



National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Production Variables Update) Rules 2023

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

Dated 29 September 2023

Chris Bowen
Minister for Climate Change and Energy

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1 Name

This instrument is the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Production Variables Update) Rules 2023*.

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.

Commencement information		
Column 1	Column 2	Column 3
Provisions	Commencement	Date/Details
1. The whole of this instrument	The day after this instrument is registered.	

Note: This table relates only to the provisions of this instrument as originally made.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 section 22XS 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Each instrument that is specified in a Schedule to this instrument is amended or repealed as set out in the applicable items in the Schedule concerned, and any other item in a Schedule to this instrument has effect according to its terms.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 (Safeguard Mechanism) Rule 2015

1 Section 4 (definition of *Safeguard Mechanism document*)

Repeal the definition, substitute:

Safeguard Mechanism document means the document of that name published on the Department’s website, as in force from time to time.

Note: In 2023, the document could be accessed from <http://www.dcceew.gov.au>.

2 At the end of subsection 20(6)

Add:

Note: Subsection 91(2) modifies the operation of this provision where the transitional production variable for the facility is run-of-mine coal, reservoir carbon dioxide from existing gas fields, or natural gas throughput.

3 At the end of Part 6

Add:

Division 6—Application, saving and transitional provisions relating to the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Production Variables Update) Rules 2023*

91 Application and transitional provisions

- (1) If a default emissions intensity is being used in relation to a baseline emissions number for the financial year beginning on 1 July 2023, the default emissions intensity is to be determined as the value in force immediately after the commencement of Schedule 1 to the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Production Variables Update) Rules 2023*.
- (2) For subsection 20(6), if the transitional production variable for the facility is specified in column 1 of an item of the following table, the facility-specific emissions intensity number is taken to be the number specified in column 2 of that item.

	Column 1	Column 2
Item	Transitional production variable	Facility-specific emissions intensity number
1	Run-of-mine coal	0.0653 t CO ₂ -e per tonne of run-of-mine coal
2	Reservoir carbon dioxide from existing gas fields	0.928 t CO ₂ -e per tonne of reservoir carbon dioxide
3	Natural gas throughput	0.000518 t CO ₂ -e per gigajoule of natural gas

Note: The number applies regardless of whether the production variable was applicable to the facility at any time during a historical financial year, or otherwise.

4 Subsection 7(3) of Schedule 1

Omit “1.85”, substitute “1.94”:

5 Section 12 of Schedule 1

Repeal the section, substitute:

12 Monoammonium phosphate

- (1) Tonnes of monoammonium phosphate ((NH₄)H₂PO₄) products that:
 - (a) have a concentration of monoammonium phosphate equal to or greater than 70%; and
 - (b) are produced as part of carrying on the monoammonium phosphate production activity at the facility; and
 - (c) have a free moisture content less than 2.5%; and
 - (d) are of saleable quality.
- (2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing monoammonium phosphate through:
 - (a) the chemical transformation of phosphate rock to phosphoric acid (H₃PO₄); and
 - (b) the chemical transformation of that phosphoric acid and anhydrous ammonia (NH₃) to produce monoammonium phosphate.
- (3) The activity in subsection (2) is the ***monoammonium phosphate production activity***.
- (4) The default emissions intensity is 0.088 t CO₂-e per tonne of monoammonium phosphate products.

12A Diammonium phosphate

- (1) Tonnes of diammonium phosphate ((NH₄)₂HPO₄) products that:
 - (a) have a concentration of diammonium phosphate equal to or greater than 70%; and
 - (b) are produced as part of carrying on the diammonium phosphate production activity at the facility; and
 - (c) have a free moisture content less than 2.5%; and
 - (d) are of saleable quality.
- (2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing diammonium phosphate through:
 - (a) the chemical transformation of phosphate rock to phosphoric acid (H₃PO₄); and
 - (b) the chemical transformation of that phosphoric acid and anhydrous ammonia (NH₃) to produce diammonium phosphate.
- (3) The activity in subsection (2) is the ***diammonium phosphate production activity***.
- (4) The default emissions intensity is 0.078 t CO₂-e per tonne of diammonium phosphate products.

6 Subsection 16(2) of Schedule 1

Repeal the subsection, substitute:

- (2) In this Part, *decommissioned underground mine* means an underground coal mine where the following activities have ceased to occur and are not expected to occur in the future:
- (a) coal production;
 - (b) active mine ventilation, including the operation of ventilation fans at the mine.

7 Subsection 17(2) of Schedule 1

Repeal the subsection, substitute:

- (2) The metric in subsection (1) is applicable to a facility that conducts the activity of coal mining.

8 Subsection 17(3) of Schedule 1

Repeal the subsection, substitute:

- (3) The default emissions intensity is the average of:
- (a) 0.0653 t CO₂-e; and
 - (b) the facility-specific emissions intensity number for the facility per tonne of coal.

9 Division 3 of Part 13 of Schedule 1

Repeal the Division.

10 Division 4 of Part 13 of Schedule 1

Repeal the Division.

11 Subsection 20(1) of Schedule 1

Omit “Tonnes of iron ore”, substitute “Tonnes of run-of-mine iron ore”.

12 Subsection 20(4) of Schedule 1

Omit “tonne of iron ore”, substitute “tonne of run-of-mine iron ore”.

13 Subsection 35(3) of Schedule 1

Repeal the subsection, substitute:

- (3) The default emissions intensity is 0.928 t CO₂-e per tonne of reservoir carbon dioxide.

14 Paragraph 35A(3)(a) of Schedule 1

Omit “other a field”, substitute “other than a field”.

15 Subsection 36(1) of Schedule 1

Repeal the subsection, substitute:

- (1) In this Part, the activity of *integrated iron and steel manufacturing* is the chemical and physical transformation of iron ore into crude iron, crude carbon steel products and hot-rolled carbon steel products involving all of the following processes:
 - (a) the chemical and physical transformation of iron ore into iron ore sinter or iron ore pellets;
 - (b) the chemical and physical transformation of iron ore feed, including iron ore sinter and iron ore pellets, into molten or metallic iron that includes the reduction of oxides of iron;
 - (c) either, or both of, the chemical or physical transformation of molten or metallic iron (with or without cold ferrous feed such as pig iron, flat iron and ferrous scrap), into 1 or more of the following:
 - (i) continuously cast carbon steel products;
 - (ii) ingots of carbon steel;
 - (iii) hot-rolled carbon steel products, which commenced hot-rolling at a temperature above 800 °C;
 - (iv) hot briquetted iron.

16 Subsection 36(2) of Schedule 1

Omit “(such as ferrous scrap, pig iron and flat iron)”, substitute “(such as ferrous scrap, hot briquetted iron, pig iron and flat iron)”.

17 Section 56 of Schedule 1

Repeal the section, substitute:

56 COD removed from wastewater (domestic and commercial)

- (1) Tonnes of COD removed, calculated in accordance with subsection (4).
- (2) The metric in subsection (1) is applicable to a facility whose primary activity is the handling of either or both of domestic or commercial wastewater and which reports emissions under Division 5.3 of the NGER (Measurement) Determination.
- (3) The default emissions intensity is 0.513 t CO₂-e per tonne of COD removed.
- (4) For paragraph (1), COD removed is given by the following equation:

$$\text{COD removed} = \text{COD}_{\text{measured entering}} - (\text{COD}_{\text{in effluent leaving site}} + \text{COD}_{\text{in sludge leaving site}})$$

where:

COD_{measured entering} is the COD entering the site measured consistently with the requirements in Division 5.3 of the NGER (Measurement) Determination.

COD_{in effluent leaving site} is the COD leaving the site measured consistently with the requirements in Division 5.3 of the NGER (Measurement) Determination.

COD_{in sludge leaving site} is COD in sludge leaving the site measured consistently with the requirements in Division 5.3 of the NGER (Measurement) Determination.

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- (5) In this section:

COD or **chemical oxygen demand** means the total material available for chemical oxidation (both biodegradable and non-biodegradable) measured in tonnes.

56A Nitrogen removed from wastewater (domestic and commercial)

- (1) Tonnes of nitrogen removed, calculated in accordance with subsection (4).
- (2) The metric in subsection (1) is applicable to a facility whose primary activity is the handling of either or both of domestic or commercial wastewater and which reports emissions under Division 5.3 of the NGER (Measurement) Determination.
- (3) The default emissions intensity is 4.48 t CO₂-e per tonne of nitrogen removed.
- (4) For paragraph (1), nitrogen removed is given by the following equation:

nitrogen removed = $N_{\text{measured entering}} - (N_{\text{in effluent leaving site}} + N_{\text{in sludge leaving site}})$
where:

$N_{\text{measured entering}}$ is the nitrogen entering the site measured consistently with the requirements in Division 5.3 of the NGER (Measurement) Determination.

$N_{\text{in effluent leaving site}}$ is the nitrogen leaving the site measured consistently with the requirements in Division 5.3 of the NGER (Measurement) Determination.

$N_{\text{in sludge leaving site}}$ is the nitrogen in sludge leaving the site measured consistently with the requirements in Division 5.3 of the NGER (Measurement) Determination.

18 Section 61 of Schedule 1

Repeal the section, substitute:

61 Natural gas throughput

- (1) Gigajoules of natural gas that are received by the facility as part of carrying on the natural gas transmission activity at the facility.
- (2) The metric in subsection (1) is applicable to a facility that conducts the natural gas transmission activity and reports emissions under Division 3.3.7 of the NGER (Measurement) Determination.
- (3) The default emissions intensity is 0.000518 t CO₂-e per gigajoule of natural gas.

19 Subsection 62(1) of Schedule 1

Insert in the appropriate alphabetical position:

supplementary cementitious material means any mineral additive to cement which meets the minimum requirements for such additives set out in any of Australian Standards AS 3582.1:2016, AS 3582.2:2016, AS 3582.3:2016 or AS 3582.4:2022, or any other specific contract and export specifications.

Note: In 2023, each of the Australian Standards was available from <http://www.standards.org.au>.

20 Section 64 of Schedule 1

Repeal the section, substitute:

64 Cement produced from clinker and supplementary cementitious material

- (1) Combined:
- (a) tonnes of cement on a dry weight basis that is:
 - (i) produced as part of carrying on the cement production activity at the facility; and
 - (ii) attributable to Portland cement clinker produced as part of carrying on the clinker production activity at the facility in accordance with subsection (5); and
 - (iii) of saleable quality; and
 - (b) tonnes of supplementary cementitious material (other than supplementary cementitious material added as part of carrying on the cement production activity at the facility) that is:
 - (i) supplied by a related entity; and
 - (ii) added to any amount of cement covered by paragraph (a).
- (2) In this section, *related entity* means any of the following:
- (a) the responsible emitter for the facility;
 - (b) an entity within the same corporate group as the responsible emitter;
 - (c) an entity:
 - (i) for which the chief executive officer is also the chief executive officer of the responsible emitter; and
 - (ii) which has substantially the same operating, health and safety, and environmental policies as the responsible emitter.
 - (d) a joint venture entity of which the responsible emitter or a member of the responsible emitter's corporate group has at least 50% ownership.
- (3) The metric in subsection (1) is applicable to a facility that:
- (a) conducts the clinker production activity at the facility; and
 - (b) conducts the activity of producing cement through the physical transformation of Portland cement clinker into cement through a process of comminution or blending with gypsum or other additives (the *cement production activity*); and
 - (c) if the metric in section 63 of this Schedule is applicable to the facility—also uses that prescribed production variable.
- (4) The default emissions intensity is 0.708 t CO₂-e per tonne of cement and supplementary cementitious material.
- (5) For paragraph (1)(a), cement is attributable to Portland cement clinker produced as part of carrying on the clinker production activity at the facility in accordance with the following equation:

$$Ce_a = Ce_f \times \frac{Cl_f}{Cl_f + Cl_i}$$

where:

Ce_a is the cement attributable to Portland cement clinker produced as part of carrying on the clinker production activity at the facility, in tonnes.

Ce_f is the total amount of cement produced at the facility (f) in the reporting year, in tonnes, that is of saleable quality.

Cl_f is the amount of Portland cement clinker, in tonnes, produced as part of carrying on the clinker production activity at the facility (f) in the reporting year and used, or intended to be used, to produce cement at the facility, not including any tonnes of Portland cement clinker counted for the metric in section 63 of this Schedule.

Cl_i is the amount of Portland cement clinker, in tonnes, not covered by Cl_f and imported in the reporting year to produce cement at the facility (whether or not the Portland cement clinker was produced in or outside of Australia).

- (6) For paragraph 4.23C(2)(b) of the NGER Regulations, the following information must be included in a report under the Act in calculating the amount of the production variable for a reporting year:
- (a) the total amount of Portland cement clinker produced at a facility in the reporting year (whether or not it is used, exported from the facility or stockpiled);
 - (b) the value of each variable in the equation in subsection (5);
 - (c) the total amount of supplementary cementitious material in a reporting year which satisfies paragraph 64(1)(b) of this Schedule;
 - (d) evidence demonstrating the amount in paragraph (c) was added to cement covered by paragraph 64(1)(a) of this Schedule;
 - (e) if the supplementary cementitious material was provided by an entity other than the responsible emitter for the facility, evidence to show the entity was a related entity.

21 Paragraph 72(1)(a) of Schedule 1

Omit “mass;”, substitute “mass on an annual average basis;”.

22 Subsection 72(2) of Schedule 1

Repeal the subsection, substitute:

- (2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing copper anode through the physical and chemical transformation of copper sulphide concentrates in a smelter, with or without secondary inputs such as copper scrap, to produce copper anodes (the ***copper anode production activity***).

Note: Copper anode is often an input into the production of copper cathode at the same facility.

23 At the end of Schedule 1

Add:

Part 47—Lithium hydroxide

98 Lithium hydroxide

- (1) Tonnes of lithium hydroxide monohydrate (LiOH.H₂O) that:
 - (a) has a concentration of lithium hydroxide monohydrate equal to or greater than 98.9% by weight; and
 - (b) is produced as part of carrying on the lithium hydroxide refining production activity at the facility; and
 - (c) is of saleable quality.
- (2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing lithium hydroxide monohydrate that has a concentration of lithium hydroxide monohydrate equal to or greater than 98.9% by weight (the ***lithium hydroxide refining production activity***).

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

24 Section 1 of Schedule 2 (table)

Repeal the table, substitute:

Trade-exposed production variables that are also manufacturing production variables	
Item	Production variable
1	Tonnes of bulk flat glass
2	Tonnes of glass containers
3	Tonnes of aluminium
4	Tonnes of alumina
5	Tonnes of ammonia
6	Tonnes of ammonium nitrate
7	Tonnes of carbamide (urea)
8	Tonnes of ammonium phosphate (diammonium phosphate and monoammonium phosphate)
9	Tonnes of sodium cyanide
10	Tonnes of synthetic rutile
11	Tonnes of white titanium dioxide pigment
12	Tonnes of coke oven coke (integrated iron and steel manufacturing)
13	Tonnes of lime (integrated iron and steel manufacturing)
14	Tonnes of iron ore sinter (integrated iron and steel manufacturing)
15	Tonnes of iron ore pellets (integrated iron and steel manufacturing)
16	Tonnes of continuously cast carbon steel products and ingots of carbon steel (integrated iron and steel manufacturing)
17	Tonnes of hot rolled long products produced at integrated iron and steel manufacturing facilities
18	Tonnes of hot rolled flat products produced at integrated iron and steel manufacturing

Trade-exposed production variables that are also manufacturing production variables

Item	Production variable
	facilities
19	Tonnes of continuously cast carbon steel products and ingots of carbon steel (manufacture of carbon steel products from cold ferrous feed)
20	Tonnes of hot rolled long products not produced at integrated iron and steel manufacturing facilities
21	Tonnes of hot-rolled flat products not produced at integrated iron and steel manufacturing facilities
22	Tonnes of iron ore pellets not from integrated iron and steel manufacturing
23	Tonnes of treated steel flat products
24	Tonnes of clinker not used by facility to make cement
25	Tonnes of cement produced from clinker at a facility
26	Tonnes of lime
27	Tonnes of silicon
28	Tonnes of lead bullion
29	Tonnes of refined lead
30	Tonnes of zinc in fume
31	Tonnes of caustic calcined magnesia
32	Tonnes of copper anode
33	Tonnes of manganese sinter
34	Tonnes of ferromanganese alloy
35	Tonnes of silicomanganese alloy
36	Tonnes of primary nickel products from nickel bearing inputs
37	Tonnes of primary nickel products from imported intermediate nickel products
38	Tonnes of intermediate nickel products from nickel bearing inputs
39	Tonnes of tissue paper
40	Tonnes of packaging and industrial paper
41	Tonnes of printing and writing paper
42	Tonnes of newsprint
43	Tonnes of pulp
44	Tonnes of ethene (ethylene)
45	Tonnes of polyethylene
46	Tonnes of wheat protein products (dried gluten)
47	Tonnes of direct wheat starch
48	Tonnes of wheat based dried distillers grain
49	Kilolitres of ethanol—95
50	Kilolitres of ethanol—absolute
51	Kilolitres of beverage grade ethanol
52	Tonnes of raw sugar
53	Kilolitres of petroleum refinery feedstocks
54	Tonnes of lithium hydroxide
