



Australian Government

Department of Climate Change, Energy,
the Environment and Water

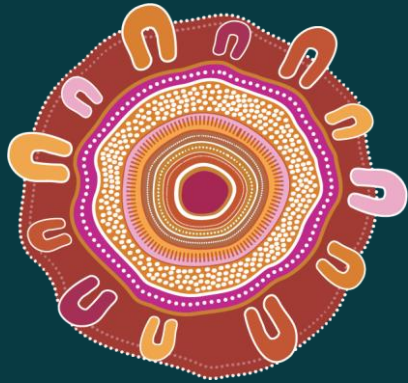
Allowance allocation and carbon pricing in Australia

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We acknowledge the Traditional Owners of Country throughout Australia and recognise their continuing connection to land, waters and culture. We pay our respects to their Elders past and present.



A brief history of Australian climate policy

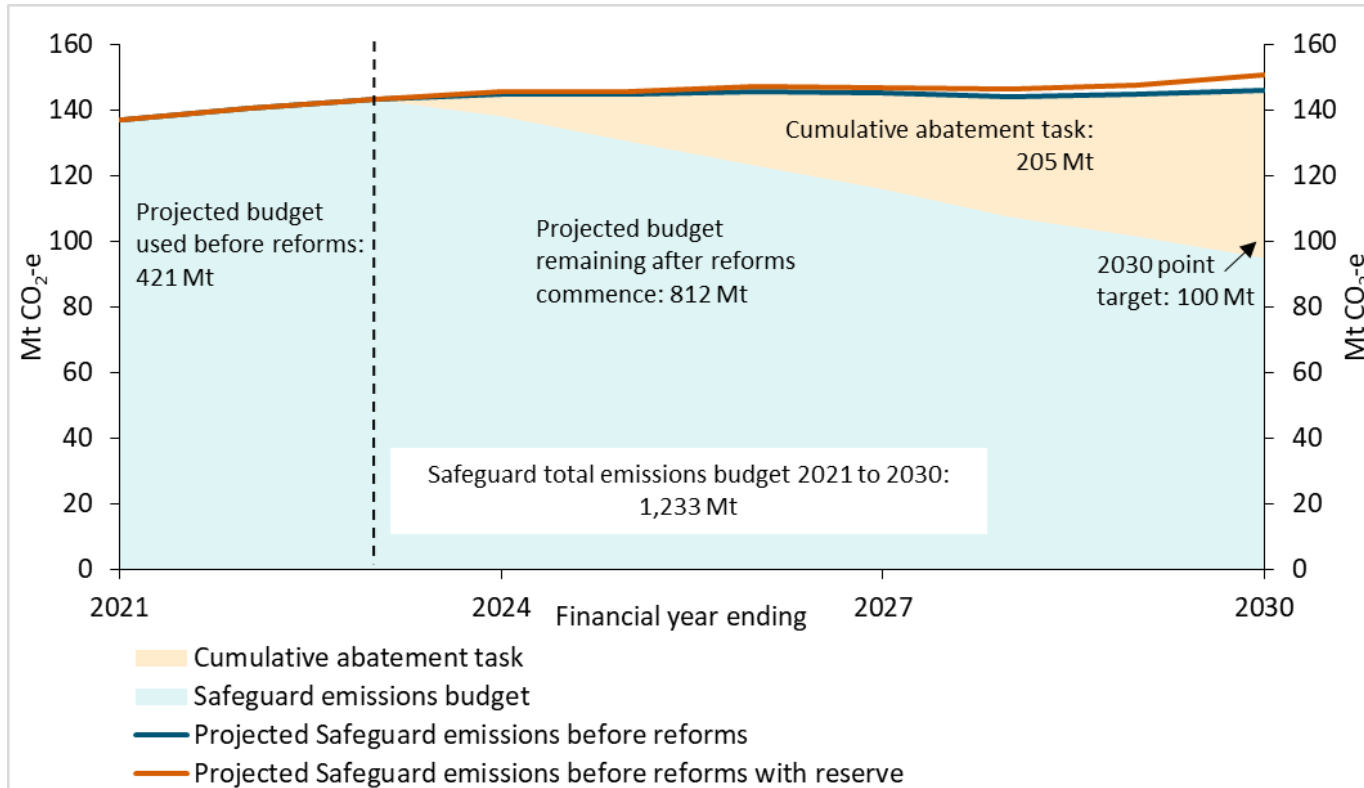
(pre-Safeguard Mechanism)

- December 1992** • Australia ratifies UNFCCC
- March 1999** • Australian Government releases discussion paper on emissions trading
- April 2001** • Renewable energy target commences
- December 2006** • Government establishes Prime Ministerial Task Group on Emissions Trading
- September 2007** • *National Greenhouse and Energy Reporting Act 2007* is legislated
- December 2007** • 13th UNFCCC COP in Bali, Indonesia
- May 2009** • *Carbon Pollution Reduction Scheme (CPRS) Bill 2009* introduced
- August & Dec 2009** • CPRS Bills rejected by Senate
- December 2009** • UNFCCC COP 15 held in Copenhagen
- March 2011** • *Carbon Credits (Carbon Farming Initiative) Bill 2011* introduced
- November 2011** • Clean Energy legislation passed
- July 2012** • Carbon Pricing Mechanism comes into effect
- August 2012** • Australia and EU agree to link ETs
- November 2013** • Government introduces 'Carbon Tax Repeal' Bills
- April 2014** • Government releases Emissions Reduction Fund White Paper
- July 2014** • 'Carbon Tax Repeal' Bills passed by Parliament

A brief history of the Safeguard Mechanism

- November 2014** • Carbon Farming Initiative Amendment Bill 2014 passed by Parliament, including legislation to establish Safeguard Mechanism
- October 2015** • Safeguard Mechanism Rule made, containing details of arrangements such as how to set baselines
- 1 July 2016** • Safeguard Mechanism commences
- March 2019** • Safeguard Mechanism amended so that baselines float with production instead of being fixed
- August 2022** • Consultation paper on Safeguard Mechanism reforms released
- November 2022** • Safeguard Mechanism (Crediting) Amendment Bill introduced to Parliament
- January 2023** • Consultation paper on proposed design released
- March 2023** • Safeguard Mechanism (Crediting) Amendment Act 2023 legislated by Parliament
- May 2023** • Minister Bowen amends Safeguard Mechanism Rules

Emissions reductions from the reformed Safeguard Mechanism



- Baselines will decline by 4.9 per cent each year, delivering over 200 Mt of emissions reductions by 2030

Comparison between the Carbon Pricing Mechanism and the reformed Safeguard Mechanism – mechanics

	Carbon Pricing Mechanism	Reformed Safeguard Mechanism
Framework	Emissions Trading Scheme with 3-year fixed price period	Baseline and credit
Coverage	<p>Companies with emissions that exceed 25 Mt CO₂-e per year</p> <p>All emissions reported under NGER (land use and agriculture excluded) and all greenhouse gases (based on carbon dioxide equivalence)</p> <p>Transport fuels excluded, with equivalent carbon price applied to some transport emissions</p>	<p>Facilities with emissions that exceed 100 Mt CO₂-e per year</p> <p>Grid-connected electricity generators not included</p> <p>All emissions reported under NGER (land use and agriculture excluded) and all greenhouse gases (based on carbon dioxide equivalence)</p>
Intertemporal flexibility	Full banking and limited borrowing of Carbon Units	<p>Full banking of ACCUs/SMCs</p> <p>Facilities can ‘borrow’ from next year’s baseline, with 10% uplift factor (i.e. ‘interest rate’)</p> <p>Limited use of multi-year monitoring periods</p>
Price containment measures	<p>Initial fixed price for 3 years, starting at \$23 and increasing at CPI+2.5% per year</p> <p>Price ceiling and floor for next 3 years</p>	Cost containment measure where government can sell ACCUs at \$75 per year and increasing by CPI+2% per year
Offsets	ACCUs can be used for up to 5% of emissions during fixed price period, no limits after	No limit on use of ACCUs

Comparison between the Carbon Pricing Mechanism and the reformed Safeguard Mechanism – allocation/baseline setting

	Carbon Pricing Mechanism	Reformed Safeguard Mechanism
Allocation	<p>Some free allowances to businesses that undertake emissions-intensive trade-exposed activities, remaining allowances sold at fixed prices or auctioned</p> <p>Number of free allowances based on production (output-based benchmarking), and depends on whether the activity is moderately or strongly emissions intensive</p> <p>Auctions were to be in the ascending-clock format, with advance auctions taking place before the flexible price period was to commence</p>	<p>All facilities get baseline that reflects their production (output-based benchmarking)</p> <p>Baseline = $ERC \times \sum_p Q_p \times EI_p$</p> <p>where:</p> <ul style="list-style-type: none"> ERC (emissions reduction contribution) starts at 0.951 and decreases by 0.049 (i.e. 4.9% per year) to implement baseline decline p is each production variable Q_p is production EI_p is an emissions intensity factor that initially reflects the emissions intensity of the facility, transitioning to industry average by 2030 (for new facilities, EI_p is based on best practice)
Use of revenue	Accompanied by tax cuts that mainly benefited low-income households	No revenue budgeted for
Measures to address carbon leakage	Output based allocation for emissions-intensive trade-exposed activities	<p>Output based allocation for all production</p> <p>Businesses with high cost impacts can apply for reduced baseline decline</p> <p>Government to undertake carbon leakage review</p>

Allowance allocation is relevant for all carbon pricing frameworks



Auctioning of allowances under the Carbon Pricing Mechanism

- The Carbon Pricing Mechanism was intended to transition to cap and trade after 3 years, with majority of allowances auctioned
- Auctions were intended to be consistent with three policy objectives:
 - Promote allocative efficiency
 - Promote efficient price discovery
 - Fund Clean Energy Future measures
- Ascending clock uniform price auctions were proposed, reflecting that auctions of Carbon Units would have been common value auctions
 - Sealed bid uniform price auctions could also have worked well (and been simpler and cheaper to implement)
 - Main advantage of ascending clock format would have been at early auctions, where clearing prices would have been hard to predict

Fixed vs output-based allocations

- Carbon Pricing Mechanism had output-based allocation for free allowances for emissions-intensive trade-exposed activities
- Output-based allocation used to set all baselines for reformed Safeguard Mechanism
- Fixed allocations incentivise all forms of emissions reductions while output-based allocations incentivise reductions in emissions intensity
 - For output-based allocation impact in production is muted, so impact on prices are muted
 - Output-based allocations have advantages for dealing with carbon leakage for internationally traded goods, where passing on costs is difficult
 - But increasing the price of emissions-intensive goods encourages substitution with less emissions-intensive goods – better at encouraging ‘least cost’ emissions reductions
 - Output-based benchmarking increases complexity

Output-based benchmarking under the Safeguard Mechanism – framework

All facilities get baseline that reflects their production

$$\text{Baseline} = \text{ERC} \times \sum_p Q_p \times \text{EI}_p$$

where:

- ERC (emissions reduction contribution) starts at 0.951 and decreases by 0.049 (i.e. 4.9% per year) to implement baseline decline
- p is each production variable
- Q_p is production
- EI_p is an emissions intensity factor that initially reflects the emissions intensity of the facility, transitioning to industry average by 2030 (for new facilities, EI_p is based on best practice)

- Around 90 production variables are specified in delegated legislation (the Safeguard Rules)
- Production variables and benchmark emissions intensities developed in consultation with industry, using a framework based on four principles:
 - Be **effective** and provide a suitable basis to reflect emissions per unit of production, and ideally be based on outputs
 - Be defined in a way that is equitable and **consistent** across facilities and sectors
 - Support the calculation of baselines and emissions-intensity values that are as **practical** and simple as possible
 - Be based on high quality data and **robust** methodology that protects the confidentiality of sensitive industry data
- Industry average emissions intensities (for existing facilities) usually set using production-weighted average of the middle 50 per cent of production
- Best practice benchmark emissions intensities (for new facilities) to be based on the best performing international facilities, where data is available

Output-based benchmarking under the Safeguard Mechanism – existing facilities

All facilities get baseline that reflects their production

$$\text{Baseline} = \text{ERC} \times \sum_p Q_p \times \text{EI}_p$$

where:

- ERC (emissions reduction contribution) starts at 0.951 and decreases by 0.049 (i.e. 4.9% per year) to implement baseline decline
- p is each production variable
- Q_p is production
- EI_p is an emissions intensity factor that initially reflects the emissions intensity of the facility, transitioning to industry average by 2030 (for new facilities, EI_p is based on best practice)

- Government consulted on whether the emissions intensity should be based on an industry average or be facility-specific – no clear consensus
- Decided on a hybrid approach that transitions to industry average over time
 - 90% facility-specific emissions-intensity in first year (2023-24)
 - 100% industry average from 2030 onwards
- Facility-specific emissions intensities calculated using data from 2016-17 to 2021-22
- Facility-specific emissions intensities have lower cost impacts on individual facilities, while industry average encourages production to shift from more emissions intensive facilities to less emissions intensive facilities, so is more cost effective at driving emissions reductions

Political economy of permit allocations

- Free allocation can distort price signals, and reduces the amount of funds that can go towards households, or reduce distortionary taxes
 - So it is important to understand the reasons why free allocation may be used
- The risk of carbon leakage is often used as a justification for free permit allocations, but evidence for the risk of carbon leakage is not clear
 - Fixed (i.e. non output-based) allocation won't mitigate carbon leakage as much
- But free allocation also affects appetite for more ambition from covered and affected businesses
 - A covered business without any free allocation has a financial incentive to oppose more ambition
 - A covered business with enough free allowances to cover its costs is more likely to be indifferent to more ambition
- Safeguard Mechanism an example where free allocation helped to maintain support from business for more ambition

Safeguard Mechanism review processes

Safeguard Mechanism Review

- There will be a review of the Safeguard Mechanism in 2026-27

Carbon leakage review

- The Australian Government has appointed Professor Frank Jotzo to lead a Review to consider additional policy options to address carbon leakage.
- The Review will focus on:
 - an assessment of the carbon leakage risks
 - development of policy options to address carbon leakage
 - an assessment of the feasibility of an Australian Carbon Border Adjustment Mechanism, particularly in relation to steel and cement.
- The Review is due to report by 30 September 2024

Contact us

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Safeguard Mechanism Taskforce

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Additional slides

The Carbon Pricing Mechanism

- The Carbon Pricing Mechanism operated from 1 July 2012 to 30 June 2014
- Can be thought of as a cap-and-trade scheme where allowance prices would have been fixed for the first three years
 - Allowances (carbon units) would have been sold at fixed price for first three years
 - Carbon units would have been auctioned after end of fixed price period
 - Some carbon units allocated for free to emissions-intensive trade-exposed industries, based on their production
- Carbon Pricing Mechanism repealed but some associated legislation and frameworks remain
- Offsets framework (originally known as the Carbon Farming Initiative, now referred to as the ACCU scheme) amended in 2014

The Safeguard Mechanism

- The Safeguard Mechanism is the Australian Government’s policy for reducing greenhouse gas emissions at Australia’s largest industrial facilities
- It sets legislated limits—known as baselines—on the net emissions of covered facilities
 - Covers around 215 facilities with emissions more than 100,000 tonnes CO₂-e
 - Including mining, oil and gas, manufacturing, transport and waste facilities
 - Facilities can surrender ACCUs or Safeguard Mechanism Credits to bring down their net emissions
- Does not include grid-connected electricity generators.
- Significant reforms (including crediting) commenced July 2023

The Safeguard Mechanism before the reforms

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Number of facilities	203	211	210	215	212	219
Total baselines (tonnes CO₂-e)	165.7 million	182.6 million	182.8 million	186.9 million	179.8 million	156.3 million
Total reported covered emissions (tonnes CO₂-e)	131.3 million	138.4 million	144.2 million	142.7 million	136.9 million	137.5 million
Headroom (baselines less emissions) (tonnes CO₂-e)	34.4 million	44.2 million	36.8 million	44.2 million	42.9 million	18.8 million

- Before the reforms, most facilities had baselines higher than emissions
- In the years 2016-17 to 2021-22, less than one million ACCUs were surrendered by Safeguard facilities each year