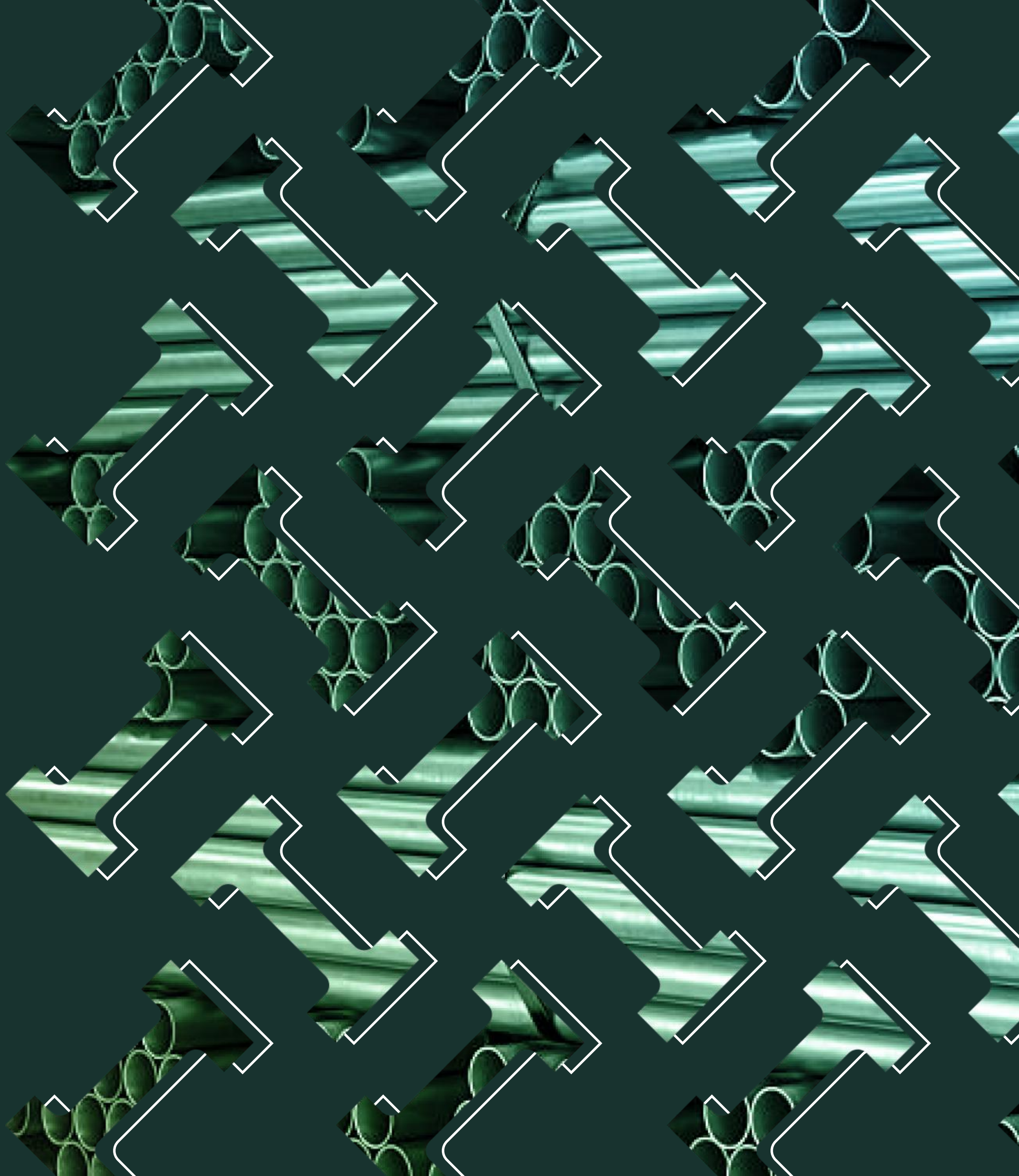
MISSION POSSIBLE PARTNERSHIP | RMI

Steel's transformation:

China and Australia's next horizon of clean steel

Report | 18 September 2026



Foreword

Faustine Delasalle
CEO,
Mission Possible Partnership
Executive Director, Industrial Transition Accelerator

“

Australia and China can do more than trade clean iron. They can pioneer and scale a global market, and show the world that industrial transition is built through collaboration.

– Faustine Delasalle

By moving first, Australia and China can unlock first investments in green iron and steel and become the launchpad for a global clean steel acceleration.

Clean industry is rising and the pace is quickening. Through every edition of our Global Project Tracker, one pattern holds: China sits at the front, turning a renewable build-out and clear industrial policy into projects on the ground faster than any other country. Its lead is not an accident of scale. It is the result of moving early and moving deliberately.

That leadership is beginning to reach beyond China's borders, and nowhere more naturally than with Australia. The two economies already run the largest raw material partnership in global steel and their clean-energy ties are deepening. Australian projects are being built today with Chinese solar and batteries. Clean iron would be the next step, and in steel both governments have now declared their intent to take it together, at the highest levels.

Much has been said about clean iron trade and about the roles each country might play in it. Yet remarkably little has been established about what will decide it: the economics of this trade and whether it delivers for both sides. That is the question we have set out to answer.

Our view is that the opportunity is real and larger than a single transaction. Australia and China come to clean iron trade for different reasons, and those reasons are complementary rather than competing. Australia moves up the value chain, from shipping its ore to exporting higher-value clean iron. China supplies the technology and construction behind these plants, proving its capabilities in new markets and opening demand well beyond its borders.

The prize is substantial and global. Today's pipeline of clean iron projects outside China already represents up to USD 70 bn in investment opportunities, and the clean iron trade it enables would open a seaborne market worth some USD 5 bn a year that does not exist today. Both will only grow as the market matures.

But the numbers don’t yet support the ambition. Clean steel remains at a premium to traditional steelmaking, and Australian production sits at a premium to some Chinese provinces today. Closing that gap depends on the two countries working together, on technology, shared infrastructure, and finance, rather than trading at arm's length. A win-win is achievable, but it is not automatic.

This is why the steel transformation must be a partnership, not a transaction. The market that forms first will belong to those who build it, and the advantage of moving early, in cost, in capability, in trust, compounds with every project. Australia and China have every reason to move, and to move together. The moment to begin is now.

Ting Li
Managing Director & Chief Representative, RMI China

“

Clean iron represents more than a new commodity. It is an opportunity to rethink how resources, energy and industrial capabilities come together to support steel decarbonisation. Australia and China each bring distinct strengths, and thoughtful collaboration could help open pathways that would be difficult for either side to achieve alone.

– Ting Li

Executive Summary

Executive Summary

Co-operation has momentum, but the drivers for trade are missing

Australia and China form the largest raw material partnership in the global steel landscape. China buys close to half of every steelmaking input traded worldwide, with a large share of its iron ore imports coming from Australia. The evolution of the steel trade, as it shifts to near-zero carbon production will have global consequences.

Deep decarbonisation of steel will require clean iron, but the shape of that market remains unclear. Not all clean steel needs clean iron, and not all clean iron needs to be traded. Industry players do not expect clean iron demand to scale until the **2040s**, and that expectation is what sets the pace of green iron corridors.

Today's commercial partnerships sit upstream of clean iron, in energy and equipment. Chinese solar, batteries, and construction expertise already flow into Australian projects. These value chains form the foundation clean iron can build on.

Both governments have made decarbonising steel a priority, business has followed with joint studies and co-operation intentions. Yet, no clean iron has been traded, and no jointly sponsored project has reached Final Investment Decision (FID). Co-operation has largely focused on principles and broad directions. Two questions remain: Where might trade make the most commercial sense? And what would each country gain, while deepening global co-operation on low-carbon transition? Answers to both are prerequisites to investment.

China's progress on clean steel is accelerating, but increasingly regionally differentiated

China treats the steel transition as industrial policy, driving coordination and investment centrally and regionally. The national Emissions Trading Scheme (ETS) covers steel; and policies guiding steelmaking capacity favour hydrogen metallurgy and electric arc furnaces (EAFs). On the demand side, procurement signals are emerging for low-carbon steel.

China leads globally in scaled green hydrogen, powered by abundant low-cost renewables. It is increasingly converting this edge into clean iron production: four projects are under construction with a further seven in development with new projects continuing to emerge. These projects and operating assets represent at least 8.6 Mt of clean iron capacity.

China is well positioned to self-supply much of it's clean iron needs. But provincial resource endowments shape diverse ironmaking strategies. China's best renewables sit inland in the North-West, while EAF capacities and steel demand lie closer to the South-East coast. Three provincial archetypes are likely to emerge:

1. <u>Energy abundant exporters (e.g., Inner Mongolia):</u> Provinces with ample low-cost renewables, but weak local demand and limited scrap potential point to exports of HBI, hydrogen or electrons to nearby provinces.
2. <u>Integrated clean steel producers (e.g., Hebei):</u> in the steelmaking heartland can competitively produce clean iron to meet local and regional demand, topping up from nearby energy abundant exporters as required.
3. <u>Import dependent steelmakers (e.g., Guangdong):</u> provinces with strong steel demand but scarcity of cheap renewables face high local production costs, making imported clean iron more attractive.

Australia has potential and an emerging pipeline, but needs partners to deliver cost-competitive projects

Australia can move up the value chain by processing iron ore into HBI for export, capturing value currently realised offshore and diversifying an export base that is concentrated in raw commodities.

Policy is backing this aspiration on the supply side. **Over USD 8 bn in incentives** have been announced across grid, renewables, hydrogen, and clean iron. But they have not yet been sufficient to progress a project to FID.

Australia has a globally significant project pipeline, but most projects remain early-stage. **Eight magnetite concentrate and pellet projects** are developing the DR-grade feedstock that direct reduction requires. At least 10 HBI projects sit behind them, with **about 15 Mtpa of proposed capacity,** representing to an investment opportunity of more than **USD 50 bn**.

However, analysis suggests Australia is not yet a cost-competitive producer of clean iron. Production costs are higher than those in China's lowest-cost provinces, driven by hydrogen, construction, and capital. Serious export conversations can only begin once the gap narrows and that will take strong bilateral partnerships to de-risk first-of-a-kind deployments.

Executive Summary

China and Australia have complementary reasons to partner on clean iron trade

China and Australia would enter the clean iron trade for different reasons, but both stand to benefit significantly from the development of a global clean iron and steel market.

China's reasons are strategic. Partnering with Australia lets China demonstrate that its ironmaking technologies work at scale, positioning it as a reliable technology partner to global steelmakers. It also opens international collaboration on green industrial parks and builds cleantech export potential. It captures a first-mover share of global, not just national, clean iron demand locking in supply relationships and technology ties as the market scales. In parallel, while the larger prize remains global, seaborne supply offers a useful hedge for coastal provinces against domestic hydrogen and grid constraints.

Australia's interest is investment-driven. Its projects need committed offtake to reach FID, and Chinese mills are the largest potential source of it. Firm demand would allow the first projects to raise construction capital and open the seaborne clean iron market.

The prize for both countries is large and complementary. The hydrogen DRI pipeline outside China represents **about a USD 100 bn investment opportunity** – equivalent to **roughly 40% of China's USD 235 bn cleantech exports** in 2025. The trade it enables would open a seaborne clean iron market initially worth up to **USD 7 bn a year**.

Co-operation to develop the global clean iron market benefits both countries

Three factors could influence the development of clean iron trade: (i) Faster energy deployment, (ii) Rising demand for clean iron and steel, and (iii) Falling cost curves. Each reinforces the others and partnership accelerates all of them.

Partnership anchored in projects can accelerate deployment. The more renewable energy and grid connections built, the more demand rises for Australian resources including clean iron and Chinese technology. Both gain from pushing the frontier.

Partnership needs a focal point, but this is missing for clean iron trade. A 2.5Mt clean iron plant in Australia supplying an EAF in China, could represent a ~USD 14 bn investment opportunity to kickstart global trade. It could sit in the context of wider commercial partnerships across energy, electrification, and industrial products.

Reciprocal offtake creates demand on both sides. Australia already buys **3.1 Mt of Chinese steel** a year - **about 30% of China's announced clean steel capacity**, and enough to underpin a new 2.5 Mt EAF using Australian iron. Buying that steel on a low-carbon basis under aligned standards would give Chinese producers certainty to invest. In turn, Chinese mills offtaking Australian clean iron would give Australian projects the same certainty to reach FID. That template could bring scaled demand for clean iron forward into the 2030s.

Cutting energy cost faster is central to unlocking clean iron trade

Australia and China already benefit from partnerships in energy. Chinese equipment, capital, and construction capability are being used to develop Australian projects, through ventures including Fortescue's with CATL and Envision. The same relationships can now focus on cutting clean iron costs.

Australia can close its cost gap, but not alone. Financing, enabling infrastructure, capex optimisation and technology partnerships could cut **clean iron costs by about 20% - enough to compete for China's coastal south.** Between a quarter to half of those savings depend on co-operating closely with China, on equipment, construction and finance. The rest comes from enabling infrastructure such as low-cost storage and grid access as well as on site pre-fabrication and automation.

A global market in clean steel will only scale on sustained cost reductions, that takes patient co-operation. Starting upstream, consolidating and accelerating cheaper clean iron production is a pre-requisite for demand at scale. Costs will only fall through working on specific projects together, with risk allocated so that no party carries a first-of-a-kind project alone.

Australia and China built a deep partnership in the last steel cycle. Repeating it in the next one would reward both. Further progress now, across project development, investment and trade, would send the signal to mobilise the market.

Three interlocking moves can deliver a shared prize for Australia and China

1 Anchor partnership in live projects

Co-developed clean iron project pipeline in Australia to build experience, reduce risk and deepen collaboration

POTENTIAL FIRST STEPS

- Develop a shared first-mover project pipeline with joint technology and financing players
- Identify priority technology collaboration opportunities (e.g., electrifying the Pilbara, ironmaking with Pilbara ores)

2 Jointly activate demand for clean iron & steel

Clear demand signals and China-Australia clean iron offtake agreements build investment confidence

POTENTIAL FIRST STEPS

- Facilitate reciprocal demand-side policies for clean iron and steel products (e.g., construction, public procurement, cleantech)
- Align standards for international interoperability (e.g., C2F, Product GO, LESS, ResponsibleSteel)

3 Cut costs using finance & technology partnerships

Cross-border co-operation leverages complementary industrial strengths to lower clean iron costs through joint financing, equipment and engineering

POTENTIAL FIRST STEPS

- Adapt Chinese renewables, electrolysers, green industrial parks, and EPC to Australian standards and conditions (e.g., permits, grid)
- Explore risk-appropriate RMB debt and blended finance products for currency hedging of shared projects

Acknowledgements

Contributors listed alphabetically throughout

Authors

Boya Zhang
Nicole Tan
Shuyi Li
Yujun Xue

Cost modellers

Ariane DesRosiers
Rachel Wilmoth

Contributors

Clara Eldridge
Edward Boyd
Elliot Mari
Faustine Delasalle
James Boyle
Rachel Howard
Sophie Meerstadt
Thanh Ha
Thomas Koch Blank
Ting Li

About MPP

Mission Possible Partnership (MPP) is an independent non-profit organisation advancing global clean industry transformation. Since 2019, we have been working with some of the most energy-intensive industries in sectors like steel, aluminium, cement, chemicals, aviation and shipping to cut their 25% of global GHG emissions.

We mobilise business, finance, government and civil society leaders to speed up the shift to clean materials, chemicals and fuels. Through the Industrial Transition Accelerator, our sector programmes and the Global Project Tracker, which maps the pipeline of around 1,000 clean industry projects worldwide, MPP combines deep sector and in-country expertise with a real-time view of project development, market dynamics and policy evolution. With this system-wide perspective we continue to forge new territory, lifting the barriers to enable a critical mass of clean industrial projects to move from ambition to implementation. MPP has people and partners on the ground in Asia-Pacific, India, the Middle East, North America, Brazil and Europe.

About RMI

Rocky Mountain Institute (RMI) is an independent, nonpartisan nonprofit founded in 1982 that transforms global energy systems through market-driven solutions to secure a prosperous, resilient, clean energy future for all. In collaboration with businesses, policymakers, funders, communities, and other partners, RMI drives investment to scale clean energy solutions, reduce energy waste, and boost access to affordable clean energy in ways that enhance security, strengthen the economy, and improve people's livelihoods. RMI is active in over 50 countries.

Acknowledgements

With special thanks to Changlong Wang, Matt Pollard, Tianduo Peng, Tim Buckley, and Xueqian Chen.

Citations and rights

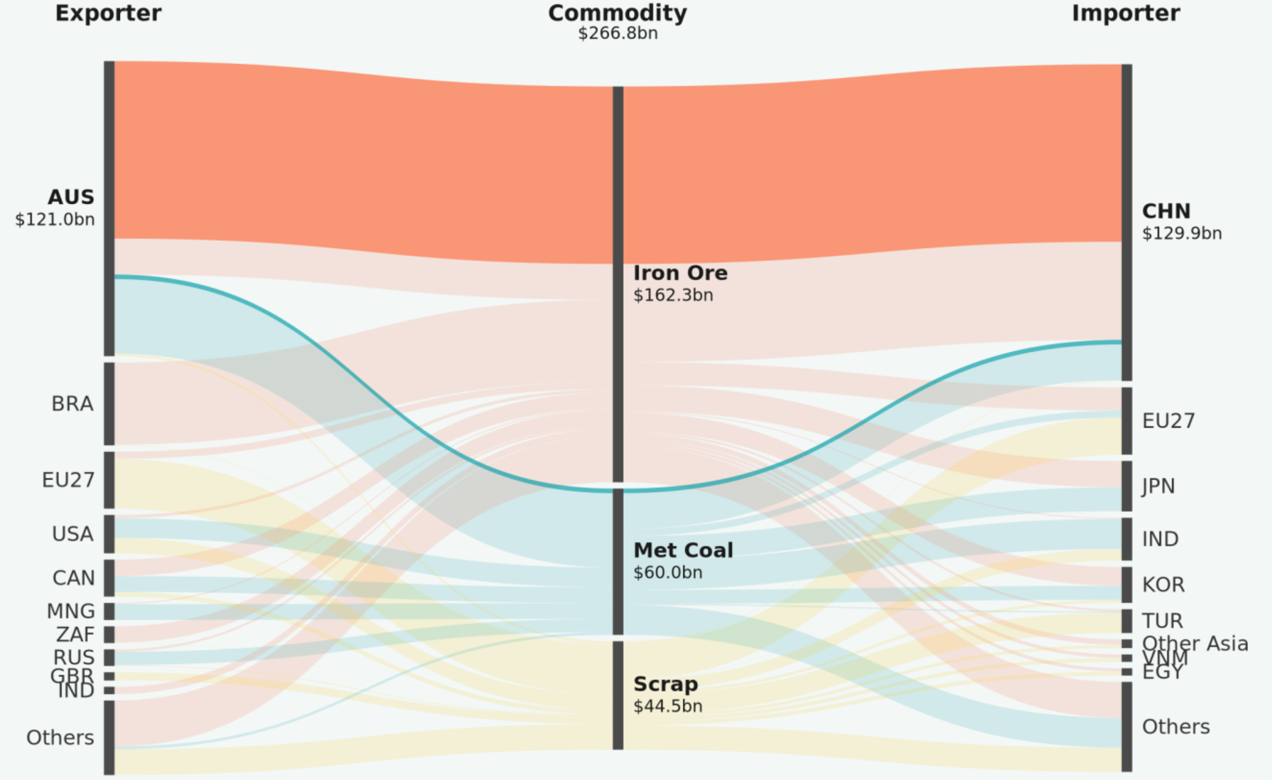
Clean steel trade

Australia and China have laid the foundations to enable them to lead the global clean iron and steel market, as energy shocks, carbon policy, and trade barriers disrupt traditional production.

| Iron ore cargo ship leaving docks, Australia

Global steel value chains are deeply connected by trade, with China and Australia forming one of the world's most significant relationships

2024 trade in iron ore, met coal, and scrap by export and import pair, USD bn



A large share of steelmaking inputs never crosses a border. Every major producer meets part of its needs from domestic ore, coal, or scrap, and the flows here show only what moves on top of that base, not total supply. How much a country must import depends on the input and on the quality it can source at home.

But domestic supply rarely covers all of a country's steelmaking needs. Most steel is still made in blast furnaces, which run on iron ore and metallurgical (met) coal, and few producers hold enough of either. China makes over half the world's steel yet imports iron ore because its own is too low-grade to rely on. Japan and Korea import almost everything they use. India mines its own ore but buys most of its coking coal, second only to China. Scrap is the exception: overwhelmingly collected and remelted at home, it is far less traded.

Australia exports more iron ore and more met coal, by value, than the rest of the world combined. In 2024 it sold USD 87.5 bn of iron ore and USD 32.4 bn of met coal. That is about 54% of each market. Brazil, the next iron ore supplier, ships less than half as much. No other exporter comes close on either input.

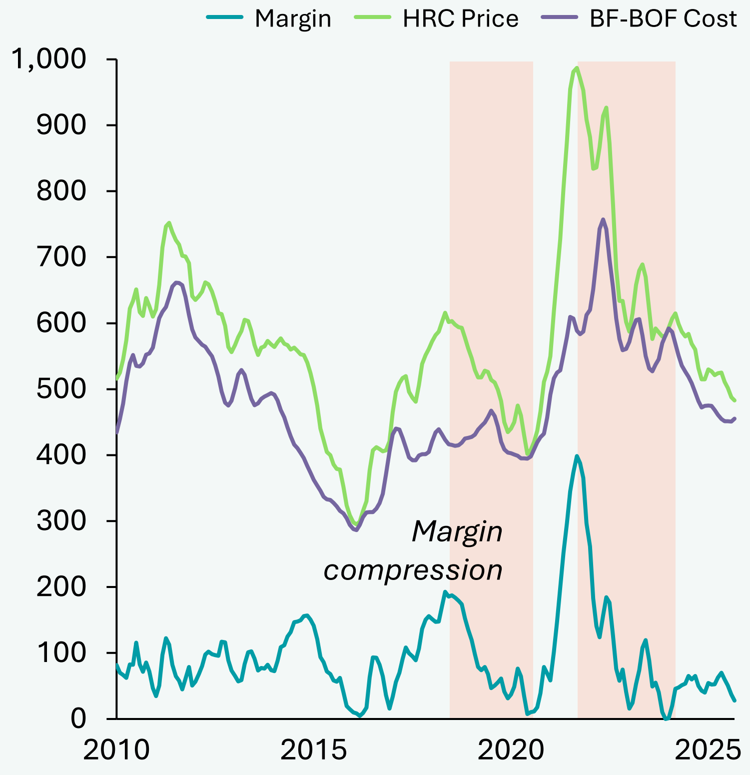
China buys nearly half of every steelmaking input traded worldwide. Its imports of iron ore, met coal, and scrap reached about USD 130 bn in 2024. That is 49% of the USD 267 bn global total, and 70% of all traded iron ore. Most of that ore, and much of the coal, comes from Australia. The Australia-China corridor is the largest raw-material relationship in global steel.

Source: Iron ore and scrap data are from BACI; met coal trade flows have been constructed based on national statistics agencies including Australia's Resources and Energy Quarterly, the US EIA Quarterly Coal Report, Natural Resources Canada, General Administration of Customs China, Indian Ministry of Coal.

Input volatility, carbon policy, and trade barriers are making traditional integrated steelmaking less competitive

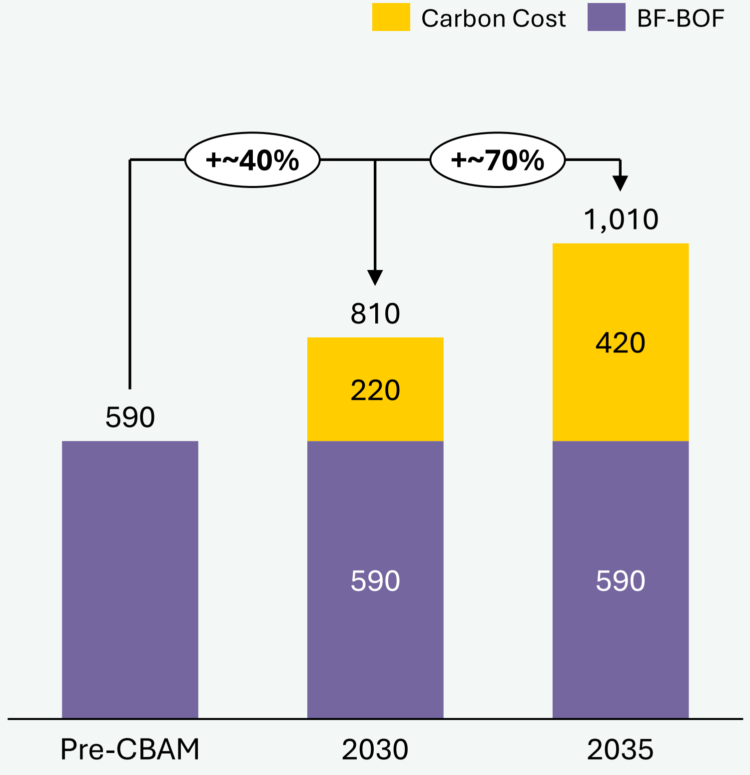
Energy shocks have hit steel margins

Volatility impact on steel margins[1], USD/t



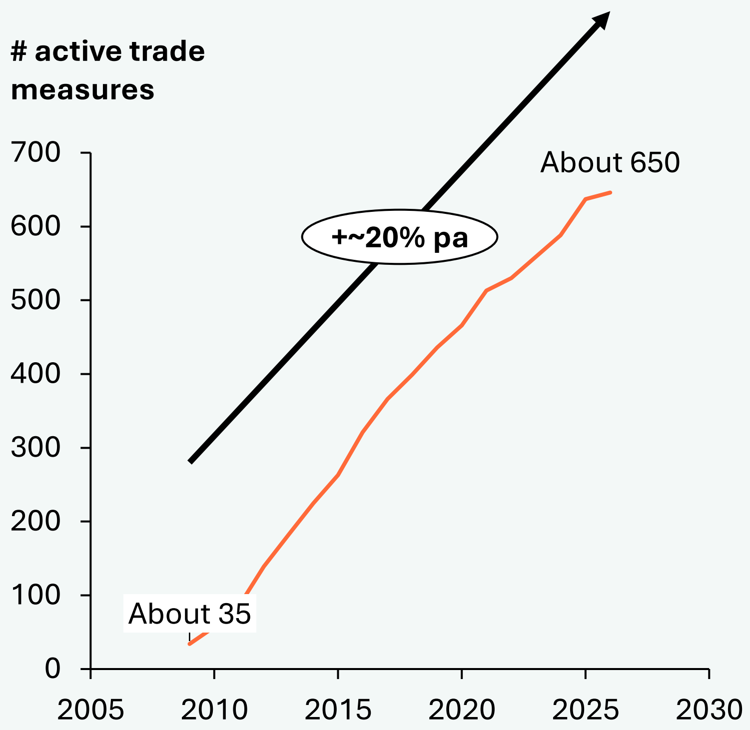
Carbon policy makes BF-BOF steelmaking less competitive

Delivered steel into the EU from South Korea[2]



Increasing trade measures will escalate market frictions and cost

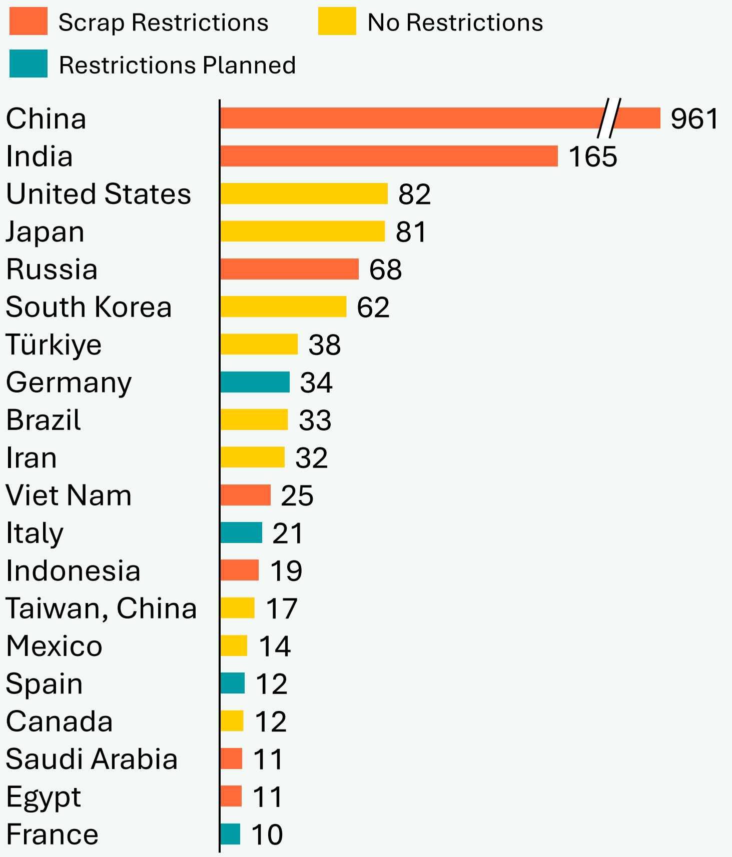
Active global steel safeguards[3]



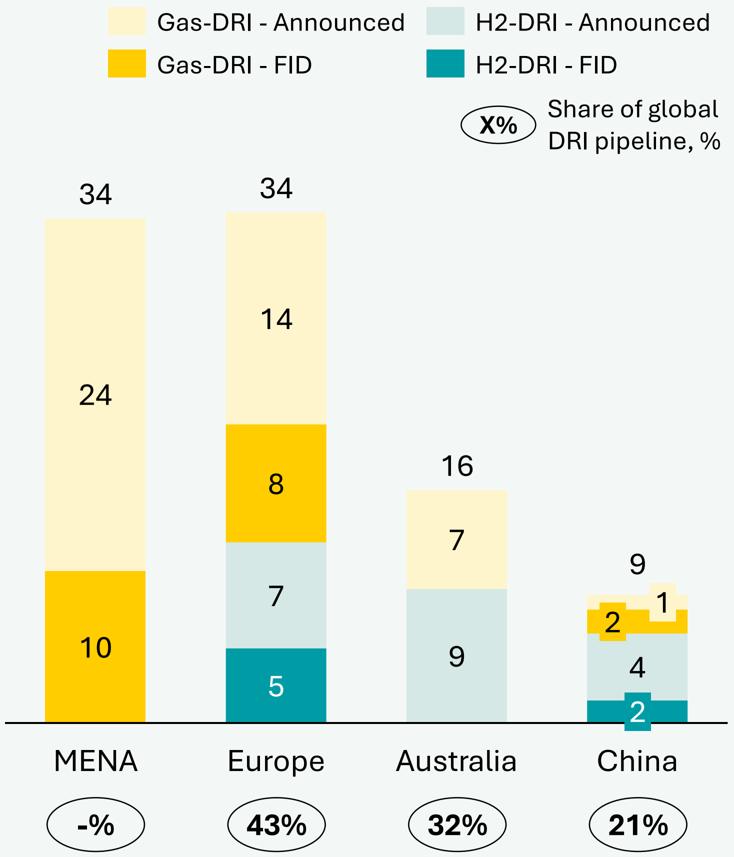
1. Margin is calculated from MPP steel modelled costs and HRC (hot rolled coil) prices from SteelontheNet (2025). MPP cost model uses rolling quarterly iron ore, met coal, gas and scrap prices. Iron ore and met coal are from Resources and Energy Quarterly (2026) and converted to USD using monthly historical AUD/USD exchange rate from RBA (2026). Gas prices are from World Bank (2026). Scrap prices are from Bank of Korea (2026). 2. Mission Possible Partnership (2026) using CBAM certificate cost of $170/t in 2030 and $215/t in 2035 as per BNEF's 2025 H2 ETS price forecast. 3. Based on Global Trade Alert (2026) covering anti-circumvention, anti-dumping, anti-subsidy, safeguard measures applied to steel products

Producers are responding by securing critical feedstocks and diversifying production pathways

Global steel production in regions with scrap export restrictions, Mt[1]



Announced and post-FID clean steel production by region, Mt[2]



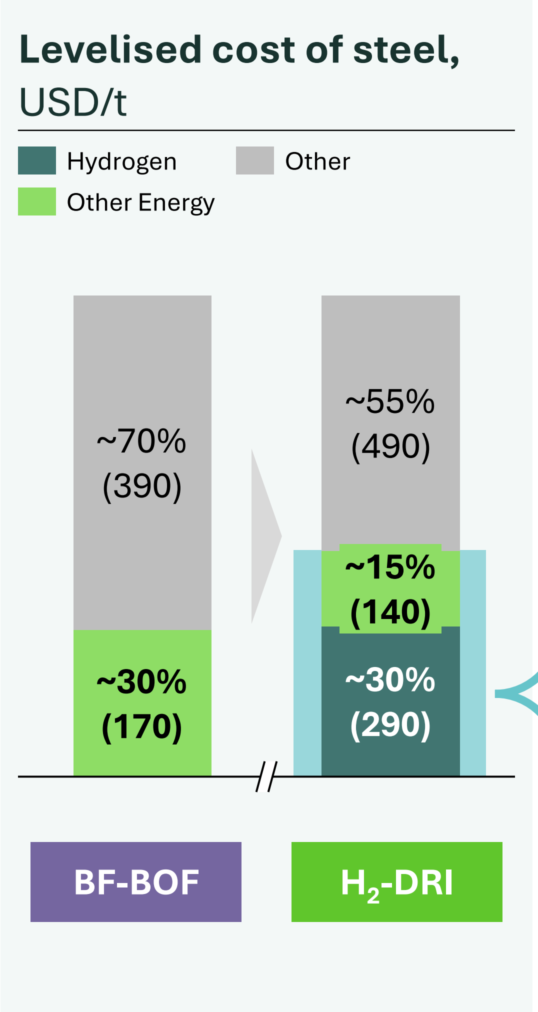
Producing regions are reinforcing their domestic steel industries. Facing volatile input costs and persistent global overcapacity, governments are acting to keep production at home. The United States doubled its Section 232 steel tariff to 50% in June 2025. Europe's Steel and Metals Action Plan followed in March 2025, cutting tariff-free import quotas by nearly half and lifting the over-quota duty to 50% from July 2026.

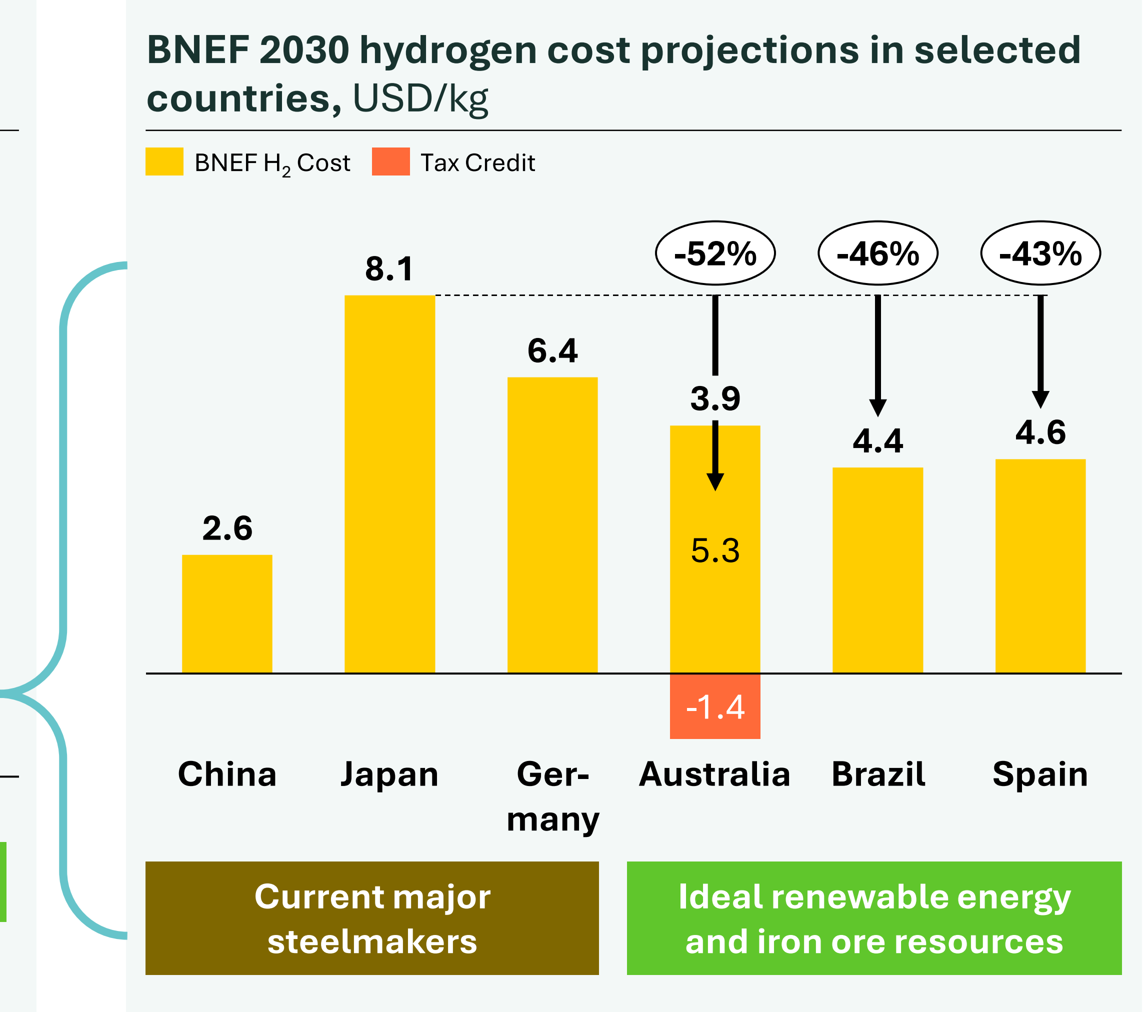
They are also locking up the inputs that domestic production needs. Scrap is the clearest case. Countries making about 70% of the world's steel now restrict scrap exports, keeping this low-cost feedstock at home. China, India, Russia, and Indonesia all limit outflows, and the EU's planned Waste Shipment Regulation could curb exports from Europe.

The clean iron build-out has begun, but it is early and geographically uneven. China has taken green hydrogen/ammonia and hydrogen-based ironmaking (H2-DRI) furthest, with more projects at FID than any other country, yet even these equal only about 1% of its vast output. Together Australia and China represent over half of green iron projects under development globally.

1. Based on Worldsteel 2025 annual production by country and OECD inventory of export restrictions on critical raw materials (2026). 2. Based on Worldsteel 2025 annual production by country and MPP April 2026 Global Progress Tracker Category 1 – 4 projects including deep decarbonisation and broader progress projects. Chinese gas-DRI majorly refers to COG (coke oven gas) , and is positioned as a transitional route toward green H2-DRI and clean steel.

Clean iron trade could decouple ironmaking from steelmaking and relocate it to regions rich in ore and cheap clean energy, but progress is slow





Ironmaking and steelmaking are set to decouple – and the shift is already under way. Energy is the decisive input in low-emissions ironmaking, constituting about 50% of total costs; traditional steelmaking is far less energy-intensive. As clean energy costs diverge sharply by geography, the two stages will increasingly optimise in different locations.

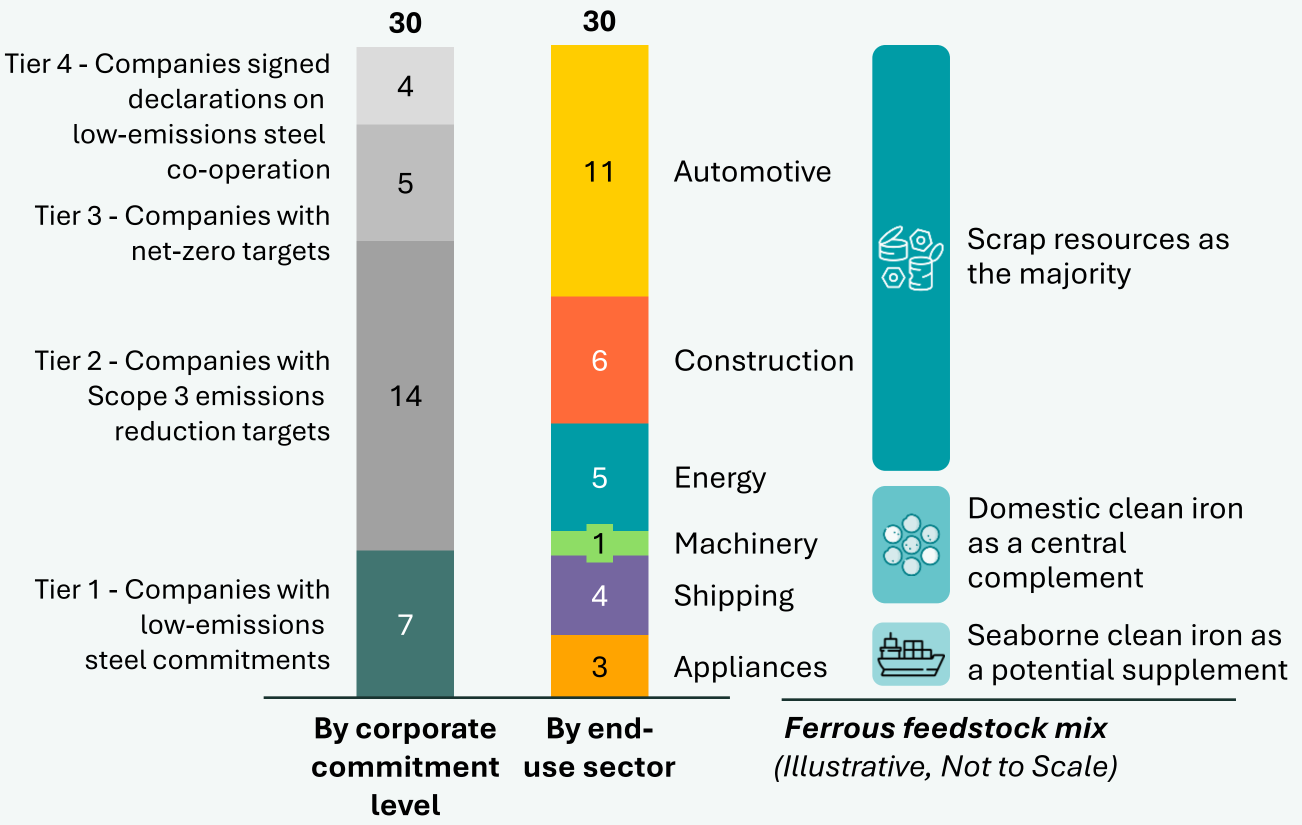
The decoupling logic favours economies with abundant, low-cost renewable energy. Clean iron requires large volumes of cheap hydrogen, made from electrolysis powered by solar, wind, or hydropower. Resource-rich geographies such as Australia could theoretically produce green hydrogen at a fraction of the cost of energy-importing economies – a structural cost advantage in ironmaking that compounds over time.

Decoupling is the theory, but integration is what has reached FID. Of around 20 clean-ironmaking projects at or past final investment decision, roughly three-quarters by number and about four-fifths of capacity are integrated DRI-EAF plants that make finished steel on the same site.

Source: RMI, BNEF. Global average steel prices based on MEPS International (2025). Projected Chinese electrolyser cost reductions result in a lower value for Chinese hydrogen costs from BNEF. Australia hydrogen cost includes the production tax credit (AUD 2/kg).

Markets for clean steel remain small but are set to scale post-2030, while growth in clean iron and seaborne trade will lag further behind

Estimated potential clean steel demand in APAC focus countries, million tonnes[1]



Lower-emission offtake is progressing slowly. There are 81 existing offtake transactions for lower-emission products in Asia-Pacific, 33 of which are between Chinese companies (e.g., BYD, GAC Group, Chery, Envision, Haier, Hang Lung). They prove that some demand exists, particularly in the auto sector. However, this demand will not necessarily translate into direct demand for clean iron or seaborne clean iron imports, as it could be largely met through scrap EAF or efficient BF-BOF.

Scope 3 commitments and supportive policies could drive buyer demand to 30 Mtpa by 2030, indicating significant upside potential for clean steel, though practical barriers remain to translating demand into procurement. Corporate Scope 3 targets can be met through multiple supply-chain levers, with steel among the relatively harder-to-abate options; meanwhile, China's BF-BOF-dominated steel system may lead to greater reliance on incremental decarbonisation along existing routes, limiting demand for green iron. Moreover, fragmented product definitions and emissions rules cause buyer hesitancy. Profit margin pressures continue to lower buyers' willingness to pay for green premiums.

Stronger market growth is expected post-2030. Buyers in the construction, automotive, and machinery sectors state that regulations and incentives such as embodied building requirements and China's clean procurement guidelines for SOEs will drive additional demand.

1. Estimated clean steel demand is based on corporate commitments from four tiers of companies, combining data from China and other APAC focus countries (Japan, Korea, Vietnam, Indonesia, Philippines, Malaysia, and Thailand). Note that statistical scopes vary slightly: China's data includes broader low-carbon steel, whereas other APAC countries apply stricter definitions. See *Asia Pacific's Green Steel Opportunity* (2026) for more on APAC markets.

China and Australia have already begun a partnership to lead development of the global clean iron and steel market

English Français Español Русский عربي 无障碍 关怀版

搜索

首页 外交部 外交部长 外交动态 驻外机构 国家和组织 资料 政府信息公开 外交新媒体

首页 > 重要新闻

中澳总理年度会晤联合成果声明（全文）

2025-07-15 21:26

【中 大 小】 打印

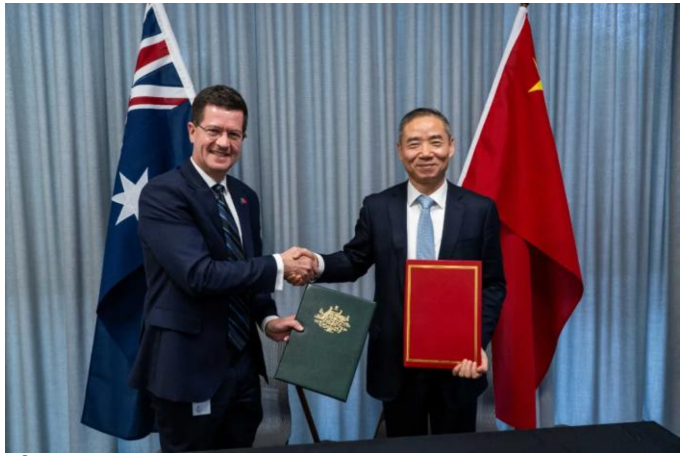
一、应中华人民共和国国务院总理李强邀请，**澳大利亚总理安东尼·阿尔巴尼斯于2025年7月12日至18日对中华人民共和国进行正式访问。**阿尔巴尼斯总理先后访问上海、北京、四川成都。

——双边贸易，包括两国领导人7月15日在北京出席中澳工商界首席执行官圆桌会。双方肯定中澳自贸协定对促进两国经贸关系发展的重要作用，欢迎对协定进行审议。中方欢迎澳方担任2025年中国国际服务贸易交易会主宾国，欢迎澳方参加中国国际进口博览会。双方欢迎世贸组织《电子商务协定》完成谈判并将致力于推动将协定纳入世贸组织框架。为此，双方还将合作探索临时实施协定的可行方式。

——气候变化、能源和环境，同意建立新的钢铁行业减碳政策对话，保持双方官员在气候变化和环境领域的沟通，包括透明度相关事项、旱地农业、气候智慧型农业、绿色经济。双方期待2025年在华举办第九次中澳气候变化部长级对话。

——人文交流，加强文化、体育、教育、创新、学术、航空、卫生、旅游等领域交流，包括重启中澳旅游对话。澳方继续欢迎中国学生，肯定其对澳社会所作贡献。双方欢迎更多澳青少年通过国际青少年交流项目和计划等赴华交流访学。两国领导人欢迎双方国家博物馆互办重要文化展览。

——边境执法，在双方有共同利益的领域继续加强双边执法合作，打击毒品及跨国有组织犯罪、网络电信诈骗等各类犯罪行为。



2025.07 (Track 1)

Joint Outcomes Statement of the China-Australia Annual Leaders' Meeting

- China-Australia joint statement committed to climate, energy, and environment co-operation
- Agreed to establish a new policy dialogue on steel decarbonisation

2025.07 (Track 1)

Australian Prime Minister attended the China-Australian Steel Decarbonisation Meeting

- Shanghai steel decarbonisation meeting, with the Australian Prime Minister in attendance
- Participation by Chinese steelmakers and Australian mining companies

2025.09 (Track 1.5)

Ninth Meeting of the China-Australia High-Level Dialogue

- Held in Beijing as the ninth meeting of the China-Australia High-Level Dialogue
- China-Australia's only Track 1.5 mechanism, attended by about 40 government and stakeholder representatives

2025.12 (Track 1)

Chinese Vice Minister of MIIT led a delegation to Australia

- Ministerial-level meeting in Australia with DISR Deputy Secretary
- Signed an MoU on the steel decarbonisation policy dialogue

2026.2 (AUS progress)

Australia announced grants for China-Australia cooperation

- Steel decarbonisation identified as one of the priority areas
- Awarded A$650,000 for bilateral green iron and steel co-operation

2026.7 (Track 2)

Boao Forum for Asia Perth Conference

- Attended by senior Chinese and Australian delegation
- A green markets roundtable focused on the "green iron to green steel" pathway

Source: government websites, Xinhua News Agency, World Metal Bulletin, National Foundation for Australia-China Relations

The bilateral partnership is underpinned by corporate co-operation and exchange, though deeper, more sustained efforts are needed

Year	Commodity	Upstream	Downstream	Project	Co-operation type	Co-operation details
2023	Pellet	Rio Tinto	Baowu	Pellet supply for DRI and ESF	MoU, joint study & supply	Lab-scale ESF in China. Australia pellet is supplied to China DRI. Optimize pelletisation technology for Australia ores
	Iron ore	Fortescue	Baowu	Green hydrogen metallurgy, beneficiation	MoU, joint study	Low-emission ironmaking technology with Fortescue iron ore and green hydrogen, beneficiation research and development
2024	Iron ore	BHP	HBIS	Commercial-scale DRI with BHP iron ore	MoU, joint study	Trial DRI production and utilisation of BHP iron ores in blends, evaluating the performance of the DRI in downstream steelmaking steps
	Iron ore	BHP	Baowu	Commercial-scale DRI	MoU, joint study	BHP iron ores in blends, commercial-scale DRI at Baowu Zhanjiang DRI project
First clean iron trade partnership	**Granulated pig iron**	Fortescue	Baowu	DRI-ESF	MoU, joint study & supply	Partnership on technology development and supply chain of clean iron, potentially supplied from the Christmas Creek project equipped with green hydrogen-based DRI and ESF
2025	Iron ore	Rio Tinto	HBIS	BF-BOF decarbonisation and hydrogen metallurgy	MoU, joint study	Optimize BF burden structure and improve energy efficiency. Jointly explore carbon reduction in the BF-BOF process and collaborate on hydrogen metallurgy
	Iron ore	Fortescue	TISCO	Hydrogen metallurgy with Fortescue iron ore	MoU, joint study	Collaborate on designing, constructing, and operating an industrial pilot line with an annual capacity of 5,000 tonnes of hot metal. Explore low-carbon ironmaking technologies compatible with Pilbara iron ores
2026	**Granulated pig iron**	Fortescue	Zhongshou Special Steel	Clean iron trade and supply chain synergy	Engagement	Discussions on the potential supply of Fortescue's clean iron to Chinese clean steelmakers for producing low-carbon exports to Europe, resulting in a preliminary expression of interest
	Iron ore	Rio Tinto	Baowu	Industrial-scale DRI-ESF with Rio Tinto ores	Joint study	Completed industrial-scale hydrogen-based DRI trial using Pilbara medium-grade ores, delivering on a key initiative of the 2023 MoU

Source: Press search.

Accelerating the Australia-China clean iron corridor requires clarity about where to site the first partnership and a clear win-win outcome

China and Australia have built momentum on clean steel, but co-operation has not yet moved from high-level intent to commercial exchange. Track 1 and 1.5 dialogue[1], a government MoU, and a growing set of corporate joint studies show appetite on both sides. What is missing is the deeper layer of commitment: firm offtake, co-investment, and traded volumes of clean iron.

Identifying a first flagship project turns on two questions that co-operation has so far left open: where trade would be economically rational, and how it would deliver a win-win. Until both are answered for each country, which project should move first and where remains an open question.

This paper unpacks the subnational economics of clean iron and steel production in both China and Australia, alongside each side's drivers for trade. Rather than treating either as a single market, it resolves costs to the provincial level where availability of renewables, ore quality, infrastructure, and demand differ most and sets these against what each side would gain.

Together these show whether China and Australia would be complementary trade partners, and where a first corridor could most logically begin resolving the economic case and the mutual-benefit case, country by country.

	China	Australia
Where is trade economically rational?	To what extent do clean iron & steel costs vary by Chinese province?	How competitive is Australian clean iron relative to Chinese domestic production?
How does trade deliver a win-win outcome?	What might China stand to gain from clean iron trade?	How could Australia accelerate development of clean iron exports?

1. Track 1 refers to official diplomacy with direct communication between governments. Track 1.5 occurs when government representatives and non-governmental experts engage in less formal ways than Track 1

China's opportunity

China's steel transition is inherently subnational: renewable-rich provinces can be globally competitive clean iron producers, while for coastal provinces imports make more sense and carry strategic benefits, including reciprocal export opportunities.

| Hot steel on conveyor in steel mill, China

China is advancing the transition of its steel sector as part of a broader push towards new high-quality production and development

Overarching framework

High-quality development	Shifting from rapid, scale-driven growth to efficiency, sustainability, and inclusiveness
New quality productive forces	Innovation-led productivity built on advanced technology, digitalization, and low-carbon upgrading

Steel sector policy priorities

Innovation capability	Advancing hydrogen metallurgy, low-carbon metallurgy, clean steelmaking, and digitalised production
Industrial structure	Improving industry concentration, process mix, regional layout, and supply-demand balance
Clean transition	Promoting ultra-low emissions, energy and water efficiency, circular resource use, and carbon peaking
Resource security	Strengthening iron ore supply resilience and scrap recycling systems
Supply quality	Upgrading high-end steel products, critical materials, and brand competitiveness

China's steel transition is embedded in a broader national shift from scale-driven industrial growth to high-quality development and production. This reframes steel from a volume-led basic materials industry into a strategic foundation that supports advanced manufacturing and bolsters overall industrial resilience.

For the steel sector, this translates into a policy agenda focused on upgrading industry, cutting emissions, and energy transition. The industry is moving towards a highly disciplined, technology-enabled pathway focused on value creation. Competitiveness is increasingly shaped by carbon performance, energy flexibility, and the ability to serve higher-quality downstream demand.

Decarbonisation is therefore not a standalone climate objective but is deeply embedded in China's industrial transformation agenda. It acts as a structural lever for process renewal and resource reallocation, while reinforcing supply-chain resilience and high-end manufacturing competitiveness.

Source: Guiding Opinions on Promoting High-Quality Development of the Iron and Steel Industry.

China's policy framework provides incentives accelerate the transformation across the clean steel value chain

Financial incentives
Regulation & partnerships
Industry & voluntary
XX *Non-binding regulation*

	Upstream			Production or Procurement		Downstream	
	Clean Industry & Renewable Energy	Green Hydrogen Production	Green Hydrogen Exports	Clean Iron Production	Clean Steel Production	Clean Steel End Use	Scrap
Financial incentives	Pricing Mechanism for Direct Green Electricity Connection Projects Green Electricity Certificate Market	Integrated Hydrogen Application Pilot in City Clusters		Iron and Steel Capacity Swap Iron and Steel Sector Inclusion in the National ETS CBAM co-ordination		Large-Scale Equipment Renewals and Trade-Ins of Consumer Goods	
Regulation & partnerships	Definition and Requirements for Direct Green Electricity Connection Projects Provincial Renewable Electricity and Hydrogen Consumption Target Guiding Opinions on Green Trade Expansion	Hydrogen Industry Development Plan (2021-2035) Hydrogen Pilot Applications in Industrial and Energy Sectors Green Liquid Fuels R&D		Transition Finance Guidelines on Iron and Steel Industry in Hebei High-Quality Development of the Iron and Steel Industry Three-Year Campaign for Energy Conservation and Carbon Reduction The 15th Five-Year Plan for Industrial Green and Low-Carbon Development		Expanding Government Procurement for Green Building Materials Central SOEs Low-Carbon Supply Chain Procurement	Circular Economy Develop-ment
Industry & voluntary				Global Low-Carbon Metallurgical Innovation Alliance		Steel–Automative Collaboration for Decarbonisation Low-Carbon-Emissions Steel For Real Estate In China	

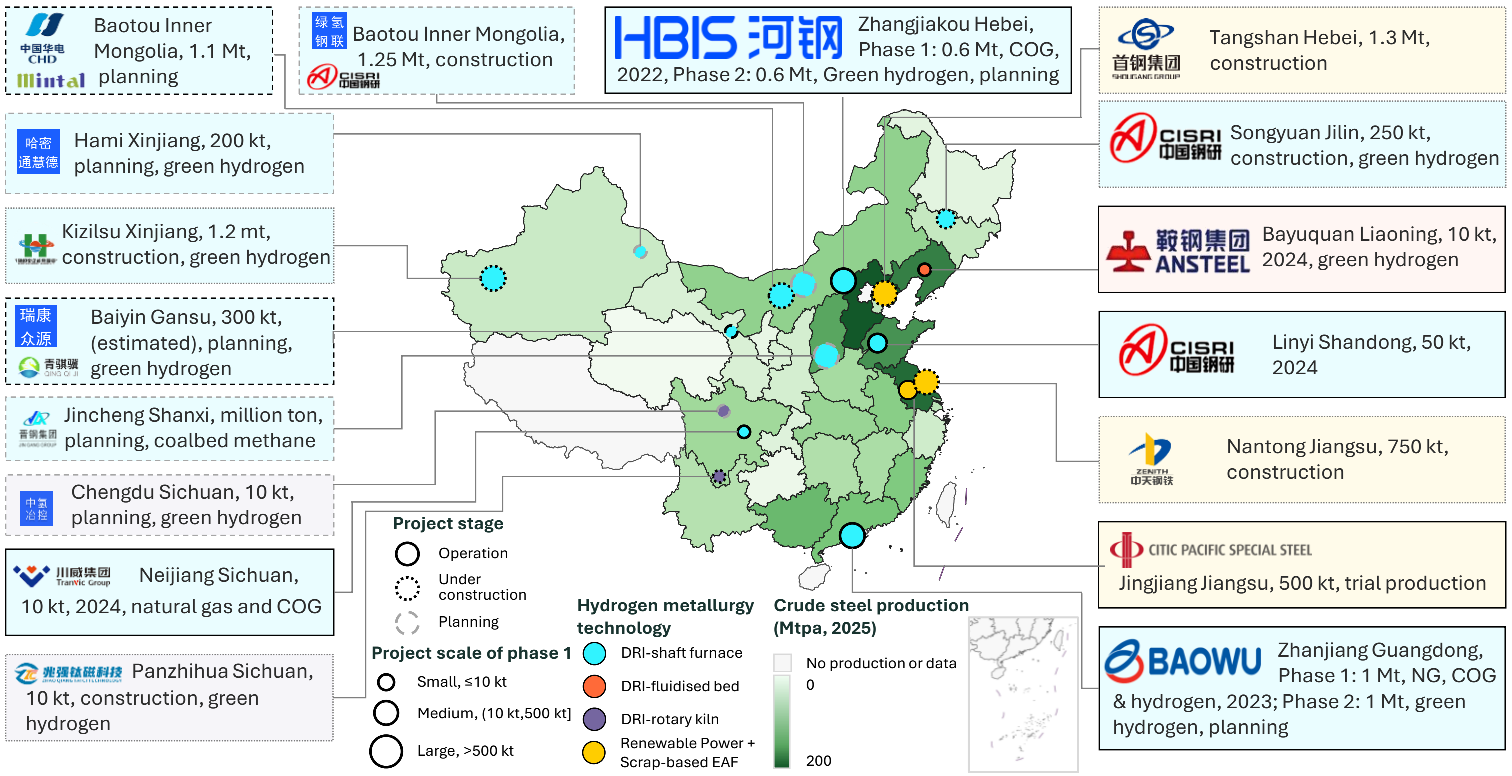
Upstream policies focus on expanding renewable power and fuel supply, effectively lowering the cost of hydrogen use in hydrogen metallurgy. Selected pilots offer hydrogen-use subsidies of up to RMB 3.2/kg-H_2 (USD ~0.46/kg-H_2), while emissions reductions may generate around RMB 0.89/kg-H_2 (USD ~0.13/kg-H_2) of additional value through the CCER market.

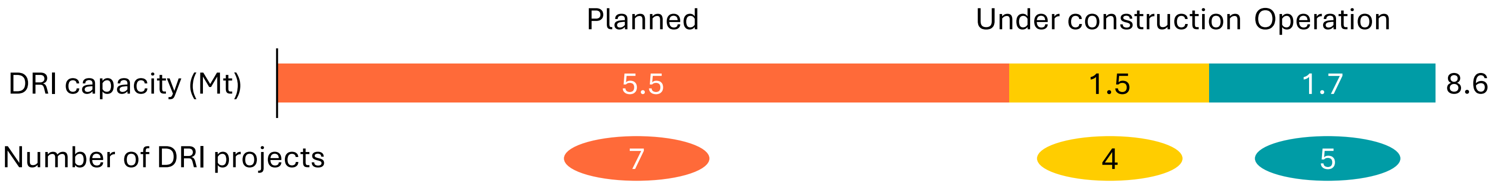
Supply-side policies are increasingly constraining high-carbon production routes while incentivising low-carbon alternatives like DRI and EAF. Capacity swap rules strictly require a 1.5:1 replacement ratio for conventional BF-BOF projects, while hydrogen metallurgy and EAF projects can maintain a preferential 1:1 capacity swap ratio. China's national ETS is also expected to gradually increase the carbon cost of steel production by introducing allowance caps and tightening allocation mechanisms, while carbon-related policies in other jurisdictions, like the EU's CBAM, are adding further carbon-cost pressure on Chinese steel exports.

Downstream policies aim to support steel consumption despite declining overall demand, including large-scale equipment renewal and trade-in programmes. Clean SOE supply chains and voluntary low-carbon procurement initiatives in sectors such as automotive and real estate are also beginning to create early demand for clean steel.

Source: Press search.

China has a growing pipeline of clean steel projects, including DRI and EAF, but barriers remain





China is actively exploring low-carbon metallurgical pathways, with steelmakers developing projects around hydrogen metallurgy and electric arc furnaces. These initiatives are gradually expanding the country's clean steel project pipeline.

Hydrogen metallurgy is moving from transitional approaches such as hydrogen-rich blast furnace injection towards pure hydrogen-based reduction, with pilot projects increasingly progressing towards larger-scale deployment. As green hydrogen supplies grow and reduction technologies mature, hydrogen-based DRI will become an important long-term route to clean ironmaking.

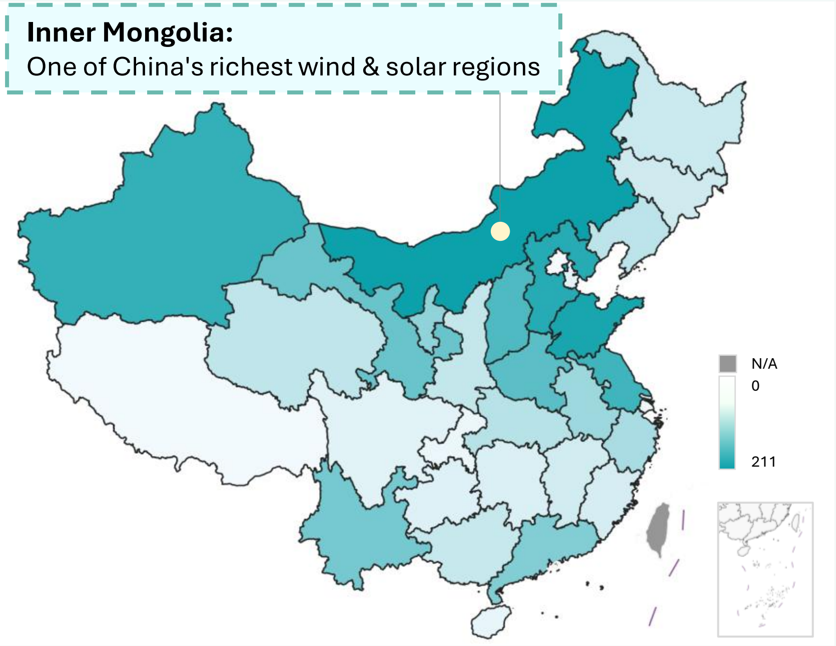
EAF capacity is also increasing steadily, supported by policies encouraging short-process steelmaking and scrap recycling. More steelmakers are investing in EAF projects to reduce reliance on the conventional blast furnace–basic oxygen furnace route.

However, several barriers remain. These include limited scrap availability, slow growth in the share of EAF crude steel output, the lack of a fully proven green hydrogen DRI value chain, and high costs for green hydrogen and low-carbon electricity. There is also limited demand-side willingness to pay a green premium.

Note: The mapped project pipeline is not exhaustive. EAF projects shown are representative examples only. Each phase of multi-phase DRI projects is counted as an individual project.
Source: Compiled from publicly available data, as of July 2026. Mission Possible Partnership's Global Project Tracker also covers Chinese projects but uses different scope criteria and data sources. The next edition will be published in November 2026.

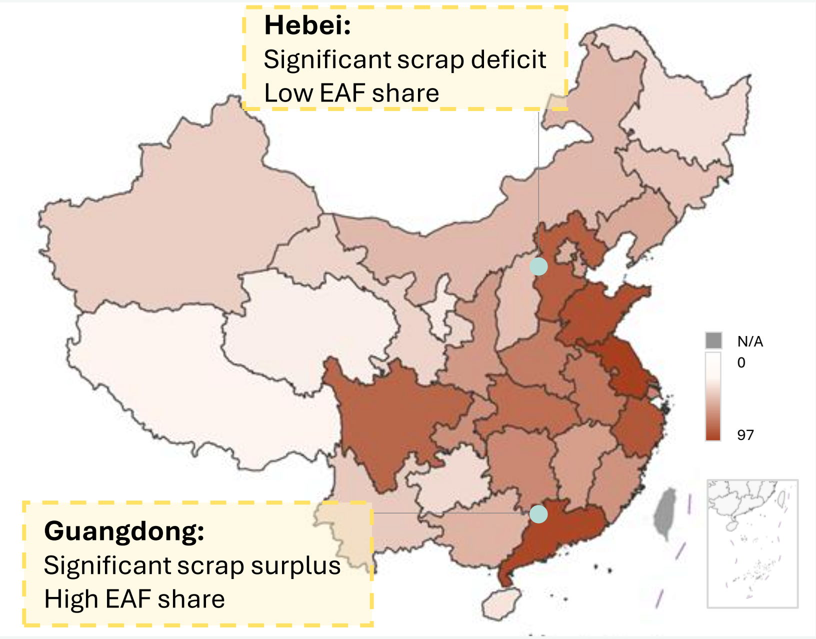
China’s clean steel deployment will be shaped by a mismatch between where renewable resources are plentiful and steel demand is strongest

Wind and solar power generation in 2024, TWh/yr



Northwestern China has deployed more wind and solar capacity than the southeastern coastal regions, benefiting from its stronger renewable resources and greater availability of land for utility-scale renewable projects. These advantages also mean it will be able to expand renewable power capacity in the future.

Steel demand in 2023, Mtpa



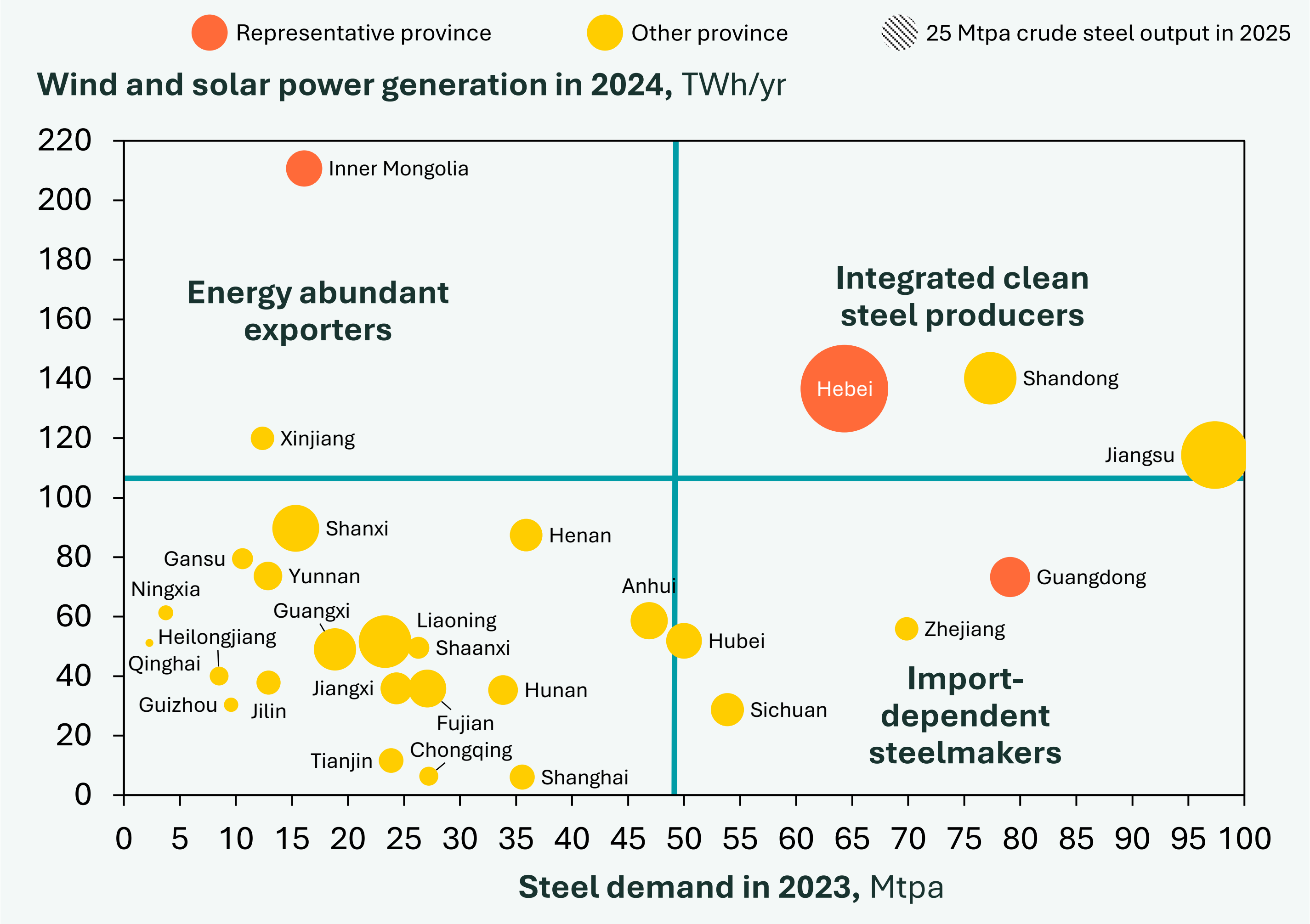
China’s southeastern coast concentrates downstream demand, scrap resources, and EAF capacity. Driven by the region's strong demand for high-end steel (such as automotive), clean DRI and scrap can act as complementary resources. Blending DRI with scrap is a key pathway to ensure high product quality, making this region a primary demand centre for clean DRI-based iron.

Infrastructure constraints make it hard to bridge the mismatch between China’s renewable resources and its steel demand. While China is expanding interprovincial power transmission corridors and piloting long-distance hydrogen pipelines, cross-regional energy delivery remains constrained by planning co-ordination, grid dispatch, technical readiness, and cost-allocation difficulties. As renewable deployment continues to scale, the distance between low-cost clean energy supply and coastal steel demand centres may become an increasingly important constraint.

This could lead to clean iron and clean steel being produced in different parts of the country. Clean iron production is likely to gravitate towards renewable-rich northwestern regions, where hydrogen production costs can be lower, while clean steelmaking is more likely to remain closer to coastal demand centres, existing EAF capacity and end customers.

Source: China Electricity Council, China Metallurgical Information and Standardisation Institute, CRU.

Provinces will adopt different approaches to clean steel depending on their resource endowments, which will influence investment over the next capital cycle



Two factors frame the initial screening of provincial transition pathways. Renewable generation serves as a proxy for the supply-side potential to produce low-cost green hydrogen and DRI. Steel demand serves as a proxy for the local potential to absorb clean iron, HBI, and downstream clean steel. This framework serves as a preliminary, high-level assessment rather than a definitive location choice. In practice, the geographical mismatch between supply and demand is exacerbated by other variables, such as availability of land for renewable deployment and the coastal concentration of scrap and EAF capacity.

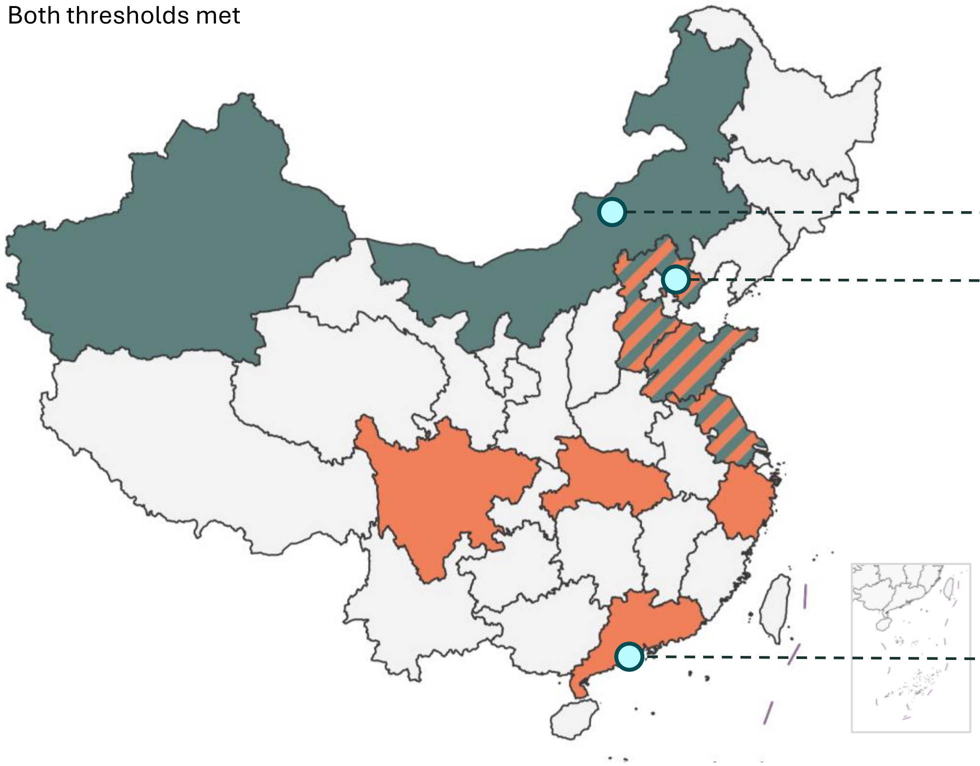
Plotting these two dimensions separates provinces into four indicative clusters. Excluding the less relevant low-renewables/low-demand quadrant, the analysis focuses on three illustrative archetypes: integrated clean steel producers, import-dependent steelmakers, and energy abundant exporters. These archetypes help frame potential roles in the China-Australia clean iron corridor and identify locations for further detailed analysis.

Bridging this geographical mismatch between supply and demand relies on the development of multi-layered infrastructure. While solutions like developing offshore wind in energy-constrained coastal regions or expanding transmission lines and hydrogen transport networks can better connect supply and demand, these projects face bottlenecks and long lead times. Consequently, geographical mismatch will remain a critical constraint in the near term.

Note: Only provinces with available data are shown in the chart. The quadrant lines are set at half of the maximum values on each axis to provide an indicative segmentation of provinces by relative renewable power endowment and steel demand scale.
Source: China Electricity Council, China Metallurgical Information and Standardisation Institute.

Hebei, Inner Mongolia and Guangdong are representative of the three provincial archetypes

High renewables deployment (>105 TWh/yr)
High steel demand (>48 Mtpa)
Both thresholds met



Inner Mongolia: Energy abundant exporters

Remote, high renewables, but distant from steel demand. Export HBI, hydrogen, or power domestically.

Inland energy and ironmaking hub: The role is to export HBI, hydrogen, or power to demand centres, with the optimal product depending on transport economics — rather than supporting large-scale local steelmaking.

Hebei: Integrated clean steel producers

High renewables potential + co-located steel demand. Transition via domestic H2-DRI.

Integrated clean iron-to-steel value chains: The province combines steel demand with renewable potential, enabling domestic H_2-DRI and clean steel production. Its future trade position remains uncertain, depending on relative costs and infrastructure readiness.

Guangdong: Import-dependent steelmakers

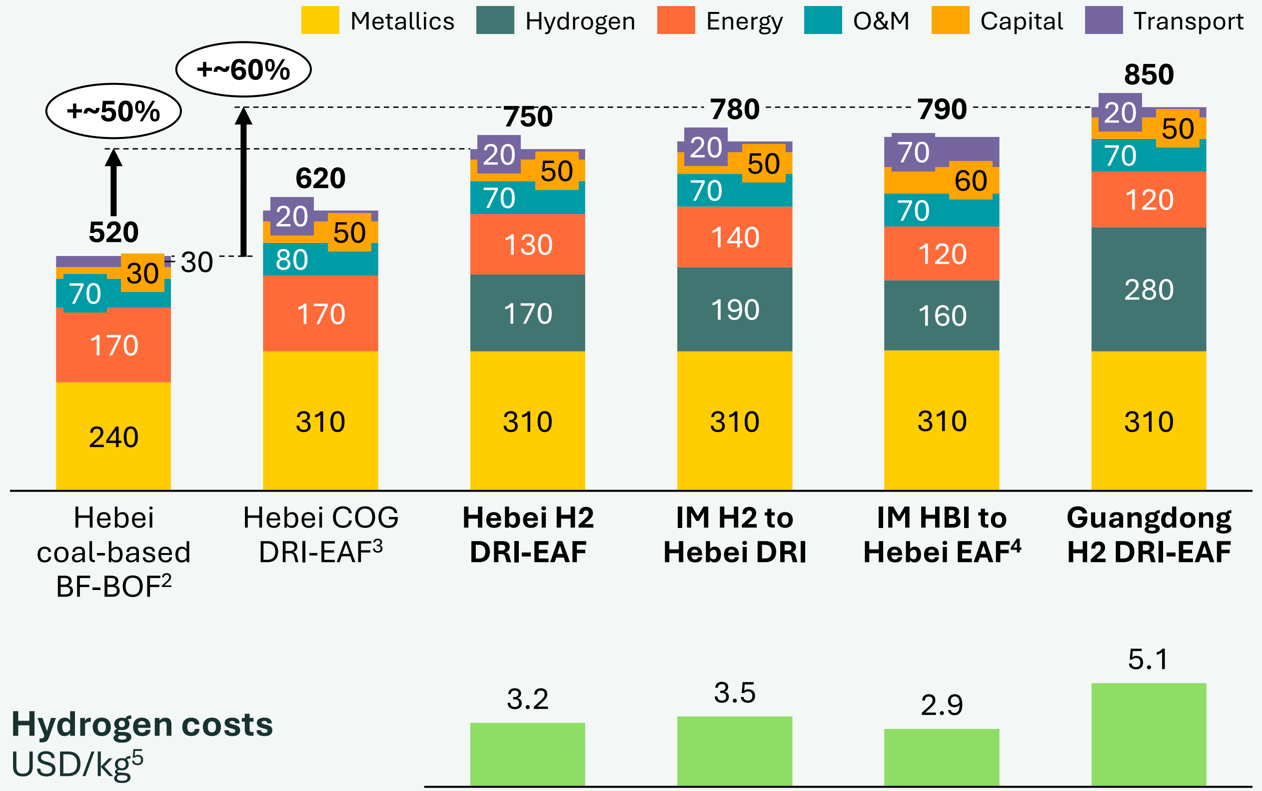
Coastal, near demand, but low renewables. Economically optimal to import HBI from Australia.

The primary destination for seaborne clean iron including from Australia[1]: Low-cost Australian HBI can bridge the gap between coastal steel demand and limited local renewable resources.

Note: 1. The analysis focuses exclusively on the feasibility of the Australian pathway. Alternative domestic and international supply routes are acknowledged as possibilities but not modelled.
Source: China Electricity Council, China Metallurgical Information and Standardisation Institute.

H_2 DRI-EAF costs in China vary by ~10% between provinces, with the lowest cost in Hebei (USD 750/t HRC) and highest in Guangdong (USD 850/t HRC)

2030 first-year production cost of steel, USD/t hot-rolled coil[1]



Hydrogen costs drive the green premium to incumbent BF-BOF and COG DRI-EAF production, which ranges from 50-60% and 20-30%, respectively, across provinces. Variability in iron costs is higher than steel costs due to scrap content leveling metallics costs.

Hydrogen cost is the dominant driver of the about USD 100/t cost spread within Chinese provinces, with H_2 prices ranging from USD 2.9/kg in the lowest-cost import-DRI scenario to USD 5.1/kg in Guangdong.

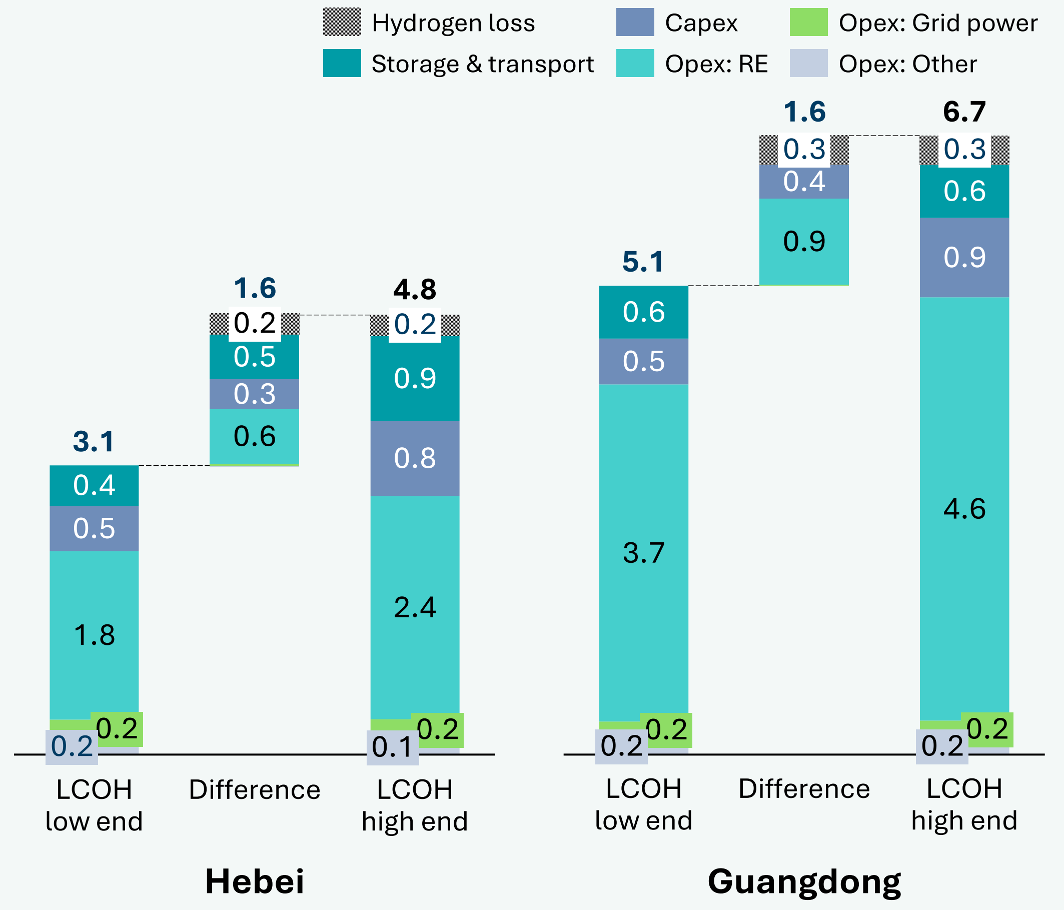
With low-end H_2 costs, domestic Hebei production at USD 750/t is the lowest-cost option, marginally undercutting importing H_2 or DRI from IM to Hebei (USD 780–790/t). Higher realised H_2 costs in Hebei could create a commercially viable case for DRI trade, where provinces with large steel demand but limited renewable resources can source clean iron more cheaply through imports than through domestic H_2 production.

Guangdong's LCOS of USD 850/t - the highest of all scenarios - stems from an H_2 cost of USD 5.1/kg that reflects its limited renewables endowment relative to inland provinces. Its USD 100/t premium (~10%) over the low-end Hebei domestic scenario, combined with its coastal location, means that locations with lower costs, such as northern China (e.g., Hebei or Inner Mongolia HBI transported to Guangdong) or countries like Australia or Brazil, could compete as potential seaborne green iron suppliers for Guangdong[6].

Note: 1. First-year production costs displayed to show near-term cost differences (instead of LCOS, which is levelised over a 25-year period). All scenarios assume Hebei as the demand location, except for the Guangdong scenario. IM is short for Inner Mongolia. All scenarios assume a 20% scrap rate. Note that segments may not add to totals due to rounding. 2. The coal-based BF-BOF scenario assumes USD 97/t and USD 221/t for thermal and met coal costs, respectively. 3. The COG scenario is developed based on the status of China's hydrogen-based DRI projects and local resource endowment. 4. IM HBI scenario assumes ironmaking in Inner Mongolia using lowest-cost IM H_2 and transported HBI to Hebei for steelmaking. 5. The hydrogen cost range reflects geographic differences, such as renewable resource endowment across cities and direct power connection policies. 6. Hebei HBI to Guangdong estimated at USD 780/t; IM HBI to Guangdong estimated at USD 810/t; Australia HBI to Guangdong estimated at USD 840-950/t with higher-end H_2 estimates but could fall to USD 710-740/t if H_2 cost reduction levers are applied. Chinese transport costs to Guangdong assume rail transport of ore to Qinhuangdao and shipping from Qinhuangdao Port to Zhanjiang Port.

Significant uncertainties remain, underscoring the need for a diversified clean steel transition strategy

2030 LCOH - levelised cost of hydrogen in China, USD/kg H_2



Beyond the geographical mismatch, China's clean steel transition faces multiple uncertainties that could shape the pace and cost of the industrial transition. These uncertainties primarily span four main areas:

- **Cost:** The long-term cost trajectories for green hydrogen and iron remain highly uncertain.
- **Demand:** The pace of clean iron and steel demand growth is unclear, depending heavily on downstream market development and willingness to pay green premiums.
- **Infrastructure:** The readiness of enabling infrastructure – such as renewable grid expansion and hydrogen transport – could slow deployment.
- **Policy:** The strength and timing of policy incentives, including demand-pull mechanisms for clean iron and steel, subsidies, and carbon pricing, will significantly influence the viability of projects.

To illustrate cost uncertainty at the project level, system-specific factors across the value chain can drive significant cost variation. Hydrogen production is one example. As shown on the left, changes in assumptions could drive up to around 50% variation in hydrogen costs across scenarios.

A diversified transition strategy can help China reduce risk and preserve flexibility. Alongside domestic H2-DRI deployment, trade in clean iron could help to manage cost, resource, and timing risks while supporting broader decarbonisation of the steel sector.

Source: RMI levelised cost of hydrogen model 2026

Clean iron trade offers a strategic hedge by providing China's steel transition a diversified pathway and a broader export opportunity

	Supply & Production Opportunities	Demand & Market Expansion
Domestic	• **Targeted subnational solution:** Provides a tailored solution for coastal steel hubs facing renewable energy availability, land use, and grid constraints. • **Supply chain flexibility:** Provides an additional option alongside domestic production, strengthening supply chain resilience and operational flexibility.	• **Early access to premiums:** Coastal proximity to high-end manufacturing hubs, where premiums may emerge first, gives mills optionality to source lowest-cost steel and opens new reciprocal end-use markets. • **Simpler supply chains:** Leverages existing port and rail infrastructure to shorten logistics links for coastal mills.
External	• **Export market for cleantech:** Overseas iron projects create demand for Chinese electrolysers, EPC, and financing, and demonstrate the technology works at scale abroad. • **Resilient, low-cost network:** Access to the lowest-cost iron sites globally diversifies procurement and strengthens supply chain resilience.	• **Diversified market access:** Alternative markets for steel and clean-steel products hedge against emerging trade barriers and compliance costs, keeping export options open. • **Path to global leadership:** Jointly accelerating demand beyond China's own market puts Chinese producers in a good position to lead early global market share.

China could meet most of its clean iron needs at home, but a domestic-only path lowers potential return. Hubs like Hebei can make competitive iron locally, and most of China can readily self-supply. But stopping there exposes China's export-facing manufacturers as carbon rules tighten abroad, and shuts off gains in demand, standards, and technology exports that only open with a partner. Trade with Australia and other prospective HBI exporters is both a hedge and growth option.

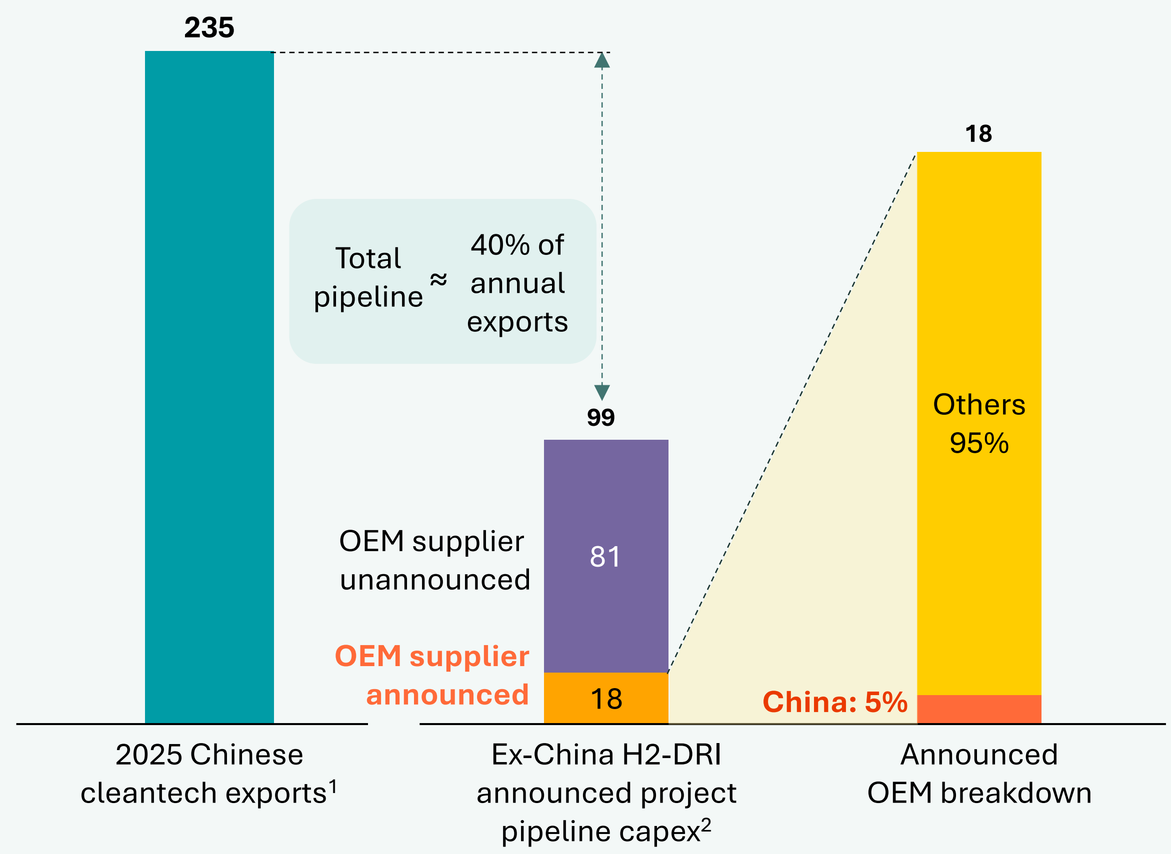
Diversifying supply upstream is cheap insurance for the coastal transition. China‘s best renewables sit inland, its coastal steel hubs do not, and Guangdong cannot match inland hubs on domestic hydrogen. Imported low-cost iron is how the coastal south stays competitive, on a route that does not depend on domestic hydrogen, grid, or land.

Moving early puts China in a position to lead the market it is helping create, not just supply it. By diversifying market access, it hedges the risk that tightening market access rules narrow the outlets for Chinese steel and steel-intensive exports. Cultivating reciprocal demand beyond China's borders, rather than waiting for a global market to form, captures a larger share of early demand while positions are still open.

Every overseas iron project both proves Chinese technology and opens a market for it. A partnership with Australia could demonstrate that Chinese ironmaking tech, electrolysers, and EPC work at scale on new ores and under a new regime. It would also extend China’s role from equipment supply into co-investment and RMB-denominated financing, unlocking the export market behind it.

Participating in emerging clean iron supply chains could create new opportunities beyond China's borders

Chinese cleantech exports vs. ex-China H2-DRI capex pipeline,
USD bn



The upstream capex of the emerging H_2-DRI sector represents a substantial market at the macro level. The project pipeline outside China spans the full value chain — from renewables, batteries, and electrolysers to grid infrastructure and DRI furnaces — and reaches nearly USD 70 bn, only a fraction of the sector's long-term potential. That equates to roughly 40% of China's 2025 cleantech exports, a sizable market that grows as global projects mature, though it sets a multiyear pipeline against a single-year export figure.

China's current participation in this specific supply chain remains disproportionately limited. Despite established advantages across broader clean technologies, its footprint in the iron chain is yet to scale: among projects outside China that have disclosed their procurement partners, Chinese suppliers account for just 5% of announced CAPEX. That gap is the opportunity, not the limit.

Becoming more integrated into the iron supply chain creates new commercial opportunities for Chinese clean tech. Using existing manufacturing capability to serve this nascent sector, Chinese enterprises can diversify their international presence and capture value in the next generation of global clean infrastructure.

Notes: 1) China cleantech exports include solar PV, EVs, batteries, heating/cooling systems, grid infrastructure, and wind; 2) "Ex-China H2-DRI Project pipeline capex" represents the total planned capital expenditure for all DRI projects located outside of China. This calculation covers the upstream value chain and core facilities, specifically including wind, solar, batteries, electrolysers, grid infrastructure, and DRI furnaces. "OEM" refers to equipment OEMs. Based on 17 Mt of announced projects scaled up to 21 Mt full project pipeline and ~15% China share of pipeline
Source: Ember China Cleantech Export Data, MPP Procurement Book 2026, MPP Global Project Tracker June 2026.

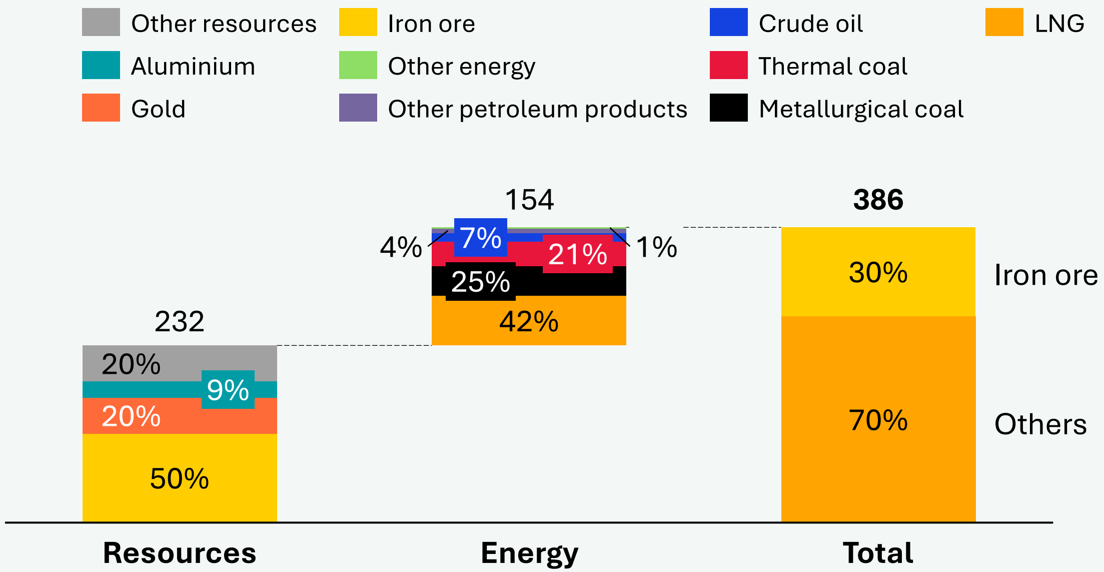
Australia’s potential

Australia has significant clean iron potential, but costs are higher today and only strategic partnership can close the gap.

| Iron ore mining, Australia

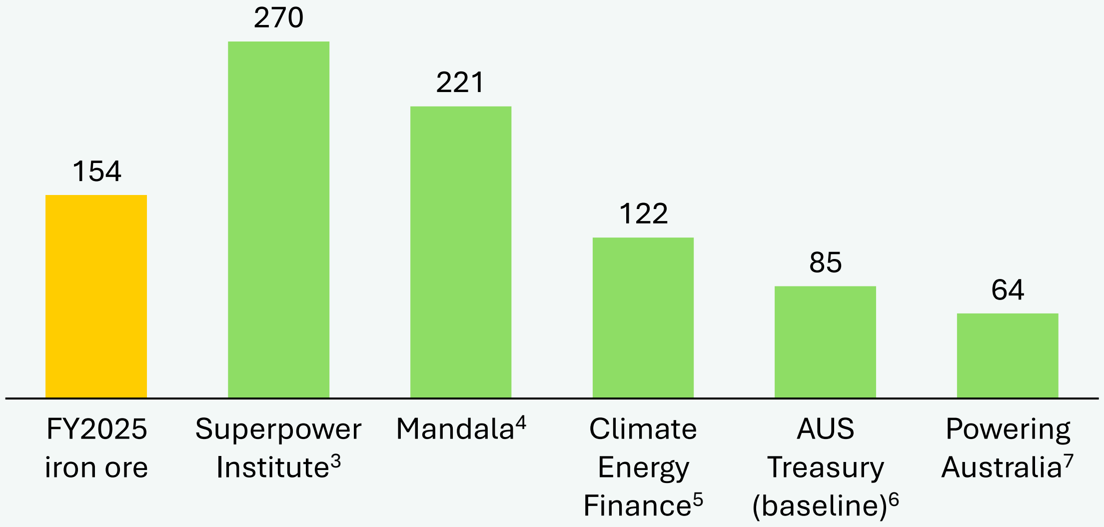
Iron ore is Australia's largest export; processing it into clean iron retains more value at home

2024-25 Australia commodity export value by type[2], USD bn



Iron ore is Australia's largest export, worth around USD 154 bn in 2024-25. At roughly 30% of commodity export value, it is the single biggest earner, and on its own, it rivals the combined value of Australia's entire energy exports — LNG, thermal and metallurgical coal, crude and petroleum products — together.

Estimated 2050 clean iron export revenues, USD bn



Clean iron is a significant export opportunity for Australia, complementing its iron ore trade. Published estimates agree the prize is large, though they vary widely on its size with projected export revenues ranging from around USD 64 bn to 270 bn a year. Where Australia lands within that range is governed by two things, how large the seaborne clean iron market becomes and how much of it Australia captures. Building on existing trade infrastructure and relationships can help to rapidly scale clean iron exports, putting Australia at an advantage over other seaborne exporters.

1. 62% iron content, includes Western Australia-Qingdao about USD 15/t freight rate; 2. Resources and energy, FOB; 3. Superpower Institute (2025) converted to USD at USD 0.70. 4. Mandala (2024). 5. Climate Energy Finance (2024). 6. Powering Australia (2026); 7. Australian Treasury (2025) volume taken from Baseline scenario, scaled by Fastmarkets HBI CFR Asia March 2025 of USD 370/t HBI.

Source: Ux Consulting Company, Metal Bulletin, Argus, Kallanish, Resources and Energy Quarterly December 2025, press search.

More than USD 8 bn in policy support has been announced across Australia's clean iron value chain, with deployment expected in coming years

List of Australia clean steel policies and grant value, USD mn

Not disbursed | Partly disbursed | Disbursed

Stage	Policy / Programme	Type	Value, USD mn	Problem	Launch year	Disbursement status
Renewables & H_2	Rewiring the Nation + State funding (NSW, VIC, QLD)	Infrastructure	About 3,700	Grid access and REZ transmission	2022	Partly disbursed (~30%)
Renewables & H_2	H_2 Production Tax Incentive	Tax credit	About 1.4/kg	H_2 cost	2024	Commences in FY28
Renewables & H_2	Hydrogen Headstart Program	Grant	About 1,560	H_2 cost	2023	N/A
Renewables & H_2	State H2 funds (NSW, QLD, WA, VIC, SA)	State grant	About 550	H_2 cost (WA)	2019-22	Partly disbursed (about 30%)
Renewables & H_2	Advancing Hydrogen Fund (CEFC)	Concessional loan	About 200	Financing	2020	Largely undisbursed (about 10%)
Upstream + midstream	New Energies Funding Stream (IAF)	State grant (WA)	About 40	New energy	2023	about 40% awarded; 2nd round open
Upstream + midstream	Future Made in Australia (FMA) Innovation Fund	Grant	About 870	Clean metals and RE	2025	N/A
Upstream + midstream	National Reconstruction Fund (NRF)	Loans / equity	About 1,040	Industrial capital	2023	N/A in steel
Iron production	Green Iron Investment Fund	Grant	About 690	FOAK CAPEX	2025	Expected end 2026
Iron production	Green Metals Innovation Network	R&D network	About 7	Tech gaps	2025	Disbursed
Iron production	ARENA Iron & Steel R&D (about USD 130 M project CAPEX)	R&D grants	About 50	DR-grade ore	2023	Disbursed
Recycling	Recycling Modernisation Fund (RMF)	Grant	About 140	Recycling infra.	2020	Partly disbursed

Significant support has been announced across the value chain, and it can materially improve project economics. More than USD 8 bn now spans grid, renewables, hydrogen and clean iron, from capital grants to production incentives, enough to significantly cut costs for early projects.

Over the coming 24 months this capital should begin flowing. Allocations from the Green Iron Investment Fund are expected later in 2026, and the Hydrogen Production Tax Incentive becomes available from mid-2027, turning announced programs into financial support on a defined timeline.

The open question is concentration, not quantity. Broad-based support and first-mover viability pull against each other: spread thinly across the pipeline, the funding lifts every project a little. A first-of-a-kind plant needs it concentrated, particularly in overcoming project-on-project risks. For projects to reach FID, the support needs to focus on a handful of early movers, rather than diffusing across the field.

Source: Press search, Infrastructure Australia Infrastructure Priority List, ARENA funded project list.

Australia's policy framework is still evolving, with gaps on downstream demand and infrastructure co-ordination

XX Pending
XX Non-binding regulation
Inactive for clean steel

Upstream | **Midstream** | **Downstream**

Clean Industry & Renewable Energy | H2 Production & Exports | Iron Ore Mining | Clean Iron Production | Clean Steel Production | Clean Steel End Use | Scrap

Financial Incentives

- National Reconstruction Fund (NRF)
- Future Made in Australia (FMA) Innovation Fund
- New Energies Industries Funding Stream (IAF) (WA)
- Recycling Modernisation Fund (RMF)
- Rewiring the Nation
- Hydrogen Production Tax Incentive (HPTI)
- H2 Headstart Program
- Advancing H2 Fund
- State H2 funds
- Green Iron Investment Fund (FMA)
- Green Metals Innovation Network

Regulation & Partnerships

- National Energy Transformation Partnership (NETP)
- National Hydrogen Strategy
- Safeguard Mechanism
- *Investor 'Front Door' Service*
- Environmentally Sustainable Procurement (ESP) Policy
- Guarantee of Origin Scheme
- Australian Clean Hydrogen Trade Program
- South Australia's Green Iron and Steel Strategy
- Guarantee of Origin Scheme
- Critical Minerals Strategy

Industry & Voluntary

- Materials & Embodied Carbon Alliance (MECLA)

Australia has built a sophisticated policy architecture for clean industry, and it is still evolving. Support now spans renewables, hydrogen, export, and clean iron production, from grants to production incentives. The upstream scaffolding is largely in place.

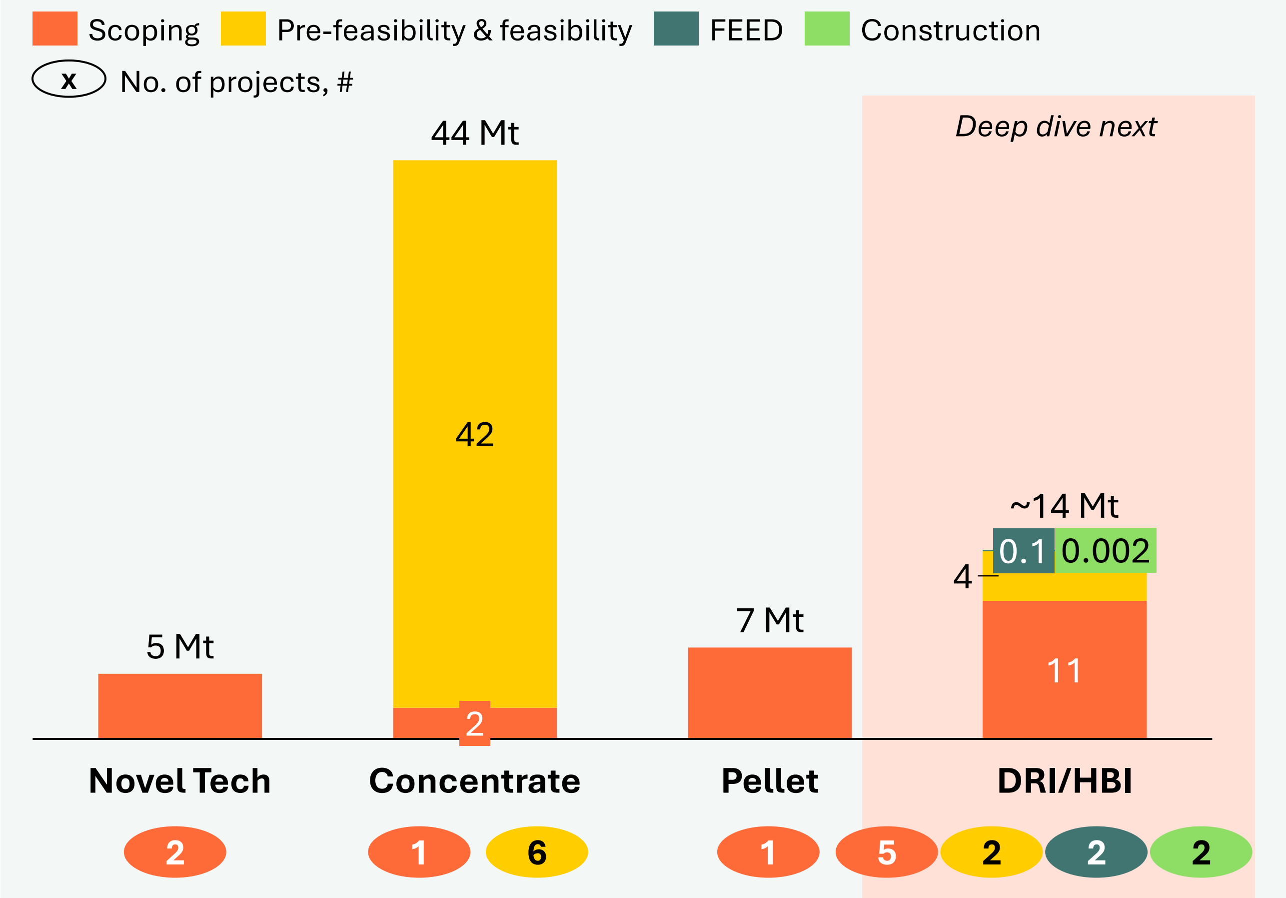
What it has not yet done is activate demand. The EU's proposed Industrial Accelerator Act would mandate low-carbon steel in public procurement and select public support schemes, and its vehicle CO_2 standard extends that pull into the automotive sector, together constructing lead-market demand years ahead of supply. Australia has no binding requirement to buy embedded clean steel and no equivalent demand signal, which leaves domestic projects with few routes to offtake and points the commercial case towards export markets.

Nor has it co-ordinated the infrastructure these projects depend on. Clean iron at scale needs grid, firm clean power, port, and road investment that no single developer can justify alone. Without state co-ordination of that shared infrastructure, each project must internalise cost and risk that should sit across the system, raising the bar to a final investment decision.

Source: Press search.

A significant pipeline of magnetite and ironmaking projects has developed in Australia, representing USD 55 bn+ in capex

Australia clean iron project capacity and number by product and stage, Mtpa



A substantial ironmaking pipeline has formed, but it is overwhelmingly early-stage. Around 10 DRI/HBI projects are under development, representing roughly 14 Mtpa of proposed capacity, yet only two pilots are under construction or commissioning with the rest in scoping, pre-feasibility, or FEED. At ~14 Mtpa, proposed capacity is close to double Australia's ~7 Mtpa annual steel consumption and its two integrated steelmakers already self-supply iron. With no domestic market to absorb this volume, these projects are viable only if they export.

Upstream, developers are building the feedstock base these projects will need. Magnetite concentrate and pellet projects add 10s of Mtpa more to the pipeline, targeting the high-grade ore that direct reduction requires. But the DR-grade bar is demanding: out of 83 magnetite deposits, only four meet every baseline DR-grade criterion, and just 16 clear the core Fe and impurity thresholds. Feedstock quality, not resource size, is the upstream constraint.

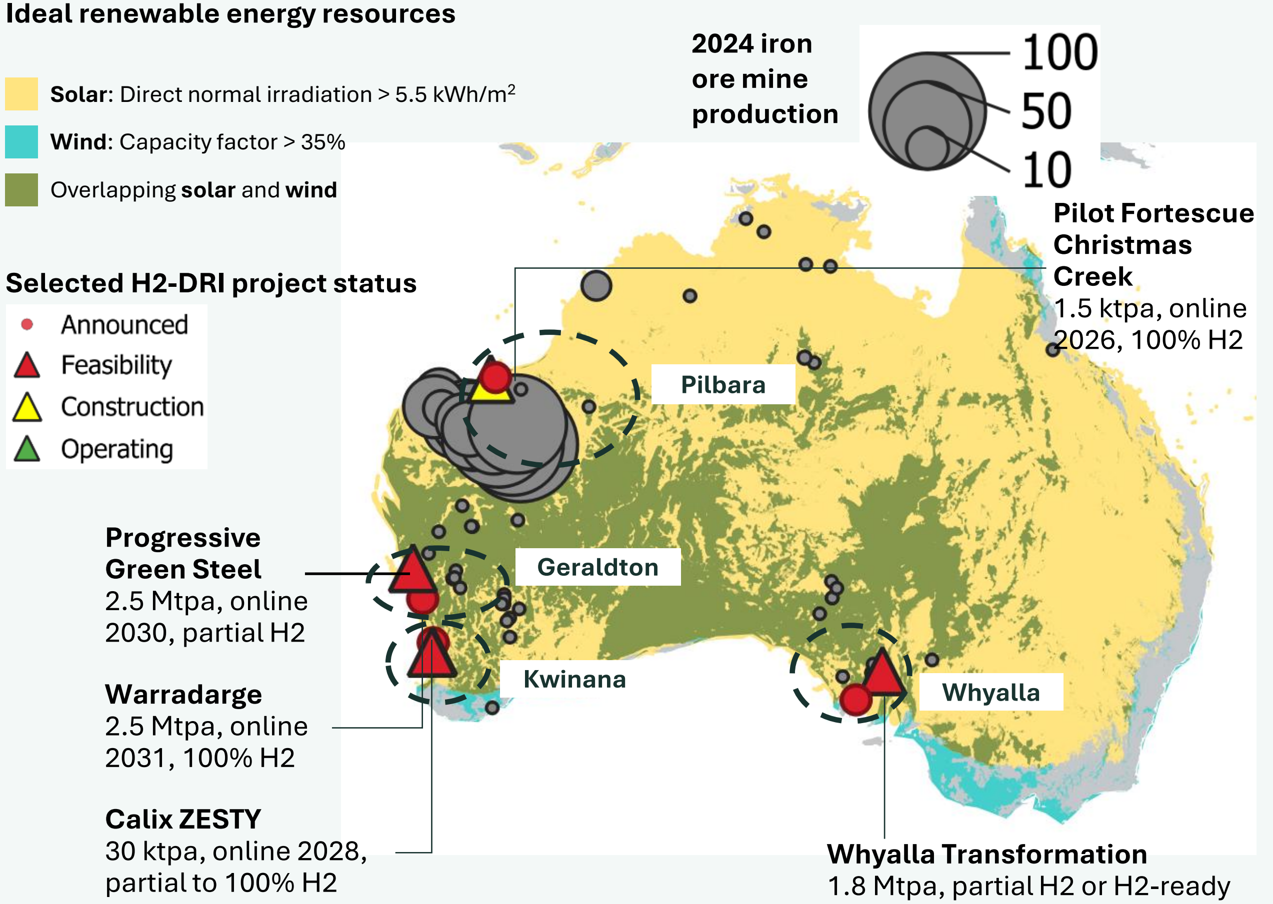
Momentum is concentrating in a few anchor projects. Progress is uneven, and it is the highest-grade, best-located resources that are moving, Central Eyre, Hawsons and Razorback among them. Whether the ironmaking pipeline converts from ambition into capacity depends on this handful reaching FID and pulling feedstock and offtake behind them.

Together, the pipeline represents more than USD 55 bn of capital investment. Spanning mines, concentrators, pelletising, DRI/HBI plants, and the renewables and hydrogen to power them — set out project-by-project in the appendix — the bulk of that spending hinges on the anchor projects reaching FID.

Source: IEEFA Australian Green Iron Tracker 2026, Resources and Energy Quarterly December 2025, Fastmarkets, press search.

Most Australian projects benefit from co-location of iron ore and renewables, with early projects concentrated in WA and SA

Map of Australian clean iron resource potential and projects



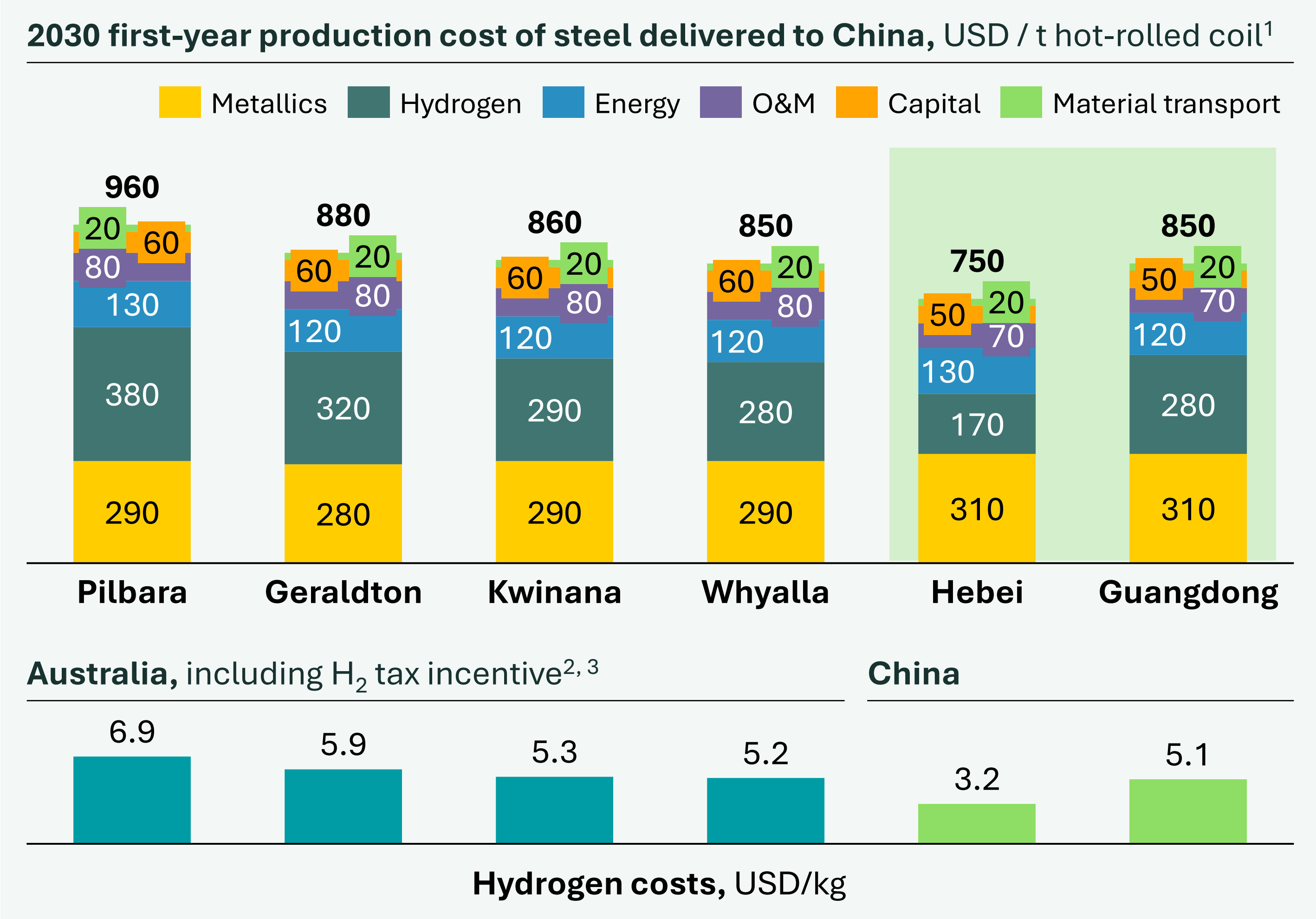
Australia's wind and solar are not just abundant, they are complementary, enabling them to provide the firm load clean ironmaking needs. Solar peaks by day and wind runs stronger overnight and through winter, so a combined system smooths the supply profile. Using both together makes renewable generation more stable and reduces the need for costly storage. Continuous, firm power is the hard requirement for direct reduction, and the resource mix here can supply it.

That renewable resource sits directly on top of the ore. The country's best magnetite and its strongest wind-solar resource occupy the same ground, most clearly across the Pilbara and the Eyre Peninsula. Monash and Geoscience Australia mapping confirms the overlap between prospective renewable-hydrogen hubs and future iron ore operations. Co-location lets a project pair generation, hydrogen, and ironmaking on a single site, capturing value that a transport-dependent supply chain gives away.

Four regions stand out where the full stack lines up: the Pilbara, Geraldton, Kwinana, and Whyalla. Each of them pairs ore and firm renewables with port and industrial infrastructure, though the balance differs by site. Geraldton is drawing early activity, with the Progressive Green Steel and Warradarge projects developing in the Midwest. Kwinana carries strong industrial foundations but tighter constraints, including access to industrial land. Potential is broad across the country; infrastructure, not resource, is what sets the credible sites apart, and these four are where it comes together. With several sites already in feasibility or construction stages, Australia is ahead of other potential exporters such as Brazil or Namibia, which have fewer projects in the pipeline. However, this early lead is not guaranteed — projects will have to reach CODs on schedule.

Source: Wang and Walsh (2024).

Initial modelling suggests Australian clean iron is not yet cost competitive with China-based DRI



Australian ironmaking costs vary widely, from around USD 850/t at Whyalla to USD 960/t at Pilbara. The Pilbara is disadvantaged by the Pilbara premium — the capex intensity of remote infrastructure, alongside higher labour and transport costs and cyclone-related renewable losses. Furthermore, Australian construction timelines are typically longer than in China due to lower modular manufacturing, shift arrangements and regulatory approval timelines. Whyalla sits at the low end in terms of established industrial base; the other sites fall between. Modelled Australian routes use 67% Fe DR-grade ores from magnetite deposits, avoiding the need for a downstream electric smelting furnace (ESF) process, which can add about USD 100/t to steelmaking costs; however, DR-grade feedstocks are limited.

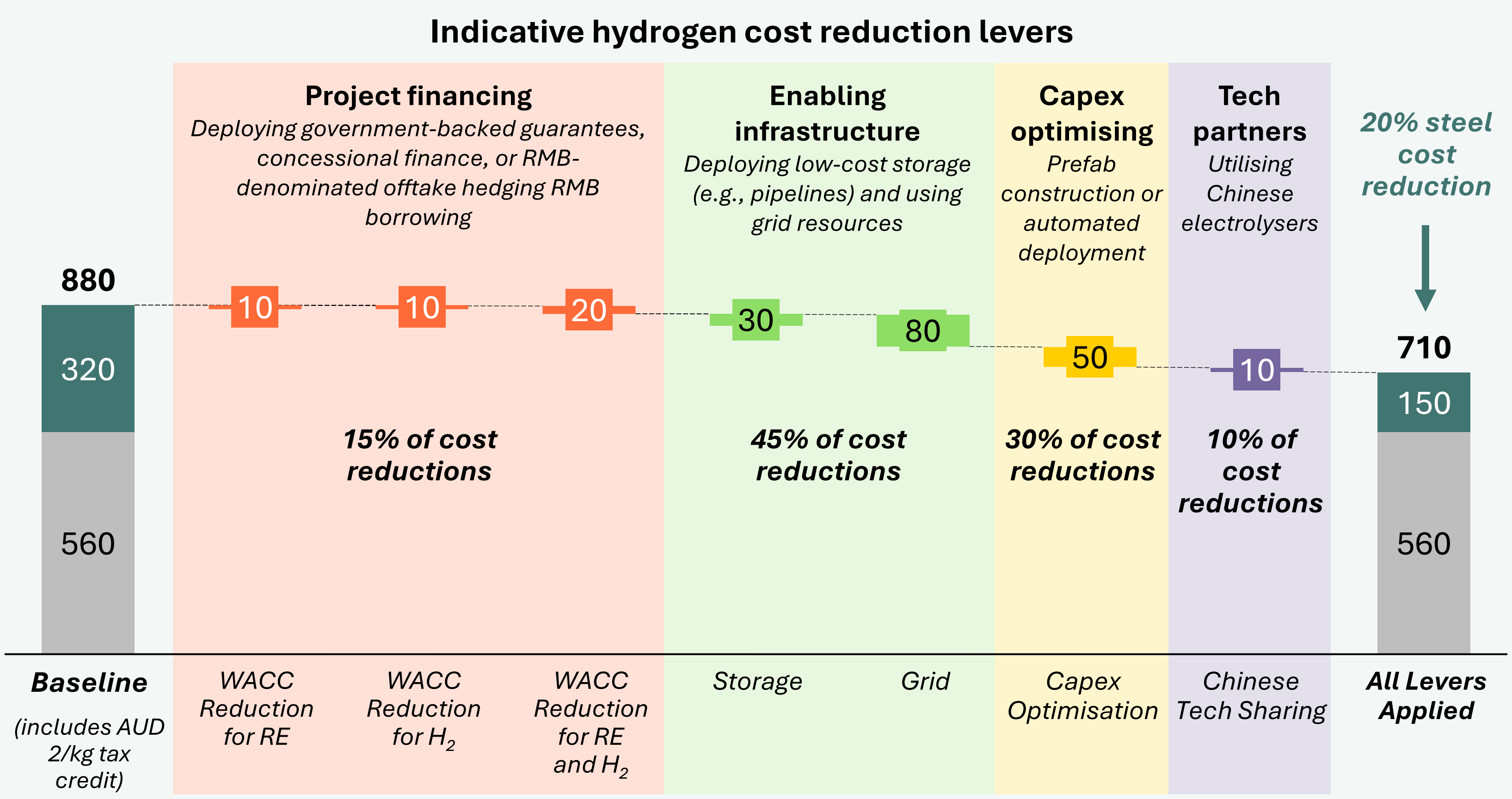
Even with the Hydrogen Production Tax Incentive, no Australian site beats China's cheapest production. China's range runs from roughly USD 750 in the low-cost north, led by Hebei, to around USD 850 in Guangdong. Australia's best site still lands above the Hebei floor. This suggests that even if structural demand for clean iron were to emerge, Australian projects would not be first to market.

The nearer-term opening is Guangdong, which is structurally higher-cost and import-dependent, though the bar there is still competitive. Guangdong's costs sit at the top of China's range, close to where the cheapest Australian sites already land, and its reliance on imported feedstock makes reliable large-scale supply a real lever rather than price alone. But landing at Guangdong's cost is not the same as winning its market: Australian iron would likely have to fall below the USD 780–850/t range to compete in Guangdong against green iron from China's north and other seaborne exporters.[4]

Note: 1. First-year production costs displayed to show near-term cost differences (instead of LCOS, which is levelised over a 25-year period). 2. Australian scenarios include transport costs to China, and EAF steelmaking in Guangdong. All scenarios use 67% Fe DR-grade magnetite ore (no electric smelting furnace). 3. Australia hydrogen costs are higher-end estimates with scaling factors applied by location, with canister storage. Modelling includes AUD 2 tax credit for green hydrogen. 4. The competitive range is based on a floor representing Hebei green HBI with transport to Guangdong (USD 780/t, assuming USD 3.2/kg H_2 and seaborne transport from Qinhuangdao to Zhanjiang) and a ceiling of Guangdong green steel costs (USD 850/t).

However, scale, infrastructure development, and value-chain collaboration could bring substantial cost reductions

2030 first-year production costs of steel in Geraldton with hydrogen cost reduction levers
USD/t hot-rolled coil



Applied together, these levers cut first-year production costs by around 20%, with the cost of hydrogen halving. Australian projects have a range of levers to get there, spanning project financing, enabling infrastructure, capex optimisation, and technology partnerships. Financing applies government-backed guarantees and concessional finance; enabling infrastructure deploys low-cost storage and grid resources; capex optimisation draws on prefab and automated construction; technology partnerships tap Chinese electrolyser supply.

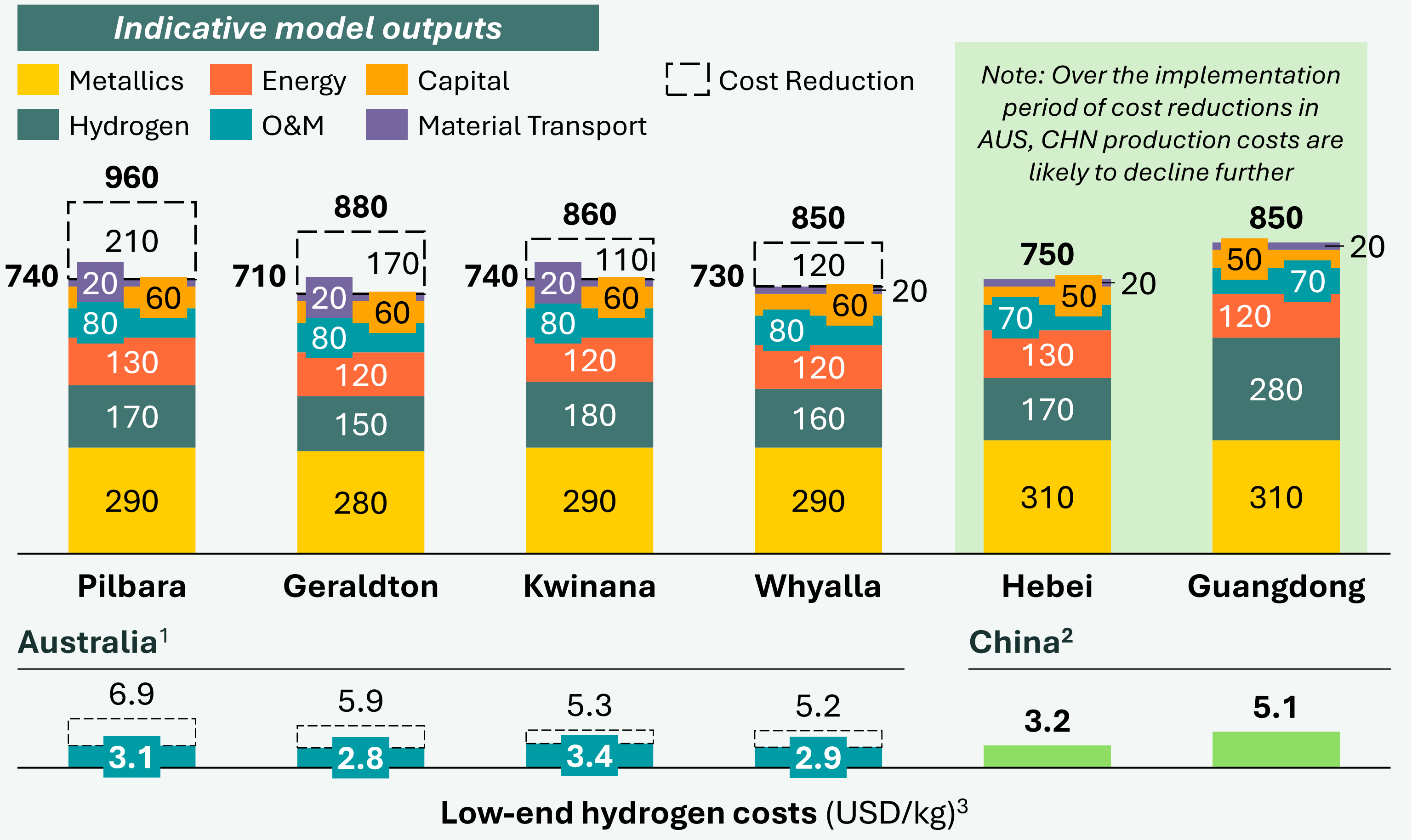
Only some are accessible in the near term, chiefly project financing and technology partnerships. Both can be structured into a first-of-a-kind deal directly at project scale. The infrastructure levers, low-cost storage and grid connection, deliver the largest single share but depend on build-out and arrive later.

Emerging levers could further reduce costs as technology matures. These levers include flexible operation, running electrolysers dynamically against renewable output, and dynamic power trading.

Source: RMI LCOH optimisation model 2026 and RMI steel cost model 2026. Note that when applied individually, levers have different impacts on the LCOH versus all levers applied simultaneously in the LCOH model. Baseline: with location-specific scaling factors (1.24 for Geraldton), highest cost storage (canisters) and 100% BTM renewables. WACC reductions modelled through cost of debt reductions; effective WACC reduction for RE: 5.2% to 4.3% and for H2: 8.4% to 6.4%. Storage lever using 50% pipelines, 50% canisters. Grid lever using 25% grid connection at USD 66/MWh and pipeline storage. Capex optimising removing the 1.24 scaling factor. Tech partners reducing the Stack + BOP capex by 25% to USD 600/kW. Note that segments may not add to totals perfectly due to rounding.

Cost reductions could allow Australian exported green iron to be processed into competitive green steel in China

2030 first-year production cost of steel delivered to China, USD / t hot-rolled coil



With lower hydrogen prices, cost reductions of USD 100–200/t HRC are feasible, which could see all Australian ironmaking regions in a competitive range with China. Whyalla, Pilbara and Geraldton each land at a cost that clears a current Chinese benchmark once the levers are applied, although China can be expected to further reduce its production costs over time. Final modelled costs depend heavily on realizing the H_2 cost assumptions listed on page 39 (see footnote 1).

The spread to Guangdong stays widest, but parity with Hebei signals the potential to reach wider China as demand scales. Guangdong remains the softest benchmark and the clearest near-term target. Hebei is the harder, higher-volume market, and pulling level with it opens the door to demand well beyond a single coastal province.

These reductions are contingent, and likely accessible only over time. They depend on the grid, technology-partnership and financing levers landing on post 2030s cost trajectories, not on today's costs. The competitive case is real, but it is a case for the end of the decade, not the start.

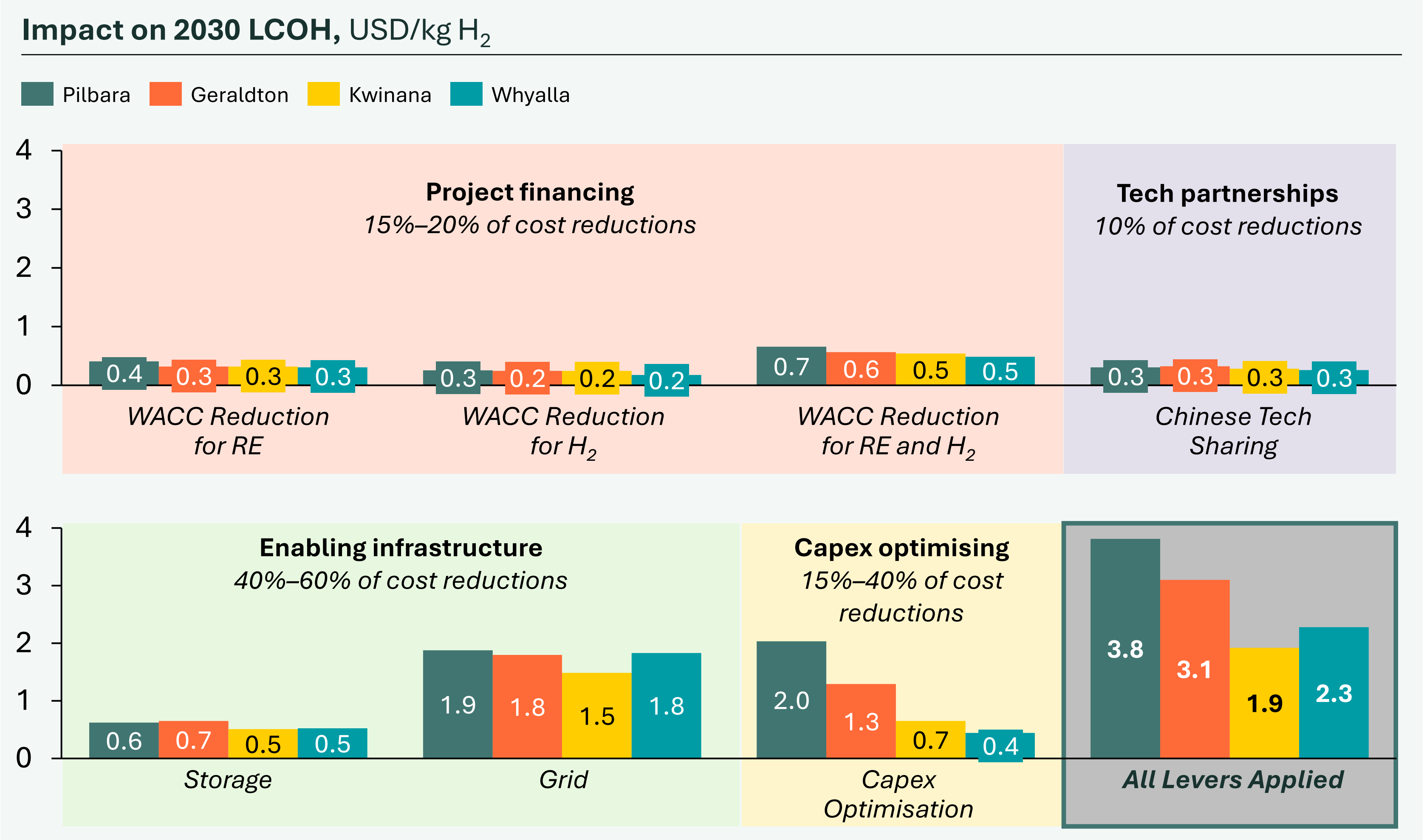
First mover advantage is crucial to lock in competitive long-term contracts. Early lever activation will help Australia compete with other producers, such as:

1. **Guangdong:** with Guangdong being selected as a national hydrogen pilot city cluster, costs will continue to fall down the learning curve with more hydrogen deployment, lowering the cost gap between Australian green iron and Guangdong production.
2. **Hebei:** with logistics expansion, imported HBI from Hebei with steelmaking in Guangdong stands at USD 780/t — above the estimates for best-case Australian production.
3. **Seaborne suppliers** with high renewables potential (e.g., in Latin America and the Middle East) could also potentially compete with Australian green iron.

However, for buyers in less competitive regions like Guangdong, diversifying with Australian green iron remains a promising hedge, enabling access to early supplies, testing of product capabilities, and exports of finished goods that can compete with emerging trade barriers and compliance costs.

Source: RMI LCOH optimisation model 2026 and RMI steel cost model 2026. Australian scenarios include transport costs to China. Note that segments may not add to totals perfectly due to rounding. 1. Australian cost reductions result from lower hydrogen prices, which can be achieved through cost of debt reductions, cheaper hydrogen storage, grid connection, locational capex savings (e.g., through prefab construction), and cheaper Chinese electrolyser technology. 2. Chinese steel costs use best-case hydrogen costs (low electrolyser capital costs and hybrid grid connection). 3. Breakdowns of hydrogen cost reductions for Australia can be found on page 39.

International partnerships help lower H2 costs, supported by China's capabilities in manufacturing, project delivery, and financing



The effectiveness of different levers varies by location, most sharply for capex optimisation. Across the four sites it accounts for 15% to 40% of cost reductions, the widest band of any lever, driven by differences in construction and scaling conditions. Technology partnerships, by contrast, are near 10% everywhere.

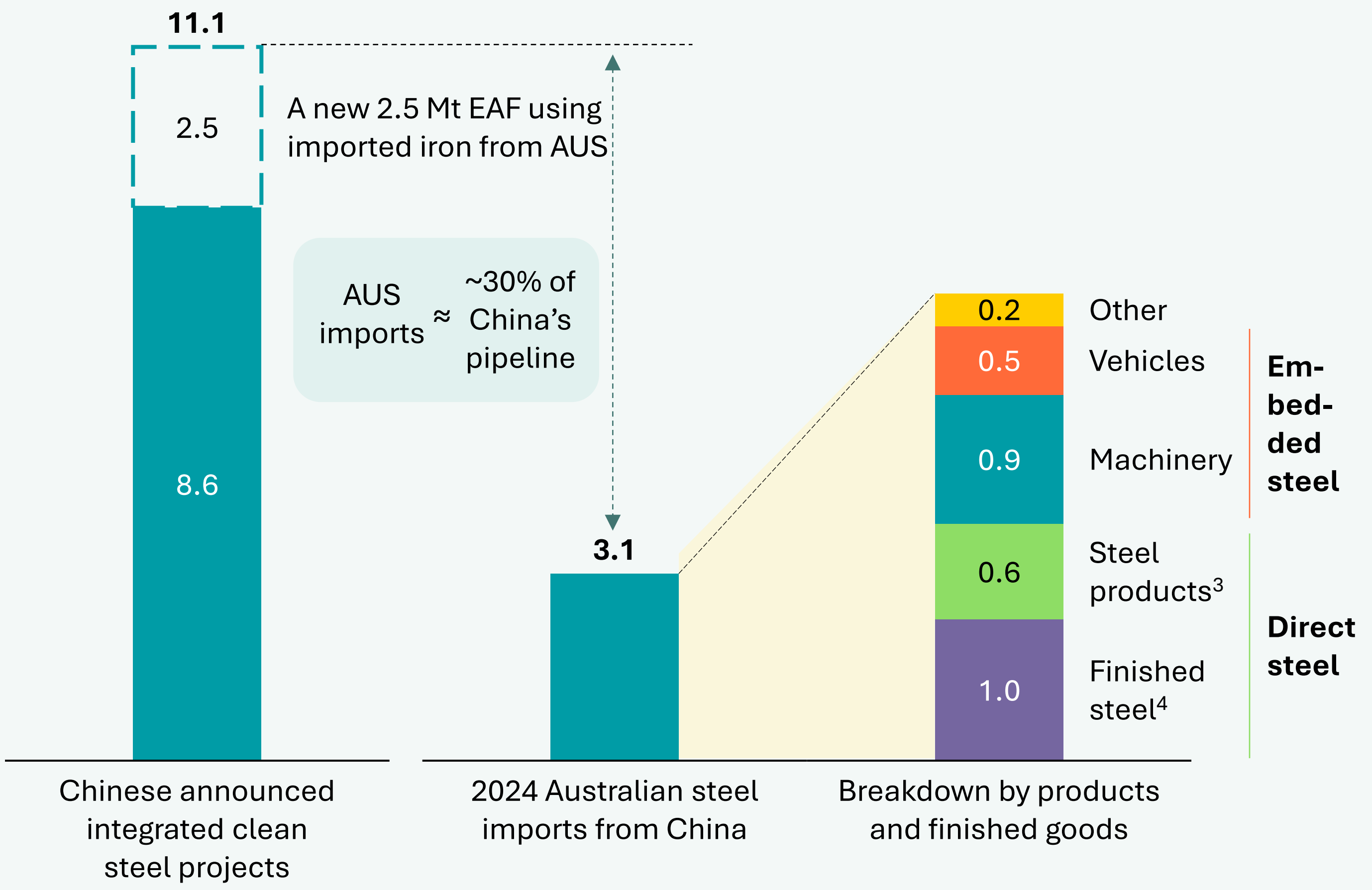
The largest lever, grid connection, is also the hardest to capture through partnership. It sits within critical energy infrastructure, where approvals and ownership arrangements add complexity beyond a project's control. Its 40%–60% share may overstate what a project-scale deal can achieve.

Over time, trade partnerships could deliver 25%–50% of total cost reductions. Financing and technology sharing sit at the low end of that range; adding capex optimisation, itself enabled by Chinese construction and deployment expertise, takes it to the high end. The prize is real, but it accrues across the decade, not at first production.

Source: RMI LCOH optimisation model 2026. Note that when applied individually, levers have different impacts on the LCOH versus all levers applied simultaneously in the LCOH model. Baseline: with location-specific scaling factors (1.24 for Geraldton), highest cost storage (canisters) and 100% BTM renewables. WACC reductions modelled through cost of debt reductions; effective WACC reduction for RE: 5.2% to 4.3% and for H2: 8.4% to 6.4%. Storage lever using 50% pipelines, 50% canisters. Grid lever using 25% grid connection at USD 66/MWh and pipeline storage. Capex optimising removing the 1.24 scaling factor. Tech partners reducing the Stack + BOP Capex by 25% to USD 600/kW.

Australia's existing steel imports from China offer a reciprocal offtake opportunity

China's clean steel pipeline relative to Australian steel imports from China[1]



Cost competitiveness opens the door to China; a durable partnership needs demand to flow both ways. The cost case shows Australian clean iron can compete with Chinese provinces. What makes the relationship stick is that Australia is also a customer, and its own steel demand is part of the reason for China to source Australian iron in the first place.

Australia is a steel-importing economy, and China is its largest supplier. Australia uses around 12 Mt of steel a year and imports close to three-quarters of it, about 8.7 Mt. China provides roughly 3.1 Mt of that, a quarter of national demand and more than Korea, Japan and Indonesia combined, arriving both as steel itself and embedded in machinery, vehicles, and manufactured goods. This amount is likely to grow, with estimates suggesting by 2035 China may reach 58% of new vehicle sales in Australia, up from 18% in 2025[2].

Set against China's clean steel pipeline, that trade is already material. Australia's 3.1 Mt of Chinese steel imports equal about a third of the 11.1 Mt of announced clean-steel projects and enough to underpin a new 2.5 Mt EAF using imported iron from Australia. As demand signals strengthen through procurement and potential lead market policies, a buyer of Australia's scale could help anchor China's pipeline as it converts from announcement into output.

Redirected towards low-carbon supply, this existing demand becomes the reciprocal lever. Australian buyers pulling clean steel from China — most likely indirectly in finished goods such as vehicles — give Chinese mills a direct reason to source Australian clean iron to make it. Australia's iron feeds China's clean steel; that steel returns to meet Australian demand. The relationship runs both ways, which is what turns a cost-competitive supply case into a durable partnership.

Note: Clean iron is the primary feedstock for clean steel. The final clean steel volume will be larger as it includes additional scrap blending.
1. Creating the pull: Demand-side levers for clean iron and steel Deloitte Access Economics June 2026, compiled from publicly available data, as of July 2026. Mission Possible Partnership's Global Project Tracker also covers Chinese projects but uses different scope criteria and data sources. The next edition will be published in November 2026; 2. FACI (2026) and AADA (2026); 3. Flat, long, semi-finished and tubular products; 4. Containers and vessels, household, screws, structural (towers, scaffolding), wires.

The trade corridor

A global clean iron trade offers complementary prizes for Australia and China, unlocked by three shared actions.

| Automobile export terminal, Guangzhou, China

Australia and China have complementary reasons to partner on clean iron trade and can accelerate each other’s objectives through co-operation

Australia wants…

- A trajectory to **cost-competitive clean iron**
- **Access to demand & offtake** to underpin project FIDs
- To grow a **global seaborne clean iron market** to underpin higher **value-added exports** and jobs

China wants…

- A pathway to **prove and scale clean metallurgy and other technologies** for exports
- A hedge against **cost uncertainty** and **infrastructure challenges** shutting off market access
- To grow **global demand** for **renewables and industrial equipment**
- An outlet for **RMB pricing** and capital deployment to offset a trade surplus

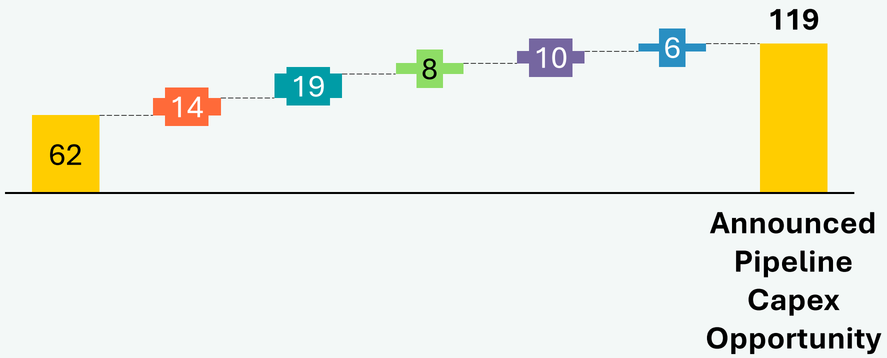
Co-operation compounds

1. **Costs fall**
   Chinese technology and capital improve Australian cost competition and proves technologies for exports
2. **Offtake commits**
   Australian clean iron becomes more attractive for trade and offtake and hedges cost uncertainty for China
3. **Investment grows**
   Shared gains make demand-side measures and investments in China and Australia easier to back
4. **Trade scales**
   Demand and supply growth raises global market competition and export opportunities for China and Australia

Over the next decade, China and Australia could build trade in clean iron into a significant technology and commodity export opportunity

Clean steel opportunity size by type[1], USD bn

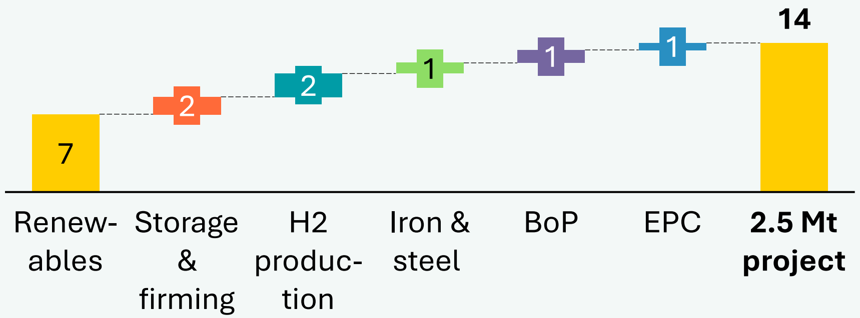
Global H2-DRI pipeline (21 Mt)



about USD 7 bn pa

Annual clean steel exports

A 2.5 Mt China-Australia H2-DRI project[2]



about USD 1 bn pa

Annual clean steel exports

Even a single 2.5 Mtpa project would deliver a sizable dividend for both Australia and China. Australia captures the plant itself, about USD 1 bn a year in export revenue, plus the value-added jobs and industry that come with moving up the value chain. Across the USD 14 bn project, China supplies the highest-value equipment where its manufacturing base is strongest — wind, solar, inverter, BESS, grid, electrolyzers, DRI in Australia and EAF in China. It also brings EPC, equity co-investment and RMB debt financing. One project, value on both sides of the trade.

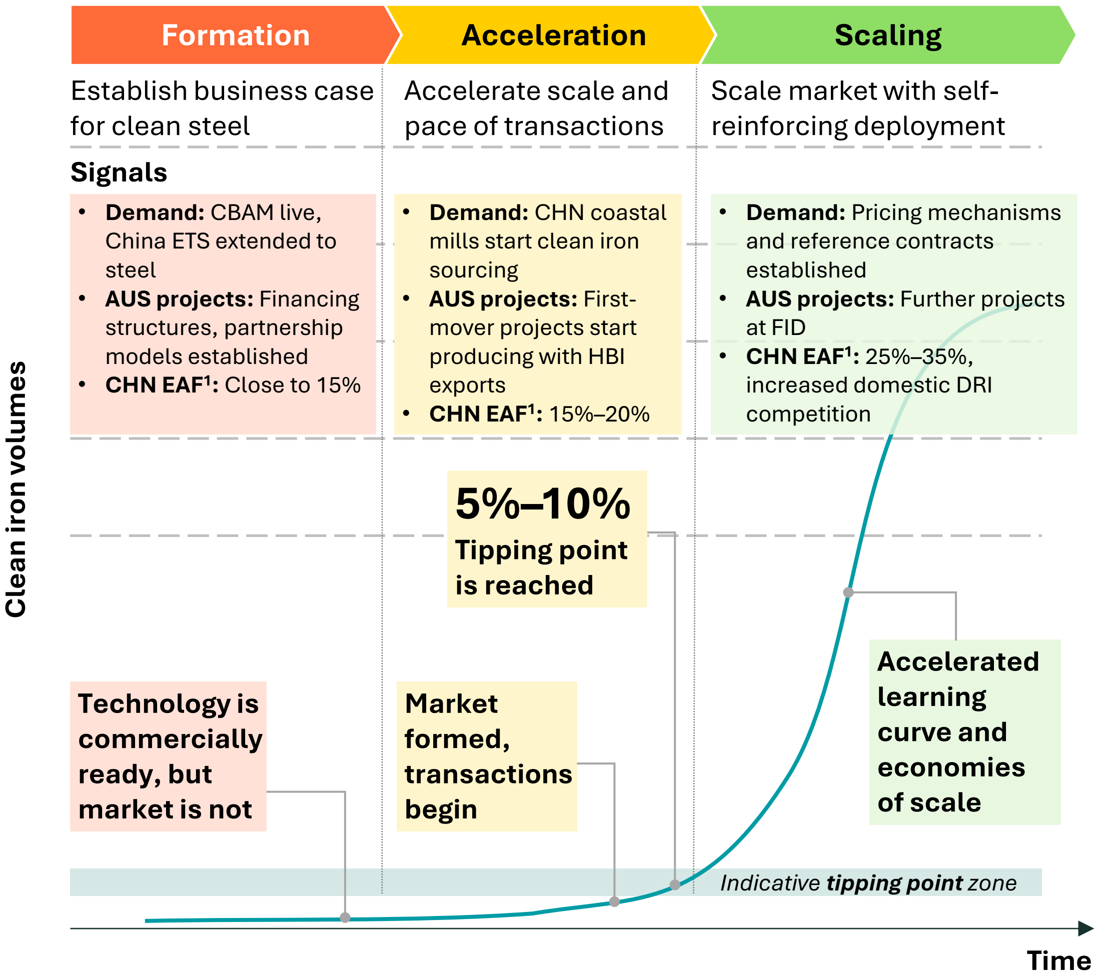
Scaled across the global market, the partnership turns that into a shared prize. As Australia and China open clean iron trade, a seaborne HBI market emerges that could reach around USD 5 bn a year at today's prices — Australia's commodity win. The global project pipeline it pulls into construction carries about USD 120 bn of build-out CAPEX — China's technology win. The same trade delivers benefits to both, at market scale.

And the two prizes compound. Each plant China helps build lowers the cost of the next, pulling more projects into the pipeline, which widens both the CAPEX prize and the traded market behind it. The partnership is not a fixed prize to split but a market to grow together, where each side's win enlarges the other's, which is why it is worth building in a co-ordinated manner rather than transacting one project at a time.

1.Bottom-up equipment assessment based on 17 Mt of announced projects and scaled to 21 Mt full project pipeline, India DRI June 2026 price USD 324/t; 2. Mid West Hydrogen DRI Plant
Source: MPP Global Project Tracker June 2026, MPP Procurement Book 2026

Earlier market development could bring clean iron demand forward of 2035, opening a shared prize for China and Australia

Illustrative stages in market formation and scale-up



The market's default expectation is that clean iron demand scales after 2035, and often into the 2040s, but accepting that horizon is not free. Every year demand is deferred is a year of continued emissions from conventional ironmaking and a year in which producers who moved sooner take early market position and shape standards, technology relationships and feedstock. The consensus timeline is a shared assumption, but treating it as fixed carries a real cost in extra emissions and lost opportunity.

Activation does not require mass adoption, only enough to reach the tipping point. Clean iron needs to capture an estimated 5%–10% of demand before self-reinforcing dynamics take over: reference contracts, pricing mechanisms and learning-driven cost reductions that pull the rest of the market behind them. Market activation should focus on that early share, not on waiting for demand to arrive at scale.

Australia and China can bring that demand forward, and falling costs will accelerate it. Bringing projects forward cuts the costs sooner, since the reductions are scale- and learning-driven, and the two partners can write the early contracts and standards that seed cross-border demand rather than waiting for it to appear. Each turn reinforces the next: their proof lowers cost, lower cost broadens demand, and broader demand deepens the case to build.

Neither market crosses the tipping point alone, so the two should move together and move now. Australia is ready on the supply side with its 9 Mtpa of projects that cover about 40% of the global 21 Mtpa clean iron pipeline. Australia needs Chinese scale, capability and offtake to underwrite its first projects; the early demand and cost reductions that trigger activation only materialise if both sides commit. Acting in this decade, together, is how Australia and China claim the shared prize rather than inherit a market someone else has already shaped.

1.% penetration of EAF in total steel output in China
Source: Press search.

The Australia-China Steel Decarbonisation Dialogue could define the collaboration needed to capture new commodity and technology exports

From…	…To
1 Dialogue • Partnerships run at the level of **aspiration and frameworks**, not linked to commercial activity • Private sector sees **few signals** that clean industry is a real, profitable opportunity • **No shared project pipeline** exists, and few practical priorities are agreed upon	**Partnership anchored in live projects** • Align on advancing **lighthouse projects to FID** to signal to the rest of the world that clean industry is real and profitable • Cooperation widens to **renewables and ironmaking equipment** as the near-term, commercially-rational foundation for ironmaking • Action is anchored to a **shared, commercial-grade view of the pipeline**
2 Missing markets • Clean commodity markets are **thin and fragmented** across the value chain, even where green premiums could be absorbed • **No firm downstream demand** for clean-intensive products. Each side is focused on its national market, commitments to clean iron stall • **Limited demand-side measures and certification** leave clean products unverified and unvalued, so there is no market pull to underwrite first projects	**Jointly activated demand for iron & steel** • Demand is approached as a **shared prize**, offering a dividend to both partners and building markets along the value chain • **Reciprocal, aligned demand signals** across iron and steel strengthen the investment case for trade • **Co-ordinated demand-side measures that target primary steel and mutual recognition** of C2F, Product GO and international frameworks establish market pull
3 First-mover costs • **Capital, financing, and power costs** are high today, making green premiums look unattractive • **No single party will carry that risk**, so offtakers shop for the lowest-cost projects • **Unproven equipment and limited delivery capability** keep capital costs high and deployment slow	**Lower costs through finance and technology partnerships** • Costs fall once the two co-operating industrial bases **share the load** • Risk becomes manageable when mitigants are **deliberately allocated**: some by governments together, some by each alone, so the residual risk is small enough for private capital to price • **Chinese technology, EPC, and finance** are adapted to Australian conditions, improving costs across the corridor

Shared action across three areas could drive a self-reinforcing loop with pilot projects, offtake, and improved costs

Potential moves	1 Anchor partnership in live projects	2 Jointly activate demand for clean iron & steel	3 Lowering costs through finance & technology
China	• **Establish a bilateral working group on clean iron trade partnerships to:** 1. **Assess role of imported clean iron** in coastal provinces (e.g., Guangdong), including economics, logistics, feasibility 2. **Explore pilot partnerships** to test commercial arrangements, standards and logistics (e.g., port handling, permitting) 3. **Identify priority technology collaboration opportunities** in Australian energy, electrification, and green iron projects to demonstrate Chinese tech overseas	• **Scale demand and lower barriers to clean iron imports:** 1. **Reinforce demand-side policies** for clean iron and steel products (especially flat products), allowing clean iron imports 2. **Define import and certification requirements** for imported clean iron to safeguard product quality 3. **Align Chinese standards** (e.g., C2F) for **interoperability** with international standards (e.g., ResponsibleSteel, LESS)	• **Establish a bilateral finance and technology mechanism** to reduce costs: 1. **Adapt proven technologies** (e.g., renewables, electrolysers, AI/automation) and **EPC** models to Australian standards and conditions (e.g., permits, grids) 2. **Standardise imported tech across Australia's project pipeline** to build overseas execution capability and scale 3. **Bundle equipment, EPC supply, & competitive financing** to move China from supplier to strategic solution provider
Australia	• **Develop a pipeline of shared investible projects:** 1. **Prioritise first mover projects** across energy, electrification, clean iron, and infrastructure 2. **Match projects with Chinese capabilities** in technology (e.g., renewables, transmission), EPC, and financing 3. **Test joint delivery models** through early projects and scale successive approaches	• **Create demand and market access for clean steel products:** 1. **Facilitate a green iron offtake agreement** with China with **lead** market demand through public procurement and industry (e.g., construction, clean tech) 2. **Define requirements for priority clean iron export markets** including product specs, import rules and buyer requirements 3. **Align clean iron / HBI certification** (e.g., Product GO) **with international standards** to enable exports & avoid duplicate testing	• **Build investor confidence to fund first-of-a-kind projects:** 1. **Pool first-of-a-kind risk** across the pipeline through risk-appropriate RMB debt, blended finance, and government-backed guarantees 2. **Apply targeted hedging** to lower each project's power price, currency, and offtake risk 3. **Standardise support mechanisms** from early lighthouse projects to a repeatable financing template as the pipeline matures

Unlocking the next horizon for clean steel

Turning momentum into action

Cross-border collaboration can build early momentum, strengthen supply chains, and deliver lasting mutual benefit.

The low-carbon transition is central to China's pursuit of high-quality development in the iron and steel sector. More than a technological upgrade, it represents a structural evolution that will reshape the domestic industrial landscape while creating a historic opportunity for global collaboration and shared growth.

While China is well positioned to maintain a high level of self-sufficiency in clean iron, cross-border trade can play an important strategic role. By combining complementary resource endowments and diversifying supply options, international co-operation can optimise resource allocation and make the industrial supply chain more resilient at a time of heightened global uncertainties.

The Australia-China clean iron corridor exemplifies this potential. By combining technology integration upstream with market cultivation downstream, the two countries can capture efficiencies across the value chain and elevate a long-standing commodity trade relationship into deeper industrial collaboration, delivering benefits for both nations.

A high-level consensus on clean steel is emerging, yet delivery still lags ambition. Markets expect clean iron demand to scale after 2035, but there is no need to treat this timeline as fixed. Delay carries real costs: prolonged emissions, slower investment, and lost early-mover advantages in standards, technology partnerships, and supply security.

By focusing on three priorities — lighthouse projects, reciprocal market creation, and shared cost reduction — Australia and China can generate the early momentum needed to shift expectations. As initial scale builds, costs fall, confidence grows, and demand becomes self-reinforcing, paving the way for a self-sustaining clean market and bringing forward the future of clean steel.

A strategic window is now open that can shape a more sustainable and resilient global steel industry. By deepening this collaborative synergy in the coming years, Australia and China can jointly cultivate a prosperous clean iron market, create early offtake agreements, enhance the stability and resilience of both nations' industrial supply chains, and set a compelling precedent for the global industrial transition in the decades ahead.

Join us in driving the new industrial revolution and fast-tracking clean industry this decade.

NEWSLETTER | SIGN UP

MISSION POSSIBLE PARTNERSHIP

RMI

Appendix

MISSION POSSIBLE PARTNERSHIP | RMI

Australia: List of clean iron projects by stage

#	Product	Project	Developer	State	Stage	Capacity, Mtpa	Capex, USD M	Partners
1	Concentrate	Central Eyre Iron Project (CEIP)	Iron Road	SA	Feasibility	12	2,300	Macquarie Capital, Vestas
2	Concentrate	Hawsons	Hawsons Iron	NSW	Pre-feas.	12	3,100	-
3	Concentrate	Middleback Ranges (expansion)	SIMEC Mining	SA	Pre-feas.	7	N/A	GFG, Golding Contractors, SRG Global
4	Concentrate	Razorback & Iron Peak	Magnetite Mines	SA	Pre-feas.	5	360	JFE Shoji Australia, GC Partners Asia, ZEN Energy
5	Concentrate	Lake Giles	Macarthur Minerals	WA	Feasibility	3	920	Glencore, Destec, Gold Valley Yilgarn
6	Concentrate	Eyre Magnetite	Lincoln Minerals	SA	Pre-feas.	3	N/A	Revera Energy
7	Concentrate	Byro Magnetite	Athena Resources	WA	Scoping	2.4	70	Terra Mining, Fenix Resources
8	Iron	Element Zero (Pilot)	Element Zero	WA	Scoping	5	N/A	-
9	Iron	Helios Clean Iron	Helios	WA	Scoping	N/A	N/A	BlueScope
10	Pellet	Mid-West Clean Pellets	Progress Clean Solutions	WA	Scoping	7	N/A	Karara Mine (ore MoU), Danieli
11	H2-HBI + Pellet	Port Hedland Iron	POSCO	WA	Feasibility	2	3,339[1]	Marubeni, China Steel, Midrex, Marubeni
12	H2-HBI + Pellet	Pilbara Blend Pelletisation & DRI Trials	Rio Tinto / Baowu	N/A	Trial (completed)	1	N/A	-
13	NG-DRI / HBI	Mid-West DRI Plant	Generation Steel	WA	Scoping	2.5	4,173[1]	Danieli, SMS Group, Midrex, Paul Wurth, Meranti Clean Steel
14	H2-DRI / HBI	Gladstone Clean Iron	Quinbrook & CQM	QLD	Scoping	2.5	14,338[1]	Stanwell (H2), ACCIONA, GE Vernova, CATL, Quinbrook Infra Partners
15	H2-DRI / HBI	Mid-West Clean Iron HBI	Progress Clean Solutions	WA	Scoping	2.5	14,338[1]	Thyssenkrupp (offtake), Danieli
16	H2-DRI / HBI	Mid West Clean Iron	MWGI JV	WA	Scoping	2.5	11,471[1]	Athena, Fenix, Warradarge, Thyssenkrupp, SMS, Midrex, Vestas
17	H2-DRI / HBI	Whyalla Steelworks DRI-EAF	Govt. / new owner TBD	SA	Pre-feas.	1.8	1,500	SA / Fed Govt (M Resources, Jindal shortlisted)
18	H2-DRI / HBI	Greensteel Australia DRI-EAF	Greensteel Australia	SA	Scoping	1.2	1,000	Danieli
19	H2-DRI / HBI	NeoSmelt (Pilot)	BlueScope	WA	FEED	0.04	N/A	BHP, Rio Tinto, Woodside, Mitsui
20	H2-DRI / HBI	Zesty Clean Iron (Pilot)	Calix	WA	FEED	0.03	30	Rio Tinto (JDA), ARENA
21	H2-DRI / HBI	Christmas Creek Clean Metal (Pilot)	Fortescue	WA	Commissioning	0.002	50	Metso

1. Based on bottom-up capex estimation including renewables.

Source: IEEFA Australian Green Iron Tracker 2026, Resources and Energy Quarterly December 2025, Fastmarkets, press search, MPP Procurement Book June 2026.

China: List of clean iron projects by stage

#	Developer	Location	Technology route	Phase	Stage	Feedstock	Capacity, Mtpa
1	Mintal Hydrogen Energy Technology Co., Ltd. (水木明拓氢能源科技有限公司)	Baotou, Inner Mongolia	DRI-shaft furnace	N/A	Planning	Green hydrogen	1.1
2	Inner Mongolia Green Hydrogen Steel Union Technology Co., Ltd. (内蒙古绿氢钢联科技有限公司)	Baotou, Inner Mongolia	DRI-shaft furnace	N/A	Planning	Green hydrogen	1.25
3	HBIS Group Co., Ltd. (河钢集团有限公司)	Zhangjiakou, Hebei	DRI-shaft furnace	Phase 1	Operating (2022)	COG	0.6
				Phase 2	Planning	Green hydrogen	0.6
4	China Iron and Steel Research Institute Group (CISRI, 中国钢研科技集团有限公司)	Songyuan, Jilin	DRI-shaft furnace	N/A	Construction	Green hydrogen	0.25
5	Ansteel Group Co., Ltd. (鞍钢集团有限公司)	Bayuquan, Liaoning	DRI-fluidized bed	N/A	Operating (2024)	Green hydrogen	0.01
6	China Iron and Steel Research Institute Group (CISRI, 中国钢研科技集团有限公司)	Liyi, Shandong	DRI-shaft furnace	N/A	Operating (2024)	Hydrogen	0.05
7	China Baowu Steel Group Co., Ltd. (中国宝武钢铁集团有限公司)	Zhanjiang, Guangdong	DRI-shaft furnace	Phase 1	Operating (2023)	NG, COG, hydrogen	1
				Phase 2	Planning	Green hydrogen	1
8	Hami Tonghuide Clean Casting Co., Ltd. (哈密通慧德绿色铸造有限公司)	Hami, Xinjiang	DRI-shaft furnace	N/A	Planning	Green hydrogen	0.2
9	Xinjiang Hengtai Clean Energy Metal Casting Co., Ltd. (新疆恒泰绿能金属铸造有限公司)	Kizilsu, Xinjiang	DRI-shaft furnace	N/A	Construction	Green hydrogen	1.2
10	Gansu Ruikang Zhongyuan Technology Development Co., Ltd. (甘肃瑞康众源科技开发有限责任公司)	Baiyin, Gansu	DRI-shaft furnace	N/A	Planning	Green hydrogen	0.3
11	Jin Gang Holding Group Co., Ltd. (晋钢控股集团)	Jincheng, Shanxi	DRI-shaft furnace	N/A	Planning	Coalbed methane	1
12	Zhongqing Yekong (Chengdu) Technology Co., Ltd. (中氢冶控（成都）科技有限公司)	Chengdu, Sichuan	DRI-rotary klin	N/A	Planning	Green hydrogen	0.01
13	Sichuan Tranvic Group Co., Ltd. (四川省川威集团有限公司)	Neijiang, Sichuan	DRI-shaft furnace	N/A	Operating (2024)	NG, COG	0.01
14	Zhaoqiang Titanium Magnetic Technology Co., Ltd. (兆强钛磁科技股份有限公司)	Panzhihua, Sichuan	DRI-rotary klin	N/A	Construction	Green hydrogen	0.01

Note: For companies whose official full English names are not publicly available, English translations commonly used within the industry have been adopted.

Source: Compiled from publicly available data, as of July 2026. Mission Possible Partnership's Global Project Tracker also covers Chinese projects but uses different scope criteria and data sources. The next edition will be published in November 2026.

Overall assumptions: First-year steel production cost

Capital Costs	Unit	Australia
BF	$/tonne	451
BOF	$/tonne	195
DR	$/tonne	382
HBI	$/tonne	39
EAF	$/tonne	269
Continuous Casting	$/tonne	97
Hot Strip Mill	$/tonne	213
Engineering	%	10
New Site Prep	%	11

Feedstock Rates[2]	BF-BOF	DRI-EAF
Sinter (t/t HRC)	1.27	N/A
Pellet (t/t HRC)	0.28	1.31
Pig Iron (t/t HRC)	0.94	N/A
DRI (t/t HRC)	N/A	0.95
HBI (t/t HRC)	N/A	1.03
Scrap (t/t HRC)	0.22	0.22
Thermal Coal (t/t HRC)	0.14	N/A
Met Coal (t/t HRC)	0.49	N/A
Natural Gas (GJ/t HRC)	2.11	2.07
Coke Oven Gas (m^3/t HRC)	N/A	501
Hydrogen (kg/t HRC)	N/A	54.6
Electricity (kWh/t HRC)[3]	N/A	COG DRI-EAF: 866 H_2 DRI-EAF: 983–1102

1. Chinese EAF capital cost includes continuous casting capex.
2. Feedstock rates assume a 20% scrap share in final HRC product.
3. Low-end electricity rate for H2 DRI-EAF route represents all-domestic Chinese production while high-end electricity rate represents Australian HBI with Chinese EAF steelmaking.

Source: RMI clean steel cost model 2026.

Assumptions: Levelised cost of hydrogen

Capital Costs	Unit	Australia
Electrolyser	USD/kW	1,200
Solar	USD/kW	1,200
Wind	USD/kW	1,250
Battery	USD/kW	290
Pipeline Storage	USD/kg	520
Canister Storage	USD/kg	1,680

Other Key Inputs	Unit	Australia
Hydrogen WACC	%	8.4
Renewables WACC	%	5.2
Hydrogen O&M	% of capex	4%
Solar O&M	USD/kW-year	20
Wind O&M	USD/kW-year	28

Hydrogen Lever Assumptions

Project Financing:
RE: 1% WACC decrease
H_2: 2% WACC decrease

Chinese Tech Partnership: 25% electrolyser cost reduction (BOP + stack)

Storage: 50% pipelines, 50% canisters

Grid Connection: 25% grid, 75% BtM, pipeline storage

Capex Optimisation: locational scaling factors removed

Source: RMI hydrogen optimisation cost model 2026.

Assumptions: First-year steel production cost for Australia and China

Variable	Unit	Whyalla	Pilbara	Kwinana	Geraldton	Hebei	IM	Guangdong
62% Lump/Fines	USD/t	N/A	N/A	N/A	N/A	128	N/A	N/A
67% Pellets	USD/t	155	155	155	148	175	175	175
Scrap	USD/t	N/A	N/A	N/A	N/A	364	364	364
Grid Electricity	USD/MWh	40.1	66	66	66	95	76	87
PPA Price	USD/MWh	54	64	59	72	N/A	N/A	N/A
Thermal Coal	USD/t	N/A	N/A	N/A	N/A	97	62	90
Met Coal	USD/t	N/A	N/A	N/A	N/A	221	141	207
Natural Gas	USD/GJ	8.8	6.2	6.4	6.2	15.4	4.6	14.1
Coke Oven Gas	USD/m^3	N/A	N/A	N/A	N/A	0.1	N/A	N/A
Hydrogen (baseline)	USD/kg	4.7	6.3	4.8	5.2	3.2	2.9	5.1
Locational Scaling Factor		1.1	1.4	1.1	1.2	N/A	N/A	N/A

IM stands for Inner Mongolia. Australian iron ore costs based on market ore price with CFR and royalties subtracted and include modelled pelletising cost. Hydrogen baseline costs assume 100% behind-the-meter renewables, and no storage, with AUD 2/kg tax credit and locational scaling factors included. Australia WACC at 7.2%, inflation at 2.5% for iron/steel cost modelling. China WACC at 7.7%, inflation at 0.5%.

Source: RMI clean steel cost model 2026

Glossary

Terms & Acronyms

APAC	Asia-Pacific
AUS	Australia
BESS	Battery Energy Storage System
BF	Blast Furnace
BF-BOF	Blast Furnace–Basic Oxygen Furnace
BOF	Basic Oxygen Furnace
CAPEX	Capital Expenditure
CBAM	Carbon Border Adjustment Mechanism (EU)
CCER	China Certified Emission Reduction
CCS	Carbon Capture and Storage
CFR	Cost and Freight

CHN	China
CO2	Carbon Dioxide
COG	Coke Oven Gas
COG-DRI-EAF	Coke Oven Gas–Direct Reduced Iron–Electric Arc Furnace
DRI	Direct Reduced Iron
DRI-EAF	Direct Reduced Iron–Electric Arc Furnace
EAF	Electric Arc Furnace
EPC	Engineering, Procurement, and Construction
ETS	Emissions Trading Scheme
EV	Electric Vehicle

FEED	Front-End Engineering Design
FID	Final Investment Decision
FOAK	First-Of-a-Kind
FOB	Free On Board
GX	Green Transformation (Japan)
H2	Hydrogen
H2-DRI	Hydrogen-Based Direct Reduced Iron
HBI	Hot Briquetted Iron
HDRI	Hot Direct Reduced Iron
HRC	Hot-Rolled Coil
LCOH	Levelised Cost Of Hydrogen

LCOS	Levelised Cost Of Steel
LNG	Liquefied Natural Gas
MIDREX	MIDREX Direct Reduction Process
NG	Natural Gas
OEM	Original Equipment Manufacturer
OPEX	Operating Expenditure
PV	Photovoltaic (Solar)
RE	Renewable Energy
RMB	Renminbi (Chinese Yuan)
SA	South Australia
SOE	State-Owned Enterprise
WA	Western Australia
WACC	Weighted Average Cost of Capital

Organisations & Sources

ARENA	Australian Renewable Energy Agency
CATL	Contemporary Amperex Technology Limited
CEFC	Clean Energy Finance Corporation
CISRI	China Iron and Steel Research Institute

IEEFA	Institute for Energy Economics and Financial Analysis
MECLA	Materials and Embodied Carbon Leaders' Alliance
MIIT	Ministry of Industry and Information Technology (China)

OECD	Organisation for Economic Co-operation and Development
POSCO	Pohang Iron and Steel Company (Korea)
RBA	Reserve Bank of Australia