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STATUTORY INSTRUMENTS

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**2018 No. 611**

**The Renewable Heat Incentive Scheme Regulations 2018**

**PART 7**

**Periodic support payments**

**Interpretation**

**56.** In this Part—

“assessment date” means 31st January, 30th April, 31st July or 31st October in any year;

“average load factor”—

- (a) in respect of a relevant installation which is a large biomass plant, means—
  - (i) if the relevant installation uses or is expected to use heat for the same category of eligible purposes as 10 or more relevant installations which are large biomass plants in respect of which periodic support payments have been received, the average of the load factors of all such installations; or
  - (ii) if the relevant installation does not use or is not expected to use heat for the same category of eligible purposes as 10 or more relevant installations which are large biomass plants in respect of which periodic support payments have been received, the average of the load factors of all relevant installations which are large biomass plants in respect of which periodic support payments have been received;
- (b) in respect of a relevant installation, except a relevant installation within paragraph (a), which falls or is expected to fall within a tariff category which fewer than 20 accredited RHI installations in respect of which periodic support payments have been received fall within, means the average of the load factors of all accredited RHI installations;
- (c) in respect of a relevant installation, except a relevant installation within paragraph (a), which falls or is expected to fall within a tariff category which 20 or more accredited RHI installations in respect of which periodic support payments have been received fall within (“sister installations”) means—
  - (i) if the relevant installation uses or is expected to use heat for the same category of eligible purposes as 20 or more of the sister installations (“twin installations”), the average of the load factors of all the twin installations;
  - (ii) if the relevant installation does not use or is not expected to use heat for the same category of eligible purposes as 20 or more of the sister installations, the average of the load factors of all sister installations;

“category of eligible purposes” means any one of the following—

- (a) heating a space;
- (b) heating water;
- (c) heating a space and water;
- (d) any other eligible purpose or combination of eligible purposes;

“estimated additional biomethane spend” in relation to an assessment date and any additional biomethane registered on a particular date in respect of which a relevant producer has received a periodic support payment means—

$$A \times B \times C$$

where—

- (a) A is the flow rate for additional biomethane registered on that particular date;
- (b) B is the number of hours in the 12 month period commencing with the assessment date; and
- (c) C is the initial tariff or subsequent tariff for the additional biomethane;

“estimated energy from biomethane”, in relation to an assessment date and a relevant producer as expressed in kWh means—

$$FR \times T \times 10 \times P$$

where—

- (a) FR is the estimated flow rate;
- (b) T is—
  - (i) if the relevant producer is a participant, has made an application for registration or is a proposed producer of biomethane for injection in relation to which there is a pending tariff guarantee, the number of hours in the 12 month period commencing with the assessment date;
  - (ii) where sub-paragraph (i) does not apply but an application for preliminary registration has been made by the relevant producer, the number of hours in the period—
    - (aa) commencing on the later of the assessment date or the date identified by the applicant as the date on which injection is expected to commence; and
    - (bb) ending 12 months after the assessment date; and
- (c) P is the proportion of biomethane which is calculated as follows —

$$\frac{E}{B}$$

where—

- (i) E is the amount of eligible biomethane in kWh injected by all producers of biomethane who have been registered and in relation to which periodic support payments have been received; and
- (ii) B is the amount of all biomethane in kWh injected by such producers in the quarterly periods for which periodic support payments have been received;

“estimated flow rate”, in relation to an assessment date and a relevant producer, means—

$$\frac{B}{H}$$

where—

- (a) B is the volume in cubic metres of biomethane that the relevant producer has declared as being the amount which that relevant producer expects will be produced for injection each year once injection has commenced (or if more than one declaration has been given, the volume identified in the latest declaration) or 0 if no such declaration has been given; and

(b) H is the total number of hours in the 12 month period commencing with the assessment date;

“estimated heat”, in relation to an assessment date and a relevant installation as expressed in kWh means—

$$LF \times T \times C$$

where—

(a) LF is—

- (i) if a periodic support payment has been received in respect of the installation, the load factor; or
- (ii) in any other case, the average load factor applicable in respect of that installation;

(b) T is—

- (i) if the relevant installation is an accredited RHI installation, an eligible installation for which an application for accreditation has been made, or a plant in respect of which there is a pending tariff guarantee, the number of hours in 12 month period commencing with the assessment date;
- (ii) where paragraph (i) does not apply but the relevant installation is a plant for which an application for preliminary accreditation has been made, the number of hours in the period—
  - (aa) commencing on the later of the assessment date or the date identified by the applicant as the date the plant is expected to be commissioned; and
  - (bb) ending 12 months after the assessment date;

(c) C is the installation capacity of that relevant installation;

“estimated original biomethane spend” in relation to an assessment date and any original biomethane in respect of which a relevant producer has received a periodic support payment means—

$$A \times B \times C$$

where—

(a) A is the flow rate for original biomethane;

(b) B is the number of hours in the 12 month period commencing with the assessment date; and

(c) C is the relevant initial tariff or subsequent tariff calculated in accordance with regulation 59;

“estimated residual energy from biomethane” in relation to a proposed producer of biomethane for injection in respect of which there is a pending tariff guarantee, means—

$$B \times \frac{M}{Y}$$

where—

(a) B means estimated energy from biomethane in excess of 250GWh;

(b) M means the number of hours in the period commencing on the later of the assessment date or the date identified by the applicant as the date on which injection is expected to commence, and ending 12 months after the assessment date; and

(c) Y means the number of hours in the 12 month period commencing with the assessment date.

“estimated spend” in relation to an assessment date and—

- (a) a relevant installation (except a relevant installation to which paragraph (b) applies), means the estimated heat in relation to that installation multiplied by the initial tariff or subsequent tariff;
- (b) a relevant installation which is a large installation in respect of which no periodic support payment has been received and for which the owner has given a declaration as to the total heat in kWh which that installation is expected to generate each year for eligible purposes (or if more than one declaration has been given, the total heat identified in the latest declaration), means—
  - (i) where the relevant installation is a plant for which an application for preliminary accreditation has been made (but sub-paragraphs (ii) and (iii) do not apply)—

$$\left( A \times \frac{B}{C} \right) \times D$$

where—

A is the total heat identified in the applicant’s declaration;

B is the number of hours in the period—

(aa) commencing on the later of the assessment date or the date identified by the applicant as the date the plant is expected to be commissioned; and

(bb) ending 12 months after the assessment date;

C means the number of hours in the 12 month period commencing with the assessment date; and

D is the initial tariff or subsequent tariff;

- (ii) where the relevant installation is a plant for which an application for accreditation has been made (but sub-paragraphs (i) and (iii) do not apply), the total heat in the applicant’s declaration multiplied by the initial tariff or subsequent tariff; or
- (iii) where there is a pending tariff guarantee in relation to a plant (but sub-paragraphs (i) and (ii) do not apply)—
  - (aa) the total heat up to 250GWh multiplied by the initial tariff or subsequent tariff applicable to that heat; and
  - (bb) in respect of any further heat—

$$\left( A \times \frac{B}{C} \right) \times D$$

where—

A is that further heat;

B is the number of hours in the period—

(aa) commencing on the later of the assessment date or the date identified by the applicant as the date the plant is expected to be commissioned; and

(bb) ending 12 months after the assessment date;

C is the number of hours in the 12 month period commencing with the assessment date; and

D is the initial tariff or subsequent tariff applicable to that further heat;

- (c) a relevant producer who has not received a periodic support payment or has received three or fewer periodic support payments, means—

- (i) except where paragraph (ii) applies, the estimated energy from biomethane in relation to that relevant producer multiplied by the initial tariff or subsequent tariff; or
- (ii) in relation to a proposed producer of biomethane in respect of which there is a pending tariff guarantee—
  - (aa) biomethane up to 250GWh multiplied by the initial tariff or subsequent tariff applicable to that energy; and
  - (bb) the estimated residual energy from biomethane, if any, multiplied by the initial tariff or subsequent tariff in relation to that energy; or
- (d) a relevant producer who has received four or more periodic support payments, means the sum of the estimated original biomethane spend and any estimated additional biomethane spend;

“financial year” means a 12 month period commencing on 1st April and ending with the following 31st March;

“flow rate”, in relation to biomethane, means—

$$\frac{B}{H}$$

where—

- (a) B is the amount of eligible biomethane in kWh for which periodic support payments have been received commencing with the third periodic support payment; and
- (b) H is the total number of hours in the period commencing with the first day of the first quarterly period in which that biomethane was injected and ending with the last day of the last quarterly period in which that biomethane was injected;

“forecast for expenditure”—

- (a) in relation to an assessment date and a relevant installation which falls or is expected to fall within any tariff category means the sum as at that assessment date of the estimated spend for each relevant installation which falls within that tariff category;
- (b) in relation to an assessment date and a relevant producer, means the sum as at that assessment date of the estimated spend for each relevant producer;

“forecast for total expenditure”, in relation to an assessment date, means the sum as at that assessment date of—

- (a) the estimated spend for each relevant installation; and
- (b) the estimated spend for each relevant producer;

“increase in expenditure forecast” means a figure determined under regulation 58(3)(d);

“large biomass plant” means a plant which generates heat or heat and power from solid biomass (including solid biomass contained in waste) with an installation capacity of 1MWth or above, and which is not a new solid biomass CHP system;

“load factor” in respect of an accredited RHI installation means—

$$\frac{M}{C \times H}$$

where—

- (a) M is—

- (i) in the case of a shared ground loop system, the sum of the amounts of heat in kWhth for which periodic support payments have been made in respect of each of the ground source heat pumps which form part of the shared ground loop system; or
- (ii) in all other cases, the amount of heat in kWhth generated by that installation during all quarterly periods in respect of which it has received a periodic support payment;
- (b) C is the installation capacity of that installation; and
- (c) H is the total number of hours in all the quarterly periods in respect of which it has received a periodic support payment;

“pending tariff guarantee” means a tariff guarantee which has been granted in accordance with regulation 35(7) but does not include a case where—

- (a) the plant in respect of which the tariff guarantee was granted is accredited or the producer of biomethane for injection in respect of which the tariff guarantee was granted is registered;
- (b) an application for accreditation or registration has been made in respect of such a plant or producer of biomethane for injection;
- (c) a tariff guarantee has been revoked; or
- (d) regulation 35(11)(c) applies;

“relevant installation” means—

- (a) an accredited RHI installation;
- (b) a plant for which an application for accreditation or preliminary accreditation has been made, but does not include a plant where—
  - (i) the application has been rejected by the Authority; or
  - (ii) the application has been withdrawn by the applicant; or
- (c) a plant in respect of which there is a pending tariff guarantee;

“relevant producer” means—

- (a) a participant who produces or proposes to produce biomethane for injection;
- (b) a person who produces or proposes to produce biomethane for injection who has made an application for registration or preliminary registration but does not include a person who has made an application—
  - (i) which has been rejected by the Authority; or
  - (ii) which has been withdrawn by the applicant; or
- (c) a producer of biomethane for injection in respect of which there is a pending tariff guarantee;

“tariff category” means one of the following tariffs or groups of tariffs—

- (a) plants which generate heat from solid biomass;
- (b) CHP systems;
- (c) ground source heat pumps and shared ground loop systems with an installation capacity of 100kWh or above;
- (d) ground source heat pumps and shared ground loop systems with an installation capacity of below 100kWh and air source heat pumps;
- (e) plants which use solar collectors;
- (f) plants which generate heat from biogas with a capacity below 600kWh;

- (g) producers of biomethane for injection and plants which generate heat from biogas with a capacity of 600kWth and above;
- (h) deep geothermal plants.

### **Publication of tariffs**

**57.** The Authority must—

- (a) by 15th March, 15th June, 15th September and 15th December in each year (“the tariff publication date”) publish in a table the initial tariffs applicable where a tariff start date falls within the tariff period immediately following the relevant tariff publication date; and
- (b) on or before 1st April each year, publish in a table on its website the subsequent tariffs applicable for the period commencing on 1st April of that year and ending with the 31st March of the following year.

### **Expenditure forecast statement and tariff change notice**

**58.**—(1) The Secretary of State must publish a statement in accordance with this regulation (“an expenditure forecast statement”).

(2) The expenditure forecast statement must be published by 1st March, 1st June, 1st September and 1st December in each year.

(3) For that purpose the Secretary of State must determine, as at the assessment date immediately preceding the date on which the expenditure forecast is to be published (“the latest assessment date”)—

- (a) the forecast for total expenditure;
- (b) for each tariff category the forecast for expenditure in relation to the relevant installations that fall within that tariff category;
- (c) the forecast for expenditure in relation to relevant producers;
- (d) in relation to each of the forecasts for expenditure referred to in sub-paragraphs (b) and (c) the increase in expenditure forecast for that tariff category, that is to say the difference between—
  - (i) the forecast for expenditure as at the latest assessment date; and
  - (ii) the forecast for expenditure as at the assessment date three months before the latest assessment date.

(4) An expenditure forecast statement must set out, as at the latest assessment date—

- (a) the forecast for total expenditure;
- (b) each of the forecasts for expenditure referred to in paragraph (3)(b) and (c); and
- (c) each of the increase in expenditure forecasts referred to in paragraph (3)(d).

(5) If, as a result of a forecast referred to in paragraph (3), and by virtue of regulation 60(1), the new initial tariff will be different from the former initial tariff, the Secretary of State must publish, with the expenditure forecast statement, a notice (a “tariff change notice”) setting out the new initial tariff and the date on which it will take effect.

(6) For the purposes of paragraph (5)—

- (a) “new initial tariff” means the initial tariff for an accredited RHI installation, or biomethane produced for injection, having a tariff start date which falls within the next tariff period;

- (b) “former initial tariff” means the initial tariff that would have been applicable to the installation or biomethane produced for injection if the tariff start date had fallen on the day immediately preceding the commencement of that tariff period.

### **Calculation and payment of periodic support payments to participants**

**59.**—(1) Subject to regulations 52 to 55 and 76 to 83, periodic support payments are payable for 20 years from the tariff start date.

(2) Subject to regulations 35(9), 60(2) and 62(2) the tariff to be used for the purpose of calculating periodic support payments is—

- (a) the initial tariff, for the period commencing with the tariff start date and ending with the end of the financial year in which that tariff start date falls; and
- (b) the subsequent tariff, for each subsequent financial year.

### **Calculation of initial tariffs**

**60.**—(1) Except as provided in paragraphs (2) to (4), the initial tariff for an accredited RHI installation or producer of biomethane for injection is calculated in accordance with the formula—

$$A \times (1 - B - C)$$

where—

A is calculated in accordance with regulation 61; and

B and C are calculated in accordance with Schedule 7 in relation to—

- (i) the tariff category into which the tariff for the accredited RHI installation or producer of biomethane for injection falls; and
- (ii) the assessment date immediately preceding the commencement of the tariff period in which the tariff start date falls.

(2) Where paragraph (3) or (4) applies, the initial tariff, commencing on the date on which these Regulations come into force, is the relevant tariff set out in Schedule 6.

(3) This paragraph applies where—

- (a) a participant produces biomethane for injection or an accredited RHI installation generates heat from biogas;
- (b) the tariff start date is on or after 1st April 2018 but before the date on which these Regulations come into force;
- (c) if biogas or biomethane is produced by anaerobic digestion, the participant has elected to be subject to the requirements in regulation 74; and
- (d) where an accredited RHI installation generates heat from biogas, the participant has elected to be subject to the requirements in regulation 3(5)(a).

(4) This paragraph applies where—

- (a) an accredited RHI installation generates heat from biomass; and
- (b) the tariff start date is on or after 1st April 2018 but before the date on which these Regulations come into force.

### **Calculation of A**

**61.**—(1) For the purposes of regulation 60, A is calculated as follows.

(2) Where the tariff start date is within any tariff period commencing on 1st April, commencing with 1st April 2018, A is the relevant tariff which would have applied had the tariff start date



fallen within the previous tariff period (“the previous tariff”), adjusted by the percentage increase or decrease in the consumer prices index for the calendar year ending with the 31st December immediately preceding the commencement of that tariff period, the resulting figure being rounded.

(3) Where the tariff start date is within any subsequent tariff period commencing with 1st July, 1st October or 1st January, commencing with 1st July 2018, A is the previous tariff.

### **Calculation of subsequent tariffs**

**62.**—(1) Except as provided in paragraphs (2) and (3), in relation to a particular financial year, the subsequent tariff is the tariff applicable to the biomethane produced by the participant or to the accredited RHI installation on the last day of the previous financial year, adjusted by the percentage increase or decrease in the relevant measure of inflation for the calendar year ending with the 31st December immediately preceding the commencement of that subsequent financial year, the resulting figure being rounded.

(2) Where paragraph (3) applies, the subsequent tariff from the date on which these Regulations come into force until 31st March 2019 is the relevant tariff set out in Schedule 6.

(3) This paragraph applies where—

- (a) a participant produces biomethane for injection or an accredited RHI installation generates heat from biogas;
- (b) the tariff start date is on or after 14th December 2016 but before 1st April 2018;
- (c) if biogas or biomethane is produced by anaerobic digestion, the participant has elected to be subject to the requirements in regulation 74; and
- (d) where an accredited RHI installation generates heat from biogas, the participant has elected to be subject to the requirements in regulation 3(5)(a).

(4) In this regulation “relevant measure of inflation” means—

- (a) if the tariff start date is earlier than 1st April 2016, the retail prices index; and
- (b) in any other case, the consumer prices index.

### **Tiered tariffs**

**63.**—(1) Paragraphs (2) to (6) apply where an accredited RHI installation—

- (a) has an installation capacity of less than 1MWth and generates heat from biomass;
- (b) has an installation capacity of 1MWth or above, generates heat from biomass and has a tariff start date on or after 14th December 2016;
- (c) is a ground source heat pump with a tariff start date on or after 28th May 2014; or
- (d) is a shared ground loop system.

(2) Where pursuant to regulations 60 to 62 and Schedule 6 a tiered tariff is, or is to be used in calculating, the initial tariff or subsequent tariff for the accredited RHI installation, the applicable tier of that tiered tariff is—

- (a) tier 1, in relation to the initial heat generated by the accredited RHI installation in a relevant period and used for eligible purposes; and
- (b) tier 2, in relation to all further heat generated by that installation in that same relevant period and used for eligible purposes.

(3) In relation to an accredited RHI installation with an installation capacity of less than 1MWth which generates heat from biomass—

- (a) where the tariff start date is before 20th September 2017, “initial heat” means the heat in kWhth generated by the accredited RHI installation running at its installation capacity for 1,314 hours;
  - (b) where the tariff start date is on or after 20th September 2017, “initial heat” means the heat in kWhth generated by the accredited RHI installation running at its installation capacity for 3,066 hours.
- (4) In relation to an accredited RHI installation which generates heat from biomass with an installation capacity of 1MWth or above, “initial heat” means the heat in kWhth generated by the accredited RHI installation running at its installation capacity for 3,066 hours.
- (5) In relation to an accredited RHI installation which is a ground source heat pump, “initial heat” means the heat in kWhth generated by that installation running at its installation capacity for 1,314 hours.
- (6) In relation to an accredited RHI installation which is a shared ground loop system, “initial heat” means—
- (a) in respect of any ground source heat pumps installed in domestic premises which form part of the shared ground loop system, the lower of—
    - (i) the heat in kWhth generated by each of those ground source heat pumps running at its installed peak heat output capacity for 1,314 hours; or
    - (ii) the heat demand for space heating and water heating specified in the relevant EPC for that property (where “heat demand” and “relevant EPC” have the same meaning as in regulation 70);
  - (b) in respect of all other ground source heat pumps which form part of that shared ground loop system, the heat in kWhth generated by each ground source heat pump running at its installed peak heat output capacity for 1,314 hours.
- (7) Paragraphs (8) and (9) apply where, on or after the date on which these Regulations come into force, a registered participant produces biomethane with a tariff start date on or after 12th February 2015.
- (8) Where pursuant to regulations 60 to 62 and Schedule 6 a tiered tariff is, or is to be used in calculating, the initial tariff or subsequent tariff for the biomethane, the applicable tier of that tiered tariff is—
- (a) tier 1, in relation to initial biomethane;
  - (b) tier 2, in relation to secondary biomethane; and
  - (c) tier 3, in relation to tertiary biomethane.
- (9) In paragraph (8)—
- (a) “initial biomethane” means the amount of eligible biomethane measured in megawatt hours which is injected in a relevant period, up to 40,000 megawatt hours;
  - (b) “secondary biomethane” means the amount of eligible biomethane measured in megawatt hours injected in a relevant period, in excess of the initial biomethane, up to an additional 40,000 megawatt hours; and
  - (c) “tertiary biomethane” means the amount of eligible biomethane measured in megawatt hours injected in the relevant period in excess of the secondary biomethane.
- (10) Where a guaranteed tariff applies in relation to an accredited RHI installation or the production of biomethane for injection—
- (a) heat in excess of 250GWh in any relevant period is further heat for the purposes of paragraph (2)(b); and

- (b) biomethane in excess of 250GWh in any relevant period is tertiary biomethane for the purposes of paragraph (8)(c).

(11) In this regulation—

“applicable tier”, in relation to a tiered tariff, means the numbered tier of that tariff, the rate for which applies in determining the initial tariff or subsequent tariff for an accredited RHI installation or for biomethane production;

“relevant period”—

- (a) except as provided in paragraph (b), means the 12 month period commencing with, or with the anniversary of, the tariff start date; or
- (b) where the accredited RHI installation has an installation capacity of 1MWth or above, generates heat from biomass and has a tariff start date on or after 14th December 2016 but before 20th September 2017, means—
  - (i) the period commencing with 20th September 2017 and ending with the day before the anniversary of the tariff start date; and
  - (ii) thereafter, the 12 month period commencing with the anniversary of the tariff start date;

“tiered tariff” means a tariff in Schedule 6 for which different rates are specified for numbered tiers.

**Periodic support payments for accredited RHI installations in simple systems in respect of which an application for accreditation was made before 24th September 2013**

64.—(1) This regulation applies to an accredited RHI installation in respect of which an application for accreditation was made before 24th September 2013 and which—

- (a) is generating and supplying heat solely for one or more eligible purposes used in one building;
- (b) does not deliver heat by steam; and
- (c) is not a CHP system.

(2) Subject to regulations 71 and 72, periodic support payments in respect of each quarterly period must be calculated in accordance with one of the following formulae, as applicable—

(a)  $A \times B$ ; or

(b) where the installation is generating heat from the combustion of biogas,  $A \times (B - C)$ ,

where—

A is the tariff determined in accordance with regulation 59;

B is the heat in kWhth generated by the installation during the relevant quarterly period; and

C is—

- (i) the heat in kWhth delivered in the relevant quarterly period to the biogas production plant which produced the biogas which is combusted (other than heat contained in any feedstock used to produce that biogas); or
- (ii) such proportion (as may be chosen by the participant and agreed by the Authority) of that heat, provided that the proportion is no less than—

$$\frac{x}{y}$$

where—

- (aa) x is the heat produced by that biogas which is used for eligible purposes; and
- (bb) y is the energy content of all the biogas produced by that biogas production plant.

**Periodic support payments accredited RHI installations for complex systems in respect of which an application for accreditation was made before 24th September 2013**

**65.**—(1) This regulation applies to an accredited RHI installation in respect of which an application for accreditation was made before 24th September 2013 and which does not fall within regulation 64.

(2) Subject to regulations 69, 71 and 72, periodic support payments in respect of each quarterly period must be calculated in accordance with one of the following formulae, as applicable—

(a) 
$$A \times B \times \frac{D}{E};$$
 or

(b) where the accredited RHI installation is generating heat from the combustion of biogas,

$$A \times (B - C) \times \frac{D}{E},$$

where—

A is the tariff for the installation determined in accordance with regulation 59;

B is the heat in kWhth used by the heating system of which the installation forms part during the relevant quarterly period for eligible purposes;

C is—

- (i) the heat in kWhth delivered in the relevant quarterly period to the biogas production plant which produced the biogas which is combusted (other than heat contained in any feedstock used to produce that biogas); or
- (ii) such proportion (as may be chosen by the participant and agreed by the Authority) of that heat, provided that the proportion is no less than—

$$\frac{x}{y}$$

where—

(aa) x is the heat produced by that biogas which is used for eligible purposes; and

(bb) y is the energy content of all the biogas produced by that biogas production plant;

D is the heat in kWhth generated by the installation during the relevant quarterly period; and

E is the heat in kWhth generated by all plants supplying heat to the heating system of which the installation forms part in the relevant quarterly period.

**Periodic support payments for accredited RHI installations in respect of which an application for accreditation is made on or after 24th September 2013**

**66.**—(1) Except where regulation 67, 68 or 70 applies, this regulation applies to an accredited RHI installation for which an application for accreditation is made on or after 24th September 2013.

(2) Subject to regulations 31(2), 69, 71, 72 and 74, periodic support payments in respect of each quarterly period must be calculated in accordance with one of the following formulae, as applicable—

(a) 
$$A \times B;$$
 or

(b) where the accredited RHI installation is generating heat from the combustion of biogas,

$$A \times (B - C),$$

where—

A is the tariff for the installation determined in accordance with regulation 59;

B is the kWhth of heat generated by that plant which is used for eligible purposes, determined in accordance with regulations 23 and 75; and

C is—

- (i) the heat in kWhth delivered in the relevant quarterly period to the biogas production plant which produced the biogas which is combusted (other than heat contained in any feedstock used to produce that biogas); or
- (ii) such proportion (as may be chosen by the participant and agreed by the Authority) of that heat, provided that the proportion is no less than—

$$\frac{x}{y}$$

where—

(aa) x is the heat produced by that biogas which is used for eligible purposes; and

(bb) y is the energy content of all the biogas produced by that biogas production plant.

#### **Periodic support payments for CHP systems using biomass or biogas in combination with other sources of energy**

67.—(1) This regulation applies in relation to an accredited RHI installation which is a CHP system where the total installed peak heat output capacity of all the combustion units in respect of which that CHP system has been accredited is less than the total installed peak heat output capacity of all combustion units forming part of that CHP system.

(2) Subject to regulations 31(2), 68, 69 and 74, where this regulation applies, participants are to be paid periodic support payments for the installation in respect of each quarterly period calculated in accordance with the following formula—

$$(A \times B) + (C \times (D - E))$$

where—

- (a) A is the tariff in respect of any heat generated by the installation using solid biomass determined in accordance with regulation 59;
- (b) B is the kWhth of heat generated by the installation from solid biomass (including solid biomass contained in waste) in any combustion unit in respect of which the CHP system has been accredited and which is used for eligible purposes, calculated in accordance with paragraph (3);
- (c) C is the tariff in respect of any heat generated using biogas determined in accordance with regulation 59;
- (d) D is the kWhth of heat generated by the installation from biogas in any combustion unit in respect of which the CHP system has been accredited and which is used for eligible purposes, calculated in accordance with paragraph (4);
- (e) E is—
  - (i) the heat in kWhth delivered in the relevant quarterly period to the biogas production plant which produced the biogas combusted in a combustion unit to which regulation 12(2)(b) or 13 applies (other than heat contained in any feedstock used to produce that biogas); or

- (ii) such proportion (as may be chosen by the participant and agreed by the Authority) of that heat provided that the proportion is no less than—

$$\frac{x}{y}$$

where—

- (aa) x is the heat produced by that biogas in a combustion unit to which regulation 12(2)(b) or 13 applies and which is used for eligible purposes; and

- (bb) y is the energy content of all the biogas produced by that biogas production plant.

- (3) B must be calculated in accordance with the following formula—

$$B = HCHP \times FIB \div (FIB + FIothers)$$

where—

- (a) HCHP is the total heat in kWhth generated by the CHP system in the relevant quarterly period which is used for eligible purposes;

- (b) FIB is the energy content of—

- (i) the solid biomass (excluding the energy content of any fossil fuel contamination in such biomass) burned in a combustion unit to which regulation 12(2)(b) or 13 applies; or
- (ii) the solid biomass contained in waste burned in a combustion unit to which regulation 12(2)(b) applies,

and used in the CHP system to generate heat and power during the relevant quarterly period;

- (c) FIothers is the energy content of all other fuel used in the CHP system in the relevant quarterly period, including the energy content of any fossil fuel contamination or fossil fuel used in the CHP system for permitted ancillary purposes in accordance with regulation 37 or 38.

- (4) D must be calculated in accordance with the following formula—

$$D = HCHP \times FID \div (FID + FIothers)$$

where—

- (a) HCHP is the total heat in kWhth generated by the CHP system during the relevant quarterly period which is used for eligible purposes;

- (b) FID is the energy content of the biogas used in the CHP system during the relevant quarterly period;

- (c) FIothers is the energy content of all other fuel used in the CHP system during the relevant quarterly period, including the energy content of any fossil fuel used in the CHP system for permitted ancillary purposes in accordance with regulation 37 or 38.

### **Periodic support payments for new solid biomass CHP systems**

**68.**—(1) This regulation applies in relation to an accredited RHI installation which is, or includes, a new solid biomass CHP system, where—

- (a) the tariff start date is on or after 1st August 2016 but before the date on which these Regulations come into force, provided that—

- (i) the power efficiency of the CHP system is less than 10%; and
- (ii) sub-paragraph (c) does not apply;

- (b) the tariff start date is on or after the date on which these Regulations come into force, provided that—

- (i) the power efficiency of the CHP system is less than 20%; and
- (ii) sub-paragraph (c) does not apply;
- (c) the participant notified the Authority in accordance with regulation 39D(1)(b) of the Renewable Heat Incentive Scheme Regulations 2011(1).

(2) Subject to regulations 31(2) and 69, the periodic support payment for the installation in respect of each quarterly period is to be calculated in accordance with the following formula—

$$(A \times B) + ((1 - B) \times (C \times D)) + E$$

where—

- (a) A is the periodic support payment calculated in accordance with regulation 66 or 67 in respect of the heat generated using solid biomass in the CHP system which meets the requirements of regulation 13;
- (b) subject to paragraph (3), B is the figure, expressed as a decimal, derived from multiplying the power efficiency of the CHP system by 10;
- (c) C is the tariff, determined in accordance with regulation 59, that would apply if the CHP system ceased to be certified under CHPQA;
- (d) D is the kWhth of heat generated using solid biomass in the CHP system which meets the requirements of regulation 13, calculated in accordance with regulation 66(2)(b) or 67(2)(b);
- (e) insofar as D relates to heat calculated in accordance with regulation 66(2)(b), regulation 71 applies to the periodic support payment figure given by the calculation;
- (f) E is the sum of the periodic support payments, calculated in accordance with regulation 66 or 67, in respect of any heat generated by the installation using biogas, solid biomass or solid biomass contained in waste used in a CHP system where regulation 12 applies.

(3) Where paragraph (1)(b) applies, paragraph (2)(b) applies as if for the number 10 there were substituted the number 5.

(4) For the purposes of this regulation, the power efficiency of a CHP system is to be determined for each 12 month period commencing with 1st August and ending with 31st July (or for any part of that period) and is the power efficiency stated—

- (a) on the certificate issued under CHPQA in the calendar year in which that period begins; or
- (b) on the most recent certificate issued under CHPQA where a certificate has not been issued in the calendar year in which that period begins.

### **CHP systems accredited in relation to the Renewables Obligation**

**69.**—(1) No periodic support payments may be made in relation to any heat generated by any capacity of a CHP system to which paragraph (2) or (3) applies.

(2) This paragraph applies to capacity which generated heat and electricity before 1st April 2013 and which—

- (a) uses solid biomass or solid biomass contained in waste to generate heat and electricity; and
- (b) forms part of a generating station which—
  - (i) was accredited under the Renewables Obligation Order 2009(2) or the Renewables Obligation (Scotland) Order 2009(3); and

(1) S.I. 2011/2860, as amended by S.I. 2013/1033, 2013/2410, 2013/3179, 2014/1413, 2015/197, 2015/477, 2016/718, 2016/1197, 2017/727 and 2017/857

(2) S.I. 2009/785. Relevant amending instruments are S.I. 2010/1107, 2011/984, 2013/768 and 2014/893. The Order was revoked with savings by S.I. 2015/1947.

- (ii) is or, at any time since it was so accredited, has been a qualifying combined heat and power generating station within the meaning of article 2 of either of those Orders.
- (3) This paragraph applies to capacity which first generates heat and electricity on or after 1st April 2013 and—
- (a) which—
- (i) uses solid biomass, other than solid biomass contained in waste, to generate heat and electricity;
  - (ii) forms part of a generating station which is accredited under the Renewables Obligation Order 2009, the Renewables Obligation Order 2015<sup>(4)</sup> or the Renewables Obligation (Scotland) Order 2009; and
  - (iii) is capacity in respect of which a declaration under article 28(7) of either the Renewables Obligation Order 2009 or the Renewables Obligation (Scotland) Order 2009, or under article 35(7) of the Renewables Obligation Order 2015 has been made; or
- (b) which—
- (i) uses solid biomass contained in waste to generate heat and electricity;
  - (ii) forms part of a generating station which is accredited under the Renewables Obligation Order 2009, the Renewables Obligation Order 2015 or the Renewables Obligation (Scotland) Order 2009; and
  - (iii) forms part of a generating station which is or at any time since it was so accredited has been—
    - (aa) a qualifying combined heat and power generating station within the meaning of article 2 of the Renewables Obligation Order 2009 or the Renewables Obligation (Scotland) Order 2009; or
    - (bb) a qualifying CHP station within the meaning of article 2(1) of the Renewables Obligation Order 2015.

### **Periodic support payments for shared ground loop systems**

**70.**—(1) This regulation applies to an accredited RHI installation which is a shared ground loop system.

(2) Subject to regulation 31(2), the periodic support payment for the installation in respect of each quarterly period is the sum of the payments for each ground source heat pump which forms part of the shared ground loop system, as calculated in accordance with paragraphs (3) and (4).

(3) The periodic support payment in respect of each quarterly period for each ground source heat pump for which heat is required to be metered under regulation 24 or 53 is to be calculated in accordance with the following formula—

$$A \times B$$

where—

- (a) A is the tariff for the shared ground loop system, determined in accordance with regulation 59;
- (b) in respect of a ground source heat pump installed in domestic premises, B is the lower of—
  - (i) the kWhth of heat used for eligible purposes generated by the ground source heat pump, determined in accordance with regulations 23, 24 and 75;

(3) [S.S.I. 2009/140](#). Relevant amending instruments are [S.S.I. 2010/147](#), [2011/225](#), [2013/116](#), [2014/94](#), [2015/384](#), [2016/1108](#) and [2017/432](#), and [S.I. 2016/1108](#) and [2017/1234](#).

(4) [S.I. 2015/1947](#), as amended by [S.I. 2016/1108](#), [2017/1234](#) and [2017/1289](#).



- (ii) 30,000 kWhth minus C, where C is—
  - (aa) if the quarterly period for which payment is being calculated will not be the first quarterly period in the 12 month period beginning with the tariff start date or its anniversary, the kWhth of heat determined under paragraph (i) for the applicable period, provided that the sum of that figure and the kWhth of heat determined for the quarterly period for which payment is being calculated is more than 30,000 kWhth;
  - (bb) otherwise, 0; and
- (iii) the heat demand minus C, where C is—
  - (aa) if the quarterly period for which payment is being calculated will not be the first quarterly period in the 12 month period beginning with the tariff start date or its anniversary, the kWhth of heat determined under paragraph (i) for the applicable period, provided that the sum of that figure and the kWhth of heat determined for the quarterly period for which payment is being calculated is more than the heat demand;
  - (bb) otherwise, 0,unless the figure given in paragraph (ii) or (iii) is negative, in which case B is 0;
- (c) in respect of all other ground source heat pumps, B is the kWhth of heat used for eligible purposes generated by the ground source heat pump, determined in accordance with regulations 23, 24 and 75.

(4) The periodic support payment in respect of each quarterly period for each ground source heat pump for which heat is not required to be metered under regulation 24 or 53 is calculated in accordance with the following formula—

$$D \times \frac{E}{4}$$

where—

- (a) D is the tariff for the ground source heat pump, determined in accordance with regulation 59;
- (b) E is the kWhth of deemed annual heat generation used for eligible purposes for the ground source heat pump, determined in accordance with paragraph (5).

(5) For the purposes of paragraph (4), the deemed annual heat generation for a ground source heat pump is the lower of—

- (a) the heat demand; or
- (b) 30,000 kWhth.

(6) In this regulation—

“applicable period” means the period—

- (a) commencing on—
  - (i) the tariff start date, if it is the first year of payment; or
  - (ii) in any other case, the most recent anniversary of the tariff start date; and
- (b) ending with the last day of the quarterly period preceding the quarterly period for which a periodic support payment is being calculated;

“heat demand” means the heat demand specified in the relevant EPC for that property for—

- (a) space heating, if the ground source heat pump provides space heating but not heating for domestic hot water; or

- (b) space heating and water heating, if the ground source heat pump provides both space heating and domestic hot water heating;

“relevant EPC” means the most recent EPC for which details have been provided to the Authority.

### **Fossil fuel contamination of solid biomass and fossil fuel used for permitted ancillary purposes**

71.—(1) This regulation applies to an accredited RHI installation—

- (a) where the heat is generated from solid biomass contained in waste (“Case A”); or  
 (b) where the heat is generated from solid biomass, not being solid biomass contained in waste, and the capacity of the installation is 1MWth or above (“Case B”).

(2) In Case A, the periodic support payment calculated in accordance with regulation 64 to 66 shall be reduced pro rata to reflect the proportion of the energy content of the waste used in the relevant quarterly period which was composed of fossil fuel and, where fossil fuel has been used for permitted ancillary purposes in accordance with regulation 37, to reflect the proportion of fossil fuel so used which resulted in the generation of heat.

(3) In Case B, the periodic support payment calculated in accordance with regulation 64 to 66 shall be reduced pro rata to reflect the proportion of fossil fuel contamination in the relevant quarterly period determined in accordance with regulation 38 and, where fossil fuel has been used for permitted ancillary purposes during the relevant quarterly period in accordance with regulation 38, to reflect the proportion of fossil fuel so used which resulted in the generation of heat.

### **Fossil fuel contamination adjustment to periodic support payments for producers and combusters of biogas produced from gasification and pyrolysis**

72.—(1) This regulation applies to participants producing biogas from gasification or pyrolysis and generating heat from that biogas in an accredited RHI installation.

(2) Where, in accordance with regulation 40, a participant uses feedstock contaminated with fossil fuel, the periodic support payment calculated in accordance with regulation 64 to 66 shall be reduced pro rata to reflect the proportion of fossil fuel contamination in the feedstock used by the participant in the relevant quarterly period.

### **Periodic support payments to producers of biomethane**

73.—(1) Subject to paragraph (3) and regulations 31(2) and 74, participants producing biomethane for injection shall be paid a periodic support payment in respect of each quarterly period calculated in accordance with the following formula—

$$A \times B$$

where—

- (a) A is the amount of eligible biomethane in kWh which is injected in that quarterly period; and  
 (b) B is the tariff applicable to the eligible biomethane determined in accordance with regulation 59.

(2) In this regulation, “eligible biomethane” means the amount (in kWh) of all biomethane injected in a quarterly period determined in accordance with the following formula—

$$(C - (D + E + F)) \times G$$

where—

- (a) C is the lower of—

- (i) the amount of all biomethane in kWh injected in that quarterly period; or
- (ii) the sum of the kWh equivalent of the maximum initial capacity specified under regulation 32 and any maximum additional capacity specified under regulation 77;
- (b) D is the amount of propane in kWh contained in C;
- (c) E is—
  - (i) the heat in kWhth delivered in the relevant quarterly period to the biogas production plant which produced the biogas from which the biomethane is made, except any heat—
    - (aa) contained in feedstock used to produce that biogas; or
    - (bb) derived from the combustion of that biogas; or
  - (ii) such proportion (as may be chosen by the participant and agreed by the Authority) of that heat provided that the proportion is no less than—

$$\frac{x}{y}$$

where—

- (aa) x is the energy content of the biogas contained in the biomethane produced by that biogas; and
- (bb) y is the energy content of all the biogas produced by that biogas production plant;
- (d) F is the amount (in kWhth) of heat supplied to the biomethane production process in that quarterly period from any heat source other than heat generated from the combustion of biogas by a plant which supplies that process; and
- (e) G applies only in relation to biomethane made using biogas produced from gasification or pyrolysis, and is the proportion of biomass contained in the feedstock used in that quarterly period to produce that biogas.

(3) Where a participant is registered in respect of additional biomethane which forms part of the eligible biomethane injected in the quarterly period referred to in paragraph (1) and the tariff for the additional biomethane differs from the tariff for any other biomethane in respect of which the participant is registered, the periodic support payment for the participant for that quarterly period is the sum of—

- (a) the amount of eligible biomethane in kWh which is original biomethane multiplied by the tariff applicable to that biomethane determined in accordance with regulation 59; and
- (b) the amount of any eligible biomethane in kWh which is additional biomethane multiplied by the tariff applicable to that biomethane determined in accordance with regulation 59.

**Reconciliation payments for biogas and biomethane produced by anaerobic digestion on or after the date on which these Regulations come into force**

74.—(1) This regulation applies in relation to biomethane produced for injection, or an accredited RHI installation which generates heat from biogas, including additional biomethane or additional RHI capacity, where—

- (a) in any payment year, less than 50% of the total biogas yield is derived from waste or residue; and
- (b) the tariff start date is—
  - (i) on or after the date on which these Regulations come into force; or

- (ii) on or after 14th December 2016 but before the date on which these Regulations come into force, provided that the participant has elected to be subject to the arrangements set out in this regulation by notice to the Authority no later than 1 month after the date on which these Regulations come into force.

(2) Where this regulation applies, the sum of the periodic support payments for a payment year must be reduced to the amount calculated in accordance with the following formula—

$$A \times (1.5 - B)$$

where—

A is the sum of the periodic support payments for biogas or biomethane for that payment year calculated in accordance with regulation 66(2)(b), 67 or 73;

B is the proportion of the total biogas yield for that payment year which is not derived from waste or residue, expressed as a decimal and rounded to four decimal places.

- (3) To account for the reduction calculated under paragraph (2), the Authority must—
  - (a) offset the amount by which the periodic support payments for that payment year have been reduced against periodic support payments in the subsequent payment year; or
  - (b) where the payment year is the participant's final payment year, require the participant to repay the amount by which the periodic support payments for that payment year have been reduced.
- (4) In this regulation—
  - “biogas yield” means the energy content of any biogas produced by anaerobic digestion which—
    - (a) in the case of an accredited RHI installation which generates heat from biogas, is combusted by that installation; and
    - (b) in the case of biomethane produced for injection, is an ingredient of that biomethane;
  - “payment year” means—
    - (a) for a participant with a tariff start date on or after the date on which these Regulations come into force, any 12 month period commencing with the tariff start date or the anniversary of the tariff start date;
    - (b) for a participant with a tariff start date before the date on which these Regulations come into force—
      - (i) the period commencing with the date on which these Regulations come into force and ending with the day before the next anniversary of the tariff start date; and
      - (ii) thereafter, any 12 month period commencing with the anniversary of the tariff start date.

#### **Calculation of heat loss in certain circumstances**

**75.**—(1) This regulation applies to a participant who owns an accredited RHI installation for which an application for accreditation is made on or after 24th September 2013.

(2) Where the Authority is satisfied that relevant piping complies with the requirements in paragraph (3)(a), (b) or (c), the heat lost through that piping may be disregarded when determining the kWhth of heat generated by the plant which is used for eligible purposes.

- (3) The requirements in this paragraph are that—
  - (a) each length of piping which is 10 metres or less and situated outside a building is properly insulated;

- (b) each length of piping which is greater than 10 metres and situated outside a building is—
  - (i) properly insulated; and
  - (ii) the average annual heat lost from all such piping based on a heat loss calculation is less than or equal to 3% of the projected annual heat output of the plant; or
- (c) the piping is situated inside a building.
- (4) Where—
  - (a) relevant piping which is properly insulated is situated outside a building;
  - (b) each length of such piping is greater than 10 metres; and
  - (c) the average annual heat lost from all such piping is more than 3% of the projected annual heat output of the plant,

a heat loss calculation may be used to establish the heat lost from such piping when determining the kWhth of heat generated by the plant which is used for eligible purposes.

- (5) A heat loss calculation may be used to establish heat lost when determining the heat generated by the plant which is used for eligible purposes where in the opinion of the Authority—
  - (a) physical constraints, reasons of safety or environmental conditions mean that it is not reasonably practicable to install a class 2 heat meter or steam measuring equipment;
  - (b) a class 2 heat meter or steam measuring equipment would provide less accurate results than a heat loss calculation;
  - (c) the cost of installing a class 2 heat meter or steam measuring equipment would be disproportionate when compared with the total installation cost of the plant; or
  - (d) the administrative cost to the Authority of processing information from a class 2 heat meter or steam measuring equipment would be disproportionate when compared with the amount of heat which may be measured.
- (6) Where in addition to heat supplied by the plant—
  - (a) heat generated solely by gas or electricity is supplied to the same heating system of which the plant forms part; and
  - (b) one or more meters are installed which measure the total amount of gas or electricity used to generate that heat,

the quantity of that gas or electricity expressed in kWh may be converted into kWhth provided such a calculation is based on an assumption that 100% of the fuel is converted into heat.

(7) In this regulation, “relevant piping” means piping which conveys heat for, or returns heat following its use for, a purpose for which heat is supplied by the heating system of which the plant forms part.