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SCOTTISH STATUTORY INSTRUMENTS

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**2015 No. 384**

**ELECTRICITY**

**The Renewables Obligation (Scotland) Amendment Order 2015**

*Made* - - - - *10th November 2015*

*Coming into force* - - *1st December 2015*

The Scottish Ministers make the following Order in exercise of the powers conferred by sections 32(1), 32B(1), 32C(1) to (6), 32D(1) and (2), 32J(3) and 32K(1) and (3) of the Electricity Act 1989<sup>M1</sup> (“the 1989 Act”) and section 2(2) of, and paragraph 1A of Schedule 2 to, the European Communities Act 1972<sup>M2</sup> (“the 1972 Act”) and all other powers enabling them to do so.

This Order makes provision for a purpose mentioned in section 2(2) of the 1972 Act and it appears to the Scottish Ministers that it is expedient for the references to Annex 5 to Directive [2009/28/EC](#) of the European Parliament and of the Council on the promotion of the use of energy from renewable sources<sup>M3</sup> in Schedule 2 to this Order (land criteria) to be construed as a reference to Annex 5 to that Directive as amended from time to time.

In accordance with section 32L(1) of the 1989 Act<sup>M4</sup> the Scottish Ministers consulted the Gas and Electricity Markets Authority<sup>M5</sup>, the National Association of Citizens Advice Bureaux, the Scottish Association of Citizens Advice Bureaux, the electricity suppliers to whom this Order applies and such generators of electricity from renewable sources and such other persons as the Scottish Ministers considered appropriate.

In accordance with section 32L(3) of the 1989 Act and paragraph 2(2) of Schedule 2 to the 1972 Act a draft of this instrument has been laid before and approved by resolution of the Scottish Parliament.

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**Marginal Citations**

**M1** [1989 c.29](#). Sections 32, 32B and 32C were substituted by section 37 of the [Energy Act 2008 \(c.32\)](#) (“the 2008 Act”). Sections 32D, 32J and 32K were inserted by said section 37. Section 32(2) contains a definition of “relevant Minister” relevant to the exercise of these powers.

**M2** [1972 c.68](#). Section 2(2) was amended by paragraph 15(3) of Schedule 8 to the [Scotland Act 1998 \(c.46\)](#) (“the 1998 Act”), which was amended by section 27(4) of the [Legislative and Regulatory Reform Act 2006 \(c.51\)](#) (“the 2006 Act”). Section 2(2) was also amended by section 27(1)(a) of the 2006 Act and Part 1 of the Schedule to the [European Union \(Amendment\) Act 2008 \(c.7\)](#) (“the 2008 Act”). Paragraph 1A of Schedule 2 was inserted by section 28 of the 2006 Act and relevantly amended by Part 1 of the Schedule to the 2008 Act. The functions conferred upon the Minister of the Crown under section 2(2) in so far as within devolved competence were transferred to the Scottish Ministers by virtue of section 53 of the 1998 Act.

- M3** OJ L 140, 5.6.2009, p.16.
- M4** Section 32L was amended by S.I. 2014/631.
- M5** Section 32L refers to “the Authority” which is defined in section 111(1) as the Gas and Electricity Markets Authority. The definition was inserted by paragraph 40(a) of Schedule 6 to the [Utilities Act 2000 \(c.27\)](#). Section 32L refers to “Citizens Advice” and “Citizens Advice Scotland” which are defined in said section 111(1) as the National Association of Citizens Advice Bureaux and the Scottish Association of Citizens Advice Bureau. The definitions were inserted by S.I. 2014/631.

### Citation, commencement and interpretation

1.—(1) This Order may be cited as the Renewables Obligation (Scotland) Amendment Order 2015 and comes into force on 1st December 2015.

(2) In this Order “the principal Order” means the Renewables Obligation (Scotland) Order 2009<sup>M6</sup>.

#### Marginal Citations

- M6** S.S.I. 2009/140, as amended by S.S.I. 2009/276, S.S.I. 2010/147, S.S.I. 2011/225, S.S.I. 2011/226, S.S.I. 2013/116, S.S.I. 2014/94 and S.S.I. 2015/188.

### Amendment of the principal Order

2. The principal Order is amended in accordance with articles 3 to 15.

### Interpretation

3. In article 2(1)—

- (a) after the definition of “anaerobic digestion” insert—
 

““animal excreta” means excreta produced by animals and includes biomass wholly derived from excreta produced by animals;”;
- (b) in the definition of “connected person”, for “section 839 of the Income and Corporation Taxes Act 1988” substitute “section 1122 of the Corporation Tax Act 2010<sup>M7</sup>”;
- (c) after the definition of “declared net capacity” insert—
 

““demonstration lease” means a lease granted by the Crown Estate, one of whose purposes is testing, demonstrating and approving the viability of a wind turbine;”;
- (d) for the definition of “greenhouse gas emission criteria” substitute—
 

““greenhouse gas emission criteria” means—

  - (a) in the case of bioliquid, the criteria set out in Schedule A1 (greenhouse gas emission criteria for bioliquid); and
  - (b) in all other cases, the criteria set out in Part 1 of Schedule A1A (greenhouse gas emission criteria for solid and gaseous biomass);”;
- (e) in the definition of “relevant material”, for “4(1)(a)” substitute “4(1A)(a) ”;
- (f) after the definition of “relevant material” insert—
 

““relevant target” has the meaning given by paragraph 1 of Schedule A1A (greenhouse gas emission criteria for solid and gaseous biomass);”;
- (g) in the definition of “Renewables Directive”, for “Schedule A1” substitute “Schedules A1 and A2 ”; and

- (h) for the definition of “waste” substitute—  
““waste” has the meaning given in Article 3(1) of Directive [2008/98/EC](#) of the European Parliament and of the Council on waste <sup>M8</sup> but—  
(a) also includes anything derived from waste; and  
(b) does not include landfill gas or sewage gas.”.

**Marginal Citations**

**M7** [2010 c.4.](#)

**M8** OJ L 312, 22.11.2008, p.3.

**Biomass and fuels which are to be treated as biomass**

4. In article 4—  
(a) in paragraph (1A)(a) <sup>M9</sup>, for “or algae” substitute “ , algae or bacteria ”;  
(b) in paragraph (1B)(a) <sup>M10</sup>, for “material” to the end substitute “ relevant material ”; and  
(c) in paragraph (7), for “plant” to the end substitute “ relevant material ”.

**Marginal Citations**

**M9** Paragraph (1A) was inserted by [S.S.I. 2013/116](#).

**M10** Paragraph (1B) was inserted by [S.S.I. 2013/116](#).

**Combustion units in relation to which a CFD or investment contract has been entered into**

5. In article 21B(7)(a) <sup>M11</sup>, for “21st” substitute “ 31st ”.

**Marginal Citations**

**M11** [Article 21B](#) was inserted by [S.S.I. 2014/94](#).

**Circumstances in which no SROCs are to be issued in respect of electricity generated from solid or gaseous biomass**

6. After article 22 (circumstances in which no SROCs are to be issued in respect of electricity generated from renewable sources) insert—

**“Circumstances in which no SROCs are to be issued in respect of electricity generated from solid or gaseous biomass**

**22ZA.**—(1) This article applies to biomass (other than animal excreta, bioliquid, landfill gas, sewage gas or waste).

(2) No SROCs are to be issued in respect of any electricity generated by a generating station from biomass to which this article applies unless—

- (a) the generating station has a total installed capacity of less than one megawatt; or  
(b) the biomass meets the greenhouse gas emission criteria and the land criteria.”.

### Common agricultural policy requirements in the case of bioliquids

7. For article 22B(b)(i) and (ii) <sup>M12</sup> substitute—
- “(i) cultivated in a manner that breached a requirement or standard listed in the third column of the table in Annex 2 to Regulation (EU) No 1306/2013 of the European Parliament and of the Council on the financing, management and monitoring of the common agricultural policy <sup>M13</sup> (“the 2013 Regulation”) and corresponding to the entry in the first column of that table for “environment, climate change, good agricultural condition of land”;
  - (ii) cultivated in a manner that breached statutory management requirement number 10 in Annex 2 to the 2013 Regulation; or
  - (iii) obtained from land which does not meet the minimum requirements for good agricultural and environmental condition defined pursuant to Article 94 of the 2013 Regulation.”.

#### Marginal Citations

**M12** [Article 22B](#) was inserted by [S.S.I. 2011/225](#).

**M13** OJ L 347, 20.12.2013, p.549.

### SROCs to be issued by Authority in respect of a generating station's RO eligible renewable output

8. In article 24—
- (a) in paragraph (2), for “paragraph” substitute “ paragraphs (2A) and ”;
  - (b) after paragraph (2) insert—
    - “(2A) Where—
      - (a) electricity was generated—
        - (i) by a generating station with a total installed capacity of at least one megawatt; and
        - (ii) using biomass (other than animal excreta, bioliquid, landfill gas, sewage gas or waste); and
      - (b) the greenhouse gas emissions from the use of that biomass are above the relevant target,

SROCs in respect of that electricity must not be issued before the end of the second month following the obligation period in which the electricity was generated.

(2B) For the purposes of paragraph (2A), the greenhouse gas emissions from the use of biomass must be calculated in accordance with paragraphs 3 to 5 of Schedule A1A (greenhouse gas emission criteria for solid and gaseous biomass).”.

### Offshore wind generating stations using test and demonstration wind turbines

9. Omit article 30C(4)(b) <sup>M14</sup>.

#### Marginal Citations

**M14** [Article 30C](#) was inserted by [S.S.I. 2014/94](#).

## Offshore wind generating stations using floating wind turbines

10. In article 30D <sup>M15</sup>—

(a) for paragraph (3)(b) substitute—

“(b) it confirms that—

(i) to the best of the operator's knowledge and belief the electricity generated was generated by a generating station using only floating wind turbines; and

(ii) the lease in respect of which the generating station is entitled to operate at that particular area of seabed is a demonstration lease issued by the Crown Estate in relation to that site.”; and

(b) at the end of paragraph (4) insert “ and not by any other means ”.

### Marginal Citations

M15 Article 30D was inserted by S.S.I. 2014/94.

## Information to be provided to the Authority where electricity is generated from biomass

11. For article 54 substitute—

“54.—(1) This article applies to a generating station—

(a) which generates electricity (wholly or partly) from biomass (other than municipal waste, landfill gas or sewage gas); and

(b) which is not a microgenerator.

(2) In relation to each consignment of biomass (other than municipal waste, landfill gas or sewage gas) used in a generating station to which this article applies, the operator of the station must, by the 30th June immediately following the obligation period during which the biomass is used (“the relevant date”), provide the Authority with—

(a) the information specified in paragraph (3);

(b) other than in the case of biomass which was gas formed by the anaerobic digestion of material which was—

(i) animal excreta; or

(ii) waste,

the information specified in paragraph (4); and

(c) other than in the case of biomass which—

(i) was used in a generating station with a total installed capacity of at least one megawatt; or

(ii) was animal excreta, bioliquid or waste,

the information specified in paragraph (5).

(3) The information specified in this paragraph is information identifying, to the best of the operator's knowledge and belief—

(a) the material from which the biomass was composed;

(b) where the biomass was solid and can take different forms, the form of the biomass;

(c) whether the biomass was animal excreta or waste;

- (d) where the biomass was plant matter or derived from plant matter, the country where the plant matter was grown; and
  - (e) where the information specified in sub-paragraph (d) is not known or the biomass was not plant matter or derived from plant matter, the country from which the operator obtained the biomass.
- (4) The information specified in this paragraph is information identifying, to the best of the operator's knowledge and belief—
- (a) where the biomass was solid, its mass (in tonnes);
  - (b) where the biomass was liquid, its volume (in litres) when measured at 25 degrees Celsius and 0.1 megapascals;
  - (c) where the biomass was gas, its volume (in cubic metres) when measured at 25 degrees Celsius and 0.1 megapascals;
  - (d) where the biomass was an energy crop and was not a bioliquid—
    - (i) the type of energy crop in question; and
    - (ii) the use of the land on which the biomass was grown in the year before the land was first used to grow energy crops; and
  - (e) where the biomass was, or was derived from, wood and was not waste or bioliquid—
    - (i) the name of the forest or other location where that wood was grown;
    - (ii) a description of the forestry management practices or land management practices used in the forest or other location where that wood was grown;
    - (iii) where any of the wood was likely to be a protected or threatened species, the name of that species and the proportion of the biomass that is likely to be composed of, or derived from, that species;
    - (iv) the proportion of the biomass that was, or was derived from, a saw log, and the specification adopted by the operator in accordance with paragraph (6) for the purpose of determining the proportion of the biomass that was, or was derived from, a saw log; and
    - (v) the proportion of the biomass that was, or was derived from, hardwood and the proportion that was, or was derived from, softwood.
- (5) The information specified in this paragraph is information identifying, to the best of the operator's knowledge and belief—
- (a) the greenhouse gas emissions from the use of the biomass to generate one mega joule of electricity;
  - (b) where the biomass does not meet the greenhouse gas emission criteria, the main reasons why biomass meeting the greenhouse gas emission criteria was not used;
  - (c) whether the biomass meets the land criteria;
  - (d) where the biomass does not meet the land criteria, the main reasons why biomass meeting the land criteria was not used; and
  - (e) where any of the information specified in sub-paragraphs (a) and (c) is not known—
    - (i) the main reasons why that information is not known; and
    - (ii) the main reasons why biomass for which that information is known was not used.

(6) For the purposes of paragraph (4)(e)(iv), the operator of the generating station must adopt a specification which is identical to—

- (a) a specification for determining whether wood is a saw log—
  - (i) used by the sawmill closest to where the wood was grown; or
  - (ii) issued by a body exercising functions of a public nature and issued for use by sawmills in the area in which the wood was grown; or
- (b) the specification in the second column of Table 1 of Forestry Commission Field Book 9 (other than the parts of that specification relating to “log category” and “species” set out in the first and second rows of that table).

(7) For the purposes of paragraph (5)(a), the operator of the generating station must calculate the greenhouse gas emissions from the use of the biomass in accordance with paragraphs 3(a), 4 and 5 of Schedule A1A (greenhouse gas emission criteria for solid and gaseous biomass).

(8) Where, in relation to biomass used in a generating station to which this article applies, the operator of the station fails to provide the Authority with the information required by paragraph (2) by the relevant date, the Authority must, in relation to any SROCs to which the operator would otherwise be entitled, postpone the issue of those SROCs (up to the specified number) until such time as the information is provided.

(9) For the purposes of paragraph (8), the specified number is the number of SROCs which the Authority has or estimates that it has or, but for this article, it would have issued in respect of the electricity generated by the biomass in relation to which the information required by paragraph (2) should have been provided.

(10) In this article—

“Forestry Commission Field Book 9” means Forestry Commission Field Book 9, 2nd edition 1993, entitled “Classification and Presentation of Softwood Sawlogs”<sup>M16</sup>;

“protected or threatened species” means—

- (a) a species listed in Appendices I, II or III of the Convention on International Trade in Endangered Species of Wild Fauna and Flora <sup>M17</sup>; or
- (b) a species which is at risk of extinction; and

“saw log” means wood which is suitable for processing at a sawmill.”.

#### **Marginal Citations**

**M16** ISBN 0 11 710322 5. Copies are available at <https://www.gov.uk/government/consultations/biomass-sustainability>. Hard copies are available from the Department of Energy and Climate Change.

**M17** Available at <http://www.cites.org/eng/disc/text.php#texttop>.

### **Solid and gaseous biomass sustainability audit report**

12. In article 54B—

- (a) in paragraph (2)—
  - (i) in sub-paragraphs (a) and (b) omit “or wholly derived from waste”; and
  - (ii) in sub-paragraph (b), for “54(3ZB)” substitute “ 54(5) ”; and
- (b) in paragraph (6)—
  - (i) in sub-paragraphs (a) and (b) omit “or wholly derived from waste”; and
  - (ii) in sub-paragraph (b) for “54(3ZB)” substitute “ 54(5) ”.

### Greenhouse gas emission criteria for solid and gaseous biomass

13. After Schedule A1 <sup>M18</sup> insert the Schedule in Schedule 1 to this Order.

#### Marginal Citations

**M18** Schedule A1 was inserted by [S.S.I. 2011/225](#).

### Land criteria

14. For Schedule A2 <sup>M19</sup> substitute the Schedule in Schedule 2 to this Order.

#### Marginal Citations

**M19** Schedule A2 was inserted by [S.S.I. 2011/225](#).

### Actual and default value methods for calculating emissions from the use of biomass

15. Omit Schedules 3A and 3B.

### Savings provision

16. [<sup>F1</sup>The] principal Order continues to have effect as it had effect before 1st December 2015 in relation to—

- (a) the issue and revocation of SROCs in respect of electricity generated before 1st December 2015, and anything which falls to be done or determined (whether by the Authority or some other person) in relation to such issue or revocation;
- (b) any obligations or requirements imposed on any person in respect of the obligation period ending on 31st March 2016, and anything which falls to be done or determined in relation to any such obligation or requirement;
- (c) any obligations or requirements imposed on any person in respect of electricity generated before 1st December 2015, and anything which falls to be done or determined in relation to any such obligation or requirement; and
- (d) any obligations and functions of the Authority in respect of the obligation period ending on 31st March 2016, and anything which falls to be done or determined (whether by the Authority or some other person) in relation to that obligation period.

**F1** Words in [art. 16](#) substituted (8.12.2017) by [The Renewables Obligation \(Scotland\) Amendment Order 2017 \(S.S.I. 2017/432\)](#), arts. 1(1), 12

### Transitional provisions

17. In relation to biomass used before 1st April 2016, paragraph 2 of Schedule A1A of the principal Order (as inserted by article 13 of, and Schedule 1 to, this Order) has effect as if for subparagraph (b)(iii) there were substituted—

- “(iii) the average greenhouse gas emissions from the relevant biomass used by the station to generate electricity during the period from the day this Order comes into force to 31st March 2016 are equal to, or less than, the relevant target.”.



St Andrew's House,  
Edinburgh

*FERGUS EWING*  
Authorised to sign by the Scottish Ministers

SCHEDULE 1

Article 13

“SCHEDULE A1A

Greenhouse gas emission criteria for solid and gaseous biomass

**PART 1**

Greenhouse gas emission criteria

**Interpretation**

1. In this Schedule—

“actual value method” means the calculation method provided for in Part 2;

“default value method” means the calculation method provided for in Part 3;

“post-2013 dedicated biomass station” means a generating station which—

- (a) was not accredited on or before 31st March 2013; and
- (b) has, in any month after March 2013, generated electricity in the way described as “dedicated biomass” in Schedule 2 (electricity to be stated in SROCs);

“relevant biomass” means biomass other than animal excreta, bioliquid, landfill gas, sewage gas or waste;

“relevant ceiling” means—

- (a) in relation to biomass used by a post-2013 dedicated biomass station to generate electricity before 1st April 2020, 79.2 grams per mega joule of electricity;
- (b) in relation to biomass used to generate electricity on or after 1st April 2020 and before 1st April 2025, 75 grams per mega joule of electricity; and
- (c) in relation to biomass used to generate electricity on or after 1st April 2025, 72.2 grams per mega joule of electricity;

“relevant target” means—

- (a) in relation to biomass used to generate electricity before 1st April 2020 by a station other than a post-2013 dedicated biomass station, 79.2 grams per mega joule of electricity;
- (b) in relation to biomass used by a post-2013 dedicated biomass station to generate electricity before 1st April 2020, 66.7 grams per mega joule of electricity;
- (c) in relation to biomass used to generate electricity on or after 1st April 2020 and before 1st April 2025, 55.6 grams per mega joule of electricity; and
- (d) in relation to biomass used to generate electricity on or after 1st April 2025, 50 grams per mega joule of electricity.

**The greenhouse gas emission criteria**

2. Biomass meets the greenhouse gas emission criteria for solid and gaseous biomass—

- (a) if the greenhouse gas emissions from its use are equal to, or less than, the relevant target; or
- (b) if—

- (i) the biomass is used by a post-2013 dedicated biomass station or the biomass is used to generate electricity after 1st April 2020;

- (ii) the greenhouse gas emissions from its use are equal to, or less than, the relevant ceiling; and
- (iii) the biomass is used in an obligation period in which the average greenhouse gas emissions from the relevant biomass used by the station to generate electricity during that obligation period are equal to, or less than, the relevant target.

### Calculating the greenhouse gas emissions

3. For the purposes of paragraph 2, and subject to paragraph 4, the greenhouse gas emissions from the use of biomass to generate electricity—
  - (a) is to be calculated by the operator of the generating station using the actual value method or the default value method; or
  - (b) is 91 grams per mega joule of electricity.
4. The default value method must not be used to calculate the greenhouse gas emissions from the use of biomass unless—
  - (a) the biomass was used in a generating station with a total installed capacity of less than one megawatt;
  - (b) the biomass is described in the first column of the table in Part 4; and
  - (c) in relation to the biomass, the result of the calculation in paragraph 7 of Part C of Annex 5 to the Renewables Directive is equal to, or less than, zero.
5. For the purposes of paragraph 4(c), paragraph 7 of Part C of Annex 5 to the Renewables Directive is to be read as if—
  - (a) for each reference to “biofuel” there was substituted “biomass”; and
  - (b) the words “or bioliquid” were omitted in each place in which those words occur.

## PART 2

### Actual value method

6. Where the greenhouse gas emissions from the use of biomass are calculated using the actual value method the greenhouse gas emissions from the use of the biomass are equal to—
  - (a) in the case of biomass used by a combined heat and power generating station, 
$$\frac{E}{\eta_{el}} \left( \frac{\eta_{el}}{\eta_{el} + C_h \times \eta_h} \right);$$
 and
  - (b) in any other case, 
$$\frac{E}{\eta_{el}}.$$
7. In paragraph (6)—
  - (a)  $\eta_{el}$  is equal to  $\frac{A}{F}$  where—
    - (i) A is the total amount of electricity generated by the generating station during the month; and
    - (ii) F is the energy content of all of the fuels used in generating that electricity during the month;

- (b)  $\eta_h$  is equal to  $\frac{H}{F}$  where—
- (i) F has the same meaning as in sub-paragraph (a)(ii); and
  - (ii) H is the energy content of all of the heat supplied to any premises by the generating station during the month; and
- (c) is equal to—
- (i) where the maximum temperature in degrees kelvin of heat or steam which is (or may be) supplied by the generating station to any premises (“ $T_{max}$ ”) is less than 423 degrees kelvin, 0.3546;
  - (ii)  $\frac{T_{max} - 273}{T_{max}}$ ; and  
in any other case,
- (d) E is the greenhouse gas emissions from the production of the biomass and is to be calculated in accordance with Part C of Annex 5 to the Renewables Directive but as if the following modifications were made to Part C of that Annex:—
- (i) in paragraph 1—
    - (aa) for “and use of transport fuels, biofuels and bioliquids” there was substituted “of biomass”;
    - (bb) for “E = total emissions from the use of the fuel” there was substituted “E = greenhouse gas emissions from the production of the biomass”; and
    - (cc) for “ $e_u$  = emissions from the fuel in use” there was substituted “ $e_u$  = zero”;
  - (ii) in paragraph 2, for the references to “fuels” and “fuel” there was substituted in each case “biomass”;
  - (iii) paragraphs 3 and 4 were omitted;
  - (iv) in paragraph 7—
    - (aa) for each reference to “biofuel” there was substituted “biomass”; and
    - (bb) the words “or bioliquid” were omitted in each place in which those words occur;
  - (v) in paragraph 11, for “fuel” there was substituted “biomass”;
  - (vi) paragraph 13 was omitted;
  - (vii) in paragraph 14, for “fuel” there was substituted “biomass”;
  - (viii) for paragraph 16 there was substituted—
 

**“16. Emission saving from excess electricity from cogeneration shall be taken to be zero.”;**
  - (ix) in paragraph 17, for each reference to “fuel” there was substituted “biomass”;
  - (x) in paragraph 18—
    - (aa) for “fuel” there was substituted “biomass”;
    - (bb) the words “In the case of biofuels and bioliquids,” were omitted;
    - (cc) before “and residues from processing” there was inserted “residues from aquaculture, arboriculture, fisheries and forestry”; and
    - (dd) for “fuels” there was substituted “biomass”; and

(xi) for paragraph 19 there was substituted—

“19. Where material is added to the biomass to act as a binding agent or to reduce the emissions of dust, carbon dioxide, methane or nitrous oxide from the use of the biomass, the material so added shall be considered to have zero life-cycle greenhouse gas emissions, provided that the material so added does not exceed 2% by weight of the biomass.”.

### PART 3

#### Default value method

8. The greenhouse gas emissions from the use of biomass are calculated using the default value method where the greenhouse gas emissions from the use of the biomass are equal to—

(a) in the case of biomass used by a combined heat and power generating

station, 
$$\frac{E}{\eta_{el}} \left( \frac{\eta_{el}}{\eta_{el} + C_h \times \eta_h} \right);$$
 and

(b) 
$$\frac{E}{\eta_{el}}$$
 in any other case,

9. In paragraph (8)—

(a)  $\eta_{el}$ ,  $\eta_h$  and  $C_h$  have the same meaning as in Part 2; and

(b) E, in relation to a type of biomass described in the first column of the table in Part 4, is the number of grams which corresponds to that description in the second column of that table.

### PART 4

#### Default greenhouse gas emissions from the production of biomass

<i>Biomass</i>	<i>Default greenhouse gas emissions from the production of biomass (in grams)</i>
Wood chips made from residue from forestry carried out in European temperate continental forest	1
Wood chips made from residue from forestry carried out in tropical or subtropical forest	25
Wood chips from short rotation forestry carried out in European temperate continental forest	4
Wood chips from short rotation forestry carried out in tropical or subtropical forest	28
Wood briquettes or wood pellets—	2
(a) which are made from residue from forestry carried out in European temperate continental forest; and	

(b) where the process to produce the wood briquettes or wood pellets was fuelled by wood	
Wood briquettes or wood pellets—	20
(a) which are made from residue from forestry carried out in tropical or subtropical forest; and	
(b) where the process to produce the wood briquettes or wood pellets was fuelled by natural gas	
Wood briquettes or wood pellets—	17
(a) which are made from residue from forestry carried out in tropical or subtropical forest; and	
(b) where the process to produce the wood briquettes or wood pellets was fuelled by wood	
Wood briquettes or wood pellets—	35
(a) which are made from residue from forestry carried out in European temperate continental forest; and	
(b) where the process to produce the wood briquettes or wood pellets was fuelled by natural gas	
Wood briquettes or wood pellets—	4
(a) which are made from short rotation forestry carried out in European temperate continental forest; and	
(b) where the process to produce the wood briquettes or wood pellets was fuelled by wood	
Wood briquettes or wood pellets—	22
(a) which are made from short rotation forestry carried out in European temperate continental forest; and	
(b) where the process to produce the wood briquettes or wood pellets was fuelled by natural gas	
Wood briquettes or wood pellets—	22
(a) which are made from short rotation forestry carried out in tropical or subtropical forest; and	
(b) where the process to produce the wood briquettes or wood pellets was fuelled by wood	
Wood briquettes or wood pellets—	40
(a) which are made from short rotation forestry carried out in tropical or subtropical forest; and	
(b) where the process to produce the wood briquettes or wood pellets was fuelled by natural gas	
Charcoal made from residue from forestry carried out in European temperate continental forest	41
Charcoal made from residue from forestry carried out in tropical or subtropical forest	50

Charcoal made from short rotation forestry carried out in European temperate continental forest	46
Charcoal made from short rotation forestry carried out in tropical or subtropical forest	57
Wheat straw	2
Bagasse briquettes where the process to produce the bagasse briquettes was fuelled by wood	17
Bagasse briquettes where the process to produce the bagasse briquettes was fuelled by natural gas	35
Bagasse bales	20
Palm kernel	27
Rice husk briquettes	28
Miscanthus bales	7
Biogas produced from wet manure	8
Biogas produced from dry manure	7
Biogas produced from wheat, where the whole plant was used to produce the biogas	21
Biogas produced from straw	21
Biogas produced from maize, where—	34
(a) the whole maize plant was used in the process to produce the biogas; and	
(b) the maize was not grown by organic farming methods	
Biogas produced from maize, where—	19
(a) the whole maize plant was used in the process to produce the biogas; and	
(b) the maize was grown by organic farming methods”	

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## SCHEDULE 2

Article 14

### “SCHEDULE A2

#### Land criteria

#### **Interpretation**

**1.** In this Schedule—

“continuously forested area” means land of an area of more than one hectare which includes—

- (a) trees more than 5 metres tall providing a tree canopy cover of more than 30%; or
- (b) trees collectively having the capacity to provide a tree canopy cover of more than 30% which—

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- (i) are more than 5 metres tall; or
- (ii) have the capacity to grow to a height of more than 5 metres;

“designated for nature protection purposes” means designated pursuant to the law of the United Kingdom or of any part of the United Kingdom or pursuant to the law of any country or territory outside the United Kingdom, for the purpose of protecting the natural environment;

“environmental quality assurance scheme” means a voluntary scheme which establishes environmental or social standards in relation to the production of woody biomass;

“greenhouse gas emissions from the use of fossil fuel” has the same meaning as in Schedule 1 (greenhouse gas emission criteria for bioliquid);

“highly biodiverse grassland” is to be construed in accordance with Article 17(3)(c) of the Renewables Directive;

“lightly forested area” means land of an area of more than one hectare which includes—

- (a) trees more than 5 metres tall providing a tree canopy cover of between 10% and 30%; or
- (b) trees collectively having the capacity to provide a tree canopy cover of between 10% and 30% which—
  - (i) are more than 5 metres tall; or
  - (ii) have the capacity to grow to a height of more than 5 metres;

“primary forest” means woodland of native species where there is no clearly visible indication of human activity and ecological processes are not significantly disturbed;

“relevant percentage” has the same meaning as in Schedule 1 (greenhouse gas emission criteria for bioliquid);

“relevant target” has the same meaning as in Schedule A1A (greenhouse gas emission criteria for solid and gaseous biomass);

“wetland area” means land that is covered with or saturated by water—

- (a) permanently; or
- (b) for a significant part of the year; and

“woody biomass” means biomass which—

- (a) is, or is derived from, wood (other than an energy crop);
- (b) is not a bioliquid.

#### **Land criteria: bioliquids**

**2.** A consignment of bioliquid meets the land criteria if the biomaterial from which the fuel was made—

- (a) was not obtained from a protected source;
- (b) was residue (other than residue from agriculture, aquaculture, fisheries or forestry); or
- (c) was waste.

#### **Land criteria: woody biomass**

**3.** A consignment of woody biomass meets the land criteria if—

- (a) at least 70% of the woody biomass was obtained from a sustainable source;



- (b) the woody biomass is used by the RO capacity of a generating station to generate electricity in a month in which at least 70% of all of the woody biomass used by the RO capacity of that generating station to generate electricity was obtained from a sustainable source; or
- (c) the woody biomass was certified by an environmental quality assurance scheme which ensures that at least 70% of the woody biomass certified by the scheme was obtained from a sustainable source.

#### **Land criteria: other fuels**

4. A consignment of fuel (other than bioliquid or woody biomass) meets the land criteria if the biomaterial from which the fuel was made—

- (a) was not obtained from a protected source;
- (b) was residue (other than residue from agriculture, aquaculture, fisheries or forestry);
- (c) was an energy crop in respect of which financial assistance was paid under the Energy Crops Regulations 2000 <sup>M20</sup> or under an equivalent financial assistance scheme; or
- (d) was added to the fuel for an exempt purpose.

#### **Protected sources**

5.—(1) For the purposes of paragraphs 2(a) and 4(a), biomaterial is obtained from a protected source if it is obtained from—

- (a) land which at any time during or after January 2008 was primary forest;
- (b) land which at any time during or after January 2008 was designated for nature protection purposes (unless the production of the biomaterial did not interfere with those nature protection purposes);
- (c) highly biodiverse grassland (unless the harvesting of the biomaterial was necessary to preserve the grassland status);
- (d) land which at any time during January 2008 was peatland (unless the cultivation and harvesting of the biomaterial did not involve the drainage of previously undrained soil);
- (e) a former continuously forested area;
- (f) except where sub-paragraph (2) or (4) applies to the biomaterial, a former lightly forested area; or
- (g) a former wetland area.

(2) This sub-paragraph applies to biomaterial obtained from a former lightly forested area where—

- (a) the fuel made from the biomaterial was not a bioliquid; and
- (b) the greenhouse gas emissions from the use of the fuel to generate one mega joule of electricity did not exceed the relevant target.

(3) For the purposes of sub-paragraph (2)(b), the greenhouse gas emissions must be calculated using the method provided for in Part 2 of Schedule A1A (actual value method for greenhouse gas emission criteria for solid and gaseous biomass).

(4) This sub-paragraph applies to biomaterial obtained from a former lightly forested area where—

- (a) the fuel made from the biomaterial was a bioliquid; and

- (b) the greenhouse gas emissions from the use of the bioliquid to generate electricity were lower, by at least the relevant percentage, than the greenhouse gas emissions from the use of fossil fuel.
- (5) For the purposes of sub-paragraph (4)(b), the percentage difference between the greenhouse gas emissions from the use of the bioliquid and the greenhouse gas emissions from the use of fossil fuel must be calculated using the method provided for in paragraphs 1, 2 and 5 to 18 of Part C of Annex 5 to the Renewables Directive.
- (6) For the purposes of this paragraph—
  - (a) biomaterial was obtained from a former continuously forested area if the land—
    - (i) was a continuously forested area at any time during January 2008; and
    - (ii) was not a continuously forested area when the biomaterial was obtained from it;
  - (b) biomaterial was obtained from a former lightly forested area if the land—
    - (i) was a lightly forested area at any time during January 2008; and
    - (ii) was not a lightly forested area or a continuously forested area when the biomaterial was obtained from it; and
  - (c) biomaterial was obtained from a former wetland area if the land—
    - (i) was a wetland area at any time during January 2008; and
    - (ii) was not a wetland area when the biomaterial was obtained from it.

### **Sustainable source**

- 6.—(1) For the purposes of paragraph 3, woody biomass is obtained from a sustainable source if it—
- (a) was grown within an area of forest or other land which is managed—
    - (i) in a way which is consistent with—
      - (aa) the Forest Europe Sustainable Forest Management Criteria; or
      - (bb) a set of international principles for the sustainable management of land which meets the requirements specified in sub-paragraph (2); and
    - (ii) to meet the requirements specified in sub-paragraph (4);
  - (c) was residue from arboriculture carried out in an area which was not a forest;
  - (d) was added to the fuel for an exempt purpose; or
  - (e) was removed for the purpose of creating, restoring or maintaining the ecosystem of an area which was not a forest.
- (2) The requirements specified in this sub-paragraph are that—
- (a) the principles have been adopted following a process (“the principle setting process”) which sought to—
    - (i) obtain a balanced representation of the views of interest groupings;
    - (ii) ensure that no single interest grouping could dominate the principle setting process; and
    - (iii) ensure that no decision on the contents of the principles could be made in the absence of agreement from a majority within each interest grouping involved in the principle setting process; and
  - (b) can be changed by a process (“the change process”) which seeks to ensure that—

- (i) no single interest grouping can dominate the process; and
  - (ii) no decision on changes to the principles can be made in the absence of agreement from a majority within each interest grouping involved in the change process.
- (3) For the purpose of sub-paragraph (2), each of the following is an interest grouping in relation to the forest or other location where the wood was grown—
- (a) persons with interests which are predominately economic in nature;
  - (b) persons with interests which are predominantly environmental in nature; and
  - (c) persons with interests which are predominantly social in nature.
- (4) The requirements specified in this sub-paragraph are—
- (a) harm to ecosystems is minimised, in particular by—
    - (i) assessing the impacts of the extraction of wood from the area and adopting plans to minimise any negative impacts;
    - (ii) protecting soil, water and biodiversity;
    - (iii) controlling the use of chemicals and ensuring that chemicals are used in an appropriate way;
    - (iv) wherever possible, using integrated pest management; and
    - (v) disposing of waste in a manner that minimises any negative impacts;
  - (b) the productivity of the area is maintained, in particular by—
    - (i) adopting plans to avoid significant negative impacts on productivity;
    - (ii) adopting procedures for the extraction of wood that minimise the impact on other uses of the area;
    - (iii) providing for all of the contractors and workers who are working in the area to be adequately trained in relation to the maintenance of productivity; and
    - (iv) maintaining an adequate inventory of the trees in the area (including data on the growth of the trees and on the extraction of wood) so as to ensure that wood is extracted from the area at a rate which does not exceed its long-term capacity to produce wood;
  - (c) compliance with the requirements of head (b) is monitored, the results of that monitoring reviewed and planning updated accordingly;
  - (d) the health and vitality of ecosystems is maintained, in particular by—
    - (i) adopting plans to maintain or increase the health and vitality of ecosystems;
    - (ii) adopting plans to deal with natural processes or events such as fires, pests and diseases; and
    - (iii) taking adequate measures to protect the area from unauthorised activities such as illegal logging, mining and encroachment;
  - (e) biodiversity is maintained, in particular by—
    - (i) implementing safeguards to protect rare, threatened and endangered species;
    - (ii) conserving key ecosystems in their natural state; and
    - (iii) protecting features and species of outstanding or exceptional value;
  - (f) those responsible for the management of the area (and any contractors engaged by them) comply with the local and national laws relating to health and safety and the welfare of workers;

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- (g) those responsible for the management of the area have regard to—
    - (i) legal, customary and traditional rights of tenure and land use;
    - (ii) mechanisms for resolving grievances and disputes relating to tenure and land use rights, forest or land management practices and working conditions; and
    - (iii) safeguarding the health and safety and rights of workers;
  - (h) there is a regular assessment of the extent to which those responsible for the management of the area have met the requirements set out in heads (a) to (g).
- (5) In this paragraph—
- “the Forest Europe Sustainable Forest Management Criteria” means the criteria for sustainable forest management in Lisbon Resolution L2 of the third Ministerial Conference on the Protection of Forests in Europe held in June 1998 <sup>M21</sup>;
- “integrated pest management” has the meaning given in Article 3(6) of Directive 2009/128/EC of the European Parliament and of the Council establishing a framework for Community action to achieve the sustainable use of pesticides <sup>M22</sup>; and
- “local and national laws” in relation to a site means laws applying in the locality in which the site is situated, whether made at a local or national level.

### Exempt purposes

7. For the purposes of paragraphs 4(d) and 6(1)(d), biomaterial is added to a fuel for an exempt purpose if—
- (a) it is added to the fuel—
    - (i) to act as a binding agent; or
    - (ii) to reduce the emissions of dust, carbon dioxide, methane or nitrous oxide from the use of the fuel; and
  - (b) it does not exceed 2% by weight of the fuel.”

#### Marginal Citations

- M20** S.I. 2000/3042 as amended by section 73(2) of the [Countryside and Rights of Way Act 2000 \(c.37\)](#), S.I. 2001/3900 and S.I. 2011/1043. The Regulations were revoked by S.I. 2014/3263.
- M21** Lisbon Resolution L2 is entitled “Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management”. Copies are available at [http://www.foresteurope.org/ministerial\\_conferences/lisbon1998](http://www.foresteurope.org/ministerial_conferences/lisbon1998). Copies can also be obtained from the Department of Energy and Climate Change.
- M22** OJ No L 309, 24.11.2009, p.71.

## EXPLANATORY NOTE

*(This note is not part of the Order)*

This Order amends the Renewables Obligation (Scotland) Order 2009 (“the principal Order”). Most of the amendments relate to the use of biomass to generate electricity.

Article 3 inserts new definitions in article 2 of the principal Order, and amends or substitutes existing definitions.

Article 4 amends article 4 of the principal Order to add fuel derived from bacteria to the fuels which constitute biomass for the purposes of that Order.

Article 5 corrects a defect in article 21B(7)(a) of the principal Order.

Article 6 inserts article 22ZA into the principal Order. The effect of the insertion is to widen the circumstances in which SROCs must not be issued in respect of electricity generated from solid or gaseous biomass.

Article 7 amends article 22B of the principal Order to take account of the repeal of Council Regulation (EC) No 73/2009 (OJ L 030, 31.1.2009, p.16) by Regulation (EU) No 1307/2013 (OJ L 347, 20.12.2013, p.608). References to the first mentioned instrument are replaced with references to Regulation (EU) No 1306/2013.

Article 8 amends article 24 of the principal Order with regard to the circumstances in which SROCs are to be issued in respect of electricity generated from biomass.

Article 9 makes a minor amendment to remove a definition from article 30C which article 3 inserts in article 2 of the principal Order.

Article 10 amends article 30D of the principal Order with regard to the declaration to be made in accordance with paragraph (3). It also clarifies the meaning of “floating wind turbine”.

Article 11 substitutes article 54 of the principal Order and makes changes with regard to the information which has to be provided to the Gas and Electricity Markets Authority where electricity is generated from biomass.

Article 12 amends article 54B of the principal Order so that it no longer refers to biomass which is wholly derived from waste.

Article 13 inserts Schedule A1A into the principal Order. Schedule A1A contains provision on greenhouse gas emission criteria for solid and gaseous biomass.

Article 14 substitutes Schedule A2 to the principal Order. Schedule A2 contains provision on land criteria.

Article 15 omits Schedules 3A and 3B of the principal Order.

Articles 16 and 17 contain savings and transitional provision.

A full business and regulatory impact assessment of the effect this Order will have on the costs of business and the voluntary sector is available from the Scottish Government Energy Markets Unit, Directorate for Energy and Climate Change, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU.

**Changes to legislation:**

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