



Explanatory Document

Exposure draft of the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Production Variables Update) Rules 2023*

About this document

This document explains the draft amendments set out in the exposure draft *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Production Variables Update) Rules 2023* (the draft Amendment).

Background

The Safeguard Mechanism

The Safeguard Mechanism provides a robust, legislated framework that limits the net emissions of around 215 large industrial facilities—those with more than 100,000 tonnes carbon dioxide equivalent each year. It sets legislated limits—known as baselines—on the greenhouse gas emissions of these facilities. These baselines will decline, predictably and gradually, on a trajectory consistent with achieving Australia’s emission reduction targets of 43% below 2005 levels by 2030 and net zero by 2050. The Safeguard Mechanism commenced in 2016. It was reformed in 2023 to ensure that covered facilities contribute to meeting these emission reduction targets, while strengthening their competitiveness as the world moves to net zero.

These reforms have been implemented through the *Safeguard Mechanism (Crediting) Amendment Act 2023*, and the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Reform) Rules 2023*, which amends the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015* (the Safeguard Rules).

The Safeguard Rules provide detail on aspects of the Safeguard Mechanism, including the setting and decline of baselines, and arrangements for Safeguard Mechanism credit units (SMCs), which are issued to facilities with emissions below Safeguard baselines.

Changes included in this Amendment are technical in nature, and updates to production variables were foreshadowed during the reform process. The draft Amendment delivers within the carbon budget set under the *National Greenhouse and Energy Reporting Act 2007* (the NGER Act).

Production Variables

Under the Safeguard Mechanism, baselines are production-adjusted, meaning that they increase and decrease as a facility's production varies. Production variables (PVs) are defined under the delegated Safeguard Mechanism legislation as the production units which set each facility's baseline.

PVs and emissions intensity values are used to set facility baselines using a 'calculated baseline' approach. They have been part of the Safeguard Mechanism since its inception in 2016. Default PVs represent the output of a facility (e.g. tonnes of aluminium). Where it is impractical to use output for a PV definition, a facility input or intermediate product is sought as an alternative.

As foreshadowed during the Safeguard Mechanism reforms process, the draft Amendment makes technical changes to add new PV definitions, update existing PV definitions and set industry average emissions intensities (also referred to as default emissions intensities) to ensure a comprehensive set of suitable production variables is in place for setting Safeguard Mechanism baselines. They are intended to ensure production variable definitions support incentives for decarbonisation.

Structure of the draft Amendment

The draft Amendment contains one schedule that amends the Safeguard Rules.

Notes on clauses

Clause 1: Name

This clause provides for the draft Amendment, when enacted, to be cited as the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Production Variables Update) Rules 2023*.

Clause 2: Commencement

The table in this clause provides for the commencement of the Schedule in the draft Amendment, which is on the day after it is registered.

Clause 4: Schedules

This is a machinery clause that gives effect to the provisions in the Schedule to the draft Amendment according to its terms.

Schedule 1—Amendments

Outline

To enable the calculation of baselines under the Safeguard Mechanism reforms, this Schedule updates PV definitions and ensures that each PV and default emissions intensity value is robust and effective in the context of the Safeguard Mechanism reforms and declining baselines. Application and transitional provisions set out the implementation of the changes.

Section 7 – Aluminium

This section inserts a new default emissions intensity for aluminium; removing the old value (1.85) and inserting the new value (1.94). The new value was calculated using contemporaneous data given that perfluorocarbon (PFC) emissions aluminium smelters had increased materially since the previous value had been calculated, due to the sector's role stabilising the electricity grid.

Section 12 – Monoammonium phosphate

Monoammonium phosphate and diammonium phosphate existed as a single production variable (ammonium phosphate) with two components. This section of the Amendment separates monoammonium phosphate into a distinct production variable to better enable the calculation of baselines under the Safeguard Mechanism reforms.

Section 12A – Diammonium phosphate

Further to s12, this section separates diammonium phosphate into a distinct production variable to better enable the calculation of baselines under the Safeguard Mechanism reforms.

Section 17 – Run-of-mine Coal

A single production variable for run-of-mine coal will incorporate all emissions relating to the coal mining activity, including the emissions related to coal mine waste gas (CMWG). Fugitive emissions from coal extraction and handling are no longer allocated baseline using the relevant factor from the *National Greenhouse and Energy Reporting (Measurement) Determination 2008* (NGER Measurement Determination).

The default emissions intensity value now incorporates all emissions relating to the coal mining activity including fuel combustion, fugitive emissions and coal mine waste gas (i.e. all emissions previously covered by the Run-of-mine Coal PV and the CMWG PV).

For existing facilities, the default value is calculated using greater weighting to the site-specific intensity. The effect will be that in 2029-30, the industry average for existing facilities will be a 50:50 split between the calculated industry average value and a facility's site-specific emissions intensity, in recognition that the variability in emissions intensity is widest in the coal sector compared to all other sectors.

The Government considers this approach will provide a robust incentive to reduce the emissions-intensity of coal mining operations, while mitigating distributional impacts due to the extent of the differences in emissions-intensity across coal mining operations in Australia. The extent of this variation is materially greater than any other safeguard sector.

The finalisation of this production variable does not adversely impact the delivery of the over 200 Mt of abatement expected in the period to 2030 from the reforms as a whole or the contribution of the coal sector to this emissions reduction task.

Section 20 – Iron ore

This section of the Amendment modifies the definition of the iron ore production variable to specify that the quantity of production is measured at the run-of-mine stage. This is to ensure that all facilities are reporting the quantity of production at a consistent point in the production process, and better reflect the definition of the PV which covers the emissions associated with the extraction and initial processing of the ore.

Section 35 – Reservoir carbon dioxide from existing gas fields

This section inserts the default emissions intensity for the reservoir carbon dioxide production variable into the definition. The default emissions intensity has been calculated in a manner consistent with the default emissions intensities relating to oil and gas.

Section 35A – Reservoir carbon dioxide from new gas fields

A missing 'than' is included to ensure clarity of definition.

Section 36 – Steel manufacturing

This section of the Amendment updates the definitions of *Integrated iron and steel manufacturing* and *Manufacture of carbon steel from cold ferrous feed* to reflect the emerging technologies and emissions reduction pathways that are possible and likely in the sector.

The updated definitions cover a broader range of intermediate and final products that may be produced from iron ore, such as crude iron and hot briquetted iron, and remove the requirements of some specific processes and inputs that may not be used in future production methods.

Subsection 36(1) – Integrated iron and steel manufacturing

This updated production variable specifies the transformation of iron ore into metallic iron or molten iron, through physical or chemical processes, with or without using carbon or as a reducing agent, with or without the use of cold ferrous feed, coking coal, limestone, or dolomite, into hot briquetted iron or steel products.

Subsection 36(2) – Manufacture of carbon steel from cold ferrous feed

This subsection updates the definition to include hot briquetted iron as a possible feed example.

Section 56 – COD removed from wastewater (domestic and commercial)

Wastewater existed as a single production variable with two major components. This section of the Amendment separates the COD removed from wastewater component into a distinct production variable to better enable the calculation of baselines under the Safeguard Mechanism reforms.

Section 56A – Nitrogen removed from wastewater (domestic and commercial)

Further to s56, this section of the Amendment separates the nitrogen removed from wastewater component into a distinct production variable to better enable the calculation of baselines under the Safeguard Mechanism reforms.

Section 61 – Natural gas throughput

The Amendment replaces the natural gas transmission work of compression production variable with a new production variable, natural gas throughput, and a new corresponding default emissions intensity value. The natural gas throughput production variable is gigajoules of natural gas received by the facility (a transmission pipeline) carrying out the natural gas transmission activity. Replacing work of compression with natural gas throughput means that pipelines are also incentivised to reduce emissions through measures, such as changes to the pipeline, which reduce the amount of compression required to supply the gas to customers.

The default emissions intensity value incorporates all emissions from natural gas transmission facilities, apart from fugitive emissions and emissions from on-site electricity generation.

Subsection 62(1) – Supplementary cementitious material

The Amendment adds a definition for supplementary cementitious materials (SCMs), which is referred to in the (amended) cement production variable. The definition is linked to relevant standards for SCMs in the Australian Standards.

Section 64 – Cement produced from clinker and supplementary cementitious material

The Amendment changes the title of the production variable from 'cement produced from clinker at a facility' to 'cement produced from clinker and supplementary cementitious material'.

It proposes to allow SCMs to be counted as part of the quantity of this production variable, along with cement, so long as the SCMs are supplied by a 'related entity' and added to cement meeting the requirements in paragraph 64(1)(a) of the Rule.

The Amendment also provides for the term 'related entity' to mean any of the following:

- the responsible emitter
- any entity within the same corporate group as the responsible emitter
- any entity with the same chief executive officer, and which has the same operational, health and safety, and environmental policies, as the responsible emitter
- any joint venture entity that the responsible emitter, or a member of their corporate group, has at least a 50% shareholding.

The Amendment requires the following additional information to be included when reporting each year on the calculation of this production variable quantity under paragraph 4.23C(2)(b) of the *National Greenhouse and Energy Reporting Regulations 2008* (NGER Regulations):

- the amount of SCMs reported each year
- evidence that this amount was added to cement covered under paragraph 64(1)(b)
- evidence that this amount was provided by a 'related entity', except where that entity is the responsible emitter.

Section 72 – Copper Anode

This section makes minor amendments to the definition to clarify the measurement of the anode concentration is an annual average. The copper anode activity has also been updated to include copper scrap as an input.

Section 98 – Lithium hydroxide

The Amendment inserts a new production variable, lithium hydroxide, to the rule.

Section 1, Schedule 2 – Ferromanganese alloy and silicomanganese alloy

This section includes two additional production variables, ferromanganese alloy and silicomanganese alloy.

Feedback is sought on the draft provisions in Schedule 1 and Schedule 2.