International Carbon Action Partnership

Australian Safeguard Mechanism

General Information

ETS Description

The Safeguard Mechanism assigns mandatory facility-level emissions baselines for over 200 large facilities in Australia. It applies to all facilities that emit more than 100,000 tonnes CO_2e of covered emissions in a financial year. Covered entities must surrender credits for emissions that exceed the installation's annual emissions limit (baseline), which is set using an emissions intensity framework.

Facilities emitting above their baseline must offset excess emissions by surrendering Safeguard Mechanism Credits (SMCs) or Australian Carbon Credit Units (ACCUs). In some cases, facilities can also apply to average their emissions over a longer period, reduce their baseline decline rate if eligibility criteria are met, or borrow from their baseline from a future year.

The Safeguard Mechanism was introduced in 2016 but had not been classified as a baseline-and-credit system as no tradeable permits were issued. However, following legislative changes passed in March 2023 which took effect as of July 2023, the government is able to issue SMCs to facilities that over-achieve on their baseline. This reform was accompanied by a tightening of baselines and a default decline rate of 4.9% per year, to align the outcome with Australia's 2030 targets and pave the way towards carbon neutrality by 2050. This in effect turned the Safeguard Mechanism into a baseline-and-credit system.

ETS Status

in force

Jurisdictions

Australia

Year in Review

FY2024 was the first full compliance year under the reformed Safeguard Mechanism. Australia's Clean Energy Regulator (CER) issued the first SMCs in February 2025, following emissions reporting for the FY2024.

Sectoral coverage

Mining and extractives
Waste
Domestic Aviation
Transport
Industry

Emissions & Targets

Overall GHG Emissions excl. LULUCF (MtCO2e)

521 MtCO_2e (*2022*)

GHG reduction targets

By 2030: 43% below 2005 levels (updated NDC, 2022)

By 2050: Net zero emissions (NDC, 2021 and 2022)

Australia's GHG reduction targets cover LULUCF and all other sectors, categories and carbon pools, as defined by the IPCC 2006 guidelines, and additional sources reported in Australia's annual National Inventory Report.

Size & Phases

Covered emissions (2022)

26.00%

Verified ETS Emissions

138.70MtCO_2e

GHGs covered

CO2, CH4, N2O, SF6, HFCs, PFCs

Cap or total emissions limit

The total net emissions limit under the Safeguard Mechanism is the sum of the bottom-up installation-level emissions limits (baselines) for all individually covered entities. However, the bottom-up emissions limits do not represent an absolute cap.

The facility-level baselines are calculated using output-based benchmarking based on emissions intensity (see 'Allowance Allocation' section). A default decline rate of 4.9% per year applies to standard and landfill baselines up to 2030.

Standard baselines apply to all covered facilities that produce products, whereas landfill baselines are calculated differently and apply exclusively to waste facilities as they provide a service rather than a product.

Net emissions from all Safeguard facilities should not exceed 100 MtCO_2e in FY2030; the total net emissions should not exceed 1,233 million tCO_2e between FY2021 and FY2030; and should reach net zero by FY2050.

Gross emissions from all Safeguard facilities must also reduce over time, measured on a five-year rolling average. From July 2024, the rolling average of Safeguard-covered emissions over the previous five years must be lower than the five-year rolling average from three years earlier; and from July 2027, the five-year rolling average of Safeguard-covered emissions must be lower than the five-year rolling average from two years earlier.

Sectors and thresholds

SECTORS: The Safeguard Mechanism covers all direct (scope 1) GHG emissions from facilities emitting over 100,000 tCO_2e per year. This currently includes around 220 facilities in the mining, manufacturing, domestic transport, oil, gas and waste sectors.

Grid-connected electricity facilities are covered by a "sectoral" baseline that is not expected to be exceeded and is not declining. Individual grid-connected electricity generators are not covered as long as total emissions do not exceed the sectoral baseline. Grid-connected power sector facilities thus do not face a compliance obligation. Off-grid generators, including electricity generation integrated into Safeguard facilities, are not covered by the sectoral baseline. Their emissions are reported by the facility.

In the waste sector, only a very small share of total sectoral emissions (~1%) is covered as the majority of installations do not exceed the coverage threshold.

COVERAGE THRESHOLDS: Facilities and companies with annual scope 1 emissions over 100,000 tCO_2e.

Point of regulation

Point source

Type of entities

Facilities, domestic transport companies (rail/road freight, shipping and aviation)

Number of entities

219 entities (FY2023)

Allowance Allocation & Revenue

Allowance allocation

Under the reformed Safeguard Mechanism, baselines are set using a production adjusted emissions intensity framework. Baselines are initially weighted towards a facility's emissions intensity. However, by 2030, baselines transition to being set based on an industry average emissions intensity value. Baselines for new products produced by existing facilities, as well as all products produced by new facilities, from July 2023 are set using 'best-practice' emissions intensity values.

A sectoral baseline applies to grid-connected electricity generation, based on historical emissions.

For facilities with no other baseline determined or where a baseline of less than 100,000 tCO_2e is calculated, a default of 100,000 tCO_2e is applied.

Facilities that overachieve on their baseline (with the exception of landfills and facilities accessing borrowing arrangements or during a multi-year monitoring period) are issued SMCs that can be banked for future use or sold to other facilities.

Facilities that are considered at risk of carbon leakage ("trade-exposed baseline-adjusted", or TEBA facilities) can apply for reduced baseline decline rates (see 'Compliance Mechanism' section).

Flexibility & Linking

Offset credits

The use of ACCUs issued under the domestic offset scheme is allowed.

QUALITATIVE LIMITS: Only ACCUs are allowed for compliance.

QUANTITATIVE LIMITS: None. However, if a facility surrenders ACCUs equal to more than 30% of its baseline in a given financial year, it must submit a statement to the CER setting out why more onsite abatement has not been undertaken. This statement is then published on the CER's website.

In FY2023, a total of 965,000 ACCUs were surrendered for compliance purposes under the Safeguard Mechanism.

Banking and borrowing

Unlimited banking of SMCs is allowed up to 2030. The option to use banked SMCs after 2030 will be considered in the 2026 to 2027 review of the Safeguard Mechanism (see 'Evaluation/ETS review' section).

Borrowing up to 10% of a facility's baseline each year will be allowed until 2030. The facility's baseline would then decrease by a corresponding amount the following year, plus:

- 2% interest for FY2025 and FY2026;
- 10% interest for financial years from FY2027 onwards.

Links with other Systems

The Safeguard Mechanism is not linked with any other system.

Compliance

Compliance mechanism

Covered entities must surrender one SMC or ACCU unit per tCO_2e that exceeds the installation's annual emissions baseline, which is set using a production-adjusted emissions intensity framework based on an emissions intensity benchmark.

For existing facilities, baselines are initially set weighted towards a facility's current emissions intensity but, over the years to 2030, baselines will transition to being set based on an industry-average emissions intensity value.

A default decline rate of 4.9% per year applies to the baselines of existing and new facilities until 2030. Post-2030 decline rates will be set in predictable five-year periods, aligned with future updates to the Australian NDC targets. The decline rate is consistent with Australia's emissions projections and includes a 'reserve' to account for higher than expected production from both new and existing facilities and greater than expected access to trade exposed baseline adjustments.

Trade exposed facilities can reduce their decline rate to as low as 1% per year for the manufacturing sector, or 2% per year for other sectors if they apply for TEBA status and demonstrate that they are at an elevated risk of carbon leakage. TEBA facilities receive a discounted baseline decline rate for three years, with the adjusted decline rate being commensurate with their scheme costs.

In some cases, facilities can apply for a multi-year monitoring period (i.e., multi-year baselines) of up to five years to smooth their obligation and abatement trajectories up to 2030, but this mechanism is only available where facilities can demonstrate they will undertake on-site abatement to achieve below baseline emissions at the end of the monitoring period.

Compliance Period

Annual reporting and compliance

- End of compliance period: 30 June
- Reporting deadline: 31 October
- SMC issuance: early February in the following year
- Surrendering deadline: 31 March in the following year

Monitoring, Reporting, Verification (MRV)

MONITORING: Emissions monitoring according to the "National Greenhouse and Energy Reporting Act" (NGER Act) 2007.

REPORTING: Annual self-reporting according to the NGER Act.

VERIFICATION: Verification according to the NGER Act. All facilities with emissions greater than 1 $MtCO_2e$ per year are required to undergo an independent emissions audit each year.

Penalties and enforcement

The maximum civil penalty is set at one penalty unit per tonne of excess emissions per year. As of July 2024, a penalty unit is AUD 330 (USD 210). The infringement notice is charged at one-third of the maximum civil penalty to a maximum of 150,000 penalty units.

Market Regulation

Market Stability Provisions

COST-CONTAINMENT MECHANISM

Instrument type: Set price (rising over time)

Functioning: Safeguard facilities that exceed their baseline may apply to the CER to purchase the required number of ACCUs at a fixed price. The price of these ACCUs is set at AUD 75 (USD 49.90) in FY2024 and will be indexed in future financial years by the Consumer Price Index (CPI) plus an additional 2% per year. This measure is intended to provide certainty to Safeguard facilities about the maximum compliance costs they will face under the reformed scheme.

Market Design

MARKET PARTICIPATION: Compliance entities, non-compliance entities (ACCU project proponent).

MARKET TYPES:

Primary: Allowances are currently not auctioned.

Secondary: The CER is currently in the process of establishing an Australian Carbon Exchange which will consolidate current unit registers and will enable the trading, clearing and settling of ACCUs. Over time it will support new units, such as SMCs.

LEGAL STATUS OF ALLOWANCES: ACCUs and SMCs are treated as financial products under "Australia's Corporations Act (2001)". Certain exemptions apply.

Other Information

Institutions involved

Clean Energy Regulator (CER): Federal authority overseeing the mechanism; tasked with setting baselines, collecting and publishing emissions data, issuing SMCs and making determinations on borrowing, MYMPs and TEBA applications.

Department of Climate Change, Energy, Environment and Water (DCCEEW): Federal ministry responsible for climate policy and the Safeguard Mechanism.

Climate Change Authority (CCA): Independent advisory body providing expert advice to the Australian government on climate policy, including the performance of the Safeguard Mechanism.

Regulatory Framework

National Greenhouse and Energy Reporting Act 2007 (NGER Act)

National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015

Carbon Credits (Carbon Farming Initiative) Rule 2015

Australian National Registry of Emissions Units Act 2011

Australian National Registry of Emissions Units Regulations 2011

Evaluation / ETS review

The Government will review Safeguard Mechanism policy settings from 2026 to 2027, to ensure they are appropriately calibrated.

As part of this review, the CCA will advise the government on the extent to which on-site abatement is being driven by the reforms, and whether any additional incentives are required.

Following the reforms to the Safeguard Mechanism in 2023, the Government committed to review additional policy options to address carbon leakage due to differences in emissions reduction policies between Australia and key trading partners. Two consultation papers were published in November 2023 and November 2024. The second consultation paper found current Safeguard settings are effective at mitigating carbon leakage risk in the short- to medium- term, but some commodities may need to be augmented with additional measures over time, such as a border carbon adjustment for imports.

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