



AUSTRALIAN
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Industrial transformation under the Safeguard Mechanism: aligning ambition with practice

AIDC submission to the 2026-27 Review of the Safeguard
Mechanism

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Executive summary

AIDC supports a credible and progressively tightening Safeguard Mechanism that makes a material contribution to Australia's emissions targets.

The 2023 reforms were an important and necessary starting point. Two years of operation show that aggregate headroom has been removed, baselines are declining and real compliance obligations are being created. That evidence does not yet establish whether the mechanism is producing the physical industrial transformation and investment Australia will require through the 2030s and beyond. The 2026-27 Review should test the complete post-2030 framework against both the aggregate emissions task and the way covered facilities can actually deliver physical decarbonisation and investment.

For foundational industrial capabilities such as steel, alumina and aluminium, cement and lime, and ammonia, deep emissions reduction can require major transformation of long-lived productive assets, together with a need for new energy, feedstocks, infrastructure, technology and commercial arrangements. The investments required occur through infrequent capital decisions and long development cycles. Australia already has many of the institutions, funding mechanisms and policy tools required to support industrial decarbonisation, but they do not yet operate as a complete delivery architecture around the investment decisions that determine whether projects proceed. This delivery challenge also arises for Future Made in Australia priorities and other new industrial opportunities.

Government needs a much stronger understanding of sector transition pathways, the investment pathways of major facilities, the timing of material decision windows and the barriers preventing credible projects from progressing. Where Australia has a public interest in retaining or developing productive capability, policy should be organised around those pathways and directed to the particular technology, energy, infrastructure, finance, market or coordination constraint affecting the next material decision.

Safeguard performance should be assessed separately against its net emissions outcome, physical outcomes at covered facilities and enduring investment in lower-emissions Australian productive capability. For the Safeguard Mechanism itself, AIDC considers that Government should:

- Establish the Safeguard contribution to Australia's 2030 and 2035 targets by reconciling the national emissions constraint with credible bottom-up evidence on physical abatement, production and investment across covered sectors. Government should make transparent how it expects the task to be delivered through onsite abatement, ACCUs and SMCs, changes in production, facility entry and closure and investment in Australian industrial capacity.
- Require physical abatement that is technically available and reasonably investable, while allowing differentiated treatment where credible sector and facility evidence shows that major physical abatement occurs on a different timetable from the standard annual baseline trajectory. Selective facility pathways should provide the evidence needed to distinguish genuine transition constraints from ordinary compliance behaviour.
- Remove the blanket 2030 limit on multi-year monitoring and establish transition-aligned MYMPs for qualifying facilities. These arrangements should align the timing of compliance with

evidenced development, investment, construction and commissioning pathways while preserving the cumulative emissions task, accountability and transparent residual liabilities.

- Retain effective existing compliance flexibilities unless evidence demonstrates a case for change. AIDC supports continued SMC banking and borrowing, retention of the Cost Containment Measure and continued access to high-integrity ACCUs where physical abatement cannot yet reasonably occur. International units should remain outside the Safeguard Mechanism through this review while the option is preserved for future consideration as Article 6 markets mature.
- Assess the cumulative commercial effects of post-2030 settings, including Safeguard costs passed through energy, gas, feedstocks and other industrial inputs. Trade exposure arrangements should distinguish import leakage, export exposure and investment leakage and use TEBA, a BCA, or any other successor measure, according to the particular competitive risk each instrument can actually address.
- Calibrate coverage, the aggregate 2035 Safeguard task, the reserve and the post-2030 decline rate as an integrated package. Any expansion of coverage should be based on evidence about the facilities affected, the physical response available to them and the policy benefit expected from bringing them into the mechanism.

The Safeguard Mechanism can alter the relative economics of emissions-intensive production, but major industrial transformation also depends on conditions that sit beyond the facility's direct control. Sector pathways should therefore operate increasingly as investment and delivery plans, working backwards from expected transition windows to identify the steps required for real projects to reach FID and deliver physical emissions reduction.

Selective facility transition pathways should connect those sector expectations to actual investment decisions. They should identify the proposed transformation, the next material decision, its timing and the principal dependencies on which delivery rests. Government should then match its response to the barrier. Where several projects depend on the same enabling system, Government should address that constraint collectively instead of expecting each facility to solve it separately.

For priority industrial investments, there must also be a clearer route through Government. Shared information, sustained project case management and coordinated international investment and market development should allow Government decisions to be assembled around the investment timetable so that companies do not have to assemble the machinery of Government themselves.

Where a facility receives differentiated Safeguard treatment, substantial public support or coordinated Government action, this should form part of a reciprocal transition arrangement. Government and other relevant parties should commit to the actions required to resolve demonstrated external barriers, while the facility should commit its own capital, development work, physical decarbonisation outcomes and delivery milestones. Commitments should increase as evidence improves and the project progresses, with clear accountability for matters within each party's control.

Recommendations

Part I: Key policy positions

Recommendation 1: Assess the Safeguard Mechanism separately against its net emissions outcome, physical facility outcomes and enduring investment in Australian productive capability, and test its assumptions against investable sector and facility pathways.

The effectiveness of the Safeguard Mechanism should be assessed across three related outcomes:

1. Its net emissions outcome and contribution to Australia's national targets.
2. Physical outcomes at covered facilities, including gross emissions before unit surrender, onsite abatement, production and utilisation, facility entry and closure, and the respective use of ACCUs and SMCs.
3. Whether the policy framework is contributing to enduring investment in lower-emissions Australian production through transformation of existing facilities, successor assets or new productive capability.

Government should also test the physical abatement assumptions underlying Safeguard settings against relevant sector pathways, representative facility pathways and the technology, energy, infrastructure, market and investment conditions required to deliver them. Aggregate compliance with the Safeguard emissions task should remain a central measure of effectiveness, while these additional measures establish how that outcome is being achieved and whether the policy is building the productive capability required for the longer transition.

Recommendation 2: Establish a Safeguard transition framework informed by sector pathways and applied selectively at facility level.

The Australian Government should use credible sector pathways to establish the broad timing and dependencies of physical industrial abatement and allow qualifying facilities to demonstrate how those conditions apply to their individual assets. Differentiated treatment should be selective, evidence based and conditional on a credible facility transition pathway, while preserving the aggregate Safeguard emissions task and requiring available and investable physical abatement to be undertaken.

Recommendation 3: Provide transition-aligned MYMPs for qualifying facilities with evidenced transformation pathways.

The Safeguard framework should remove the prohibition on MYMPs extending beyond 2030 and allow qualifying facilities to enter enhanced multi-year arrangements aligned with credible development, investment, construction, commissioning and ramp-up pathways. The arrangements should preserve the cumulative emissions task, incorporate review and accountability milestones, prevent artificial SMC generation or overlapping borrowing, and retain a transparent obligation for residual emissions that have not been physically abated.

Recommendation 4: Retain existing Safeguard flexibilities unless evidence demonstrates a case for change.

The Australian Government should retain SMC banking and borrowing beyond 2030, continue access to high-integrity ACCUs without introducing general new surrender restrictions, and retain the Cost Containment Measure with a credible post-2030 reserve strategy. International units should not be introduced through this review.

Recommendation 5: Assess Safeguard cost pass-through and cumulative competitiveness effects through industrial value chains.

The Australian Government should assess where material costs related to the Safeguard Mechanism ultimately fall, including where costs imposed upstream are passed into strategically important and trade-exposed downstream industries. Post-2030 settings should be tested for their cumulative effect on production, transformation investment, import and export competitiveness and the location of future industrial capital.

Recommendation 6: Establish reciprocal transition arrangements for foundational industrial assets and other facilities with a demonstrated public interest case and credible transformation pathways.

For foundational industrial assets, and other facilities where Government has identified a clear public interest in retaining or developing the productive capability, these interventions should form part of a reciprocal transition arrangement where a credible facility pathway exists. Government action should be matched to demonstrated barriers and may include technology and engineering support, enabling infrastructure, energy and feedstock arrangements, finance, revenue or market support and appropriate Safeguard treatment. The facility should commit material capital, agreed development and delivery milestones, transparent reporting and appropriate consequences for commitments within its control.

Part II: The industrial transition delivery architecture

Recommendation 7: Use the Industry Sector Plan and relevant sector pathways as industrial decarbonisation investment and delivery plans.

Building on Recommendation 2, the Australian Government should use the Industry Sector Plan and relevant sector pathways as investment and delivery timetables, working backwards from expected transition windows to identify the material conditions, development activity and decisions required for real projects to be developed, reach FID and deliver the physical transformation Government is relying upon.

Sector pathways should also identify shared enabling requirements and points of convergence across projects and sectors so that common barriers can be addressed collectively rather than repeatedly at individual facilities.

Recommendation 8: Assess Safeguard and complementary policy settings against the facility investment decisions required to deliver credible sector pathways.

The Industry Sector Plan and relevant sector pathways should provide the overarching physical and temporal framework for industrial decarbonisation. The Australian Government should then assess Safeguard and complementary policy settings against the investment decisions through which those pathways must be delivered at real facilities.

That assessment should consider whether the physical abatement assumed by the sector pathway is available within the relevant investment window and whether the technology, energy, infrastructure, market and other enabling conditions required for the investment can be delivered in time. A stronger carbon obligation should not be assumed to produce additional physical abatement where those conditions are not yet available.

Recommendation 9: Use selective facility transition pathways to coordinate Government action around the barriers to be managed, the timing and stages of major industrial investments.

The Australian Government should use facility transition pathways selectively where a facility seeks differentiated Safeguard treatment, substantial public support or coordinated Government action, where an important investment window is approaching, or where the consequences for Australian production justify closer consideration.

The pathway should identify the proposed transformation, its timing, the next material investment decision and the major conditions on which delivery depends. Government should use that evidence to match action to the barrier and stage of the investment, addressing shared constraints collectively where possible.

Recommendation 10: Build a continuous support pathway through project development, engineering, demonstration and first commercial deployment.

The Australian Government should recognise project development, engineering, demonstration and first commercial deployment as distinct investment stages in industrial transformation. For qualifying projects, support should be capable of progressing through feasibility, pre-FEED, FEED, integration engineering, industrial testing, demonstration and the work required to reach FID. This must fill the missing middle between an isolated early-stage grant and concessional financing at FID.

The form of support should change as the project and its risks mature. Depending on the barrier and stage of development, this may include co-funded development and engineering, grants or recoverable support, concessional debt, subordinated or mezzanine finance, equity, guarantees, blended finance and export finance.

Public support should be linked to the evidence expected from each stage, agreed milestones and meaningful company commitments. Projects should be able to progress, redesign or stop as evidence develops, without treating a change in the preferred pathway as a failure where the development work has produced useful information.

Recommendation 11: Match operating cost, revenue and demand support to the commercial gap preventing investment.

The Australian Government should distinguish between persistent input and operating cost gaps, product price and revenue risk, and volume or offtake risk when designing support for industrial transformation. These are different commercial problems and should not be treated as interchangeable.

Support should be matched to the actual gap preventing investment and reduce as that gap closes. Government should address common market problems collectively where possible and use facility pathways to identify residual barriers affecting major individual investments.

Recommendation 12: Integrate industrial energy and feedstock requirements into energy and fuel system planning.

The Australian Government should use sector, regional, precinct and facility pathways to identify material industrial energy and feedstock requirements and when they will arise.

Energy and fuel policy should be tested against whether industrial users can secure the inputs required for credible transformation projects on commercially workable terms within the relevant investment window. Aggregate supply targets should not be treated as proof that those conditions exist at the facility.

Recommendation 13: Support the delivery of common user industrial infrastructure.

The Australian Government should identify common infrastructure requirements early enough for development to proceed alongside the industrial investments they are intended to enable.

Where credible demand exists but no individual user can efficiently carry the development or first mover risk, Government should be prepared to support a shared delivery model, including through an SPV where appropriate. Publicly supported infrastructure should preserve fair access for later users and, where useful, link public and private investment milestones so that certainty increases on both sides as projects progress.

Recommendation 14: Review fiscal settings for consistency with industrial decarbonisation objectives.

The Australian Government should review material tax expenditures and fiscal settings where they may weaken incentives for industrial transition or work against substantial public investment elsewhere in the decarbonisation policy suite. Where changes are justified, Government should consider how any resulting savings could support the industrial transition.

Recommendation 15: Establish a shared view of industrial decarbonisation investment, delivery and project learning.

The Australian Government should use information already generated across relevant programs, institutions and project engagement to maintain a shared view of whether material industrial

decarbonisation projects are progressing, where credible projects repeatedly stall and what those experiences reveal about common barriers to investment.

Relevant learning should be retained and shared across Government, subject to appropriate protection of commercial information, and used to update sector pathways, program design and the targeting of Government intervention. Selective facility transition pathways should draw on and supplement this existing evidence.

Government should also make relevant aggregate analysis and assumptions available where this would allow industry and other stakeholders to test emerging policy settings against real investment and delivery conditions.

Recommendation 16: Establish a standing cross-government process for facility transition pathways and shared industrial barriers.

The Australian Government should establish a standing process across Commonwealth portfolios and relevant state and territory governments to consider selective facility pathways and barriers shared across industrial projects.

The process should use information already held across Government, public disclosures and targeted industry engagement to identify material decision windows and common dependencies. The Investor Front Door should provide a principal route into this process for qualifying projects, with case management continuing through the material development and investment stages.

Recommendation 17: Establish a coordinated Team Australia investment and market development proposition for priority industrial projects.

The Australian Government should work with state and territory governments to develop a recognisable national investment proposition for priority industrial transition and lower emissions manufacturing opportunities.

For nationally significant projects and value chains, Government should coordinate domestic project facilitation and public finance with international investment attraction, technology partnerships and market development, working from agreed priority propositions across Commonwealth and state governments.

Where an Australian project depends materially on an overseas market or counterpart, Government should use bilateral and other international arrangements to help develop the commercial relationship.

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Part I: Key Safeguard policy positions

Part I sets out AIDC's principal positions for the post-2030 Safeguard Mechanism. AIDC proposes a limited set of changes directed at aligning Safeguard treatment with credible physical industrial transition pathways, while retaining effective existing flexibilities unless there is evidence of a problem.

For qualifying facilities, the proposed pathway framework culminates in a reciprocal transition arrangement: differentiated regulatory treatment and any complementary Government action would be matched by evidence, investment and delivery commitments from the facility.

Part II sets out the industrial investment and delivery architecture required to make those arrangements operational and provides AIDC's substantive response to Questions 3.1.1A and 3.1.1B.

1. Introduction

AIDC welcomes the Australian Government's 2026-27 Review of the Safeguard Mechanism. The 2023 reforms were an important step in Australian climate policy. They removed substantial aggregate headroom, established declining baselines and created a meaningful carbon constraint for large industrial facilities. We support the continued operation of an effective Safeguard Mechanism and the need for a durable emissions signal capable of influencing long-lived industrial investment.

The wider policy environment has also developed substantially. Government has established significant industrial decarbonisation funding, expanded public financing capability, introduced Future Made in Australia measures and developed increasingly detailed sector pathways. These are important components of the industrial transition policy framework.

The central issue for this review is that the architecture imposing the emissions obligation is now more developed than the architecture enabling facilities to respond through physical transformation. Covered facilities face a progressively tightening compliance requirement and an increasingly material carbon cost. Their capacity to make the investments that reduce those future liabilities still depends on technology development, competitive energy and feedstocks, infrastructure, customers, finance, approvals and coordinated Government action. Those conditions remain incomplete or insufficiently connected around the investment pathways of individual facilities.

1.1 The purpose of the 2026-27 review

The circumstances in which the reforms were developed remain important to the task now before Government. The reforms moved from initial design consultation to commencement in less than a year. The final Regulatory Impact Analysis¹ relied principally on qualitative assessment of the substantive impacts of the reforms, with quantitative regulatory cost estimates limited to administrative compliance costs. Substantive compliance costs were assessed qualitatively because of uncertainty about facility decision-making, the evolution and cost of decarbonisation technologies and

¹ Australian Government, Department of Climate Change, Energy, the Environment and Water (2023) [Reforms to the Safeguard Mechanism Regulatory Impact Analysis](#).

the cost of domestic offsets. The Office of Impact Analysis subsequently assessed the Impact Analysis as ‘adequate’, while noting that a full cost-benefit analysis had not been completed and that future data collection should support higher-quality quantitative analysis.² A post-implementation review was also required within five years.

The decision in 2023 to proceed with the reforms before every question had been resolved was understandable, because the previous framework was failing to impose an effective aggregate constraint. However, the scheduled review was also an important part of the reform architecture. It provided the point at which initial settings could be tested against operating evidence and the assumptions made in 2023 could be revisited.

That sequencing gives this first review a particular importance. Stakeholder support for commencing the reforms should be understood as pragmatic support for an essential starting framework. It does not establish that every setting was fully tested, optimally calibrated or intended to continue unchanged after operational evidence became available.

AIDC is concerned that the current consultation risks reaching a conclusion about the success of the reforms before key work has been completed. The consultation paper states that initial results indicate that the reformed settings are “working as intended” and that the Safeguard Mechanism is on track to deliver its 2030 emissions targets. The evidence establishes important progress: aggregate headroom has been removed, declining baselines are creating real compliance obligations and net emissions are falling. It does not yet establish whether the mechanism is producing the physical industrial transformation required through 2035 and towards 2050, or whether the current settings will support the investment required to achieve it.

More comprehensive examination is required to answer the question of whether the Safeguard Mechanism is working. Government needs to distinguish the scheme’s net emissions outcome and contribution to national targets; what is physically occurring at covered facilities, including onsite abatement, production changes and the use of ACCUs and SMCs; and whether the policy framework is contributing to enduring investment in the transformation, replacement or development of Australian industrial capacity. These outcomes are related, but they can diverge materially.

Australia can meet an aggregate emissions target while failing to establish the productive assets required for a low emissions industrial economy. A reduction in reported Safeguard emissions may arise from physical transformation of an Australian facility, greater use of compliance units, lower production or facility closure. Those outcomes have very different implications for the future emissions pathway and for Australia’s industrial capability.

Future Safeguard reporting should, to the extent practicable, identify changes in gross covered emissions attributable to onsite abatement, changes in production or utilisation, facility entry and exit, and the respective contribution of ACCUs and SMCs to compliance. This should sit alongside the scheme’s net emissions outcome and available evidence on investment in the transformation or replacement of Australian industrial assets.

² Australian Government, Office of Impact Analysis (2023) [‘Impact Analysis – Second Pass Assessment – Safeguard Mechanism Reforms’](#), Department of the Prime Minister and Cabinet.

The quality of this review should therefore be judged by the transparency and completeness of its analysis and by whether the resulting settings are sufficiently durable to support the industrial investment decisions they are intended to influence.

Where an issue is both knowable and material to the policy choice, Government should make a reasonable effort to establish the evidence before changing the settings. Where evidence cannot reasonably be obtained, Government should make the uncertainty explicit, test alternative scenarios and design settings that remain robust across plausible outcomes. Where the information would be costly to obtain and unlikely to alter the decision materially, Government should be prepared to proceed on transparent reasonable assumptions rather than seek false precision.

The standard of evidence should rise with the significance and irreversibility of the decision. Changes that could materially alter industrial capital allocation, production, physical abatement or the location of future investment require a stronger causal and evidentiary basis than minor administrative amendments. In each case, Government should be able to explain the problem it is seeking to solve, the evidence that the problem exists, why the selected instrument is expected to change behaviour in the intended way, the plausible counterfactual responses, and how it will determine whether the intervention has worked.

1.2 Assessing the cumulative policy and industrial effects

The post-2030 Safeguard package should be assessed as a whole. Changes to the decline rate, coverage, ACCU and SMC settings, TEBA, multi-year monitoring and the cost-containment framework may each be reasonable in isolation but have a materially different combined effect on compliance costs, carbon unit demand, production and investment.

Government modelling should show how alternative packages affect gross emissions, physical onsite abatement, compliance unit use, production and investment, and test the effect of material uncertainty in technology timing, prices and production.

Facility evidence is important to that assessment. Sector pathways provide the broad physical and technological parameters, while representative facility pathways can show how those assumptions interact with actual assets, investment cycles and infrastructure requirements. The purpose is to give Government enough information to understand whether the settings adopted can plausibly translate the aggregate emissions task into physical investment.

The same evidence should inform the aggregate Safeguard task. The national emissions target provides the top-down constraint, but the contribution expected from covered industry should also be tested against credible bottom-up evidence on the timing of physical abatement, production and investment across covered sectors.

2. AIDC positions: connecting Safeguard and industrial transition

AIDC supports a credible, progressively tightening and progressively broader carbon constraint on Australian industrial emissions. Carbon pricing is an essential part of industrial decarbonisation.

For foundational industrial capability, however, deep emissions reduction frequently requires industrial asset transformation of long-lived productive assets and the industrial asset ecosystems around them. The physical response available to a facility at a particular point in time is bounded by its actionable abatement frontier: the technologies, energy and feedstocks, infrastructure, markets, finance and project development conditions that can actually be delivered.

Carbon pricing changes the economics of options within that frontier. Government action on technology, infrastructure, energy and feedstocks, market formation, finance and coordination can expand the frontier itself.

The objective of Safeguard policy should be to drive a credible and progressively tightening carbon constraint on covered industrial emissions, consistent with Australia's national emissions targets, while ensuring that the wider industrial transition architecture enables that constraint to produce physical transformation and enduring lower-emissions productive capability in Australia. Increasing coverage or tightening annual baselines cannot substitute for the policies and investments required to deliver the underlying industrial asset transformation.

Government should test whether the Safeguard obligation is improving the relative economics of a credible emissions reduction pathway and whether the wider policy architecture allows the facility to act on that signal within the relevant investment window.

2.1 Judge the Safeguard on more than net emissions

The Safeguard Mechanism is Australia's principal constraint on emissions from large industrial facilities. Its settings affect annual compliance and the economics, timing and location of major industrial investment. Further, its ability to produce physical industrial transformation depends on whether facilities have an investable response available within the relevant decision window and whether the wider conditions required for that investment can be delivered.

Safeguard performance should be assessed by net emissions outcome, physical outcomes at covered facilities and enduring investment in lower emissions Australian productive capability.

Recent Safeguard data³ demonstrate why these outcomes should be considered separately. In 2024–25, covered emissions declined by 2.3 per cent while net emissions declined by 5.5 per cent following the surrender of 10.8 million ACCUs and 2.6 million SMCs. Aggregate baselines declined by 7.3 per cent, with 141 facilities exceeding their baselines by a combined 13.7 Mt CO₂-e. These figures show a tightening mechanism and increasing compliance obligations. They do not establish how much physical

³ Clean Energy Regulator (2026) [2024–25 Safeguard Mechanism data insights](#).

transformation occurred at covered facilities or what investment decisions are being made about the future of Australian production.

Recommendation 1: Assess the Safeguard Mechanism separately against its net emissions outcome, physical facility outcomes and enduring investment in Australian productive capability, and test its assumptions against investable sector and facility pathways.

The effectiveness of the Safeguard Mechanism should be assessed across three related outcomes:

1. Its net emissions outcome and contribution to Australia's national targets.
2. Physical outcomes at covered facilities, including gross emissions before unit surrender, onsite abatement, production and utilisation, facility entry and closure, and the respective use of ACCUs and SMCs.
3. Whether the policy framework is contributing to enduring investment in lower-emissions Australian production through transformation of existing facilities, successor assets or new productive capability.

Government should also test the physical abatement assumptions underlying Safeguard settings against relevant sector pathways, representative facility pathways and the technology, energy, infrastructure, market and investment conditions required to deliver them. Aggregate compliance with the Safeguard emissions task should remain a central measure of effectiveness, while these additional measures establish how that outcome is being achieved and whether the policy is building the productive capability required for the longer transition.

2.2 Implement a differentiated, pathway-based transition framework for the Safeguard Mechanism

The Safeguard Mechanism applies a common emissions management architecture to a highly heterogeneous group of facilities. It covers fossil fuel extraction, minerals processing, primary metals, cement and lime, chemicals, fertiliser and explosives, transport, waste and other industrial activities. These facilities differ materially in the sources of their emissions, the maturity and cost of available technologies, their exposure to international competition, the remaining lives of their assets, their capacity to pass through costs and their dependence on infrastructure or inputs outside their direct control.

A scheme-wide emissions objective remains essential. Aggregate targets and emissions budgets provide the discipline required to ensure that differentiated treatment does not become an open-ended exemption from the national emissions task. However, a common aggregate objective does not require every facility to follow an identical annual physical emissions pathway. The Government's own industrial transition work now provides substantial evidence that, for several important industrial sectors, physical decarbonisation will occur through a combination of incremental improvements and much larger step-change investments delivered over the 2030s and 2040s.

The Industry Sector Plan⁴ itself divides the industrial transition into distinct periods:

- In the **near term to 2030**, it expects reductions principally from commercially available measures including energy efficiency, electrification where possible, fuel switching and alternative fuels.
- In the **medium term to 2035**, it expects cleaner production processes in iron, steel and alumina to expand as technologies become available, while explicitly noting their dependence on renewable electricity, grid infrastructure, hydrogen and other alternative inputs.
- Its **longer-term pathway extends from 2035 to 2050**, when breakthrough technologies and deep transformation of hard-to-abate processes are expected to become increasingly important. The plan still projects residual industrial emissions in 2050.

This is significant evidence that **Government already knows that the deepest reductions in several of the industrial sectors covered by the Safeguard Mechanism cannot simply be produced by applying progressively greater pressure to an annual emissions baseline.** We collectively know that important technologies will not become available at the necessary commercial scale until the 2030s; that major facility conversions can then require years of engineering, final investment decision, procurement, construction and commissioning; and that some of the resulting physical transformation will therefore occur through the late 2030s and into the 2040s. A smooth annual regulatory trajectory is not the same thing as the physical pathway Government itself has identified.

The position differs by sector and by facility. The policy task is to distinguish those opportunities from the larger reductions that cannot reasonably occur until later investment and technology steps are completed.

Alumina refining provides perhaps the clearest example of a stepped physical pathway. The Australian Aluminium Council has said that key decarbonisation technologies for refining are not expected to be available for commercial rollout until around 2030 or later.⁵ A roadmap produced by Deloitte shows that mechanical vapour recompression and electric high temperature boilers are expected to become technically mature by 2030 and electric and hydrogen calcination are assumed to reach technical maturity by 2035, with deployment over subsequent years.⁶ These figures are also provided by the Climate Change Authority in its Sector Pathways Review.⁷ Deloitte's roadmap also allows for some earlier reductions, including up to 7 per cent of industry emissions between 2027 and 2030, while pilot and demonstration activity for the major technologies is still occurring.

⁴ Australian Government (2025) [Industry Sector Plan](#), Department of Industry, Science and Resources, 18 September. The Climate Change Authority's (2024) [Sector Pathways Review](#) provides the broader evidentiary basis for this sequencing, recognising that high temperature industrial processes will decarbonise more slowly and depend on new technologies, alternative feedstocks and enabling supply chains.

⁵ Australian Aluminium Council (2024), response to the Climate Change Authority, [2024 Issues paper: Targets, Pathways and Progress](#), 14 May, pp. 4, 16.

⁶ Deloitte, for the Australian Renewable Energy Agency (2022), [A Roadmap for Decarbonising Australian Alumina Refining](#), developed in consultation with Alcoa, Rio Tinto and South32, November.

⁷ Climate Change Authority (2024), [Sector Pathways Review](#), Industry and Waste, section IW.2, p. 73.

Aluminium smelting presents a much sharper constraint for Scope 1 emissions. The Australian Aluminium Council estimates that more than 95 per cent of smelting Scope 1 emissions could be eliminated through conversion to inert anodes.⁸ It also states that global rollout of inert anode technology is not anticipated to be widespread until after 2030 and that, until the technology is deployed, process emissions abatement opportunities for smelters are less than 5 per cent. The Climate Change Authority indicates aluminium smelting decarbonisation via inert anodes from 2035.⁹

Integrated iron and steel also combines nearer term measures with a much larger subsequent replacement task. The Climate Change Authority's prospective pathway identifies natural gas direct reduced iron with electric arc furnace or electric smelter routes around 2030 and hydrogen-based routes around 2035.¹⁰ It assesses the potential emissions reduction at about 95 per cent for the hydrogen DRI-EAF route and about 77 per cent for a hydrogen DRI-electric-smelter-BOF route before any deeper abatement from biochar or carbon capture. These dates identify technology pathways rather than the date on which an existing Australian steelworks can complete replacement of its underlying production system.

Cement has a different emissions profile and therefore a different sequence. The independent decarbonisation study commissioned by the Cement Industry Federation and Cement Concrete & Aggregates Australia estimates that around 55 per cent of Australian cement production emissions arise directly from calcination, around 26 per cent from fuel use and around 12 per cent from electricity.¹¹ Its pathway includes material action by 2030: the assumed alternative fuel substitution rate rises from 18 to 30 per cent, the clinker-to-cement factor falls from 84 to 70 per cent, supplementary cementitious materials rise from 38 to 44 per cent of binder, and initial material efficiency savings are realised.¹² The much larger later constraint is the remaining calcination emissions. The study attributes 33 per cent of the total 2020-2050 reduction to capturing remaining CO₂ and notes that several carbon capture technologies were still at pilot or demonstration stage.¹³

Lime faces an even more pronounced process emissions constraint. The Australian lime sector pathway commissioned by the Cement Industry Federation and Graymont identifies continuing energy efficiency improvements and initial fuel switching, including indicative substitution of 10 per cent of fossil fuel with green hydrogen and 10 per cent with biomass.¹⁴ It concludes that carbon capture will be required to eliminate the unavoidable emissions from calcination.

⁸ Australian Aluminium Council (2024), response to the Climate Change Authority, [2024 Issues paper: Targets, Pathways and Progress](#), 14 May, pp. 10, 17. The Council notes that conversion of a smelter could itself be assumed to take five to six years and would require access to an internationally competitive low emissions electricity supply.

⁹ Climate Change Authority (2024), [Sector Pathways Review](#), Industry and Waste, section IW.2, p. 73.

¹⁰ Climate Change Authority (2024), [Sector Pathways Review](#), Industry and Waste, section IW.2.4, p. 74.

¹¹ VDZ (2021), [Decarbonisation Pathways for the Australian Cement and Concrete Sector](#), report commissioned by the Cement Industry Federation and Cement Concrete & Aggregates Australia, see pp. 8.

¹² Ibid., p. 28.

¹³ Ibid., p. 27.

¹⁴ VDZ (2023), [Decarbonisation Pathways for the Australian Lime Sector](#), report commissioned by the Cement Industry Federation on behalf of its members and Graymont, June, p. 7.

Ammonia demonstrates particularly clearly how material early abatement can coexist with a much larger subsequent transformation. The Climate Change Authority estimates that approximately 65 per cent of ammonia production emissions arise from the steam methane reforming process used to make hydrogen and around 33 per cent from fossil fuel combustion for process heat.¹⁵ It states that electrolytic hydrogen can substitute for up to 20 per cent of hydrogen feedstock in existing processes before retrofit or plant upgrades are required. The Authority's prospective lower emissions pathway then moves to 100 per cent green hydrogen feedstock and electric heat for the Haber-Bosch process by 2035. Ammonia may have a meaningful early abatement wedge followed by one very large transformation of feedstock and process heat; its pathway may not include two distinct later steps.

These sector pathways do not produce a single common facility trajectory. They do, however, show a recurring physical pattern. Some emissions can be reduced through measures available relatively early. Much larger reductions depend on technologies that become available later, major modification or replacement of long-lived industrial assets, and the energy, infrastructure and other enabling conditions required to operate them. Technology availability is also not the same as completed physical abatement: qualification, engineering, investment approval, construction and commissioning can extend the period between a technology becoming available and the resulting emissions reduction at a facility. Some sectors may also retain material process emissions after substantial transformation.

Figure 1 over the page brings these different sector pathways into a single illustrative facility archetype to illustrate the regulatory consequences of that recurring pattern. It begins with annual physical emissions of 1 Mt CO₂-e in 2024 and assumes three phases of physical abatement. Phase A represents gradual abatement available through 2030, reducing annual emissions by 15 per cent to 850 kt CO₂-e. Phase B represents a major transformation step delivered between 2037 and 2039, reducing annual emissions by a further 250 kt to 600 kt. Phase C represents a deeper transformation step delivered between 2045 and 2048, reducing annual emissions by a further 450 kt to 150 kt. The remaining 150 kt is treated as a residual at 2050. The timing and scale of these steps are illustrative: individual sectors and facilities will have different technology windows, investment cycles and residual emissions.

The orange line represents an illustrative Safeguard baseline trajectory holding production and underlying emissions-intensity inputs constant. It applies the current default ERC trajectory through 2030 and, for modelling purposes, continues the current indicative post-2030 decline to zero by 2050. Actual post-2030 decline rates will be set in five-year blocks, and actual facility baselines will vary with production, emissions-intensity values and applicable facility-specific adjustments.

¹⁵ Climate Change Authority (2024), [Sector Pathways Review](#), Industry and Waste, section IW.2.6, p. 78.

Illustrative physical emissions and Safeguard baseline trajectories

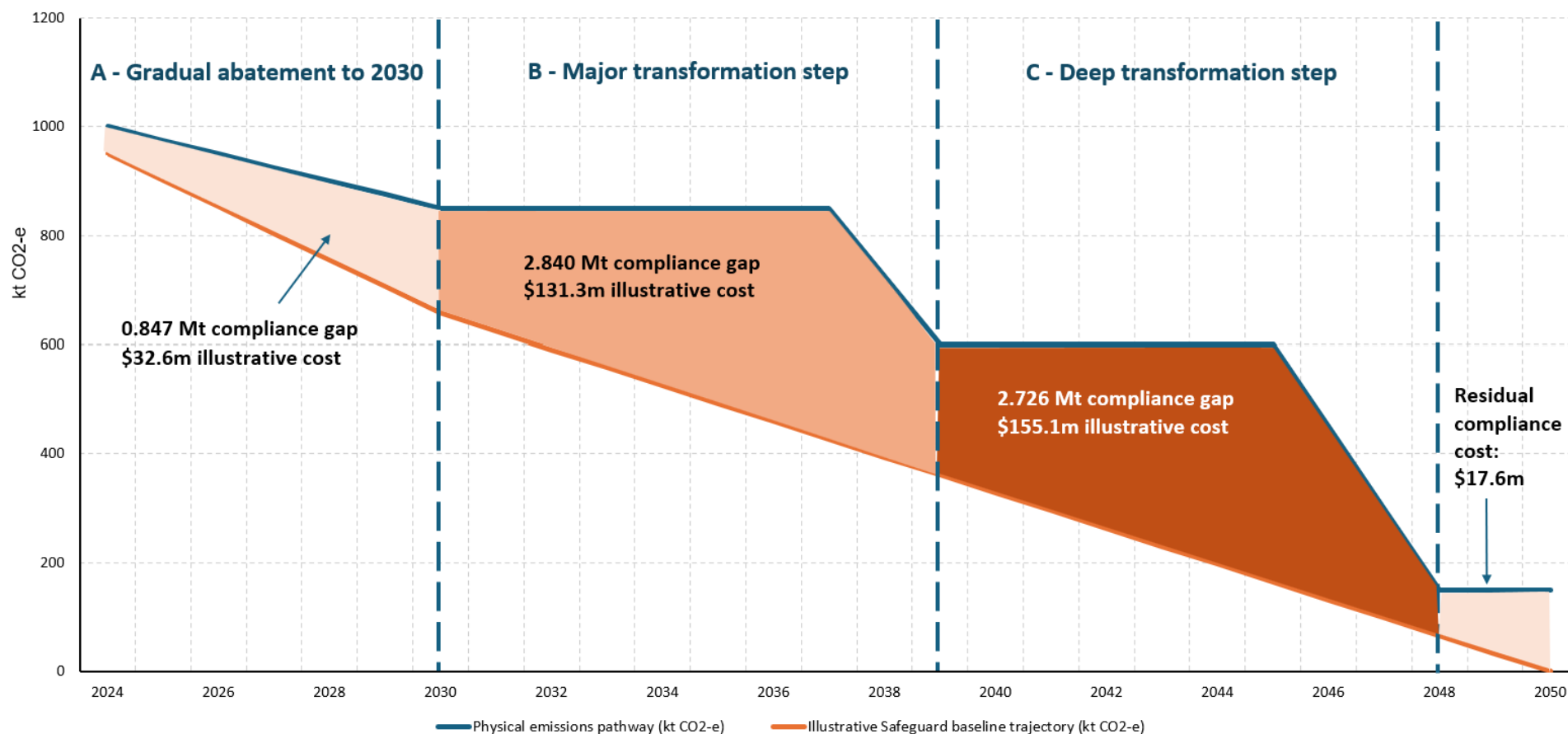


Figure 1: AIDC archetype facility emissions pathway. For illustration, each tonne of the annual compliance gap is valued at an assumed unit price of \$35/t in FY2023–24, escalating at 2.5% annually. This is a modelling assumption, not a unit price forecast. The calculation does not model the facility’s actual mix of ACCUs, SMCs, banking, borrowing, MYMPs or other compliance options. The illustrative baseline isolates the effect of the ERC trajectory and assumes constant production. It does not model changes in production variables, hybrid baseline effects, TEBA or other facility-specific adjustments.

The shaded areas represent the **cumulative unit-equivalent compliance gap**: the difference between the archetype's physical emissions and the illustrative baseline trajectory. During Phase A, the gap accumulates to 0.847 Mt CO₂-e. Between completion of the initial abatement and delivery of the Phase B transformation, the cumulative gap is 2.840 Mt. Between Phase B and completion of the deeper Phase C transformation, it is a further 2.726 Mt. A residual compliance liability remains after Phase C because the archetype retains 150 kt of annual physical emissions while the modelled baseline falls to zero.

Phases B and C show why the compliance gap and the size of the physical transformation need to be read separately. The two shaded areas are similar in size but the physical transformation in Phase C is much larger. Phase B reduces annual emissions by 250 kt, from 850 kt to 600 kt. Phase C reduces them by 450 kt, from 600 kt to 150 kt. The cumulative compliance gaps are similar because they measure the area between the physical emissions pathway and a baseline that continues to decline over time. The size of the physical step is shown by the change in the blue line; the shaded area shows the compliance liability accumulated while the physical pathway remains above the regulatory trajectory.

The figure also illustrates the potential financial significance of that timing difference. Assuming compliance units cost \$35/t CO₂-e in FY2023-24 and increase by 2.5 per cent each year, the model produces an illustrative compliance unit cash cost of \$32.6 million during Phase A, \$131.3 million through the Phase B period, \$155.1 million through the Phase C period and a further \$17.6 million for the residual liability in 2049-50. The Phase C compliance gap is slightly smaller in volume than the Phase B gap, but its illustrative cost is higher because the liability occurs later, when the assumed unit price is higher. Across the full archetype, the cumulative illustrative compliance unit cash cost is approximately **\$336.6 million**.

These figures exclude the capital expenditure and operating cost changes associated with the physical transformation itself. Their purpose is to illustrate the compliance unit liability that can accumulate where a smooth regulatory trajectory moves ahead of the physical pathway available to a facility. A facility can undertake available early abatement and commit substantial capital to major later transformation while continuing to incur a material Safeguard liability in the intervening years. The policy matter is how the Safeguard Mechanism should treat that interim liability where the timing of the next material reduction is constrained by technology, infrastructure, energy supply, project development or the replacement cycle of the underlying industrial asset.

Table 1 maps the Figure 1 archetype back to the sector pathways discussed above. The comparison is deliberately approximate: the timing and scale in the column headings are those of the archetype, and the table indicates whether the physical pathway identified for each sector exhibits a similar feature at broadly comparable points in the transition.

Sector	A: Incremental abatement to ~2030 – 15%	B: Major step by ~2040 – 25%	C: Deep transformation in 2040s – 45%	~15% residual at 2050
Alumina refining	✓✓	✓✓	✓✓	✓
Aluminium smelting: Scope 1	Partial	Partial	✓✓	Partial
Integrated iron and steel	✓✓	✓	✓✓	✓✓
Cement	✓✓	✓✓	✓✓	✓✓

Sector	A: Incremental abatement to ~2030 – 15%	B: Major step by ~2040 – 25%	C: Deep transformation in 2040s – 45%	~15% residual at 2050
Ammonia	✓✓	✓✓	✓	✓

Table 1: AIDC archetype against key sectors. ✓✓ = strong correspondence; ✓ = material correspondence; 'Partial' = relevant, but does not map cleanly to that phase.

This evidence creates a material policy design problem. Government can reasonably require facilities to undertake physical abatement that is available, contribute to the national emissions task and carry a carbon cost for residual emissions. But where the regulatory trajectory runs ahead of the credible physical pathway, a higher obligation may increase compliance expenditure without accelerating the next major physical reduction.

Where further abatement is available and investable, a tighter obligation can strengthen the incentive to act. Where it is constrained by technology, infrastructure or the timing of a major capital project, the response may instead be higher compliance costs, reduced margins or utilisation, deferred investment, closure, or future capital being directed offshore. Those outcomes can all reduce Australian Safeguard emissions, but they have very different implications for physical decarbonisation and industrial capability.

AIDC considers that the transition framework should begin with sector pathways and be tested against evidence from individual facilities. At scheme level, Government should retain the aggregate Safeguard emissions task, market rules and integrity requirements. At sector level, it should use the CCA Sector Pathways Review, the Industry Sector Plan and other credible sector evidence to establish the broad sequence of physical abatement, the likely timing of major technology steps and the common infrastructure and commercial dependencies. At facility level, a business seeking transition treatment should then demonstrate how those conditions apply to the particular asset, including the abatement it can undertake now, the major project or replacement pathway it proposes, the relevant investment and commissioning timetable, external dependencies and the emissions that cannot yet reasonably be physically removed.

Access to differentiated treatment should be selective. Facilities with commercially available and reasonably investable abatement should remain expected to undertake it, while a facility seeking transition treatment should demonstrate a credible transformation pathway and accept the reciprocal obligations attached to that treatment. The purpose of differentiation is to distinguish genuine physical transition constraints from ordinary compliance behaviour and to align the timing of facility obligations with the evidence Government already has about when major industrial transformation can realistically occur. Claims about the timing or unavailability of physical abatement should be supported, and Government should be able to test material assumptions against sector evidence, comparable facilities and independent expertise.

Sector pathways need not prescribe the technology selected by an individual facility. Their role within this framework is to provide a common evidentiary envelope for the broad timing, scale and dependencies of physical abatement expected within the sector. Facility evidence can then establish how those conditions apply to the actual asset, while the company retains responsibility for its technology and investment choices. The following section sets out how this framework can be implemented through a transition-aligned multi-year arrangement.

Recommendation 2: Establish a Safeguard transition framework informed by sector pathways and applied selectively at facility level.

The Australian Government should use credible sector pathways to establish the broad timing and dependencies of physical industrial abatement and allow qualifying facilities to demonstrate how those conditions apply to their individual assets. Differentiated treatment should be selective, evidence based and conditional on a credible facility transition pathway, while preserving the aggregate Safeguard emissions task and requiring available and investable physical abatement to be undertaken.

2.3 Provide for transition-aligned MYMPs

A facility transition pathway provides the evidence about the physical project, timing and dependencies. For qualifying Safeguard facilities, an enhanced multi-year monitoring period should provide the principal existing Safeguard mechanism through which that evidence is translated into the facility's compliance trajectory.

This approach extends an established form of Safeguard flexibility. Ordinary MYMPs already recognise that some emissions outcomes need to be assessed across more than one compliance year. The post-2030 framework should extend that principle where an evidenced industrial transformation requires a longer development, investment, construction and commissioning period.

Major industrial transformation commonly begins years before a facility can commit to construction. Options analysis, feasibility, engineering, infrastructure planning, commercial negotiations and approvals may all need to occur before a project is sufficiently defined to reach final investment decision. The Safeguard framework should recognise this development period without assuming that every credible transformation project can immediately be translated into a conventional annual abatement trajectory.

During development, the facility should continue to comply with its annual Safeguard obligations and undertake physical emissions reduction that is reasonably available. Where it seeks transition treatment, it should progressively develop an evidenced facility pathway identifying the abatement that can occur in the near term, the major transformation project or sequence of projects being developed, relevant investment and commissioning milestones, technology and infrastructure dependencies, projected emissions and any emissions that cannot yet reasonably be physically abated.

The development phase should establish whether the facility has a sufficiently credible and defined transformation pathway to justify a transition-aligned multi-year monitoring arrangement. It should not operate as an automatic entitlement to future flexibility. A facility should demonstrate why ordinary annual compliance, borrowing and an ordinary multi-year period are insufficient to accommodate the timing of the physical transition it proposes.

Once that threshold is met, a qualifying facility should be able to enter an enhanced multi-year period aligned with the evidenced project and transition timetable. The duration should follow the credible development, investment, procurement, construction, commissioning and ramp-up pathway. Longer periods should incorporate formal review and re-authorisation points so that Government retains oversight as the project progresses. This is consistent with the transition-aligned MYMP model proposed in the detailed consultation response.

The approved arrangement should also be capable of reflecting the timing of physical abatement. Where a major emissions reduction depends on a discrete future project, the facility trajectory could allow a lower decline before that step and stronger reductions once the relevant investment is commissioned and operating. The aggregate Safeguard task would remain disciplined even though the annual profile of an individual qualifying facility differs from the standard trajectory.

This flexibility should carry stronger accountability. The facility should report against agreed emissions and implementation milestones, disclose material changes to its pathway and undergo review at significant project stages. Any adjustment to the standard trajectory should reward physical transformation, with safeguards against artificial crediting. As set out later in this submission, a transition-aligned baseline adjustment should not itself generate tradeable SMCs, and borrowing should not be layered over the same compliance period.

The framework should also recognise that successful delivery of a major transformation project may still leave a defined residual emissions liability. Where further physical abatement is not yet reasonably available, those emissions should remain a transparent Safeguard obligation and be managed under the residual emissions and ACCU treatment proposed elsewhere in this submission. The MYMP aligns the timing of compliance with physical transformation; emissions that have not been physically removed remain a Safeguard obligation.

Where the pathway changes, the regulatory response should reflect why. Verified delays arising from grid connections, shared infrastructure, approvals, technology supply or other external dependencies should be capable of triggering a review of milestones where the underlying transformation remains credible. A facility that abandons an agreed pathway for reasons within its control should remain responsible for its compliance position and lose access to differentiated treatment where appropriate.

In summary, a transition-aligned MYMP provides the regulatory component of a wider facility transition arrangement. It aligns the timing of the Safeguard obligation with an evidenced physical pathway. Where delivery also depends on material actions by Government, infrastructure providers or other parties, those dependencies and corresponding commitments should be addressed through the reciprocal transition arrangements described below and the delivery architecture in Part II.

Recommendation 3: Provide transition-aligned MYMPs for qualifying facilities with evidenced transformation pathways.

The Safeguard framework should remove the prohibition on MYMPs extending beyond 2030 and allow qualifying facilities to enter enhanced multi-year arrangements aligned with credible development, investment, construction, commissioning and ramp-up pathways. The arrangements should preserve the cumulative emissions task, incorporate review and accountability milestones, prevent artificial SMC generation or overlapping borrowing, and retain a transparent obligation for residual emissions that have not been physically abated.

2.4 Retain effective compliance flexibilities unless there is evidence of a problem

The Safeguard Mechanism needs a credible and progressively tightening emissions constraint, but that does not require every existing compliance flexibility to be narrowed at the same time. ACCU use, SMC banking, borrowing and the Cost Containment Measure perform different functions within the scheme. They allow facilities to manage timing differences, operational variability, early over-performance and periods in which physical abatement is not yet reasonably available, while preserving the emissions obligation.

The reformed Safeguard Mechanism has only operated for a short period. Government should distinguish a demonstrated weakness in a flexibility mechanism from a concern that might arise under future conditions, and should change an existing mechanism only where evidence identifies a material problem and supports the proposed response. This does not mean that all changes should await further operating data. Elsewhere in this submission, AIDC identifies design problems that are already sufficiently evident to justify reform.

This is particularly important because the settings considered in this review will operate together. Tighter ACCU surrender rules, restrictions on banking or borrowing, changes to TEBA, broader coverage and a higher decline rate could materially change both facility compliance costs and demand for ACCUs and SMCs. Government should assess these interactions before concluding that any individual flexibility can be tightened without affecting physical abatement, carbon markets, competitiveness or investment.

Recommendation 4: Retain existing Safeguard flexibilities unless evidence demonstrates a case for change.

The Australian Government should retain SMC banking and borrowing beyond 2030, continue access to high-integrity ACCUs without introducing general new surrender restrictions, and retain the Cost Containment Measure with a credible post-2030 reserve strategy. International units should not be introduced through this review.

2.5 Assess Safeguard cost pass-through through industrial value chains

Higher carbon costs may be passed through in the price of energy, gas, transport, feedstocks or other industrial inputs. The effect depends on where that cost ultimately lands and the capacity of each party to absorb it if they cannot pass it on. An upstream producer may have substantial capacity to recover a higher Safeguard cost from customers, while a downstream industrial user may operate in a globally priced commodity market with far less capacity to recover the resulting increase. The same carbon cost can consequently have very different commercial effects as it moves through the value chain.

This is most relevant to the industries at the centre of AIDC's proposed transition framework. Steel, alumina, aluminium, cement, ammonia and chemicals are exposed in different combinations to import competition, export markets and global capital allocation. Their transformation already requires substantial expenditure on new production technology, energy systems and enabling infrastructure.

Additional input costs can affect margins, the economics of transformation projects, and the relative attractiveness of investing in the Australian asset.

Gas provides a useful example. Stronger Safeguard incentives may be justified where gas producers have physical emissions reduction opportunities that can reasonably be pursued. Higher costs may then flow through into the gas price paid by industrial users. For a facility relying on gas as a chemical feedstock, a source of high temperature heat or an essential transition input, that increase becomes part of its own Australian cost base. Its ability to recover the cost may be constrained by imported competitors, global commodity prices, or the economics of equivalent facilities overseas.

The Carbon Leakage Review assists in analysing these effects. Its work recognises that carbon costs can move through value chains and that competitive exposure may arise beyond the facility on which the original carbon obligation falls. It also demonstrates the value of quantifying those effects: in some value chains downstream impacts may be modest, while in others the combination of input intensity, trade exposure and carbon cost differences may create a material competitiveness risk.

Recommendation 5: Assess Safeguard cost pass-through and cumulative competitiveness effects through industrial value chains.

The Australian Government should assess where material costs related to the Safeguard Mechanism ultimately fall, including where costs imposed upstream are passed into strategically important and trade-exposed downstream industries. Post-2030 settings should be tested for their cumulative effect on production, transformation investment, import and export competitiveness and the location of future industrial capital.

2.6 Activate the reciprocal transition bargain

A credible Safeguard pathway does not by itself make an industrial transformation project investable. Many of the constraints identified in the preceding sections sit outside the reasonable control of the facility and cannot be resolved by increasing the carbon price signal.

For strategically important facilities with credible transition pathways, AIDC considers that these interventions should form part of a reciprocal transition bargain. Government would help address the specific barriers preventing an investable Australian transformation project. The facility, in return, would commit its own capital, pursue agreed physical decarbonisation outcomes and remain accountable for delivery.

The package should be tailored to the barrier. Depending on the project, the problem may lie in technology and integration, energy and feedstocks, enabling infrastructure, finance, operating economics or demand. Different problems require different interventions, and several may need to be resolved together.

Safeguard treatment and competitiveness protection may form part of the same investment package where relevant, but should address their distinct regulatory timing and leakage problems. A facility can face increasing compliance expenditure at the same time as it is being asked to fund substantial feasibility, engineering and development work for projects intended to reduce those future liabilities.

Government should examine whether some of the prospective financial value created by future physical abatement, including avoided Safeguard liabilities or future SMC generation, can support

credible development expenditure earlier in the project pathway. The objective would be to bring forward the engineering and development required to create physical abatement, while retaining clear company commitments and the integrity of the Safeguard emissions task.

At the other end of the transition pathway, Government could examine a tightly constrained transition reserve mechanism for qualifying facilities, under which access to Government-held ACCUs bridges an evidenced residual compliance liability while the facility progresses against agreed transition milestones. Any assistance should preserve the facility's financial responsibility for the liability, including through repayment arrangements where appropriate, and should not weaken the aggregate Safeguard task.

A facility receiving material flexibility or public support should be expected to provide a credible transformation pathway, commit material capital of its own, and meet defined feasibility, engineering, FID, construction and commissioning milestones. It should disclose material dependencies and project risks, report transparently on physical emissions and use of compliance units, and progress agreed commercial arrangements, including contracting for low emissions energy and feedstocks where these are material to the transformation pathway. It should also accept appropriate assurance, review and consequences where commitments within its control are abandoned.

The bargain should also recognise previous action. A facility that has already invested in physical abatement should not be disadvantaged when it reaches a subsequent and more difficult stage of transformation. Early action should retain value, while additional assistance should remain available where the next increment of abatement presents a demonstrably different technology, infrastructure or investment challenge.

Where several industrial pathways depend on the same emerging low emissions input, facility-level experience should also inform broader aggregation, supply development and demand creation measures capable of establishing a bankable market.

Recommendation 6: Establish reciprocal transition arrangements for foundational industrial assets and other facilities with a demonstrated public interest case and credible transformation pathways.

For foundational industrial assets, and other facilities where Government has identified a clear public interest in retaining or developing the productive capability, these interventions should form part of a reciprocal transition arrangement where a credible facility pathway exists. Government action should be matched to demonstrated barriers and may include technology and engineering support, enabling infrastructure, energy and feedstock arrangements, finance, revenue or market support and appropriate Safeguard treatment. The facility should commit material capital, agreed development and delivery milestones, transparent reporting and appropriate consequences for commitments within its control.

Part II: The industrial transition delivery architecture

Part I sets out how AIDC considers the Safeguard Mechanism should recognise credible industrial transition pathways.

This Part addresses the corresponding delivery task: what Government and industry need to do for those pathways to become real investment and physical abatement.

This Part comprises AIDC's response to consultation questions 3.1.1A and 3.1.1B (see page 59 for link to questions).

3. Define the industrial transition task

Australia has already assembled a substantial set of institutions, policy instruments and funding mechanisms for industrial decarbonisation. The Safeguard Mechanism creates a progressively tightening constraint on emissions from large facilities. Substantial public funding has been committed. ARENA, the CEFC, NRFC, NAIF and Export Finance Australia provide different forms of technology, project and financing capability. Future Made in Australia and sector-specific measures provide further support, while the Industry Sector Plan and other sector work describe the technologies and transition pathways expected over time.

Australia therefore has a substantial policy and institutional base for industrial decarbonisation. However, major gaps remain.

This is particularly important for foundational industrial capability, where productive capacity is concentrated in a small number of long-lived assets and deep decarbonisation can require major asset and system transformation. Government needs a much stronger understanding of the transition pathways of those facilities, the timing of their investment windows and the barriers to the next material decision. Where Government has a public interest in retaining or developing that productive capability, complementary policy should be organised around resolving those barriers and enabling credible projects to progress.

One major policy gap is the architecture to connect existing policy tools around real industrial investments. Government needs to identify what is preventing a credible project from reaching its next material decision and bring together the relevant responses early enough to change the investment outcome. Allocating funding to an individual program does not resolve the surrounding conditions required for investment.

Demand creation and market formation remain much less developed than supply-side funding and finance. Shared infrastructure can still be planned separately from the industrial projects that depend upon it. Technology and project development can lose continuity between research, demonstration, first commercial deployment and bankable investment. Companies often need to navigate multiple governments, agencies, regulators and financing institutions without a single process capable of assembling the required decisions around the project. Energy and feedstock availability and cost can remain unresolved even where technology and capital support exist.

Major industrial transformation also depends on several parts of the surrounding system becoming investable together. Those surrounding systems frequently support more than one end use.

Electricity and transmission can enable electrification and renewable hydrogen; hydrogen can in turn support ammonia, chemicals, fuels and metals pathways; ports, water, storage and other infrastructure can serve several industries. Policy should look through individual projects to the common upstream capabilities on which multiple industrial pathways depend.

3.1 Foundational industrial capability and the physical nature of transition

Industrial decarbonisation policy needs to distinguish between the emissions associated with an industrial activity and the productive capability embodied in the assets that undertake it. Australia has an interest in reducing industrial emissions across the economy. For some industries, there is an additional public interest in retaining, transforming or developing the underlying productive capability itself.

As noted above, AIDC describes this as **foundational industrial capability**. It is domestic productive capability that supplies materials or industrial inputs of enduring importance to the economy and the transition, and which would be difficult, slow or costly to recreate once lost. Steel, alumina, aluminium, cement, lime, ammonia and key nitrogen and phosphate fertiliser production provide clear examples. Other chemical, mineral processing and industrial capabilities should be assessed at the level of the specific capability.

Their products are basic inputs into construction, infrastructure, energy, transport, food production and other industrial activity, and demand for many of them will continue through and beyond the transition to a low emissions economy.

The relevant public interest attaches to the capability rather than to the company that happens to own it. Ownership can change, individual assets can reach the end of their economic lives, and incumbent production technologies may need to be replaced. Government should determine whether Australia has an enduring interest in retaining or developing the productive capability and, where it does, whether the transition framework creates a credible path from the current asset to lower emissions production.

In many cases that capability is concentrated in a small number of very large facilities. A foundational industrial asset may represent a material share of Australian production and sit within a wider industrial ecosystem of workforce, suppliers, customers, technical capability and enabling infrastructure. The productive capability embodied in that ecosystem cannot necessarily be recreated simply by building another plant after the existing one has closed. Loss of an anchor asset can also weaken the workforce, suppliers and infrastructure on which successor investment would depend.

This has important consequences for how industrial transition occurs. Deep decarbonisation of foundational industrial capability frequently requires **industrial asset transformation**: the major modification, reconfiguration or replacement of long-lived productive assets, together with the energy, feedstock and infrastructure systems required for them to operate at materially lower emissions. These investments can require years of technology development, engineering, approvals, commercial negotiation, infrastructure planning, construction and commissioning, and capital expenditure measured in hundreds of millions or billions of dollars. The physical transition therefore occurs through comparatively infrequent investment decisions, not as a continuous response to changes in the carbon price.

Carbon pricing remains essential. Emissions need to carry a meaningful and durable cost so that companies incorporate them into operating and capital decisions, undertake available abatement and face an increasing incentive to invest in lower emissions production. A progressively tightening constraint also provides an important signal about the direction of policy and the future economics of emissions intensive assets.

For the capabilities considered in this submission, long-term industrial retention and decarbonisation are also connected. Their future will be determined by whether companies can invest in competitive successor production as technologies, markets and global customer requirements change. Removing or materially weakening an Australian carbon constraint would not remove those wider pressures.

The effect of a carbon pricing signal depends on the physical response available to the asset at the time. AIDC describes this as the **actionable abatement frontier**: the set of emissions reductions a facility can realistically implement given the maturity and integrability of technology, the availability and cost of energy and feedstocks, enabling infrastructure, markets, finance, approvals and the relevant asset and investment cycle.

Carbon pricing can alter the economics of options within that frontier and encourage available abatement to occur. It cannot by itself make unavailable technology deployable or deliver the energy, infrastructure and markets on which the investment depends. Technology development, infrastructure, competitive energy and feedstocks, market formation, project development and finance can expand the actionable abatement frontier itself.

The timing of that expansion also matters to economic efficiency. Industrial climate policy is often framed around least cost abatement, but the least cost pathway to net zero cannot be identified solely by selecting the cheapest tonne available in each individual compliance period. Some future physical abatement depends on engineering, demonstrations, infrastructure, supply chains and market development that must begin years before the resulting emissions reductions occur.

Expenditure on those activities can therefore be part of an efficient transition even where it does not immediately reduce facility emissions. Failing to undertake it can leave future abatement options unavailable, immature or more expensive when deeper reductions are required. Government should assess the cost of the industrial transition through time, including whether current policy is creating the technology, infrastructure and investable projects required to expand the future abatement frontier.

Where the principal constraint is the relative economics of an available physical response, a stronger carbon price can call forward additional abatement. Where the next material reduction lies beyond the current actionable abatement frontier, a higher carbon liability may increase compliance expenditure, reduce margins, change production or affect future investment without materially accelerating transformation. Effective industrial decarbonisation policy therefore requires both a credible carbon constraint and a delivery architecture capable of expanding the physical options available to industry and bringing them to investable decisions.

Table 1 provides an indicative assessment of key industries. Foundational industrial capability is defined by the combination of characteristics and the public value embodied in the productive capability, not by facility size, emissions or corporate ownership alone.

Foundational industrial capability should be assessed at a level sufficiently specific to reflect the actual product, productive capability and industrial ecosystem concerned. Broad sector labels can conceal material differences. Ammonia production, fertiliser manufacture and individual basic chemical value chains, for example, may have very different roles in the Australian economy and should not be treated as a single category merely because they sit within the chemicals sector. Extractive industries can share several characteristics of foundational industrial assets, but the policy case may differ depending on the enduring role of the commodity, its relationship to domestic productive capability and whether the transition objective is to transform, develop, substitute or ultimately reduce the activity.

Capability	Enduring need	Foundational input	Concentrated/ hard to recreate capability	Industrial asset transformation	Deep infrastructure dependence	Indicative treatment
Steel	✓✓	✓✓	✓✓	✓✓	✓✓	Core foundational capability
Alumina	✓✓	✓	✓✓	✓✓	✓✓	Core foundational capability
Aluminium	✓✓	✓✓	✓✓	✓✓	✓✓	Core foundational capability
Cement/lime	✓✓	✓✓	✓	✓✓	✓	Core foundational capability
Ammonia	✓✓	✓✓	✓✓	✓✓	✓✓	Core foundational capability
Fertiliser	✓✓	✓✓	✓–✓✓	✓	✓✓	Strong foundational/ resilience case ¹⁶
Industrial explosives/ ammonium nitrate	✓	✓✓ for mining economy	✓–✓✓	✓	✓✓	Strong case where capability is strategically material
Critical- mineral processing/ refining	✓✓	✓✓	✓	✓	✓	Strong case where strategically material

¹⁶ Fertiliser production encompasses distinct value chains. Ammonia underpins the major manufactured nitrogen fertilisers, while Australia also retains significant domestic ammonium phosphate production at Phosphate Hill. Recent urea supply disruption and import dependence illustrate the additional resilience value of domestic capability. AIDC therefore assesses foundational significance at the level of the specific fertiliser production capability rather than treating all fertilisers as a single category.

Capability	Enduring need	Foundational input	Concentrated/ hard to recreate capability	Industrial asset transformation	Deep infrastructure dependence	Indicative treatment
Other basic chemicals and industrial intermediates	Product-specific	Product-specific	Product-specific	Varies	Varies	Assess separately
General mining	Commodity-specific	Commodity-specific	Varies	Varies	✓	Assess separately
LNG export	Transition-dependent	Limited domestic input role	✓✓	Different transition task	✓✓	Separate transition/public interest analysis

Table 2: Assessment of key industries

3.2 Use sector pathways as investment and delivery plans

The Australian Government's Industry Sector Plan¹⁷ and other credible sector pathways should increasingly operate as investment and delivery plans. The pathways already contain assumptions about when technologies, infrastructure, inputs, skills, finance and markets will need to become available.

Those assumptions have immediate investment consequences. Where Government expects material deployment within an identified transition window, the engineering, approvals, infrastructure, commercial arrangements, financing and corporate capital allocation required for real projects will generally need to be advanced well before that window begins. Government should work backwards from the expected transition windows to identify the material conditions, development activity and decisions that must occur early enough for the transition pathway to remain deliverable.

Recommendation 7: Use the Industry Sector Plan and relevant sector pathways as industrial decarbonisation investment and delivery plans.

Building on Recommendation 2, the Australian Government should use the Industry Sector Plan and relevant sector pathways as investment and delivery timetables, working backwards from expected transition windows to identify the material conditions, development activity and decisions required for real projects to be developed, reach FID and deliver the physical transformation Government is relying upon.

Sector pathways should also identify shared enabling requirements and points of convergence across projects and sectors so that common barriers can be addressed collectively rather than repeatedly at individual facilities.

¹⁷ Australian Government (2025) [Industry Sector Plan](#), Department of Industry, Science and Resources, 18 September, p. 15.

4. Understand the actual investment decision

Policy design can implicitly assume that where a large company has the financial capacity to fund a technically feasible decarbonisation project, public intervention is unnecessary. That overlooks how large companies actually allocate capital. They have competing divisional, operational, investment and shareholder priorities, and limits on the expenditure they can sustain where the commercial case remains weak or uncertain.

Companies have finite capital and allocate it carefully across sustaining investment, growth opportunities and decarbonisation projects, often across multiple facilities and jurisdictions. Those decisions are made within a wider global environment that can change quickly. Geopolitical shifts, commodity markets, energy prices, customer demand, the willingness of customers to pay for lower emissions products, the availability and cost of finance, and investor expectations can all affect whether a project remains attractive. A technically credible Australian project may therefore compete against investments with different risks, returns and strategic value elsewhere in the business.

Government should then understand the decisions available to the company. A rational response to an unattractive Australian investment environment may be to defer the transformation project, continue operating an existing asset through another capital cycle, or direct the next major investment to another jurisdiction. The company may remain profitable globally while the Australian facility progressively loses its place within the portfolio.

Further, major industrial assets operate through long capital cycles. Opportunities to fundamentally alter a furnace, kiln, process train or other major production system can arise only occasionally. Engineering, infrastructure, customer arrangements, finance and Government decisions need to be sufficiently advanced before that investment window closes. If they are not, the next opportunity for major transformation may be pushed out by many years.

For strategically important industries, earlier visibility of facility pathways and investment windows allows Government to understand which decisions are approaching and which external conditions need to be resolved while they can still affect the investment outcome. Where public action is justified, responsibilities should be clear: the company brings its capital, development work and delivery commitments, while Government addresses identified barriers requiring public coordination, infrastructure, policy certainty or appropriate risk sharing.

4.1 Industrial transformation happens at real facilities

Lower emissions investment in industrial transformation is rarely a simple technology substitution. It may require major integration with an existing production system, construction and operation of parallel systems during transition, or development of a successor asset while continuing to meet existing production and customer obligations. The engineering configuration of the facility determines much of the scale, sequence and risk of that investment, while the company must determine whether the resulting project can justify the capital required.

For example, replacing the existing source of hydrogen at an ammonia facility may require new electricity supply, storage and firming arrangements together with changes to the production process. At an integrated steelworks, a different steelmaking route may require a new source of metallic iron and substantial changes to surrounding plant and infrastructure. An individual

technology may therefore be proven while the complete facility configuration required to deploy it remains unresolved.

As engineering and development work progresses, additional equipment, infrastructure, shutdown, commissioning and operating requirements may emerge. These can materially change the cost, timing and feasibility of the pathway initially identified at sector level. Sector-level technical potential cannot be assumed to translate directly into deliverable physical abatement at an individual facility.

These implementation constraints remain relevant even where finance is available. Additional funding cannot remove a necessary engineering sequence, create an unavailable technology, eliminate commissioning and shutdown requirements, or make enabling infrastructure arrive earlier than it can physically be planned and constructed. Some industrial abatement is constrained principally by economics, and some remains constrained by time and physical deliverability even under a highly supportive investment scenario.

4.2 Asset cycles create decision windows

Large industrial facilities do not have a single predetermined end-of-life date. Their future is shaped by periodic decisions about whether to maintain, refurbish, replace, expand or retire major equipment and production systems.

These decisions create critical decision windows. As shown in Figure 1, a window may arise when major equipment requires replacement, an energy contract expires or substantial capital is needed to continue operating the asset. At that point, the company may extend the existing production route, undertake a major transformation, build a replacement asset, direct investment elsewhere or allow the facility to close.

The choices are made well before construction begins. Engineering, approvals, infrastructure commitments, financing and customer arrangements must usually be resolved in advance. Missing the relevant window may lock in the existing production route for another capital cycle, or result in investment being committed to another facility or jurisdiction.

Policy settings that materially affect long-lived industrial investments need to be visible early enough to influence technology selection, engineering and capital allocation. This is particularly important for decisions arising during the remainder of this decade and the early 2030s.

Where policy is subject to periodic review, those reviews should operate within a sufficiently durable long-term direction for companies to distinguish settings they can reasonably rely upon from matters that remain open to material change after capital has been committed.

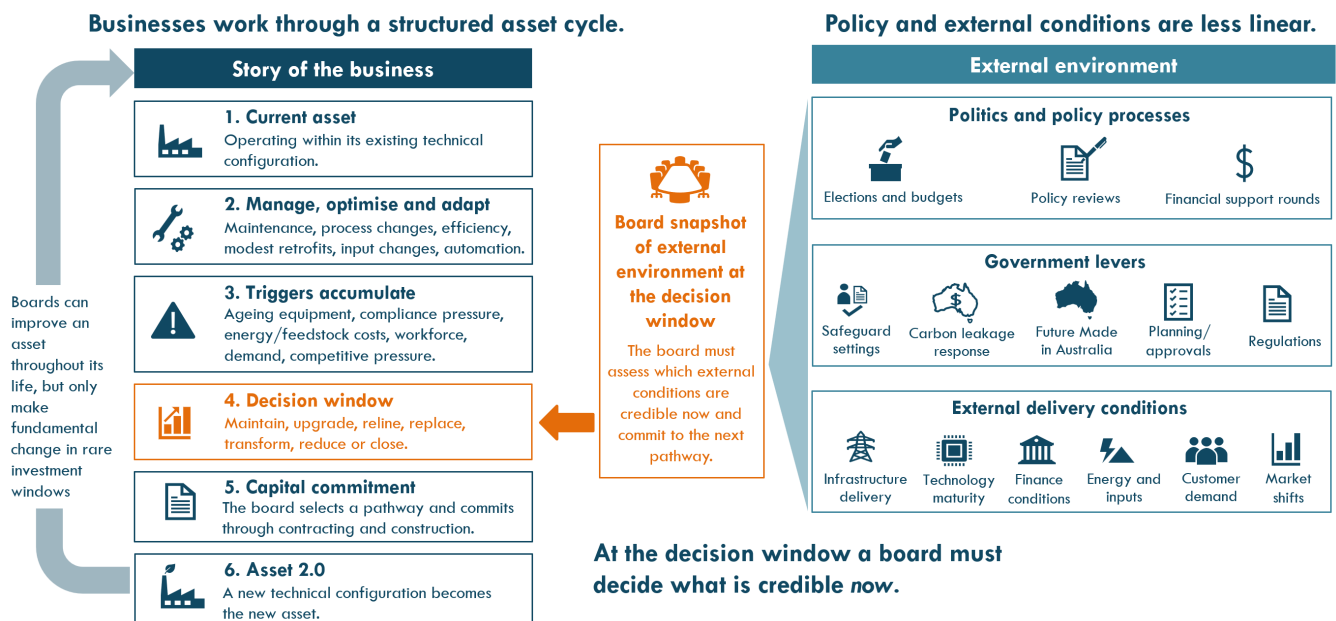


Figure 2: Asset cycles and decision windows

4.3 A carbon obligation only produces investment under particular conditions

A carbon obligation can improve the relative economics of investing in lower emissions production but cannot make a project investable by itself. Companies do not assess major decarbonisation projects solely by comparing an estimated abatement cost with a carbon price or expected compliance cost. They consider the total capital required, the expected risk-adjusted return, the risks of construction and integration, the effect on production and the future competitiveness of the facility.

As noted above, the project must also compete with other uses of capital within the company, including investments in other facilities and jurisdictions. A higher carbon liability can improve the relative case for lower-emissions investment while weakening the economics of the Australian facility expected to make that investment. If policy erodes the facility's commercial position before a credible transformation pathway is investable, both the facility and the transformation project may lose capital to competing assets or jurisdictions, even where a technically feasible pathway exists. This risk is compounded where carbon liabilities accumulate over several years without an equivalent carbon cost applying to competing production. Safeguard settings should strengthen the case for lower-emissions investment while preserving the commercial basis for undertaking that investment in Australia.

A project progresses towards investment as technical and commercial uncertainties are progressively resolved or allocated. Engineering, equipment testing, infrastructure commitments, approvals, customer arrangements and financing establish whether it can be built and operated on acceptable terms. A technically credible option may therefore remain a considerable distance from final investment decision.

A stronger Safeguard obligation is most likely to produce physical investment where the project can be delivered within the facility's capital cycle, the required infrastructure and inputs will be available, and

the resulting investment can meet the company's financial and commercial requirements. In those circumstances, the obligation may bring forward the project or improve its position within the corporate capital programme.

Where those conditions remain unresolved, the company may respond differently. It may rely on ACCUs or SMCs, undertake smaller operational improvements, defer the major project, direct capital to another asset, reduce production or allow the facility to close. The risk is greatest where an ageing or marginal facility is approaching a major reinvestment decision and an alternative capable of materially reducing emissions is not yet commercially available.

AIDC considers that where Government proposes to strengthen a carbon obligation to induce additional physical abatement, it should identify the investment or operational decision expected to change and establish that the relevant physical response can reasonably occur on the resulting timetable. Where the next material abatement step cannot yet be physically delivered, a higher interim compliance cost may still contribute to the national emissions task through unit surrender, but it should not be assumed to accelerate the unavailable facility investment.

Recommendation 8: Assess Safeguard and complementary policy settings against the facility investment decisions required to deliver credible sector pathways.

The Industry Sector Plan and relevant sector pathways should provide the overarching physical and temporal framework for industrial decarbonisation. The Australian Government should then assess Safeguard and complementary policy settings against the investment decisions through which those pathways must be delivered at real facilities.

That assessment should consider whether the physical abatement assumed by the sector pathway is available within the relevant investment window and whether the technology, energy, infrastructure, market and other enabling conditions required for the investment can be delivered in time. A stronger carbon obligation should not be assumed to produce additional physical abatement where those conditions are not yet available.

4.4 Facility pathways connect sector ambition to investment decisions

The Industry Sector Plan identifies five subsectors as accounting for almost 90 per cent of industrial Scope 1 emissions: alumina and aluminium, waste and resources recovery, iron and steel, chemicals and plastics, and cement and concrete.¹⁸ These include some of Australia's largest and most capital-intensive industrial assets.

Many of these assets were developed around particular sources of raw materials, energy, infrastructure, ports and skilled workforces, and they have evolved over decades through successive rounds of investment. Facilities within the same sector can therefore differ substantially in scale, age, production route, remaining asset life, access to infrastructure and the technologies available for transformation. A technically credible pathway for one facility may be unavailable, materially more expensive or require a fundamentally different replacement system at another.

¹⁸ Australian Government (2025) [Industry Sector Plan](#), Department of Industry, Science and Resources, 18 September, p. 11.

Facility evidence is needed to establish how sector pathways apply to individual assets, when relevant investment decisions arise and which external conditions must be resolved. Government does not need to replicate company engineering or investment processes. It does need sufficient understanding of them to assess whether scheme-wide obligations and complementary policy can translate into investable projects at the facilities expected to deliver the transition.

For the purposes of this paper, a facility transition pathway is a documented connection between the facility's emissions obligations, its physical options and the decisions required to deliver them. The pathway should draw on the company's engineering, commercial and investment work, and give government enough information to understand the proposed transformation and its dependencies without requiring officials to reproduce the company's technical assessment.

As set out in Section 2, detailed facility pathways should be used selectively, and can provide the foundation for an MYMP. Their wider role in the delivery architecture is to connect sector expectations to the actual investment decision, identify dependencies and provide an evidence base for coordinated action where required.

Recommendation 9: Use selective facility transition pathways to coordinate Government action around the barriers to be managed, the timing and stages of major industrial investments.

The Australian Government should use facility transition pathways selectively where a facility seeks differentiated Safeguard treatment, substantial public support or coordinated Government action, where an important investment window is approaching, or where the consequences for Australian production justify closer consideration.

The pathway should identify the proposed transformation, its timing, the next material investment decision and the major conditions on which delivery depends. Government should use that evidence to match action to the barrier and stage of the investment, addressing shared constraints collectively where possible.

5. Identify what is required to make the investment deliverable

Facility pathways provide the evidence needed to match government action to the barriers affecting a particular investment. They do not create an entitlement to government support. Their purpose is to identify the next material decision, what is preventing it, which matters remain within the company's control and which depend on infrastructure providers, other commercial parties or government.

A pathway should also show the order in which constraints must be resolved. A project may require several stages of engineering, infrastructure preparation, commercial negotiation and risk reduction before a final investment decision becomes possible. These barriers may include unavailable energy or infrastructure, first of a kind technology risk, insufficient customer demand, limited access to long term offtake and financing constraints. The appropriate response may involve infrastructure delivery, market or revenue support, public finance, demand measures or international market development.

Government and the company should make commitments proportionate to the stage of the pathway. The company should continue to develop the project, produce evidence, make timely decisions and retain responsibility for risks within its control. Government should provide durable policy settings and address barriers that an individual facility cannot reasonably resolve.

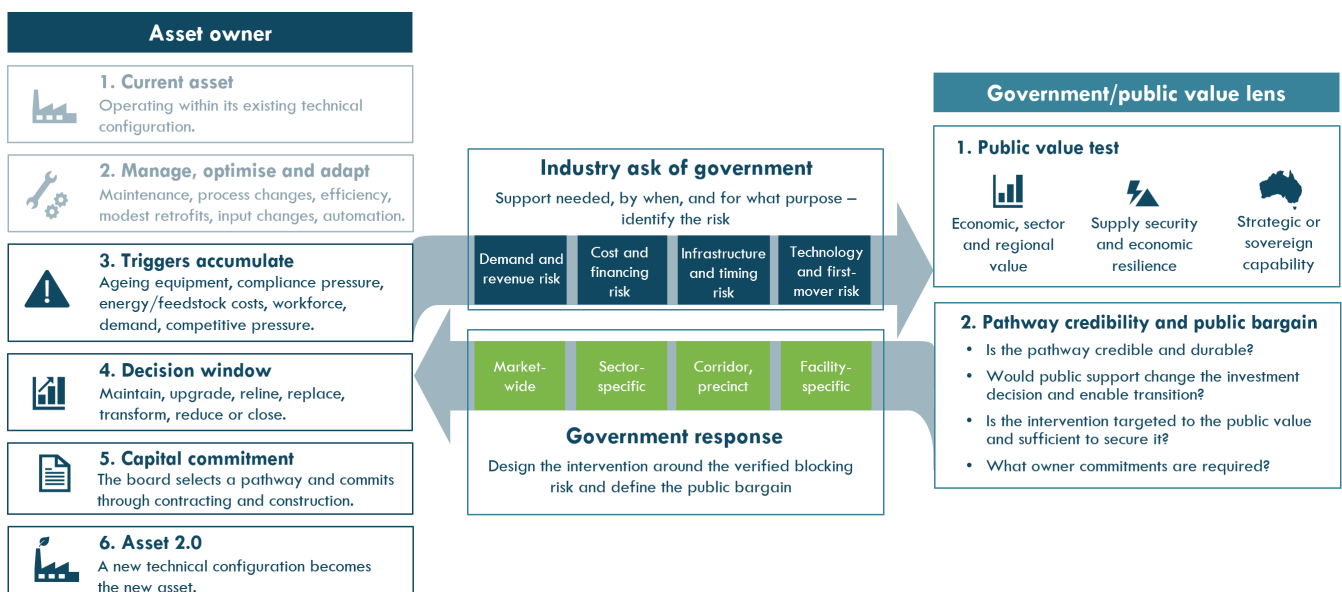


Figure 3: Mapping government interventions to investment risks

This approach allows government to act while an investment decision can still be influenced. It also provides a disciplined basis for considering early investment and first-of-a-kind activity where these create benefits beyond the immediate facility.

Where a barrier is common across a sector or group of facilities, Government should seek to address it at the highest practical level. A common requirement for additional transmission, a shared CO₂ network, an absence of demand for a new class of lower emissions products, or a technology development gap affecting several facilities should prompt a broader policy response. This can reduce

duplication, improve investment certainty and avoid requiring individual companies to solve the same structural problem separately.

At the same time, many of Australia's hardest to abate industries are highly concentrated. In some sectors there are only a small number of major facilities, each representing significant production, employment, infrastructure use and regional economic activity. Ultimately, the physical transformation occurs through investment decisions taken at those facilities.

The same physical pathway should inform the interaction between regulatory settings and complementary policy. Where a major industrial pathway involves a long period of development followed by a large step change in emissions, the evidence should identify both the regulatory treatment required during development and the complementary actions needed to make the physical project possible. Regulatory settings, infrastructure, finance, technology support and market development should be considered against the same investment pathway.

Table 3 over the page sets out the principal barriers and the types of policy response that may be relevant. It is a menu of available interventions. A facility may require one of them or several operating together, depending on the evidence and the stage of the investment pathway.

The table also illustrates why no single funding program or financing institution can provide the complete answer. A grant may reduce capital expenditure while the project continues to face an operating loss. Concessional finance may improve the capital structure while leaving customer demand unresolved. A revenue mechanism may give the project greater confidence about future earnings while technology or construction risks still prevent lenders from participating.

Main barrier	Specific investment problem	What it means in practice	Potential policy response
1. Development, technology and integration	Project development and engineering	A potentially credible pathway has not yet been sufficiently developed through feasibility, pre-FEED, FEED, testing and integration work to establish cost, configuration and deliverability.	Co-funded feasibility, pre-FEED and FEED; integration engineering; site and connection studies; supplier qualification; approvals and development support.
	Technology and integration risk	A pathway is technically plausible, but the technology, scale-up or integration into a particular operating asset remains unresolved.	Pilots, demonstration funding, first-of-a-kind risk sharing, supplier development, industrial testing and integration support.
2. Capital and risk allocation	Capital stack and financing risk	The investment is too risky, too long-dated or insufficiently attractive for conventional project finance or corporate capital allocation.	Grants, concessional debt, subordinated or mezzanine finance, equity, guarantees, blended finance and other forms of public risk sharing.
3. Operating economics, revenue and demand	Energy and feedstock price risk	Required electricity, hydrogen, gas, alternative fuels or other inputs leave production structurally uncompetitive even where physically available.	Input price support, feedstock underwriting, appropriately designed CfDs, production support, aggregation and long-term contracting.
	Revenue and price risk	Lower emissions production carries a premium and customers will not support the price required over the investment period.	Product or carbon CfDs, production credits, price floors, premium support and other revenue mechanisms.
	Volume and offtake risk	The price may be viable, but there is insufficient certainty that enough product will be purchased for long enough.	Government-backed offtake, minimum-volume guarantees, residual or buyer-of-last-resort backstops, buyer aggregation, procurement and demand obligations.
4. Enabling infrastructure and inputs	Energy and feedstock availability	Required energy, fuels, feedstocks or water are unavailable at the required scale, location or time.	Supply development, aggregation, enabling investment, coordinated energy/feedstock planning and long-term contracting.
	Common infrastructure risk	Several projects depend on transmission, ports, water, pipelines, CO ₂ networks or other shared assets carrying first-mover/utilisation risk.	Common user infrastructure, precinct/project SPVs, capacity underwriting, public co-investment, regulated access and connection commitments.
5. Policy, coordination and transition risk	Institutional and sequencing risk	A viable project depends on agencies, governments, networks and financing bodies making interdependent decisions in the right sequence.	Lead project teams, single intake, common evidence/due diligence, coordinated Commonwealth-state decisions, facility compacts and milestone-based case management.
	Competitive exposure and leakage risk	Carbon costs cannot be fully passed through; imports can gain market share; export competitiveness can weaken; or replacement and growth capital may be directed to another jurisdiction.	Commodity- or sector-based leakage treatment; TEBA or successor measures; BCA for relevant import exposure; export side measures; investment competitiveness support where justified.
	Safeguard timing and compliance risk	Physical abatement arrives later than the regulatory trajectory even where a credible transformation project is progressing.	Transition aligned facility pathways, longer MYMPs, appropriate treatment of residual emissions and targeted Safeguard flexibility.
	Carbon market and abatement value risk	Uncertain future compliance costs can weaken investment certainty, while uncertain SMC or avoided liability value may provide insufficient bankable revenue to support a major physical abatement investment.	Forward market risk management instruments, including Government-auctioned ACCU CfDs where appropriate; examination of targeted price floors, collars or carbon value underwriting.

Table 3: Barriers and options for government response

5.1 Development, technology and integration

Major industrial transformation begins well before FID. The Sector Pathways Review and Industry Sector Plan can identify promising technologies and broad sector pathways, but a facility owner still has to establish what can actually be built at a particular operating asset.

5.1.1 Project development and engineering

Project development can require substantial feasibility, engineering, testing and commercial work before the company knows what can actually be built, what it will cost and when it can be delivered.

The work can materially change the project. Engineering may establish that an apparently attractive pathway costs substantially more than first estimated, requires replacement of additional equipment, or cannot be delivered within the available shutdown window. It may find that a project needs a larger electricity connection, creates an unexpected production or product quality risk, or depends on infrastructure that will not be available on the required timetable. Issues can be as granular as the condition of existing equipment, the performance of a control system under full load, or whether an approval or connection can be secured before the next major shutdown.

This is what project development is intended to reveal; pathways should be expected to change as engineering improves the evidence. Spending several million dollars establishing that a preferred concept needs to be altered can be useful progress if it prevents an incorrect technical, timing or cost assumption being carried into an investment decision worth much more.

The engineering configuration also determines much of the investment proposition ultimately considered by the company. It establishes the capital requirement, infrastructure dependencies, delivery timetable, integration and production risks and the extent to which existing equipment may need to be replaced or stranded. It can also establish that a technology which is credible at sector level is not yet available at a particular facility on the timetable assumed in a sector pathway.

A facility's development expenditure is also competing for capital within the business. A project that repeatedly requires additional engineering while energy, infrastructure, technology, customers or policy assumptions remain unresolved can lose internal support well before a formal investment decision is reached.

Government support needs to be capable of reaching this stage where development work is necessary to establish whether a strategically important Australian transformation pathway is technically and commercially investable. For qualifying projects, this can include shared support for the engineering and development required to reach the next material decision.

There is also an opportunity to undertake development collectively where several facilities depend on the same enabling system or technology. Five industrial companies should not each need to commission separate studies of the same transmission augmentation, CO₂ transport and storage network, water system, port expansion or common hydrogen infrastructure. Shared engineering and development work can reduce duplication while giving government, infrastructure providers and industry a clearer view of what the broader system requires.

5.1.2 Technology maturity and integration

The development problem has a corresponding technology problem. Many of the emissions reductions identified in Australian industrial pathways depend on technologies that are still moving through research, demonstration, scale-up and first commercial deployment. Further, they essentially assume that the work required to move technologies forward will occur in the intervening years. However, the reality is more complicated and government engagement and support is vital.

Project development is one of the places where industrial innovation happens. Some pathways will use mature equipment that principally needs to be integrated into an existing process. Others will depend on technologies that still require demonstration, scale-up, system design and testing in an industrial environment. Feasibility and FEED can involve the facility owner, technology developer, equipment manufacturer and engineering provider working together to establish whether a new technology can perform the required function at the scale, reliability and cost needed for continuous industrial operation.

For Australian technology developers, this can be a critical part of the commercialisation pathway. A technology may have performed successfully in a laboratory, pilot or smaller demonstration while still lacking the industrial reference project required for widespread adoption. The first industrial user is then being asked to accept technology and integration risks that later customers will not face to the same degree. The developer may lack the balance sheet to carry those risks alone, while the facility owner has limited commercial reason to fund technology development that may ultimately benefit competitors and other industries.

Development expenditure can therefore become a barrier on both sides of the project. A facility may spend substantial amounts on feasibility and engineering before it knows whether the project will ever reach FID. A technology company may need further development, testing and demonstration before its solution can satisfy an industrial customer's technical and commercial requirements. Both are spending money before the investment proposition has become sufficiently certain for conventional finance.

This can involve very substantial expenditure. The Australian alumina decarbonisation roadmap, for example, assumes key decarbonisation technologies need to reach TRL 9 before full-scale refinery deployment.¹⁹ Its pathway includes pilot and demonstration activity through the 2020s, with indicative individual initiatives ranging from tens of millions to hundreds of millions of dollars, while major technologies including hydrogen and electric calcination are assumed to reach deployment later because of technical maturity, economics and development timeframes.

The gap between pilot and bankable industrial deployment is often described as the **missing middle**. Technologies and projects can reach a point where they are too advanced or capital intensive for the forms of grant support that helped establish the initial technology, while remaining too technically or commercially risky for conventional project finance. This is particularly acute around later demonstration, first-of-a-kind deployment and the pre-FID work required to establish a commercial project.

¹⁹ Deloitte Touche Tohmatsu (2022) [A Roadmap for Decarbonising Australian Alumina Refining](#), in collaboration with the Australian Renewable Energy Agency, and in consultation with participants Alcoa, Rio Tinto and South32 November.

The form of support needs to change as the technology and project mature. Early development may require grant support and shared engineering, while later demonstration and first commercial deployment may require risk sharing, recoverable finance, guarantees or other forms of capital capable of carrying risks conventional finance will not yet accept. A credible technology pathway needs continuity between these stages, not a series of disconnected funding opportunities.

5.2 Capital and risk allocation

Once technology and engineering are sufficiently advanced, a remaining problem may sit in the way the investment is financed and the risks allocated between the company, lenders, investors and Government.

Conventional senior debt works best where future cash flows and project risks can be assessed with reasonable confidence. Industrial transformation can involve first-of-a-kind technology, long construction periods, integration into operating assets, uncertain markets and policy or infrastructure dependencies that are difficult for conventional lenders to price. Some projects consequently reach a point where they are too large or commercially advanced for conventional grant support while remaining too risky for senior debt. The missing middle described above is therefore also a financing problem.

The financing response needs to reflect the risk preventing the project from proceeding. Depending on the circumstances, this could involve concessional senior debt, subordinated or mezzanine finance, equity, preferred equity, guarantees, first-loss capital, standby facilities, blended finance or export finance. The CEFC, NRFC, including the Net Zero Fund, NAIF and Export Finance Australia collectively provide significant capability across these areas, although the investment structure may need to draw on more than one institution or instrument.

The form of support also needs to reflect when the project incurs costs and when value is created. Tax concessions and other measures linked to future income can be valuable for established businesses and projects with a clear route to revenue. They provide much less help where a new project is pre-revenue and needs substantial expenditure on development, demonstration, construction or commissioning before taxable income exists. In those circumstances, access to capital and the allocation of early project risk may determine whether the project reaches the point at which a tax incentive has any value at all.

Where public value justifies intervention, Government needs the capacity to take defined and bounded risks where doing so changes the Australian investment proposition. This may include accepting a subordinated position so that senior lenders can participate, providing a guarantee against a defined construction or delivery risk, investing equity where debt is inappropriate, or providing concessional capital over the period required for an emerging project to reach commercial operation.

The transition bargain remains important to this approach. The company should have meaningful capital at risk and retain the commercial risks within its control. Government support should respond to a substantiated barrier and be linked to agreed development, investment and delivery milestones.

Recommendation 10: Build a continuous support pathway through project development, engineering, demonstration and first commercial deployment.

The Australian Government should recognise project development, engineering, demonstration and first commercial deployment as distinct investment stages in industrial transformation. For qualifying projects, support should be capable of progressing through feasibility, pre-FEED, FEED, integration engineering, industrial testing, demonstration and the work required to reach FID. This must fill the missing middle between an isolated early-stage grant and concessional financing at FID.

The form of support should change as the project and its risks mature. Depending on the barrier and stage of development, this may include co-funded development and engineering, grants or recoverable support, concessional debt, subordinated or mezzanine finance, equity, guarantees, blended finance and export finance.

Public support should be linked to the evidence expected from each stage, agreed milestones and meaningful company commitments. Projects should be able to progress, redesign or stop as evidence develops, without treating a change in the preferred pathway as a failure where the development work has produced useful information.

5.3 Operating economics, revenue and demand

5.3.1 Input and operating cost gaps

For some transformation projects, the principal barrier is the cost of the inputs required to operate the lower emissions production route. Electricity, renewable hydrogen, alternative fuels, sustainable feedstocks or other inputs may be technically available while remaining too expensive for the resulting Australian product to compete with incumbent production or imports.

This is different from a capital problem. A grant or concessional loan can reduce the cost of constructing the asset, but it does not remove a persistent disadvantage in electricity, fuel or feedstock costs over decades of operation. Where that operating gap is sufficiently large, the project may remain uninvestable even after substantial capital assistance.

The policy response should address the source and duration of the cost gap. Depending on the circumstances, this may involve measures to improve the underlying supply and cost of the input, long-term contracting or aggregation, targeted support for input costs, production support, or a contract structure that shares an identified cost differential while the new supply chain develops. Any support should be designed around the actual commercial gap and capable of reducing as scale, technology maturity and input markets improve.

5.3.2 Product price and revenue risk

For some industrial transformation projects, the principal problem remains after the capital has been raised. The lower emissions production route may carry a persistent disadvantage in operating costs, or produce a product that customers are unwilling to purchase at the price required to support the investment.

Capital assistance alone cannot make that production bankable over the life of the project. Long-term revenue mechanisms can be used where Government has identified a public interest in bringing

forward the investment and the underlying project has a credible route to competitive production over time. Relevant mechanisms include production credits, revenue floors, premium support and contracts for difference.

The term ‘contract for difference’ is now being used for several distinct policy functions:

- An industrial **product or green premium CfD** can bridge an agreed gap between the price required for lower emissions production and an external product benchmark.
- A **carbon contract for difference**, or CCfD, can support an industrial transformation against the carbon price or avoided emissions value required to make the investment economic. Germany's CCfD program provides one example of this approach, using long-term climate contracts to address the additional costs and price risks associated with lower emissions industrial production.²⁰
- An **ACCU forward-price CfD**, such as that proposed by IGCC and EY,²¹ could also be characterised broadly as a carbon-linked CfD, but it operates differently. It is directed primarily at future ACCU price risk and forward price visibility, using Government-backed forward contracts to give market participants greater confidence about future carbon values. This may support industrial investment, while a particular transformation project may still require separate support for its capital costs, operating economics or product market.

A further possible application is targeted underwriting of the future carbon value created by new physical abatement. Where a major project is expected to reduce a facility below its future baseline, uncertainty about the future value of SMCs or avoided compliance liabilities may limit the extent to which that value can support the investment case. A floor, collar or contract linked to qualifying incremental physical abatement could reduce that downside risk. Any such mechanism would require careful design to distinguish prospective value created by new physical abatement from general support for the existing stock of SMCs.

The useful problem to solve is what underlying price or revenue risk is preventing investment. A low emissions iron project with a continuing green premium presents a different commercial problem from a facility seeking confidence about the future ACCU price. A renewable ammonia project may in turn be constrained by the cost of its input, its final product price, its customer contracts, or a combination of all three.

Any mechanism should be designed around the demonstrated commercial gap and reduce as that gap closes. Where the operating gap declines as the technology matures, input costs fall or a market develops, the support should be capable of declining with it.

5.3.3 Demand policy and market formation

AIDC considers demand policy to be one of the least developed parts of the current industrial decarbonisation architecture.

²⁰ Amelang, S. and Wehrmann, B. (2024) [‘Germany awards first companies with pioneering ‘climate contract’ scheme to slash industry emissions’](#), *Clean Energy Wire*, 15 October.

²¹ Investor Group on Climate Change (2026) [Futureproofing Industry Investor Priorities for a Reformed Safeguard Mechanism](#), modelling by EY, 17 August.

Australia has made considerable use of supply-side assistance through grants, financing and production support, while demand measures for many emerging industrial products remain limited. This creates a recurring problem for projects seeking to finance first commercial production. Investors need confidence about the volume customers will buy, the price they will pay, the duration of the commitment and the credit quality of the counterparty. Government can help fund a technology and contribute to a production asset, but the project will remain difficult to finance if customers are unable or unwilling to enter contracts of sufficient scale and duration.

Price and volume also need to be considered separately. A product CfD may help close a green premium while leaving uncertainty about how much production will actually be purchased. Where volume is the problem, Government procurement, minimum volume commitments, anchor offtake, buyer aggregation, buyer-of-last-resort structures, carefully designed mandates or obligations, and other forms of demand creation may be required. Their design should also preserve a credible route for emerging alternatives rather than concentrating demand and infrastructure support around incumbent pathways in ways that make new options harder to establish.

Bilateral and international market arrangements may be particularly important where the scale of Australian production requires export markets.

Recommendation 11: Match operating cost, revenue and demand support to the commercial gap preventing investment.

The Australian Government should distinguish between persistent input and operating cost gaps, product price and revenue risk, and volume or offtake risk when designing support for industrial transformation. These are different commercial problems and should not be treated as interchangeable.

Support should be matched to the actual gap preventing investment and reduce as that gap closes. Government should address common market problems collectively where possible and use facility pathways to identify residual barriers affecting major individual investments.

6. Develop shared enabling conditions where the problem sits beyond the facility

Major industrial transformation depends on enabling systems that extend beyond the individual project and, in many cases, beyond the control of the facility owner. A technically credible and appropriately financed project can still fail if the energy, fuels, feedstocks, technology capability, shared infrastructure or workforce it requires are unavailable, arrive too late or leave Australian production structurally uncompetitive. Wider fiscal settings can also strengthen or weaken the investment case.

These are systemic enabling conditions. Where several facilities depend on the same input or infrastructure, requiring each project to resolve the problem independently can increase cost, delay investment and leave first movers carrying risks whose benefits will ultimately be shared more widely.

Government needs to develop the enabling system alongside individual transformation projects. Sector and facility pathways can provide evidence about the scale, location and timing of future requirements, allowing energy, technology, infrastructure and fiscal policy to be planned around the industrial investment they are intended to enable.

These dependencies can also be understood across value chains. Several downstream transition pathways may have a common lineage in the same upstream capability: renewable electricity can support direct electrification and renewable hydrogen; hydrogen can support lower emissions ammonia, chemicals, fuels and metals; common ports, water, storage, carbon infrastructure and technical capabilities can support multiple industrial activities. Investment in a shared upstream capability can expand the actionable abatement frontier across several sectors at once. Complementary policy should identify these common enabling nodes and assess their value across the industrial pathways they can unlock.

6.1 Competitive energy and feedstocks

Energy policy is industrial policy for energy-intensive manufacturing. For many industrial facilities, decarbonisation involves electricity replacing fossil fuels currently used for process heat, steam, calcination or other production requirements. This can substantially increase the electricity demand of an alumina refinery, metals processor, chemicals plant or other large industrial facility compared with its existing load. Pathways involving renewable hydrogen, electrified feedstock production or other lower emissions inputs can increase electricity requirements further, whether that electricity is consumed at the facility itself or upstream in the production of the new feedstock.

The availability of an electrification technology establishes only part of the pathway. The facility also needs access to sufficient electricity, with the required reliability and at a delivered price compatible with internationally competitive production. That means adequate generation and firming as well as the transmission and connection capacity required to deliver the energy. The infrastructure implications are considered separately below; the immediate issue here is whether the energy itself will be available on commercially workable terms and on the timetable required by the industrial investment.

Government is undertaking a major electricity build-out through the Capacity Investment Scheme.²² This system wide investment is important, although aggregate generation capacity does not by itself establish the investment conditions facing an industrial facility.

For the facility, the questions are considerably more specific. It needs to know whether sufficient electricity will be available when the transformed process requires it, and how that supply will be firmed to meet the operating requirements of the plant. There must be clarity on what the resulting energy, firming and network costs will be, and whether the company can secure sufficiently durable commercial arrangements to support an asset expected to operate for decades. A company making a major capital decision cannot rely only on an expectation that additional renewable generation will enter the system over time.

This is particularly significant for industries exposed to international competition. Australia may have an abundance of renewable energy resources and a technically credible electrification pathway, while an individual manufacturer still faces a delivered electricity cost that makes the transformed product less competitive than production in another jurisdiction. Industrial decarbonisation policy needs to consider the cost of the energy system experienced by the industrial user, instead of treating additional generation capacity as a sufficient proxy for industrial energy competitiveness.

Gas presents a different but related challenge. For some facilities it remains a chemical feedstock as well as a source of process heat. For others it can provide high-temperature heat, firming or a transitional energy source while alternative systems are developed and deployed. Its role will change at different rates across sectors and facilities, particularly where the alternatives depend on technologies, infrastructure or feedstocks that are not yet commercially available at the required scale.

There is also an important interaction between the economics of existing gas-dependent industrial production and the development of lower emissions alternatives to natural gas. High gas prices can improve the relative economics of renewable hydrogen or electrification while simultaneously weakening ammonia, chemicals and other industrial facilities that may later transition to those pathways. If those facilities become uncompetitive before the alternative is investable, Australia can lose the customers, skills, infrastructure and productive capability needed to support the transition.

Government is now developing the national Domestic Gas Reservation Scheme,²³ which AIDC supports in principle. The industrial policy test will be whether the new arrangements give trade-exposed industrial users practical access to the volumes they require on commercially workable terms during the period in which lower emissions alternatives are developed. The reservation of physical supply will only achieve its industrial objective if manufacturers can contract for that supply at prices and on terms that support continued Australian production and investment.

²² Australian Government, Department of Climate Change, Energy, the Environment and Water (2026) [Capacity Investment Scheme](#), updated 24 June 2026. The CIS targets an additional 40 GW of capacity by 2030, comprising 26 GW of renewable generation and 14 GW of clean dispatchable capacity, and is expected to support around \$73 billion of investment in the electricity sector.

²³ Australian Government, Department of Industry, Science and Resources (2026) [Domestic Gas Reservation Scheme draft design framework: have your say](#). The announced scheme will require LNG exporters to supply the domestic market with gas equivalent to 20 per cent of export volumes, with obligations expected to commence on 1 July 2027. The final design remained under development at the time of writing.

The same approach should apply to other emerging fuels and feedstocks. Renewable hydrogen, renewable gases, low carbon liquid fuels and other lower emissions inputs will have different roles across industrial pathways, and their value cannot be assessed independently of availability, price, scale and the timing of the assets expected to use them. Government support for new supply should be linked to a realistic understanding of where industrial demand will arise and what conditions users require before they can commit to a new input.

Recommendation 12: Integrate industrial energy and feedstock requirements into energy and fuel system planning.

The Australian Government should use sector, regional, precinct and facility pathways to identify material industrial energy and feedstock requirements and when they will arise.

Energy and fuel policy should be tested against whether industrial users can secure the inputs required for credible transformation projects on commercially workable terms within the relevant investment window. Aggregate supply targets should not be treated as proof that those conditions exist at the facility.

6.2 Technology development

As discussed in section 5.1.2, industrial pathways can depend on technologies that are not yet commercially ready. Where a sector pathway assumes commercial deployment in the 2030s, Government should be able to establish whether the development, demonstration and first commercial deployment required to reach that point is actually occurring.

The recent *Ambitious Australia: Strategic Examination of Research and Development* provides a useful framework for this task.²⁴ Its proposed architecture seeks stronger continuity between foundational research, translation, development and commercialisation, with different forms of support as technologies progress. It also identifies weaknesses in support for deployment, scale-up and access to capital across the innovation cycle.

There is therefore a risk that Australia's industrial pathways identify the technologies required for future decarbonisation without a corresponding funded pathway for bringing those technologies to commercial readiness. The risk is greatest where the sector pathway itself assumes substantial technological progress before the major emissions reductions occur.

Government should be able to take each important technology assumption in the Sector Pathways Review and Industry Sector Plan and identify what is required to make it true. That should include the current technology readiness level and the research, pilot, demonstration and scale-up steps still required. It is important to also understand indicative cost and timing, the first commercial deployment opportunity, and the industrial partners needed, as well as manufacturing and supply chain requirements and available funding at each stage. Where the same technology or technical capability contributes to more than one sector pathway, its public value should be assessed across those applications, not solely against the first project or sector in which it is deployed.

²⁴ Australian Government, Department of Industry, Science and Resources (2026) [Ambitious Australia: Strategic Examination of Research and Development - Final Report](#), March.

Where that exercise reveals an unfunded stage, it should be treated as a policy gap and not be assumed to be resolved by the market. The answer may involve ARENA or another grant program at one stage, industry co-investment at another, public risk sharing for first deployment, and commercial finance once the technology has reached sufficient maturity. Different technologies will require different pathways.

For Australian technology developers, equipment suppliers and industrial innovators, this also creates a clearer route into industrial decarbonisation policy. Their role is wider than supplying equipment once a facility has reached FID. They are part of the process through which new industrial solutions are developed, demonstrated, integrated, qualified and eventually made bankable for customers.

A stronger approach would connect the R&D and innovation system directly to the industrial pathways Government is already relying upon under the Safeguard Mechanism. Technology priorities should be informed by the barriers emerging from real facilities, while facility pathways should be able to draw on Australian research and technology capability where new solutions are required. Successful demonstrations should have a clear route into first commercial deployment without starting a new funding process from scratch.

6.3 Common user infrastructure

For many industrial facilities, major obstacles to transformation sit outside the factory gate. New production pathways can require significant infrastructure that an individual facility cannot efficiently develop alone.

Further, even where parties are able to fund infrastructure themselves, planning around each project separately can substantially increase the cost of the transition. It can lead to duplicated assets, competing land corridors and connection requests, inefficient use of ports and other constrained infrastructure, and systems designed around the requirements of the first project, rather than the longer-term needs of an industrial region.

The Pilbara provides a particularly strong example. Analysis by Marsden Jacob Associates for the CEFC found that a common user approach to transmission could save more than \$30 billion over 25 years compared with a go-it-alone approach. This included around \$4 billion in lower transmission capital expenditure and up to \$26 billion in lower generation and storage expenditure. The common user model also required around 29 per cent less new transmission line and 16 per cent less renewable generation and storage capacity.²⁵

The same principle extends beyond electricity. Common water systems, ports, pipelines, storage and CO₂ networks can serve several industries and production pathways over decades. Planning these assets around their wider industrial function can reduce duplication and give new projects a clearer route to the services they require. It can also prevent public and private investment being locked too early into infrastructure designed for one technology or one user when the region is expected to support a broader industrial transition.

²⁵ Marsden Jacob Associates (2025) [Common user transmission and decarbonising Pilbara energy demand](#), report prepared for the Clean Energy Finance Corporation, September.

Government should identify common infrastructure requirements through sector, regional, precinct and facility pathways early enough for development to proceed alongside the industrial projects that will depend on them. This requires a view of likely users and timing, the capacity ultimately required, what needs to be available for the first projects, how the system can expand, and who will be responsible for development, approvals, financing, ownership and operation.

There is a genuine sequencing problem. An industrial company cannot reasonably commit hundreds of millions or billions of dollars to a transformed production process while essential transmission, water, pipeline or port infrastructure remains uncertain. Government and infrastructure providers are likewise reluctant to commit substantial capital before industrial users reach FID. The resulting circularity can prevent both investments: the first industrial project cannot carry the cost and utilisation risk of the common asset, while later projects remain uncertain because that infrastructure does not yet exist.

Government needs to be prepared to break that cycle where there is a credible industrial case and sufficiently developed prospective demand. Depending on the asset, this could involve funding early development work, taking an equity position, underwriting initial or excess capacity, providing guarantees, or staging public investment as industrial commitments become firmer. The first project should not be required to fund infrastructure whose value will ultimately be shared across a much larger industrial system.

A special purpose vehicle can provide a practical structure for doing this. An SPV established for a precinct or particular group of shared assets can develop, finance, own or operate transmission, water, port, pipeline or storage infrastructure while the industrial companies using it remain separate businesses. Government, infrastructure providers and industrial users can then invest in or contract with the vehicle according to their respective roles.

Government investment institutions and project SPVs would perform different functions within this model. CEFC, NRFC, NAIF and Export Finance Australia can provide finance and take different forms of project risk, while ARENA can support technology and project development. An SPV provides the ownership, governance and contracting structure around the shared asset itself. A common infrastructure project may draw finance from one or several public institutions while being developed through a separate vehicle established for that asset or precinct.

The commercial arrangements need to be established from the outset. Common user infrastructure should have transparent access and tariff arrangements, principles for allocating capacity, a process for accommodating later users and clear triggers for expansion. Otherwise, infrastructure developed with public support to enable a precinct can effectively become captive to its first users and recreate the access problem the common user model was intended to solve.²⁶

There is also a strong case for linking public infrastructure commitments to the investment decisions of the facilities they are intended to support. A facility compact could establish a series of reciprocal milestones: Government or an infrastructure vehicle progresses land, engineering, approvals, finance

²⁶ Australian Hydrogen Council (2025) [Inquiry into the role of Western Australia in the global effort on decarbonisation](#), submission to the Economics and Industry Standing Committee, October, pp. 23-30.

and construction as the industrial company progresses feasibility, FEED, FID and plant construction. Each side obtains increasing certainty before making the next major commitment.²⁷

This allows Government to avoid building large speculative assets without credible users while addressing the equally serious risk that industrial companies are expected to reach FID on the assumption that essential infrastructure will eventually arrive. It also provides a mechanism for designing the first stage of an asset with later expansion in mind where sector and precinct pathways indicate that further industrial demand is likely.

Recommendation 13: Support the delivery of common user industrial infrastructure.

The Australian Government should identify common infrastructure requirements early enough for development to proceed alongside the industrial investments they are intended to enable.

Where credible demand exists but no individual user can efficiently carry the development or first mover risk, Government should be prepared to support a shared delivery model, including through an SPV where appropriate. Publicly supported infrastructure should preserve fair access for later users and, where useful, link public and private investment milestones so that certainty increases on both sides as projects progress.

6.4 Workforce and industrial capability

Industrial transformation also depends on people and capabilities that cannot be created when a project reaches FID. Major projects require engineering, project management, construction, electrical and mechanical trades, commissioning capability, specialised technical skills and experienced operators across development, construction and operation.

These capabilities are already under pressure across the wider economy. Infrastructure Australia identifies labour as a major delivery constraint across Australia's infrastructure pipeline, with particular pressure on construction, engineering and technical occupations.²⁸ The clean energy sector is competing for many of the same workers needed for industrial decarbonisation, including electricians, engineers, construction managers and specialist trades.

For industrial projects, workforce availability is another delivery dependency that needs to be considered against the investment timetable. A project may have secured technology, capital, energy and infrastructure and still be unable to proceed on schedule if the engineering, construction or commissioning workforce cannot be assembled when required. This is particularly important in regional industrial centres, where several energy, infrastructure and industrial projects may draw on the same labour pool at the same time.

²⁷ Australian Hydrogen Council (2026) [2026–27 Pre-budget submission](#), submission to Treasury, January, pp. 2-3; 7-8.

²⁸ Infrastructure Australia (2025) [2025 Infrastructure Market Capacity Report](#), November, particularly the Executive Summary and section 3. Infrastructure Australia identifies labour as the most critical infrastructure delivery risk and projects the workforce shortage could reach around 300,000 by 2027, with regional areas particularly exposed.

The Australian Aluminium Council has made the related point that the workforce requirements of transformational abatement projects and emerging industries should not be underestimated.²⁹ Electrification alone will increase demand for electrical engineers, electricians, process-control engineers and other technical occupations across multiple sectors. The Council also notes that retaining existing industrial operations helps retain a trained and adaptable workforce capable of supporting future industrial opportunities.

This reinforces the wider industrial capability argument in this paper. Existing facilities are repositories of engineering knowledge, operational experience, supplier relationships, maintenance capability and skilled workforces developed over many years. Losing an industrial asset can remove capabilities that would otherwise support its own transformation, successor investment or the development of related industries in the region.

Workforce planning should form part of sector, precinct and facility pathways in the same way as energy and infrastructure planning. A more coordinated pipeline can also reduce boom-and-bust construction demand and give employers and training providers greater confidence to invest in skills ahead of need.

6.5 Fiscal settings

Industrial decarbonisation policy interacts with a much wider set of tax and expenditure settings. Government should consider these settings alongside Safeguard obligations, public finance, infrastructure support and energy policy, particularly where substantial public investment will be required to bring forward changes in industrial technology.

This is ultimately a question of priorities within a constrained public balance sheet. Government is being asked to commit substantial public resources to transform emissions intensive industry. It is reasonable to reconsider the scale and distribution of existing fiscal support where doing so can both strengthen the incentive for physical transformation and help fund the public investment required to deliver it.

Recommendation 14: Review fiscal settings for consistency with industrial decarbonisation objectives.

The Australian Government should review material tax expenditures and fiscal settings where they may weaken incentives for industrial transition or work against substantial public investment elsewhere in the decarbonisation policy suite. Where changes are justified, Government should consider how any resulting savings could support the industrial transition.

²⁹ Australian Aluminium Council (2026) [Preparing for emerging industries across Northern Australia](#), submission to the Joint Standing Committee on Northern Australia, January. The submission addresses training, attraction and retention of skilled workers and argues that retaining existing industrial capability is important to the development of emerging industries.

7. Organise delivery around shared pathways and reciprocal commitments

The investment required to transform an existing industrial facility can extend across several businesses and assets before the resulting emissions reduction appears within the facility boundary. New industrial opportunities create the same coordination problem. Lower emissions processing, fuels, feedstocks and materials may depend on infrastructure, customers, finance and technology that sit outside the project itself and, in some cases, outside Australia.

Government has an important role where those dependencies involve public infrastructure, regulation, policy, public finance, international relationships or coordination between parties that cannot reasonably solve the problem alone. The earlier chapters of this paper identify how those barriers should be diagnosed and the interventions that may be required. Government then needs a practical way of assembling those decisions around the investment.

Australia already has many of the institutions needed to do this. Relevant capability sits across Commonwealth departments, state and territory governments, regulators, ARENA, the CEFC, NRFC, NAIF, Export Finance Australia, infrastructure providers, Austrade and Australia's international network. The challenge for a major industrial investment is that these institutions have different responsibilities, processes, evidence requirements and decision timetables. A company should not have to build the machinery of Government around its project before Government can consider the investment proposition.

Australia is also competing internationally for the capital required to renew existing industry and build new industrial capability. Resource abundance creates an opportunity for investment, but the surrounding conditions still determine whether an Australian project is competitive for capital. For a multinational company, Government's ability to resolve a material uncertainty within the relevant investment window can affect where the next asset is built.

7.1 Government needs a shared view of project progress, barriers and lessons

Industrial decarbonisation policy is already generating substantial information about what enables projects to progress and what prevents them from doing so. ARENA programs, Hydrogen Headstart, public financing institutions, sector initiatives and direct project engagement all produce evidence about technology performance, project development, infrastructure, energy and feedstocks, customers, financing and other conditions affecting investment.

The value of that information extends beyond the individual program or technology through which it was generated. A project may reveal that the principal barrier is the cost or availability of electricity, an unresolved infrastructure dependency, integration risk, an inability to secure customers or a financing problem. Those lessons remain relevant even if the particular project changes technology, is redesigned or does not proceed, and even as Government priorities move between different technologies, fuels and industrial products.

Government should retain and share relevant project learning across departments, programs and institutions, subject to appropriate protection of commercially sensitive information. Projects should

not repeatedly be required to establish matters that Government has already learned, and policy design should be able to draw on evidence generated through earlier programs and technologies where the underlying industrial problem is the same.

This also requires a view of what happens after support is announced. Government should be able to see whether material projects are progressing towards investment, construction and operation, where otherwise credible projects repeatedly stall, and whether recurring barriers point to problems in infrastructure, energy and feedstocks, technology development, demand, finance or another part of the policy architecture. The purpose is to improve the targeting of Government action, not to create an additional reporting regime.

The facility transition pathways proposed in this paper should form part of this wider evidence base. They would be used selectively where an important facility requires differentiated treatment, substantial public support or coordinated Government action, drawing first on information already held by Government and supplementing it where facility-specific evidence is necessary. Over time, evidence from those pathways should also feed back into sector pathways and broader policy design.

The information flow should also operate in the other direction. Where Government analysis, modelling or program experience has identified assumptions that materially affect industrial investment or the design of the transition pathway, publishing those assumptions where practicable allows industry to test them against facility evidence and improves the quality of subsequent policy development and consultation.

Recommendation 15: Establish a shared view of industrial decarbonisation investment, delivery and project learning.

The Australian Government should use information already generated across relevant programs, institutions and project engagement to maintain a shared view of whether material industrial decarbonisation projects are progressing, where credible projects repeatedly stall and what those experiences reveal about common barriers to investment.

Relevant learning should be retained and shared across Government, subject to appropriate protection of commercial information, and used to update sector pathways, program design and the targeting of Government intervention. Selective facility transition pathways should draw on and supplement this existing evidence.

Government should also make relevant aggregate analysis and assumptions available where this would allow industry and other stakeholders to test emerging policy settings against real investment and delivery conditions.

7.2 Create a route into and through Government

Industrial transition projects can require decisions across industry, climate, energy, infrastructure, environment, trade and finance portfolios; Commonwealth, state and territory governments; regulators; network and infrastructure providers; and specialist Government investment institutions. A proponent should be able to enter Government through one coherent process rather than having to identify and assemble that architecture itself.

The Australian Government's Investor Front Door is an important step in this direction. It provides selected nationally significant projects with a dedicated engagement manager, assistance navigating regulatory processes and connections to relevant Government financing. The 2026-27 Budget also consolidated the Investor Front Door with the Major Project Facilitation Agency and relevant project-facilitation functions of the Net Zero Economy Authority.³⁰ AIDC and its predecessor, the Australian Hydrogen Council, have advocated for coordinated project case management and a single route through Government for major transformational investments for several years.³¹

The capability should extend beyond initial navigation. For priority industrial transition investments, a lead team should remain engaged through project development, feasibility and FEED, approvals, financing, FID and delivery. Its role should be to understand the next material investment decision, identify the issues preventing that decision and bring together the parts of Government capable of resolving them.

The current Investor Front Door pilot requires projects to have estimated capital expenditure above \$50 million and a well-developed and viable business case.³² Major industrial transition projects may need engagement earlier than this. Electricity, infrastructure, market, regulatory or financing uncertainty can determine whether a project can develop a viable business case in the first place. Where a project concerns the transformation of an important existing industry or the creation of industrial capability Government has identified as being in the public interest, waiting until every element of the business case is mature can mean waiting until important public decisions are already too late to influence the investment.

Intensive Government involvement should remain selective. A project should warrant this treatment where there is a credible public interest case, a material investment or decision window, a sufficiently developed pathway and a barrier that genuinely requires public action or coordination. Government should also have a reasonable basis for concluding that resolving the identified barrier could change the investment outcome. Companies seeking this level of engagement should be prepared to provide the engineering, commercial and investment evidence needed to support that assessment and to commit their own resources to progressing the project.

A common evidence base should then follow the project through Government as far as legal, confidentiality and statutory decision-making requirements allow. Technical, commercial, financial, emissions and infrastructure information prepared for one process should be capable of supporting related assessments elsewhere. Regulators and public investment institutions would continue to exercise their own statutory and commercial judgments, while the proponent would avoid repeatedly reconstructing substantially the same project case for different agencies.

³⁰ Australian Government, Department of Industry, Science and Resources (2026) '[Australia's Investor Front Door](#)'.

³¹ Australian Hydrogen Council (2023) '[A fit-for-purpose refreshed National Hydrogen Strategy: next steps for building Australia's hydrogen industry](#)', August, particularly Recommendations 11–14 and 38 and discussion of a coordinated national investment proposition and one-stop project case management; Australian Hydrogen Council (2024) '[Establishing a 'Front Door' for major, transformational projects](#)', submission to the Australian Government, 4 October.

³² Australian Government, Department of Industry, Science and Resources (2026) '[Eligibility and assessment](#)', Investor Front Door.

The cross-government process should focus on the material barriers to the investment, who can resolve them and when the relevant decisions need to occur. Where the barrier is shared across projects, the response should be organised at the appropriate collective level. A transmission constraint, common infrastructure requirement, technology gap, emerging market or workforce shortage should not repeatedly return to Government as a series of facility-specific problems. Sector, precinct and facility evidence should allow Government to identify shared barriers early and allocate responsibility for resolving them.

The standing cross-government process should also provide a practical structure for the reciprocal transition arrangements described in section 2.6. For qualifying projects, a facility compact could link Government milestones on infrastructure, approvals, finance or other agreed actions to company milestones on engineering, development expenditure, commercial arrangements, FID, capital investment and delivery. Commitments should increase as evidence improves and the project progresses, with arrangements capable of being reviewed where material dependencies or evidence change in good faith and proportionate consequences where commitments within a party's control are not met.

Recommendation 16: Establish a standing cross-government process for facility transition pathways and shared industrial barriers.

The Australian Government should establish a standing process across Commonwealth portfolios and relevant state and territory governments to consider selective facility pathways and barriers shared across industrial projects.

The process should use information already held across Government, public disclosures and targeted industry engagement to identify material decision windows and common dependencies. The Investor Front Door should provide a principal route into this process for qualifying projects, with case management continuing through the material development and investment stages.

7.3 Investment attraction and trade diplomacy need to support industrial policy

Some Australian industrial projects also depend on decisions taken outside Australia. A project may require overseas customers, technology, capital, equipment, standards recognition, shipping arrangements or policy support in a trading-partner country before the Australian investment becomes bankable.

Australia therefore needs a coherent national investment proposition for priority industrial opportunities. States and territories have legitimate economic interests and will continue to compete for investment, but an international investor should encounter a recognisable Australian proposition. A company considering Australia should not have to map the federation itself, work out which Government is responsible for each part of the investment case or reconcile competing Australian messages in an overseas market.

For projects of national significance, Commonwealth, state and territory investment activity should operate as a coordinated Team Australia proposition. This does not require every jurisdiction to offer identical programs or abandon competition for investment. It requires agreement about the capabilities Australia is seeking to attract, the projects and value chains of strategic interest, the role of

each jurisdiction and the proposition presented to international investors and customers. We previously argued for this form of coordinated national investment proposition and international partnership as part of Australia's hydrogen strategy.³³

International engagement begins well before a company formally presents an Australian project to programs such as the Investor Front Door. Australia needs sustained engagement with global corporate headquarters, institutional and strategic investors, technology providers and major industrial customers, together with the governments whose industrial, energy and trade policies influence their decisions. The relevant Australian departments and agencies should be capable of working from a common set of priority industrial propositions.

For emerging industrial markets, economic diplomacy can also change the commercial conditions confronting the project. Bilateral and multilateral arrangements can connect Australian production with overseas demand, finance and technology, and can create opportunities for long-term procurement or offtake, such as the H2Global program between Australia and Europe for hydrogen derivatives.³⁴

They can also support recognition of standards and certification and help establish the shipping, port and supply corridors required for new products.

Australia's critical minerals cooperation with Japan provides a useful recent example. In May 2026 the two governments agreed to coordinate investment in strategic projects, improve access to Japanese capital and technology and strengthen links between Australian producers and Japanese industrial demand. The Australian Government is providing up to \$1.3 billion through the Critical Minerals Facility and Export Finance Australia to projects involving Japanese participation.³⁵ The significance of the approach is the combination of Australian resources and projects with overseas capital, technology and demand, in contrast with treating investment attraction and market development as separate activities.

Australia's relationship with Korea provides another platform. Existing bilateral cooperation covers green metals, critical minerals, carbon management and clean technologies, alongside work to establish green shipping corridors between major Australian and Korean ports.³⁶ Similar corridor approaches are being developed with Singapore for zero and near-zero emissions maritime fuels.³⁷ These arrangements show how infrastructure, customers, standards and policy cooperation across countries can be developed together.

³³ Australian Hydrogen Council (2023) [A fit-for-purpose refreshed National Hydrogen Strategy: next steps for building Australia's hydrogen industry](#), August, particularly the discussion of Team Australia investment attraction and coordination with international partners; Australian Hydrogen Council (2025) [Inquiry into the role of Western Australia in the global effort on decarbonisation](#), submission to the Economics and Industry Standing Committee, October, particularly discussion of international investment, supply chains and partnerships with major Asian markets.

³⁴ Australian Government, Department of Climate Change, Energy, the Environment and Water (2026), ['Australia-Germany H2Global Joint Tender'](#), accessed 27 August 2026, last updated 23 June 2026.

³⁵ Australian Government (2026) ['Expanding cooperation on critical minerals with Japan'](#), joint media release, 4 May.

³⁶ Australian Government, Department of Foreign Affairs and Trade (2026) ['Republic of Korea country brief'](#).

³⁷ Australian Government, Department of Foreign Affairs and Trade (2025) ['Singapore and Australia Green and Digital Shipping Corridor: Factsheet 2025'](#).

The same thinking should be applied to emerging opportunities in low emissions iron and metals, industrial materials, chemicals, fuels and other products where Australia has a credible resource or energy advantage. Some will contribute directly to reductions at Australian Safeguard facilities. Others will create new Australian production and reduce Scope 3 emissions elsewhere in the value chain. Both can strengthen the industrial base Australia will need in a lower emissions global economy.

Recommendation 17: Establish a coordinated Team Australia investment and market development proposition for priority industrial projects.

The Australian Government should work with state and territory governments to develop a recognisable national investment proposition for priority industrial transition and lower emissions manufacturing opportunities.

For nationally significant projects and value chains, Government should coordinate domestic project facilitation and public finance with international investment attraction, technology partnerships and market development, working from agreed priority propositions across Commonwealth and state governments.

Where an Australian project depends materially on an overseas market or counterpart, Government should use bilateral and other international arrangements to help develop the commercial relationship.

Part III: Responses to consultation questions

Parts I and II set out AIDC's overarching policy position and industrial transition framework. Part III applies that framework to the consultation questions and cross-refers to the earlier discussion where the substantive response has already been provided.

Note the question numbers shown in the orange boxes correspond to the sections in the Government's consultation paper that host the questions, and letters denote the order in the paper.

8. The climate and industrial policy suite

Question 3.1.1A: Are Safeguard policy settings and Government support mechanisms suitable for developing and deploying emissions reduction technologies for the industrial sectors? Are there any remaining barriers to undertaking on-site abatement, including sector-specific barriers?

Question 3.1.1B: Are there any important areas that are not covered by government policy or programs?

The present combination of Safeguard settings and Government support mechanisms does not yet constitute a complete delivery architecture for the scale and timing of industrial transformation assumed in Australia's sector pathways. The Safeguard Mechanism should operate within that wider architecture and not be expected to resolve barriers outside the reasonable control of an individual facility. Material barriers and gaps remain in the policy and delivery architecture required for industrial transformation.

Part II as a whole provides AIDC's substantive response to these questions. It also sets out the industrial investment and delivery framework underpinning the pathway-based Safeguard proposals in Section 2, including the proposed transition-aligned MYMP and reciprocal transition arrangements.

9. Compliance options

The compliance settings considered in this section need to be assessed as a package. Changes to ACCU surrender rules, SMC banking, borrowing, multi-year monitoring, the cost containment measure, and potential future access to international units will interact with changes elsewhere in the Safeguard Mechanism. Government should assess their combined effect on physical abatement, compliance costs, carbon unit demand and supply, and industrial investment.

This is particularly important where other reforms may materially increase demand for compliance units. Changes to or removal of TEBA could increase the compliance liabilities faced by trade-exposed facilities, while any expansion of Safeguard coverage would bring additional emissions and facilities within the compliance market. If these changes occur alongside tighter ACCU surrender rules, discounting, changes to SMC availability or other restrictions on flexibility, the cumulative effect on demand for ACCUs and SMCs could be substantial.

Government should model the combined post-2030 framework, including plausible sector and facility responses, before determining that any individual change can be accommodated without unintended consequences for carbon markets, industrial competitiveness or the capacity of facilities to finance physical decarbonisation. The modelling should include behavioural substitution between compliance options. A change intended to reduce ACCU use may instead alter demand for SMCs, increase the use of banking or borrowing, change the attractiveness of MYMPs, affect production or increase aggregate compliance expenditure. Additional onsite abatement should be treated as an outcome to be demonstrated through the modelling rather than assumed from the tightening of a particular compliance setting.

9.1 ACCUs

Question 3.1.2A: Are new policy measures for ACCU use needed to accelerate industrial decarbonisation?

AIDC does not support general new restrictions on ACCU use as a means of accelerating industrial decarbonisation. The relevant distinction is between sustained ACCU reliance where physical abatement lies within the facility's actionable abatement frontier and is reasonably investable, and ACCU use for emissions that remain outside that frontier while an evidenced industrial asset transformation is being developed and delivered.

The Commonwealth's own sector pathway work recognises the scale of transformation required across ammonia, iron and steel, alumina, aluminium and cement, and that major components of deep physical abatement in these sectors depend on technologies, equipment, energy systems and enabling infrastructure that will be deployed progressively through the 2030s and, in some cases, the 2040s.

Where Safeguard obligations move ahead of that physical pathway, the resulting ACCU requirement is partly a consequence of the design of the mechanism. Purchasing ACCUs in those circumstances does not necessarily demonstrate a failure to decarbonise. It may represent the means by which a facility complies while the technology, infrastructure or major capital project required for its next step-change in physical emissions is developed and delivered.

High-integrity ACCUs perform a legitimate role where physical abatement cannot yet reasonably occur. Their surrender allows a Safeguard facility to meet its net emissions obligation while financing verified emissions reduction or removals elsewhere in the Australian economy during the period before the facility can physically remove those emissions itself.

Where Government proposes to make ACCU compliance materially more expensive to induce additional onsite abatement, it should identify the physical or investment decision expected to change and establish that the relevant response can reasonably occur on the resulting timetable. Where technology, infrastructure or project delivery makes the next material reduction unavailable, a higher effective ACCU cost can increase the facility's contribution to abatement elsewhere without necessarily bringing its own physical transformation forward.

AIDC considers that qualifying facilities with constrained physical abatement pathways should retain one-for-one access to high-integrity ACCUs for emissions within an approved residual transition envelope that cannot yet reasonably be physically abated. That envelope should contract as agreed physical abatement becomes available. Government should also examine whether Safeguard-related financial value can be used more deliberately to support development of the future physical abatement that will reduce those residual liabilities.

There may be a case for stronger treatment where sustained ACCU reliance is demonstrably displacing physical abatement that is technically available, reasonably investable and capable of proceeding. The design of any such measure is addressed in Question 3.1.2B.

Question 3.1.2B: If policy measures are needed, what would be the best way to reduce reliance on ACCU use without unduly disrupting the carbon market and when should any such measures start?

If Government determines that additional measures are required, AIDC considers they should be targeted to circumstances where sustained ACCU use is substituting for physical abatement that is technically available and reasonably investable. We do not support restrictions where the principal objective is simply to reduce the aggregate share of Safeguard compliance met through ACCUs.

We do not support a universal quantitative cap on ACCU use. A hard cap would operate very differently across facilities. Where further abatement is available, it may strengthen the incentive to act. Where physical abatement is constrained by technology, infrastructure or the timing of a major industrial project, it may instead increase SMC demand, raise compliance costs or affect production and investment without accelerating emissions reduction.

If Government considers stronger treatment necessary, targeted and progressive discounting would be preferable to a hard cap. It preserves access to compliance units while increasing the relative cost of continued ACCU reliance. However, it should only be applied where Government has a reasonable basis for expecting the higher effective carbon cost to change an identifiable abatement or investment decision. Otherwise, discounting simply requires more ACCUs to meet the same compliance obligation.

Government should also model the response across the complete compliance architecture. A higher effective ACCU surrender requirement may increase SMC demand and prices, change banking or borrowing behaviour, alter the value of multi-year arrangements, or affect production and investment. The case for discounting should rest on evidence that the resulting package is expected to induce additional physical abatement, rather than on a mechanical assumption that lower ACCU use necessarily produces that result.

Vintage and integrity requirements should be considered separately. Their primary purpose should be to maintain confidence in the quality and credibility of units used for compliance.

Any material change to post-2030 ACCU rules should be settled sufficiently early to inform investment decisions and should include appropriate transitional treatment for existing ACCU holdings, contractual arrangements and investments made in reasonable reliance on the current framework. Any such measure should commence only once Government has established that the physical abatement it is intended to induce is technically available and reasonably investable, and with sufficient notice for facilities and carbon market participants to adjust

Question 3.1.2C: Are requirements to submit carbon abatement plans needed to improve transparency and help inform future supply and demand for ACCUs and SMCs? How would any such requirements complement or duplicate corporate climate disclosure requirements?

AIDC supports targeted forward facility-level planning where it serves a clear policy purpose and is proportionate to the circumstances of the facility.

Government needs better information about how Safeguard facilities expect to meet their obligations over time, including the respective roles of physical abatement, SMCs and ACCUs. However, the value of this information extends well beyond forecasting future demand for carbon units. It should also allow Government to understand what physical abatement is realistically available at a facility, when major investment decisions and projects can occur, what technologies and enabling infrastructure are required, and which material constraints sit outside the facility's control.

We support targeted forward planning where a facility remains materially reliant on ACCUs or seeks differentiated treatment or significant public support. That planning should draw on the facility transition pathway proposed elsewhere in this submission and provide a credible view of expected physical abatement, major investment decisions, expected compliance unit use, material external dependencies and the basis for any residual emissions that cannot yet reasonably be physically abated.

Government should first use and integrate information already available through existing regulatory and disclosure arrangements so that substantially similar information is provided once and reused where possible. Government should examine how the existing requirement for facilities surrendering ACCUs equivalent to more than 30 per cent of their baseline, any forward compliance strategy requirements, multi-year monitoring arrangements and mandatory corporate climate reporting can be integrated so that substantially similar information is provided once and reused for multiple purposes.

Corporate climate-related financial disclosure and Safeguard facility planning perform different functions. Corporate disclosure is principally concerned with material climate-related financial risks, opportunities, governance and strategy at the level of the reporting entity. Safeguard planning requires more specific facility-level information about physical emissions, abatement options, capital timing, compliance strategy and external dependencies. There will inevitably be some overlap, and the Safeguard framework should draw on existing corporate disclosures wherever they provide the necessary information.

AIDC would not support requiring every covered facility to prepare a highly detailed new carbon abatement plan irrespective of its circumstances. Reporting should be proportionate to the degree of ACCU reliance, the scale of the emissions challenge, and the extent to which a facility is seeking

additional flexibility or government support. Commercially sensitive information should also be appropriately protected.

9.2 Cost containment measure

Question 3.2.4A: Is the current design of the cost containment measure sufficient to allow businesses to manage upside price risks?

AIDC supports retention of the Cost Containment Measure (CCM) as an emergency backstop against severe or disorderly ACCU market conditions. It should protect facilities against exceptional short-term price events while preserving normal incentives to manage compliance exposure and invest in physical emissions reduction.

The current CCM architecture appears appropriate, but its adequacy after 2030 cannot be established without testing the price, reserve size and replenishment arrangements against expected post-2030 demand. The review should test both whether the prescribed CCM price remains appropriate after 2030 and whether sufficient Government-held supply stands behind it for businesses reasonably to regard the mechanism as a credible backstop. A stated price provides limited protection if the reserve could be exhausted during the type of market event the mechanism is intended to address.

Government should publish a post-2030 CCM strategy explaining the market conditions the mechanism is intended to address, how reserve adequacy and replenishment will be managed, and how access would operate if demand exceeded available supply.

The CCM should also be tested against the complete post-2030 compliance framework. Changes such as ACCU discounting, surrender limits, eligibility restrictions or changes in SMC availability could cause the effective cost of covering a tonne of excess emissions to diverge materially from the quoted ACCU price. If the CCM is intended to protect against extreme compliance-cost outcomes, its trigger and access rules should remain effective under the settings ultimately adopted.

The CCM should remain an emergency market mechanism. It should not be relied upon to address persistent compliance costs arising where Safeguard obligations run ahead of the physical abatement pathway available to a facility. Those are structural design issues better addressed through the transition arrangements discussed elsewhere in this submission.

Question 3.2.4B: Could the current cost containment measure price deter investments in emissions reduction activities?

AIDC agrees that the prescribed CCM price could, in principle, affect investment in physical emissions reduction if facilities treat it as a credible ceiling on future compliance costs. However, it is not clear from the available evidence whether the CCM price is actually influencing major industrial investment decisions in this way.

We recommend targeted engagement with Safeguard facilities to examine the carbon price assumptions used in major investment cases, whether the CCM price is treated as a meaningful ceiling on future compliance exposure, and whether a materially different CCM price would change identifiable physical abatement decisions.

Until that work is undertaken, AIDC does not consider there is sufficient evidence to conclude that the current CCM price is materially deterring investment in physical emissions reduction. A higher CCM price should also not be assumed to bring forward abatement that remains constrained by technology, infrastructure or project timing.

9.3 International units

Question 3.1.3A: Is there any ongoing interest in using international offsets for Safeguard Mechanism compliance in the future and what is the rationale for this?

AIDC does not recommend introducing international units into the Safeguard Mechanism through this review. Australia's 2035 target has been developed on the basis that it can be achieved through domestic action, while Article 6 markets and associated accounting arrangements are still developing. The immediate priority should be to ensure that the domestic Safeguard framework provides adequate flexibility through ACCUs, SMCs, multi-year monitoring and the Cost Containment Measure.

Government should nevertheless preserve the option of allowing high-integrity international units at a future review point. Future access should respond to a clearly identified policy need: it may warrant consideration where domestic compliance markets become structurally constrained, for genuinely residual emissions, or as temporary flexibility while an agreed physical abatement project is developed and delivered.

Any future access should be designed so that it does not materially displace physical abatement that is reasonably available and investable in Australia. Where physical abatement cannot yet reasonably occur because of technology, infrastructure or project timing, access to a high-integrity unit may provide compliance flexibility without changing the timing of the physical transition.

Question 3.1.3B: How would the market need to develop before inclusion in the Safeguard Mechanism could be considered at future review points and what considerations should be given regarding interoperability, recognition and integrity?

AIDC considers Paris Agreement eligibility necessary but insufficient for international units to become eligible for Safeguard compliance. Article 6 authorisation and corresponding adjustments are essential for NDC accounting, but they do not by themselves establish the environmental integrity or commercial reliability of the underlying unit.

Before international units are introduced, Government should be satisfied that the relevant market provides sufficient volume, liquidity and price discovery for industrial compliance; that procurement, transfer, registry, surrender and corresponding-adjustment arrangements are operational; and that facilities can manage host-country authorisation and invalidation risk.

Australia should retain its own eligibility and integrity requirements, including appropriate treatment of additionality, baseline setting, permanence, leakage, verification and reversal risk. Article 6.2 and Article 6.4 units should be assessed on their actual characteristics and not be assumed to be interchangeable.

Government should also assess interaction with the domestic Safeguard market. International access should not materially displace physical abatement that is reasonably available and investable, and any quantitative, temporal or facility-level limits should be calibrated to the particular purpose for which international units are introduced. Until those conditions can be demonstrated, international units should remain outside the Safeguard Mechanism.

9.4 Banking

Question 3.2.1A: Is banking working to encourage businesses to reduce their emissions ahead of schedule?

AIDC considers that banking is operating consistently with its intended function and should be retained. Banking gives emissions performance achieved ahead of a facility's compliance trajectory an enduring commercial value. A facility that performs below its production-adjusted baseline can retain the resulting SMCs for future compliance or sell them to another Safeguard facility. This strengthens the incentive to undertake available emissions reductions earlier.

The early evidence is consistent with this objective. After only two years of operation, however, the available data cannot establish how much additional physical abatement has occurred specifically because SMCs can be banked. Major industrial decarbonisation projects are generally developed and financed over much longer timeframes, and investment decisions are influenced by the combined effect of baseline decline, expected SMC value, carbon prices, corporate targets and other policy settings. More time is required before Government can reliably assess the incremental emissions reduction attributable specifically to bankability.

Banking is also particularly well suited to the investment profile of capital-intensive industry. Industrial decarbonisation often occurs through major step-change projects, not smooth annual emissions reductions. Where a facility is able to deliver a substantial reduction earlier than required, it should retain the value of that performance against future obligations.

Government should continue to monitor banking as the Safeguard framework matures, with particular attention to whether expected future SMC value is influencing the timing and economics of major industrial abatement investments.

Question 3.2.1B: Are there any strong reasons why banking should not extend beyond 2030?

AIDC supports continued eligibility of pre-2030 SMCs for Safeguard compliance after 2030 and continuation of banking through the 2031-35 period.

We note that the original concern about banking across 2030 was principally that facilities could generate a substantial stock of SMCs from pre-existing baseline headroom and carry those units into a period with more stringent obligations. The available aggregate data now indicates that the former scheme-wide headroom has largely been removed.

The remaining issue is principally one of cross-period accounting. AIDC considers that this can and should be managed transparently when the 2031–35 Safeguard settings are established, rather than by preventing valid SMCs from being used after 2030. If the next target-period settings are calibrated taking the expected opening SMC bank into account, continued banking can be accommodated while preserving the intended cumulative emissions outcome.

The treatment of banking should remain reviewable as later Safeguard budgets are established, but any future restriction should be prospective and supported by evidence that accumulated holdings would materially compromise the intended emissions task. Government should also model the likely effects on physical abatement, ACCU demand, SMC prices, compliance costs and industrial investment before altering the treatment of banked units.

The treatment of SMCs should also reflect their function within the Safeguard architecture. An SMC is generated by performance below a facility's production-adjusted baseline within the declining aggregate framework; it should not automatically be treated as evidence of a discrete additional tonne of onsite abatement attributable to a new investment.

This becomes important if Government seeks deliberately to increase SMC value as an incentive for physical abatement. The relevant investment question is whether the expected future SMC or avoided-compliance value is sufficiently durable and bankable to influence a major project. Government should examine that question directly, including the potential merits and distributional consequences of any targeted floor, collar or carbon-value underwriting mechanism for qualifying new physical abatement.

9.5 Borrowing

Question 3.2.2A: Are current borrowing arrangements working to help businesses manage short-term exceedance?

AIDC supports retention of the current borrowing arrangements. Borrowing provides a useful, deliberately limited form of flexibility for facilities experiencing a short-term exceedance that can reasonably be managed across two adjacent financial years.

The available evidence is consistent with borrowing performing that function. Uptake has been limited during the first two years of the reformed Safeguard Mechanism, and the identifiable cases show facilities using borrowing to reduce or eliminate an immediate annual shortfall before the corresponding amount, with interest, is reflected in the following year's compliance position.

Limited uptake should not be interpreted as evidence that borrowing is ineffective. Borrowing is intended to address relatively specific circumstances: a temporary deviation in emissions where the facility reasonably expects its position to improve sufficiently in the following year to absorb repayment. It is unlikely to be the appropriate compliance response for every facility experiencing an exceedance.

The existing 10 per cent limit also means borrowing cannot become a substitute for the longer-term flexibility required by facilities undertaking major industrial transformation. Where an emissions constraint or abatement project extends across several years, multi-year arrangements are the more appropriate mechanism. Borrowing should continue to perform the narrower role of managing variability between adjacent years.

The increase in the borrowing interest adjustment to 10 per cent from 2026-27 has not yet been tested through published facility outcomes. Government should allow sufficient experience to emerge before concluding that the current arrangements require further tightening. In particular, it should assess whether the higher adjustment continues to preserve borrowing as a practical option for genuinely temporary exceedances while discouraging routine deferral of compliance obligations.

Question 3.2.2B: Should borrowing continue beyond 2030?

Yes. AIDC supports continuation of borrowing beyond 2030. The operational need for limited adjacent-year flexibility will continue, and the existing 10 per cent cap and repayment with interest materially limit the risk that borrowing substitutes for the cumulative emissions task.

Borrowing across target period boundaries should be reflected in the calibration of future Safeguard budgets. Government should quantify any material effect before imposing additional restrictions, but AIDC does not consider there is presently evidence supporting a special prohibition at 2030 or on successive borrowing.

9.6 Multi-year monitoring

Question 3.2.3A: Should the current policy that prevents multi-year monitoring periods from extending beyond 2030 be retained?

AIDC's proposed transition-aligned MYMP is set out in section 2.3 and sits within the wider facility transition architecture described in Part II. For qualifying facilities, the MYMP would provide the Safeguard mechanism through which an evidenced sector-informed facility pathway is translated into a multi-year compliance trajectory, with reciprocal delivery arrangements applying where transformation also depends on material external actions or enabling conditions.

AIDC seeks removal of the blanket 2030 prohibition, continuation of ordinary multi-year monitoring and creation of an enhanced transition-aligned multi-year arrangement for qualifying facilities with constrained physical abatement pathways. This would allow the Safeguard Mechanism to retain its cumulative emissions discipline while aligning compliance more closely with the timing of genuine industrial transformation.

Multi-year monitoring performs a different function from borrowing. Borrowing is appropriately designed for a limited short-term exceedance that can be managed across two adjacent financial years. Multi-year monitoring is required where the emissions outcome depends on an abatement activity, infrastructure investment or major industrial project whose development, construction and commissioning timetable extends across several years.

For some emissions intensive industries, even the current maximum multi-year period does not adequately reflect the physical transition task. For foundational industrial assets in particular, transformation can extend across several investment and project development stages. This is reflected in Government's own sector pathway work, which recognises that major components of deep abatement in ammonia, iron and steel, alumina and aluminium, cement and other constrained industrial activities depend on technologies, equipment, energy systems and enabling infrastructure expected to become available progressively through the 2030s and beyond.

A longer transition-aligned MYMP is appropriate where facility evidence shows that the credible physical abatement pathway cannot reasonably be accommodated within either the standard annual trajectory or an ordinary multi-year period. This builds on the existing Safeguard architecture: the aggregate emissions task, market rules and ordinary facility treatment remain in place, while qualifying facilities can receive a project-aligned temporal profile supported by sector and facility evidence.

Sector pathways provide a common evidentiary reference point without requiring Government to prescribe the facility's chosen technology. Access should be selective and accompanied by review and accountability milestones, should not create artificial SMCs or overlap with borrowing for the same liability, and should retain a transparent compliance obligation for residual emissions that cannot yet reasonably be physically abated.

Question 3.2.3B: Are there circumstances that could benefit from access to multi-year monitoring after 2030?

Yes. Post-2030 MYMPs should remain available for two broad circumstances: defined multi-year abatement activities already consistent with the existing framework, and longer industrial transformations where credible physical abatement cannot reasonably fit within either annual compliance or an ordinary multi-year period.

A transition-aligned MYMP should allocate obligations through time against the evidenced physical project, rather than create an artificial catch-up cliff when the period ends. Where the agreed transformation is delivered, the subsequent trajectory should reflect the resulting physical emissions position and any transparent residual obligation. The detailed design is set out in section 2.3.

10. Trade exposed and strategic industries

AIDC considers that the TEBA questions in this section cannot be considered separately from the Government's parallel consideration of a border carbon adjustment and the proposition that TEBA could ultimately be removed for commodities covered by a fully implemented BCA.

The policy issue is therefore broader than the future design of TEBA itself. Government needs to identify the different competitive risks the current framework is intended to manage, determine which of those risks a BCA or other policy measure would actually address, and ensure that material residual risks remain appropriately managed.

For AIDC, there are three distinct dimensions that must be considered:

- **import leakage**, where Australian production loses domestic market share to competing imports facing lower effective carbon constraints;
- **export exposure**, where Australian producers compete in international markets against production facing lower carbon costs; and
- **investment leakage**, where future capital is directed to production outside Australia.

These risks overlap, but they are not interchangeable. A policy instrument that addresses one may leave the others largely unchanged.

AIDC responds to the TEBA questions below on the basis that TEBA may continue, be reformed, or have some of its functions replaced over time by a BCA or other policy measures. The design principles remain relevant in each case: Government should identify the risk being managed, target assistance to that risk, and avoid withdrawing protection before the relevant function has genuinely been replaced.

The review should also distinguish protection against carbon leakage from broader support for transition costs. The current TEBA arrangements may in practice reduce facility compliance costs during periods of industrial transition, but that does not require a future leakage instrument to perform every transition function indirectly.

If TEBA is recast more directly around structural carbon leakage, genuine timing or investment problems that remain should be addressed through the instrument designed for those problems. Transition-aligned MYMPs can address mismatch between annual compliance trajectories and physical abatement timing, while complementary industrial policy can address technology, infrastructure, energy, finance and market barriers. Clearer separation of these functions would allow leakage treatment to be targeted more directly to demonstrable competitive exposure.

10.1 Trade-exposed baseline adjustments

Question 3.3.3A: Do current arrangements that link TEBA eligibility to scheme cost impacts create equity concerns among competing facilities or discourage uptake of on-site abatement?

Yes. If TEBA is retained, AIDC considers that the current eligibility approach should be reformed.

The current framework determines assistance principally by reference to the financial impact of Safeguard costs on an individual facility. This provides information about whether those costs are

financially material, but it is an imperfect proxy for the competitive risk that TEBA is intended to manage.

Two facilities producing substitutable products may face the same international competitors and the same structural carbon or investment leakage risk while receiving materially different TEBA treatment because of differences in profitability, emissions intensity or immediate Safeguard liability. This can create inequities between competing Australian facilities and may fail to reflect the underlying international competitive conditions facing the commodity.

There is also an undesirable interaction between physical abatement and eligibility. Because Safeguard compliance costs form part of the TEBA calculation, successful emissions reduction can lower the measured financial impact used to determine assistance. A leakage-protection mechanism should avoid making continued eligibility mechanically dependent on maintaining a higher compliance liability. Structural leakage risk should be assessed directly rather than inferred from the amount of Safeguard cost an individual facility happens to face.

Question 3.3.3B: Would a sectoral approach to TEBA eligibility better target carbon leakage risks and help to address any equity concerns?

Yes. If TEBA remains part of the post-2030 framework, AIDC considers that a sectoral or commodity-based approach would better align eligibility with the underlying source of leakage risk.

The first question should be whether production of the relevant commodity in Australia faces a material structural disadvantage because competing production is subject to materially different carbon constraints.

That assessment should distinguish import leakage, export exposure and investment leakage because their relative importance will vary considerably between commodities.

Where Government identifies material structural exposure, facilities producing that commodity should have a presumption of eligibility for a standard level of treatment appropriate to the demonstrated risk.

Sectoral eligibility should not require identical treatment for every facility. Facilities within the same commodity can have different emissions intensities, production profiles, export exposure, capital cycles and physical transition constraints. Facility-level evidence should be used where differentiated or additional treatment is justified. This creates a clearer separation between two decisions:

- whether the commodity faces structural carbon or investment leakage risk; and
- what level of treatment is appropriate for a particular facility.

10.2 Catch-up mechanism

Question 3.3.3C: Could a 'catch-up mechanism' be introduced for TEBA to better distribute the effort between TEBA recipients and other Safeguard facilities?

AIDC does not support an automatic catch-up mechanism based simply on the expiry of a TEBA period.

A temporary TEBA concession can leave a facility on a higher baseline trajectory than an otherwise comparable facility. It is reasonable for Government to consider whether that difference should persist where the circumstances that justified the assistance have materially changed.

However, the expiry of the formal assistance period does not itself establish that the underlying leakage risk has disappeared.

AIDC favours **conditional convergence**. Where a facility has received additional treatment because of facility-specific circumstances, that additional treatment should progressively converge as the reason for it diminishes. Where a sectoral TEBA setting applies because the commodity continues to face structural leakage exposure, convergence towards ordinary Safeguard settings should occur only as that structural risk materially reduces or is effectively addressed through another policy measure.

Where the basis for TEBA treatment has diminished, convergence should occur in a predictable manner that avoids an unnecessary compliance cliff. The timing and rate of convergence should be tested against the remaining competitive risk and the facility's physical transition pathway, so that removal of leakage assistance does not create a second, artificial transition problem.

Any separate mismatch between the resulting Safeguard trajectory and the credible timing of physical abatement should be addressed through the transition arrangements proposed elsewhere in this submission.

We do not consider previous TEBA assistance to be a regulatory debt that must automatically be repaid through higher subsequent decline rates. The appropriate test is whether the competitive conditions that justified the treatment continue to exist and, where they have changed, how the facility can converge towards the appropriate ordinary Safeguard treatment without recreating the leakage problem the assistance was intended to address.

Question 3.3.3D: Feedback is sought on options for improving TEBA that would continue to effectively manage carbon leakage, and deliver Safeguard Mechanism objectives, including emissions targets and incentives for on-site abatement.

AIDC considers that any future TEBA framework should be organised around the competitive function it is intended to perform. If TEBA continues, structural eligibility should be assessed primarily at commodity or sector level, with facility-specific calibration where material circumstances justify it. Eligibility should not depend mechanically on the current Safeguard cost faced by the facility.

Treatment should be periodically reassessed and should converge towards ordinary Safeguard settings as the underlying leakage risk materially diminishes or is effectively addressed by another policy instrument. A BCA should be treated as replacing only the competitive function it demonstrably performs.

Competitiveness treatment should operate coherently with, but remain distinct from, the transition-pathway and MYMP arrangements proposed elsewhere in this submission.

10.3 A potential Border Carbon Adjustment

Question 3.3.4A: Should a border carbon adjustment be introduced for cement and clinker?

AIDC supports proceeding to detailed design and consultation on a BCA for cement and clinker. As set out above, a BCA is principally an import-leakage instrument and should not be assumed to resolve material export or investment leakage.

Cement and clinker are comparatively well suited to an import-focused border carbon adjustment. Import competition represents a material component of the sector's leakage exposure, all Australian clinker production is covered by the Safeguard Mechanism, and exports of cement and clinker are negligible relative to domestic production and imports. The Carbon Leakage Review also found that cement and clinker have comparatively straightforward supply chains and that imported clinker is readily substitutable for domestic production, making emissions monitoring and implementation more tractable than for several other emissions-intensive commodities.

Final implementation should nevertheless depend on Government demonstrating that the mechanism can operate effectively in practice. The design should provide a workable basis for measuring embedded emissions, recognising relevant overseas carbon constraints and limiting circumvention, and should capture materially competing imports in a way that produces reasonably comparable effective carbon treatment.

The test for implementation should extend beyond whether the administrative machinery can operate. Government should also have a reasonable basis for expecting the measure to reduce the identified import-leakage risk without creating material unintended distortions.

Question 3.3.4B: If a BCA is implemented, what elements should be included in any process for considering and consulting on the inclusion of further commodities over time?

AIDC considers that any expansion should be assessed commodity by commodity against transparent and published criteria. Government should first assess whether the commodity faces a material risk of import leakage that a BCA can address. Trade exposure alone is insufficient: a commodity may be internationally traded while its principal competitive challenge arises in export markets or through the location of future capital investment. Those risks may remain largely unaffected by an import BCA.

Government should also establish that the mechanism can be administered with sufficient confidence, and that it is likely to address the identified problem more effectively than alternative measures. Material export and investment leakage risks should be assessed separately.

10.4 Treatment of TEBA for goods covered by a BCA

Question 3.3.4C: Should TEBA provisions for a commodity be removed once a BCA is fully implemented for that commodity?

AIDC does not support an automatic rule requiring TEBA to be removed simply because a BCA has commenced or is described as fully implemented.

TEBA should be reduced only where a BCA has demonstrably replaced the competitive function for which the assistance was provided. Where a BCA has demonstrably removed the leakage risk that

justified a particular element of TEBA assistance, there is a reasonable case for reducing or withdrawing the overlapping protection. However, for a commodity with material export exposure or investment leakage risk, the result may be different.

Cement and clinker may provide a comparatively strong case for eventual replacement of some TEBA functions because import competition is a significant part of the identified leakage risk and exports are relatively limited. Even in that case, TEBA should not be removed automatically on the legal commencement date of the BCA. Government should first establish that the measure is operating effectively and is producing reasonably comparable treatment between Australian and imported products.

For more export-exposed commodities or sectors in which future capital allocation is a significant concern, a BCA may replace only part of the function currently performed by TEBA.

Question 3.3.4D: What would the appropriate timing and mechanics be for removing TEBA provisions for a commodity covered by a BCA?

AIDC considers that ‘fully implemented’ should be treated as an operational and functional test rather than simply a legal commencement date. Before TEBA is reduced or withdrawn, Government should have sufficient operating evidence that the BCA is capturing materially competing imports and providing reasonably comparable carbon treatment, and should assess whether material export or investment leakage risks remain.

Where withdrawal is justified, AIDC favours a staged and predictable transition, not an immediate reset to the baseline trajectory that would have applied had TEBA never been received. An immediate reset could create a substantial step change in compliance obligations, adversely affect investment decisions made under the existing framework, and produce a trajectory inconsistent with the facility’s physical transition pathway.

11. Scheme scope and calibration

The questions of Safeguard coverage, the sector's share of the 2035 target, the treatment of uncertainty and the post-2030 decline rate are closely connected and should be calibrated as an integrated package.

The national emissions target provides the top-down constraint. Within that constraint, the Safeguard contribution should be developed through an iterative assessment of bottom-up evidence on physical abatement and its timing, production and investment, facility entry and closure, carbon leakage and demand for compliance units. Government should be able to show both that the proposed package makes a credible contribution to the national emissions task and how it expects covered sectors and facilities to deliver that contribution.

Within that framework, coverage should respond to a defined policy benefit, the reserve should address identifiable forecast uncertainty, and the decline rate should be derived from the aggregate target and the complete policy architecture rather than selected independently.

11.1 Coverage

Question 3.5: Should the Safeguard Mechanism cover a larger portion of national emissions?

AIDC supports a progressively broader carbon constraint across Australian industrial emissions. However, any expansion of Safeguard coverage should be based on a clear understanding of the facilities that would enter the mechanism and the consequences of doing so.

Government should assess the emissions and production profile of potentially covered facilities, their trade exposure and compliance capability, the physical abatement opportunities available to them, and whether the existing architecture is suitable for the relevant sectors. It should also consider whether the energy, feedstock, infrastructure, technology and other enabling conditions required for facilities to respond to the carbon constraint can reasonably be delivered.

Extending coverage creates a real compliance liability. Where additional liability would principally increase carbon unit purchases or reduce capital available for transition without accelerating physical emissions reduction, Government should be able to explain the intended policy benefit and how complementary measures will improve the capacity of facilities to respond.

Question 3.5.1A: Should the Safeguard Mechanism threshold be lowered and, if so, when?

In principle, AIDC supports lowering the Safeguard threshold after 2030. However, there are still fundamental issues with the policy support system for facilities, as we have discussed at length (see Part II of this submission).

AIDC considers the distinction between expansion within sectors already covered and expansion into new sectors particularly important. Bringing a facility into an established sectoral framework is materially different from extending the Safeguard Mechanism to an activity for which production variables, baseline methodology, transition pathways and compliance capability have not yet been tested.

Any reduction in the threshold should be announced with sufficient notice for affected facilities to assess their exposure and incorporate the future obligation into capital planning. Where essential scheme architecture or enabling conditions are not yet in place, commencement may need to be staged. The absence of an immediately available physical abatement option should not, however, provide an enduring basis for excluding material industrial emissions from the carbon constraint.

Question 3.5.2B: How should baselines be set for facilities that would enter the Safeguard Mechanism as a result of a lower threshold?

AIDC considers competitive neutrality between comparable existing and newly covered facilities to be an important objective, but the treatment of new entrants must also recognise the consequences of imposing a mature Safeguard trajectory on a facility that has not previously been subject to the mechanism.

Simply commencing every newly covered facility at the original emissions reduction contribution would risk creating two classes of competitors for an extended period. Conversely, immediately applying the full decline trajectory faced by existing facilities could create a substantial compliance liability before a newly covered facility has had a reasonable opportunity to respond.

The appropriate treatment should depend on the notice provided, the physical abatement opportunities available to the facility and the circumstances of the relevant sector.

Where Government announces coverage sufficiently far in advance and a facility has credible opportunities to reduce emissions before commencement, there is a stronger case for applying the same emissions reduction contribution as comparable existing facilities.

Where a substantial first-year liability remains because physical abatement cannot reasonably be delivered before entry, a short and explicitly convergent transition may be appropriate. This should avoid establishing a completely new long-term decline trajectory for entrants while ensuring that coverage does not impose an immediate liability that Government knows cannot reasonably be addressed through physical emissions reduction.

For qualifying industrial facilities, the transition architecture proposed elsewhere in this submission should also be available. Lowering the coverage threshold should not exclude a newly covered facility from access to a transition-aligned pathway where the same sector and facility evidence demonstrates that ordinary annual decline cannot reasonably match the timing of physical abatement.

Question 3.5.3C: What new production variables would be needed for facilities below the current 100,000 tonne CO₂-e threshold?

AIDC does not presently have sufficient evidence to recommend specific new production variables. Government should determine the threshold and identify the facilities affected first, then assess whether existing production variables remain appropriate or need to be adapted through direct consultation with the relevant sectors.

11.2 Safeguard share of 2035 target

Question 4.1A: Should the proportional share be updated from 28.1% to 29.8% to reflect data in the two years prior to the commencement of the reforms or is there an alternative method that would retain a proportional share?

The proposed change from 28.1 per cent to 29.8 per cent is a relatively small arithmetic adjustment and, considered in isolation, this change in itself appears reasonable.

However, the methodology used to establish the Safeguard task must also reconcile the industrial task with credible evidence about the emissions trajectories covered sectors can actually deliver.

AIDC does not consider a fixed proportional share of the economy-wide emissions task to be a sufficient basis for determining the Safeguard Mechanism's 2035 contribution. Australia's national emissions target should provide the top-down constraint. Within that constraint, Government should develop the Safeguard contribution using credible bottom-up assessment of the emissions trajectories that covered sectors can reasonably deliver, taking account of the timing of technically available and reasonably investable physical abatement, production, new entrants and closures, trade exposure and the investment required for industrial transformation. Representative facility pathways should be used where they materially affect the sector trajectory.

Government should then aggregate those sector pathways and reconcile the resulting Safeguard task transparently with the national emissions budget. A proportional-share calculation can provide a useful reference point for that assessment, but should not predetermine the outcome.

Where the net emissions trajectory implied by a proportional share materially exceeds the physical abatement that covered sectors can reasonably deliver by 2035, Government should quantify the resulting reliance on ACCUs and SMCs and assess the effects on production, competitiveness and investment. That gap represents a substantive policy choice about the extent to which covered industrial facilities are expected to finance emissions reductions outside their own operations during the period, and should be made explicit.

Question 4.1B: What factors should be considered in setting the Safeguard Mechanism target for 2035?

AIDC considers that the Safeguard Mechanism's 2035 target should be informed by a credible assessment of the emissions reductions that can be delivered by covered facilities while maintaining the conditions for Australian industrial production and investment.

Government should publish what the principal target options would mean in practice, including expected gross emissions, physical onsite abatement, ACCU and SMC use, and major changes in production, facility entry or closure and investment.

The Safeguard target should represent an ambitious but credible contribution to the national task, informed by what industrial transformation can reasonably be delivered by 2035 and the consequences of alternative settings for Australian production and future investment. A mathematically reconcilable aggregate target is not sufficient if the assumed physical abatement pathway is not deliverable.

Question 4.1C: How should the reserve be set for 2035 to account for variation in production and new entrants?

AIDC supports retaining a reserve to manage genuine uncertainty in the 2031-35 Safeguard emissions trajectory. The reserve should be based on identifiable uncertainty in aggregate baselines, and Government should make its purpose and assumptions transparent. Any material recalibration should be transparent and remain consistent with the agreed cumulative Safeguard emissions task.

11.3 Decline rates after 2030

Question 4.2: What factors should be taken into account when determining an appropriate baseline decline rate to apply from 2030-31 to 2034-35, noting that it must be calibrated to meet the agreed target?

AIDC considers that the post-2030 baseline decline rate should be derived from the agreed Safeguard target and the complete set of policy settings adopted through this review. The target establishes the aggregate emissions outcome; the decline rate should then be calibrated alongside assumptions about production, facility entry and exit, physical abatement, use of ACCUs and SMCs, trade exposure arrangements, coverage and multi-year monitoring.

Government should model how those settings are expected to operate together and how facilities are likely to respond. In particular, it should identify the physical emissions reductions assumed between 2030 and 2035, when they are expected to occur, and whether that timing is consistent with relevant sector pathways and credible facility investment timelines.

This matters because the same aggregate Safeguard outcome can be achieved through very different combinations of physical abatement, compliance units, production changes, closure and investment. Government should publish enough of its modelling and assumptions for stakeholders to understand how it expects the target to be achieved, preferably while material design choices remain open.

The aggregate decline rate should also allow for transition-aligned MYMPs where qualifying facilities have evidenced physical abatement pathways that occur in major steps rather than through smooth annual reductions.

11.4 Sector specific and administrative issues

Question 3.4.1A: Should baseline arrangements for coal facilities after 2030 remain unchanged or be aligned with baseline arrangements for other sectors?

Question 3.4.1B: Are there specific circumstances where current settings do not operate as intended to encourage coal facilities to manage and reduce their emissions?

Question 3.4.1C: Are current settings sufficient to allow businesses to manage shut-downs or extended periods of low production?

Question 3.4.1D: How could this be addressed while remaining consistent with the Safeguard's output-based architecture and retaining incentives to manage and reduce all coal mining emissions?

Question 3.4.2A: Could removing optionality about state and territory versus national reporting for transport facilities help to improve land transport sector coverage?

Question 3.4.2B: Would a mandatory national facility definition for transport sectors create any unintended consequences for land transport or other sectors, such as aviation or shipping?

Question 3.4.2C: Are there particular freight corridors where there is high freight contestability? Can stakeholders provide information about potential overlap and competitive distortions?

Question 3.4.2D: Are there other changes to Safeguard Mechanism design that could address potential distortions consistent with Safeguard Mechanism objectives?

AIDC has focused this submission on the Safeguard settings most material to industrial decarbonisation, investment and competitiveness. We do not presently have a developed position on the sector-specific baseline issues raised for coal mining or the proposed transport facility definition changes, and consider those questions best informed by directly affected industries and technical experts.

Question 3.6: Feedback is sought regarding administrative aspects of the Safeguard Mechanism.

AIDC supports the Government addressing genuine technical and administrative issues identified through implementation of the 2023 reforms. Administrative amendments should improve clarity and efficiency without materially changing facility liabilities, access to flexibility or competitive treatment through changes presented as machinery amendments. AIDC would expect to engage further when draft amendments to the Safeguard Rule are released.