Strengthening the Safeguard Mechanism

Modelling to inform the 2026-2027 review

CMI Research in partnership with CORE Markets

October 2025

Carbon Market Institute

Foreword

Against the backdrop of the Australian Government's new 2035 national emissions reduction target range of 62-70% below 2005 levels, market-based policy mechanisms will continue to play a central role in Australia's net zero transition. Indeed, the potential to leverage the reformed Safeguard Mechanism – that underpins Australia's compliance carbon market – is recognised in the Australian Government's Net Zero Plan as well four of the sector emissions reduction plans: Electricity and Energy, Resources, Industry and Transport.

Strengthening Australia's reformed Safeguard Mechanism – so that it drives direct decarbonisation while also incentivising greater abatement efforts across the economy – will be critical to meeting Australia's national climate ambitions.

With the Government's planned 2026-2027 Safeguard Mechanism Review (2026-27 Review), the design of the Safeguard Mechanism will come into the public focus, providing an opportunity to advance further reforms to unlock additional abatement and accelerate the speed of Australia's net zero transition.

A key dimension of this consideration is the opportunity to broaden and deepen the Safeguard Mechanism so that it covers additional facilities, organisations and sectors, and facilitates deeper emissions reductions.

CMI commissioned CORE Markets to model the impact of broadening and deepening the Safeguard Mechanism to contribute towards the public evidence base and in turn help to shape the 2026-27 Review and any subsequent reform.

In October 2025, we convened a Safeguard Mechanism Taskforce – comprised of member organisations that have Safeguard Mechanism experience and design expertise – that will assist in developing an evidence base to inform and support CMI's policy advocacy and to test policy concepts as part of 2026-27 Review.

We look forward to continuing to engage with government, industry and other stakeholders by contributing towards a robust, evidence-based policy platform.

Kurt Winter, **Interim CEO & Director Corporate Transition, CMI**

About the Carbon Market Institute

The Carbon Market Institute (CMI) is a member-based institute accelerating the transition towards a negative emissions, nature positive world. It champions best practice in carbon markets and climate policy, and its over 140 members include primary producers, carbon project developers, Indigenous organisations, legal, technology and advisory services, insurers, banks, investors, corporate entities and emission intensive industries. The positions put forward constitute CMI's independent view and do not purport to represent any CMI individual, member company, or industry sector.

Tabe of Content

Acknowledgements

The research which underpins this paper was conducted by CORE Markets. Although commissioned and instigated by CMI, we gratefully acknowledge the input and assistance of our accomplished reference group: Tennant Reed (Australian Industry Group), Young Lee (Climate Change Authority) and Alison Reeve (Grattan Institute).

Executive Summary

In May 2025, CMI commissioned CORE Markets to model the impact of broadening and deepening the Safeguard Mechanism on the change in covered emissions, additional net abatement and number of facilities affected when compared to a business-as-usual case. CMI focused considerations for broadening and deepening the Safeguard Mechanism on the following modelled design scenarios:

1. Lowering the compliance threshold;
2. Including additional sectors;
3. Moving to an organisation-wide compliance threshold; and
4. Aligning the decline rate Australia's 2035 Nationally Determined Contributions.

The model assumes the changes are implemented as part of the 2026-27 Safeguard Mechanism Review and are in place for the 2030-2031 (FY31) reporting year. The research did not consider practicality of the policy change but instead sought to understand whether the setting adjustment produced a material change to covered emissions. Weighing up the impact on covered emission with respect to administrative burden for companies, policy complexity and market impact will be the subject of further work.

CORE's ACCU market forecast model is the basis for the research with underlying assumptions in the business-as-usual case representing Australia's existing policy suite and announced industry dynamics. ACCU price was not responsive to increases in additional net abatement so changes in settings could be assessed independently of carbon market dynamics.

The results underscore that the 2026-27 Review will need to consider a range of design reforms and supporting policies to unlock greater abatement. Single small changes to the Safeguard Mechanism may not be sufficient to support Australia's new NDC, particularly if 70% is the target and a combination of changes to the Safeguard Mechanism and support for the ACCU scheme may be needed. The impact on Australia's carbon market also needs to be understood if changes to the SGM result in significant additional net abatement.

Key insights include:

- Modest changes to the Safeguard Mechanism will result in modest changes to covered emissions over the FY31-FY40 timeframe relative to a business-as-usual case.
- Progressing multiple changes, such as lowering the compliance threshold to 50, 000t (6%) and adding the transport sector (2%) could produce a material change to covered emissions, while introducing a relatively small number of new facilities to the scheme (104).
- Larger changes to the existing policy settings, like applying the compliance threshold to an organisation wide baseline, at 500 000t$CO_{2\text{-}e}$ produces much larger increases in covered emissions (11%) while impacting a small number of additional organisatons (4).
- If no other changes to the Safeguard Mechanism settings were made the baseline decline rate, between FY31 and FY35, would need to be between 2.6-4.9% to align with an NDC of 62-70% if the industry contributes its proportional share.
- Altering the baseline decline rate to align with an NDC from 65-70% results in the need for an additional net abatement between 4-30% more than the business as usual.

Introduction

CMI commissioned research into broadening and deepening the Safeguard Mechanism (SGM) because currently this foundational policy does not generate a market-based decarbonisation signal for all sectors with material scope 1 emissions. The lack of effective signal may be due to a sectorial baseline, absent calculation methods in the NGER scheme or the emissions compliance threshold. For example, grid-connected electricity has a sectorial baseline, not all emissions from the agriculture sector have reporting methods under NGERS, and the industry contains many small facilities which do not trigger the SGM. In addition to missing potential sources of abatement, uneven sectoral coverage can result in leakage. To gain insight into the impact of broadening and deepening the SGM, in May 2025 CMI commissioned CORE Markets to model the change in covered emissions, additional net abatement and number of facilities affected when compared to a business-as-usual case (BAU).

BOX 1: **Business-as-usual (BAU) assumptions**

The BAU case reflects the SGM settings applicable to the 2023-2024 compliance year, existing productivity trends and publicly announced changes to industrial facilities. On-site decarbonisation rates are modelled by comparing MAC curve for technical innovation to CORE's standard forward ACCU price curve. The base case assumes SGM credits remain bankable, there are no TEBA accommodations beyond the current 3-year agreements.

Covered emissions are emissions subject to an SGM baseline. Additional net abatement can be described as the additional emissions reductions needed, whether through purchase of Australian Carbon Credit Units (ACCU) or SGM Credits (SMC) due to the modelled change in policy setting. The forward price curve for ACCUs and SMCs and assumed on-site decarbonisation are not responsive to the increased need for abatement to allow policy needs to be considered independently of assumptions regarding ACCU supply. BOX 1 contains BAU assumptions.

Scope 1 emissions from Safeguard facilities were modelled from 2026 to 2040 with changes to policy settings starting in FY31 as an outcome of the 2026-2027 SGM review. The policy settings adjustments modelled comprise:

1. Including additional sectors
2. Lowering the compliance threshold at a facility level
3. Moving to an organisation-wide compliance threshold
4. Increasing the baseline decline rate to meet a desired Nationally NDC

Business-as-usual case

Figure 1 shows the BAU case from CORE is comparable to the Department of Climate Change, Energy Efficiency and Water's (DCCEEW) modelling.

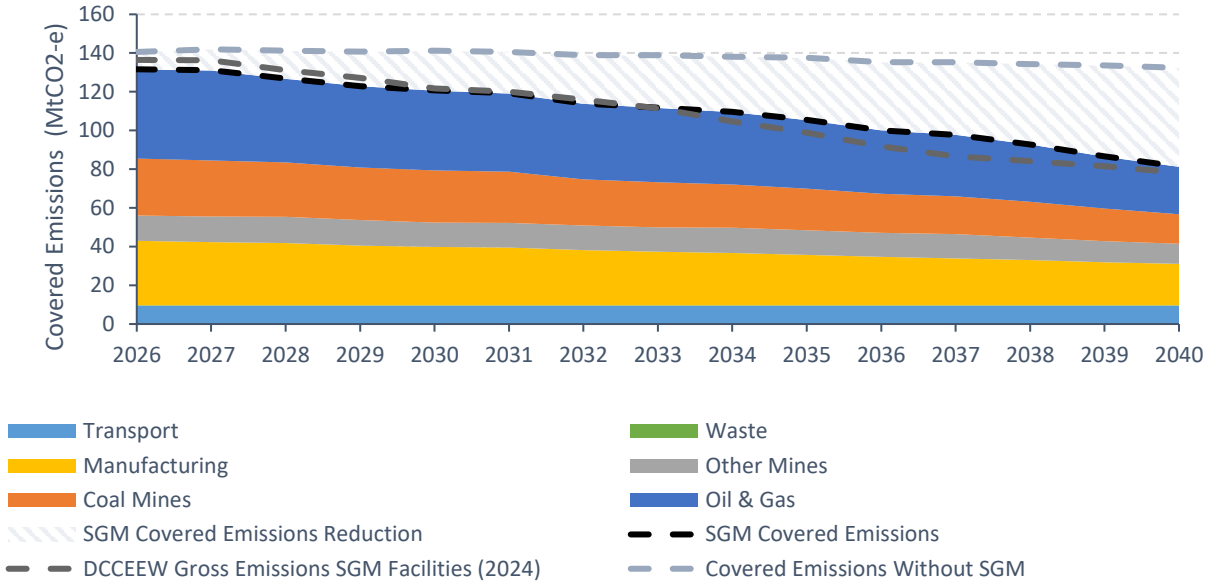


Figure 1: Covered emissions from the Business-as-usual scenario

The differences between DCCEEW and CORE modelling are largely attributable to different assumptions regarding the industrial carbon capture and storage. Cumulative additional net abatement for FY31 to FY40 required in the BAU case is 245Mt$CO_{2\text{-e.}}$ This is commensurate with Clean Energy Regulator (CER) projections of 19-24Mt$CO_{2\text{-e}}$ of ACCUs to be delivered in the 2025 calendar year[1].

Additional sectors

Road transport while currently contributing up to 10%[2] of Australia's carbon emissions is not consistently covered by the SGM due to the compliance threshold and complexity of facility definition. Including road transport in the SGM creates a new source of covered emissions and could prevent leakage of emissions from rail to road. The impact on covered emissions by including heavy road transport is shown in Figure 2.

[1] CER (2025), https://cer.gov.au/document/quarterly-carbon-market-report-june-quarter-2025

[2] For the purposes of this modelling, the road transport sub-sector does not include passenger vehicles as they are not covered under the National Greenhouse Energy Reporting Scheme (NGERS), but includes road freight transport, articulated and rigid trucks, buses, light commercial vehicles, and other transportation

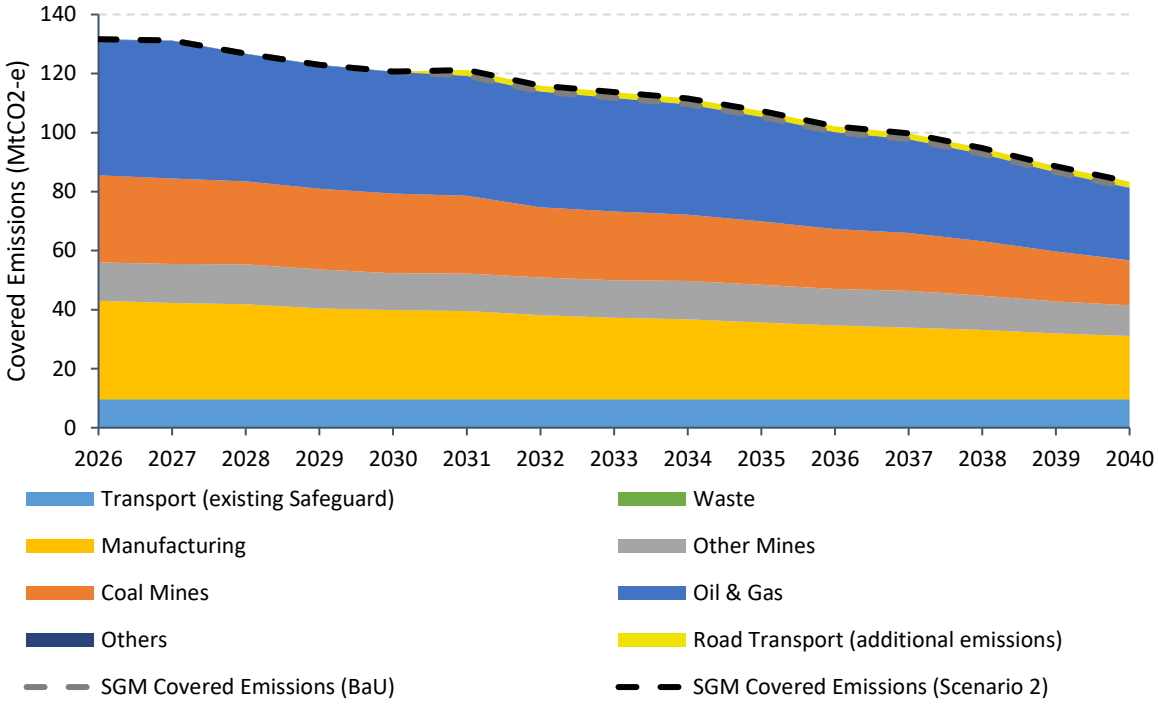


Figure 2:Additional covered emissions from Heavy Transport

Including heavy transport produces a 2% increase in cumulative covered emissions from FY31-FY40 on total covered emissions and would cover an additional 10 facilities, when compared to BAU. The modelling suggests including the transport sector would require a 4% increase in net abatement compared to BAU which is consistent with the project ACCU issuance range for 2025.

The agricultural sector, which generates approx19%[3] of Australia's carbon emissions was also a focus for investigation. Ultimately, the increase in covered emissions if the agricultural sector was added to the SGM was not modelled due to a lack of consistent, publicly available data on emissions.

Lowering the compliance threshold

Lowering the compliance threshold from 100,000 $tCO_{2\text{-}e}$ appears to be an effective option for increasing covered emissions. Lowering the compliance threshold has relatively small impact on covered emissions, see Figure 3, with the threshold needing to be lowered to 50, 000 $tCO_{2\text{-}e}$ to make a material change to covered emissions.

[3] CER (2024) https://www.dcceew.gov.au/climate-change/publications/australias-emissions-projections-2024

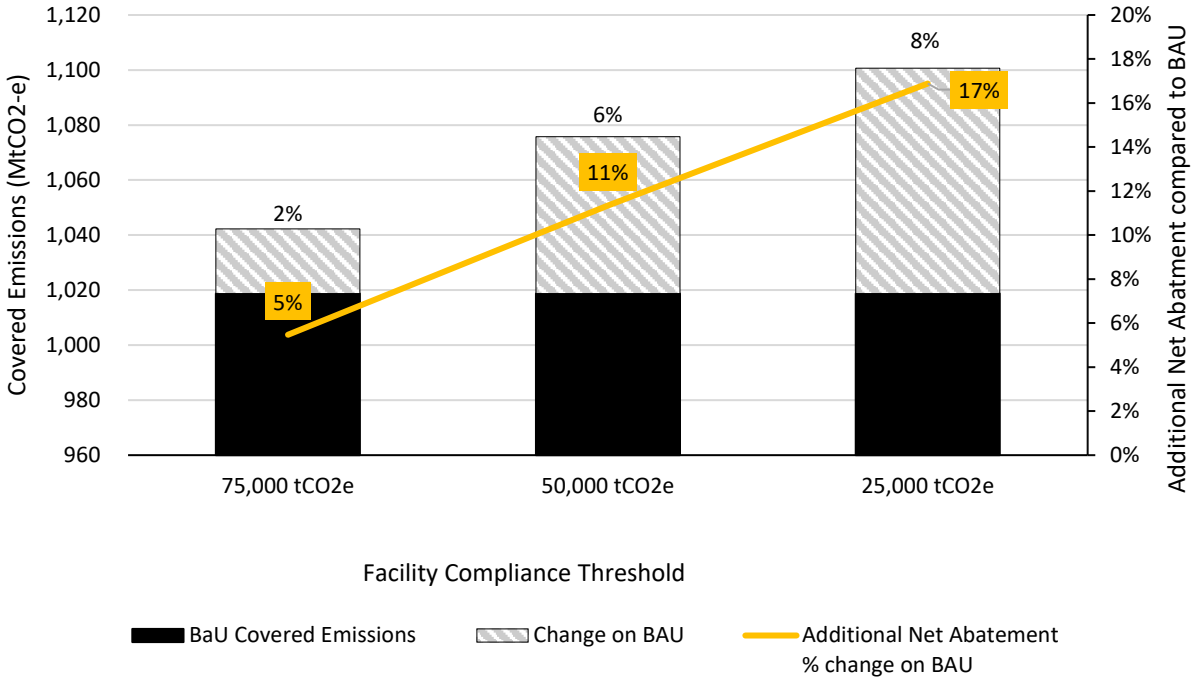


Figure 3: Increase in covered emissions from FY31-FY40 at different compliance thresholds

While the change in covered emissions may be modest, lowering the compliance threshold has the added benefit of retaining facilities for longer. Lowering the threshold by 75, 000, 50,000 or 25 000 tCO_{2-e} retains up to 13, 18 or 22 facilities respectively between FY26 and FY40. Based on CER's projected 2025 ACCU deliveries, the additional net abatement appears to be possible without significant market impact.

The increase in covered emissions needs to be balanced against the administrative burden created for the new facilities and the regulator as well as whether lowering the threshold improves or exacerbates incomplete sectorial SGM coverage. FY24 data shows if the increase in emissions and covered facilities has diminishing returns as the threshold gets lower. See Table 1.

Table 1: Change in emissions and facility profile if changes were applied to 2024

Threshold (tCO_{2-e})	75,000	50,000	25,000
Increase in covered emissions over BAU ($MtCO_{2-e}$)	3.2	6.8	9.9
Number of new facilities	35	94	172
Increase in emissions /new facility ($MtCO_{2-e}$/Facility)	0.09	0.07	0.06
% of new facilities from organisation already reporting	46	48	47

Facility numbers determined by CORE show good alignment DCCEEW data for the 75,000 and 50, 000 tCO_{2-e} threshold limits. Greater variability at the lower threshold remains due to data limitations.

Organisation-wide compliance threshold

In scoping the research, CMI observed that some companies have a notable difference between the total scope 1 emissions from individual facilities and the scope 1 emissions for their organisation.

This results in a weaker overall market-based decarbonisation signal to industry. Figure 4 shows applying emissions reductions and compliance to organisation wide metric causes a material increase in covered emissions.

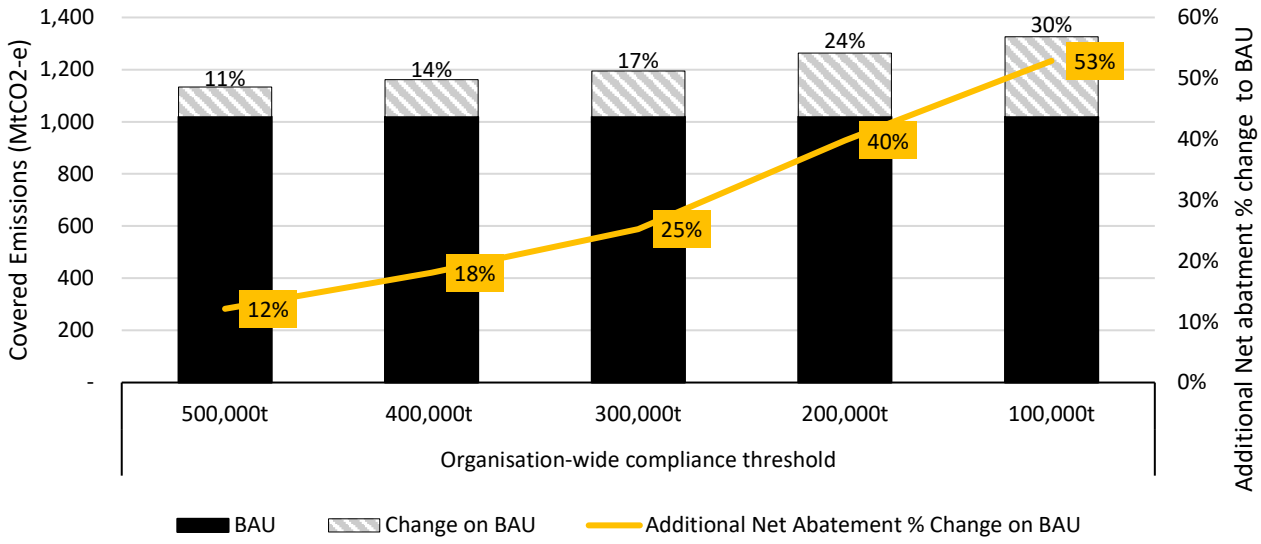


Figure 4: Cumulative covered emissions from FY31-FY40 using an organisation-wide compliance threshold

The 11% increase in covered emissions released by a 500,000t$CO_{2\text{-}e}$ threshold creates a compliance obligation for 4 organisations which are not currently covered by the SGM.

Applying the SGM to a facility[4], simplifies the use of emissions intensities as the basis for emissions limits because a single facility usually has a single production variable. Implementing compliance on a whole of organisation basis need not introduce more production variables as the 'gap' could either be aligned with the production variable which accounts for the greatest percentage of an organisations emissions or could be addressed in absolute terms. The increase in abatement required at organisation wide compliance thresholds of 300,000t$CO_{2\text{-}e}$ or lower may require an investigation into the scalability and operation of the ACCU scheme before it could be considered a credible policy option.

BOX 2: Proportionate share

Under the SGM, industry is required to contribute its proportionate share to Australia's NDC and net zero. The proportionate share covered by SGM in 2024 was 28.1%. Modelling shows in 2035, if the 82% renewable energy target is met, this proportionate becomes 34.3%. The baseline decline rates for potential NDC were calculated assuming the SGM is expected to contribute 34.3% of the emission reduction budget.

Baseline decline rates in support of 2035 NDC

Baseline decline rate is a key design setting under the SGM. The standard baseline decline rate is a 4.9% year on year reduction from FY23 until FY30. The SGM website shows baseline decline rate post FY30 as 3.3%[5]. Under the SGM, the decline rate is to be reviewed and set in 5-year blocks by the

[4] Where a facility is as defined by the National Greenhouse and Energy Reporting Act 2007 (No. 175, 2007)
[5] CER (2025) https://cer.gov.au/schemes/safeguard-mechanism/safeguard-baselines

Department of Climate Change Energy Efficiency and Water[6] to support Australia achieving its NDC[7] and will be considered during the 2026-2027 Review.

Commissioned before the Australian Government published its 2035 target range, this research sought to understand the decline rates needed, support a range of NDC's if industry continues contributed its proportionate share. The Australian Government's articulation of its 2035 target as a carbon budget will also have implications for the decline rate calculation. Modelling shows the baseline decline rates which support the 2035 NDC range are higher than the published decline rate for FY30 but similar to the current decline rate of 4.9%. See Figure 5.

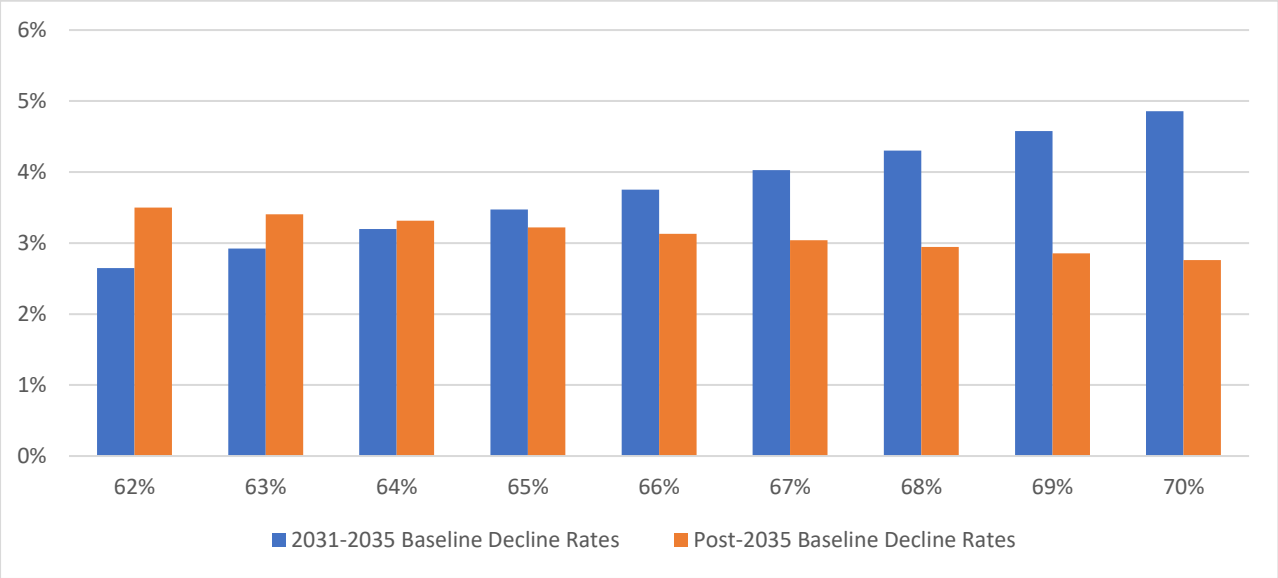


Figure 5: Baseline decline rates to 2035 and beyond for NDC range

However, the additional net abatement required for the high end of Australia's NDC range, regardless of the facility threshold limit, is significantly higher than the BAU levels. See Table 2. A review of the scalability and operation of the ACCU scheme may be required before it is considered as a viable policy option.

Table 2: 2031-40 Cumulative Additional Net Abatement Required relative to BAU scenario for different compliance thresholds

2035 NDC		Compliance thresholds tCO_{2-e}		
% reduction on 2005 levels	Baseline Decline rate %	75,000 % over on BAU	50,000 % over BAU	25,000 % over BAU
65	3.5	6	7	8
70	4.9	32	34	37

[6] CER (2025), https://cer.gov.au/schemes/safeguard-mechanism/safeguard-baselines
[7] Gibson, E, Hellsing, A. & Smith, M (2024) Reforming Australia's safeguard mechanism: an update https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/Research/Research_Papers/2024-25/ReformingAustraliasSafeguardMechanismUpdate

Next steps

The research suggests single modest changes to the SGM, result in modest changes to covered emissions and in isolation may not be sufficient to support Australia's new NDC, particularly if 70% is the goal. A combination of modest changes may be a pragmatic solution as this approach would allow the increase in covered emissions to be spread over time and gives the ACCU market time to adjust. Including new emissions sources incrementally may also increase the risk the target is not met. However, realising Australia's higher ambition targets may require broad-ranging changes to the SGM as well as consideration of the relationship with adjacent policies and government incentives.

Regardless of whether the path consists of multiple modest changes or fewer larger ones, achieving the high ambition end of the recently announced NDC, this research underscores the need for evidence-based and considered policy adjustment.

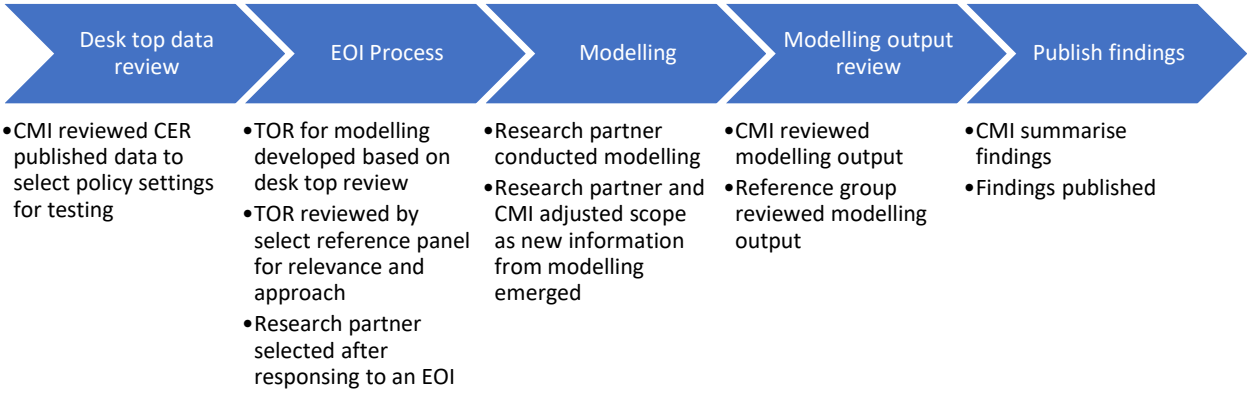
The impact on Australia's carbon market also needs to be understood as adjustments are made to the SGM. The importance of supply certainty, methods and additional abatement required on investment and achieving the target cannot be overlooked as part of the path to meeting the goals.

CMI acknowledges a range of further enquiries beyond the scope of this research that warrant further investigation to inform the 2026-27 Review, including:

- The application of the SGM to grid connected electricity.
- The appropriateness of restrictions on the use of Australian Carbon Credit Units (ACCUs) and Safeguard Mechanism Credits (SMCs), for example through rolling vintage windows.
- The impact of permitting the use of international units under the SGM.
- The suitability of arrangements for emissions-intensive, trade-exposed activities and the impact of any carbon border adjustment mechanism (CBAM) that might be in place at the time of the review.

CMI plans to further develop an evidence base and test design options to inform and support CMI's policy advocacy through its Safeguard Mechanism Taskforce, comprised of member organisations that have Safeguard Mechanism experience and design expertise.

Methodology



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For more information please contact

Kelly Smith
Net Zero Engagement Manager, CMI
kelly.smith@carbonmarketinstitute.org