

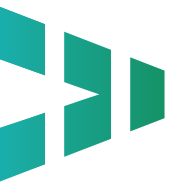
2024-25
2027-28

ARENA
Corporate Plan



Australian Government
Australian Renewable
Energy Agency

ARENA



Contents

01 From the Chair 03

02 Our vision, mission and purpose 05

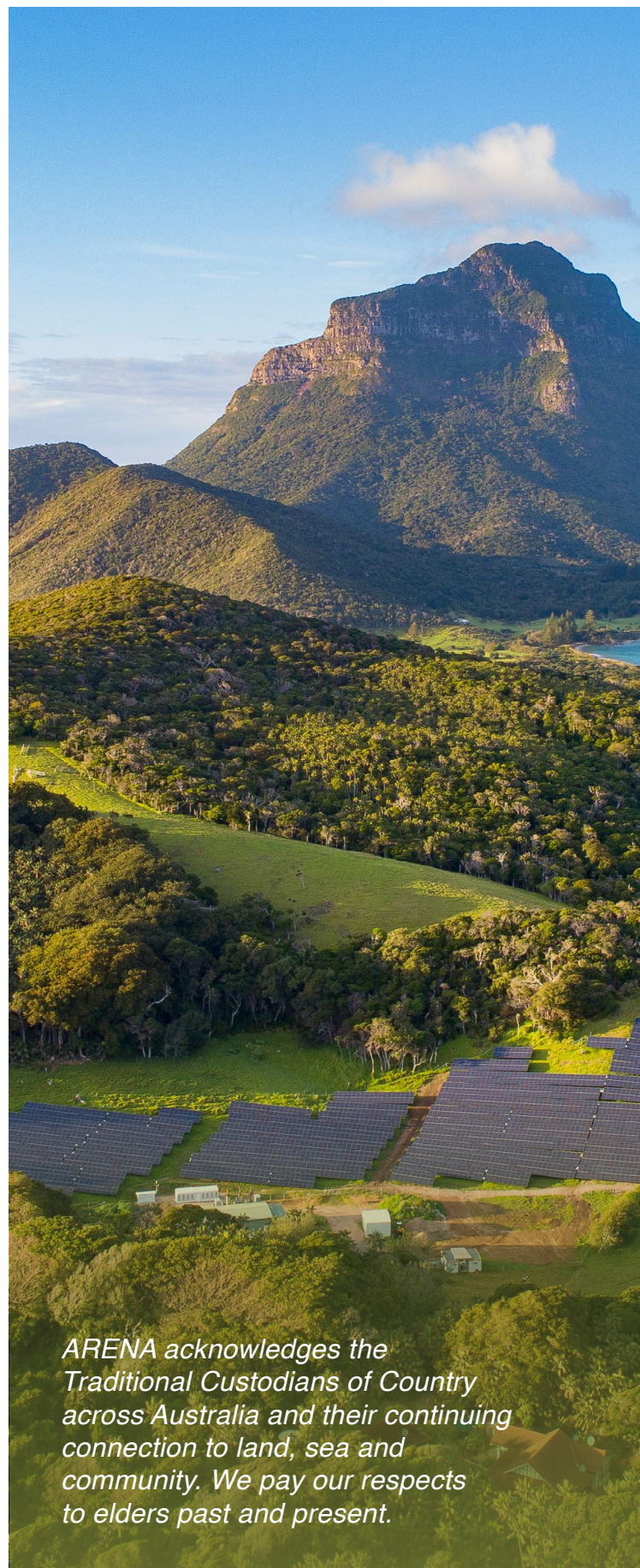
- About ARENA 05
- Our operating environment 09
- Our strategic priorities 11

03 Our key activities 13

- Provide financial assistance to innovative projects that maximise emissions reduction impact and fit within our technology mandate 13
- Manage our portfolio of projects and programs to success 14
- Share knowledge and insights gained through ARENA-supported projects with governments, industry and relevant organisations 14

04 Delivering on our purpose 15

- Capabilities and cooperation 15
- Collaboration across the innovation chain 17
- Performance 18
- Risk oversight and management 22



ARENA acknowledges the Traditional Custodians of Country across Australia and their continuing connection to land, sea and community. We pay our respects to elders past and present.



From the Chair

The physical effects of climate change continue to intensify, leading to unprecedented weather and climate events. The World Meteorological Organisation has confirmed that 2023 was the warmest year on record. The year also marked record low sea ice extent in Antarctica. This reminds us of the criticality of global action, investment, and innovation in the energy transition.

There is cause for optimism, however. At COP28, the most recent international climate summit, nearly 200 countries pledged to triple the world's renewable capacity by 2030, double the annual rate of energy efficiency improvement, substantially reduce methane emissions, and accelerate the just, orderly, and equitable transition away from fossil fuels.

This pledge is being supported by funding efforts worldwide. From the US Inflation Reduction Act and the European Union's NextGenerationEU package to China's significant clean energy investment, we are seeing the increasing global financial support for innovation, commercialisation, and deployment in renewable energy that is crucial to bringing technology and energy costs down.

It is clear this challenge is front and centre for Australia and that ARENA has a pivotal role to play.

ARENA's credibility and track record in delivering impact was most recently recognised in the 2024-25 Federal Budget with record funding committed to continue our core work and unlock additional opportunities.

With the Budget growing our funding capability from \$7 billion to \$14 billion, what is required of ARENA now is fundamentally different to

what was required at the Agency's inception. The new funding allows us to focus on our strategic priorities with a longer-term view and to fund larger-scale projects, particularly with the extension of ARENA's baseline funding and a second round of Hydrogen Headstart.

ARENA will also increase its focus on manufacturing through the \$1 billion Solar Sunshot program and \$500 million Battery Breakthrough Initiative, and on accelerating the growth of new industries through the Future Made in Australia Innovation Fund.

ARENA has made strong progress across our strategic priorities and there is much more to do.

Central to realising Australia's renewable energy superpower vision is ARENA's ultra-low cost solar (ULCS) 30-30-30 goal: 30% solar module efficiency at an installed cost of 30% watt by 2030.

ULCS is now a standalone strategic priority for ARENA with several initiatives established to deliver these goals. This includes ongoing funding support for solar cell research in Australian universities whose incredible work is a significant factor in solar PV's steep cost decline over the past 10-15 years.

Our Solar ScaleUp Challenge, in collaboration with Greenhouse Tech, aims to build a substantial pipeline of innovative projects to achieve this goal by bringing together innovators, customers, financiers and broader industry to reduce the cost of solar PV installation, operations and maintenance. Further, our Solar Sunshot Program will play a key role in building Australian solar manufacturing capability and supply chain resilience, in light of broader global solar supply chain concerns.

In the electricity transition, renewables now account for approximately 40% of energy used in Australia's two largest electricity markets - the National Electricity Market (NEM) and Wholesale Electricity Market (WEM).



We have also seen strong government support for transport decarbonisation with the recent release of the New Vehicle Efficiency Standard, National Electric Vehicle Strategy, and various state government initiatives such as the NSW Government's plan to install 670 additional electric vehicle chargers.

Development of low emissions metals is gaining momentum, with promising innovation beginning to emerge in Australia and globally including the use of hydrogen in iron blast furnaces to decarbonise existing production capacity, direct lithium extraction to build new capacity, and electric pulse crushing to increase efficiency in upstream mining.

ARENA projects have delivered success in the past year, with further optimism from projects in the pipeline.

We enabled the deployment of 370 batteries through the Community Batteries Funding Round, providing important energy storage in the distribution network. We also supported eight grid-scale batteries that added 2 GW of grid-forming inverter capacity to the NEM, bolstering grid security. This represented a ten-fold increase in the operational capacity within the NEM at the time of the funding announcement.

Through support for Australia's first smart charging and vehicle-to-grid (V2G) trials, we accelerated the adoption of V2G and also supported the world's first battery electric vehicle truck fleet purchase.

Our recent support for renewable hydrogen includes Australia's largest under-construction hydrogen electrolyser and crucial R&D to support commercialisation of renewable hydrogen.

On furthering First Nations inclusion and participation, ARENA took an initial step

by supporting a feasibility study for the First Nations-owned East Kimberley Clean Energy and Hydrogen Project, with the aim of strengthening ownership opportunities in the clean energy transition with Traditional Owners as shareholders.

Looking forward, ARENA remains focused on our mission to support the global transition to net zero emissions by accelerating the pace of pre-commercial innovation, to the benefit of Australia.

We are committed to enabling the Government's climate and energy objectives, anchored by the emissions reduction goals of 43% by 2030 and net zero by 2050.

We welcome the trust placed in ARENA by the Australian Government and will work closely with all our stakeholders, towards a net zero world.

Yours sincerely

Justin Punch

Statement of preparation

I, as Chair of the Board of the Australian Renewable Energy Agency (the accountable authority) present our four-year Corporate Plan as required under paragraph 35(1)(b) of the *Public Governance, Performance and Accountability Act 2013*.

Justin Punch

Chair, August 2024

Period of coverage

The Corporate Plan is prepared for the period 2024-25 to 2027-28.



Our vision, mission and purpose

About ARENA

The Australian Renewable Energy Agency (ARENA) was established on 1 July 2012 by the *Australian Renewable Energy Act 2011* (Cth) (ARENA Act). ARENA is a Commonwealth corporate entity under the *Public Governance, Performance and Accountability Act 2013* (Cth) (PGPA Act).

The ARENA Act is supported by the Australian Renewable Energy Agency Regulation 2016, which extends ARENA's functions with respect to renewable energy technologies to include electrification and energy efficiency technologies.

Through our role in improving the competitiveness and increasing the supply of renewable energy in Australia, ARENA is helping to achieve the Government's climate change and energy objectives, anchored by the emissions reduction goals of 43% by 2030 and net zero by 2050.

We acknowledge that Australia's path towards net zero traverses the lands and waters of First Nations Peoples. In carrying out our work, ARENA supports the Government's commitment to meaningful engagement and reconciliation with First Nations peoples. We are incorporating engagement and benefit-sharing requirements into our program guidelines and funding agreements. We have engaged First Nations members and advisers to our Advisory Panel and First Nations cultural advisers to help build our cultural capability.

In accordance with our General Funding Strategy, ARENA provides financial assistance for:

- research into and development of early-stage technologies that are world leading or address specific Australian requirements
- demonstration of the feasibility of new technologies or supporting business models that are novel in application
- pre-commercial deployment of technologies where this is expected to improve the competitiveness of future projects.

Vision

Our vision is a prosperous Australia that is a renewable energy superpower in a net zero world.

Mission

Our mission is to support the global transition to net zero emissions by accelerating the pace of pre-commercial innovation, to the benefit of Australia.

Purpose

Our purpose is to support improvements in the competitiveness and supply of renewable energy and the uptake of energy efficiency and electrification by providing financial assistance and sharing knowledge, to accelerate innovation that benefits all Australians, and facilitates the achievement of Australia's greenhouse gas emissions targets.

Values

We aim to embody and uphold these core values in the way we work:



Respectful of people:

We support and respect each other. We cultivate a diverse team to access the best talent, broaden our thinking and foster a culture of innovation.



Collaborative: We collaborate across teams and with our partners to achieve our goals.



Stakeholder-focused: We deliver excellent service. Our approach is marked by responsiveness, clarity and flexibility.



Accountable: We are accountable to each other and, in following our processes, to the Minister, the Parliament and the Australian public. We work transparently to ensure public funds are spent in a responsible and efficient manner.



Impact-driven: We make a significant positive impact on Australia's energy sector, economy, environment and society. We take a bold, innovative approach to give us the best chance of achieving our goals.

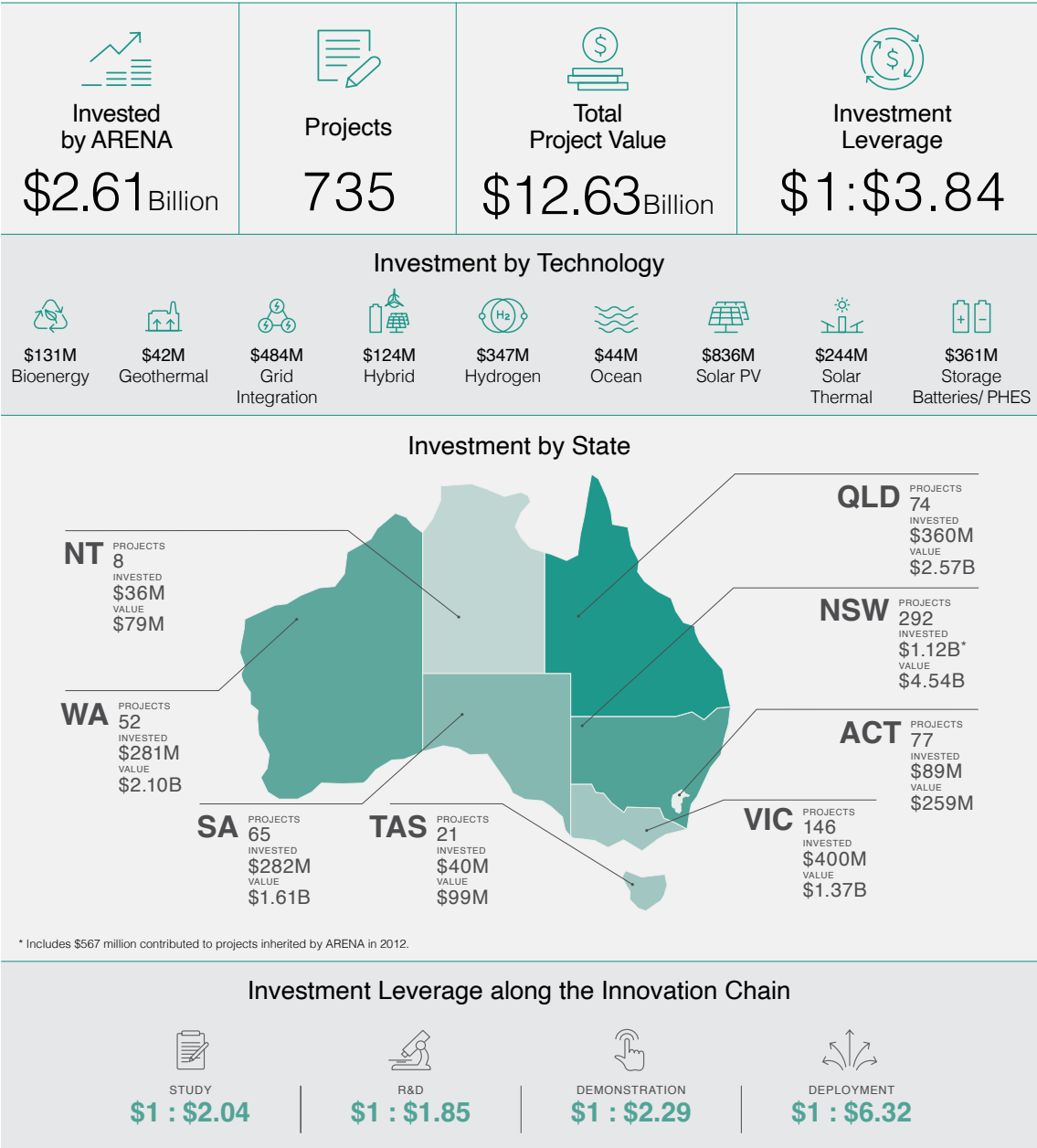


Impact

The impact of ARENA's work is significant. Since 2012, we have been instrumental in building the foundation of the renewable energy ecosystem in Australia. ARENA has committed over \$2.61 billion in grants to 735 renewable energy projects as at 30 June 2024, with a total project cost of \$12.63 billion, meaning that for every dollar of Commonwealth funding third parties have invested \$3.84.*

Figure 1 - ARENA at a Glance - funding commitments to projects 2012-2024

Key statistics 2012-2024



*Investment leverage ratio is calculated and updated at the end of each quarter, based on the current amount committed by ARENA to projects and the current total project cost.



Funding

Since October 2020, ARENA has received funding totalling almost \$12 billion in the form of baseline funding and specific budget measures. This total includes \$7.1 billion over 16 years provided to ARENA in the May 2024 Federal Budget to target priority sectors including renewable hydrogen, green metals, low-carbon liquid fuels, processing and refining of critical minerals, and clean energy manufacturing. The additional funding to ARENA was committed through:

- a \$1.9 billion replenishment of ARENA's baseline funding
- the \$1 billion Solar Sunshot program
- a \$2 billion second round of the Hydrogen Headstart program
- the \$500 million Battery Breakthrough Initiative
- the \$1.7 billion Future Made in Australia Innovation Fund.

Additional information

This Corporate Plan is ARENA's primary planning document and is required under the PGPA Act. It sets out our overall strategy including our operating context, key activities and approach to delivery, performance reporting and risk management for the next four years.

You can also read about ARENA's:

- principal objectives and priorities for providing financial assistance in our **General Funding Strategy**
- strategic priorities and funding programs, as well as how to apply for funding in our **Investment Plan**
- achievements and outcomes to date in our latest **Annual Report**.

These can be found at arena.gov.au/about/publications

Our Operating Environment

Since ARENA's inception in 2012, we have committed \$2.61 billion in funding to 735 projects that have been instrumental in building the foundations of the renewable energy ecosystem in Australia, highlighting ARENA's central role in accelerating the energy transition.



Over this period, ARENA's funding activities have evolved to meet the challenges of Australia's future energy needs, extending into new technologies such as renewable hydrogen and opportunities such as solar and battery manufacturing.

What is required of ARENA now is fundamentally different to what was required in the Agency's early years with significantly more funding being made available.

To maximise our impact, we continually adapt our strategy and delivery approach to the changes in this operating environment.

The investment landscape

While many countries are investing in their own paths to net zero, the global economic environment remains difficult for business. High capital costs are challenging all renewable energy developments, from nascent pilots to capital-intensive projects.

In the United States, the Inflation Reduction Act was introduced to reduce that challenge and attract investment for clean technologies to the US, by offering significantly more government funding than most other countries can provide. The impact of this unprecedented funding will be substantial, not only helping to decarbonise the world's second-largest emitter but also to reduce the cost of clean technologies for all.

Australia is also ensuring it has the capital, innovation, skills, supply chain security, and businesses to successfully make the transition to net zero. The Australian Government committed \$22.7 billion in the May 2024 Federal Budget towards renewable hydrogen, critical minerals processing, green metals, low-carbon liquid fuels, and cleaner manufacturing.

Opportunities and gaps in technology and innovation

Ultra low-cost solar and the electricity transition

Australia's rapid renewable electricity transition is driving decarbonisation of its broader economy. Renewables accounted for almost 40% of electricity in the National Electricity Market in the first quarter of 2024, a significant rise from 12% in 2012.

Government policies are supporting the electricity transition through initiatives such as the establishment of the Net Zero Economy Authority and expansion of the Capacity Investment Scheme to deliver an additional 32 GW of renewable capacity by 2030.

Ultra low-cost solar and storage are crucial enablers for the transition, providing and enabling cheap renewable electricity to decarbonise the grid. These technologies will also be important inputs to the electrification of industry and transport and the production of renewable fuels such as hydrogen.

Recognising this, the \$22.7 billion *Future Made in Australia* package included \$1 billion for the Solar Sunshot program to build Australia's solar photovoltaic manufacturing capabilities and \$500 million for the Battery Breakthrough Initiative to develop Australia's battery manufacturing capabilities.

There are many challenges still to work through. Renewables remain the cheapest sources of energy, but require significantly more firming, including energy storage, to balance the variability of renewable energy sources and provide essential system services. Australia must also address supply chain and workforce constraints, streamline planning and approvals

processes, and foster community support (also known as social licence) to mitigate delays in building transmission infrastructure and making grid connections.

There have been promising developments on the electricity demand side, with market integration trials such as Project Symphony, Project Converge and Project EDGE demonstrating flexible demand solutions and consumer energy resource (CER) integration.

Renewable hydrogen

The renewable hydrogen sector continues to work through the commercial and technical challenges faced by early projects, with a growing awareness emerging of how green hydrogen may provide the most likely pathway to decarbonisation. Beyond the US Inflation Reduction Act, other regions have accelerated their support for renewable hydrogen including the European Hydrogen Bank auction and Japan's contract for difference model. This support is crucial to establish the industry by bridging the commercial funding gap for early projects.

Australia has responded to the challenge with the Hydrogen Headstart program, co-designed with the Department of Climate Change, Energy, the Environment and Water and delivered by ARENA with \$4 billion in funding. The Hydrogen Production Tax Incentive was also announced in the May 2024 Federal Budget, for which an estimated \$14.4 billion was allocated for delivery from 2024 to 2041.

Transport

Australia has seen continued but slow growth in battery electric vehicle sales, which reached 10% of total new passenger and light commercial vehicle sales in early 2024. Despite improvements in vehicle availability and cost, challenges persist including the cost and delays associated with grid connection for chargers.

Heavy vehicles are at an earlier stage of decarbonisation, although Australia has achieved early success with the launch of its first multi-truck battery electric vehicle trial, supported by ARENA.

Transport decarbonisation has also been supported by Government efforts through the National Vehicle Efficiency Standard, National Electric Vehicle Strategy, and Driving the Nation Program. Further support was announced in the May 2024 Federal Budget including funding for low-carbon liquid fuels under the \$1.7 billion Future Made in Australia Innovation Fund to be delivered by ARENA.

Low emissions metals

In the hard-to-abate metals sector, Australia's shift to low emissions iron and steel has continued slowly in a transition led by European front runners. R&D investment and emerging collaboration partnerships are adding promising momentum to the pace of innovation in Australia.

However, this progress comes at a cost; as technology pathways mature, the sector will face the next challenge of meeting the significant capital requirements of green metals production.

Australia is well-positioned to become a green iron powerhouse, but is reliant on supporting industries, especially renewable hydrogen, reaching maturity and commercial viability to capitalise on this opportunity. In the alumina and aluminium value chains, Australia is poised to be a global leader as green pathways develop, furthered by support for onshore manufacturing.

Globally, many governments have increased focus on critical energy minerals as demand surges and traditional suppliers are disrupted by preferences for sources with greater ESG credentials. This shift presents an opportunity for Australia to establish decarbonised minerals processing and make the most of its significant reserves and reputation as one of the most trusted suppliers in the critical energy minerals sector.

To navigate this operating environment, ARENA will continue to collaborate with our stakeholders, ranging across government, communities, industries, and business; and focus our efforts where we can have the greatest impact. We will continue to work diligently towards our vision, mission and strategic priorities, for Australia's net zero future.



Our strategic priorities

Our strategic priorities focus on the next phase of technology research, development, deployment and commercialisation needed to achieve net zero.

ARENA will:

- play a leading role in unlocking ultra low-cost solar, the most important generation technology required to enable Australia's renewable energy superpower vision
- optimise the transition to an electricity system powered by variable renewables by unlocking new sources of flexible demand, improving the economics of energy storage and optimising the integration of renewable energy
- support the commercialisation of a viable renewable hydrogen industry in Australia by investing in renewable hydrogen production and delivery and proving the viability of the most prospective end uses
- support the transition to low emissions metals focusing on the steel, aluminium and other critical energy mineral value chains
- focus on the development of transport decarbonisation pathways, including light and heavy road transport.

These priorities reflect our mission – to support the global transition to net zero emissions – by lowering the cost and increasing the availability of renewable energy; growing the share of renewables in the electricity mix; supporting fuel-switching, energy efficiency and electrification where possible; becoming more flexible about when we use electricity; and supporting the development of technology solutions for hard-to-abate sectors where a pathway to lower emissions is expensive or currently not feasible.

Figure 2 - Our purpose, priorities and key activities








Mission

to support the global transition to net zero emissions by accelerating the pace of pre-commercial innovation, to the benefit of Australia.

Purpose

To support improvements in the competitiveness and supply of renewable energy and the uptake of energy efficiency and electrification by providing financial assistance and sharing knowledge, to accelerate innovation that benefits all Australians, and facilitates the achievement of Australia's greenhouse gas emissions targets.

ARENA's Strategic Priorities and Focus Areas					
	Unlock ultra low-cost solar <ul style="list-style-type: none"> • Ultra Low-cost Solar 	Optimise the transition to renewable electricity <ul style="list-style-type: none"> • Flexible Demand • Energy Storage • Large-scale Integration 	Commercialise renewable hydrogen <ul style="list-style-type: none"> • Renewable Hydrogen 	Support the transition to low emissions metals <ul style="list-style-type: none"> • Steel Value Chain • Aluminium Value Chain • Critical Energy Minerals 	Decarbonise transport <ul style="list-style-type: none"> • Light Road Transport • Heavy Road Transport

Budget Measures	Solar Sunshot	Regional Microgrids Program	Hydrogen Headstart	National Industrial Transformation Program
	Battery Breakthrough Initiative	Community Batteries	Driving the Nation	Industrial Transformation Stream (Powering the Regions)
	Future Made In Australia Innovation Fund	Large Scale Battery Storage	Sustainable Aviation Fuel	

Key Activities

- **Provide financial assistance** to innovative projects that maximise emissions reduction impact and fit within our technology mandate
- **Manage our portfolio** of projects and programs to success
- **Share knowledge and insights** gained through ARENA-supported projects with governments, industry and relevant organisations

Delivering on our Purpose

Through our capabilities and cooperation, performance and risk management.



Our key activities

1. Provide financial assistance to innovative projects that maximise emissions reduction impact and fit within our technology mandate

ARENA's financial assistance is commercially focused and provided to advance technologies or business models towards commercial readiness. We seek to provide the minimum financial assistance needed to achieve an outcome, maximising the value of public investment.

ARENA provides financial assistance grants, which are generally upfront capital support payments for achievement of milestones. Increasingly, we also provide grants linked to the production of end commodities or products such as hydrogen. These production-linked grants provide the necessary financial support for new technologies while balancing risk.

Where there is the possibility of a significant upside from a project in the future, we may include a recoupment right that provides for some or all grant funding to be returned if the upside scenario eventuates. Doing so ensures that funding continues to represent value for the Australian taxpayer.

ARENA's financial assistance comes from either our **baseline** funding or funding provided for specific budget measures.

Financial assistance from ARENA's baseline funding is provided through:

- the Advancing Renewables Program (ARP), which funds renewable energy projects at various stages of development and is continuously open for applications
- specific research and development programs, which are available periodically to fund strategic research across various priority areas aiming to support the commercialisation of technologies emerging from the research sector.

In addition to committing baseline funding to eligible projects, we use our expertise to deliver targeted Budget initiatives such as the Hydrogen Headstart program and the Solar Sunshot program.

More details about our financial assistance activities can be found in the ARENA Investment Plan. See arena.gov.au/about/publications/funding-investment-plan.

2. Manage our portfolio of projects and programs to success

ARENA manages investments with both a collaborative and proactive approach.

We understand that projects don't always go to plan and therefore adopt a pragmatic and commercial approach to manage projects and programs to success.

We work closely with our grant recipients to understand the causes and impact of delays, cost overruns and other relevant challenges, and we consider requests for variation in alignment with our publicly available Variations Policy to help recipients achieve project outcomes.



3. Share knowledge and insights gained through ARENA-supported projects with governments, industry and relevant organisations

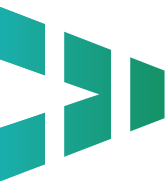
We share what we learn so that governments, industry and the public are better informed to navigate the energy transition. Our work contributes to building social licence and trust.

All recipients of ARENA funding are required to share the knowledge gained throughout the life of their project. Our approach to maximising the value of projects through this knowledge sharing is recognised as having a positive impact on industry.

We also provide quality portfolio insights to industry through data analysis, targeted studies and reports. Our access to a broad range of cutting-edge projects places ARENA in a unique position to bring valuable insights to

industry. We build on project lessons by identifying and communicating portfolio-level trends and insights that, in turn, help to accelerate the pace of pre-commercial innovation in renewable energy technologies in Australia.

We bring together industry stakeholders, researchers and policymakers through targeted events and collaboration networks to share outcomes, insights and trends from our projects. This collaboration enables us to work with industry to identify and address barriers to commercially competitive renewable energy technologies and contribute to the development of future standards and regulatory frameworks that support the advancement of these technologies in Australia.



Delivering on our purpose activities

Capabilities and cooperation

Specialised workforce

ARENA requires a highly specialised workforce to effectively provide funding to the rapidly growing clean energy sector. We have a complex workforce model and recognise that our people and their skills, experience and capabilities are at the centre of ARENA's success. Our focus is on continuing to improve the attraction and experience of working at ARENA and we are committed to making ARENA the most compelling place to work in the Australian energy transition

Rigorous project assessment and selection

We apply a rigorous approach when assessing the merit of projects for funding, taking into account risk and value for money. Our assessment and selection processes aim to ensure we do not fund projects that would proceed at the same pace or scale without ARENA support. We provide funding where it will reduce risk, accelerate the project, or share knowledge that otherwise would not be made public.

Risk-based and portfolio approach to project management

ARENA's team of experienced client managers is focused on managing projects to success and are strongly customer and outcome focused. We work closely with funding recipients to ensure each project delivers value for money. Our project portfolio is risk rated and managed accordingly, enabling us to balance rigour and efficiency, maximise the chance of success, and efficiently vary or terminate non-performing projects. Portfolio management of funding agreements also allows us to monitor technology areas to appropriately identify and respond to broader risks and issues, as well as to inform new program design.

Corporate climate commitments

ARENA has a strong reputation for climate impact, and we want to ensure the projects we fund continue to be delivered by credible organisations with similar objectives. During 2023, we evolved our approach to consider the applicant's own climate performance in the



funding decision-making process. Applicants are now required to provide relevant information including their emissions reduction targets, climate governance, climate litigation and whether they have a Climate Transition Action Plan in place.

Increasing impact through knowledge sharing

With extensive networks, established forums, media and social media channels, ARENA shares knowledge broadly to help the Australian community navigate the energy transition. We also connect and inform industry, researchers, scientists and businesses through reports and newsletters, events, webinars and other online forums including podcasts, videos, the ARENAWire blog, website and social media channels to reach a broader audience and amplify our work.

These activities are made possible by ARENA's strong analytical, engagement and communication capabilities.

Continuous improvement

We continuously refine ARENA's performance framework and grant management processes. We also evaluate the extent to which our programs are delivering on ARENA's purpose. Recognising the ever-growing importance of high-quality data, ARENA has established a specialised data function that is responsible for both data management and performance reporting. Improving how we measure and report allows us to improve ARENA's performance.

Bringing together people and ideas

ARENA brings together the right innovators, regulators, policy makers, researchers, industry participants and consumer bodies to drive change in the energy sector.

Collaboration networks such as the Distributed Energy Integration Program have created a space for strategic discussion and coordination of complex, multi-stakeholder challenges related to distributed energy resources. Building on the success of this program will ensure that behind-the-meter devices such as rooftop solar, home batteries, electric vehicles and smart appliances benefit all users of the energy system and are integrated efficiently into networks and markets.

Through A-Lab, ARENA's innovation program, we have created cross-sector partnerships and world leading projects that draw on a network of people with the expertise and passion to drive systemic change in the energy sector. A-Lab is focused on supporting stakeholders from across the energy sector to build new connections so that they may come up with collaborative and innovative solutions to some of the most complex and urgent challenges facing the energy transition. ARENA will also continue to bring promising startups and entrepreneurs in renewable energy technologies together with investors as part of the fifth year of our partnership with Innovation Bay to host the Renewable Energy Founder Forum.



Collaboration across the innovation chain

As an Australian Government agency, ARENA assists in delivering the Government's support for innovation and energy sector reform.

We also liaise with and strive to complement other organisations across the innovation chain to share critical knowledge and invest in Australia's net zero future (see Figure 3).

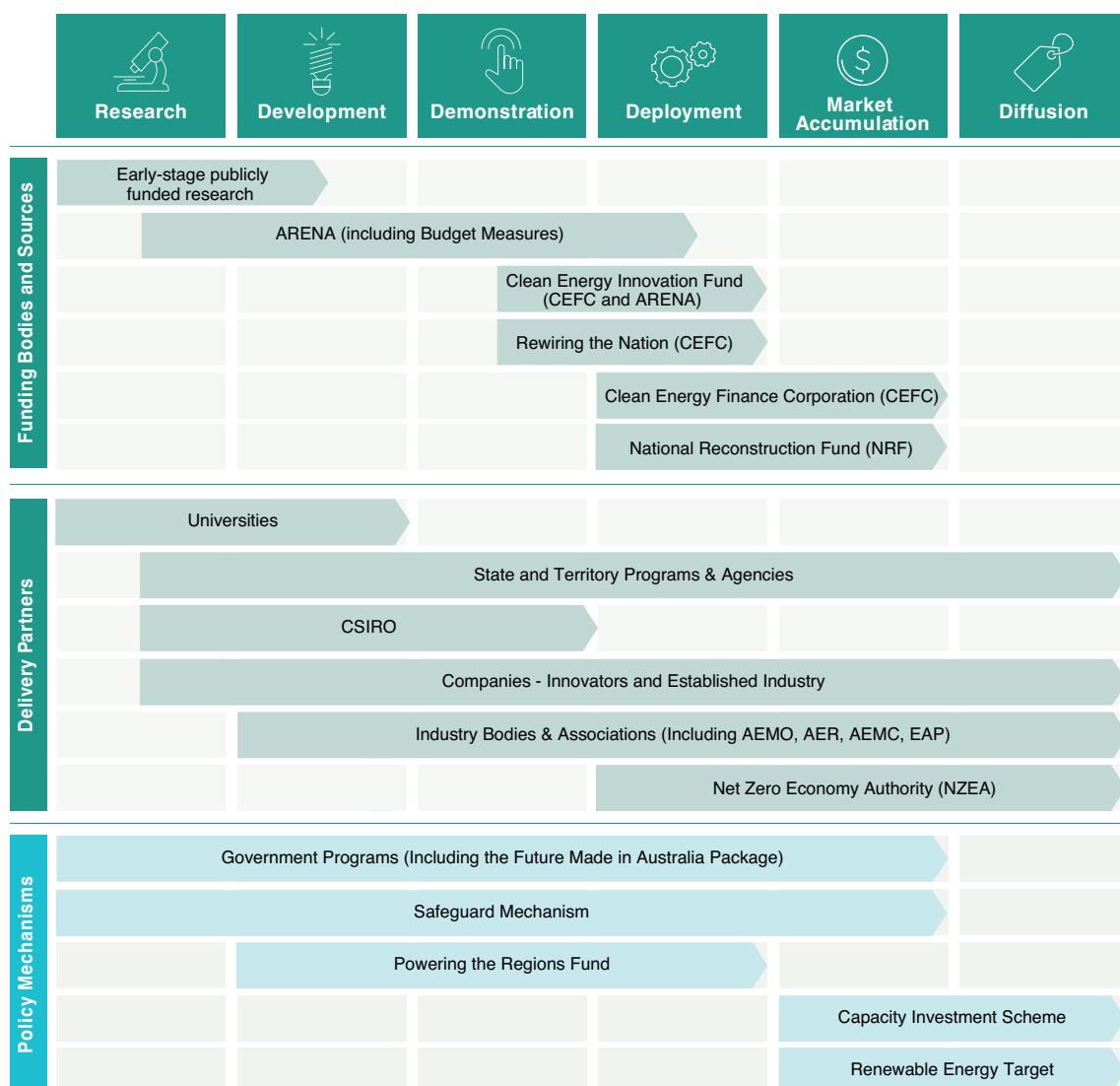
Those organisations include the Clean Energy Finance Corporation (CEFC), CSIRO, Clean Energy Regulator (CER), Australian Energy Market Operator (AEMO), Australian Energy Market Commission (AEMC), Net Zero Economy Authority, National Reconstruction Fund, co-operative research centres and innovators in industry.

In particular, we work with the CEFC to administer the Clean Energy Innovation Fund (Innovation Fund). ARENA has two representatives on the investment committee of the Innovation Fund and we provide technical and commercial advice as required. More information on the Innovation Fund is available at [cefc.com.au/innovation fund](https://cefc.com.au/innovation-fund).

We stay connected with our portfolio Department - the Department of Climate Change, Energy, the Environment and Water - as well as other departments and state and territory governments, and continuously look for opportunities to collaborate, share knowledge and co-invest in innovation.

As more Government agencies ramp up their activity in support of Australia's net zero goal, this collaborative approach will be more important than ever.

Figure 3 - Collaboration across the innovation chain



Performance

ARENA's performance measures and targets outline what we aim to achieve through the key activities designed to deliver on our purpose. With the recent review of our enterprise performance measures, we have expanded our key activities from two to three, adding a new focus on management of our portfolio of projects and programs.

ARENA is planning to evolve how we measure the effectiveness of our activities, including knowledge sharing impact with development of new performance measures. In selecting each performance measure, we have considered its relevance to the key activity or outcome, its influence and ability to be measured, and the provision of a mix of performance measures and targets to give a complete view of performance.

The performance measures map below illustrates how our performance measures align with key activities, demonstrating their contribution to achieving our strategic objectives and overall purpose.



Performance measures map

Outcome

Support improvements in the competitiveness of renewable energy and related technologies and the supply of renewable energy by administering financial assistance, developing analysis and advice about, and sharing information and knowledge with regards to, renewable energy and related technologies

Program

To provide financial assistance to Australian researchers, innovators and business for projects that have the potential to lead to the commercialisation of new renewable energy products or services; and to support collaboration and knowledge sharing to make information and data available to a diverse audience and help increase the spread of ideas.

Key Activities	#	Performance Measures
Provide financial assistance to innovative projects that maximise emissions reduction impact and fit within our technology mandate.	PM1	ARENA approves funding that supports renewable energy technologies.
	PM2	ARENA approves innovative projects that will maximise future emissions reduction impact.
	PM3	ARENA financial assistance catalyses increased third-party investment in renewable energy technologies that will enable future emissions reduction impact.
Manage our portfolio of projects and programs to success.	PM4	ARENA is efficient at selecting high-merit projects and delivering them to completion to maximise future emissions reduction impact.
	PM5	Projects delivered by ARENA funding recipients advance technological readiness or commercial readiness of renewable energy technologies that will enable future emissions reduction impact.
Share knowledge and insights gained through ARENA-supported projects with governments, industry and relevant organisations.	PM6	ARENA shares knowledge to enhance the competitiveness of renewable energy technologies.
	PM7	Governments, Industries, the public, and other organisations are aware of the knowledge sharing and collaboration efforts of ARENA.
	PM8	Governments, Industries and other organisations use insights from ARENA projects, and studies to inform decision-making (including policy and regulatory design) that increases the supply and competitiveness of renewable energy technology.

Performance measures and targets

Key Activity 1: Provide financial assistance to innovative projects that maximise emissions reduction impact and fit within our technology mandate.

Performance Measure 1	ARENA approves funding that supports renewable energy technologies.			
	2024-25	2025-26	2026-27	2027-28
Planned performance results	Funds approved: \$488.5 million	Targets will be developed at the beginning of each financial year, based on Government commitments.		
Rationale	ARENA provides funding to support funding recipients in developing renewable energy, enabling and decarbonisation projects that will increase adoption and integration of renewable energy technologies in order to enable future emission reduction. ARENA has developed this measure to evaluate the extent to which ARENA's funding is being delivered to support funding recipients.			
Methodology and data source	Performance will be assessed by the value of ARENA funding that the Board or CEO has approved during the financial year relative to yearly targets (actual payments are subject to successful negotiation of contract and milestone delivery and are not reflected in this target). Data will be drawn from ARENA's grant management system to determine results.			

Performance Measure 2		ARENA approves innovative projects that will maximise future emissions reduction impact.		
Planned performance results	2024-25	2025-26	2026-27	2027-28
	20 projects approved	Targets will be developed at the beginning of each financial year based on strategy setting.		
Rationale	ARENA provides funding to support funding recipients in developing innovative renewable energy, enabling and decarboinsation projects that will increase adoption and integration of renewable energy technologies in order to enable future emissions reduction. ARENA has developed this measure to evaluate the number of projects that ARENA funds that align to its mandate under the ARENA Act. ARENA will only fund projects that are considered innovative against the merit criteria aligned to the different programs ARENA delivers.			
Methodology and data source	Performance will be assessed by internal analysis of the quantity of ARENA projects that the Board or CEO has approved during the financial year irrespective of successful contract negotiation. Data will be drawn from ARENA's grant management system to determine results.			

Performance Measure 3	ARENA financial assistance catalyses increased third-party investment in renewable energy technologies that will enable future emissions reduction impact.			
	2024-25	2025-26	2026-27	2027-28
Planned performance results	ARENA funding to third-party funding leverage ratio of at least 1:2 across the portfolio	As per 2024-25	As per 2024-25	As per 2024-25
Rationale	<p>The measure will assess how ARENA's funding increases third-party investment in renewable energy technologies, that will maximise emissions reduction impact.</p> <p>Furthermore, the measure enables ARENA to assess how third-party capital demonstrates interest in the market for commercialising technologies in the longer term.</p> <p>ARENA uses the Leverage ratio to demonstrate the degree to which third-party capital makes taxpayers' dollars go further.</p>			
Methodology and data source	<p>Performance will be assessed by ARENA's analysis of the third-party investments in renewable energy technologies for each innovation stage and as an average across all innovation stages.</p> <p>Data will be drawn from ARENA's grant management system to determine results.</p>			

Key Activity 2: Manage our portfolio of projects and programs to success.

Performance Measure 4				
	2024-25	2025-26	2026-27	2027-28
Planned performance results	Project fall over rate of between 5 and 15%.	Targets for forward years will be developed in 2025-26 using the outcomes from 2024-25.		
Rationale	<p>The measure will evaluate ARENA's ability to select projects that align with its merit criteria and then manage these funding agreements to completion.</p> <p>The project fall-over rate represents the percentage of approved projects that are either not contracted or terminated (ended early) anytime after Board approval, i.e. either during negotiation or 'active' stages.</p> <p>For ARENA, terminations may represent 'wasted effort' if minimal knowledge sharing outcomes are not gained, recognising that failure can offer good insights to a sector. This measure primarily focuses on assessing 'wasted effort' and serves as an indicator of ARENA's efficiency i.e. whether it is spending its time on projects where there is awareness of project risks.</p> <p>An absence of fall overs may indicate excessive conservative assessment or an overly cautious approach. A high fall over rate may indicate a high-risk threshold (which is recognised may not equate to inefficiency).</p>			
Methodology and data source	<p>Performance will be assessed by internal analysis of project fall over.</p> <p>Data will be drawn from ARENA's grant management system to determine results. For all projects considered 'Approved' or 'Active' within the financial year, the percentage that ended with a 'Negotiation Terminated' or 'Terminated' status in that year will be calculated.</p> <p>'Approved' includes projects under negotiation at the beginning of the year and those approved throughout the year.</p> <p>'Active' includes projects that were managed by ARENA at the start of the year, as well as those that had a funding agreement executed during the year.</p> <p>Project Fall Over Rate = 'Negotiation Terminated' or 'Terminated' / 'Total Approved' or 'Active'</p>			

Performance Measure 5				
	2024-25	2025-26	2026-27	2027-28
Planned performance results	80% of completed projects achieve an increased Commercial Readiness Index (CRI) or Technology Readiness Level (TRL) over the life of the project.	As per 2024-25	As per 2024-25	As per 2024-25
Rationale	<p>ARENA has developed this measure to evaluate the performance of projects delivered by its funding recipients and the ability of such projects to advance the technological or commercial readiness of renewable energy technologies.</p> <p>TRL is a globally accepted tool for benchmarking technologies that, ARENA applies in our programs. ARENA uses TRL to assess the technological maturity (or readiness) of a project's renewable technology and/or business model.</p> <p>CRI enables ARENA to measure the performance of projects not only in terms of TRL but also to the point where the deployed technology or application is a bankable asset class, driven by the traditional market forces. Furthermore, CRI provides ARENA with a means to measure the maturity of projects to ensure they become commercially competitive.</p>			
Methodology and data source	<p>Performance will be assessed through surveys conducted with ARENA funding recipients to determine increased TRL and CRI from collective projects.</p> <p>Data will be drawn from surveys conducted in tranches of approximately 10-15 projects throughout the financial year. Data is provided to an external service provider to produce a report for each project to assess the TRL and CRI increase. The external service provider conducts an overall analysis of the TRL and CRI across all projects to produce the result.</p>			

Key Activity 3: Share knowledge and insights gained through ARENA-supported projects with governments, industry and relevant organisations.

Performance Measure 6		ARENA shares knowledge to enhance the competitiveness of renewable energy technologies.			
		2024-25	2025-26	2026-27	2027-28
Planned performance results		50% of survey responses note that the knowledge shared by ARENA has informed part of their decision-making processes.			
Rationale	Sharing knowledge about renewable energy technologies will help industry to learn quickly and can inform regulatory and policy change and support effective decision making. This measure provides evidence that knowledge is being shared with people who can (and do) use it.				
Methodology and data source	Actual performance will be reported using responses to ARENA's regular stakeholder research question: "Has your organisation used ARENA resources and information to support decision making within your organisation?" Data will be drawn from ARENA's Annual Stakeholder Survey results.				

Performance Measure 7		Governments, Industries, the public, and other organisations are aware of the knowledge sharing and collaboration efforts of ARENA.			
Planned performance results	2024-25	2025-26	2026-27	2027-28	
	(a) Design measure methodology and plan.	Targets for forward years will be established in 2025-26. This measure will be refined based on subsequent baseline data.			
	(b) Conduct baselining				
Rationale	Target audiences need to be aware of ARENA Knowledge sharing efforts, in order to be influenced by them. The awareness can help build trust, encourage resource sharing and enhance the overall impact and reach of ARENA's initiatives. This measure aims to determine the audience reach of ARENA's knowledge sharing and collaboration efforts.				
Methodology and data source	The methodology and data source for this new measure will be developed in the 2024-25 reporting year.				

Performance Measure 8		Governments, Industries and other organisations use insights from ARENA projects, and studies to inform decision-making (including policy and regulatory design) that increases the supply and competitiveness of renewable energy technology.			
	2024-25	2025-26	2026-27	2027-28	
Planned performance results	(a) Design measure methodology and plan.	Targets for forward years will be established in 2025-26. This measure will be refined based on subsequent baseline data.			
	(b) Conduct baselining				
Rationale	ARENA's knowledge sharing efforts aim to inform decision makers in the energy sector, whether they be governments, market bodies, developers, technology providers or researchers. This measure seeks to determine whether ARENA knowledge is being used to inform decision making within these target audiences.				
Methodology and data source	The methodology and data source for this measure will be developed in the 2024-25 reporting year.				

Risk oversight and management

ARENA has embedded risk management into our culture to support well-informed investment decision making and project management. As a taxpayer-funded entity, we seek to maximise the value of the financial assistance that we provide. Value is maximised when our activities strike the optimal balance between risks and opportunities, and when we effectively and efficiently deploy resources.

Our Risk Management Framework, principles and processes are based on the International Standard for Risk Management (ISO 31000:2018). We apply five principles to our risk management activities to create and protect value for all Australians. The principles test if ARENA's risk management activities are proportionate, aligned, embedded, dynamic and comprehensive.

We embrace innovation through new solutions and ideas that will transform Australia's energy markets. We acknowledge that some of the projects we fund may not fully achieve their original objectives, which is one reason why knowledge sharing is an important part of ARENA's activities. Technology and commercialisation failures will occur, and we accept this as a risk. With robust project management processes and the due diligence conducted on every project, we mitigate the project risks to ARENA.

ARENA's risks are identified and assessed through a consistently applied and replicable methodology. This follows a structured approach that encompasses the context, identification, assessment, analysis and treatment of risks. The risk management framework also features effective communication and monitoring of the portfolio risk profile and risk management activities.

Our strategic risk management including reporting addresses the highest level of risk that would impact us achieving ARENA's purpose and deliver on our strategies. In line with risk management practices, these risks are monitored throughout the year by the ARENA Board and the Risk and Audit Committee. ARENA's risk appetite (the total impact of risk an organisation is prepared to accept in the pursuit of its strategic priorities) is reviewed annually.

ARENA currently has six identified strategic risks.

1. ARENA-funded projects are delayed, not delivered or of low quality

Successful project implementation is critical for ARENA. As the focus shifts towards larger (and often more complex) projects with

significant public interest, there is a higher level of expectation and scrutiny on ARENA to successfully support implementation of these projects including timely delivery.

2. ARENA is unable to attract and retain the right people

The challenge to attract and retain workers is ever increasing as people with relevant skills and understanding of the clean energy transition are in high demand. ARENA is competing for talent on all levels and to ensure an attractive workplace and deliver on our mandate we use strategic workforce planning and invest in our people.

3. ARENA does not acquire, maintain and integrate the required processes and systems to support our people and our business as it evolves

ARENA must evolve systems and capabilities to support our people and ensure continuing success in a changing environment that involves a rapidly growing business, elevated political and public attention, competition as a delivery partner, and a more complex stakeholder environment.

4. ARENA loses the trust of Government, industry, or the public

Value from the financial assistance we provide to market participants is maximised when there is strong alignment between ARENA and our stakeholders. Maintaining good relationships with Departments and their responsible Ministers, as well as with industry and the Australian public is essential to ensure ARENA remains a key and trusted delivery partner in the energy transition.

5. ARENA is not identifying and responding to rapid changes in our macro environment

ARENA's strategy development and execution heavily relies on a sound understanding of the national and global events that impact our work. While there is increasing uncertainty at the international level in the renewable energy field, we are regularly reviewing ARENA's operating environment to ensure our decisions are reflective of relevant changes.

6. ARENA does not maximise its impact

The number of projects supported by ARENA is ever increasing, covering most areas of the renewable energy sector. From renewable green hydrogen to community batteries, we are constantly interrogating our strategy and decisions, ensuring that we focus on what matters and allocating resources accordingly to maximise our impact.

Further information is available
at arena.gov.au

Australian Renewable Energy Agency

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Learn more:



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