the UK has left the EU.
- 1.5 The UK must therefore implement the ILUC Directive into its support schemes for biofuels and bioliquids. This Government response is about implementing the Directive into the Renewables Obligation (RO). The earlier RO consultation

² Directive 2015/1513 is at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32015L1513>

³ Directive 2009/28/EC is at: **Error! Hyperlink reference not valid.**<http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009L0028>

document⁴ set out the steps being taken to implement the changes into the Contracts for Difference (CFD) scheme. The Department for Transport is implementing the ILUC Directive for transport biofuels⁵.

The Renewables Obligation

- 1.6 The Renewables Obligation (RO) has been the main financial mechanism since 2002 to incentivise deployment of renewable electricity generation in the UK. It places an obligation on electricity suppliers to produce a certain number of Renewables Obligation Certificates (ROCs) to Ofgem, the administrator of the RO scheme, in respect of each megawatt hour of electricity supplied each year
- 1.7 Ofgem issue ROCs to eligible generators in relation to the renewable electricity they generate. Generators sell ROCs to suppliers or traders, with or without the electricity generated, as tradable commodities. This allows them to receive a premium in addition to the wholesale price of their electricity. The value of a ROC is a matter for negotiation between generator and supplier/trader. Suppliers present ROCs to Ofgem to demonstrate their compliance with the RO (or make a payment per ROC into a buy-out fund).
- 1.8 The RO works on the basis of three complementary obligations: one covering England and Wales, and one each covering Scotland and Northern Ireland. Responsibility for the RO in Scotland and Northern Ireland is devolved to the Scottish Government and the Northern Ireland Department for the Economy respectively. Scotland and Northern Ireland may set their own rates of support, and there are some minor differences in support levels between the three Obligations.

The consultation

- 1.9 A UK-wide public consultation ran from 23 October to 13 November 2017 and sought views from interested parties from across the UK on implementing the requirements in the ILUC Directive for bioliquids used for electricity generation under the RO for England and Wales, Scotland and Northern Ireland. The consultation document also set out new definitions for wastes and residues that apply to bioliquids, and solid and gaseous biomass.

Responses to the consultation

- 1.10 During the three week consultation period, the consultation web page was accessed by 830 unique viewers, which resulted in 7 responses. These were from renewable electricity generators, an energy company, a renewable energy trade association and

⁴ The Consultation on new rules for bioliquids, wastes & residues under the Renewables Obligation is at: <https://www.gov.uk/government/consultations/new-rules-for-bioliquids-wastes-and-residues-under-the-renewables-obligation>

⁵ The Government response to DfT's consultation 'Renewable Transport Fuel Obligation: proposed changes for 2017' is at: <https://www.gov.uk/government/publications/renewable-transport-fuel-obligations-order-government-response>

Government bodies. A list of respondents is at Annex A. We are grateful to all the respondents for their comments.

Straightforward changes to be made to the Renewables Obligation

- 1.11 There are several straightforward changes that we must make to the RO legislation in order to correctly implement the ILUC Directive. These relate to:
- Definitions of ‘waste’, ‘starch-rich crops’, ‘processing residue’ and ‘agricultural, aquaculture, fisheries and forestry residues’;
 - Sustainability criteria for bioliquids - achieving 60% greenhouse gas savings from bioliquid generation; and
 - Calculation of the greenhouse gas impact of bioliquids.
- 1.12 Comments were not sought on these issues in the consultation document and they will be implemented as set out in chapter 2.

Changes to be made to the Renewables Obligation where there were options on the way forward

- 1.13 The consultation document set out details of the following issues where there were options on the way forward or uncertainties:
- Future use of bioliquids in the UK;
 - Crop-derived bioliquids under the RO’s supplier cap on bioliquid ROCs;
 - The level of the RO’s supplier cap on bioliquid ROCs;
 - Sustainability criteria for bioliquids (evidence of generating stations achieving at least 35% but less than 50% greenhouse gas savings);
 - Sustainability criteria for bioliquids (revised requirements for greenhouse gas savings);
 - Reporting by generators over 50kW;
 - Reporting by microgenerators (up to 50kW);
 - Defining the terms ‘sugars’ and ‘oil crops’;
 - References to the changes to the methodology for calculating annualised emissions from carbon stock changes caused by land-use change in Annex 5 to the Renewable Energy Directive; and
 - The draft legislation.
- 1.14 The comments received on these issues, and the collective decision of the UK Government, the Scottish Government and the Northern Ireland Department for the Economy (hereafter referred to as “Government”), are set out in chapter 3.

Terminology

- 1.15 The term ‘RO’ is used in this consultation document to collectively cover the Renewables Obligation for England and Wales, Scotland and Northern Ireland.

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- 1.16 The term ‘RO legislation’ collectively covers:
- The Renewables Obligation Order 2015, as amended, for England and Wales;
 - The Renewables Obligation (Scotland) Order 2009, as amended, for Scotland; and
 - The Renewables Obligation Order (Northern Ireland) 2009, as amended, for Northern Ireland.

Next steps

- 1.17 With the agreement of the Scottish Government and the Northern Ireland Department for the Economy, the Department for Business, Energy and Industrial Strategy is aiming to lay the UK-wide implementing legislation before the UK Parliament in December. This will bring the changes into effect for the Renewables Obligation Order 2015, the Renewables Obligation (Scotland) Order 2009 and the Renewables Obligation Order (Northern Ireland) 2009.
- 1.18 We anticipate that the legislation will come into force UK-wide on 1 January 2018.

Contact Details

- 1.19 If you have any questions about this response, please contact:
- Renewables Obligation Team
Department for Business, Energy & Industrial Strategy
Spur, Third Floor
1 Victoria Street
London, SW1H 0ET
Email: RO@beis.gov.uk

Chapter 2 - Straightforward changes that will be made to the Renewables Obligation

New definition of waste

- 2.1 The new definition of waste in the Renewable Energy Directive, as added by the ILUC Directive, refers to the definition of waste in Article 3(1) of the Waste Framework Directive (Directive 2008/98/EC)⁶ which states that “waste’ means any substance or object which the holder discards or intends or is required to discard”. It adds to that definition that “substances that have been intentionally modified or contaminated to meet that definition are not covered by this definition”.
- 2.2 The new definition of waste is relevant in two key areas under the existing RO legislation:
- Bioliquid fuels produced from waste need only meet the specified greenhouse gas emission savings thresholds in order to receive support under the RO (they do not need to meet the land criteria⁷). In addition, they are considered to have zero life-cycle greenhouse gas emissions up to the process of collection of the materials; and
 - Solid and gaseous biomass fuels produced from waste are not required to meet either the greenhouse gas emission savings thresholds or the land criteria in order to receive support under the RO.
- 2.3 Waste is already defined in RO legislation, by reference to Article 3(1) of the Waste Framework Directive, as meaning any substance or object which the holder discards or intends or is required to discard. The existing definition also provides that it also:
- (a) Includes anything derived from waste; and
 - (b) Does not include landfill gas or sewage gas.
- 2.4 This definition of waste in the RO applies to all forms of biomass, whether solid, gaseous or liquid, but it does not currently exclude substances that have been intentionally modified or contaminated to fall within the definition of “waste” in the Waste Framework Directive.
- 2.5 Whilst the ILUC Directive is particularly concerned with biofuels and bioliquids, applying a consistent definition of waste to bioliquids and solid and gaseous biomass

⁶ The Waste Framework Directive ‘Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives’ is at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0098>

⁷ The land criteria in Article 17 of the Renewable Energy Directive specify that, in order to receive support or to count towards 2020 targets and obligations, bioliquids must not be made from raw material obtained from: land with high biodiversity value - Article 17(3); Land with high carbon stock - Article 17(4); or Peat land (with some exemptions) - Article 17(5).

in the RO legislation avoids creating unnecessary confusion and burdens on generators and avoids creating distortions in the waste feedstock market.

- 2.6 **Government will therefore amend the current definition of waste in the RO legislation to make it clear that the term ‘waste’ excludes any substance that has been intentionally modified or contaminated to fall within the definition of waste in Article 3(1) of the Waste Framework Directive. The definition will apply in relation to bioliquids, and solid and gaseous biomass.**

New definition of starch-rich crops

- 2.7 The ILUC Directive introduces a new definition of ‘starch-rich crops’. These are defined as “crops comprising mainly cereals (regardless of whether only the grains are used, or the whole plant, such as in the case of green maize, is used), tubers and root crops (such as potatoes, Jerusalem artichokes, sweet potatoes, cassava and yams), and corm crops (such as taro and cocoyam)”.
- 2.8 Clarifying what is meant by the term ‘starch-rich crops’ is necessary to monitor bioliquids produced from cereal and other starch-rich crops, sugars and oil crops, and from crops grown as main crops primarily for energy purposes on agricultural lands, under the RO’s current 4% supplier cap on bioliquid ROCs (see paragraphs 3.13 – 3.19 below). It is also necessary for the data gathering requirement set out in paragraphs 3.33- 3.38 below.
- 2.9 **Government will therefore add a definition of starch-rich crops to the RO legislation. This will apply only in relation to bioliquids.**

New definition of processing residue

- 2.10 The ILUC Directive introduces a new definition of ‘processing residue’ to the Renewable Energy Directive. This is defined as “a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it”. The aim is to avoid incentivising a deliberate increase in the production of processing residues at the expense of the main product. The definition excludes residues resulting from a production process which has been deliberately modified for that purpose.
- 2.11 This definition was previously set out in a communication from the European Commission⁸ in connection with biofuels and it is already used by Ofgem when deciding whether or not a substance is a residue from processing.
- 2.12 Residues from ‘related industries or processing’ are referred to in the definition of ‘agricultural, aquaculture, fisheries and forestry residues’ referred to below as residues that do not fall within that definition.

⁸ Communication from the Commission on the practical implementation of the EU biofuels and bioliquids sustainability scheme and on counting rules for biofuels (2010/C 160/02) is at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:160:0008:0016:EN:PDF>

- 2.13 **Government will therefore clarify the meaning of ‘residue from processing’ in the RO legislation. This will make it clear that substances will not be considered to be processing residues where they are the primary aim of a production process or they result from a production process that has been deliberately modified in order to produce the residue. This will apply in relation to bioliquids, and solid and gaseous biomass.**

New definition of agricultural, aquaculture, fisheries and forestry residues

- 2.14 The ILUC Directive introduces a new definition to the Renewable Energy Directive (RED) of ‘agricultural, aquaculture, fisheries and forestry residues’. These are defined as “residues that are directly generated by agriculture, aquaculture, fisheries and forestry; they do not include residues from related industries or processing”.
- 2.15 This definition was previously set out in a communication from the European Commission⁹ and it is already used by Ofgem when deciding whether or not a substance is a residue from agriculture, aquaculture, fisheries and forestry.
- 2.16 Article 17(1) of the RED states that biofuels and bioliquids produced from waste and residues, **other than** agricultural, aquaculture, fisheries and forestry residues, need only fulfil the sustainability criteria set out in Article 17(2) of the RED, as amended by the ILUC Directive, in order to be taken into account for the purposes of complying with the national targets in the RED, measuring compliance with renewable energy obligations, and being eligible for financial support. Article 17(2) sets out the required greenhouse gas emission savings.
- 2.17 Agricultural, aquaculture, fisheries and forestry residues are already required to comply with both the greenhouse gas emission savings thresholds and the land criteria in Article 17 of the RED. This requirement is unchanged. All other types of waste and residues only need to comply with the greenhouse gas emission savings thresholds. The new definition makes it clear that residues from related industries or processing are not considered to be agricultural, aquaculture, fisheries and forestry residues. Residues from related industries or processing are therefore only required to comply with the greenhouse gas emission savings thresholds.
- 2.18 **Government will therefore clarify the meaning of ‘residue from agriculture, aquaculture, fisheries and forestry’ in the RO legislation. This will ensure that fuels produced from residues from related industries or processing residues only need to comply with the greenhouse gas emission savings thresholds in order to receive support under the RO. This will apply in relation to bioliquids, and solid and gaseous biomass.**

⁹ As at footnote 8 above

Sustainability criteria for bioliquids (achieving 60% greenhouse gas savings)

- 2.19 The RED sets new minimum greenhouse gas emission savings thresholds compared to fossil fuel which bioliquids are required to meet when measuring compliance for national targets and renewable energy obligations, and for eligibility for financial support for the consumption of bioliquids.
- 2.20 The new requirements for greenhouse gas emission savings from the use of bioliquids can be summarised as follows:
- Bioliquid produced in installations starting operation on or before 5 October 2015:
 - At least 35% until 31 December 2017; and then
 - At least 50% from 1 January 2018;
 - Bioliquid produced in installations starting operation from 6 October 2015 onwards
 - at least 60%.
- 2.21 The current greenhouse gas emission savings in RO legislation that bioliquids must meet in order to receive support can be summarised as follows:
- Used to generate electricity before 1st January 2017 - 35%;
 - Used to generate electricity during 2017 - 50%;
 - Used to generate electricity from 1 January 2018 onwards where the bioliquid was produced by an installation that started producing bioliquid before 1 January 2017 - 50%;
 - Used to generate electricity from 1 January 2018 onwards where the bioliquid was produced by an installation that started producing bioliquid from 1 January 2017 onwards - 60%.
- 2.22 To ensure that generation from bioliquids counts towards the UK's targets under the RED, we must ensure that greenhouse gas emission savings do not fall below the new requirements set out in paragraph 2.20 above.
- 2.23 **Government will therefore amend the RO legislation in line with the RED to increase the greenhouse gas emission savings required in order to receive support under the RO for bioliquid produced in an installation that started production between 6 October 2015 and 31 December 2016. The level will increase from the current 50% in the RO legislation to 60%. (The revised requirements for achieving 60% savings are set out in paragraph 3.32 below, where the decision concerning the Directive's new date for achieving 35% savings is set out.)**

Calculation of the greenhouse gas impact of bioliquids

- 2.24 The original RED set certain restrictions on the use of disaggregated default values for cultivation when calculating greenhouse gas emission savings from the use of a bioliquid. The default values are set out in Part D of Annex 5 to the RED. The ILUC Directive removed the restriction on their use. So the default values may now be used irrespective of whether the biomaterial from which the bioliquid is made was cultivated within or outside the European Union. This ensures equal treatment for producers regardless of where the production takes place.

Chapter 2 - Straightforward changes that will be made to the Renewables Obligation

- 2.25 The existing RO legislation includes the restriction on the use of the default value. It also includes a definition of 'disaggregated default values for cultivation' which relates to the restriction on the use of the default values. Both of these are now redundant.
- 2.26 **Government will therefore delete the current reference in the RO legislation to the restriction on the use of the default value, and delete the redundant definition of 'disaggregated default values for cultivation'.**

Chapter 3: Analysis of responses and decisions on the changes to be made to the Renewables Obligation where there were options on the way forward

Question 1 – Future use of bioliquids in the UK

- 3.1 The consultation document explained that in 2015/16 (the latest year for which information was available), crop-derived bioliquids accounted for around 0.017 TWh of generation, and there was no evidence to suggest a significant increase in that level in future years.
- 3.2 Question 1 sought views on the likely level of electricity generation in the future from crop-derived bioliquids.

Main messages from responses

- 3.3 A summary of the responses to question 1 is as follows:

Responses to Q1	Number of responses
No significant change from current level	3
No comment	4

- 3.4 None of the respondents foresaw any significant increase in the use of bioliquids. One commented that an increase was unlikely as few generators considered bioliquids to be a financially viable option. Another saw bioliquids as being useful in the short-term, but they should be displaced by lower carbon technologies (such as such as wind and nuclear) in the medium to long term. However, it was noted that there was a risk that DfT's cap on biofuels in the transport sector could divert fuel to electricity generation.

Post-consultation analysis and decision

- 3.5 The current use of bioliquids is very low and no evidence was provided to suggest that usage will increase significantly in the near future.
- 3.6 **Government has therefore concluded that there is no evidence to suggest a significant change in usage in the near future. However, we will monitor use, as explained in the decision on question 3 below.**

Question 2 – Crop-derived bioliquids under the RO’s supplier cap on bioliquid ROCs

- 3.7 The consultation document explained that under the current wording in the RO legislation, bioliquids from cereal and other starch-rich crops, sugars and oil crops, and from crops grown as main crops primarily for energy purposes on agricultural land, that are used in any of the specified exempt technologies would be exempt from the RO’s current 4% supplier cap on bioliquid ROCs. This meant there was a possibility that if usage increased significantly, financial support under the RO might be given for the generation of renewable energy that could not be taken into account for the purpose of compliance with the UK’s 2020 targets under the Renewable Energy Directive.
- 3.8 Question 2 sought views on whether, in the light of likely future use, crop-derived bioliquids should be covered by the RO’s current 4% supplier cap on bioliquid ROCs, regardless of the generating technology that they were used in.

Main messages from responses

- 3.9 A summary of the responses to question 2 is as follows:

Responses to Q2	Number of responses
Should be exempt from the cap	2
Should be covered by cap	2
No comment	3

- 3.10 The respondents who supported retaining the current exemption thought that its removal would be an unnecessary and disproportionate response to mitigate a limited risk, and that more bioliquids falling within the cap would impact on generators seeking to sell ROCs for non-exempt bioliquids. Those who supported all crop-derived bioliquids being covered by the cap thought this would be in line with its policy aims and that it was important to require high sustainability standards to ensure real reductions in carbon dioxide emissions: if some operators were allowed to use unsustainable fuels, there was a reputation risk for all biomass technologies.

Post-consultation analysis and decision

- 3.11 Current generation from **all** types of bioliquids is very low and amounts to 0.06% of total ROCs presented by all suppliers. It is currently unlikely that all suppliers will reach their 4% cap. So removing the exemption would have little or no impact as it is likely that generators would still be able to find a supplier willing to buy their bioliquid ROCs.
- 3.12 **Government has therefore decided to leave the current exemptions from the cap unchanged. This means that bioliquids from cereal and other starch-rich crops, sugars and oil crops, and from crops grown as main crops primarily for energy purposes on agricultural land, will be exempt from the cap if used in exempt technologies, but will be covered by the cap if used in other technologies. However, we will monitor use, as explained in the decision on question 3.**

Question 3 – The level of the RO's supplier cap on bioliquid ROCs

- 3.13 The consultation document explained that subject to any evidence submitted under Q.1 above, we believed that the combined supply of biofuels and bioliquids from crops would be less than the 7% limit imposed by the ILUC Directive.
- 3.14 Question 3 sought views on our assessment that no changes were needed at the present time to the current 4% supplier cap on bioliquid ROCs under the RO.

Main messages from responses

- 3.15 A summary of the responses to question 3 is as follows:

Responses to Q3	Number of responses
No changes needed	3
Cap should be raised in the future	1
No comment	3

- 3.16 The respondents who supported leaving the level of the cap unchanged thought the principle of controlling expenditure was important, and that the current level was unlikely to be breached. One respondent said that although the level of the cap may currently be suitable, arguably it should be raised in the future above 4%. They said that competition was starting to emerge for feedstock in the UK market, which raised the cost of generation, making some stations not economically viable. It could also impact on the UK's ability to meet renewable energy targets. They thought that a higher supplier cap on bioliquid ROCs could result in stations remaining competitive by potentially switching to bioliquids. In addition, they thought that the lowering of the cap under DfT's Renewable Transport Fuel Obligation should mean that the RO could increase its generation from such fuel sources to compensate for that.
- 3.17 A comment was also made that, in the event of the RO's supplier cap on bioliquid ROCs being reached or reduced, a special case should be made for non-autothermal biomass liquid wastes such as blood and fish waste. It was thought the use of these materials in a solid/liquid biomass fuel mix would not have any effect on the road transport fuel market and so their support under the RO should not be subject to a cap.

Post-consultation analysis and decision

- 3.18 The current use of bioliquids is very low and there is no evidence to suggest that it will increase significantly in the near future.
- 3.19 **Government has therefore decided there is no need at present to change the current level of the 4% supplier cap on bioliquids under the RO.** However, we will monitor supply. If in the future it looks likely that the 7% limit in the ILUC Directive will be exceeded, we will take action at that time to ensure that financial support under the RO is not given for the generation of renewable energy that cannot be taken into account for the purpose of compliance with the UK's 2020 targets under the Renewable Energy Directive.

Question 4 – Sustainability criteria for bioliquids (evidence of generating stations achieving at least 35% but less than 50% greenhouse gas savings)

- 3.20 The consultation document explained that the new requirement in the ILUC Directive for bioliquid produced in installations starting operation on or before 5 October 2015 to achieve at least 35% greenhouse gas (GHG) emission savings until 31 December 2017, represented a reduction on the UK's current requirements. Exactly implementing the new requirement would mean temporarily lowering the UK's current requirements from 50% to 35% greenhouse gas emission savings in certain cases.
- 3.21 Question 4 sought evidence of any generating stations that were, or intended to be, accredited under the RO and had used, or intended to use, consignments of bioliquid which had a GHG emission saving of at least 35% but less than 50%.

Main messages from responses

- 3.22 A summary of the responses to question 4 is as follows:

Responses to Q4	Number of responses
Not aware of any stations	2
Are aware of stations	2
No comment	3

- 3.23 Two respondents were aware of the occasional use of consignments of bioliquids with a GHG saving between 35 - 50%, or less. However, these consignments were not eligible for support under the RO.

Post-consultation analysis and decision

- 3.24 No evidence was provided to suggest any generating station would be unable to achieve the current 50% level in the RO legislation but would have achieved the ILUC Directive's requirements for 35% savings. The long-term nature of feedstock contracts mean that generators wanting to claim ROCs in 2017 are likely to already have contracts for feedstocks with at least 50% savings in line with the current RO.
- 3.25 **Government has therefore decided that retaining the UK's current date for achieving 50% GHG emission savings is not likely to prevent any generating stations from claiming support under the RO.**

Question 5 – Sustainability criteria for bioliquids (revised requirements for greenhouse gas savings)

3.26 Subject to the responses to question 4 above, question 5 in the consultation document sought views on whether the RO legislation should retain the UK’s current date for achieving 50% GHG emission savings (which was our preferred option), or exactly implement the requirements in the Directive for meeting 35% GHG emission savings. The second option would mean temporarily lowering the UK’s current requirements from 50% to 35% GHG emission savings.

Main messages from responses

3.27 A summary of the responses to question 5 is as follows:

Responses to Q5	Number of responses
Retain current date for 50%	4
No preference	1
No comment	2

3.28 The respondents who supported retaining the current date thought there was no need to temporarily reduce the savings to 35% and that to do so would add unnecessary complexity. It was thought unlikely that any generators would be affected by a temporary change in view of the long-term nature of feedstock contracts. One commented that there should be no backsliding on the UK’s environmental requirements.

Post-consultation analysis and decision

3.29 None of the respondents objected to retaining the 50% level. As explained under question 4 above, no evidence was provided to suggest that any generators would be adversely affected by retaining the RO’s current date for achieving 50% GHG emission savings.

3.30 **Government has therefore decided to retain the UK’s current date for achieving 50% GHG emission savings.**

3.31 Taking account of the requirement for 60% savings set out in paragraphs 2.19 - 2.23 above, the new percentage savings will be as set out in paragraph 3.32 below. As explained in the consultation document, the phrase “started producing liquid fuel from biomaterial” is used because it may not be possible for the production installation to know whether the liquid fuel they sold was used as a biofuel or a bioliquid. “Biomaterial” is already defined in RO legislation as the biodegradable part of:

- (a) Products, waste and residues of biological origin resulting from agriculture (including vegetal and animal substances), forestry and related industries (including fisheries and aquaculture); and
- (b) Industrial, commercial and municipal waste.

3.32 The new minimum percentages for GHG emission savings will be as follows:

- Bioliquid produced by an installation that started producing liquid fuel from biomaterial before 6 October 2015:
 - 35% in the case of bioliquid used to generate electricity before 1 January 2017;
 - 50% in the case of bioliquid used to generate electricity on or after 1 January 2017;
- Bioliquid produced by an installation that started producing liquid fuel from biomaterial on or after 6 October 2015:
 - 35% in the case of bioliquid used to generate electricity before 1 January 2017;
 - 50% in the case of bioliquid used to generate electricity on or after 1 January 2017 but before 1 January 2018;
 - 60% in the case of bioliquid used to generate electricity on or after 1 January 2018.

Question 6 – Reporting by generators over 50kW

- 3.33 The consultation document explained that the ILUC Directive adds a new requirement to report to the European Commission on the amounts of crop-derived bioliquids that are taken into account for the purpose of complying with the UK’s targets in the Renewable Energy Directive.
- 3.34 Question 6 sought views on our proposal to require generators over 50kW to provide Ofgem with information on the energy content of bioliquids from cereal and other starch-rich crops, sugars and oil crops.

Main messages from responses

- 3.35 A summary of the responses to question 6 is as follows:

Responses to Q6	Number of responses
Should supply information	2
Should not be required to provide information	1
No comment	4

- 3.36 The respondents who agreed thought it was necessary to provide the information to demonstrate compliance. The respondent who disagreed thought that the extra work involved would not be welcome in an already highly complex operational environment. But they acknowledged that if Government believed they must implement the Directive’s requirements in full, then collecting the information was necessary.

Post-consultation analysis and decision

- 3.37 As explained in Chapter 1, the UK remains a full member of the European Union until exit negotiations are concluded. During this period, the UK Government has given a commitment to continue to implement EU legislation. We must therefore collect the information needed to enable the UK to report to the European Commission.
- 3.38 **Government has therefore decided to require generators over 50kW to provide Ofgem with specific information on the energy content of bioliquids from cereal and other starch-rich crops, sugars and oil crops.** Reporting will be done via the current annual reporting process and we believe that it will impose little additional burden on these generators.

Question 7 – Reporting by microgenerators (up to 50kW)

- 3.39 Following on from question 6, the consultation document explained that we considered sufficient information would be provided by microgenerators under their current monthly reporting and annual audit reporting requirements to allow us to adequately determine crop use for the small quantities of crop-derived bioliquids used by them.
- 3.40 Question 7 sought views on our proposal that there was no need to change the current reporting requirements for microgenerators.

Main messages from responses

- 3.41 A summary of the responses to question 7 is as follows:

Responses to Q7	Number of responses
No need to change current requirements	3
No comment	4

- 3.42 The respondents who agreed there was no need to require additional information from microgenerators thought that the quantity of bioliquid used by them would be so small it would have a negligible impact on the overall figures. It was thought that the proposed approach was consistent with the principle of allowing smaller operations and activities to be subjected to less onerous reporting and monitoring requirements to reflect the lower risk posed by them. It was also thought that changing the requirements would be disproportionate to the risk.

Post-consultation analysis and decision

- 3.43 Only 8 microgenerators (totaling 128kW) have ever claimed bioliquid ROCs and the quantities of bioliquids involved are negligible. Microgenerators are already required to report against the RO sustainability criteria and sufficient information will be provided under the current arrangements to allow us to adequately determine crop use for such small quantities.
- 3.44 **Government has therefore decided to leave unchanged the current reporting requirements for microgenerators.**

Question 8 – Defining the terms ‘sugars’ and ‘oil crops’

- 3.45 The consultation document explained that although the term ‘starch-rich crops’ was defined in the ILUC Directive and would be added to the RO legislation, the terms ‘sugars’ and ‘oil crops’ were not defined.
- 3.46 Question 1 sought views on our proposal to not define these terms in the RO legislation as we thought they were sufficiently well understood.

Main messages from responses

- 3.47 A summary of the responses to question 8 is as follows:

Responses to Q8	Number of responses
No need to define them	2
Should define them	1
No comment	4

- 3.48 One of the respondents who agreed there was no need to define the terms thought there would be a risk of unintended consequences if over-prescriptive wording was set in legislation. They thought that Ofgem’s guidance could provide an explanation or case studies of what was considered to be covered by these terms.
- 3.49 The respondent who thought that the terms should be defined in legislation thought this would give clarity.

Post-consultation analysis and decision

- 3.50 We acknowledge that there are arguments both for and against defining the terms in the RO legislation. However, as the terms are used in order to transpose the RED, they have the meaning that they bear in that Directive. There is therefore a risk that any definition in the RO legislation would not reflect this.
- 3.51 **Government has therefore decided that the terms will not be defined in the RO legislation.**

Question 9 – Methodology for calculating annualised emissions from carbon stock changes caused by land-use change

- 3.52 The consultation document explained that the ILUC Directive slightly amends the calculation for annualised emissions from carbon stock changes caused by land-use change, as set out in paragraph 7 of Part C of Annex 5 to the Renewable Energy Directive (RED). However, the RO legislation does not transcribe the actual formula from Annex 5 to the RED. Instead it just refers to the calculation.
- 3.53 The RO legislation applies that calculation to solid and gaseous biomass as well as to bioliquids, with modifications. In relation to the greenhouse gas criteria for bioliquids, any amendment made to Annex 5 of the RED is automatically incorporated in the RO legislation, because the definition of the “Renewables Directive” in the RO legislation provides that, in the relevant Schedule, the references to Annex 5 to the RED are to Annex 5 as amended from time to time.
- 3.54 Question 9 sought views on our intention to not amend the current references to Annex 5 to the RED in the RO legislation that relate to the greenhouse gas criteria for solid and gaseous biomass because we consider that those references already referred to Annex 5 as amended by the ILUC Directive.

Main messages from responses

- 3.55 A summary of the responses to question 9 is as follows:

Responses to Q9	Number of responses
No comment	7

- 3.56 No comments were received in response to this question.

Post-consultation analysis and decision

- 3.57 No respondents argued against our view that references in the RO legislation to Annex 5 to the RED that relate to the greenhouse gas criteria for solid and gaseous biomass already refer to Annex 5 as amended by the ILUC Directive.
- 3.58 **Government has therefore decided that no changes need to be made to the RO legislation in order to implement the changes to the calculation.** However Ofgem will amend their guidance to take account of the following revised meaning (with the new text shown in **bold**):

e_l = annualised greenhouse gas emissions from carbon stock change due to land-use change (measured as mass (grams) of CO₂-equivalent per unit of biofuel or **bioliquid energy (megajoules)**). ‘**Cropland**’(**) and ‘**perennial cropland**’[http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32015L1513&qid=1476886009657&from=EN - ntr3-L_2015239EN.01002701-E0003\(***\)](http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32015L1513&qid=1476886009657&from=EN - ntr3-L_2015239EN.01002701-E0003(***)) **shall be regarded as one land-use;**

Footnotes

() Cropland as defined by IPCC¹⁰.**

(*) Perennial crops are defined as multi-annual crops, the stem of which is usually not annually harvested such as short rotation coppice and oil palm.**

¹⁰ 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories - volume 4 at: <http://www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.html>

Question 10 – Draft Renewables Obligation (Amendment) Regulations 2017

3.59 The consultation document included a copy of the draft Renewables Obligation (Amendment) Regulations 2017.

3.60 Question 10 sought views on whether the wording of the draft legislation was clear.

Main messages from responses

3.61 A summary of the responses to question 10 is as follows:

Responses to Q10	Number of responses
Legislation is clear	6
No comment	1

3.62 All the respondents who commented agreed that the draft legislation was clear.

Post-consultation analysis and decision

3.63 No concerns were raised by any of the respondents.

3.64 **Government has therefore decided that no changes are needed to the draft legislation as presented in the consultation document.** The legislation will therefore be made without amendment.

Annex A: List of consultation respondents

Drax Group Plc

EDF Energy

Environment Agency

Ofgem

Renewable Energy Association

Saria UK Ltd

One respondent requested that their details were treated as confidential

