

WWF-Australia foreword

At WWF-Australia, we work at the intersection of nature, climate, and communities because we know the challenges facing our world today are inseparable. Climate change, biodiversity loss, inequality, and the continued disenfranchisement of Indigenous Peoples are deeply connected, and demand solutions that are equally integrated.

The decarbonisation of iron and steel offers a defining opportunity to put this into practice. Australia is uniquely placed to lead, but getting it right from the outset is critical – avoiding fossil fuel lock-in; moving rapidly to 100% renewable energy, as quickly as practical and along a least-cost, least-disruptive pathway; and ensuring the industry develops in ways that benefit both planet and people – including Indigenous communities who hold sovereignty over resource-rich lands.

As global supply chains shift, there is also an opportunity to strengthen a more diverse and resilient set of international partnerships through transparent and mutually beneficial trade in green commodities. This is not about concentration, but about building a broad coalition of partners committed to accelerating the transition and sharing its benefits.

Success will depend not only on supply, but on the signals we send about the future we want to build.

Creating strong, visible demand for green iron and steel is critical to give industry the confidence to invest, innovate, and move faster. Governments have a central role here: not just as regulators, but as shapers of markets and stewards of long-term public value. As this report shows, there are immediate, practical steps that can help turn ambition into momentum.

The prize is far greater than industrial transformation alone. This is a chance to reimagine what prosperity looks like. To place Australia at the heart of a low-carbon, regenerative, and socially just industrial revolution. Done well, it can show that we don't have to trade off between economic strength and the health of our planet and communities, but can build a future where each reinforces the other.

Together possible.

Nicole Forrester

Chief Regenerative Officer
WWF-Australia

Report summary

Green iron is a once-in-a-generation opportunity to grow Australia's industrial base, support decarbonisation in Asia-Pacific, and strengthen supply chain resilience. But a lack of bankable demand means no commercial-scale project has yet reached a final investment decision (FID).

Despite the significant support already announced by the Commonwealth, many projects in Australia typically don't yet have the revenue certainty required to secure external finance and justify multi-billion-dollar capital commitments.

In contrast, competitors in the Middle East are beginning to land long-term offtake deals and are locking in early-mover advantage. As such, Australia's window of opportunity is narrowing.

Demand-side policies are essential to unlocking first-mover green iron projects in Australia.

Demand-side policy tools like public procurement, offtake support, and carbon border adjustments are no longer a 'nice to have' for governments with green industry ambitions. Across the world, they are now a core feature of industry policy interventions.

These tools ensure there are willing buyers for green commodities – even where a price premium still exists compared to fossil alternatives. Demand-side policies are therefore critical to a holistic approach to industry policy – complementing supply-side subsidies like grants and concessional finance, which are important in the early phase of green industry development, but insufficient alone to drive scale in the long term.

In Australia, an integrated approach to demand-side policy could involve both *directly* supporting green iron projects and *indirectly* building the future market for green commodities:

- **Direct support (FID enabler):** Government directly helps early projects secure bankable offtake (e.g. through a double-auction model like H2Global^a). This creates a strong demand signal but must be targeted and time-limited to manage fiscal exposure.
- **Indirect support (market builder):** Government helps grow demand for green steel in lead markets (e.g., vehicles, construction), domestically and with partners in Asia. This helps build durable green iron

demand over time, but is slower and less directly bankable for projects today.

To be effective at scaling green iron demand, bilateral deals with key trading partners in Asia will be necessary.

Demand for green iron is ultimately a function of demand for green steel. New analysis in this report shows that Australian steel production is not big enough to drive bankable offtake for multiple green iron projects.

Instead, sustained industry growth will rely on the emergence of green iron export markets in Asia, where most global steelmaking happens.

Australian policymakers need to look outward, forging a new path of 'green trade statecraft' that creates mutually beneficial green iron trade corridors with partners overseas.

These trade partnerships are also an opportunity to demonstrate a new model of international economic collaboration, in an increasingly fractured global trading environment.

Australia should prioritise deals with Japan, Korea and China.

These countries are all major buyers of Australian iron ore and are hubs for global steelmaking. Crucially, Australia also *imports* significant amounts of steel from these countries – both in crude form and as part of finished goods (e.g. vehicles).

This creates the potential for a mutually beneficial green trade corridor – where Australia exports green iron to our Asian neighbours – and countries like Japan, Korea, and China export products made with green steel back to Australia.

There is also the potential for similar trade partnerships with other countries in Southeast Asia.

Policy action in 'lead markets' is a key part of building mutually beneficial green trade corridors with these partner nations.

Based on scale of demand, cost pass-through, appetite to pay green premiums, and ease of demand aggregation, this report finds:

- **Vehicles** represent the strongest lead market opportunity. Steel is heavily embedded in imported

^a See Chapter 3 for an overview of H2Global

vehicles, green premiums are modest, demand is concentrated among a small number of global manufacturers, and supply chains are closely linked to Japan and (increasingly) China - both priority markets for Australian green iron exports.

- **Heavy and civil construction**, including wind energy infrastructure, offers a strong secondary opportunity where government procurement and standard-setting can aggregate demand and signal commitment.
- **Commercial construction** shows pockets of excellence – especially among large property developers, data centres and globally exposed corporates – but is more fragmented.
- **Residential construction and machinery** are unlikely to be effective lead markets in the near term due to fragmentation, high price sensitivity, and/or trade dynamics.

To help grow a competitive green iron export industry, there are three key actions for Australian policymakers to consider:

- **Get 'lighthouse'^b projects to FID** – by consulting on a time-limited, competitive offtake/revenue-support mechanism that can underwrite demand for a small number of export-oriented projects.
- **Lock in green trade corridors and build lead markets** – by using Australia's domestic demand levers where they have the most strategic leverage (especially vehicles) to create reciprocal arrangements with key partners (such as Japan).
- **Retain existing policy supports** – including supply-side programs like the Green Iron Investment Fund (GIIF) and enabling frameworks like the Product Guarantee of Origin (PGO) Scheme.

The next few years will be decisive in shaping global green iron trade. As Australia seeks early-mover advantage and the ability to shape standards and supply chains, demand-side policy is a critical tool in the policy arsenal.

This report sets out the evidence base, assesses policy instruments that have worked internationally, identifies priority lead markets, and translates these findings into a practical agenda for action. With these tools, Australia can move from recognised opportunity to investable projects and durable green trade partnerships.

How policymakers can use this report:

- **Chapter 1** provides the latest view on Australian green iron projects and the **competition** they face from overseas.
- **Chapter 2** articulates the key **investment barriers** facing first-mover projects, based on work with major industrial decarbonisation projects.
- **Chapter 3** provides **practical policy lessons** from global case studies on demand creation.
- **Chapter 4** describes a clear **two-channel framework** for action by Australia.
- **Chapter 5** identifies **'lead markets'** where demand for green steel can realistically be pulled through first.
- **Chapter 6** describes the range of policy options available to the Commonwealth and a proposed **roadmap for action**.

While this report focuses on green iron, the findings are broadly applicable to other green commodities covered by the Future Made in Australia agenda. In particular, the findings in Chapter 5, which relate to priority 'lead markets', are also relevant for Australia's domestic steel industry, given there are several domestic green steel projects currently proposed.

Deloitte Access Economics would like to thank the experts who contributed their time and perspectives to inform this report and to the team at WWF-Australia for their work.

^b 'Lighthouse' projects are first-of-a-kind green and low-emissions iron projects – the success of which can help to prove the market in Australia.

Insight: Roadmap for demand

Now
–
2027

Get 'lighthouse' projects to final investment decision

Direct channel – highest priority

Consult with industry on the design of a time-limited, competitive offtake/revenue-support mechanism to underwrite a small number of export-oriented 'lighthouse'^c green iron projects.

This could leverage a similar model to the one already being consulted on under the H2Global Joint Tender with Germany (for hydrogen) or the proposed Clean Commodity Trading Initiative.

The mechanism should be structured to minimise fiscal cost – for example using a reverse auction with capped exposure, a clear tapering schedule (declining support over time), and strict eligibility.

Trade partners in Southeast Asia could be involved in the consultation, where project proponents include overseas steelmakers. For example, in exchange for financial contributions from trade partners, offtake deals could facilitate participation of overseas Engineering, Procurement, and Construction (EPC) firms in Australian green iron project development.

Build lead markets and lock in green trade corridors

Indirect channel – second priority

Use Australia's domestic demand levers where they have the most strategic leverage – especially vehicles – to create reciprocal arrangements with key partners, namely, Japan, Korea, China – and other partners in Southeast Asia.

Under such agreements, Australia would strengthen demand for products made with green steel, in return for partners supporting offtake and investment into Australian green iron supply. This would likely require collaboration between national governments and the private sector (e.g. steelmakers, auto manufacturers) and so would require significant diplomatic coordination.

Specific levers that could help build lead markets include:

- **Supporting international green steel buyer's coalitions** – for example through the Commonwealth acting as a central aggregator of demand from state governments, in return for coalitions offtaking from Australian-linked green iron and steel supply chains.
- **Embedding green iron and steel in trading agreements** – for example by leveraging the iron and steel decarbonisation workstream under the Australia-South Korea *Green Economy Partnership Arrangement on Climate and Energy*.
- **Test Commonwealth procurement levers** – for example, in future, mandating the use of some low-emissions steel within federal EV fleet purchases to provide a small, but symbolic, signal of Australia's desire to support green steel market development.

Ongoing

Retain existing supply-side measures in a holistic support package

Necessary complement






Retain existing supply-side mechanisms like the GIFF and Future Made in Australia Innovation Fund, which are critical for supporting first-of-a-kind (FOAK) green iron projects.

Continue to progress enabling infrastructure, approvals and common-user services, and ensure certification/measurement systems are internationally interoperable so demand-side measures can translate into real offtake and finance.

Across programs, ensure a holistic approach is taken to addressing investment barriers along the value chain.

^c 'Lighthouse' projects are first-of-a-kind green iron projects – the success of which can help to prove the market in Australia.

Insight: Creating lead markets for green iron and steel

Sector	Lead market potential	Price impact of using green iron and steel*	Potential focus areas for lead market policy
Vehicles 	Very Strong <ul style="list-style-type: none"> Concentrated sector with several large OEMs and significant global green steel commitments Some evidence of consumer willingness to pay a green premium Imports to Australia concentrated among major green iron export markets 	1.5- 2.5% \$1,000 on a new \$40,000 car (same as registration and CTP fees)	As part of a green iron and steel trade corridor, vehicle imports from: <ul style="list-style-type: none"> Japan and Japanese OEMs in Thailand (largest opp.) China South Korea
Heavy and civil construction 	Strong <ul style="list-style-type: none"> Government is primary procurer making demand aggregation easier Relatively small green premium given typical scale of projects 	<1% Only \$15 million on a \$10 billion transport infrastructure project	<ul style="list-style-type: none"> Government infrastructure projects Wind turbines (if price impacts can be mitigated)
Commercial construction 	Moderate <ul style="list-style-type: none"> Diverse sector with pockets of excellence and some corporates tenants who value lower embodied carbon due to scope 3 commitments Ability to aggregate demand is unclear 	<1% \$150,000 on a \$50 million office building	<ul style="list-style-type: none"> Data centres (have already made green steel commitments equivalent to 30% of their 2030 steel demand in APAC)
Residential construction 	Limited <ul style="list-style-type: none"> Highly fragmented market with very price sensitive buyers Limited / no evidence of buyer willingness to pay a green premium for lower embodied carbon properties 	<1% Only \$1,900 on a \$1 million home (20-30x less than Stamp Duty)	<ul style="list-style-type: none"> n/a
Machinery 	Limited <ul style="list-style-type: none"> Significant voluntary green steel purchase commitments across equipment manufacturers in APAC More substantial price premium from using green iron and steel 	6-8% \$35,000 on a \$500,000 excavator	<ul style="list-style-type: none"> Heavy machinery imports from China, as part of green iron and steel trade corridor

* Premiums relate only to the additional costs from using green steel (assuming a 50% green steel premium). No other changes to production process are accounted for.

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1. Green iron is a once-in-a-generation opportunity for Australia and our partners across Asia-Pacific, but the window to secure early-mover advantage is narrowing

KEY FINDINGS:

Green iron is a \$96-174^{d,1,2,3} billion per year opportunity to grow Australia's industrial base, support decarbonisation across the Asia-Pacific, and strengthen supply chain resilience at a time of unprecedented geopolitical instability. Domestically, it would bring value-adding activity onshore, create well-paid regional jobs, and diversify Australia's exports. For countries like Japan and Korea, sourcing green iron from a secure and reliable partner like Australia can help transition their steel industries as the global economy decarbonises.

However, many projects remain at an early stage of development, and none have yet reached Final Investment Decision (FID). In contrast, competitors in the Middle East are beginning to secure long-term offtake agreements, narrowing the window for Australia to seize early-mover advantage.

1.1 Why iron and steel must decarbonise

Steel is an essential part of modern life, and Australia is an essential part of the global steel value chain. The 1.9 billion tonnes of crude steel

produced globally each year⁴ is integral to our infrastructure, our transport, our energy systems, and to much more. Australia has long been a central player in this industry, producing around 40% of the

world's iron ore and 14% of the world's metallurgical coal.^{5,6} These two commodities are currently the main inputs required for steelmaking and they also have been key parts of Australia's economic success. Iron ore alone generated nearly \$150 billion in export revenue for Australia in 2023, three times as much as the second largest exporting nation – Brazil (Figure 1.1). This was primarily through sales to China, Japan, and Korea (Figure 1.2).⁷

^d There are many different estimates of the size of Australia's green iron opportunity, all of which are significant. Producing another estimate is beyond the scope of this report and so the range included here is based on estimates of *additional green iron exports* from Accenture, Mandala Partners, and Climate Energy Finance. Other estimates of Australia's combined iron ore and iron export revenues are even higher, ranging from \$250-386 billion (Climate Energy Finance and Superpower Institute). We make no assumption regarding the veracity of these estimates.

Figure 1.1: 2023 annual export volumes and revenues (\$ billion) for the world's largest iron ore exporters.⁵

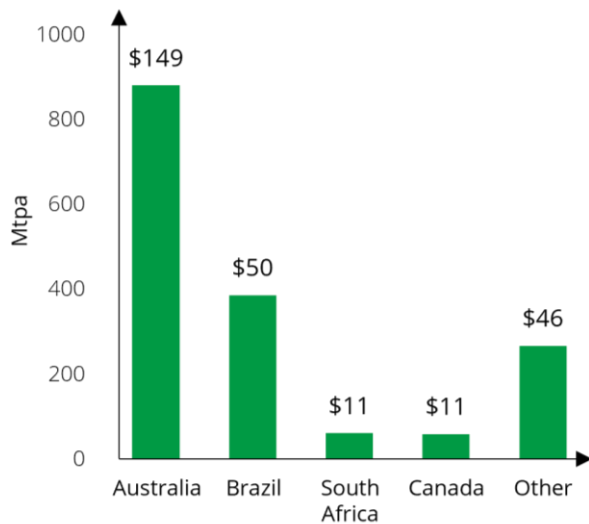
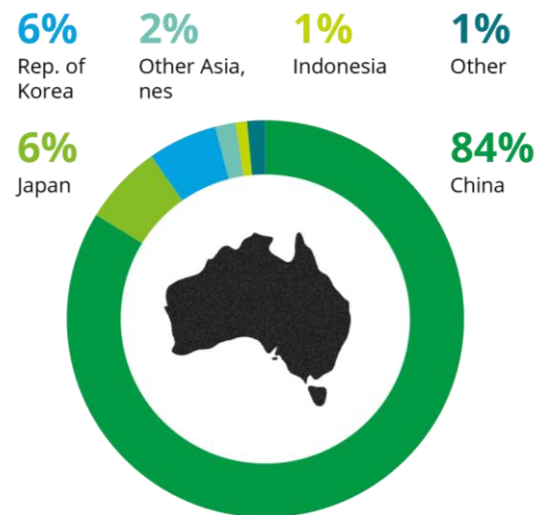


Figure 1.2: 2023 share of Australian iron ore exports by importing country.⁷



However, the steel industry is also a major source of climate pollution, accounting for 7-9% of global greenhouse gas emissions. If

steelmaking were a country, it would be the world's third largest polluter – behind only China and the US.^{8,9} Steel's emissions problem is only expected to grow, with a 33% rise in steel demand projected by 2050, driven largely by growing urbanisation in developing countries such as India.¹⁰

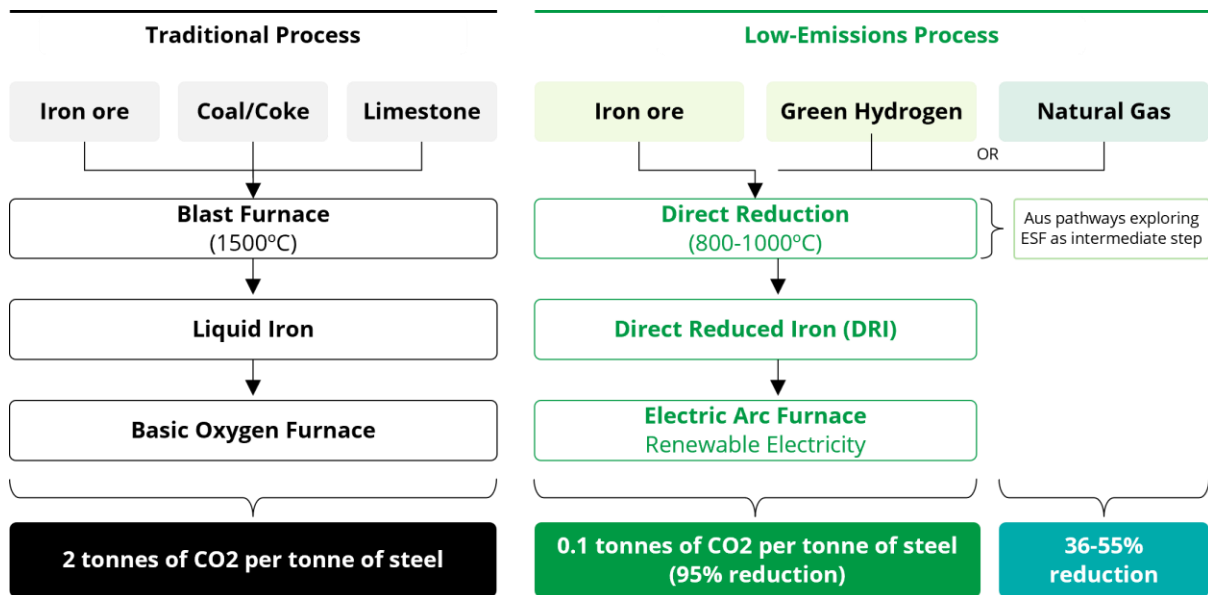
Most steel is made in Asia, where more than 80% of steelmaking activity uses the emissions-intensive Blast Furnace-Basic Oxygen Furnace (BF-BOF) method.⁸ On average, the BF-BOF method produces around 2 tonnes of carbon dioxide (CO₂) for every tonne of steel (Figure 1.3 – LHS). The majority of these emissions (70%) come from combining iron ore and coal to make liquid iron. This is the traditional process for 'ironmaking'.¹¹

To avoid the very worst effects of climate change, iron and steel must decarbonise. There are various technologies being developed to achieve this, but two major routes currently dominate:

- **DRI-EAF** (Figure 1.3 – RHS): This process uses hydrogen (H₂) or natural gas (NG) to convert iron ore to direct reduced iron (DRI)^e, and then uses an Electric Arc Furnace (EAF) powered by clean energy to convert iron to steel. Depending on whether natural gas or green hydrogen is used as the reductant, emissions reductions of 36-95% are possible. Additionally, some types of iron ore may require an Electric Smelting Furnace (ESF) as an interim step in the process. Around 7% of global steel is already produced using the DRI-EAF method, with activity focused in the Middle East and almost exclusively using natural gas as the reductant.
- **Steel-from-scrap**: This process uses EAFs powered by clean energy to convert scrap steel into crude steel. In 2023, EAFs were responsible for 28% of crude steel production, with scrap as the primary feedstock.^{4,12} Whilst scrap availability is expected to almost double by 2050, analysis suggests the volumes of feedstock will remain insufficient to satisfy global steel demand.¹³

^e Where the direct reduced iron is for export, it is compressed at high temperatures into dense briquettes, which are referred to as Hot Briquetted Iron (HBI).

Figure 1.3: High-level overview of low-emissions iron^f and steel production methods.^{14,15}



Over the next 2-3 years, the iron and steel sector must make major decarbonisation decisions.

Over 70% of existing blast furnaces either require major reinvestment or replacement by 2030¹⁶ – with Japan alone having 25 Mtpa of blast furnace capacity needing imminent major reinvestment.³ These plants typically operate on a minimum two-decade capital cycle, so reinvestment in BF-BOF capacity now would

lock in emissions-intensive production until at least 2050. Alternatively, DRI-EAF facilities (and alternative lower-emissions technologies) can give the sector a realistic chance to decarbonise. According to the OECD, nearly 60% of steel companies now include hydrogen-based DRI in their decarbonisation roadmaps.¹⁷

^f The terms ‘low-emissions iron’ and ‘green iron’ are used interchangeably throughout this report to indicate iron produced using green hydrogen, or using a blend of green hydrogen and natural gas as part of a transitional pathway.

Note, there are differing interpretations of the meaning of ‘green steel’ and ‘green iron’ and as yet no global consensus on the definition. For example, WWF-Australia defines ‘green iron’ as ‘iron produced without the use of fossil fuels and in ways that prioritise avoidance of adverse environmental, biodiversity, and community impacts’.

1.2 The opportunity for Australia and our partners

Steel industry decarbonisation creates an opportunity for Australia to move up the value chain and begin to make low-emissions iron.

Rather than simply exporting raw iron ore and coal – for use in the emissions-intensive BF-BOF steelmaking process – Australia could instead produce DRI (or similar products like high-grade pellets) and export this (value-added) commodity for conversion to steel in Asian EAFs. This is an opportunity to strengthen supply chain resilience, create well-paid jobs in regional and rural Australia, and build sovereign industrial capability.

Many of the conditions are in place for Australia to make this shift.

As discussed above, Australia is the leading supplier of iron ore globally and has some of the best renewable energy resources in the world. Recent challenges aside, there remains international interest in Australia's green hydrogen pipeline¹⁸. In an increasingly unpredictable global trade environment, Australia stands out as a stable and low-risk 'middle power' – with deep trading links already in place across Asia's manufacturing powerhouses. Australia now ranks second in the world on trade in the BCA Global Competitiveness Index¹⁹ and its relatively strong environmental standards provide an attractive environment for ESG-aligned investment.

Estimates of Australia's green iron opportunity are significant.

Across recent studies, the economic dividend from producing green iron in Australia and exporting it overseas vary from \$95-174 billion per year.^{1,2,3}

Building a low-emissions iron industry is also an essential hedge against the forecasted decline in Australia's fossil fuel exports.

Treasury modelling

for Australia's Net Zero Plan predicts that Australia's three largest export industries – iron ore, coal, and natural gas – will decline by ~18%, ~72%, and ~67%, respectively by 2050, as the global economy decarbonises.²⁰ Alongside this challenge, Australian iron ore exports are also subject to increasing price pressure from Chinese buyers, and competition from Brazilian exports – which generally offer higher-grade ore that is better suited to existing DRI technologies. The potential decline in export volumes, as a result of this competition, combined with global decarbonisation targets, has been estimated at up to A\$69 billion per year.¹⁷

Reflecting the scale of the opportunity, Australia has approximately 10 Mtpa of projects in the pipeline

(Figure 1.4). After Europe, this puts Australia alongside China and the Middle East and North Africa (MENA) as the region with the most steel decarbonisation projects in the world.²¹ At the time of writing in April 2026, there were five proposed commercial-scale DRI/HBI projects – led by POSCO, Green Steel WA, Progressive Green Solutions (see box below), Greensteel Australia, and Whyalla. Several of these projects are expected to use natural gas as the initial reducing agent and progressively incorporate green hydrogen over time. These projects have estimated initial output ranging from ~1.2 to 2.5 Mtpa (with ambitions to scale further in future). In parallel, several smaller pilot and demonstration projects are progressing to test technologies that could expand Australia's DRI-suitable resource base. Key pathways under development include ESFs to upgrade lower-grade ores (e.g. NeoSmelt, Fortescue), calcination-based processes (e.g. Calix technology), and novel electrochemical reduction approaches (e.g. Element Zero).⁸

⁸ A full list of proposed ironmaking projects, including the TRLs, is provided in Appendix A. Due to factors such as the ongoing sale process at Whyalla, this project pipeline is subject to change and should be considered an approximate estimate only. Beyond primary ironmaking, a broader pipeline of enabling infrastructure is developing across the value chain, including both operating and proposed

concentrate and pellet production facilities. In total, there are approximately eight operating projects and a further nine proposed, aimed at upgrading Australian iron ore into forms suitable for DRI and supporting future scale-up of green iron production. Downstream steelmaking capacity is also beginning to emerge, with proponents such as Green Steel WA progressing plans for an EAF in Western Australia.

Figure 1.4: Australia's low-emissions iron project pipeline (HBI and steel only)



Box 1.1: Project Spotlight – Progressive Green Solutions (PGS)^{22,23}

PGS is a proposed green iron project in WA's mid-West region, near the regional city of Geraldton. The project aims to produce 7 Mt of green iron pellets, converting half of this to make 2.5 Mt of green HBI. The plant will be powered by renewable energy, consuming green hydrogen and utilising local magnetite iron ore. Emissions reductions of up to 90% compared to traditional production methods are expected.

In September 2025, Thyssenkrupp Materials Trading signed an MoU with PGS to purchase all green hydrogen-based iron products from the site. Whilst not legally binding, the MoU is a strong commitment to commercialising the project. PGS has selected Thyssenkrupp Nucera (50.2% owned by Thyssenkrupp) as the preferred supplier for 1.4 GW of electrolyser capacity for the site.

However, no commercial facilities have yet reached a final investment decision. Several of the proponents are also relatively new entrants to the industry and do not currently have partnerships with existing steelmakers (i.e. to secure offtake for their product). In addition, even before the 2026 Middle East conflict, Australian heavy industry was facing difficult economic circumstances, as manifested through the closure of Kemerton lithium refinery,²⁴ the need to stabilise steel production at Whyalla, and government support for smelting operations at Mount Isa, Bell Bay, Boyne, and Tomago.

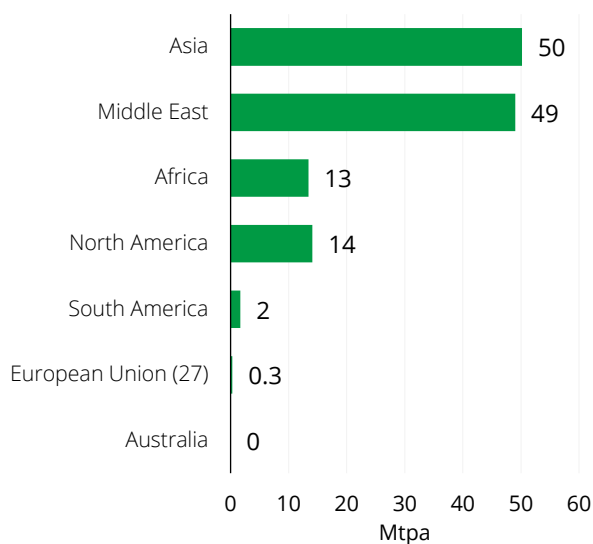
1.3 Australia’s competitors

Australia faces stiff competition from MENA, which is rapidly emerging as a global hub for low-emissions iron. The MENA region already dominates global gas-based DRI production, accounting for ~46% of global output in 2023 (Figure 1.5 - LHS),⁴ and has a DRI pipeline that is twice the size of Australia’s and growing rapidly.²¹ While MENA’s current natural advantage lies in its abundant supply of natural gas, the region also benefits from world-class renewable energy resources, with an estimated 22–26% of global solar energy potential²⁵ and around 75% of the region suitable for utility-scale wind.²⁶ This

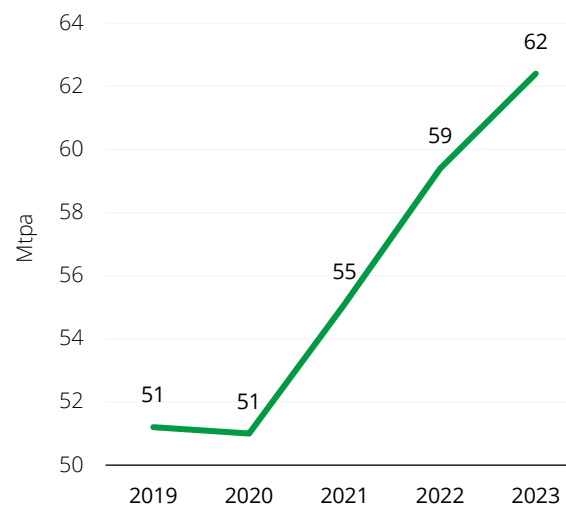
provides a pathway for gas-based DRI facilities to transition to green hydrogen over time – threatening to displace Australia’s potential share of emerging green iron markets.

Iron projects in MENA are already closing in on long-term offtake agreements. For example, the Meranti Green Steel project in Oman (which will utilise natural gas blended with green hydrogen) has already secured offtake agreements for 2.5 Mtpa with steelmakers Thyssenkrupp (Germany), Interfer (Germany), and Glencore (Switzerland).²⁷ The project is targeting FID in 2026.

Figure 1.5: LHS – DRI production in 2023 by region;



RHS – DRI production in the Middle East and North Africa (MENA) region (2019-23).⁵



Green iron will also have to compete with steel made from scrap. While scrap steel volumes will continue to fall short of meeting global steelmaking demand,¹³ it is a circular, supply-chain resilient, and commercially proven substitute to green iron – particularly for industries requiring long-products (e.g.

heavy and civil construction).²⁸ Additionally, target green iron markets have established steel-from-scrap production routes and are expanding, with Japan recently announcing a ~\$9 billion investment to facilitate a 2 Mt/year expansion of high-grade scrap processing.²⁹



Competition to reshape the global steel value chain comes at a challenging time for global trade. Even before the disruption to the global economy caused by the 2026 Middle East conflict, well-established trade patterns and historical norms were being upended – including as a result of Russia’s invasion of Ukraine and by the US’s introduction of tariffs.

The iron and steel sector also faces broader economic headwinds. There is currently significant global over-supply of steel, with excess capacity increasing at its fastest pace since the Global Financial Crisis (excluding COVID) and expected to exceed 680 Mt this year.³⁰ In response to pressure from cheap imports, Australia has expanded anti-dumping measures on Chinese steel, including a 10% tariff on ceiling frames and interim duties of 35–113% on other products.³¹ With global steel demand only projected to grow modestly through 2030 (~0.7% per year), this

is a very challenging time for the sector to be making major decarbonisation investments.³²

1.4 The narrow window of opportunity

Building a low-emissions iron industry in Australia is a long-game, requiring sustained investment and coordinated effort over many years. However, the window to secure early-mover advantage is narrow. If Australian projects do not progress as quickly as hoped, the ability to shape global industry standards, build enduring commercial relationships with steelmakers, and gain preferential access to new markets will be reduced. The next few years are therefore critical in determining whether Australia can be the ‘green iron key’ that unlocks steel decarbonisation across our partners in Asia, or whether that role will be filled by another country.

2. Scaling the green iron industry will require close collaboration with our trade partners and a 'suite' of policies across the entire value chain

KEY FINDINGS:

Scaling Australia's green iron industry will require close collaboration with our trading partners, as part of a 'suite' of policy support deployed across an international value chain. These policies are needed to address a series of investment barriers – some of which are within Australia's control, and some of which are outside it.

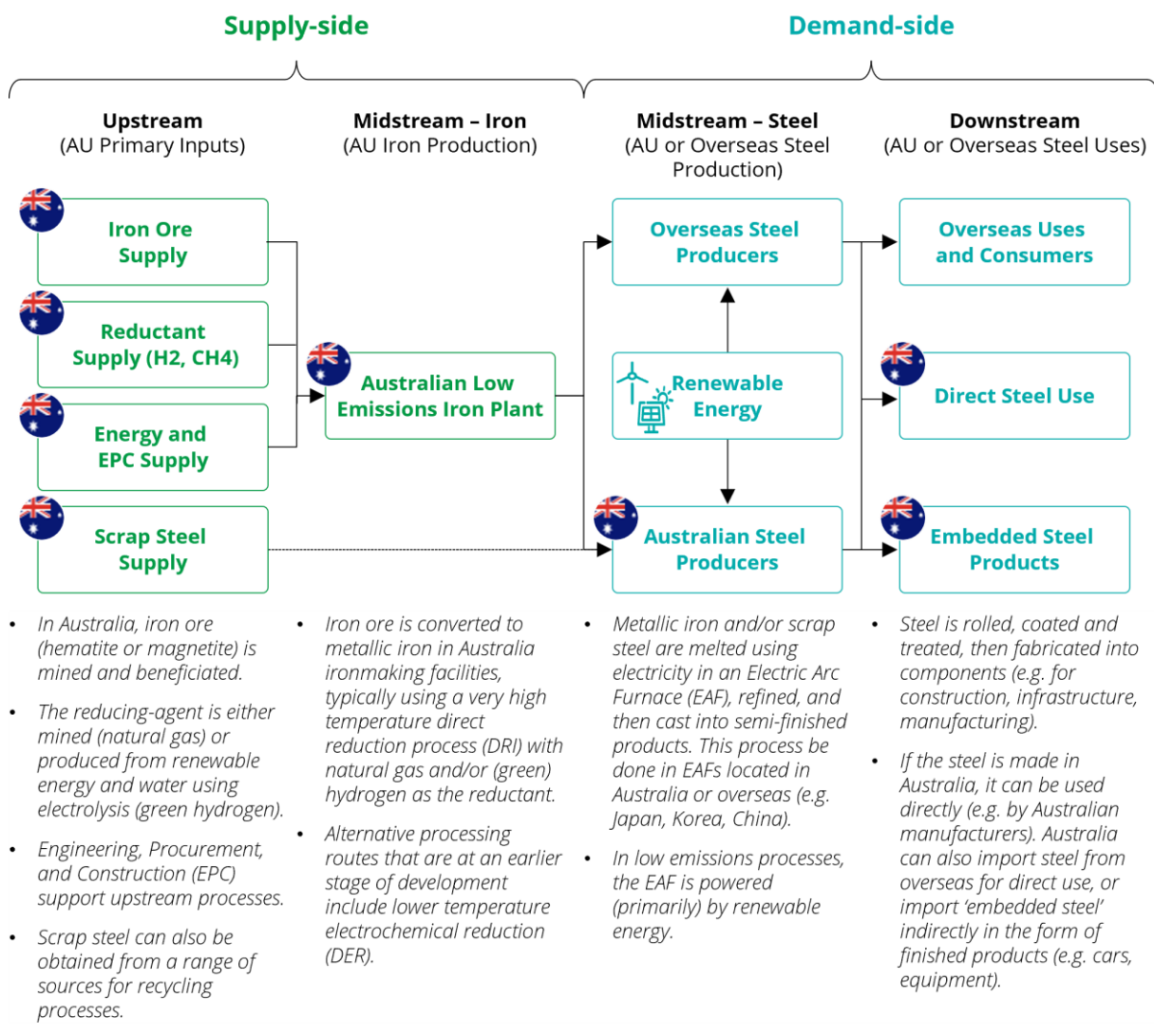
The Commonwealth has already taken action to support green iron projects. Despite this, many projects still lack the bankable demand required to secure external finance, reduce the cost of capital, and justify billion-dollar capital commitments.

2.1 The future value chain

Iron and steelmaking are part of an integrated global value chain, in which Australia is closely linked with its Asian trading partners. As set out in Chapter 1, Australia currently supplies the iron ore and metallurgical coal for BF-BOF steelmaking in Asia, with most supplies going to China, Japan and South Korea. However, the current processes involved in this value chain are not consistent with mitigating the worst impacts of climate change.

Decarbonising the iron and steel value chain will require a fundamental shift in how economic activity is organised. This involves moving ironmaking from being an emissions-intensive process that takes place in Asia, to being a lower-emissions process that takes place in Australia. This iron can then be converted to steel and latterly transformed into steel products, either in Asia or in Australia. A potential 'future iron and steel value chain' is shown below (Figure 2.1).

Figure 2.1: Australia’s potential low-emissions iron and steel value chain.



The economic and cultural scale of this transition is significant. Integrated steelmaking has played a foundational role in shaping the economic and cultural identity of both Japan and South Korea, contributing not only to industrialisation – but also being closely tied to national narratives of post-war reconstruction, technological excellence, and export-led growth. These cultural factors are crucial considerations to future policy design.

A ‘team effort’ is therefore required. Both Japan and South Korea face structural constraints on their

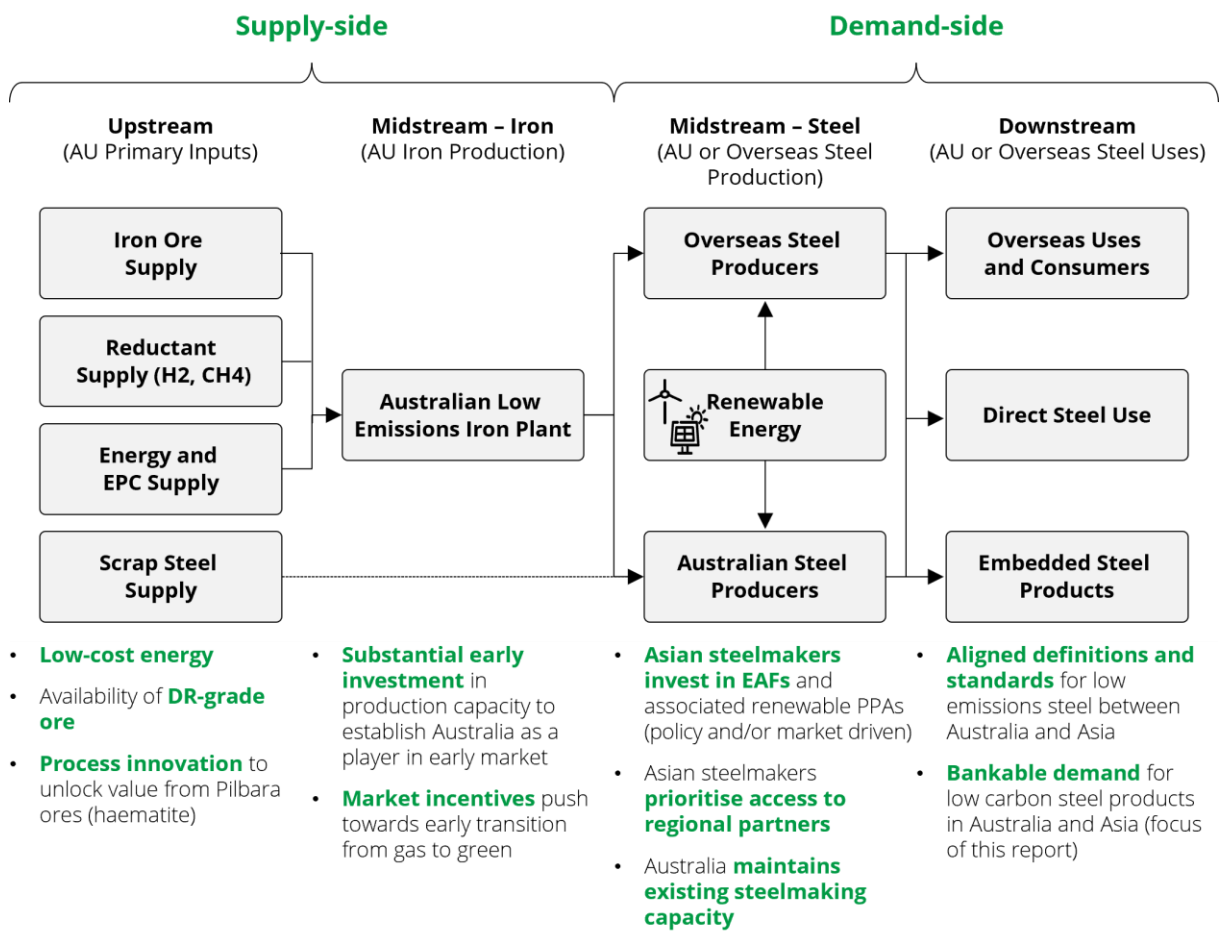
ability to decarbonise iron and steel, because they do not have the land or renewable energy resources required for lower-emissions pathways. 91% of land in Japan and 87% of land in Korea is unsuitable for renewable generation for hydrogen,³³ meaning collaboration with low-emissions ironmakers like Australia is essential. Such partnerships can be mutually beneficial, developing new industries in Australia and helping support Japan and South Korea’s position as steel industry leaders in a net zero world.

2.2 Investment barriers facing green iron

Building this future industry is contingent on a number of ‘necessary conditions’ across the value chain – not all of which are in Australia’s control. At the upstream end, Australia’s comparative advantage is reliant on securing abundant and low-cost raw materials and energy inputs (e.g. rapid deployment of low-cost and firm renewables).³⁴ In

midstream manufacturing, Australia needs substantial early investment to build green ironmaking capacity, and our partners in Asia need to prioritise DRI-EAF production pathways when existing blast furnaces reach end-of-life. At the downstream end, bankable demand needs to emerge for low-emissions iron products. Across the value chain, common definitions and standards need to be applied to facilitate trade.³⁵ These conditions are outlined in the figure below.

Figure 2.2: Necessary conditions for onshoring low-emissions ironmaking to Australia.



However, Australian green iron projects face a series of interconnected ‘investment barriers’:

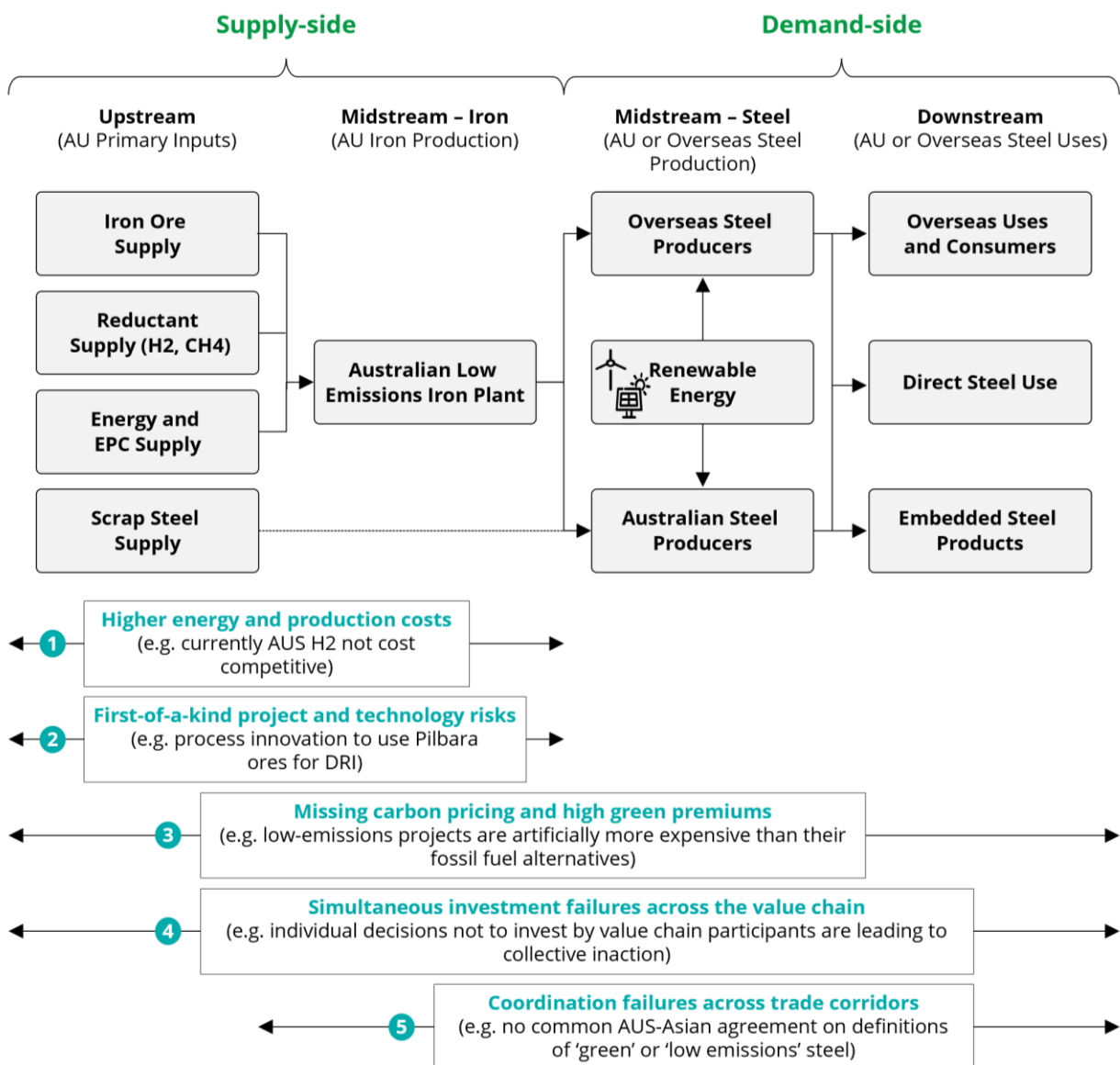
- 1 Higher energy and production costs (supply-side):** Despite Australia’s theoretical comparative advantage in (renewable) energy costs, challenges like the speed of environmental approvals, grid connections, and build-out of common user infrastructure mean that production costs for Australian green iron remain higher than leading international peers like China and the Middle East.^h
- 2 First-of-a-kind project and technology risks (supply-side):** Early producers of green iron in Australia will likely incur higher costs, but will also generate shared knowledge that reduces costs for later producers. Typically, early producers are not compensated for this shared knowledge. This can deter up-front investment in first-mover projects and the technologies to realise them.
- 3 Missing carbon pricing and high green premiums (supply and demand-side):** There is currently no system of international carbon pricing that requires producers (or consumers) to pay for the damage inflicted by carbon emissions. Consequently, low-emissions projects are more expensive than their fossil fuel alternatives, suppressing demand and reducing project bankability. A green premium of 50% is assumed for the analysis in this report, in line with previous Deloitte and WWF-Australia analysis (see Appendix B) and other publicly available estimates.²⁸ Domestic carbon pricing arrangements across Australia’s trade partners are insufficient to close this gap.ⁱ
- 4 Simultaneous investment failures across the value chain (supply and demand-side):** Multiple actors across Australian and our Asian trading partners must invest at the same time for commercial returns in green iron to materialise (e.g. renewable build out, iron facility investment, offtake from steelmakers). Currently, individually rational decisions not to invest by value chain participants are leading to collective inaction and consequently a lost economic opportunity for all.
- 5 Coordination failures across trade corridors (supply and demand-side):** There are currently no harmonised standards for emissions measurement and verification across Australia and our key trading partners. Consequently, high-integrity green trade – where a monetary value is attached to the environmental characteristics of a product – is very difficult. These barriers are shown in the figure below.

These barriers are shown in Figure 2.3 below.

^h Further details on production cost differentials between Australia and other leading international peers are available in Deloitte and WWF-Australia’s previous report, *Forging Futures: Changing the nature of iron and steel production*.

ⁱ Further details on Asian carbon pricing arrangements and their impact on the competitiveness of Australian green iron projects are available in Deloitte and WWF-Australia’s previous report, *Mined the gap: Australia’s place in the emerging green iron value chain*.

Figure 2.3: Barriers to investment across the value chain (not exhaustive).



The Australian Government has recognised the need to address these barriers and announced several supply-side incentive programs (see Box 2.1). They include capital grants, production tax incentives, funding for enabling infrastructure, and concessional finance. Primarily these interventions seek to address energy and production costs (barrier 1), technology and project risks (barrier 2), and missing domestic carbon pricing (barrier 3). In addition, the government has announced an Investor Front Door, which will offer project developers a dedicated engagement manager to help navigate approvals and fast-track project development.³⁶

Box 2.1: Supply-side policy measures support Australian green iron

- **Green Iron Investment Fund** (DISR) – \$1 billion in capital grants to support early-mover green iron projects. A maximum of \$500 million is expected to go to the Whyalla Steelworks transformation and a minimum of \$500 million is open to other applicants.
- **Future Made in Australia Innovation Fund, Green Metals Stream** (ARENA) – up to \$750 million in grants to support innovation and commercialisation of green metals technologies, including green iron and steel.
- **Net Zero Fund** (NZF) – \$5 billion of highly concessional finance to support manufacturing investment and energy affordability across hard-to-abate sectors.
- **Hydrogen HeadStart** (DCCEEW) – Competitive funding to support green hydrogen projects, helping to cover the commercial gap between the cost of producing renewable hydrogen and its market price.
- **Hydrogen Production Tax Incentive** – a \$2/kg production tax credit for eligible renewable hydrogen produced from 2027 to 2040.
- **Hydrogen Hubs** – over \$500 million to co-fund shared infrastructure and establish hydrogen hubs across regional Australia.
- **State Support** – both South Australia and Western Australia have released green iron and renewable hydrogen strategies, with funding committed to support industry development.
- **Safeguard mechanism** - tightening emissions caps, which require the gradual decarbonisation of major industrial facilities, including steelmaking.

However, supply-side interventions alone are unlikely to be sufficient. This is primarily because they do not address investment barriers that exist on the demand-side of the market (e.g. barriers 3, 4, and 5). For example, supply-side subsidies are generally unable to deliver the revenue certainty that is required for a project to become bankable and reach final investment decision. Whilst supply-side subsidies help improve project economics, market-creating measures are also needed to scale production, drive learning-by-doing, and reduce costs over time. Finally, the fiscal capacity of (almost all) governments is unlikely to be sufficient to fully cover the cost premiums of first-mover projects through supply-side subsidies. Cost sharing with the private sector is needed.

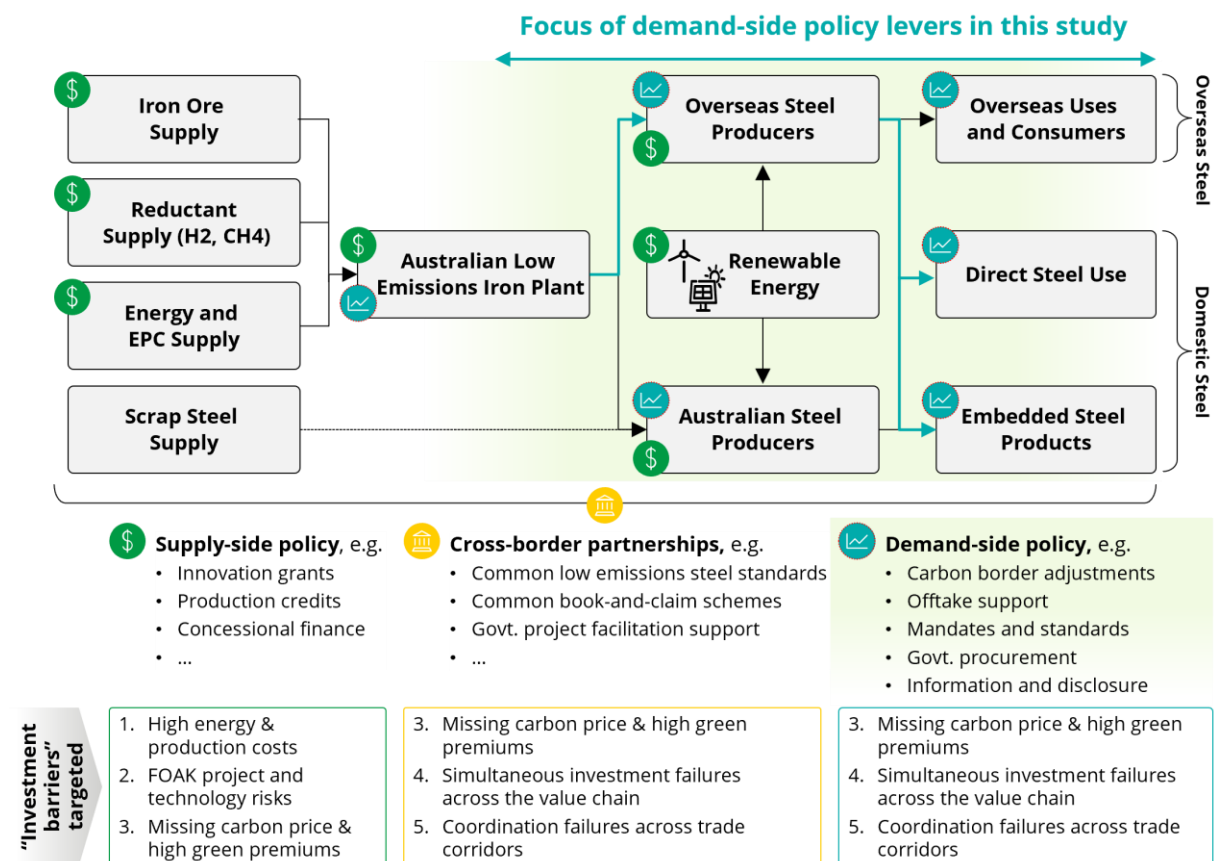
The recent challenges facing Australia's hydrogen industry demonstrate the importance of complementary approaches. Despite significant supply-side support to reduce production costs (see Box 2.1), large-scale projects have struggled to reach FID³⁷ and many continue to be hindered by the absence of long-term offtake agreements.³⁸ Recent setbacks include the cancellation of the \$12.5 billion

Central Queensland Hydrogen Project;³⁹ the abandonment of Trafigura's planned \$750 million Port Pirie facility;⁴⁰ and Origin Energy's withdrawal from the Hunter Valley hydrogen hub.⁴¹

2.3 How a holistic suite of policies can support industry growth

Addressing the interconnected investment barriers facing low-emissions iron projects is likely to need a holistic suite of policies that includes both demand-side measures and cross-border partnerships (Figure 2.4). Demand-side policy can create predictable, bankable markets for green iron and steel – helping projects secure the offtake agreements required to reduce investment risk and unlock private capital (addressing barriers 3 and 4). Cross-border partnerships can align regional emissions standards and certification, ultimately supporting the development of shared markets for low-emissions products (barriers 3, 4 and 5). Given the integrated nature of global steel value chains, coordinated action across countries is essential.

Figure 2.4: Example policy interventions across the iron and steel value chain (not exhaustive)



Experts in Australia have highlighted demand-side policy as an essential ingredient for projects to reach final investment decision. As part of the recent *Build Clean Now Workshop*, which brought together more than 50 experts from across industry and government to discuss clean industry policy, stakeholders voted “insufficient demand” as the most pressing challenge facing first-mover projects.⁴² This view was re-affirmed by several experts interviewed for this report, and by analysis from the Industrial Transition Accelerator which shows that globally insufficient demand for low-carbon products is the critical investment barrier to unlock over 450 large-scale industrial projects and \$700 billion of investment.⁴³

In line with these findings, recent work by the World Economic Forum First Movers’ Coalition (in collaboration with Deloitte) identified that “bankability is the binding constraint” for low-emissions iron and steel projects – and that policy is needed to overcome the “financing problem linked to demand visibility”.⁴⁴ Suppliers interviewed for the First Movers’ Coalition report noted that “where credible policy backstops and procurement standards are emerging, offtakes are advancing”. Importantly, most Build Clean Now experts also indicated that the federal government is best placed to unlock this demand for Australian clean commodities.

Green iron is primarily an export opportunity for Australia, and so any demand-side policy will need to create bankable offtake in overseas markets (especially Japan, South Korea, and China). This will require proactivity on Australia’s behalf, since voluntary corporate commitments lack the scale needed to decarbonise ironmaking at pace. For example, at the time of writing, downstream corporate targets in sectors including automotive, construction and machinery total about 6.1 Mt of green steel demand by 2030⁴⁵ (just 0.3% of global steel demand) and less than half of the world’s 50 largest steel producers have net zero targets for 2050.⁴⁶ Asian trading partners’ current policies reflect a growing level of ambition (e.g. Japan’s GX initiative) but remain relatively modest.³

The following sections of this report therefore focus on potential demand-side policy levers that Australia could consider – in partnership with its Asian trading partners – for green iron (and steel). It therefore fills an important gap in the Australian policy literature, which has thus far focused primarily on supply-side incentives – and to a lesser extent – on the development of emissions verification and reporting.

3. Demand-side policies are now a core feature of global efforts to develop sovereign industrial capability

KEY FINDINGS

Across the world, demand-side policies are now a core feature of efforts to unlock first-mover decarbonisation projects and develop sovereign industrial capability. The EU CBAM is transforming global trade and has been credited by green iron developers such as Meranti as helping drive industry growth. The H2Global scheme has provided offtake support to help Fertigllobe’s green ammonia project move towards financial close, and California’s low carbon fuel standard has catalysed industry growth in the US.

3.1 Categories of demand-side policy

Demand-side policy includes a range of instruments, from mandates to government procurement and offtake support. In line with definitions used by the IEA⁴⁷, OECD, World Bank, and IMF, demand-side policy is defined for the purposes of this study as:

“ Measures that create, strengthen, or guarantee demand for specific products or technologies – in order to stimulate investment, improve commercial viability, and accelerate market development. ”

Within this definition, demand-side policies can be grouped into the five main categories. Case studies of each of these policy categories are provided on the pages that follow.

Table 3.1: Demand-side policy categories and examples

#	Category	Description	Some examples	Strengths	Weaknesses
1	Carbon border adjustments	Importers are charged a fee if the carbon price in the exporting country is lower than the carbon price in the importing country (fee is equivalent to carbon price differential).	<ul style="list-style-type: none"> • EU CBAM • Asian CBAM (Hypothetical – Proposed by Climate Energy Finance) 	<ul style="list-style-type: none"> • Low cost to government • Create enduring demand signal over time 	<ul style="list-style-type: none"> • Politically and operationally complex

Creating the pull: Demand-side levers for green iron and steel

#	Category	Description	Some examples	Strengths	Weaknesses
2	Offtake support	Provides revenue support for projects, for example by guaranteeing a future price and/or sale quantity for a product.	<ul style="list-style-type: none"> • C'wealth Capacity Investment Scheme • H2Global Scheme • UK Contracts for Difference • Clean Commodity Trading Initiative (Proposed by Thurbon and Yates) 	<ul style="list-style-type: none"> • Very strong demand signal • High domestic anchoring power 	<ul style="list-style-type: none"> • High cost to government
3	Mandates and standards	Requires certain percentage uptake of low-carbon products to be used in specific sectors/products.	<ul style="list-style-type: none"> • California Green Building Standards Code • Singapore SAF mandate • California LCFS 	<ul style="list-style-type: none"> • Strong demand signal • Strong market forming ability • Low cost to Government 	<ul style="list-style-type: none"> • High political and operational complexity • Imposes costs on consumers
4	Government procurement	Direct purchases of low-emissions products by the government.	<ul style="list-style-type: none"> • C'wealth Environmentally Sustainable Procurement Policy • Sweden's National Procurement Strategy and Climate Plan 	<ul style="list-style-type: none"> • Strong domestic anchoring power • Relatively shorter time required to achieve impact 	<ul style="list-style-type: none"> • High cost to government • Scale of demand only exists in some sectors
5	Information and disclosure	Information to help buyers understand the environmental attributes of a product, shifting market norms. Creates conditions for private sector actors to voluntarily pay the green premium and be recognised and rewarded for attaining higher ratings and standards.	<p>Rating schemes:</p> <ul style="list-style-type: none"> • Green Building Council Australia (GBCA) Green Star • NatHERS (Nationwide House Energy Rating Scheme) • ACT's Energy Efficiency Rating Disclosure Scheme <p>Standards:</p> <ul style="list-style-type: none"> • C'wealth Guarantee of Origin scheme • EU Low Emission Steel Standard (LESS) • EU Battery Passport 	<ul style="list-style-type: none"> • Low cost to consumers • Low cost to government 	<ul style="list-style-type: none"> • Weak demand signal • Low market forming ability • Weak domestic anchoring power • Relatively long time required to achieve impact

3.2 Carbon Border Adjustments

3.2.1 Overview, strengths, and weaknesses

Carbon border adjustment mechanisms (CBAMs) involve importers being charged a fee for importing a product, equivalent to the carbon price differential between the exporting country and the importing country. The only CBAM currently in place at scale is the EU CBAM.

Carbon border adjustments ensure that a consistent financial cost is placed on greenhouse gas (GHG) emissions across a given trade corridor. They therefore prevent what is known as ‘carbon leakage’.^j For the purposes of this study, CBAMs are considered to be demand-side policy instruments, because the carbon price is paid by the buyer (importer) of the product. This is in contrast to a standard carbon price (or emissions trading scheme) where the carbon price is paid by the producer.

Carbon border adjustments create economy-wide, technology-neutral incentive to reduce emissions. By equalising domestic and international carbon prices, they can be designed to have **strong domestic anchoring** power – and by reducing the green premium they can have **strong long-term market forming ability**. Costs of the carbon tariff are **borne by importers** (and consumers), rather than by governments.

The strength of the demand signal provided by CBAMs and the speed of change they achieve are both ultimately a function of the (domestic) carbon price they are benchmarked against. There is a broad

consensus that the relatively high EU carbon price (as of March 27, 2026, the EU Allowance (EUA) price is trading at approximately €71.37 per tonne⁴⁸) – and therefore EU CBAM – creates a relatively **strong demand signal**.

3.2.2 Case study: EU CBAM

The EU CBAM is applicable to 27 member countries in the EU and covers six commodities – iron and steel, cement, aluminium, fertilisers, and hydrogen.

CBAM aims to ensure a level playing field between EU producers, who are subject to carbon pricing under the EU Emissions Trading Scheme (ETS), and imports. After a transitional reporting phase from 2023-2025, importers must purchase CBAM certificates covering the emissions embedded in their imported goods from 2026 onwards. The CBAM price is expected to reflect a gradual phase-in of financial exposure linked to the fluctuating price of the EU ETS. The price an importer pays is discounted by the amount of free allowances still given to EU domestic manufacturers. As those allowances are phased out, the CBAM obligations ramp up until 100% of embedded emissions must be paid for.⁴⁹

The introduction of the EU CBAM has already been cited as an important factor in several recent clean industry investment decisions (see [Box 3.1](#) and [Box 3.2](#)). European steelmakers affected by the policy have been advancing green iron projects in response, including Thyssenkrupp’s partnership with Progressive Green Solutions’ in WA (see Chapter 1).⁵⁰

^j This is when emissions-intensive production relocates to countries with lower carbon prices, thus undermining emissions reduction policies

Box 3.1: Meranti Green Steel (MGS) and the EU CBAM

Meranti Green Steel is a project in Oman's Duqm Special Economic Zone that aims to produce low-emission DRI and HBI for the European and Southeast Asian markets. It is backed by Singaporean parent company Meranti Steel and supported by strategic partners such as the Amnah Energy consortium (for green hydrogen). Meranti is one of several rapidly advancing gas-to-hydrogen projects in the Middle East.

In January 2026, MGS announced that it has secured full offtake for 2.5 million tonnes of HBI per annum from its Oman project. This was allocated across four partners: Germany's Thyssenkrupp Materials Trading (1 Mtpa), INTERFER Edelstahl and INTERFER Austria (0.25 Mtpa), Glencore, and Meranti's new steel plant in Thailand.²⁷ Distribution from Thyssenkrupp and INTERFER will focus on EU countries such as Austria, Belgium, Germany, and Italy.

Meranti's CEO Sebastian Langendorf has previously said that "the long-term trajectory towards green steel is irreversible, with Europe's CBAM and the decommissioning of blast furnaces setting the stage for green steel's growth".⁵¹ As MGS prepares for export to Europe, the company is now building systems to verify and track emissions at both plant and product levels, in line with CBAM requirements.⁵²

Box 3.2: ArcelorMittal and the EU CBAM

ArcelorMittal is one of Europe's leading steelmakers, operating a vast network of primary steelmaking sites across the continent, including major hubs in Belgium, France, Germany, and Spain. The company has made major commitments to decarbonise, targeting a 35% reduction in carbon intensity across their European operations by 2030 and reaching group-wide net zero by 2050.

ArcelorMittal has recently committed a €1.3 billion investment to construct a 2 million tonne Electric Arc Furnace (EAF) at their Dunkirk site in France.⁵³ Part of the project will receive public support through Energy Efficiency Certificates amounting to 50% of the total investment.

ArcelorMittal estimates that the EU CBAM, alongside EU's tariff-rate-quota tool, will reduce steel imports by around 10 million tonnes compared to 2024,⁵⁴ creating a lead market for domestic green steel.

3.2.3 Relevance for Australia

The EU CBAM represents a fundamental shift in global trade and Australia is currently considering introducing a similar policy. In February 2026, the Government released the final report of the Carbon Leakage Review,⁵⁵ which recommended the phased introduction of an Australian carbon border adjustment. The review identified that iron and steel were potential candidates for this mechanism, noting that partial Safeguard Mechanism coverage and complex supply chains meant such a policy required further investigation for these sectors.

Organisations such as Climate Energy Finance (CEF) have also suggested that of the biggest levers to unlock Australian green iron lies in the advocacy for – and alignment with – a regional Asian CBAM. Given that more than 80% of Australia's iron ore exports are

currently destined for China,⁷ the implementation of carbon pricing at the border of our major trading partner could act as a powerful regional multiplier for green iron demand. By coordinating carbon costs across the Asia-Pacific, CEF argue that an Asian CBAM could reduce the competitive advantage of high-emission, blast-furnace steel production, creating a protected lead market for green iron.

Stakeholders interviewed for this report suggested that Australia will be in a stronger position to advocate for higher carbon prices (and a CBAM) in Asia, if it has demonstrated its own commitment to a similar domestic policy architecture. The Commonwealth may therefore want to consider the findings of the Carbon Leakage Review – both in terms of their economic merit – and in terms of the geopolitical signal that introducing such a policy would send to our partners in Asia.

3.3 Offtake Support

3.3.1 Overview, strengths, and weaknesses

Offtake supports provide long-term revenue certainty to producers by guaranteeing a market or a price for low-emissions commodities to de-risk early projects, often through government-backed contracts.

Examples include:

- **H2Global mechanism:** Under this mechanism, a government-backed intermediary buys green commodities at the lowest bid price via a long-term contract, and sells them to the highest bidder on the demand-side. The price gap (green premium) is covered with public funds.
- **Clean Commodity Trading Initiative (CCTI):** A proposed policy that uses government-backed offtake agreements to de-risk and stimulate investment in low-emissions commodities by guaranteeing price, volume, and a market for early producers.
- **Contracts for Difference (CFD):** This mechanism also involves a two-way payment system. If the market price of the green commodity is lower than a pre-agreed strike price, the government pays the producer the difference. If the market price exceeds the strike price, the producer pays the government back.
- **Advanced Market Commitments:** A government or coalition guarantees to purchase a specific volume of green commodities at a premium price, with delivery only once other offtakes have been signed.

Offtake support provides a **very strong demand signal** to de-risk (FOAK) projects. By providing predictable revenue streams, offtake support mechanisms improve project bankability and facilitate financing for capital-intensive facilities. They have **very strong domestic anchoring power** and can be part of an initial set of policies to build green commodity markets over time.

However, this lever carries **high fiscal exposure**, as the government may need to cover the cost of the green premium for extended periods, particularly while technologies mature and supply chains scale. As such, offtake support is likely to be most effective as an early-stage market catalyst, enabling the first generation of green iron plants to be developed.

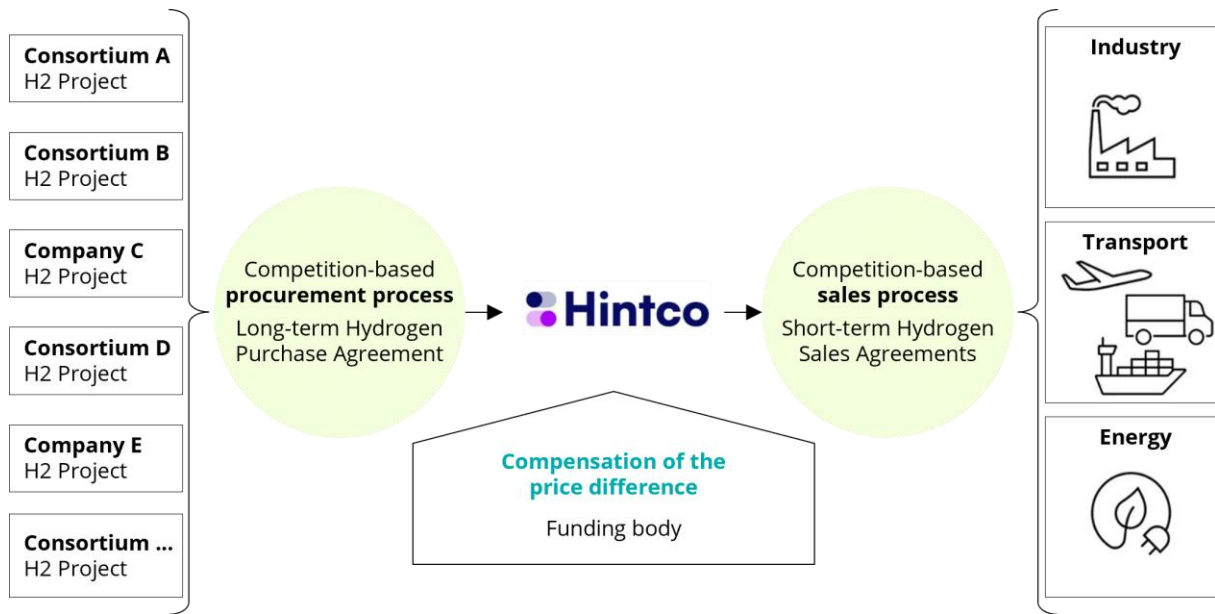
3.3.2 Case study: H2Global Mechanism

The H2Global mechanism is a market-based instrument developed to accelerate global markets for clean hydrogen and its derivatives (e.g., renewable ammonia, e-methanol and low-carbon fuels) by creating long-term offtake and revenue certainty for early suppliers.

The mechanism operates through a double-auction format, in which an intermediary ('Hintco') matches competitive bids from hydrogen producers, with competitive bids from hydrogen buyers, and uses public funds to bridge the gap (i.e. the green premium – see Figure 3.2). It helps make early-stage low-carbon hydrogen supply bankable by compensating the difference between high initial production costs and demand-side willingness to pay. Funding for H2Global tenders is provided collaboratively by several governments including Germany, the Netherlands, Canada, and Australia.

While the H2Global mechanism is still in its early stages, it has demonstrated how guaranteed offtake contracts can support investment and scale production (see Box 3.3). A similar model has been proposed under the Clean Commodity Trading Initiative (see Box 3.4).

Figure 3.2 The H2Global mechanism⁵⁶



Box 3.3: Fertiglobe, Egypt Green Hydrogen, and offtake via H2Global

Egypt Green Hydrogen is a project in the Suez Canal Economic Zone that aims to produce renewable hydrogen to be used as feedstock for green ammonia for the European market. It is backed by a consortium comprising Scatec ASA, Fertiglobe, Orascom Construction, The Sovereign Fund of Egypt, and the Egyptian Electricity Transmission Company.

In 2024, Fertiglobe was announced as the sole winning bidder in the first ever H2Global pilot auction (Lot 1) to supply renewable ammonia to Europe.⁵⁷ Fertiglobe will procure the supply of renewable hydrogen from Egypt Green Hydrogen to be used as input for renewable ammonia at their existing ammonia plant in Ain Sokhna. Fertiglobe will start producing renewable ammonia for European ports in 2027 for a maximum contract value of €397 million,⁵⁸ providing a multi-year revenue stream that underpins project financing.

At the time of the award, the fossil-based ammonia spot price in Northwest Europe was approximately €515 per tonne,⁵⁹ meaning that the auction therefore bridged a green premium of nearly €485 per tonne.

Box 3.4: Clean Commodity Trading Initiative (CCTI)⁶⁰

The CCTI is a proposed demand-side policy designed mainly for early-stage and FOAK projects to unlock investment in low-emissions commodities such as green iron. This would be achieved through government-backed, long-term offtake agreements that guarantee both price and volume for early producers. By reducing revenue uncertainty and underwriting the green premium, the CCTI enables projects to secure financing and reach FID.

By acting as an intermediary purchaser and market-maker, the CCTI can also aggregate demand, support price discovery, and support exports to key partners such as Japan and South Korea.

A key feature of this initiative is the decoupling of environmental attributes from the underlying physical commodity, enabling these attributes to be independently certified and transacted. This enhances market liquidity, facilitates more efficient price discovery for low-emissions premiums, and broadens participation by allowing a wider range of buyers to support emissions reductions without requiring the direct procurement of the physical product.

3.3.3 Relevance to Australia

Australia and Germany have both committed €200 million to deliver a H2Global joint tender. Through this joint tender, Australia hopes to provide revenue certainty for export-oriented hydrogen (and derivative) projects and signal early market demand for Australian products in Europe.⁶¹ Following the conclusion of public consultations in February 2026, public information suggests the Australian and German governments are now finalising the mechanism's design. This suggests a potential openness to deploying this kind of model to support low-emissions steel. This demonstrates that a similar mechanism could be deployed for green iron and Australia already has the institutional architecture in place to design this.

3.4 Mandates

3.4.1 Overview, strengths, and weaknesses

Mandates create demand by requiring a certain uptake of low-emissions products and therefore guaranteeing an offtake market. Mandates can be deployed in a specific or standalone form (i.e. requiring a certain percentage of a green product), or as part of technology agnostic requirements to reduce emissions in particular sectors of the economy (i.e. requiring vehicle manufacturers to reduce overall emissions, therefore encouraging uptake of EVs). Examples include:

- **California Green Building Standards Code (CALGreen):** A mandatory green building standard

that mandates sustainable construction practices for new residential and non-residential buildings.

- **Singapore SAF Mandate:** Singapore will introduce a mandatory 1% SAF target for all flights departing from Changi and Seletar airports from 1 October 2026, aiming for 3-5% by 2030.⁶²
- **California Low Carbon Fuel Standard (LCFS):** A Carbon Intensity (CI) standard for transport fuels that has been in place since 2011.

Mandates can be **highly effective for market formation** as the certainty in demand enhances investor confidence and allows green iron producers to plan long-term capital investments. They can also be relatively **low cost** for governments, since the price premium is paid by consumers (who are mandated to buy the product).

The flip-side is that mandates can be **expensive for consumers** and therefore **politically challenging** to introduce. This is particularly the case if the mandate is introduced before supply is available at scale. Unless accompanied by domestic content requirements, mandates do **not necessarily have strong domestic anchoring power**, since compliance can be achieved with imported products.

3.4.2 Case Study: California's LCFS

The LCFS is a market-based regulation that requires fuel suppliers in California to steadily reduce the average carbon intensity of transport fuels. It sets declining annual CI targets, where lower-carbon fuels earn tradable credits and higher-carbon fuels create

deficits that must be covered. Emissions are measured using full life-cycle analysis, capturing impacts from production to end use across gasoline, diesel, biofuels, renewable diesel, renewable natural gas, electricity, and hydrogen. California's LCFS has been in place since 2011 and has been progressively tightened over time, providing a long-term and predictable decarbonisation signal to fuel producers and investors.

The impacts of this policy include:

- **Significant low-carbon fuel deployment:** California's LCFS has had measurable impact on alternative fuel uptake and transport emissions since its implementation in 2011 and subsequent amendments in 2018 and 2024. Supply of alternative fuel has generally increased with the progressive strengthening of CI reduction compliance targets. In 2024, 4,609 million Gasoline Gallon Equivalent (GGE) of alternative fuel were supplied and 36.4 million metric tons (MT) of credits have been generated, for example through biodiesel, renewable diesel, and biomethane.⁶³
- **Technology-neutral compliance encourages innovation:** Multiple pathways for compliance under the LCFS, including biofuels, hydrogen and electricity, allows for flexibility and technology neutrality in innovation.

3.4.3 Relevance to Australia

In general, Australia has not pursued strict national 'mandates' to encourage heavy industry decarbonisation in the same way as some other nations. The main exception to this is state-based biofuel blending mandates (e.g., New South Wales and Queensland requirements for a minimum ethanol content in petrol).

Instead of mandates, Australia has generally chosen to implement market-based mechanisms, which set overall emissions caps but allow different types of technology to compete to meet the requirement. For example, the **Renewable Energy Target** for electricity is widely regarded as successful in reducing electricity sector emissions⁶⁴ and uses this kind of mechanism. While mandates have not been a feature of Australian heavy industry policy to date, the California LCFS demonstrates that a well-designed, technology-neutral mandate can drive sustained investment over more than a decade.

3.5 Government Procurement

3.5.1 Overview, strengths, and weaknesses

Government procurement policies use public purchasing power to create early demand for low-emissions materials. This could be through direct government purchases, or indirectly through requirements placed on projects with material government funding support.

Direct government procurement can create a **demand signal** for low-emissions products, if the government accounts for a material share of market demand. As procurement can be designed to prioritise domestic suppliers, these policies often have strong industrial policy and **domestic anchoring benefits**.

Despite this, the scale of public procurement is inherently limited, both by the **cost to taxpayers** of paying the green premium, and by the government's overall share of market demand.

3.5.2 Case study: Sweden's National Procurement Strategy and Climate Plan

Sweden's Strategic Public Procurement initiative integrates environmental and climate criteria into government purchasing decisions across national, regional and municipal levels. Under this policy, public procurement must consider lifecycle carbon costs and other sustainability metrics when awarding contracts for goods, services and infrastructure.

The National Agency for Public Procurement works with other Government departments to lead implementation of procurement that promotes fossil-free, circular and low-carbon solutions. For example, the Swedish Transport Administration set Global Warming Potential (GWP) reduction targets on materials, requiring at least 15 % reduction versus 2015, with more ambitious targets scheduled for 2025 and 2030.⁶⁵

The impacts of this policy include:

- **Environmental criteria embedded in public contracts:** Lifecycle emissions and sustainability factors are now part of procurement decisions, driving demand for low carbon and circular solutions.

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- **Procurement creates market pull:** Strategic procurement requirements that prioritise climate outcomes help develop demand for low-carbon solutions (e.g., renewable fuels, low-carbon materials), reducing economic risk for suppliers and accelerating market adoption.⁶⁶
- **Demand signal for projects:** Major green steel investments such as SSAB's \$4.8 billion fossil-free steel mill and offtake deals (e.g., with Rheinmetall) have coincided with Sweden's procurement policy – albeit direct linkages between the two have not been established.⁶⁷

3.5.3 Relevance to Australia

Under the Commonwealth's **Net Zero in Government Operations Strategy** and associated Australian Public Service (APS) Net Zero 2030 Target, the government has pulled several procurement levers. These include:

- Commonwealth renewable electricity Power Purchase Agreements (PPAs)⁶⁸
- Commonwealth vehicle fleet electrification⁶⁹
- Commonwealth Procurement Rules (that from 2022 include climate change impacts when considering value for money)⁷⁰
- Commonwealth Environmentally Sustainable Procurement Policy.⁷¹

The Western Australian (WA) Government has also committed to a series of measures to stimulate demand for low-emissions iron and steel, including:

- Stronger expectations for local sourcing of steel (especially recycled and low-emissions steel) under WA's Industry and Participation Strategy⁷²
- Increasing the supply for local steel to government projects (e.g., energy and transport)⁷³
- Issuing directions to government trading entities to drive local content procurement.

Supply Nation and the Indigenous Procurement Policy (IPP) are additional precedents for how procurement targets have been used in Australia to stimulate demand and create new markets.

Sweden's experience shows that – whilst procurement alone may be insufficient to drive bankable demand

for individual projects – it sends a powerful political signal. Australia's existing procurement levers could be sharpened with this in mind.

3.6 Information and Disclosure

3.6.1 Overview, strengths, and weaknesses

Information and disclosure can be a market-enabler for green commodities, helping to address information gaps between producers and consumers (especially where end products, such as steel, are physically identical). Disclosure frameworks standardise how environmental attributes are measured, reported, and certified, helping to encourage voluntary demand (and price premiums) for green commodities.

Information and disclosure can support **voluntary uptake** of green iron, where early demand is often driven by corporate climate commitments rather than regulation. These buyers are often influenced by ESG expectations, investor pressure, and reputational considerations, which can translate into a willingness to pay a premium for verified green products. Rating schemes and standard-setting frameworks are also important to underpin trust and comparability, ensuring that claims about green iron or steel are credible. Examples include alignment with voluntary initiatives such as the GBCA and the Science Based Targets initiative, which help to standardise low-emissions procurement practices and embed disclosure into broader corporate decarbonisation strategies.

However, information and disclosure **do not alone provide a strong demand signal, do not have strong domestic anchoring power**, and only help to build markets over the long term. There is also the risk of greenwashing if the framework lacks credible third-party verification.

Creating the pull: Demand-side levers for green iron and steel

These types of policy levers are most effective where there is interoperability – either with other demand-side levers (e.g. disclosure is required to support implementation of a broader mandate) or with international frameworks (expanding the pool of voluntary demand).

3.6.2 Case Study: Australia's Guarantee of Origin (GO) Scheme

The GO scheme serves as the primary information and disclosure lever for Australia's emerging clean industry, and provides a standardised, government-backed, emissions accounting framework. The scheme is now operational for renewable electricity and hydrogen, with legislative amendments currently underway to expand coverage to green metals through Product GO (PGO) certificates.⁷⁴

By tracking the carbon intensity of products across the entire supply chain, the GO scheme eliminates information asymmetry and allows Australian producers to substantiate green claims with verifiable data. The scheme is being designed for international interoperability to align with ISO standards and EU's CBAM requirements to ensure that Australian clean commodities can access global markets, providing the transparent verification necessary for offtakers to value and justify the associated price premium.

3.6.3 Relevance to Australia

For Australia, information and disclosure around green steel creates the potential for firms in lead markets – for example vehicles or construction – to demonstrate their green credentials to customers who may be willing to pay a premium for this. The impacts of this are explored further in Chapter 5.



4. Policymakers could support green iron projects directly – or indirectly to create the conditions for long-term growth in demand for green steel.

KEY FINDINGS

This report presents a two-channel framework for demand-side policy action.

The 'direct channel' would directly help green iron export projects secure offtake, for example through revenue underwriting arrangements like contracts-for-difference, a mechanism similar to the double-sided H2Global auction, or the proposed Clean Commodity Trading Initiative (CCTI). These kinds of intervention create a very strong demand signal and could be used to help several early-mover projects reach FID.

Alternatively, the government could operate through an 'indirect channel' and seek to support the broader growth of demand for green steel in Asia. This in turn could create demand for Australian green iron exports. These types of indirect channel initiatives – such as public procurement of green steel products – are likely essential to creating mutually beneficial clean trade with our partners in Asia.

4.1 Channels for Australian demand-side policy

When Australia has used demand-side policy in the past – for example in the electricity sector – policy levers and impacts have primarily been constrained within the domestic economy.

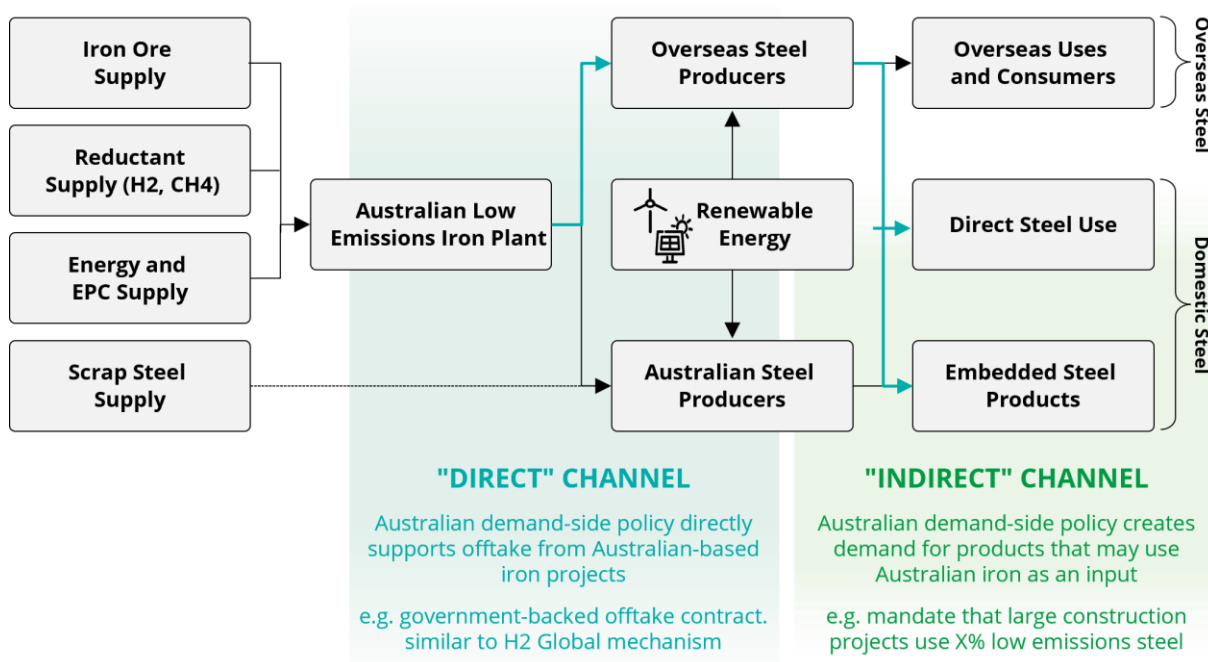
Policies like the capacity investment scheme (CIS) have provided offtake support to help domestic renewable electricity projects reach FID – with costs borne by domestic taxpayers and benefits accruing to domestic electricity consumers.^k Similarly, green electricity mandates like the Renewable Energy Target (RET) have imposed costs on domestic electricity consumers, with the benefit accruing to domestic

renewable energy producers. The policy system has been self-contained.

The situation with green iron is more complex, since this is fundamentally an export opportunity for Australia. Demand for Australia's green iron will primarily come from our trade partners in Asia as they look to decarbonise their steel industries – and these markets also provide the scale necessary for sustained industry growth in Australia. This export-oriented model means that Australia has an option to deploy demand-side policy through both a 'direct channel' and through an 'indirect channel'. These channels are shown in Figure 4.1 below and described in the sections that follow.

^k In the form of lower prices, compared to the counterfactual where a demand-side policy was not used.

Figure 4.1 Channels for Australian demand-side policy.



4.2 The 'direct channel'

Under the direct channel, Australian demand-side policy would directly help green iron export projects secure offtake agreements. This could be in the form of revenue underwriting agreements like contracts-for-difference, or through other forms of support to help projects secure offtake (i.e. committed buyers) like the proposed Clean Commodity Trading Initiative, or the Australia-Germany H2Global Joint Tender (see section 3.3).

The direct channel is the clearest path to close the bankability gap. By providing offtake support, the direct channel bridges the green premium and helps address coordination failures around simultaneous investment. Projects are then more likely to secure the external finance required to reach FID. Policies working through the direct channel create a strong demand signal, have very strong domestic anchoring power, and can play a key role in supporting early-mover projects that help to create the overall market.

However, policy through the direct channel could be expensive for taxpayers. If government-funded offtake support covers most (if not all) of the green premium, costs are likely to run into the hundreds of millions of dollars per year for each green iron project supported.¹ This is clearly not fiscally sustainable – either given the current economic and budgetary situation, or given the desire for green iron to be an export-focused industry (that produces far more than the current project pipeline of 10 Mtpa). As one expert interviewed for this report noted, “the government cannot subsidise its way to a commercial-scale export industry”.

There are various ways that these costs could be reduced. In other countries, some projects are managing price premiums by using natural gas as the initial reducing agent and blending with green hydrogen in increasing amounts over time. This can reduce costs in the short term, but offers more limited emissions reduction benefits. It is therefore critical that gas is replaced by renewable energy as the sector scales and green hydrogen costs reduce.

¹ Assuming a green iron premium of up to 50% and a minimum commercial scale facility of 1-2 Mtpa of green iron production.

Creating the pull: Demand-side levers for green iron and steel

Renewable energy is where Australia's long-term economic advantage ultimately lies and it is vital that policymakers ensure this transition continues.

Similarly, blending virgin iron inputs with scrap steel in the steelmaking process can also reduce costs (by requiring fewer units of green iron per unit of steel). The proposed Clean Commodity Trading Initiative suggest costs to taxpayers can be minimised by decoupling the environmental attributes of green iron from its physical uses, and selling environmental attribute certificates (EACs) into compliance or voluntary markets, once they emerge.

Direct demand-side support can also be time-bound and structured to phase out as the market matures. A clear tapering schedule, such as declining subsidies over a 5-to-10-year period, can provide early investment certainty while mitigating long-term market distortion. In practice, this could involve front-loaded support for FOAK and early commercial projects, followed by scheduled reductions linked to milestones such as deployment scale or the establishment of liquid markets for EACs. By the early-to-mid 2030s, direct subsidies could be largely withdrawn and replaced by indirect demand-side mechanisms (e.g., mandates, or carbon intensity thresholds), with a full transition targeted by around 2035. A structured approach like this reinforces that public funding is catalytic rather than structural, while strengthening long-term demand signals and anchoring investment in durable market mechanisms.

Several of the experts interviewed for this report noted that the direct channel could be used in a time-limited way to help a small number of 'lighthouse' projects reach FID. This would minimise fiscal exposure, whilst establishing Australia as a credible destination for green iron investment in the face of fierce competition from the Middle East. This could 'prove the market' in Australia – accelerating learning-by-doing effects and giving Asian steelmakers the confidence to reach additional offtake agreements.



4.3 The 'indirect channel'

Under the 'indirect channel', Australian policy would help support the growth of demand for green steel in Asia – which would in turn support the demand for Australian green iron.

This could be in the form of public procurement (e.g. government purchase of products that are made with green steel), or green steel mandates (e.g. requiring certain construction projects to use a certain share of low-emissions steel).

Indirect channel policies help to create end-use markets for green steel – and products made with green steel – which will need to scale considerably to support a green iron export industry. Sustained industry growth for green iron in Australia is only possible if there is continuous and significant demand for the end products that green iron helps produce – i.e. green steel and products that use green steel. Indirect levers therefore can form part of a wider strategy to build green steel markets, both here in Australia and abroad.

Indirect levers avoid a significant fiscal burden on government and can help share the costs of the green premium.

Whilst indirect levers like procurement do not change the green premium per unit, this premium is distributed across the supply chain and typically borne across a wider number of buyers. In focusing on end uses, indirect levers also avoid technological lock-in (i.e. by allowing steel users to pursue the most cost-effective way to meet the mandate, rather than picking specific winners).

However, the demand signal created by indirect levers is much weaker, and there is a risk Australian consumers could subsidise green iron produced overseas.

Indirect levers only improve project bankability for Australian green iron projects to the extent that they create demand for green products much further down the supply chain.

This greatly reduces their impact on revenue certainty and offtake. In addition, there is a risk that any green steel requirements/incentives could be met through steel produced from iron made overseas (e.g. in the

Middle East), which would be a highly perverse policy outcome. One option to reduce the risk of such an outcome would be to include a local green iron content requirement within the policy lever. Indirect levers also depend on full traceability of products' emissions characteristics across the entire value chain and so require the establishment of an internationally recognised system of EACs.

Several of the experts consulted for this report viewed indirect levers as an essential part of broader 'green trade statecraft' strategy, that seeks to build international demand for green iron and steel across a focused set of 'lead markets'.

Acknowledging that an Australian green iron export industry relies on a global economic environment where there is scaled demand for green steel, experts considered that indirect levers were effectively a 'downpayment' from Australia that could encourage others to take similar policy action. These kinds of actions, and the 'lead markets' that could be the focus for indirect policy levers are examined in Chapter 5.

Box 4.1: Managing the risks of technological lock-in

Regardless of whether direct and/or indirect channels are pursued, policy needs to reflect that the technological winners of low-emissions iron are not yet locked in. While DRI from hydrogen is the most mature 'near-zero emissions' steel technology, alternatives are in development (for example, direct electrochemical reduction) and may emerge as more competitive steel decarbonisation pathways.

A 'no-regrets' policy approach means prioritising investments and policy settings that are compatible with multiple potential end-state technologies. 'No-regrets' is about option value, flexibility, and avoiding technological lock-in, not about slowing deployment.

Policy needs to strike a delicate balance between providing sufficient certainty over the medium-term to encourage project delivery, and ensuring potential new technologies and innovations are not locked out of opportunities to support steel decarbonisation.

5. Policy action in ‘lead markets’ has the potential to create mutually beneficial green trade partnerships.

KEY FINDINGS

Australian steel demand is small relative to the scale of proposed green iron projects. As a result, indirect policy levers such as public procurement, while important, are unlikely on their own to be sufficient to support final investment decisions for multiple large scale projects.

Instead, indirect policy action which encourages the growth of green steel demand internationally can be part of a broader strategy of ‘green trade statecraft’, where Australia’s actions help create the conditions for global demand in key ‘lead markets’. The most promising lead markets are those where steel use is high, the price premium for using green inputs is relatively small, and there is already evidence of willingness to pay a green premium. In Australia, vehicles and commercial construction – particularly wind turbines and data centres – offer the strongest opportunities.

5.1 How Australia uses steel

Indirect policy levers are likely to be most effective at catalysing demand for green iron when they target users with the biggest steel demand.^m To identify these users, this report has mapped Australian steel demand across three sources of supply and two types of steel user.

The three sources of steel supply are:

- **Domestic** – steel made in Australia (e.g. at Port Kembla or Whyalla), less Australian steel exports.
- **Direct Imports** – steel imported to Australia in the form of direct articles of steel (e.g. steel bars from Japan).
- **Embedded imports** – steel imported to Australia embedded in other products (e.g. vehicles).

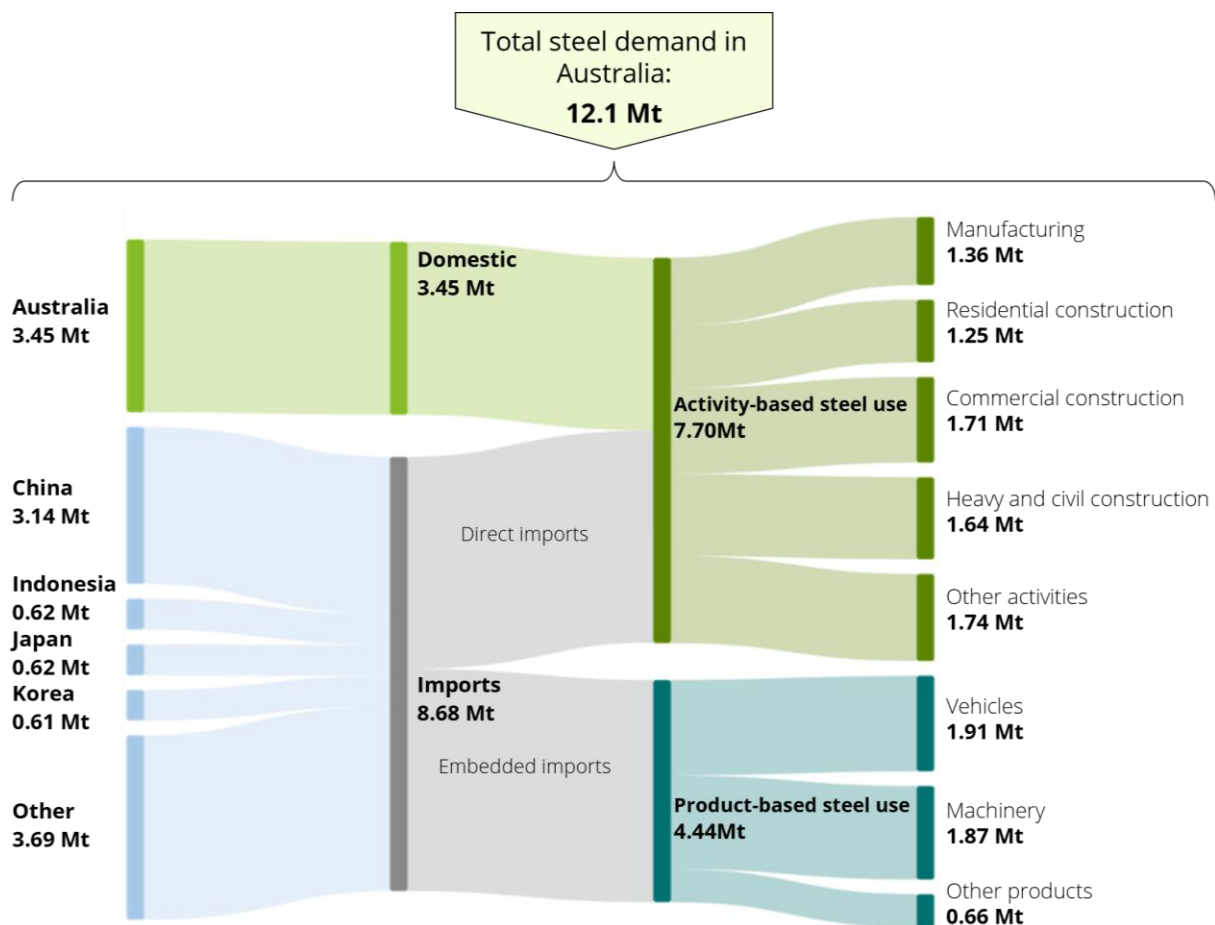
The two types of steel user are:

- **Activity-based steel use** – using domestic steel or direct imports in activities like construction.
- **Product-based steel use** – using embedded steel imports (e.g. vehicles, machinery).

This method yields the following flow of steel use in Australia as shown in Figure 5.1.

^m ‘Steel users’ in this analysis refer to the first stage in the steel supply chain where steel is an input, but not the output. Wind turbines are the marginal example – towers are treated as steel products (as they are almost 100% steel), but turbines (with nacelle, rotor and blades) are not. The ‘steel user’ in this case is the turbine constructor, not the tower manufacturer.

Figure 5.1: Estimated steel and embedded steel use in Australia (2024).ⁿ



There are four key conclusions from this analysis of steel flows:

- 1** **Australia does not use enough steel domestically to create bankable demand for green iron projects through indirect policy levers alone.** Australia's total steel demand is about 12 million tonnes per year, which is modest by global standards and only slightly above the current domestic green iron project pipeline (approx. 10 Mt p.a.). For context, Australia currently exports around 900 Mtpa of iron ore, enough to theoretically produce ~560 Mt of steel.^{o,75}
- 2** **Given ~70% of Australia's steel use comes from imports, securing green iron trade partners will be crucial.** China, Japan and Korea stand out as priority partners, offering high steel export volumes across sectors with growing green steel commitments, such as vehicles.
- 3** **The role of indirect policy levers is therefore primarily as part of a broader strategy of 'green trade statecraft'.** Under such a strategy, indirect policy levers pursued by the Australian Government are primarily focused on creating the conditions for global demand for green steel in 'lead markets' to emerge over time.
- 4** **Given this strategy, there are a small number of sectors that warrant investigation as prospects for indirect policy focus.** These are residential construction; commercial construction; heavy and civil construction; vehicles; and machinery. Each is responsible for over 1 Mt of steel consumption in Australia each year.

ⁿ Domestic represents domestic production met by domestic demand

^o Given ~1.6 tonnes of iron ore are required to produce 1 tonne of crude steel via DRI-EAF processes.

5.2 Criteria for assessing 'lead markets'

Beyond size of demand, there are several other factors that determine whether a sector is likely to be a 'lead market' for green steel. Four key indicators are used by this report to qualitatively assess lead market potential. These indicators are:

Size of steel demand (as described above)

Size of green premium – the price impact of switching from conventional steel to green steel, based on steel's estimated share of the cost stack and an assumed green steel premium of 50%.^P

Green steel appetite – the willingness of steel users and end consumers to absorb the price increase from using green steel. This is in turn based on:

- **User appetite** – estimated based on the ratio of the sector's estimated global 2030 green steel commitments compared to its steel use in Australia.^Q
 - **Consumer appetite** – estimated based on approximate composition of consumers (i.e. households vs. businesses vs. government), where households are assumed to have lowest willingness to pay.
-

Ease of demand aggregation – the ability to consolidate different buyers' demand within the user group. This is based on sector concentration at the firm and/or country-level, where concentrated sectors and import markets represent stronger opportunities for aggregation.

The performance of each shortlisted steel user against these indicators is summarised in Table 5.1 and described in detail in the subsequent sections.

Table 5.1: Criteria for assessing Australian domestic lead market potential (see Appendix D for more detail).

Steel user	A. Demand	B. Est. 'Green premium'	C. Green steel appetite	D. Relative ease of demand aggregation	Overall lead market potential
Vehicles	1.91	0.5-2.5%	User: High Consumer: Low Overall: Moderate	High; dominated by a few key OEMs and concentrated in a few key countries.	Very Strong
Heavy and civil construction	1.64	<1%	User: Low Consumer: High Overall: Moderate	Moderate; highly fragmented market but several large key consumers (e.g. government)	Strong
Commercial construction	1.71	<1%	User: Low Consumer: Moderate Overall: Moderate	Low; highly fragmented market across many service offerings (e.g. health, warehousing, offices). Some willingness to pay among large corporates.	Moderate
Residential construction	1.25	<1%	User: Low Consumer: Low Overall: Low	Low; highly fragmented market. Supply SME-dominated and extremely diverse buyers.	Limited
Machinery	1.87	5-7% <i>(based on excavator)</i>	User: Moderate Consumer: Moderate Overall: Moderate	Low; diverse products and buyers. Imports dominated by China.	Limited

^P See Appendix B and D for details on green steel premiums.

^Q Sector's estimated global 2030 green steel commitments were taken from analysis by Rocky Mountain Institute.

5.3 Vehicles



LEAD MARKET POTENTIAL: VERY STRONG

Vehicles – and especially electric vehicles – are a very strong lead market candidate. Vehicle imports are a material source of steel consumption in Australia and there is a modest green premium. Major OEMs manufacturers have exhibited a strong appetite for decarbonisation and Australian vehicle imports are concentrated in countries like Japan, which are also target markets for Australian green iron exports. This creates a strong opportunity for mutually beneficial collaboration, where Australian policy encourages vehicles imports made with green steel (e.g. from Japan), in return for offtake of Australian green iron from steelmakers in that country. Such partnerships require collaboration between the public and private sectors across countries, which will require material diplomatic coordination.

Steel embedded in vehicle imports are one of Australia’s biggest sources of steel demand.

Imports of cars, trucks and other road vehicles contained 1.91 Mt of steel in 2024. If aggregated, this would provide over three quarters of the offtake for Australia’s largest proposed green iron project.

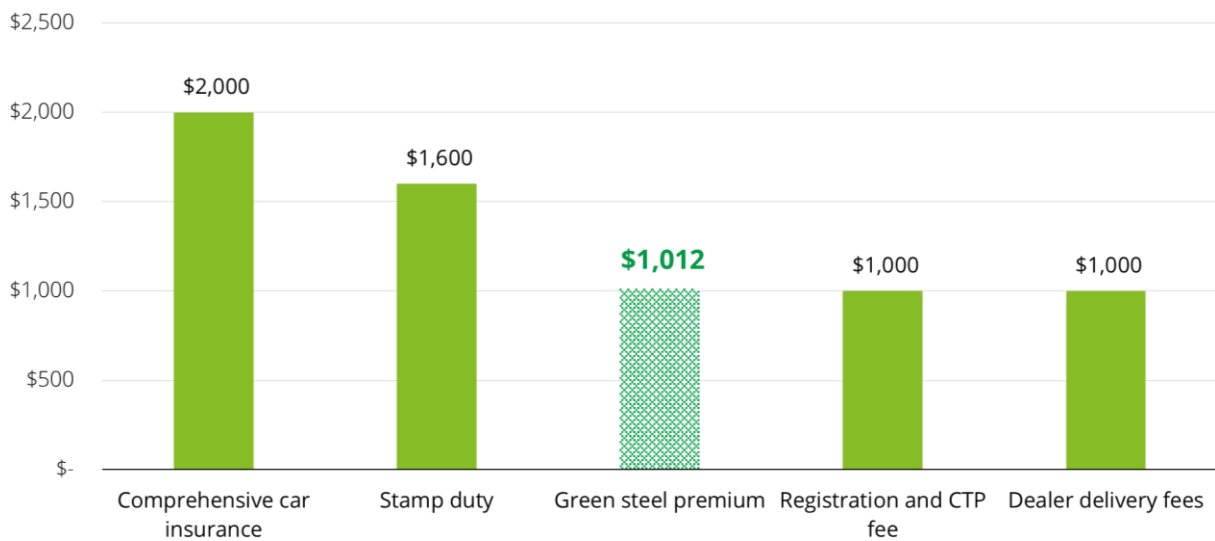
Globally, automakers have shown a very strong appetite for decarbonisation. Stegra (formerly H2 Green Steel), a Swedish green steel producer currently developing the world’s first large-scale hydrogen-based steel plant, has already secured long-term offtake from the Volvo Group, with deliveries of near-zero emissions steel expected to begin from its flagship plant in Sweden.⁷⁶ This demonstrates that major OEMs are willing to commit to early green steel supply. Automakers are also emerging as one of the largest demand sources for green steel, with analysis cited by the Rocky Mountain Institute (RMI) indicating

around 3.3 million tonnes of near-zero steel demand from corporate commitments in APAC by 2030 – more than any other sector.⁴⁵ More broadly, industry commentary highlights that automakers are signing a rapidly growing number of green steel offtake agreements – IRENA tracked 140 for low-carbon primary steel as of December 2024, with the automotive sector leading the way – as companies race to secure limited early supply.⁷⁷

Whilst price sensitivity may be a stumbling block, the costs of the green steel premium are small. A vehicle using green steel could face a premium up to 2.5% - this is equivalent to ~\$1000 on a \$40,000 car – or roughly \$20-25 per month on a standard car loan (see figure below).^f This premium is also less than comprehensive car insurance and stamp duty fees – and in the range of the registration fee in most states.

^f Assuming a 5-year car loan at 9% per annum interest rate.

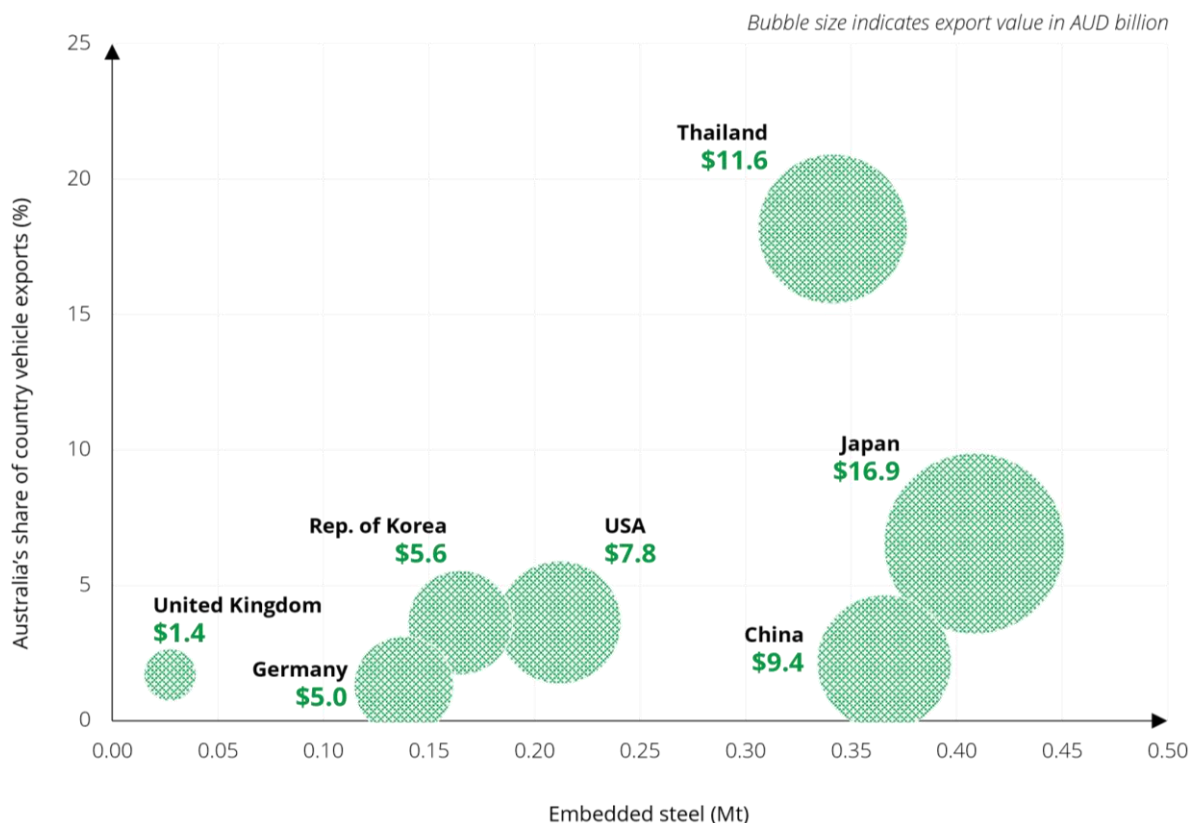
Figure 5.7: Indicative comparison of costs for purchasing a \$40,000 new car in Australia in 2026.⁷⁸



Most of Australia’s vehicle imports come from partner countries in Asia that are likely to be buyers of Australian green iron – suggesting this can be a key ‘lead market’ for international collaboration.

As shown in Figure 5.8, the biggest exporter of vehicles to Australia currently is Japan – followed by Thailand and China. A significant share of Australian vehicle imports from Thailand are made by Japanese manufacturers, and Australia is the largest importer of vehicles from Thailand anywhere in the world. Given Japanese steel industry decarbonisation is likely to be one of the key drivers of growth in future demand for Australian green iron, vehicles is a critical lead market for future collaboration.

Figure 5.8: Australian vehicle imports by country – by market share (y axis), volume of embedded steel (x axis), and \$ value of imports (bubble size).⁷

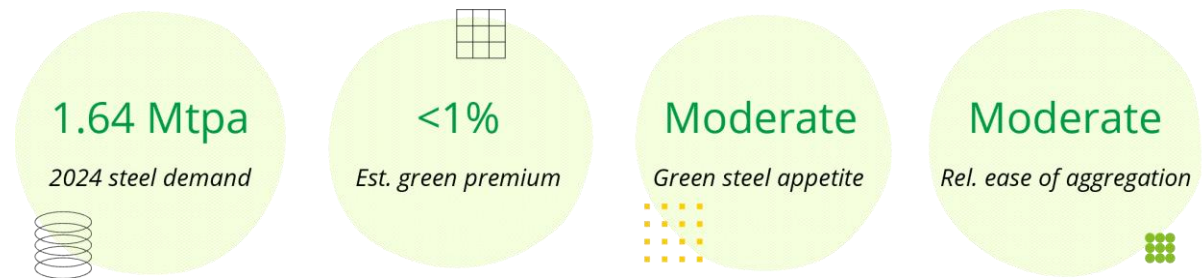


Creating the pull: Demand-side levers for green iron and steel

Electric vehicles (EVs) represent a potential strong future growth market with vehicles. They are a rapidly growing share of the automotive market and have a relatively less price-sensitive buyer cohort. EV adoption has increased materially in recent years, rising from approximately 9.6% of new vehicle sales in 2024 to 12.3% in 2025.⁷⁹ This growth trajectory is expected to continue, with the annual EV sales projected to reach approximately 640,000 vehicles (almost 50% of total sales) by 2030.^{80,81} By this period, EV imports are expected to embody a substantial volume of steel, averaging around 1 Mtpa. This creates a potentially significant channel through which demand-side policy could influence upstream steel and iron supply chains.



5.4 Heavy and civil construction

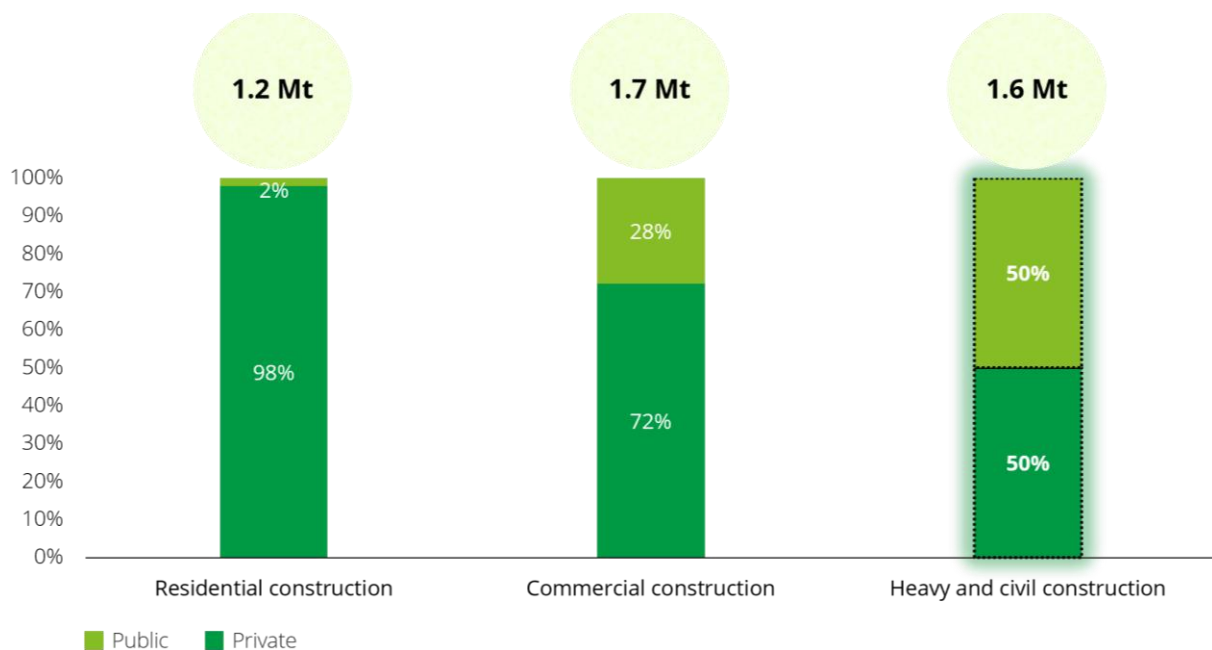


LEAD MARKET POTENTIAL: STRONG

Heavy and civil construction is a relatively strong candidate to be a lead market for green steel – including via wind turbines. While a material portion of its steel use is suitable for secondary steel, government is the sector’s primary procurer, meaning the sector may be able to better aggregate demand and more easily pay the modest cost premium.

More accessible demand aggregation, a relatively low green premium, and end-users with potentially more willingness to pay for green inputs make heavy and civil construction a strong contender to be a lead market. While global construction operators lag automotive and machinery manufacturers on voluntary green steel commitments,⁴⁵ heavy and civil construction customers have some of the strongest decarbonisation incentives and capacities to pay. For example, the public sector makes up half of the sub-sector’s demand (see Figure 5.5 below), presenting an opportunity for government to aggregate demand through public procurement. In addition, the green steel premium accounts for a small share of total project costs, with a \$10 billion transport project only requiring an extra ~\$15 million to use green steel.

Figure 5.5: Public and private share of construction sub-sector demand in 2023 with total domestic steel demand in millions of tonnes.^{5,82}



⁵ Estimate may be conservative if privately delivered projects are publicly operated.

Green steel demand for heavy and civil construction is likely to be easier to aggregate at the buyer level than the supplier level.

While heavy and civil is less fragmented than other construction sub-sectors (the top four suppliers make up c. 20% of the market vs. 14% for construction overall), the sector remains dispersed across some 8,000 supplying businesses, not including contractors.^{83,84} However, there are fewer buyers, with government making half of purchases (see above).

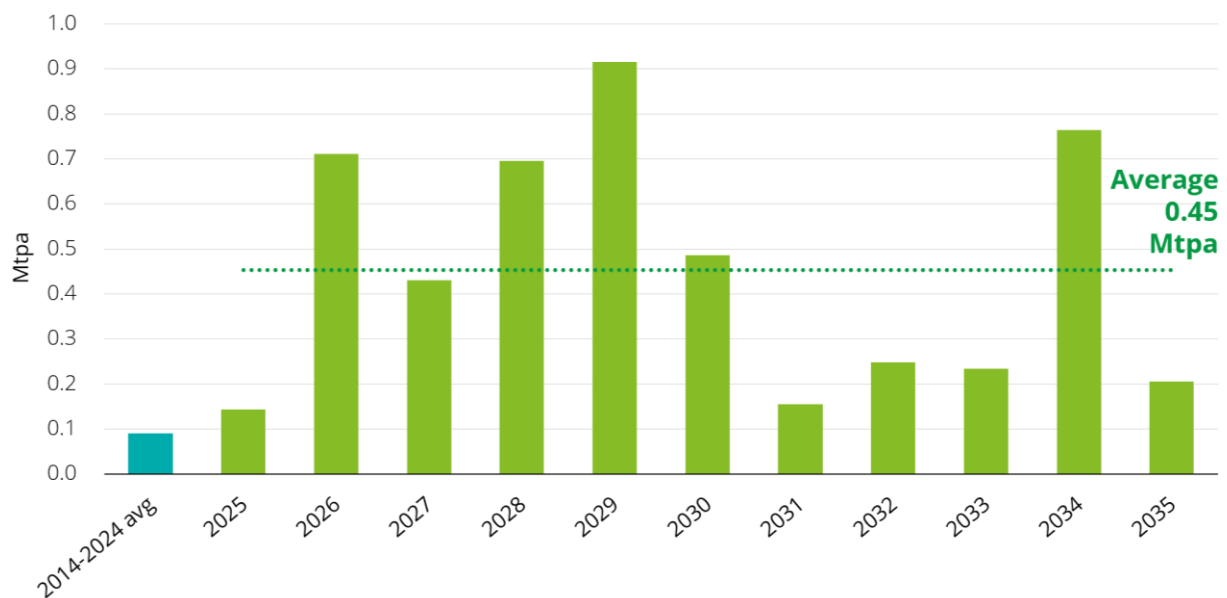
Within heavy construction, wind turbines are a potentially viable lead market in the future.

Wind turbines are central to Australia’s energy transition, highly steel intensive, and have a broader value proposition that is closely aligned with green

steel. This creates an opportunity to embed green steel as an industry best practice, particularly given a relatively concentrated set of proponents. Moreover, Asia plays a key role in the wind supply chain with six of the top ten turbine manufacturers based in China,⁸⁵ and both Vestas and Siemens Gamesa operating manufacturing hubs in the wider region.^{86,87}

AEMO estimates that Australia’s wind energy capacity will have to reach 59 GW by 2050 to reach net zero – and with each MW of wind energy requiring about 110 tonnes of steel – this could mean ~0.45 Mtpa of steel demand from the sector over the next decade (see Figure 5.6). This is similar to the level of demand from all commercial services, like office buildings.

Figure 5.6: Estimated steel demand from wind turbines in Australia, 2025 – 2035.^{t,88,89,90}



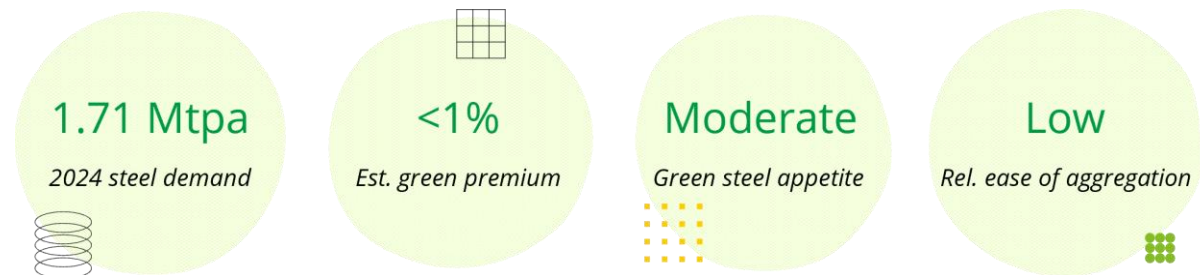
However, the price impacts on wind turbines could be significant – up to 3% or \$90,000 per \$3 million turbine – and a large proportion of demand could be met with scrap inputs.

Given the challenges facing the wind sector in recent years and the relatively few wind projects that have reached FID, there is currently very high sensitivity regarding the delivered cost of power from wind energy. Experts consulted for this report suggested that anything

which increases that cost of power should be approached with caution. In addition, the structural plate steel used in turbine towers is well-suited to scrap-based EAF production, meaning Australian green iron may face additional competition. This is highlighted by Vestas, the world’s fifth largest turbine manufacturer,⁸⁵ which has announced a partnership with ArcelorMittal to procure low-emissions steel made with 100% steel scrap for turbine production.⁹¹

^t Calculated using AEMO projections for wind capacity under the step change scenario and the European Commission’s assumption that 110,000 kg of steel are required per MW of wind. The fluctuations reflect AEMO’s optimal development path that sets out the capacity of new grid-scale generation, firming, storage and transmission needed in the NEM through to 2050.

5.5 Commercial construction



LEAD MARKET POTENTIAL: MODERATE

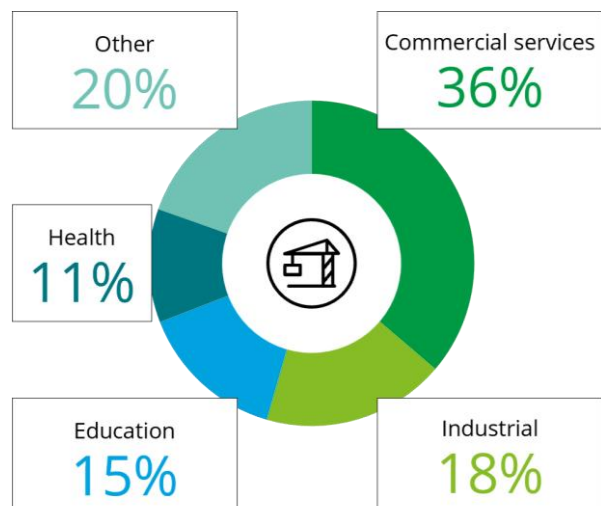
There is a mixed outlook for commercial construction to become a lead market. Whilst the sector consumes a significant amount of steel and many corporate tenants are conscious about scope 3 emissions and embodied carbon, the sector's diversity (e.g. hospitals, warehouses and offices) may make aggregation difficult and creates uncertainty around market appetite to pay (even a modest) green premium. In the medium-term, there is a potential for 'pockets of excellence' among Green Star members and data centres stand out having made significant green steel commitments.

Like residential, commercial construction uses a significant amount of steel and price impacts on final costs are likely to be modest. In 2024, the sector is estimated to have consumed around 1.71 Mt of steel, more than residential construction but less than heavy and civil construction. The price impacts of using green steel are likely to be modest, accounting for an additional ~\$150,000 cost on a \$50 million office building.

Large sustainable property developers committed to Green Star certification are potential green steel buyers, but demand in the sector is fragmented (see Figure 5.3), making aggregation challenging. The GBCA's Green Star program issued nearly 2,000 new certifications in 2025 – double the previous year's record⁹² – driven by major developers such as Charter Hall and Mirvac.⁹³ Commercial services (including office spaces) are likely to present the best opportunity, as large corporates generally face more scrutiny over their emissions footprints. Aggregating this demand could yield approximately 0.6 Mt – perhaps sufficient to meet half

the demand for a small commercial iron project. Government may also be able to aggregate demand from construction related to Education and Health, but these sub-sectors are likely to be very highly price sensitive.

Figure 5.3: Value of construction work done in commercial sector (2020-2025).⁹⁴

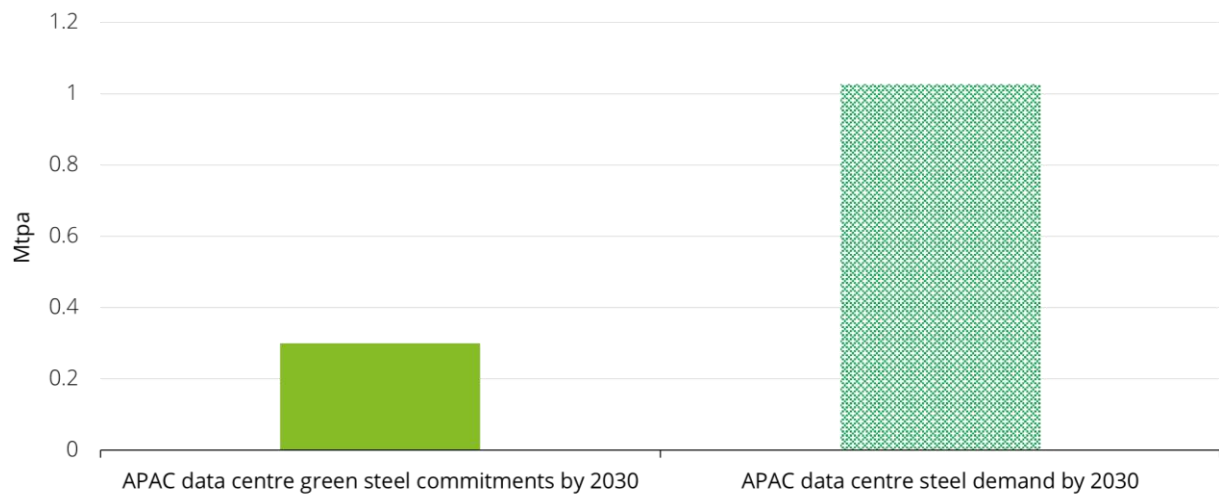


Data centres are a potentially viable – albeit small – lead market of the future. Data centre proponents are concentrated among large technology firms with relatively low-emissions intensity and strong emissions reduction commitments.⁴ Green steel commitments among data centre proponents are about 30% of their total estimated 2030 steel demand (see Figure 5.4 below) – more than 15 times the estimated global share.⁹⁵

Despite their rapid expected growth, low steel intensity in data centre construction means they are

not expected to demand a material volume of steel in Australia. This is estimated at an average of only 27 kilotonnes annually out to 2035. Even considering all data centres built globally – and the 30% green steel commitment – demand remains modest. Data centres should therefore be viewed as potential participants in buyers' coalitions and aggregation initiatives – and their commitments play an important signalling and reputational role – but are unlikely to drive bankable green iron demand alone.

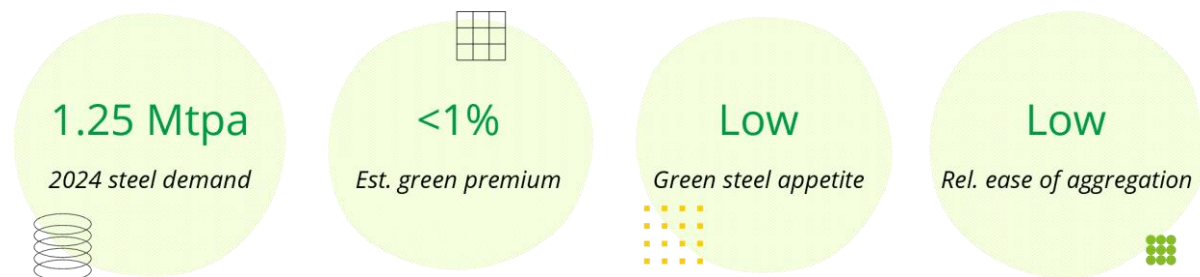
Figure 5.4: 2030 data centre green steel commitments and data centre steel demand in APAC.^{96,97}



⁴ Major technology companies (e.g., Google, Microsoft) have aggressive Scope 3 emissions targets, making data centers

an excellent early-adopter market willing to pay the green premium.

5.6 Residential construction



LEAD MARKET POTENTIAL: LIMITED

Residential construction is unlikely to be a lead market for green steel in Australia. It represents the smallest steel consumer among the analysed construction sub-sectors, and the market is characterised by a very large number of small, price-sensitive players. Whilst the green steel premium on a \$1 million new home is less than the legal costs associated with the sale, embodied carbon considerations rarely feature in transactions and there are limited avenues for demand aggregation.

There is material demand for steel from residential construction and price impacts on homebuyers of replacing conventional steel with green are likely to be small. In 2024, the sector is estimated to have consumed around 1.25 Mt of steel, which is roughly enough to sustain one small commercial-scale green iron facility.^v The broad range of inputs to residential construction means the impact of using green steel would likely be less than 1%, or ~\$1,850 on the average \$1 million home. This is a similar cost to legal and conveyancing fees, and likely less than would be paid in moving costs. Stamp duty costs are around 20-30x higher than the green steel premium (see Figure 5.2).

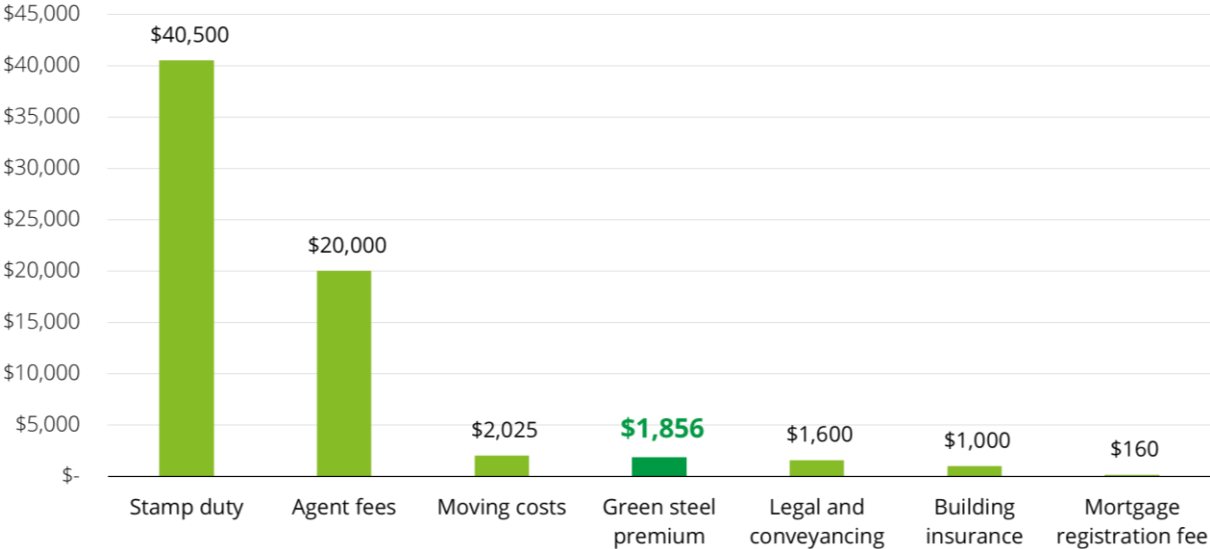
However, harnessing this demand may be challenging due to the sector's cost sensitivity and fragmentation. Decarbonisation appetite among builders and homebuyers is low, with

anecdotal evidence that embodied carbon considerations do not yet feature at scale in the sector⁹⁸ and aggressive house price growth in recent decades locking many people out of buying a home. Concerns around energy and climate-related requirements increasing the cost of new homes has (in part) been reflected in updates to the National Construction Code being paused until mid-2029.⁹⁹

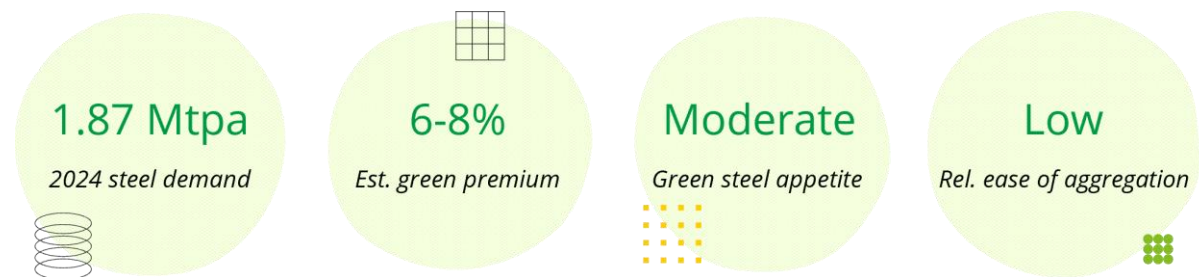
Potential to aggregate demand is also very low. The residential construction sector is split across approximately 60,000 businesses, and there are limited credible avenues for consolidating procurement across them.¹⁰⁰ The administration required for any meaningful demand aggregation would likely prove material for total policy costs, undermining the broader case for residential construction as a lead market and focus of policy effort.

^v Based on 1.25 Mt of steel requiring approximately 1.2 – 1.4 Mt of direct reduced iron (DRI).

Figure 5.2: Indicative comparison of costs for purchasing a \$1 million new home in 2026.¹⁰¹



5.7 Machinery



LEAD MARKET POTENTIAL: LIMITED

Machinery is a less promising lead market for demand-side green iron policy in Australia. Despite a significant volume of embedded steel in imports and some industry commitments to green steel, high green premiums and the sector's fragmented nature create barriers to driving large-scale demand for green iron. Even in more receptive sub-sectors, such as mining machinery, the impact on closing the green iron bankability gap is likely to be limited.

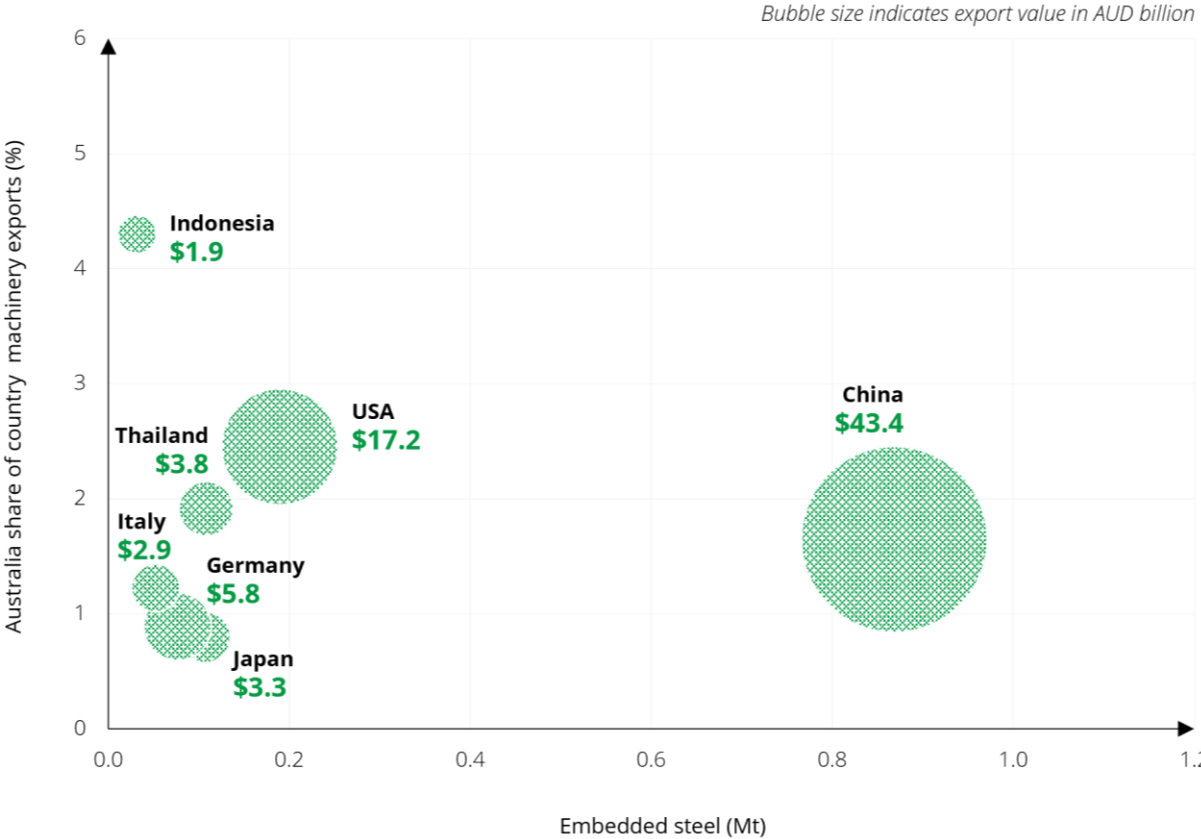
Australia's machinery sector consumes about 1.87 million tonnes of steel per year across a wide range of products, from excavators and agricultural equipment to industrial plant. The sector's diversity makes it difficult to estimate a universal green premium, but available data suggests it is among the highest of any major steel-using sector – excavators, for instance, would face a premium around 6-8% to adopt green steel or purchase green steel certificates. This cost barrier is compounded by the fragmented nature of the sector, which lacks the scale or concentration of demand needed to support large-scale green iron adoption.

Trade dynamics further limit the sector's potential as a lead market. Australia does not have significant market share (over 5%) with any major

machinery trading partner, reducing its ability to aggregate demand or form effective mutual partnerships. China is the only market of material scale, but its own green steel ambitions are closely tied to supporting local industry, may make partnerships more challenging (see Figure 5.9 below). This topic could be explored as part of the Steel Decarbonisation Policy Dialogue, set up between Australia and China in 2025.

While the machinery sector leads in APAC on green steel commitments, with 2.2 Mt of demand predicted by 2030,⁴⁵ the diversity of products and buyers means that even the most prospective niches, like mining machinery, are unlikely to drive the volume or certainty of demand needed to bridge the bankability gap for green iron projects.

Figure 5.9: Australian machinery imports by country – by market share (y axis), volume of embedded steel (x axis), and \$ value of imports (bubble size).⁷



6. A 'green trade statecraft' strategy and the roadmap for demand.

KEY FINDINGS:

The time for Australia to act is now. To help grow a competitive green iron export industry, this report suggests three key actions for Australian policymakers to consider:

- **Now – 2027: Help get 'lighthouse' projects to FID** – by consulting on a time-limited, competitive offtake/revenue support mechanism that can underwrite demand for a small number of export-oriented projects.
- **Now – 2030: Lock in green trade corridors and build lead markets** – by using Australia's domestic demand levers where they have the most strategic leverage (especially vehicles) to create reciprocal arrangements with key partners (especially Japan, Korea, and partners in Southeast Asia).
- **Ongoing: Retain existing supports** – including supply-side programs like Green Iron Investment Fund (GIIF) and enabling frameworks like the Product Guarantee of Origin (PGO) Scheme,

While Australian green iron projects are unlikely to reach commercial production before 2030, the window of opportunity to establish first-mover advantage is narrow. As international competitors ramp-up low-emissions iron production and 71% of blast furnaces worldwide make major reinvestment decisions before 2030,¹⁶ now is the time to act.

Building an export-oriented green iron industry requires policy changes in overseas markets.

Australia's iron ore industry has been built on exports to Asia, and the same will be true for any future green iron industry. Australia's domestic steel consumption is insufficient to catalyse a substantial green iron industry, meaning policy changes among Australia's trading partners are necessary.

Green trade statecraft is therefore essential.

Australia must use its diplomatic and trade levers to foster a global economic environment where there is scalable demand for low-emissions iron. Whilst individual actions may alone be insignificant, they should be seen as part of a broader strategy in which Australia leverages its position as a respected middle power to help re-shape the future of trade in Asia-Pacific. As part of this, Australia may need to consider how it can design the terms of trade agreements to offer investment opportunities for its partners.

With this framing in mind, three key actions offer a roadmap to demand and FID.

6.1 NOW – 2027: HELP GET LIGHTHOUSE PROJECTS TO FID (DIRECT CHANNEL – HIGHEST PRIORITY)

For Australia to be a credible supplier of green iron to international markets, it is important that a small number of 'lighthouse' projects reach final investment decision before 2030. Without this, there is a risk that Australian iron producers may not be able to access international markets in the medium-term. Direct demand-side levers are expensive and unlikely to be fiscally sustainable in the long-term, but they provide a strong demand signal to first-mover projects.

The government could therefore consider consulting with industry and with trade partners – such as Japan and South Korea – on the potential design of such a policy. This could be modelled on the existing Australia-Germany H2Global Joint Tender, with a jointly funded mechanism to match competitive low-emissions iron production in Australia with emerging industrial demand in Asia – and a reverse auction model to minimise the level of governments' co-funding required. The CCTI offers another potential structure.

To ensure mutual economic benefits and strengthen regional supply chains, the government could consider including clauses within these offtake agreements that facilitate the participation of Japanese and South Korean EPC firms in Australian green iron projects. This integrated approach would secure a lead market for Australian exports and encourage reciprocal investment and technical cooperation, cementing Australia's strategic role within the regional energy transition value chain.

6.2 NOW-2030: LOCK IN GREEN TRADE CORRIDORS AND BUILD LEAD MARKETS (INDIRECT CHANNEL – SECOND PRIORITY)

No single policy measure will independently shift the dial when it comes to building demand in green iron export markets. A range of measures could therefore be considered – as a package – as part of broader Australian efforts to create international green iron demand.

6.2.1 Support international buyer's coalitions

The Australian Government could support international efforts to establish low-emissions steel buyers' coalitions across major export markets in Asia – for example the initiative currently being pursued by the RMI Sustainable Steel Buyers Platform.⁴⁵ These coalitions could specifically target the lead-markets identified in this report, such as automotives and certain forms of commercial construction (e.g. data centres, wind energy).

As part of these efforts, the Commonwealth could act as a central aggregator of demand from state governments (particularly those with significant green iron potential like WA and SA) and potentially even the private sector. This coordinated approach would not only create an economically material Australian demand signal, but it would also provide a political demonstration of Australia's willingness to catalyse green commodity markets. This would put Australia in a better position to ensure international buyers coalitions offtake (at least partially) from green steelmakers that buy Australian green iron.

Box 6.1: RMI's Sustainable Steel Buyers Platform (SSBP)⁴⁵

RMI is an independent, non-profit organisation accelerating the energy transition. Its goal is to drive demand for near-zero emissions iron and steel and catalyse supportive policies to unlock investments for FOAK net zero emissions assets.

RMI is currently laying the groundwork for SSBP expansion into Asia-Pacific through demand sizing, identifying offtake barriers, APAC platform design and launch. This will lead to a first request for proposal (RFP), working closely with corporate buyers to design and issue RFP representing aggregated demand volumes from buyers in APAC region to discover technology options and price premiums. This will be followed by supplier selection and contracting support to facilitate advance offtake contracting process to bring the first project to market.

6.2.2 Make green iron and steel central to agreements with trading partners

The Australian Government could utilise the iron and steel decarbonisation workstream under the Australia-South Korea *Green Economy Partnership Arrangement on Climate and Energy*.¹⁰² Through this workstream, both countries can explore opportunities to align regulatory standards, share research and innovation, and co-develop the supply chain infrastructure necessary for bilateral green iron trade. The Government should also seek to establish similar arrangements with other critical trading partners, such as Japan.

In pursuing such agreements, the government can emphasise its vested interest in Asia's development and future regional economic security and growth – leaning on its reputation as a responsible and trusted trade partner. These partnerships could provide a structured platform for green trade statecraft, positioning both Australia and its trading partners to move beyond high-level climate commitments toward practical, sector-specific cooperation.

Translating these kinds of political agreements into investment action would likely require collaboration between national governments and the private sector (e.g. steelmakers, auto manufacturers). This is likely to require significant diplomatic coordination.

6.2.3 Test Commonwealth procurement levers

The Australian Government could examine using its substantial public procurement power to demonstrate its commitment to growing lead markets for low-emissions steel. Whilst the absolute level of demand will be small, the signal such policies could send to our international partners is strong.

Practical applications of this lever could include – in future – mandating a portion of low-emissions steel use within federal Electric Vehicle (EV) fleet purchases and integrating decarbonised material requirements into the national infrastructure pipeline. Indicatively, the Federal Government EV fleet procurement alone could demand up to 188 tonnes of steel,^w providing a (very) small but symbolically meaningful early market signal for low-emissions steel, demonstrating an advanced market commitment.

Box 6.2: Japan's clean energy vehicles subsidy for vehicles built with low-emission steel

In 2025, The Japanese Ministry of Economy, Trade and Industry (METI) introduced a subsidy of 50,000 yen (USD 330) for clean energy vehicles built with low-emission steel.¹⁰³ An expansion of such incentives could encourage Japanese steelmakers to seek green HBI imports to meet green steel demand.

6.2.4 Consider CBAM reciprocity in the safeguard mechanism review

Increasing carbon prices in Asia – accompanied by an Asia CBAM – is likely an essential ingredient of Australian green iron industry growth. Australia will be in a stronger position to advocate for higher carbon prices (and a CBAM) in Asia, if it has demonstrated its own commitment to a similar domestic policy architecture. The Commonwealth could therefore consider the findings of the Carbon Leakage Review – both in terms of their economic merit – and in terms of the geopolitical signal that introducing such a policy would send to our partners in Asia.

6.2.5 Consider how existing concessional finance could support the development of lead-markets

Across the *Future Made in Australia* and other policy initiatives, Australia is providing significant concessional finance – both domestically and internationally. Whilst there is a risk that trying to achieve multiple policy goals at once leads to achieving none at all, there may be areas where funding arrangements can be tweaked, or expanded, to grow lead markets in areas like automotives and commercial construction.

For example, the Clean Energy Finance Corporation (CEFC) recently made a \$60 million commitment to provide discounted financing on eligible Hyundai and Kia EVs.¹⁰⁴ On a typical \$70,000 vehicle loan, the interest savings associated with this financing arrangement with a 1% interest rate discount over five years could be more than \$1,900,¹⁰⁵ around double the additional cost of making that car with green steel. Hyundai Steel is one of the biggest steelmakers in the world, and could be encouraged to procure Australian green iron if this type of concessional finance was tied to using green steel in the end product.

6.3 ONGOING: RETAIN EXISTING SUPPLY-SIDE SUPPORT AND MARKETING-ENABLING POLICIES

Whilst this report has focused on demand-side policy, Chapter 2 highlights the need for holistic support across the green iron value chain.

Current funding mechanisms, including those administered through ARENA and DISR, remain essential for de-risking the high capital expenditure and innovation risks associated with green iron projects. The continued implementation of the GO scheme is also critical, as it provides the transparent, data-driven foundation necessary for verifying the emissions intensity of green products across the value chain. If Australia's export opportunities are to be realised, it is essential that the GO scheme is interoperable with emissions verification and accounting frameworks in our trading partners.

^w Estimation based on average government EV procurement data from 2022-25 from the Australian Government

Department of Finance (2025) and assumption of 0.9 tonnes of average steel intensity per vehicle from Transition Asia (2024).

Appendices

Appendix A: List of low-emissions iron projects in Australia

As outlined in Chapter 1, below are the DRI and HBI projects currently proposed in Australia (based on available public information at the time of writing in April 2026). At this point there were five commercial scale projects and four pilot facilities. Beyond primary ironmaking, a broader pipeline of enabling infrastructure is developing across the value chain, including operating and proposed concentrate and pellet production facilities, and downstream steelmaking capacity.

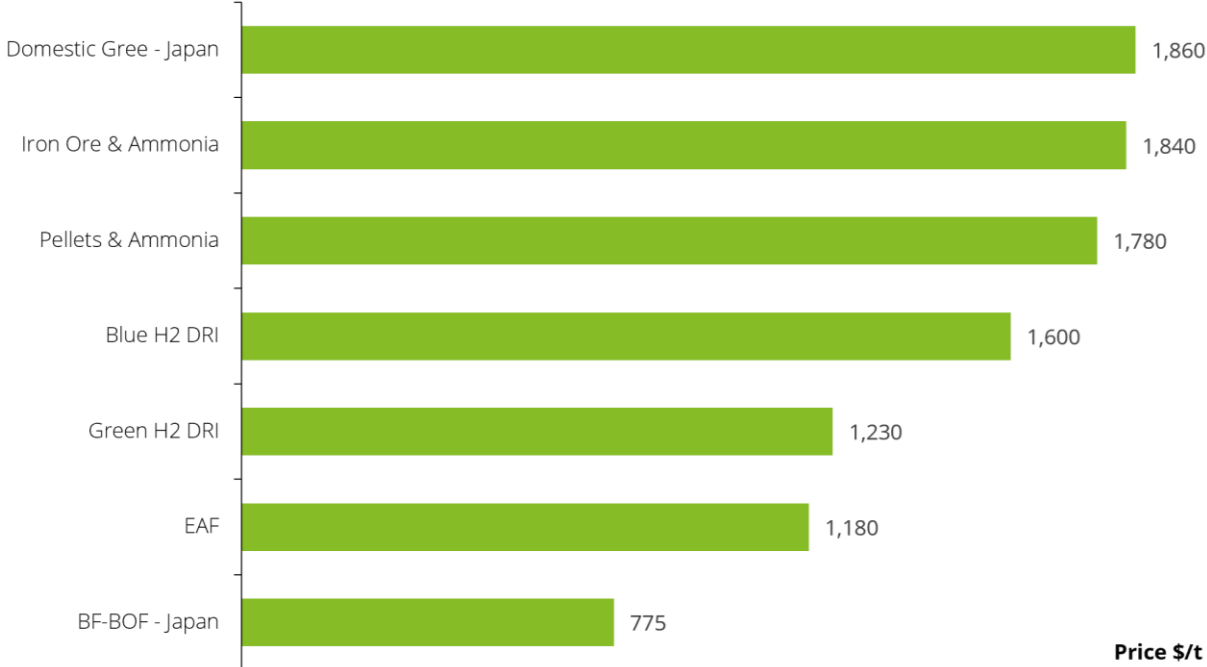
Project Name	Proponents	Other stakeholders	Relevant trade relationships	State	TRL	Capacity (Mtpa)
Zesty Green Iron	Calix	Rio Tinto		WA	4-6	0.03 (Pilot)
FMG Green Metal Project	Fortescue			WA	5-6	0.0015 (Pilot)
NeoSmelt	Bluescope, BHP, Rio Tinto, Woodside, Mitsui		Japan	WA	4-6	0.04 (Pilot)
Port Hedland Iron	POSCO	Marubeni, China Steel Corporation, BHP, Engie	South Korea, Japan, Taiwan	WA	8-9	2
Whyalla Steelworks	Under transformation			SA	7-8	1.8
Mid-West DRI	Green Steel WA	Danieli group	Italy, Thailand	WA	7-9	2.5
Mid-West Green Iron	Progressive Green Solutions	Thyssenkrupp Nucera, SMS group, Enercon	Germany	WA	6-7	2.5
Greensteel Australia DRI	Greensteel Australia	Danieli group, Hazer group	Italy	SA or NSW	7-8	1.2
Approx. Australian Green Iron Pipeline						10 Mtpa

Note, due to factors such as the ongoing sale process for the Whyalla steelworks, the above project pipeline is subject to change and should be considered as an approximate estimate only.

Appendix B: Green premium from previous Deloitte and WWF-Australia analysis³⁴



Comparison of future delivered end steel prices along the Australian export value chain to Japan in 2030.



Appendix C: High-level overview of method for calculating Australian steel use

WorldSteel and BACI trade data, in conjunction with researched steel coefficients, were used to estimate the total domestic demand for steel and the breakdown by end-use sector for analysis in Chapter 5. This methodology is shown below.

Steel supplier category	Source of supply volume	Steel user category	Method for calculating steel user volumes
Australian use of Australian-produced steel (e.g. steel produced at Port Kembla and subsequently used in infrastructure).	<i>WorldSteel net Australian steel production (crude production minus imports)</i>	Activity (e.g. construction, manufacturing)	<ol style="list-style-type: none"> 1. Sum supply from domestic production and net direct steel imports 2. Apportion across activities based on ABS IO table estimates of steel purchases by ANZSIC industry subdivision^x
Australian use of imported steel (e.g. imported steel bars used by construction contractors)	<i>BACI direct steel imports (HS codes 72 and 73)</i>		
Australian purchases of embedded steel products (e.g. steel in a car imported to Australia from Japan)	<i>BACI steel-intensive product imports (various HS codes)</i>	Product (e.g. vehicles, machinery)	<ol style="list-style-type: none"> 1. Identify steel-intensive products and map to HS codes 2. Assign steel coefficients (i.e. crude steel per tonne of product) 3. Multiply import volumes by steel coefficient to estimate embedded steel

^x This is based on intermediate use only, with metal manufacturing excluded as it is assumed that this is largely steel fabrication and therefore does not meet the definition of 'steel user' used in this report.

Appendix D: Criteria for assessing Australian domestic lead market potential

Steel user	A. Demand	B. Est. 'Green premium'	C. Green Steel Appetite	D. Relative ease of demand aggregation	Overall lead market potential
Activity or product responsible for high steel consumption	Steel used by the user in 2024 (Mtpa)	End product price impact from switching to green steel (50% premium). Premiums relate only to the additional costs from using green steel – no other changes to production process are accounted for.	Steel user: A rating of low, moderate or high is given to each sector based on its 'user appetite' relative to other sectors. Steel end consumer A rating of low, moderate, high is given to sectors with primary consumers as government, businesses, households, respectively.:	Ability to consolidate different buyers' demand within the user group.	Qualitative suitability assessment based on four factors

Appendix E: Stakeholder consulted for this study

We would like to acknowledge the valuable contributions of the experts consulted as part of this study:

- **Tim Buckley** – Climate Energy Finance
- **James Boyle** – Mission Possible Partnership
- **Baethan Mullen** – The Superpower Institute
- **Joanna Kay** – The Superpower Institute
- **Professor Elizabeth Thurbon** - University of New South Wales
- **Professor Frank Jotzo** – Australian National University
- **Jorrit Gosens** – Australian National University
- **Dominic Meagher** – Australian National University

We are grateful for their time, insights, and constructive feedback, which have helped to inform and strengthen this piece of work. Without their contributions, this report would not have been possible.

While the stakeholders listed above have reviewed and provided comments on the report, the analysis and views expressed herein are those of Deloitte Access Economics and WWF-Australia and should not be attributed to any individual contributor or organisation.

We also would like to extend our thanks to the **WWF-Australia and Deloitte team** for their collaboration and input:

WWF-Australia Team:

- **Monica Richter** – Senior Manager, Low Carbon Futures
- **Camille Malbrain** – Renewable Exports Manager
- **Nat Burke** – Head of Regenerative Climate

Deloitte Team:

- **Claire Ibrahim** – Partner, Deloitte Access Economics
- **Joe Fowles** – Director, Energy and Climate Advisory
- **Simon Ferreira** – Consultant, Energy and Climate Advisory
- **Will Neumann** – Senior Economist, Deloitte Access Economics
- **Tracy Chen** – Senior Consultant, Energy and Climate Advisory

We also acknowledge the extensive body of work undertaken by the wider community of researchers, policymakers, and practitioners in the fields of climate, energy, and industrial transition. This report has benefited from this collective expertise and builds upon insights and evidence developed across the sector.

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Appendix F: Table of acronyms

Acronym	Explanation
APAC	Asia-Pacific
APS	Australian Public Service
ARENA	Australian Renewable Energy Agency
BACI	Base pour l'Analyse du Commerce International
BCA	Business Council of Australia
BF-BOF	Blast Furnace-Basic Oxygen Furnace
CALGreen	California Green Building Standards Code
CBAM	Carbon Border Adjustment Mechanism
CCTI	Clean Commodity Trading Initiative
CEFC	Clean Energy Finance Corporation
CfD	Contracts for Difference
CI	Carbon Intensity
CIS	Capacity Investment Scheme
CO2e	Carbon dioxide equivalent
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DISR	Department of Industry, Science and Resources
DRI	Direct Reduced Iron
EAF	Electric Arc Furnace
EPC	Engineering, Procurement, and Construction
ESF	Electric Smelting Furnace
ETS	Emissions Trading Scheme
EU	European Union
EV	Electric Vehicle
FID	Final Investment Decision

Creating the pull: Demand-side levers for green iron and steel

FOAK	First-of-a-kind
GBCA	Green Building Council Australia
GGE	Gasoline Gallon Equivalent
GHG	Greenhouse Gas
GIIF	Green Iron Investment Fund
GO	Guarantee of Origin
GWP	Global Warming Potential
GX-ETS	Japan Green Transformation Emissions Trading System
HBI	Hot Briquetted Iron
IEA	International Energy Agency
IMF	International Monetary Fund
IPP	Indigenous Procurement Policy
IRENA	International Renewable Energy Agency
ISO	International Organisation for Standardisation
LCFS	Low Carbon Fuel Standard
LESS	Low Emission Steel Standard
MENA	Middle East and North Africa
METI	Ministry of Economy, Trade and Industry
MoU	Memorandum of Understanding
Mtpa	Million tonnes per annum
NatHERS	Nationwide House Energy Rating Scheme
NG	Natural Gas
NZF	Net Zero Fund
OECD	Organisation for Economic Co-operation and Development
OEM	Original Equipment Manufacturer
PGO	Product Guarantee of Origin

Creating the pull: Demand-side levers for green iron and steel

PGS	Progressive Green Solutions
PPA	Power Purchase Agreement
RET	Renewable Energy Target
RFP	Request for Proposal
RMI	Rocky Mountain Institute
SAF	Sustainable Aviation Fuel
TRL	Technology Readiness Level
WA	Western Australia

Endnotes

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