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SCOTTISH STATUTORY INSTRUMENTS

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**2011 No. 225**

**ELECTRICITY**

**The Renewables Obligation (Scotland) Amendment Order 2011**

*Made* - - - - *17th March 2011*

*Coming into force* - - *1st April 2011*

The Scottish Ministers make the following Order in exercise of the powers conferred by sections 32(1) and (2), 32A(1), (2)(f) and (g), 32C(1), (2), (3) and (5), 32J(3) and 32K(1) and (3) of the Electricity Act 1989(1) and all other powers enabling them to do so.

In accordance with section 32L(1) of that Act the Scottish Ministers have consulted the Gas and Electricity Markets Authority(2), the National Consumer Council(3), electricity suppliers to whom this Order applies, and such generators of electricity from renewable sources and other persons as they considered appropriate.

In accordance with section 32L(3) of that Act, a draft of this instrument has been laid before and approved by resolution of the Scottish Parliament.

**Citation and commencement**

1. This Order may be cited as the Renewables Obligation (Scotland) Amendment Order 2011 and comes into force on 1st April 2011.

**Renewables Obligation (Scotland) Order 2009**

2. The Renewables Obligation (Scotland) Order 2009 (“the 2009 Order”)(4) is amended by articles 3 to 18.

**Interpretation**

3. In Article 2 (interpretation)—

(a) in paragraph (1) at the appropriate place insert—

““biomaterial” means the biodegradable part of—

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(1) 1989 c.29, sections 32 to 32M were substituted by section 37 of the Energy Act 2008 (c.32) for sections 32 to 32C.  
(2) Section 32L(1) of the 1989 Act refers to “the Authority”; this is defined in section 111(1) as inserted by paragraph 40(a) of Schedule 6 to the Utilities Act 2000 (c.27).  
(3) Section 32L(1) of the 1989 Act refers to “the Council”; this is defined in section 111(1) as substituted by section 30(4)(b) of the Consumers, Estate Agents and Redress Act 2007 (c.17).  
(4) S.S.I. 2009/140 as amended by S.S.I. 2009/276 and S.S.I. 2010/147.

(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;”;

““fossil derived bioliquid” means bioliquid produced directly or indirectly from—

(a) coal,

(b) lignite,

(c) natural gas (within the meaning of the Energy Act 1976<sup>(5)</sup>),

(d) crude liquid petroleum, or

(e) petroleum products (within the meaning of the Energy Act 1976);”;

““greenhouse gas emission criteria” means the criteria set out in Schedule A1;”;

““land criteria” means the criteria set out in Schedule A2;”;

““offshore”, in relation to a generating station which generates electricity from wind, means a generating station which—

(a) has its wind turbines situated wholly in offshore waters; and

(b) is not connected to dry land by means of a permanent structure which provides access to land above the mean low water mark;”;

““registrable additional turbine” means a wind turbine which—

(a) forms part of the capacity of a generating station which is offshore;

(b) does not form part of the capacity of the station as accredited; and

(c) was not used to generate electricity before 1st April 2011;”;

““Renewables Directive” means Directive [2009/28/EC](#) of the European Parliament and of the Council on the promotion of the use of energy from renewable sources”<sup>(6)</sup>; and

““sustainability information” means information submitted to the Authority by the operator of a generating station for the purpose of demonstrating that a bioliquid meets the greenhouse gas emission criteria and the land criteria;”;

(b) in paragraph (1), for the definition of “total installed capacity” substitute—

““total installed capacity” means—

(a) in relation to a generating station, the maximum capacity at which the station could be operated for a sustained period without causing damage to it (assuming the source of power used by it to generate electricity was available to it without interruption);

(b) in relation to a wind turbine, the maximum capacity at which the turbine could be operated for a sustained period without causing damage to it (assuming there was no interruption to the wind powering it);”;

(c) in paragraph (2), after every reference to “waste” insert “, fossil derived bioliquid”;

(d) for paragraph (4) substitute—

“(4) The fuels referred to in paragraph (3) are—

(a) fossil derived bioliquid;

(b) bioliquid (not being fossil derived bioliquid);

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<sup>(5)</sup> [1976 c.76](#).

<sup>(6)</sup> O.J. No. L 140, 5.6.2009, p.16.

- (c) biomass (not being bioliquid);
- (d) waste which constitutes a renewable source (not being bioliquid or biomass);  
and
- (e) fossil fuel including waste (other than waste falling within sub-paragraphs (a) to (d)).”.

#### **Waste as a renewable source**

4. For article 3(2)(b) (waste as a renewable source) substitute—

“(b) is—

- (i) for any waste that is a fossil derived bioliquid, the energy content of the fossil fuel from which the fossil derived bioliquid is directly or indirectly produced expressed as a percentage of the energy content of that fossil derived bioliquid as a whole;
- (ii) for all other waste, the energy content of the fossil fuel from which the waste is in part composed or derived expressed as a percentage of the energy content of that waste as a whole.”.

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

5. In article 4(4) (biomass and fuels which are to be treated as biomass) after “(not being waste” insert “or fossil derived bioliquid”.

#### **Fossil derived bioliquid**

6. After article 4 (biomass and fuels which are to be treated as biomass) insert—

##### **“Fossil derived bioliquid**

**4A.—**(1) For the purposes of this Order, fossil derived bioliquid is to be treated as being in part composed of (or in part derived from) fossil fuel.

(2) Where fossil derived bioliquid (not being waste) is used, whether on its own or not, to fuel a generating station, the proportion of the fossil derived bioliquid which is to be treated as being composed of (or derived from) fossil fuel—

- (a) is to be determined by the Authority, and
- (b) is the energy content of the fossil fuel from which the fossil derived bioliquid is directly or indirectly produced expressed as a percentage of the energy content of the fossil derived bioliquid as a whole.

(3) It is for the operator of the generating station to demonstrate to the Authority’s satisfaction what proportion of the fossil derived bioliquid is to be treated as being composed of (or derived from) fossil fuel.

(4) When determining that proportion the Authority is entitled to have regard to any material (whether or not produced to it by the operator of the generating station) if, in its opinion, that material indicates what proportion of the fossil derived bioliquid is to be treated as being composed of (or derived from) fossil fuel.”.

### **Generating stations accredited for longer than 20 years**

7. In article 17A(1) (generating stations accredited for longer than 20 years)(7) after “paragraphs (2) and (3)” insert “and article 17AA”.

### **Circumstances in which no SROCs are to be issued in respect of offshore wind generating stations**

8. After article 17A (generating stations accredited for longer than 20 years) insert—

#### **“Offshore wind turbines registered for longer than 20 years**

**17AA.**—(1) This article applies in relation to the issue of SROCs in respect of the generation of electricity using a registered offshore wind turbine.

(2) SROCs are not to be issued in respect of any electricity generated using a registered offshore wind turbine, on or after the 20th anniversary of the date on which it was registered under article 58A (registration of offshore wind turbines) or 31st March 2037 (whichever is the earlier).

(3) Where the electricity generated by a generating station is generated in part using registered offshore wind turbines, but the amount of electricity so generated is not measured separately from electricity generated otherwise than by using those turbines, the electricity generated by it which is to be treated (for the purposes of paragraph (2)) as having been generated using those turbines is the relevant percentage (the relevant percentage for these purposes being the total installed capacity of those turbines at the date of generation of the electricity expressed as a percentage of the station’s total installed capacity at that date).

(4) Article 17A does not apply in relation to the issue of SROCs in respect of the generation of electricity using a registered offshore wind turbine.

(5) In this article, “registered offshore wind turbine” means a wind turbine which is registered under article 58A.

#### **Electricity generated using unregistered offshore wind turbines**

**17AB.**—(1) This article applies to a generating station which—

- (a) is offshore;
- (b) generates electricity from wind; and
- (c) in the case of a generating station accredited before 1st April 2011, generates electricity using a registrable additional turbine.

(2) SROCs are not to be issued in respect of any electricity generated by a generating station to which this article applies using an unregistered offshore wind turbine.

(3) Where the electricity generated by a generating station is generated in part using unregistered offshore wind turbines, but the amount of electricity so generated is not measured separately from electricity generated otherwise than by using those turbines, the electricity generated by it which is to be treated (for the purposes of paragraph (2)) as having been generated using those turbines is the relevant percentage (the relevant percentage for these purposes being the total installed capacity of those turbines at the date of generation of the electricity expressed as a percentage of the station’s total installed capacity at that date).

(4) In this article, “unregistered offshore wind turbine”, in relation to a generating station, means a wind turbine which—

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(7) Article 17A was inserted by article 8 of [S.S.I. 2010/147](#).

- (a) is not registered under article 58A; and
- (b) where the generating station was accredited as at 31st March 2011, is a registrable additional turbine.”.

**Circumstances in which no SROCs are to be issued in respect of electricity generated from renewable sources**

9. In article 22(1) (circumstances in which no SROCs are to be issued in respect of electricity generated from renewable sources) after every reference to “biomass” insert “or fossil derived bioliquid”.

**Circumstances in which no SROCs are to be issued in respect of electricity generated from bioliquid**

10. 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 bioliquid**

22A.—(1) No SROCs are to be issued in respect of any electricity generated by a generating station from bioliquid unless the bioliquid meets the greenhouse gas emission criteria and the land criteria.

(2) It is for the operator of the generating station to demonstrate to the Authority’s satisfaction that the bioliquid meets the greenhouse gas emission criteria and the land criteria.

(3) Where paragraph (4) applies to a consignment of bioliquid, a mass balance system must be used for the purpose of demonstrating that the bioliquid meets the greenhouse gas emission criteria and the land criteria.

(4) This paragraph applies to a consignment of bioliquid where—

- (a) the consignment of bioliquid was withdrawn from a mixture containing consignments of bioliquid with differing sustainability profiles; or
- (b) consignments of the biomaterial from which the consignment of bioliquid was made were withdrawn from a mixture containing consignments of biomaterial with differing sustainability profiles.

(5) For the purposes of paragraph (3), a mass balance system is a system which—

- (a) provides for the sustainability profiles of the consignments of biomaterial or bioliquid added to a mixture to be attributed to the consignments withdrawn from that mixture; and
- (b) requires the sustainability profile attributed to the sum of all the consignments withdrawn from a mixture to be the same, and in the same quantities, as the sustainability profile of the sum of all the consignments added to that mixture.

(6) For the purposes of paragraphs (4) and (5)—

- (a) the sustainability profile of a consignment of biomaterial is—
  - (i) information identifying the material of which the biomaterial is composed; and
  - (ii) information relating to the biomaterial to be used for the purpose of determining whether bioliquid made from the biomaterial meets the greenhouse gas emission criteria and the land criteria;

- (b) the sustainability profile of a consignment of bioliquid is information identifying—
  - (i) the material of which the bioliquid is composed; and
  - (ii) the proportion that meets the greenhouse gas emission criteria and the land criteria.

### **Common agricultural policy requirements**

**22B.** No SROCs are to be issued in respect of any electricity generated by a generating station from bioliquid if—

- (a) the bioliquid is derived from biomaterial which—
  - (i) is of agricultural origin;
  - (ii) was cultivated in the EU; and
  - (iii) is not waste; and
- (b) the Authority is satisfied that the biomaterial referred to in sub-paragraph (a) was—
  - (i) cultivated in a manner that breached a statutory management requirement identified in entries 1 to 5 and 9 of the list in Annex 2 to Council Regulation (EC) No 73/2009<sup>(8)</sup> (“the 2009 Regulation”); or
  - (ii) obtained from land which does not meet the minimum requirements for good agricultural and environmental condition defined pursuant to Article 6(1) of the 2009 Regulation<sup>(9)</sup>.”.

### **Offshore wind generating stations using relevant wind turbines**

**11.** In article 30A (offshore wind generating stations using relevant wind turbines)<sup>(10)</sup>—

- (a) omit paragraph (6);
- (b) in paragraph (7) omit the definition of “total installed capacity”.

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

**12.** In article 54 (information to be provided to the Authority where electricity is generated from biomass)—

- (a) in the heading, after “biomass” insert “or fossil derived bioliquid”;
- (b) in paragraph (1)(a), after “other than” insert “waste, biomass wholly derived from waste,”;
- (c) omit paragraph (3)(f);
- (d) at the end of paragraph (3)(j) omit “and”;
- (e) at the end of paragraph (3)(k) insert “; and”;
- (f) after paragraph (3)(k) insert—
  - “(l) where the biomass was not a bioliquid—
    - (i) the greenhouse gas emissions from the use of the biomass to generate one mega joule of electricity;

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<sup>(8)</sup> O.J. L 30, 31.1.2009, p.16. Council Regulation (EC) No. 73/2009 of 19th January 2009 establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers.

<sup>(9)</sup> Article 6(1) requires Member States to define, at national or regional level, minimum requirements for good agricultural and environmental condition on the basis of the framework established in Annex 3 to the 2009 Regulation.

<sup>(10)</sup> Article 30A was inserted by article 9 of S.S.I. 2010/147.

- (ii) whether the biomass meets the land criteria;
  - (iii) where the greenhouse gas emissions from the use of the biomass to generate one mega joule of electricity are greater than 79.2 grams, the main reasons why biomass with lower greenhouse gas emissions was not used;
  - (iv) where the biomass does not meet the land criteria, the main reasons why biomass meeting the land criteria was not used; and
  - (v) where any of the information specified in paragraphs (i) or (ii) is not known—
    - (aa) the main reasons why that information is not known; and
    - (bb) the main reasons why biomass for which that information is known was not used.”;
- (g) after paragraph (3) insert—
  - “(3A) For the purposes of paragraph (3)(l), the operator of the generating station must calculate the greenhouse gas emissions using one of the following methods—
    - (a) the actual value method; or
    - (b) the default value method.
  - (3B) The default value method must not be used to calculate the greenhouse gas emissions from the use of biomass unless—
    - (a) the biomass is described in the first column of Part 2 of Schedule 3B; and
    - (b) in relation to the biomass, the result of the calculation in paragraph 7 of Part C of Annex V to the Renewables Directive is equal to, or less than, zero.
  - (3C) For the purposes of paragraph (3B)(b), paragraph 7 of Part C of Annex V 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.”.
- (h) for paragraph (6) substitute—
  - “(6) In this article—
    - “actual value method” means the calculation method provided for in Schedule 3A;
    - “default value method” means the calculation method provided for in Part 1 of Schedule 3B; and
    - “environmental quality assurance scheme” means a voluntary scheme which establishes environmental or social standards in relation to the production of biomass or matter from which a biomass fuel is derived.
  - (7) References in this article to biomass, other than in or for the purposes of paragraph (3)(l), include fossil derived bioliquid.”.

### **Bioliquid sustainability audit report**

**13.** After article 54 (information to be provided to the Authority where electricity is generated from biomass) insert—

### **“Bioliqid sustainability audit report**

**54A.**—(1) This article applies to a generating station which generates electricity (wholly or partly) from bioliqid in respect of which the operator of the generating station has submitted sustainability information.

(2) In relation to each consignment of bioliqid used in a generating station to which this article applies, the operator of the station must, by the 31st May immediately following the obligation period during which the bioliqid referred to in paragraph (1) is used (“the relevant date”), provide the Authority with a sustainability audit report meeting the requirements specified in paragraph (3).

(3) The requirements specified in this paragraph are that the sustainability audit report must—

- (a) be prepared by a person who is not—
  - (i) the owner or operator of the generating station; or
  - (ii) a connected person, in relation to the owner or operator of the generating station;
- (b) identify the systems used by the operator of the generating station to produce the relevant sustainability information and confirm that measures have been taken—
  - (i) to protect those systems against fraud; and
  - (ii) to ensure the information produced by those systems is accurate and reliable;
- (c) evaluate the adequacy of the frequency and methodology of any sampling carried out for the purpose of obtaining or checking the data on which the operator relied in preparing the relevant sustainability information;
- (d) evaluate the robustness of the data on which the operator relied in preparing the relevant sustainability information; and
- (e) be prepared to an adequate standard.

(4) Subject to paragraph (5), it is for the operator of the generating station to demonstrate to the Authority’s satisfaction that the sustainability audit report was prepared to an adequate standard.

(5) A sustainability audit report shall be deemed to have been prepared to an adequate standard if it complies with the International Standard on Assurance Engagements 3000 (2010 edition)(**11**) or equivalent.

(6) Where, in relation to bioliqid used in a generating station to which this article applies, the operator of the station fails to provide the Authority with a sustainability audit report meeting the requirements specified in paragraph (3) 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 sustainability audit report is provided.

(7) For the purposes of paragraph (6), 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 bioliqid in relation to which a sustainability audit report meeting the requirements specified in paragraph (3) should have been provided.

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(11) The International Standard on Assurance Engagements 3000 is set out from page 292 of Part II of the publication entitled “Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements” (2010 edition) (ISBN 978-1-60815-052-6) published by the International Federation of Accountants. Copies can be obtained from [www.ifac.org](http://www.ifac.org).



(8) In this article “relevant sustainability information” in relation to a consignment of bioliquid means the sustainability information submitted by the operator of the generating station in respect of the consignment.”

### **Functions of the Authority**

14. After article 57(1) (functions of the Authority) insert—

“(1A) The Authority must, as soon as reasonably practicable after each obligation period, forward to the Scottish Ministers a summary of the sustainability information submitted to it during that period.”.

### **Registration of offshore wind turbines**

15. After article 58 (preliminary accreditation and accreditation of generating stations) insert—

#### **“Registration of offshore wind turbines**

**58A.—**(1) This article applies to a generating station which—

- (a) is accredited;
- (b) is offshore;
- (c) generates electricity from wind; and
- (d) in the case of a generating station accredited before 1st April 2011, has added registrable additional turbines on or after that date.

(2) The operator of a generating station to which this article applies may apply to the Authority in writing for one or more wind turbines to be registered under this article in relation to the generating station.

(3) For each wind turbine to which the application relates, the application must—

- (a) identify the location, or the proposed location, of the wind turbine; and
- (b) specify the total installed capacity of the wind turbine.

(4) Following receipt of an application meeting the requirements of paragraph (3), the Authority must register the wind turbines to which the application relates if the Authority is satisfied that—

- (a) where the station was accredited before 1st April 2011, the wind turbines are registrable additional turbines;
- (b) where the wind turbines are registrable additional turbines—
  - (i) the date of receipt of the application was no later than 5 years from the date on which registrable additional turbines were first added to the station; and
  - (ii) the Authority has not registered other registrable additional turbines in relation to the station on more than 4 separate occasions;
- (c) where the wind turbines form part of the accredited capacity of the station—
  - (i) the date of receipt of the application was no later than 5 years after the date on which the station was accredited; and
  - (ii) the Authority has not registered other wind turbines forming part of the accredited capacity of the station on more than 4 separate occasions; and
- (d) where the wind turbines form part of the accredited capacity of the station and no other wind turbines have been registered under this article in relation to the

station, the total installed capacity of the wind turbines to which the application relates is at least 20% of the accredited capacity of the station.

(5) The Authority must notify the applicant in writing of its decision on an application to register a wind turbine under this article.

(6) In providing written notification under paragraph (5), the Authority must specify the date on which the registration of the wind turbine is to take effect.

(7) For the purposes of this article, the date on which a registrable additional turbine is added to a generating station is the date on which the registrable additional turbine is first used to generate electricity.

(8) In this article, in relation to a generating station “accredited capacity” means the capacity of the station as accredited.”.

## **Greenhouse gas emission criteria and land criteria**

### **16. Before Schedule 1 (calculation of the SROC obligation) insert—**

“SCHEDULE A1

Articles 2(1) and 22A

### **GREENHOUSE GAS EMISSION CRITERIA FOR BIOLIQUEID**

#### **Interpretation**

#### **1. In this Schedule—**

“actual value method” means the calculation method for greenhouse gas emissions from the production and use of bioliquids provided for in paragraphs 1, 2 and 5 to 18 of Part C of Annex V to the Renewables Directive;

“default percentage” means—

- (a) in relation to bioliquid described in the first column of Part A or Part B of Annex V to the Renewables Directive—
  - (i) the percentage (if any) which corresponds to that description in the third column of Part A or Part B of that Annex; or
  - (ii) where a percentage corresponding to that description is not set out in the third column of Part A or Part B of that Annex, the percentage which complies with the provision corresponding to that description in the second column of Part A or Part B of that Annex;

- (b) in all other cases, 0%;

“disaggregated default value” means, in relation to a bioliquid described in the first column of a table in Part D or Part E of Annex V to the Renewables Directive, the value which corresponds to that description in the third column of that table in Part D or Part E of Annex V to the Renewables Directive;

“disaggregated default values for cultivation” means the figures in the third column of the table entitled “Disaggregated default values for cultivation: ‘ $e_{ec}$ ’ as defined in part C of this Annex” in Part D of Annex V to the Renewables Directive;

“greenhouse gas emissions from the use of fossil fuel” means the value given in paragraph 19 of Part C of Annex V to the Renewables Directive as the fossil fuel comparator for bioliquids used for electricity production;

“mixed value method” means the calculation method for greenhouse gas emissions from the production and use of bioliquids provided for in paragraphs 1, 2 and 5 to 18 of Part

C of Annex V to the Renewables Directive, but using one or more disaggregated default values for the bioliquid when carrying out the calculation set out in paragraph 1 of Part C of that Annex; and

“relevant percentage” means—

- (a) in relation to bioliquid used to generate electricity before 1st January 2017, 35%;
- (b) in relation to bioliquid used to generate electricity during 2017, 50%;
- (c) in relation to bioliquid produced by an installation that started producing bioliquid before 1st January 2017 and used to generate electricity on or after 1st January 2018, 50%;
- (d) in all other cases, 60%.

#### **The greenhouse gas emission criteria**

2. Where bioliquid is used to generate electricity, it meets the greenhouse gas emission criteria if—

- (a) the greenhouse gas emissions from its use are lower, by at least the relevant percentage, than the greenhouse gas emissions from the use of fossil fuel; or
- (b) the bioliquid was—
  - (i) produced by an installation that was producing bioliquid on 23rd January 2008; and
  - (ii) used to generate electricity before 1st April 2013.

#### **Calculating the percentage difference**

3. For the purposes of paragraph 2, 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 is—

- (a) to be calculated using one of the following methods—
  - (i) the actual value method; or
  - (ii) the mixed value method; or
- (b) the default percentage.

4. The mixed value method must not be used for the purposes of paragraph 2 unless the bioliquid is described in the first column of a table in Part D or Part E of Annex V to the Renewables Directive.

5. Where the mixed value method is used for the purposes of paragraph 2, the disaggregated default values for cultivation must not be used in carrying out the calculation in paragraph 1 of Part C of Annex V to the Renewables Directive unless the biomaterial from which the bioliquid is made—

- (a) was cultivated outside the EU;
- (b) was cultivated in an area included in a list submitted under Article 19(2) of the Renewables Directive;
- (c) is waste; or
- (d) is residue (other than residue from agriculture, aquaculture or fisheries).

6. The default percentage must not be used for the purposes of paragraph 2 unless—

- (a) in relation to the bioliquid, the result of the calculation in paragraph 7 of Part C of Annex V to the Renewables Directive is equal to, or less than, zero; and

- (b) in the case of a bioliquid described in the first column of Part A of Annex V to the Renewables Directive, the biomaterial from which the bioliquid is made—
  - (i) was cultivated outside the EU;
  - (ii) was cultivated in an area included in a list submitted under Article 19(2) of the Renewables Directive;
  - (iii) is waste; or
  - (iv) is residue (other than residue from agriculture, aquaculture or fisheries).

## SCHEDULE A2

Articles 2(1), 22A and 54

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

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

- (a) trees more than five 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 five metres tall; or
  - (ii) have the capacity to grow to a height of more than five 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; and

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

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

#### 2. For the purposes of this Schedule—

- (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.

### **Land criteria**

- 3.—(1) Fuel meets the land criteria if the biomaterial from which it was made—
- (a) was waste;
  - (b) was residue (other than residue from agriculture, aquaculture, fisheries or forestry); or
  - (c) was obtained from a permitted source.
- (2) Biomaterial is obtained from a permitted source unless it is obtained from—
- (a) land which at any time during or after January 2008 was primary forest;
  - (b) except where sub-paragraph (3) applies to the biomaterial, land which at any time during or after January 2008 was designated for nature protection purposes;
  - (c) except where sub-paragraph (4) applies to the biomaterial, land which at any time during January 2008 was peatland;
  - (d) a former continuously forested area;
  - (e) except where sub-paragraph (5) or (7) applies to the biomaterial, a former lightly forested area; or
  - (f) a former wetland area.
- (3) This sub-paragraph applies to biomaterial obtained from land which at any time during or after January 2008 was designated for nature protection purposes if the production of that biomaterial did not interfere with the nature protection purposes for which the land was designated.
- (4) This sub-paragraph applies to biomaterial obtained from land which at any time during January 2008 was peatland if the cultivation and harvesting of that biomaterial did not involve the drainage of previously undrained soil.
- (5) 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 79.2 grams.
- (6) For the purposes of sub-paragraph (5)(b), the greenhouse gas emissions must be calculated using the method set out in Schedule 3A.
- (7) 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.

(8) For the purposes of sub-paragraph (7)(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 actual value method.

(9) In this paragraph, “actual value method”, “greenhouse gas emissions from the use of fossil fuel” and “relevant percentage” have the same meaning as in Schedule A1.”.

### Interpretation

17. In paragraph 1(1) of Part 1 of Schedule 2 (interpretation)(12)—

- (a) in the definition of “enhanced tidal stream” after “Secretary of State” insert “in respect of which a statutory grant was awarded on or before 19th September 2008”;
- (b) in the definition of “enhanced wave” after “Secretary of State” insert “in respect of which a statutory grant was awarded on or before 19th September 2008”;
- (c) in the definition of “offshore wind” omit “and a generating station is offshore” to the end.

### Methods for calculating emissions from the use of biomass

18. After Schedule 3 (methods for calculating emissions from the use of biomass) insert—

#### “SCHEDULE 3A

Articles 2(1) and 54

#### ACTUAL VALUE METHOD FOR CALCULATING EMISSIONS FROM THE USE OF BIOMASS

1. The greenhouse gas emissions from the use of biomass are equal to—

- (a) where the biomass is used by a combined heat and power generating station,

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

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

2. In this Schedule—

- (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 obligation period; and
- (ii) F is the energy content of all of the fuels used in generating that electricity during the obligation period;

- (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 obligation period;

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(12) Schedule 2 was amended by article 2 of [S.S.I. 2009/276](#) and article 15 of [S.S.I. 2010/147](#).

- (c)  $C_h$  is equal to—
- (i) where T is less than 423 kelvin, 0.3546;
  - (ii)  $\frac{T - 273}{T}$  ;  
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 V 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”;
    - (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”;
    - (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 “biofuels and bioliquids” were omitted;
    - (cc) for “fuels” there was substituted “biomass”;
  - (xi) paragraph 19 was omitted; and
- (e) T is the maximum temperature in degrees kelvin of heat or steam which is (or may be) supplied by the generating station to any premises.

## SCHEDULE 3B

Article 54

DEFAULT VALUE METHOD FOR CALCULATING  
EMISSIONS FROM THE USE OF BIOMASS

## PART 1

## METHOD FOR CALCULATING EMISSIONS

1. The greenhouse gas emissions from the use of biomass are equal to—
- (a) where the biomass is used by a combined heat and power generating station,
- $$\frac{E}{\eta_{el}} \left( \frac{\eta_{el}}{\eta_{el} + C_h \times \eta_h} \right);$$
- (b)  $\frac{E}{\eta_{el}}$  in any other case,
2. In this Schedule—
- (a)  $\eta_{el}$ ,  $\eta_h$  and  $C_h$  have the same meaning as in Schedule 3A; and
- (b) E, in relation to a type of biomass described in the first column of the table in Part 2, is the number of grams which corresponds to that description in the second column of that table.

## PART 2

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 sub-tropical forest.	28
Wood briquettes or wood pellets— (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.	2



<i>Biomass</i>	<i>Default greenhouse gas emissions from the production of biomass (in grams)</i>
Wood briquettes or wood pellets— (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.	20
Wood briquettes or wood pellets— (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.	17
Wood briquettes or wood pellets— (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.	35
Wood briquettes or wood pellets— (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.	4
Wood briquettes or wood pellets— (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.	22
Wood briquettes or wood pellets— (a) which are made from short rotation forestry carried out in tropical or sub-tropical forest; and (b) where the process to produce the wood briquettes or wood pellets was fuelled by wood.	22
Wood briquettes or wood pellets— (a) which are made from short rotation forestry carried out in tropical or sub-tropical forest; and (b) where the process to produce the wood briquettes or wood pellets was fuelled by natural gas.	40
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 sub-tropical 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 sub-tropical forest.	57

<i>Biomass</i>	<i>Default greenhouse gas emissions from the production of biomass (in grams)</i>
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— (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.	34
Biogas produced from maize, where— (a) the whole maize plant was used in the process to produce the biogas; and (b) the maize was grown by organic farming methods.	19”

## Transitionals

### 19. Nothing in this Order is to affect—

- (a) the issue and revocation of a renewables obligation certificate in respect of electricity generated before 1st April 2011, and anything which falls to be done or determined (whether by the Authority or some other person) in relation to such issue or revocation, under the 2009 Order;
- (b) any obligations or requirements imposed on an operator of a generating station or some other person in respect of the obligation period ending on 31st March 2011, and anything which falls to be done or determined (whether by the generator or some other person) in relation to any such obligations and requirements, under the 2009 Order;
- (c) any obligations and functions of the Authority in respect of that obligation period, and anything which falls to be done or determined (whether by the Authority or some other person) in relation to it, under the 2009 Order.

St Andrew's House,  
Edinburgh  
17th March 2011

*JIM MATHER*  
Authorised to sign by the Scottish Ministers

## EXPLANATORY NOTE

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

This Order amends the Renewables Obligation (Scotland) Order 2009 (“the 2009 Order”) and makes transitional provision.

The 2009 Order imposes an obligation (“the renewables obligation”) on all electricity suppliers which supply electricity in Scotland. Suppliers must produce, by a specified day, a certain number of renewables obligation certificates (“SROCs”) in respect of each megawatt hour of electricity that each supplies during a specified period known as an obligation period. The renewables obligation is administered by the Gas and Electricity Markets Authority (“the Authority”) which issues SROCs to renewable electricity generators in respect of their renewable output.

Articles 3 to 6, 9, 10, 13, 14 and 16 implement, in relation to the renewables obligation, Articles 17 to 19 of Directive [2009/28/EC](#) of the European Parliament and of the Council on the promotion of the use of energy from renewable sources (“the Renewables Directive”). All other articles of this Order do not implement European Union obligations.

Article 3(a) inserts new definitions into article 2 of the 2009 Order, including a definition for fossil derived bioliquid (which is a sub-category of all bioliquids). Article 3(b) substitutes the definition of “total installed capacity”.

Article 3(c) amends article 2(2) of the 2009 Order to set out the meaning of references to the energy content of a fossil derived bioliquid in any month during which the fossil fuel proportion of that fossil derived bioliquid varies. Article 3(d) amends article 2(4) of the 2009 Order to set out how the provisions of the 2009 Order apply if fossil derived bioliquid is mixed with other categories of fuel (such as biomass which is not a bioliquid).

Articles 4 and 5 amend the provisions in articles 3 and 4 of the 2009 Order for determining the fossil fuel proportion of waste and of biomass which is composed of fossil fuel.

Article 6 inserts a new article 4A into the 2009 Order. The new article 4A sets out how to determine the proportion of a fossil derived bioliquid which is to be treated as being composed of fossil fuel. SROCs will not be issued in respect of the generation of electricity attributed to the proportion of the fossil derived bioliquid which is treated as being composed of fossil fuel (Part 5 of the 2009 Order).

Articles 7, 8 and 15 amend article 17A of the 2009 Order and insert new articles 17AA, 17AB and 58A. For those offshore wind generating stations that register turbines under the new article 58A, the new article 17AA provides that the 20 year maximum period for receipt of SROCs for the generation of electricity from each registered turbine will run from the date of registration of the turbine (and not from the date of accreditation of the generating station). The new article 58A imposes restrictions on those turbines which are eligible to be registered and on when registration may take place. The new article 17AB prevents the issue of SROCs in respect of electricity generated by a wind turbine which is eligible to be registered under article 58A, but which has not been registered under that article.

Article 9 amends article 22(1) of the 2009 Order to widen the exceptions to the circumstances in which no SROCs are to be issued in respect of electricity generated from renewable sources.

Articles 10 and 16 insert new articles 22A and 22B and new Schedules A1 and A2 into the 2009 Order. The new articles 22A and 22B set out additional circumstances in which SROCs are not to be issued in respect of electricity generated from bioliquid. The new article 22A includes a requirement that no SROCs are to be issued in respect of any electricity generated using bioliquid that does not meet the greenhouse gas emission criteria (set out in the new Schedule A1) and the land criteria (set out in the new Schedule A2).

Article 11 amends article 30A of the 2009 Order in consequence of the definition inserted into article 2(1) of the 2009 Order for “offshore” in relation to a generating station.

Articles 12 and 18 amend article 54 of the 2009 Order and insert new Schedules 3A and 3B. Article 54 of the 2009 Order requires certain information to be provided to the Authority where electricity is generated from biomass. The amendments made by article 12 extend these information requirements to fossil derived bioliquids, but remove them from biomass that is, or is derived from, waste. The amendments also impose new information requirements where electricity is generated from biomass (other than bioliquid), including information requirements relating to the greenhouse gas emissions from the use of the biomass to generate electricity (which is to be calculated in accordance with the new Schedules 3A or 3B as applicable).

Article 13 inserts a new article 54A into the 2009 Order, requiring operators of generating stations claiming SROCs for the generation of electricity from bioliquid to provide a bioliquid sustainability audit report and to make related provision.

Article 14 amends article 57 of the 2009 Order, to require the Authority to provide certain information to the Scottish Ministers.

Article 17 amends Part 1 of Schedule 2 to the 2009 Order in consequence of the definition substituted for “total installed capacity” in article 2(1) of the 2009 Order. Article 17 also amends the definitions of “enhanced tidal stream” and “enhanced wave” in the 2009 Order. The existing definitions preclude from eligibility for SROCs any generating station which has already received capital or revenue funding under a statutory grant programme operated by either the Scottish Ministers or the Secretary of State. The amended definitions preclude only those generating stations from eligibility that had received such funding on or before 19th September 2008, which is the date on which the Scottish Ministers consulted on the enhanced wave and tidal bands.

Article 19 makes transitional provision in respect of the obligation period ending on 31st March 2011.

The European Commission has adopted guidelines (O.J. L 151, 17.6.2010, p.19) to serve as the basis for the calculation of land carbon stocks as required by paragraph 10 of Part C of Annex V to the Renewables Directive.

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