



POWERING
AUSTRALIA

Powering Up 2026



Contents

Message from our Chairman 01

Message from our CEO 03

Global clean-tech outlook 04

National developments 07

Australian case studies 11

Powering Australia activity 19

Looking ahead 22





A MESSAGE FROM OUR CHAIRMAN



Tim Shanahan
Chairman

This year has been pivotal for Australia's clean-tech manufacturing sector. Global investment in clean energy technologies such as renewables, electrification, and industrial decarbonisation has decisively outpaced fossil fuel spending.

Against this backdrop, Australia is increasingly positioning itself from being known simply as a supplier of minerals to being recognised as a nation capable of manufacturing, delivering, and exporting clean energy and technologies that contribute to the global transition.

Over the past 12 months we have seen significant progress across multiple areas of the sector. Clean-tech manufacturing output has continued to grow, supported by new facilities in solar and battery component production.

Australia's export landscape is undergoing a transformation as global demand shifts toward clean energy and low-emission technologies. Our profile is evolving from a focus on traditional commodities to one increasingly shaped by critical minerals and advanced clean-tech manufacturing. While iron ore and energy exports are moderating, the value of lithium and other critical minerals has grown rapidly, underscoring Australia's growing role in the clean energy supply chain.

National forecasts also highlight substantial workforce growth, with employment in the clean energy sector expected to expand from around 21,500 today to more than 60,000 by the end of the decade. This growth will drive new infrastructure, innovation, and regional opportunities, strengthening Australia's industrial capability and cementing our position as a global clean energy leader.

Over the last year, the clean-tech manufacturing sector has seen growth across four thematic areas that remain central to the mission of Powering Australia.

- **Strengthening domestic clean-tech manufacturing:** New capacity has been added in solar module assembly and grid scale battery component manufacturing. Domestic supply contracts, including those for large renewable energy zones, are creating tangible demand for Australian made solutions.
- **Building infrastructure readiness:** New investment commitments have been announced for transmission upgrades in New South Wales and Victoria, while large scale batteries such as the Waratah Super Battery are moving closer to operation. These advances will address bottlenecks between renewable supply and end users.
- **Expanding research and innovation:** Partnerships between the CSIRO, leading universities, and clean-tech companies have generated breakthroughs in recycling, advanced materials, and hydrogen production. The translation of this research with a growing number of commercial ventures has been a highlight of the year.
- **Driving regional development:** Western Australia's critical mineral sector has moved beyond raw export into value added processing, while Queensland has attracted investment in solar manufacturing hubs. Across the country, clean-tech projects are creating new growth corridors, particularly in regional communities.



Progress is exciting, but challenges remain. Grid infrastructure still lags the pace of renewable deployment and remains a critical risk to national energy targets. While financing into Australian projects has increased, access to risk capital for early stage clean-tech ventures remains inconsistent, and workforce development must accelerate if we are to meet industry growth projections. In addition, long lead times for approvals and policy uncertainty in key areas continue to weigh on investor confidence.

These are areas requiring clear focus and sustained effort if Australia is to capture its share of the global opportunity. Despite these challenges, the trajectory is positive. Australia is now on track to be more than a supplier of critical minerals. We are laying the foundation of becoming a centre for clean-tech innovation, advanced manufacturing, and industry development. The combination of resource endowment, technical expertise, and a growing domestic market for clean energy makes our nation well positioned to lead.

As we look ahead, we do so with optimism and determination. Clean-tech industries including mining and processing of critical minerals and emerging clean-tech manufacturing in Australia have already begun to demonstrate measurable contributions: billions of dollars in exports, tens of thousands of jobs, and a pipeline of projects that position our nation at the heart of the global clean energy transition. The task before us is to sustain this momentum, deepen our industrial capabilities, and build the partnerships that will secure Australia's role as a clean-tech leader.

On behalf of the Board, I would like to thank the many innovators, manufacturers, policymakers, and community partners who are shaping this industry. Their work is not only supporting our national transition but also contributing to global goals. Clean-tech manufacturing has become a national project as well as a national opportunity. With sustained investment, ambition, and collaboration, we can ensure it grows into a defining element of Australia's economic strength well into the future.

~ Tim Shanahan





A MESSAGE FROM OUR CEO



Shannon O'Rourke
CEO

During the past year, Powering Australia made strong progress on our mission to grow Australia's clean-tech manufacturing industries.

Our efforts focused on building enabling capability, forging partnerships, and creating national platforms that will allow Australian innovation to progress from research promise to competitive reality. With broad engagement from industry, research, and government partners, we have moved decisively into the delivery phase.

A defining achievement has been the establishment of Australia's first national Industry and Capability Database. With over 5,500 businesses and over 1,200 researchers now mapped across the country, this is the most comprehensive view yet of Australia's clean-tech industrial, research, and innovation landscape.

Developed in line with our objective to create a unifying national platform, the database is already helping to identify opportunities, highlight capability gaps, and connect stakeholders across the sector. As it evolves to include ESG, supply chain and local content data, this resource will provide the backbone of a national clean-tech network, enabling technology tracking, early-stage venture support, and more strategic deployment of investment into areas of highest impact.

Progress has also advanced in the development of Common User Facilities (CUFs) to support Australia's next generation of clean-tech industries.

Proposals are now well underway across every state, including the Transport Innovation Precinct in Victoria and a dedicated National Industrial Decarbonisation Precinct in South Australia. These facilities are intended as sandboxes where businesses can trial, prototype, and validate emerging clean-tech solutions in controlled environments. By providing structured pathways from demonstration to deployment, CUFs will lower the barriers of early-stage development and strengthen Australia's international positioning as a trusted hub for scalable clean-tech innovation.

A significant area of our focus has been First Nations participation in the clean-tech economy. Our First Nations Sector Competitiveness Plan — Horizon 2035: First Nations as critical partners — highlights three emerging categories of competitive opportunity for First Nations businesses, and showcases a number of businesses who are already making progress. We are now finalising First Nations clean-tech business resources, and a corresponding business program to build pathways for Indigenous enterprises to enter and grow within the sector.

The achievements of this year reflect the determination of our participants and partners, the strength of our collaborations across government, research, and industry, and the commitment of our internal team. Powering Australia is creating the enabling conditions for Australian manufacturers not just to compete, but to lead in clean-tech industries. These efforts are helping deliver durable prosperity at home while making a tangible contribution to the global transition to net zero.



01

GLOBAL CLEAN-TECH OUTLOOK





Global clean-tech outlook

GLOBAL ENERGY INVESTMENT SHIFT

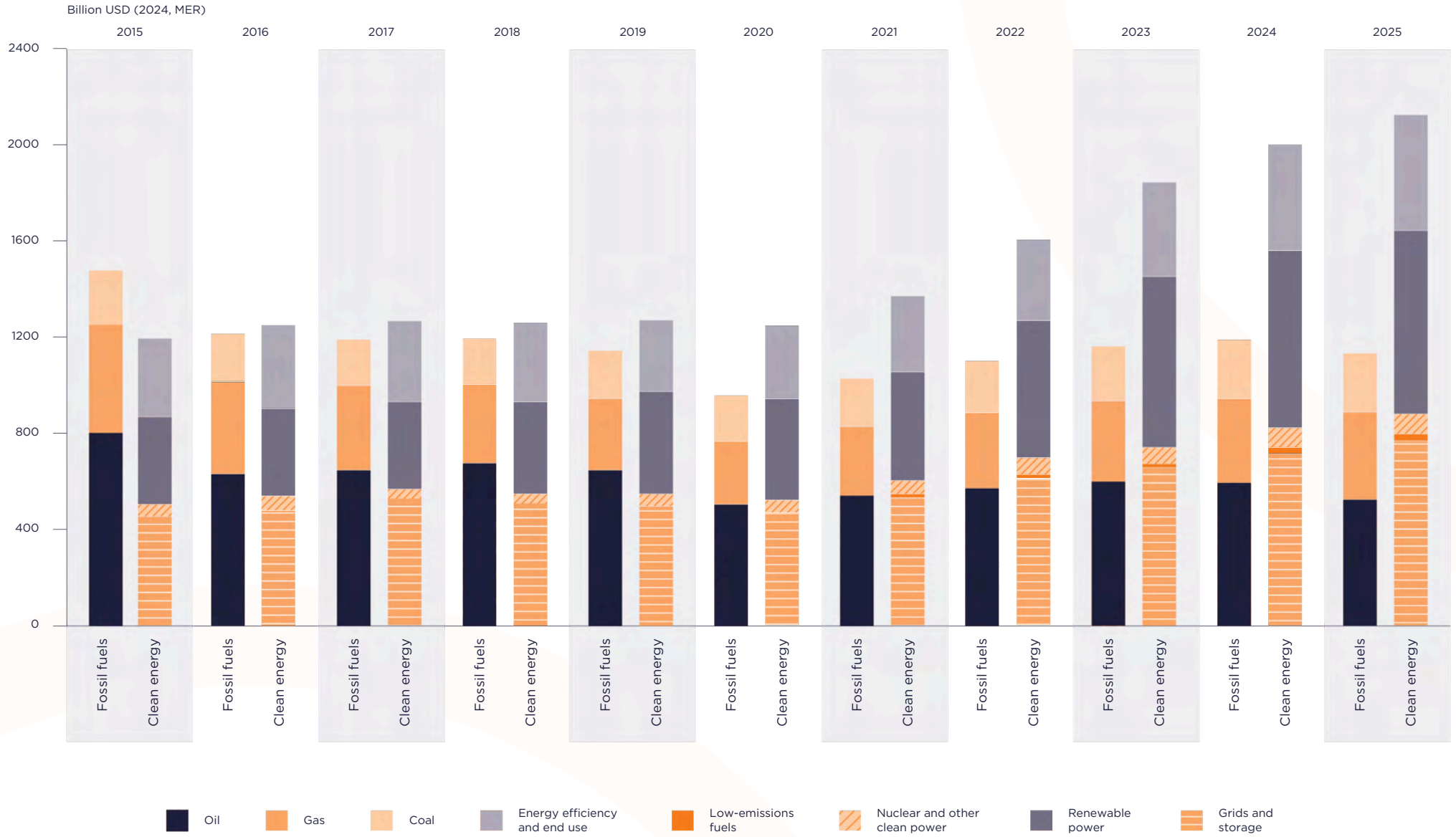
Global energy investment is undergoing profound transformation. In 2025, total spending is projected to exceed AUD \$5.1 trillion, with clean energy attracting nearly twice the capital of fossil fuels. Solar leads this shift, drawing AUD 700 billion in rooftop and utility-scale projects. China is the clear leader in global deployment and manufacturing capacity. Electricity has overtaken fossil fuels as the central focus for new investment. In a historic first, renewable energy generation overtook coal for the first time. Oil investment continues to decline, shaped by volatile prices and softening demand. Natural gas remains resilient, supported by industrial requirements and the rapid expansion of data centre demand. New LNG projects in the United States are set to nearly double export capacity by 2028, though oil and gas combined still trail far behind clean energy in attracting capital, by a factor of over two to one.

GRID AND INFRASTRUCTURE GAPS

Global grid investment, at AUD \$620 billion per year, is critical but insufficient. Permitting bottlenecks, equipment shortages, and financial pressures on utilities are slowing renewable connections, particularly across emerging markets where infrastructure limitations both raise costs and delay deployment.

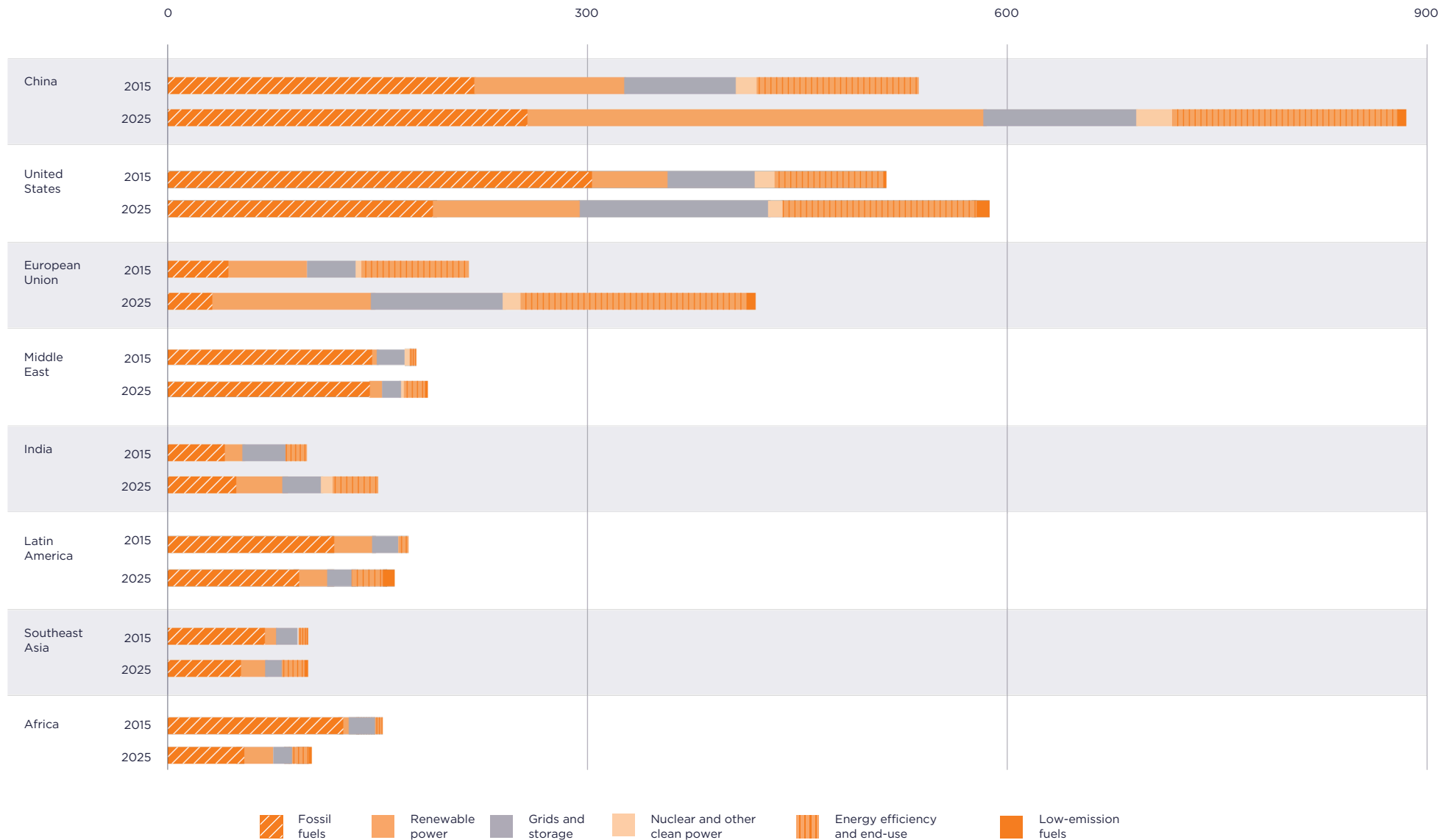
Australia has seen substantial cost increases in grid costs, with overhead transmission projects increasing by 25-55% and substation works increasing by 10-35%. The convergence of storage and transmission offers some optionality to control cost increases, and Australia is well positioned to capture this option.

GLOBAL INVESTMENT IN CLEAN ENERGY AND FOSSIL FUELS



ENERGY INVESTMENT ACROSS REGIONS AND SECTORS

Billion USD (2024, MER)



REGIONAL AND GEOPOLITICAL DYNAMICS

China leads the market with 27% of global energy investment equal to the combined spending of the United States and EU. India and Brazil have emerged as major contributors, while Africa receives just 2% of global clean energy investment despite representing 20% of the world's population. Closing this gap is essential to ensuring a fair and global transition.

Globally, there has been a declining trade environment. Late in 2024, the World Trade Organisation (WTO) reported a sharp rise in the coverage of trade-restrictive measures and increasing evidence of inward-looking trade policies. More recently, the WTO reported a fourfold rise in trade impacted by tariffs. These trade distortions have potential to negatively impact Australia's attractiveness as an investment destination.

In the last year, China imposed several restrictions on the exports of critical minerals and related services, and Australia and the US forged new partnerships in critical minerals. The competition to secure the resources that underpin clean-tech and dual-use industries could not be more intense.

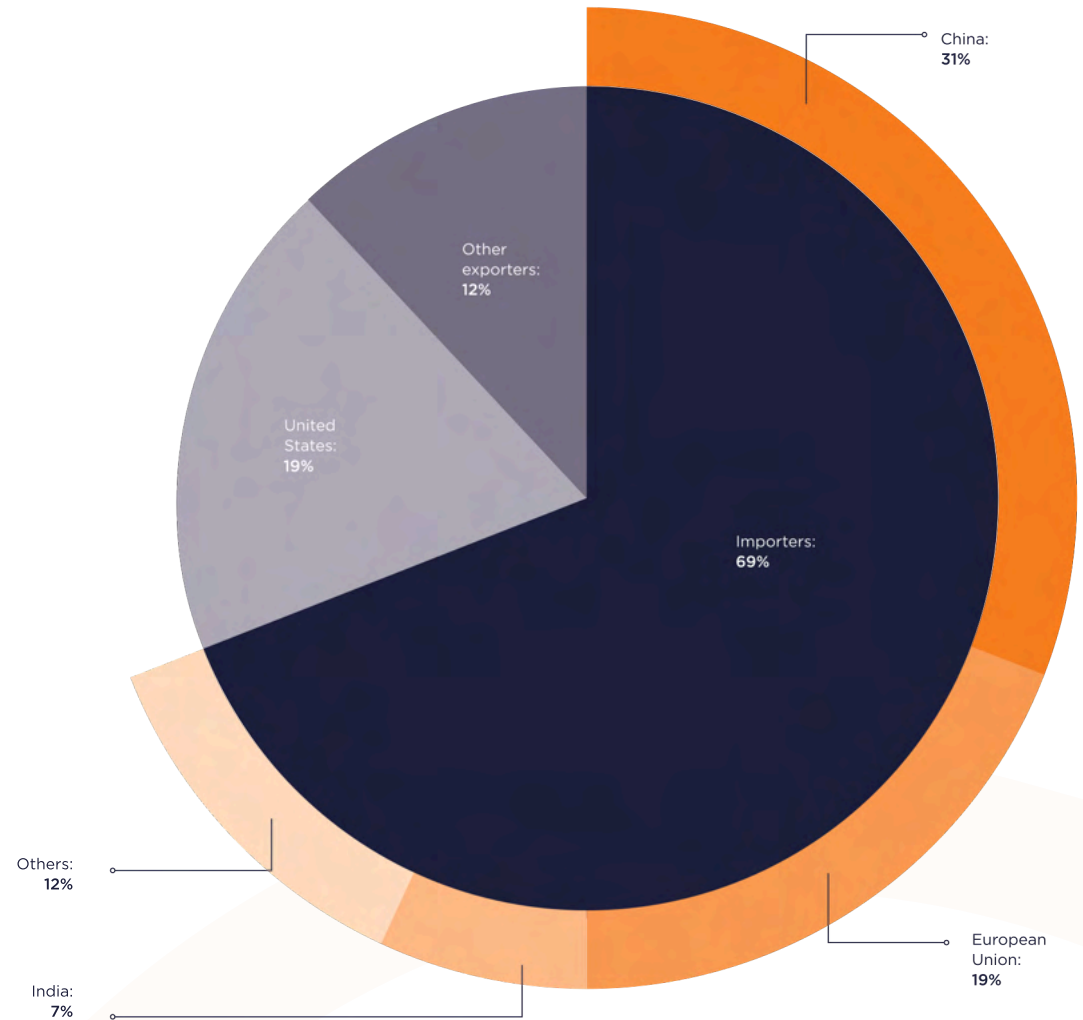
Energy security, resilient supply chains, and industrial policy are increasingly decisive investment drivers. Advanced economies are accelerating investment in domestic manufacturing capacity and critical minerals driven by economic and national security interests.

INDUSTRY INNOVATION AND OUTLOOK

Demand-side spending has doubled in a decade, reaching USD \$800 billion annually, led by electric vehicles, building efficiency upgrades, and industrial electrification. Advanced manufacturing and digitalisation are reshaping global supply chains, further intensifying competition.

Looking forward, clean energy investment is the defining force in today's energy system. Success will hinge not only on raising capital but on overcoming infrastructure bottlenecks and ensuring equitable access to finance. Nations that meet these challenges will lead the next industrial revolution and define the competitive landscape for decades to come.

SHARE OF WORLD'S CLEAN ENERGY SPENDING INCREASE BY FOSSIL FUEL EXPORTER/IMPORTER STATUS



02

NATIONAL DEVELOPMENTS





“Australia’s clean-tech sector continues to show resilience and momentum despite challenging global conditions, supported by strong government backing, active industry participation, and a rising wave of innovation.”

NATIONAL DEVELOPMENTS

Australia’s clean-tech sector continues to show resilience and momentum despite challenging global conditions, supported by strong government backing, active industry participation, and a rising wave of innovation. While global investment in clean-tech has slowed since peaking in 2021, Australia has remained comparatively insulated, reflecting the strength of sustained policy frameworks and targeted national investment. The past 12 months have delivered encouraging signals across the Australian economy, with manufacturing growth emerging as a key driver in the nation’s clean-tech transformation. Data from the Australian Bureau of Statistics confirms broad gains, with business turnover rising across all 13 industry divisions in July 2025.

Manufacturing performance has been particularly strong, with turnover increasing 4.2% month on month and 13.2% year on year. This momentum highlights the growing role of clean-tech processes and innovation in building a more diverse and competitive industrial base. Related sectors, including electricity, gas, water, and waste services, recorded even stronger growth of 15.8 % month on month and 16.2% year on year. These results reflect accelerating investment in critical infrastructure and energy transition projects that are central to Australia’s decarbonisation agenda.

The mining sector recorded a modest 1.7% decline over the same period, underscoring the economy’s gradual structural shift. By contrast, the sustained strength of manufacturing, signals Australia’s transition toward greater resilience, stronger technological capability, and diversified sources of growth. Clean-tech manufacturing is emerging as a catalyst for future employment, enhanced export competitiveness, and expanded sovereign capability.

In an environment of global uncertainty and supply chain pressures, these results confirm a strong platform from which Australia’s clean-tech manufacturing sector can continue to expand. Building on this momentum, the sector is well positioned to shape a dynamic future and ensure that Australia plays a leading role in the global clean energy transition.





“Achieving 82% renewable electricity by 2030 will require industry, government, and research working in lockstep to convert today’s opportunities into long term industrial strength.”

FEDERAL INITIATIVES AND GRANTS

Government investment has played a pivotal role in advancing Australia’s clean-tech industries. Following a dip in 2023, momentum returned strongly in 2024, underpinned by the Clean Energy Finance Corporation and the \$22.7 billion 2024-25 Federal budget package for manufacturing and infrastructure. The Clean Energy Council reported quarterly investment averaging \$2 billion in late 2024 – the highest since 2019 – a clear sign of renewed confidence and accelerated growth.

STRATEGIC PROGRAMS SHAPING INDUSTRY

Major initiatives launched over the past year are reshaping the sector’s outlook. ARENA’s \$500 million Battery Breakthrough Initiative is positioning Australia to become a leader in next generation batteries. The \$1 billion Green Iron Investment Fund and CEFC’s expanded \$2 billion mandate are enabling large-scale projects in green steel and low carbon manufacturing. The Federal Government announced a new \$5 billion Net Zero fund to accelerate Australia’s industrial decarbonisation.

At the same time, programs such as Hydrogen Headstart and Rewiring the Nation are directly addressing structural challenges, from renewable hydrogen scaling to connecting renewable projects to the grid.

BUILDING SCALE AND MARKET RESEARCH

Targeted funding for industry participants has supported the critical scale up phase, enabling home grown technologies to enter both domestic and global markets. Household and business rebates for electrification and EV charging are driving demand and embedding clean-tech across everyday economic activity. Together, these measures are propelling the clean-tech sector, which is projected to double in size from \$31.1 billion in 2024 to \$70.7 billion by 2030.

INTERNATIONAL AND INDUSTRY LEADERSHIP

Australia is also stepping forward internationally. Our participation in global climate initiatives and green commodity standards is building long term competitiveness and ensuring domestic industries are aligned with international benchmarks. Industry partners are already delivering outcomes in advanced batteries, green metals, and low emissions steel, reinforcing Australia’s role as a credible and capable player in the clean-tech transition.





MEETING THE CHALLENGES AHEAD

Despite this positive trajectory, the sector continues to face hurdles, including skills shortages, regulatory delays, and rising input costs. These challenges underscore the importance of continued reform and investment. Achieving 82% renewable electricity by 2030 will require industry, government, and research working in lockstep to convert today's opportunities into long term industrial strength.

MAJOR INDUSTRY DEVELOPMENTS

In early 2025, investment in battery energy storage rose markedly, lifting Australia's residential battery market. A remarkable 185,000 batteries were installed in 2025, due to the successful Cheaper Home Batteries program. Global forecasts point to a USD 1.3 trillion market by 2030, underscoring the scale of opportunity. Although the majority of batteries are imported, they have a finite life and remain a meaningful opportunity for Australia in the medium to long term.

Several hydrogen projects, however, did not proceed to final investment decision, while local critical mineral processing continues to face competitiveness issues due to oversupply from China and Indonesia.

Western Australia committed \$50 million to clean-tech manufacturing, while Queensland withdrew \$100 million from the Australian Battery Industrialisation Centre. Federally, ARENA's Advancing Renewables Program provided support to innovators such as VSPC and Gelion. Corporate activity has reflected these pressures. BHP, Rio Tinto, South32, Glencore, and Newmont each advanced asset restructures to prioritise copper and lithium, while emerging firms are progressing niche technologies such as lithium sulphur batteries and securing export focused licensing agreements.

Environmental, social, and governance factors are also shaping performance. Fortescue has deepened integration of renewables and hydrogen across operations, while other companies expanded Indigenous partnerships, transparency reporting, and recycling initiatives focused on supply chain traceability.

OUTLOOK

Australia's clean-tech ecosystem is strengthening across priority areas such as lithium ion and flow batteries, green steel, and new industrial pathways supported by both government programs and industry initiative. However, systemic challenges persist, including infrastructure delays, workforce shortages, rising costs, and investment uncertainty. Meeting these challenges will require continued collaboration across industry, research, and government, and accelerated reform to sustain momentum.



03

AUSTRALIAN CASE STUDIES



Case Studies: Generation

TYREE TRANSFORMERS

Tyree Transformers is an Australian manufacturer of distribution and power transformers based at Braemar near Mittagong in New South Wales, with origins in the post war expansion of local transformer manufacturing in the late 1940s. Its operations span more than 20,000 square metres of production floorspace across multiple modern workshops on a 30 acre site, supplying utilities, industry and infrastructure across Australia, New Zealand and the broader Asia Pacific region.

The company manufactures pole mount and larger distribution transformers, power transformers and assembled substations, supported by in house metal fabrication, painting, engineering and testing capabilities.

Recent investments include a \$25 million redevelopment of its Mittagong distribution transformer factory to double production capacity to meet growing renewable energy and grid modernisation demand.

Tyree's portfolio is growing across renewable and storage projects, including solar farms like Jemalong, multiple wind farms and BESS projects that support grid stability and the integration of renewables.

These investments strengthen Australia's sovereign capability to deliver critical grid and storage infrastructure. Tyree's transformers and substations enable renewable zones and long-duration storage, support future electrified transport corridors, and reshape legacy networks for net zero.





Case Studies: Generation

WILSON TRANSFORMERS

Wilson Transformer Company (WTC), established in 1933 and headquartered in Victoria, is Australia's largest manufacturer of power and distribution transformers and a critical contributor to the nation's electricity infrastructure. With facilities across Australia and international operations, WTC supplies technology essential to energy networks, large-scale industry, and major electricity users.

The company manufactures a wide portfolio of equipment, from large power transformers up to 550 MVA to distribution units and specialised custom solutions. Beyond manufacturing, WTC provides comprehensive services including design, testing, installation, and lifetime maintenance, ensuring products meet both customer needs and international standards.

WTC's engineering capabilities are playing a growing role in Australia's energy transition. Its products are integral to grid scale battery storage projects and renewable energy integration, supporting the reliability and safety of electricity networks.

These contributions demonstrate how established industrial capability can adapt to emerging technology and innovation needs while maintaining worldclass safety and quality benchmarks.

The company continues to address industry headwinds, including global competition and domestic workforce shortages, through investment in advanced manufacturing processes and dedicated workforce training initiatives. These actions will sustain productivity, capability growth, continuous innovation and long-term operational resilience.

Looking ahead, WTC aims to strengthen its contribution to its contribution to Australia's electricity infrastructure by expanding its manufacturing capability, enhancing technical expertise, and reinforcing sovereign manufacturing capacity to ensure critical energy technologies are designed, manufactured, and delivered onshore.



Case Studies: Industrial Decarbonisation

PRECISION OXYCUT

Operating in Sydney and Newcastle, Precision Oxycut is an established Australian family-owned provider of specialised industrial cutting solutions. Founded in 1972, the company offers precision oxy-fuel cutting, plasma cutting, and laser cutting technologies, serving sectors such as mining, manufacturing, construction, and energy. Its services address both large-scale industrial projects and more complex custom fabrication requirements.

The company has invested in advanced cutting equipment designed to improve precision and efficiency along with bending capacity, (both manual and robotic) and robotic welding capability. These capabilities support quality processing for a range of infrastructure and industrial applications.

Precision Oxycut has expanded into renewable energy by manufacturing critical components for wind tower construction and solar tracker components. These new markets compliment the existing more traditional market segments that Oxycut continues to operate in. This development, along with its precision cutting expertise across steel and other metals, positions the company to support emerging clean-tech and green industrial supply chains.

Maintaining a skilled workforce and integrating new technologies, Precision Oxycut continues to adapt to Australia's industrial landscape, including the growth of clean energy and manufacturing sectors.





Case Studies: Industrial Decarbonisation

EAST KIMBERLEY CLEAN ENERGY PROJECT

The East Kimberley Clean Energy Project is a First Nations majority owned venture that demonstrates how Indigenous leadership can drive transformative clean energy development in Australia. The Aboriginal Clean Energy Partnership, comprising Balanggarra, MG Corporation, the Kimberley Land Council, and clean energy developer Pollination, each holds an equal 25% share. This governance model embeds self determination and equitable participation at the centre of one of Western Australia's most ambitious renewable energy projects.

At its core, the project proposes a 1,000 MW solar farm near Kununurra, integrated with output from the Ord Hydro Power Plant. Through electrolysis, renewable hydrogen will be produced and transported by pipeline to Wyndham on Balanggarra Country, where it will be converted into green ammonia for use in regional agriculture and for export to international markets. By leveraging unique renewable resources and existing infrastructure, the initiative seeks to create a new industry hub in the Kimberley.

Progress to date has been significant. Since 2022, the partnership has completed a self funded scoping phase and, in 2024, finalised a feasibility study supported by the Australian Renewable Energy Agency (ARENA) that confirmed technical and commercial viability. Phase 2 activities will include detailed engineering work, environmental and regulatory approvals, and project structuring.

Government backing and strong international interest highlight the project's strategic importance. However, advancing to full delivery will require funding models that recognise and accommodate First Nations led ownership and governance. The project underscores the need for financial instruments that support Indigenous equity participation in utility scale clean energy development.

The East Kimberley Clean Energy Project illustrates the potential of Indigenous driven partnerships to deliver economic empowerment, create new export industries, and sets a precedent for how renewable infrastructure can be developed in collaboration with Traditional Owners, ensuring long term economic and environmental benefits for communities and the nation.



Case Studies: Networks

YURRINGA ENERGY

Yurringa Energy is Australia's first and only First Nations-owned and managed retail energy provider. Established in 2018 and based in Victoria, the company is 100% First Nations-owned and operates with a strong focus on delivering commercially competitive, sustainable energy solutions that are grounded in First Nations values, leadership, and long-term economic self-determination.

Yurringa Energy supplies electricity primarily to large commercial and industrial customers with significant energy requirements, including major infrastructure projects such as Victoria's Northeast Link. This positions the company as not only to deliver social and First Nations outcomes, but as a capable and competitive participant in Australia's mainstream energy market.

A core pillar of Yurringa Energy's model is the creation of First Nations employment, skills development and business

participation across the energy value chain. The company actively recruits, trains and supports First Nations people to enter and lead within the renewable energy sector, addressing historical under-representation while building sustained economic capability and industry leadership.

Yurringa Energy works collaboratively with established energy companies, governments and infrastructure partners to expand its retail market position and pursue future generation opportunities, including bioenergy and other renewable technologies. Its approach represents an emerging, scalable model of First Nations enterprise contributing meaningfully to Australia's clean energy transition, while strengthening First Nations-led economic development and respecting cultural connection to Country.





Case Studies: Networks

ALLEGRO

Allegro Energy, based in Newcastle, New South Wales, is developing breakthrough energy storage technology that contributes directly to Australia's transition to renewable energy. Founded in 2021, the company has advanced a proprietary water based Microemulsion Flow Battery that provides enhanced safety, recyclability, and long duration storage suited to grid scale deployment. Capable of storing energy for more than 10 hours, this technology is designed to strengthen grid reliability and address intermittency in renewable energy supply.

Allegro's development pathway has been supported by targeted government initiatives, including funding through the NSW Government's Clean-Technology Research and Development Program and the Federal Industry Growth Program. Private investment has complemented these

contributions, highlighted by a strategic partnership with Origin Energy to trial the technology at the Eraring Power Station.

The global long duration energy storage market is projected to reach USD \$3 trillion by 2040. Allegro is positioning Australia to benefit from this growth by progressing a solution that is scalable, domestically developed, and aligned with sustainability objectives. The company continues to focus on scaling production capacity, validating performance through field trials, and working within regulatory frameworks to accelerate adoption in Australia and beyond.





Case Studies: Solar

PILBARA SOLAR

Pilbara Solar, based in Western Australia, is advancing renewable energy development and advisory services with a unique co-ownership structure that embeds First Nations leadership at the heart of its operations. Jointly owned by the Yamatji Marlpa Aboriginal Corporation (50%) and renewable energy specialists (50%), the company focuses on utility scale solar, wind, and battery storage projects that align directly with community priorities and regional energy needs.

A central feature of Pilbara Solar's approach is early engagement with Traditional Owners in the planning, design, and delivery of clean energy projects. This model ensures that First Nations groups shape decision making and benefit from participation, governance, and equity ownership. Yamatji Marlpa Aboriginal Corporation (YMAC) appointed directors provide oversight, and project pathways include opportunities for training, employment, and long term community involvement.

The 10 MW Junja solar farm, developed in partnership with the Jinparinya and Wanparta Aboriginal Corporations, demonstrates this model in practice. The project showcases direct First Nations participation in project management and development while contributing renewable power to the region. Pilbara Solar is also supporting other Traditional Owner groups across the Pilbara to explore renewable energy opportunities on their lands, creating new channels for community involvement in Australia's clean energy sector.

By combining technical project development expertise with a First Nations governance model, Pilbara Solar is creating pathways for Aboriginal participation in the energy transition, contributing to regional development, advancing renewable infrastructure, and strengthening Australia's progress toward its net zero objectives.



Case Studies: Transport

ELECTRIC POWER CONVERSIONS AUSTRALIA

Electric Power Conversions Australia (EPCA), headquartered in Hazelmere, Western Australia, is advancing the electrification of heavy vehicles by retrofitting diesel powered mining and road haulage trucks into battery electric vehicles (BEVs). Established in 2022, the company's mission is to lower emissions, reduce operating costs, and adapt existing industrial equipment to zero emission technology.

EPCA's flagship innovation is the E777D, a 100tonne CAT 777D mining truck converted to full battery electric operation. Retaining approximately 80% of its original structure, the E777D replaces diesel components with an electric drivetrain that delivers up to 12 hours of runtime, rapid opportunity charging, and 14% more power in testing than its diesel equivalent. This balance of performance and efficiency makes it among the most advanced retrofit solutions for mining fleets. Strategic partnerships are central to the company's progress.

By collaborating with ABB (formally known as ASEA Brown Boveri), EPCA integrates world class electrification systems including motors, battery packs, thermal management, and charging infrastructure, creating a scalable solution for mid sized mining vehicles.

In 2024, EPCA also signed an exclusive agreement with Janus Electric to retrofit diesel road trucks in Western Australia, extending its technology's reach beyond mining into broader freight transport.

Scaling manufacturing and ensuring performance in harsh mining conditions remain challenges. To address these, EPCA is developing inhouse engineering innovations such as advanced cooling systems for battery packs. These improvements are designed to safeguard reliability, support adoption across demanding operating environments, and demonstrate the resilience of Australian made clean-technology.

Founded by Clayton Franklin, a Wunumara man and experienced electrical engineer, EPCA brings strong Indigenous leadership to the clean-tech economy. The company's approach integrates sustainability and inclusion, positioning it as a contributor to cleaner mining and transport industries while aligning with Australia's net zero goals.



04

POWERING AUSTRALIA ACTIVITY





Powering Australia activity

DATABASE

Powering Australia has invested significant time and resources to create a comprehensive database of Australia's industrial and research capabilities. This work supports economic growth, drives innovation, and strengthens sovereign capability. Our Industry and Capability Database represents a strategic national asset, capturing the breadth of Australia's business, research, and industrial ecosystem.

The database currently includes around 5,500 clean-tech businesses nationwide, and over 1,200 curated clean-tech researchers. The database spans key regional ecosystems and innovation hotspots, integrating information from research organisations, education institutions, government stakeholders, and private industry.

By connecting these diverse data sources, the database establishes a national innovation network that is essential for progressing Technology Readiness Levels (TRLs) and accelerating the translation of research into scalable, market ready solutions.

Key sectoral strengths captured by the database include:

- Industrial decarbonisation
- Solar and wind energy
- Critical minerals and batteries
- Transport and networks
- Research entities and First Nations partnerships

By providing visibility across these critical areas, the database supports data driven decision making, targeted identification of capability gaps, and enhanced collaboration across both geography and sector. It also enables real time tracking of emerging technologies and their maturity, offering a practical tool to direct investment where it can deliver the greatest impact.

Looking ahead, the database will continue to evolve as it is formally launched in alignment with Powering Australia's objectives. It is designed to become a central hub for industry stakeholders, enabling new connections, accelerating growth, and strengthening Australia's role as a global leader in clean-tech innovation.





COMMON USER FACILITIES

The Common User Facilities (CUFs) model recognises the diverse industrial strengths and policy environments across Australian states. To leverage these advantages, CUFs have been established or proposed in each state, tailored to regional capabilities and priorities. This approach serves three primary functions: lowering innovation costs, accelerating technology development, and elevating industry standards by providing dedicated centres of excellence. These facilities create controlled environments where emerging technologies can be piloted and demonstrated, enabling rigorous testing and validation within exploratory settings. Such sandbox environments are crucial for advancing promising innovations towards commercial readiness and competitive market positioning.

Current state-focused CUF initiatives:

• **Victoria: Transport Innovation Precinct**

Powering Australia is advancing a Transport Innovation Precinct focused on decarbonising heavy transport industries. We have completed a concept study with Newmarket Consulting and are seeking funds to complete the next stages in the precinct development. The precinct would position Australia's transport manufacturing industries to transform from fuelled to electrified vehicle platforms.

• **New South Wales: National Electrification Centre**

We are supporting the University of New South Wales and a consortium of NSW universities to develop a business case for a National Electrification Centre. This centre aims to facilitate grid equipment development and testing to accelerate renewable energy project connections across the state.

• **Queensland: Australian Made Battery Manufacturing Precinct**

The Queensland Government withdrew support for the precinct in mid 2025, and dropped its legislated renewable targets in December 2025. We are encouraging other states to work with the Federal Government to capture this opportunity, recognising the strategic importance of domestic battery manufacturing.

• **South Australia: Industrial Test Facility**

A proposal is underway to establish a full-scale heavy industry process test facility in South Australia. A concept is currently being developed which would support the Upper Spencer Gulf region of South Australia.

• **Western Australia: Critical Minerals Advanced Processing Facility**

The Minerals Research Institute of Western Australia (MRIWA) continues to develop its CMAP project, with the support of the Commonwealth. MRIWA has tendered the next stages of the work.

Field trials:

For Australian clean-tech businesses seeking to scale internationally, one of the greatest hurdles is overcoming the “valley of death” where promising innovations must move from research into production, derisked, and proven at scale. Powering Australia is directly addressing this challenge by supporting field trials that enable technologies to be demonstrated under real world Australian conditions. These trials provide a critical pathway to accelerate commercial readiness. By validating performance outside the laboratory, they help reduce investment risk, build market confidence, and increase the likelihood of uptake by domestic and global customers. They also allow companies to refine systems, strengthen business models, and attract the financing required to scale.

Through this work, Powering Australia is helping bridge the gap between innovation and industry, creating tangible opportunities for local technologies to compete successfully in international markets while contributing to Australia's long term clean-tech leadership.





FIRST NATIONS BUSINESS DEVELOPMENT

First Nations peoples and communities are critical partners in Australia's clean energy transition. As employees, project and business owners, community leaders, and land custodians, their active participation is essential to ensuring the transition creates inclusive and enduring benefits. Powering Australia is working to equip First Nations enterprises with the tools and pathways to explore opportunities, manage risks, and play central roles in the emerging clean-tech economy.

This year, we advanced this agenda through the release of Horizon 2035: First Nations as critical partners, which identified priority opportunities and challenges for First Nations in clean-tech markets.

Building on this foundation, two major initiatives are now underway:

- **First Nations Business Resources**
Concise, activity-based resources focused on opportunities such as renewables recycling, solar mounting, and land management. These short guides set out delivery steps, risk and cost considerations, material requirements, and certification pathways to support First Nations enterprises entering and scaling in clean-tech industries.
- **First Nations Clean-tech Business Program:**
A nationally coordinated initiative that amplifies First Nations business priorities, reduces barriers to participation, and builds enabling conditions for viable, scalable enterprises. Delivered in partnership with First Nations organisations, universities, industry, and financiers, the program includes capability building, market access, project development support, and targeted advocacy.

financiers, the program includes capability building, market access, project development support, and targeted advocacy.

Early outcomes include:

- The development of a pipeline of emerging First Nations clean-tech businesses.
- Partnerships with regional stakeholders to advance innovation and commercialisation.
- New procurement and financing pathways through organisations such as CEFC, NAIF, and IBA.





SECTOR COMPETITIVENESS PLANS

Over the past 12 months, Powering Australia has worked extensively with consultants from Deloitte and Cyan Ventures, alongside industry partners, First Nations stakeholders, and other key stakeholders, to develop a suite of Horizon 2035 sector competitiveness plans.

Together, these plans form an integrated roadmap for Australia's clean-tech transition, setting out a new way of thinking about where the nation should focus its efforts as it moves toward net zero. Each plan identifies high-level anchor opportunities grounded in Australia's structural advantages, and highlights where our industries, innovators, and communities are best placed to lead in the global clean economy.

Within this suite, Horizon 2035: An Australian clean-tech roadmap and Horizon 2035: First Nations as critical partners provide foundational guides for national clean-tech leadership and for recognising the central role of First Nations peoples in shaping Australia's clean energy future.

Dedicated Horizon 2035 sector plans for transport, industrial decarbonisation, networks, generation and carbon management—all within our national remit—deliver detailed, large-scale pathways to strengthen competitiveness and resilience across these domains, with First Nations opportunities integrated across our Horizon 2035 plans.

This evidence-based approach, pursued together with government, industry, and community partners, enables Australian ideas, workers, and industries to thrive in the clean economy. Charting practical routes for innovation, validation and market readiness, alongside job expansion, investment attraction, and a stronger, cleaner, more resilient Australia where sustainability and global competitiveness advance hand in hand.

WORKFORCE DEVELOPMENT PLANS

Preliminary work on our complementary Workforce development plans which will extend the Horizon 2035 sector competitiveness plans by building the skilled labour pipeline essential for realising these opportunities.

These plans will outline targeted training programs, upskilling initiatives, and partnerships to equip Australian workers with the capabilities needed to drive clean-tech manufacturing, deployment, and leadership across all sectors.





Looking ahead

Renewed momentum for the Future Made in Australia program and the pathway toward stronger domestic manufacturing is increasingly clear. This program provides a solid foundation to guide investment and policy that support a competitive and innovative clean-tech sector.

Our ongoing productivity review highlights that creating a more enabling business environment and guiding industry toward improved outcomes remain essential. These efforts support sustainable growth and position Australia's manufacturing base to capture emerging global opportunities.

While we continue to navigate challenging global conditions, we are positioning ourselves to turn these headwinds into opportunity, ready to harness the favourable currents ahead and accelerate Australia's clean-tech manufacturing future.

