



# **National Greenhouse and Energy Reporting (Measurement) Amendment (2022 Update) Determination 2022**

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I, Chris Bowen, Minister for Climate Change and Energy, make the following instrument.

Dated: 14 June 2022

Chris Bowen  
Minister for Climate Change and Energy

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## 1 Name

This is the *National Greenhouse and Energy Reporting (Measurement) Amendment (2022 Update) Determination 2022*.

## 2 Commencement

- (1) Each provision of this instrument specified in column 1 of the table commences, or is taken to have commenced, in accordance with column 2 of the table. Any other statement in column 2 has effect according to its terms.

<b>Commencement information</b>		
<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
<b>Provisions</b>	<b>Commencement</b>	<b>Date/Details</b>
1. The whole of this instrument	1 July 2022.	1 July 2022

Note: This table relates only to the provisions of this instrument as originally made. It will not be amended to deal with any later amendments of this instrument.

- (2) Any information in column 3 of the table is not part of this instrument. Information may be inserted in this column, or information in it may be edited, in any published version of this instrument.

## 3 Authority

This instrument is made under subsection 10(3) of the *National Greenhouse and Energy Reporting Act 2007*.

## 4 Schedules

Each instrument that is specified in a Schedule to this instrument is amended or repealed as set out in the applicable items in the Schedule concerned, and any other item in a Schedule to this instrument has effect according to its terms.

# Schedule 1—Amendments

## *National Greenhouse and Energy Reporting (Measurement) Determination 2008*

### [1] Section 1.8

Insert in the appropriate alphabetical position:

*biomethane* has the meaning given by the Regulations.

### [2] Subsection 2.5(1) (definition of $EF_{iCO_2Oxec}$ )

Repeal the definition, substitute:

$EF_{iCO_2Oxec}$  is the carbon dioxide emission factor for fuel type (*i*) measured in kilograms of CO<sub>2</sub>-e per gigajoule:

- (a) if the fuel's emissions factor for carbon dioxide is 0 in Schedule 1—deemed to be 0 kilograms of CO<sub>2</sub>-e per gigajoule; or
- (a) otherwise—as worked out under subsection (2).

### [3] Subsection 2.6(1) (definition of $EF_{iCO_2Oxec}$ )

Repeal the definition, substitute:

$EF_{iCO_2Oxec}$  is:

- (a) if the fuel's emissions factor for carbon dioxide is 0 in Schedule 1—deemed to be 0 kilograms CO<sub>2</sub>-e per gigajoule;
- (b) otherwise—the amount worked out under subsection (2).

### [4] Subsection 2.21(1) (definition of $EF_{iCO_2Oxec}$ )

Repeal the definition, substitute:

$EF_{iCO_2Oxec}$  is the carbon dioxide emission factor for fuel type (*i*) measured in kilograms CO<sub>2</sub>-e per gigajoule:

- (a) if the fuel's emissions factor for carbon dioxide is 0 in Schedule 1—deemed to be 0 kilograms CO<sub>2</sub>-e per gigajoule;
- (b) otherwise—calculated in accordance with section 2.22.

### [5] Subsection 2.42(1) (definition of $EF_{iCO_2Oxec}$ )

Repeal the definition, substitute:

$EF_{iCO_2Oxec}$  is the carbon dioxide emission factor for fuel type (*i*) measured in kilograms of CO<sub>2</sub>-e per gigajoule:

- (a) if the fuel's emissions factor for carbon dioxide is 0 in Schedule 1—deemed to be 0 kilograms CO<sub>2</sub>-e per gigajoule;
- (b) otherwise—calculated in accordance with section 2.43.

### [6] Subsection 2.12(3) (table item 7)

Omit “and tyres”.

**[7] Subsection 2.12(3) (after table item 7)**

Insert:

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7A	Passenger car tyres, if recycled and combusted to produce heat or electricity	CEN/TS 14778 – 1:2006 CEN/TS 15442:2006
7B	Truck and off-road tyres, if recycled and combusted to produce heat or electricity	CEN/TS 14778 – 1:2006 CEN/TS 15442:2006

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**[8] Subsection 2.24(1) (after table item 12)**

Insert:

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12A	Biomethane	ASTM D 1826 – 94 (2003) ASTM D 7164 – 05 ISO 6974 part 1 (2000) part 2 (2001) part 3 (2000) part 4 (2000) part 5 (2000) part 6 (2002) ISO 6976:1995 GPA 2172—96	ASTM D 1945 – 03 ASTM D 1946 – 90 (2006) ISO 6974 part 1 (2000) part 2 (2001) part 3 (2000) part 4 (2000) part 5 (2000) part 6 (2002) GPA 2145 – 03 GPA 2261 – 00
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**[9] Subsection 2.24(1) (table item 13)**

Omit “11 and 12”, substitute “11, 12 and 12A”.

**[10] Subsection 2.26(3) (after table item 12)**

Insert:

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12A	Biomethane	ISO 10715:1997 ASTM D 5287–97 (2002) ASTM F 307–02 (2007) ASTM D 5503–94 (2003) GPA 2166–05
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**[11] Subsection 2.26(3) (table item 13)**

Omit “11 and 12”, substitute “11, 12 and 12A”.

**[12] Section 2.65**

Omit “solid fuel or a liquid fuel”, substitute “solid fuel, a liquid fuel or a gaseous fuel”.

**[13] Subparagraph 2.66(1)(b)(ii)**

Omit “ASTM D6866—10”, substitute “ASTM D6866—20”.

**[14] Paragraph 2.67(1)(b)**

Omit “ASTM: D6866—10”, substitute “ASTM D6866—20”.

**[15] After section 2.67**

Add:

**2.67A Blended gaseous fuels**

In determining the amounts of each kind of fuel that is in a blended gaseous fuel, a person may do either or both of the following:

- (a) adopt a determination of the amounts by the producer of the fuel or the operator of the pipeline that supplied the fuel;
- (b) adopt analysis arrived at after:
  - (i) sampling in accordance with subsections 2.26(3) and (4); and
  - (ii) the analysing the fuel in accordance with ASTM D6866—20 or a standard that is equivalent to that standard.

Note: In 2022, ASTM D6866-20 could be obtained from <http://www.astm.org>.

**[16] Section 3.33**

Omit the words and equation before “where”, substitute:

For section 3.32,  $EF_{dm}$  is the integral under the curve, for the period between  $T$  and  $T-N$ , of:

$$\frac{(1 + A \times T)^b - C}{12}$$

**[17] Subsection 3.81(1) (equation)**

Omit “0.55”, substitute “0.373”

**[18] Subsection 3.81(1) (note after the definition of %UAG<sub>p</sub>)**

Omit “0.55”, substitute “0.373”

**[19] Subsection 3.82A(1) (equation)**

Omit “0.55”, substitute “0.373”

**[20] Sections 4.103 and 4.104**

Repeal the sections, substitute:

**4.103 Method 2**

For paragraph 4.98(1)(b), method 2 for estimating emissions of hydrofluorocarbons or sulphur hexafluoride during a year uses a mass balance accounting approach using relevant global warming potentials and based on the following:

***Storage at the beginning of the year***, in kilograms, minus

***Storage at the end of the year***, in kilograms, plus

***Additions*** (from purchases, including inside equipment, and returned to site after recycling), in kilograms, minus

***Subtractions*** (from sales, returns to suppliers, destructions and recycling), in kilograms, minus

***Changes to nameplate capacity*** (taking into account new and retiring equipment), in kilograms.

#### **4.104 Method 3**

- (1) For paragraph 4.98(1)(c), method 3 for estimating emissions of hydrofluorocarbons uses an aggregate loss at emissions source accounting method based upon relevant global warming potentials and including the following sources of losses:
  - (a) top up of hydrofluorocarbons for leaking equipment;
  - (b) complete loss of containment of equipment;
  - (c) losses during filling of new (or refurbished) equipment;
  - (d) complete loss of containment of cylinders;
  - (e) leakage of hydrofluorocarbons from cylinders;
  - (f) losses during decanting between cylinders;
  - (g) losses during manual handling including handling equipment failure or accidental venting;
  - (h) leakage from equipment spares in storage;
  - (i) leakage from decommissioned equipment awaiting disposal;
  - (j) determinations of hydrofluorocarbons loss from sealed equipment at point of disposal;
  - (k) losses during reprocessing, recycling or rebottling of hydrofluorocarbons;
  - (l) losses due to gas sampling and analysis.
  
- (2) For paragraph 4.98(1)(c), method 3 for estimating emissions of sulphur hexafluoride during a year uses the aggregate loss at emissions source accounting method based upon the relevant global warming potential and including the following sources of losses:
  - (a) top up of sulphur hexafluoride for leaking equipment;
  - (b) complete loss of containment of equipment;
  - (c) losses during filling of new (or refurbished) equipment;
  - (d) complete loss of containment of cylinders;
  - (e) leakage of sulphur hexafluoride from cylinders;
  - (f) losses during decanting between cylinders;
  - (g) losses during manual handling including handling equipment failure or accidental venting;
  - (h) leakage from equipment spares in storage;
  - (i) leakage from decommissioned equipment awaiting disposal;
  - (j) determinations of sulphur hexafluoride loss from sealed equipment at point of disposal;
  - (k) losses during reprocessing, recycling or rebottling of sulphur hexafluoride;
  - (l) losses due to gas sampling and analysis.

**[21] Note to subsection 5.3(4)**

Omit “Schedule 3 to the *National Greenhouse and Energy Reporting Regulations 2008*”, substitute “Schedule 4”.

**[22] Subsection 8.6(1) (table item 8)**

Omit “and tyres”.

**[23] Subsection 8.6(1) (after table item 8)**

Insert:

8A	Passenger car tyres, if recycled and combusted to produce heat or electricity	50	26
8B	Truck and off-road tyres, if recycled and combusted to produce heat or electricity	50	26

**[24] Subsection 8.6(1) (after table item 28)**

Insert:

28A	Biomethane	4	NA
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**[25] Subsection 8.6(1) (table item 30)**

Omit “28 and 29”, substitute “28, 29 and 29A”.

**[26] After section 9.14**

Insert:

**9.15 Amendments made by the *National Greenhouse and Energy Reporting (Measurement) Amendment (2022 Update) Determination 2022***

- (1) The amendments made by the *National Greenhouse and Energy Reporting (Measurement) Amendment (2022 Update) Determination 2022* apply in relation to:
  - (a) the financial year starting on 1 July 2022; and
  - (b) later financial years.
- (2) However, a reporter may elect to apply either or both of the following:
  - (a) Division 3.2.4 of this Determination as amended by the *National Greenhouse and Energy Reporting (Measurement) Amendment (2022 Update) Determination 2022* to report fugitive emissions from decommissioned underground mines for the financial year starting on 1 July 2021;
  - (b) Part 4.5 of this Determination as amended by the *National Greenhouse and Energy Reporting (Measurement) Amendment (2022 Update) Determination 2022* to report emissions of hydrofluorocarbons and sulphur hexafluoride gases for the financial year starting on 1 July 2021.

**[27] Part 1 of Schedule 1 (table item 8)**

Omit “and tyres”.

**[28] Part 1 of Schedule 1 (after table item 8)**

Insert:

8A	Passenger car tyres, if recycled and combusted to produce heat or electricity	32	62.8	0.03	0.2
8B	Truck and off-road tyres, if recycled and combusted to produce heat or electricity	27.1	55.9	0.03	0.2

**[29] Part 2 of Schedule 1 (after table item 29)**

Insert:



29A	Biomethane	$39.3 \times 10^{-3}$	0.0	0.1	0.03
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**[30] Part 2 of Schedule 1 (table item 30)**

Omit “28 and 29”, substitute “28, 29 and 29A”.

**[31] Part 6 of Schedule 1**

Repeal the Part, substitute:

**Part 6—Indirect (scope 2) emission factors from consumption of electricity purchased or lost from grid**

<b>Indirect (scope 2) emissions factors from consumption of electricity purchased or lost from grid</b>		
<b>Item</b>	<b>Column 1 State, Territory or grid description</b>	<b>Column 2 Emission factor kg CO<sub>2</sub>-e/kWh</b>
77	New South Wales and Australian Capital Territory	0.73
78	Victoria	0.85
79	Queensland	0.73
80	South Australia	0.25
81	South West Interconnected System in Western Australia	0.51
82	Tasmania	0.17
83	Northern Territory	0.54

**[32] Schedule 2 (table item 8)**

Omit “and tyres”.

**[33] Schedule 2 (after table item 8)**

Insert:

8A	Passenger car tyres, if recycled and combusted to produce heat or electricity	Energy content factor	CEN/TS 15400:2006	Monthly sample composite
		Carbon	CEN/TS 15407:2006	Monthly sample composite
		Moisture	CEN/TS 15414-3:2006	Each delivery
		Ash	CEN/TS 15403:2006	Each delivery
8B	Truck and off-road tyres, if recycled and combusted to produce heat or electricity	Energy content factor	CEN/TS 15400:2006	Monthly sample composite
		Carbon	CEN/TS 15407:2006	Monthly sample composite
		Moisture	CEN/TS 15414-3:2006	Each delivery
		Ash	CEN/TS 15403:2006	Each delivery

**[34] Schedule 3 (table item 8)**

Omit “and tyres”.

**[35] Schedule 3 (after table item 8)**

Insert:

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8A	Passenger car tyres, if recycled and combusted to produce heat or electricity	0.450
8B	Truck and off-road tyres, if recycled and combusted to produce heat or electricity	0.401

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**[36] Schedule 3 (after table item 29)**

Insert:

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29A	Biomethane	0
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**[37] Schedule 3 (table item 30)**

Omit “28 and 29”, substitute “28, 29 and 29A”.