SCHEDULE 2 Article 17

"SCHEDULE 3A Article 46

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) in any other case,

$$\frac{E}{\eta_{el}}$$

.

2. In this Schedule—

(a) η_{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) η_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;

(c) C_h

is equal to—

(i) where T is less than 423 kelvin, 0.3546;

(ii) in any other case,

$$\frac{T-273}{T}$$

;

(d) E is the greenhouse gas emissions from the production of the biomass and is to be calculated in accordance with Part C of Annex 5 of 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) paragraph 14, for "fuel" there was substituted "biomass";

(viii) for paragraphs 16 there was substituted—

"**16.** Emission saving from excess electricity from cogeneration shall be taken to be zero".

(ix) in paragraph 17, for each reference to "fuel" there was substituted "biomass";

(x) in paragraph 18—

(aa) for "fuel" there was substituted "biomass";

(bb) the words "In the case of biofuels and bioliquids" were omitted;

(cc) for "fuels" there was substituted "biomass"; and

(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 46

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) in any other case,

$$\frac{E}{\eta_{el}}$$

.

2. In this Schedule—

(a) η_{el}

,

η_h

,

C_h

and T 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

Biomass	*Default greenhouse gas emissions from the production of biomass (in grams)*
Wood chips made from residue from forestry carried out in European temperate continental forest.	1

Biomass	*Default greenhouse gas emissions from the production of biomass (in grams)*
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
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—	22

Biomass	*Default greenhouse gas emissions from the production of biomass (in grams)*
(a) which are made from short rotation forestry carried out in European temperate continental forest; and (b) where the process to produce the wood briquettes or wood pellets was fuelled by natural gas.	
Wood briquettes or wood pellets— (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
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

Biomass	*Default greenhouse gas emissions from the production of biomass (in grams)*
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”