

Clean Energy Australia

2026



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COUNCIL**



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Templers BESS (SA) · 138 MW / 330 MWh

COD achieved with Sungrow PowerTitan BESS, PCS & EMS

Cunderdin PV + BESS (WA) · 100 MWac + 220 MWh

In operation with Sungrow DC-coupled PV + PowerTitan BESS

Tauhei Solar Farm (NZ) · 150 MWac

Under construction with Sungrow central inverters + power plant controller

Mannum Solar Farm (SA) · 30 MWac

In operation with Sungrow central inverters

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Acknowledgement of Country

We respectfully acknowledge Aboriginal and Torres Strait Islander peoples as the Traditional Custodians of the lands and waters on which we work and live. We commit to collaborate with First Nations communities, to promote sustainable practice, protect ancient sites and culture with equitable access to the benefits of clean energy. Sovereignty has never been ceded.

We acknowledge Elders, past and present, and their continuing culture and connection to Country.



A message from our CEO



New leadership at a defining moment for clean energy

On 20 October 2025, I took over the reins at the Clean Energy Council with a remit to accelerate progress as Australia goes through a critical delivery period in its transition to a clean energy future.

Australia's energy transition is one of the most significant economic reforms of our time. It will shape not only how we power our homes and industries, but whether Australia secures a lasting competitive advantage in a rapidly changing global economy.

Strong progress, real outcomes

The data in this year's report shows how far we have already come. Renewables now account for 42.7% of Australia's electricity generation, and for the first time, exceeded fossil fuels in the final quarter of 2025. Australia is now the third-largest utility-scale battery market globally, behind only China and the United States. Meanwhile uptake of consumer energy resources continues to accelerate, with more than 4.3 million households installing rooftop solar and close to 300,000 home batteries added in 2025 alone.

This progress is delivering tangible benefits. As renewable supply increases, wholesale electricity prices are beginning to ease, and Australia is building a more resilient and diversified energy system.

It also reflects the federal government's efforts to drive the transition at scale, bringing together industry, communities and stakeholders through programs that are moving the dial on both large-scale and distributed energy.

Energy independence is a national priority

Recent global fuel volatility has reinforced Australia's exposure to international energy markets it does not control. Wholesale electricity prices continue to be influenced by global gas prices,

and disruptions abroad flow quickly through to households and businesses.

The clean energy transition provides a pathway to reduce that exposure. Unlike imported fuels, Australia's renewable resources are domestic, abundant and not subject to geopolitical disruption. Building a system based on these resources strengthens energy security, improves resilience and reduces long-term cost volatility. Because Australian sun and wind cannot be blockaded in the Strait of Hormuz.

The next five years matter most

The question now is whether we translate this progress into sustained economic advantage.

The decisions made over the next five years will determine the cost, reliability and structure of Australia's energy system for decades. Delaying the transition does not reduce risk – it entrenches it. Continued reliance on ageing coal assets, imported fuels and volatile global markets will result in higher long-term costs and reduced system reliability.

At the same time, global competition is intensifying. Emerging industries such as green iron and green hydrogen are attracting significant international investment, with long-term supply agreements being secured now. If Australia does not establish a credible supply of renewable energy this decade, those opportunities will shift elsewhere.

Maintaining momentum is critical

Transmission infrastructure must be delivered on time to connect new generation and support system reliability. With a significant proportion of the coal fleet expected to retire by 2035 – and with declining reliability already evident (247 unplanned coal outages in 2025) – replacement capacity must be brought online in a coordinated way.

Policy frameworks must also keep pace with market conditions. While mechanisms such as

the Capacity Investment Scheme have supported storage investment, further work is needed to ensure generation projects can reach financial close in a higher-cost environment.

Industry continues to face obstacles to scale

Our members keep telling us about the challenges they face – from obtaining timely planning and environmental approvals to securing grid connections, uncertainty around policy and community engagement fatigue. Their message is consistent: while the sector is ready to invest and build, too many barriers remain.

Energy infrastructure is long-term and capital-intensive. Small policy shifts can have outsized impacts on investor confidence. Recent experience shows that when governments intervene unpredictably – through retrospective changes, project call-ins or more onerous approval processes – investment does not pause, it moves. Capital shifts to other jurisdictions, projects stall before financial close, and the pipeline of new generation and storage weakens.

Reduced investment leads to tighter supply, higher wholesale prices and fewer jobs. It also shifts costs across the system, as regions that do not build sufficient capacity become reliant on imports, increasing pressure on the broader grid.

Given this backdrop, my focus and commitment for the CEC is on driving practical policy change and being vocal on the hard issues that must be addressed if Australia's transition is to succeed.

Our 2026 priorities

This year, our three priorities are to:

1. Remove investment barriers

As a former state Treasurer, I know the power of policy to unlock investment and drive change. The success of rooftop solar and household battery storage in Australia demonstrates what's possible when government support and industry capability work together.

Our priority is to remove the barriers slowing new projects. This includes helping to drive the outcomes of the National Electricity Market wholesale market settings review (NEM Review) towards practical outcomes that will get projects banked and built. We will also continue to advocate for faster, clearer planning and environmental approvals.

In this regard, implementation of the reforms to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) will be particularly important. The Clean Energy Council is part of the technical working group with DCCEEW to develop sound national environmental standards and subordinate legislation.

2. Build social licence

The new infrastructure required to support the clean energy transition is largely being built in regional Australia. While some regions welcome the jobs and investment renewable energy can bring, misinformation and politicised opposition are fanning small sparks of community concern into unnecessarily destructive fires that are delaying critical projects.

We must do better at both bringing people with us and countering efforts to destabilise the energy transition. That means listening to communities, providing clear and factual information, and ensuring Australians understand what is at stake if our energy transition slows. Through initiatives such as the Clean Energy Council's Best Practice Charter, we are working to raise the benchmark for community engagement and ensure that regional communities are fairly compensated for hosting energy infrastructure.

In 2026, we will continue promoting the best practice work being done by our members and develop new campaigns so Australians are in no doubt that the clean energy transition is fundamental to our nation's economic future, energy security and cost of living.

3. Demonstrate the economic opportunity

Renewable energy is not only central to decarbonising Australia's economy, but it also represents one of our biggest economic opportunities in decades. As we look to the future, we need to realise the real potential for Australia's energy transition to become the next mining boom – driving new industries, regional investment jobs and small businesses.

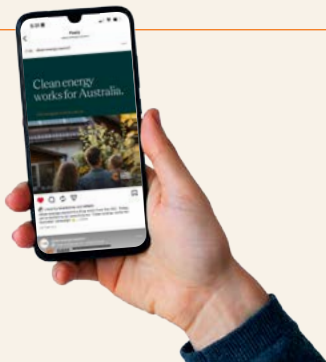
The Clean Energy Council will continue to make the case that renewable energy can unlock Australia's next wave of economic growth.

Australia is halfway mark towards its ambitious energy targets. We are on the path to strengthening our energy independence and delivering long-term economic outcomes for all Australians.

2025 Clean Energy Council highlights

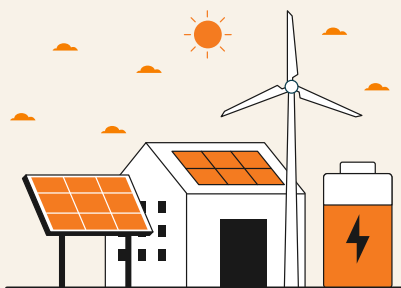
In 2025, the Clean Energy Council worked to defend Australia's clean energy transition by advocating for policy reform, strengthening community confidence and delivering an environment that supports the industry to develop and grow.

Driving the national conversation



- Delivered the **Clean energy works for Australia campaign** focusing on fact-sharing and myth-busting to counter mis and disinformation targeting clean energy
- Helped shape a national "vote of confidence" in clean energy, while reinforcing the need for ongoing, evidence-based public debate in defence of clean energy
- Generated more than **6,000 media mentions**, as part of a broader campaign

Unlocking investment and policy reform



- Successfully advocated for a national battery scheme, helping inform the Federal Government's **Cheaper Home Batteries Program**, launched in July
- Contributed to major **National Electricity Market (NEM) wholesale market reforms**, including co-leading a working group on essential grid stability services.
 - CEC's work included advocating for an extension of the Electricity Services Entry Mechanism (ESEM) to better facilitate the streamlined and holistic procurement of Essential System Services among the review's recommendations.
- Played a key role in advising on **federal environmental and planning reform**, working closely with DCCEEW on EPBC Act changes to modernise and streamline the 25-year-old Act.

Showcasing industry's performance and engagement with communities



- Released the **2025 Best Practice Charter reports**, illustrating the real commitments and benefits members are invested in delivering around regional Australia
- Continued to produce **fact sheets for members to inform regional communities** providing access to clear, practical information about renewable energy developments

Powering the consumer energy future



- Continued to advocate for the recommendations of our **Powering Homes, Empowering People** roadmap, especially interoperability standards and greater market access
- Supported the rollout of federal and state home battery programs through advocacy and in the capacity of administrators of the NETCC and product accreditation programs
- Supported **state-based initiatives for renters and businesses**, including Queensland's Supercharged Solar for Renters program and solar discounts for commercial and industrial customers in Victoria

Building a skilled and inclusive workforce



- Delivered targeted **workforce development programs** to strengthen community engagement and First Nations participation, **increase female participation** and help to build **safe and skilled clean energy sites**. Programs and initiatives included [Clean Energy Job Ready](#), [Powering Up: Clean Energy on Country](#), [Women Powering Change](#), and [Grid Connection Engineer Graduate Program](#).

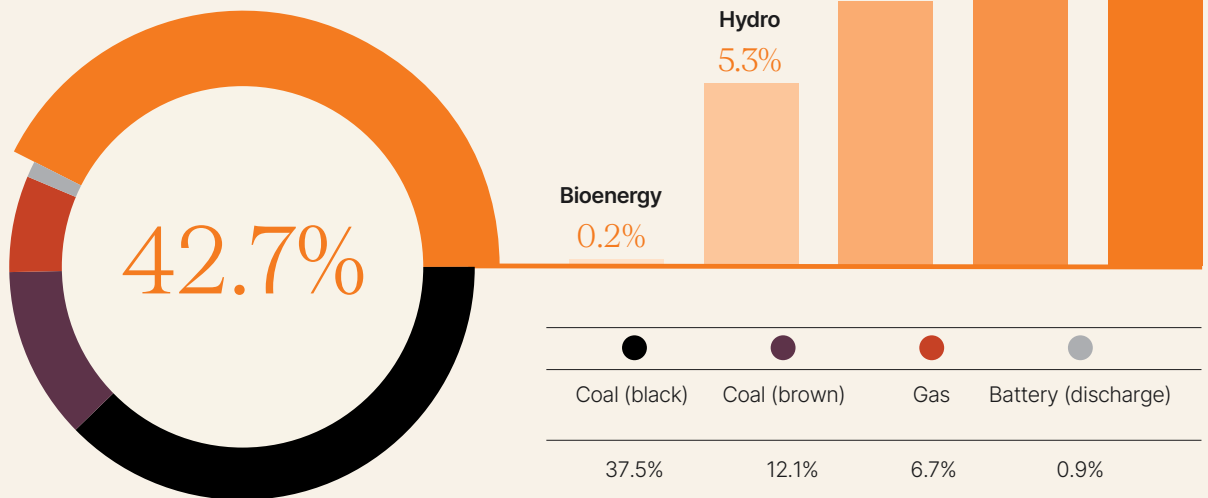
State of the market

This year, our market report has moved beyond a retrospective technology-based progress review to take a more strategic focus. By examining what's working, what's shifting and what's holding us back, we aim to provide government and industry with a clear view of where the transition stands and what next-steps matter most.

2025 key metrics

42.7%

of Australia's electricity generation produced by renewable energy (2024: 38.9%)



INSTALLATIONS/COMMISSIONS

5.9 GW

of new renewable generation capacity reached completion (+28.3% YoY)

1.4 GW wind (+67% YoY)

2.0 GW utility-scale solar (+100% YoY)

2.6 GW rooftop solar (-19% YoY)

2.0 GW

of large-scale battery capacity commissioned (+233% YoY)

268,675

home batteries purchased during the year (+260% YoY)

FINANCIAL COMMITMENTS

2.3 GW

of new utility-scale
renewable energy
generation capacity
(-46% YoY)

1.4 GW of utility-scale solar
(-29% YoY)

0.9 GW of onshore wind
(-59% YoY)

\$4.4 bn

of new renewable energy
generation investment
(-50% YoY)

\$1.9bn of utility-scale solar
(-5% YoY)

\$2.6bn of onshore wind
(-57% YoY)

4.3 GW

of large-scale battery capacity
(+10% YoY)

\$4.8 bn

of large-scale battery
investment
(+67% YoY)

CAPITAL COSTS

-20%

large-scale batteries

-8%

utility-scale solar

+6%

onshore wind

RELIABILITY

90

unscheduled coal
breakdowns over summer
2025-26

~25% (5GW)

average coal electricity capacity
unavailable at any given time in
QLD, NSW and VIC across summer
2025-26

Note: Due to rounding, some numbers may not appear to add up correctly.



What's working?

In 2025, Clean Energy Council members continued to deliver and commission generation projects, while large- and small-scale storage took off, reshaping how Australia's energy system operates.

Storage is starting to deliver on its promise

2025 marked a breakthrough year for batteries, driven by strong investment and supportive policy settings. Batteries are playing an increasingly important role in Australia's electricity system, shifting excess energy during peak generation periods to periods of peak demand. Trend-wise batteries are setting the wholesale price more frequently and closing the gap on gas peaker plants to set a spot price below that of gas. We expect this trend to continue as batteries start to compete more often with each other rather than with gas peakers.

In 2025, electricity discharged from utility-scale batteries supplied 0.9%, up from 0.3% in 2024. The year also saw a further 2.0 GW of large-scale battery capacity being commissioned – up from just 0.6 GW in 2024. Twelve new projects across the National Electricity Market and the South West Interconnected System included landmark developments like the Liddell battery (500 MW / 1 GWh) and the Melbourne Renewable Energy Hub (600 MW / 1.6 GWh).

At the same time, small-scale storage uptake surged, supported by the Federal Government's Cheaper Home Batteries Program and complementary state initiatives. During the year, 268,675 home batteries were purchased, up from 74,582 in 2024. Household battery discharge levels more than doubled across all states.

Generation build continues to tick up

In 2025, the share of generation from utility-scale solar increased to 7.7%, up from 6.8% in 2024. During the year, 3.3 GW of new generation capacity was commissioned. Of these, 18 were utility-scale solar projects totalling 2 GW representing \$2.7 billion in investment.

Notable projects included the:

- **Aldoga Solar Farm** (QLD, 380 MW)
- **Stubbo Solar Farm** (NSW, 400 MW)
- **Walla Walla Solar Farm** (NSW, 300 MW)

Onshore wind also continued to scale, lifting wind's share of generation to 15.7%, up from 13.4% in 2024. Seven wind projects totalling 1.4 GW were commissioned, a big step up from 775 MW in the prior year. Large wind farms like Goyder South (SA) were among those commissioned. Meanwhile, others including MacIntyre (QLD) and Golden Plains (VIC) continued to work through commissioning.

Across the last quarter of the year, renewable energy supplied more than 50 per cent of electricity in the NEM for the first time ever.

Technology cost trends

The CSIRO continues to report that renewable energy remains the lowest-cost form of new electricity generation in Australia, and cost trends in 2025 reinforced this position. Capital costs for large-scale batteries fell by around 20%, while utility-scale solar costs declined for the second consecutive year down 8%. Wind technology continues to face costs pressures within the supply chain and rose by 6%.¹

¹ GenCost 2024-2025 Final Report, CSIRO

Downward pressure on wholesale prices

Abundant low-cost energy during daylight hours saw negative pricing events in the middle of the day rising by 41% year-on-year in Q2 2025. In 2025, this was often offset by price spikes from record unplanned coal outages, but batteries helped to absorb some of the sting and ensure there were no blackouts from lack of supply.

Hybrids are helping us manage network congestion

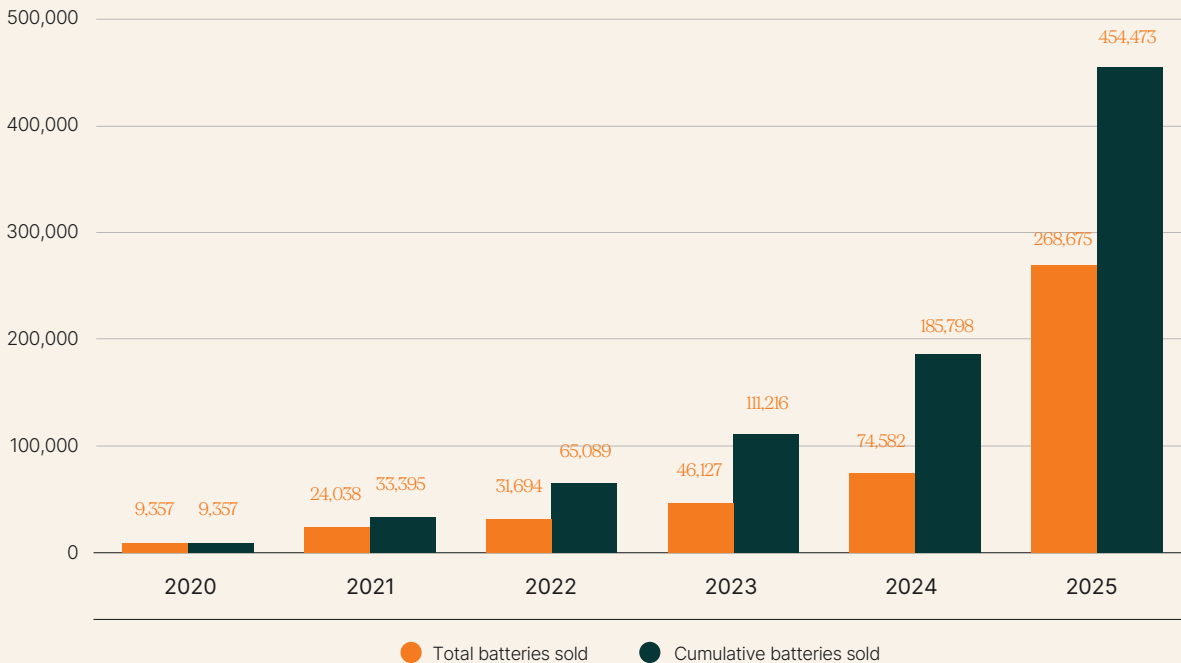
According to AEMO modelling, in 2025 hybridisation became the primary tool for managing network congestion. Solar and wind developments were increasingly paired with battery storage, helping to manage price volatility, reduce curtailment risk and improve access to grid connections. In many cases, projects that were previously constrained as standalone generation in 2024 became viable again in 2025 when configured as hybrids. Examples such as Goyder South, paired with the Blyth Battery, demonstrate how hybrid projects can deliver more consistent, “baseload-like” renewable energy for large customers like BHP.

Consumers are voting with their feet

In 2025, it became clear that consumers are eager to seize the benefits of the energy transition, with more Australians moving to secure the cost savings and control that renewables offer. The rapid uptake of rooftop solar paired with battery storage drove higher self-consumption and, in many cases, effectively doubled the value of solar systems. At the same time, average system sizes increased – a clear signal that consumers are willing to invest to gain greater energy independence and long-term bill certainty. In 2026, we expect interest in Virtual Power Plants (VPPs) to grow, as consumers look to participate in grid services in return for lower prices.

Electric vehicle (EV) uptake continued to strengthen in 2025, with the Australian Automobile Association Electric Vehicle Index showing 103,270 battery electric vehicles sold – up from 91,293 in the prior year. This steady growth reflects improving model availability, falling total cost of ownership and expanding charging infrastructure.

Annual and cumulative small-scale battery sales



What's shifting?

In 2025, new renewables continued to displace coal at a rapid rate. Yet the transition has unfolded at different rates across states and technologies.

This uneven progress adds unnecessary complexity and uncertainty to an already challenging phase – increasing the cost burden for Australian consumers.

Coal unreliability is growing

In 2025, we saw increasing evidence that our ageing coal-fired power stations are becoming less reliable and more expensive to maintain. Unplanned coal outages were persistent, 128 in summer 2024-25, 119 in winter 2025 and 90 in summer 2025-26. On average in the summer of 2025-26, around 25% of coal capacity, more than 5 GW, was unavailable at any given time. Even scheduled maintenance became more difficult, with outages regularly running beyond planned timeframes, in some cases by weeks.

System security services are changing

Now renewables make up close to 43% of the grid, one of the most important new capabilities will be managing system security in an increasingly asynchronous grid.

In 2025, new technologies started stepping in to fill the gap. A growing share of the battery pipeline included grid-forming capability, enabling batteries to provide “synthetic inertia” and support system strength. A key shift was the move to longer-duration storage, allowing large volumes of solar energy to be shifted into the evening peak.

In 2026, a priority will be to gain greater visibility and control of Australia's millions of rooftop solar panels and household batteries. Flexible export arrangements and emergency backstop mechanisms will be essential to ensure the grid remains secure during periods of high generation and low demand.

Regulatory reform is evolving

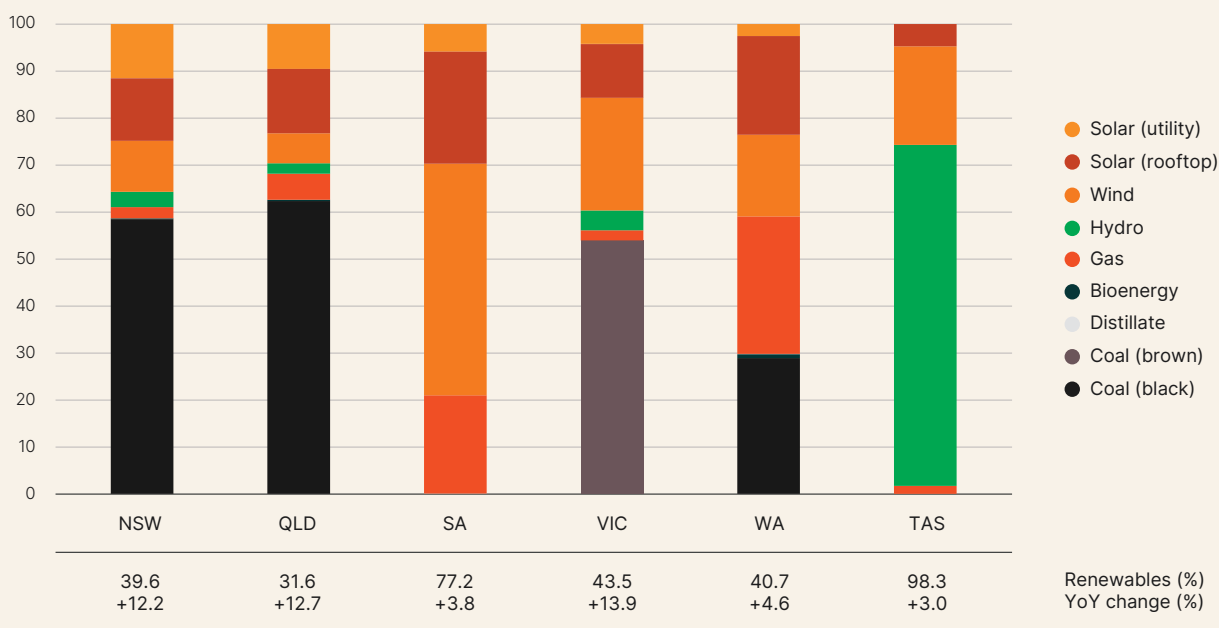
In 2025, federal and national reforms laid important foundations for the next phase of the transition. Major changes to the EPBC Act represent the most significant overhaul of Australia's environmental laws in decades, with the potential to streamline approvals while maintaining strong environmental protections. At the same time, the NEM Review has set out a pathway for reforming wholesale electricity markets to better support a system dominated by renewables.

Progress is also being made in integrating consumer energy resources at scale. The Energy and Climate Change Ministerial Council approved the establishment of a national technical governance framework, including the Clean Energy Regulator as the body responsible for taking up this oversight. Ministers also approved progressing the work to better outline the responsibilities of a Distribution System Operator model in a two-way electricity

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For the best success we need national alignment between states on delivery to maintain investor confidence and keep the transition on track.

Energy generation distribution by state (%)



market. Work is advancing on a national emergency backstop, including national certification of communication protocol standards through the Australian National University. And cybersecurity is being uplifted by a National Energy Public Key Infrastructure project that will secure digital communication between the grid and smart devices in a home – a key step in establishing the trust needed for households to participate in grid services.

The states are moving at different speeds

A patchwork of state approaches is creating uneven investment signals, delays and higher system costs.

Differences in policy settings, approvals and delivery timelines make it harder to coordinate generation, transmission and storage at a national level – increasing the risk of bottlenecks, inefficiencies and missed opportunities. For the best success we need national alignment between states on delivery to maintain investor confidence and keep the transition on track.

Some sectors are gaining momentum, while others are stalling

Not all parts of the transition are moving at the same pace. The sectors needing targeted support include:

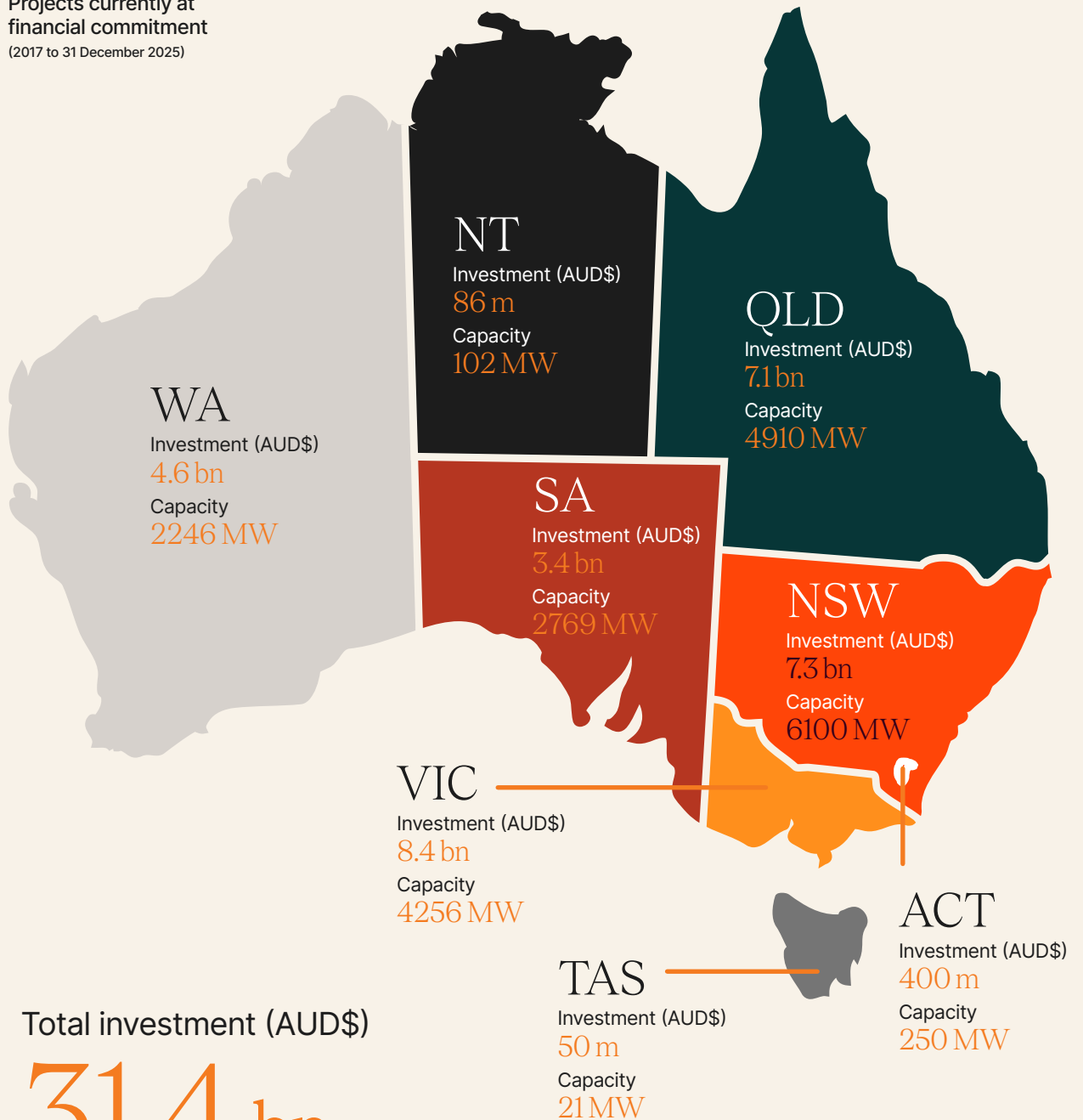
- **Hydrogen** – This remains an emerging opportunity, but development is still in its early stages. Projects such as the Murchison Green Hydrogen Project in Western Australia – backed by the Federal Government's \$2 billion Hydrogen Headstart

program – demonstrate the scale of ambition. However, the sector has yet to reach consistent momentum. For hydrogen to scale, demand must come first. There is a limited market at today's production costs, with high renewable input prices, slower-than-expected electrolyser cost declines and expensive transport all weighing on viability. Policy support remains skewed toward supply, with limited mechanisms to secure long-term offtake, making it difficult for projects to reach final investment decision.

- **Offshore wind** – In Victoria, the long-awaited auction process was delayed during 2025 before being rescheduled for August 2026. While this created short-term uncertainty, it has also narrowed the field to projects with stronger commitment to delivery, setting the stage for more credible competition in the first auction round. In Western Australia, three proposed offshore wind projects were awarded final feasibility licences. If developed, the projects could unlock up to 4 GW of clean energy capacity, enough to power up to 2.9 million households at full output.
- **Pumped hydro** – None of these major projects reached key milestones during the year. Kidston remains on track to be commissioned in 2026, and Snowy 2.0 is due for completion later in the decade. But momentum in new developments has slowed. Project cancellations and reviews in Queensland further highlight the challenges facing large-scale, long-duration storage, and the need for stronger investment frameworks to support these capital-intensive assets.

Investment in and capacity of large-scale energy projects

Projects currently at financial commitment
(2017 to 31 December 2025)





STATE OF THE MARKET

What's holding us back?

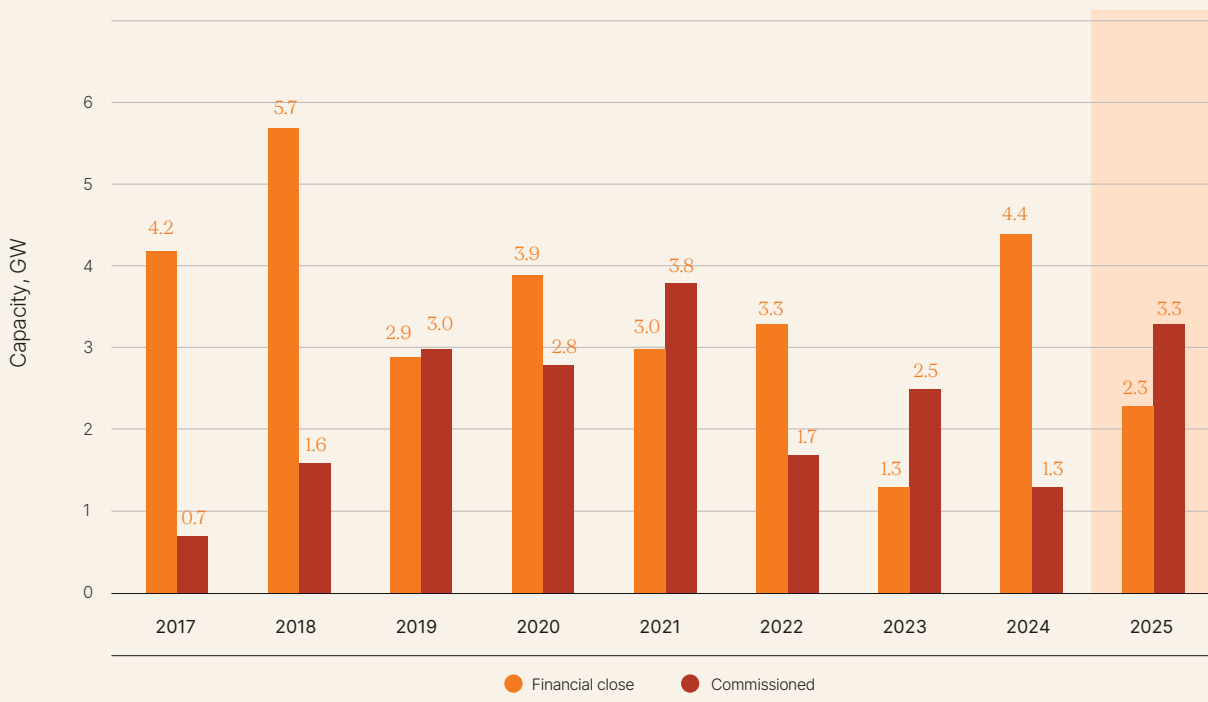
2025 shone a light on the constraints slowing the transition at a critical time.

The pace of delivery was held back by barriers across investment, infrastructure, policy and community confidence. All of these issues are at least partly within the control of government, industry or both – and we must act to address them.

Uneven investment signals are weakening confidence

In 2025, a range of factors, including rising inflation, regulatory bottlenecks, slow transmission delivery, and the prolonged phase-out of coal stations, soured investment confidence in new generation. Only 2.3 GW of large-scale renewable generation reached financial close during the year, down from 4.4 GW in 2024 and one of the lowest levels in the past decade. The slowdown was most evident in wind, where just 857 MW reached financial close, compared to 2.2 GW the

Total capacity of financially committed and commissioned generation projects, annual GW



previous year. Solar investment also eased, with 1.4 GW reaching financial close, down from 2 GW in 2024.

By contrast, investment in storage remained strong. 4.3 GW of large-scale battery capacity reached financial close across 20 projects, on par with the previous two years.

Capital and capability are not the constraint. Australia has a record 64 GW of generation and storage waiting for grid connection. But we are failing to convert this pipeline into committed investment. The gap between what is being built and what is required is widening. Even when combined with rooftop solar growth, current investment levels fall well short of the pace needed to meet future energy demand and system requirements.

The Capacity Investment Scheme has supported important project pipelines but has not yet translated into the volume of committed investment the transition requires. Too many contracted projects are failing to reach financial close, a pattern driven in part by assessment processes that have not sufficiently screened for project deliverability as well as inflationary costs and challenges securing Power Purchase Agreements to complement CIS support. The result is a large portion of the apparently awarded capacity not proceeding to financial close and construction. Wind has been particularly affected, despite a large contracted pipeline.

The next phase of the transition needs clear, consistent and bankable policy settings and timely project approvals to restore investment confidence. This means creating clearer frameworks that reduce investment risk and uncertainty supporting projects to reach financial close.

We need to build on the Capacity Investment Scheme and refine the wholesale market reforms being recommended under the NEM Review. Greater policy certainty will also be critical, including bipartisan support for the transition and clearer committed timelines for coal plant retirements. Industry must continue to play a leading role in market design to ensure these reforms send the consistent, credible investment signals needed to unlock the scale of capital required.

Transmission is not keeping pace

Despite major funding commitments, including the \$19 billion Rewiring the Nation plan, the buildout of transmission is not keeping pace with the scale of renewable generation and storage seeking connection. This is delaying generation projects, weakening investment signals and limiting the system's ability to fully utilise low-cost renewable energy.

Industry modelling continues to show that transmission delays will increase system costs, constrain supply and slow progress towards emissions targets. Conversely, expanding network capacity beyond currently planned projects could

unlock additional renewable connections and improve system efficiency.

Planning systems are complex and inconsistent

While positive planning and biodiversity reforms are occurring across Australia, the scale of development required to facilitate the energy transition necessitates further regulatory amendments to keep pace with innovation. The current regulatory frameworks are impeding the adoption of proportionate, performance-based, and strategic approaches to planning and biodiversity outcomes, which in turn has delayed the implementation of many renewable energy projects.

Significant challenges faced by industry include: protracted and prescriptive assessment requirements that are disproportionate to predicted impacts; the incremental expansion of assessment scope; and shared infrastructure and supply chain risks that hinder the constructability of projects.

Developers must also navigate a complex mix of federal and state-based approval processes, often with differing requirements and timelines. For example, we have seen a recent issue with several wind farm projects facing inconsistent curtailment conditions at the state and federal level in relation to bird and bat impacts. While much needed reforms to the EPBC Act are underway, greater alignment and streamlining across state-based approvals will be critical to reduce delays and duplications and improve project certainty.

“
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Community support remains challenging in some regions

Despite large numbers of Australians voting for renewable energy in the last federal election, many remain against local projects. Organised misinformation campaigns are manufacturing concerns and, in some cases, derailing critical generation and transmission projects. This is increasing costs unnecessarily and slowing delivery at the exact moment the system needs to accelerate.

To make headway against politicised opposition, the sector must be clear and consistent about what is at stake. The energy transition is not optional. It is fundamental to Australia's economic future, its emerging green industries and the tens of thousands of jobs they could create. It will help us build energy independence. This is about more than protecting the environment. It's also about bringing down the cost of living.

Consumer energy resources are uncoordinated

Integrating rooftop solar and batteries effectively should be a system priority. Implementation of the national Consumer Energy Resources roadmap is a key step. But it's just the start. Greater participation in mechanisms like VPPs will be important to unlock system-wide benefits.

Access and participation gaps

While consumer uptake is strong, access to clean energy remains uneven. Only 2.6 GW of new rooftop capacity added in 2025, down 17% from 2024, but significant untapped potential remains on the roofs of millions of apartment buildings and rental properties.

More needs to be done to make solar and storage accessible to renters, apartment dwellers and other underserved groups. Without targeted policy support and new delivery models, a growing share of consumers risk missing out on the cost savings and control benefits of the transition. Ensuring broader participation will not only improve equity outcomes but also strengthen the performance and resilience of the energy system.

Skills are in short supply

2025 saw some important steps to overcome occupational barriers to joining the energy transition workforce, including the:

- **Net Zero Economy Authority** being set up with a remit to develop regional workforce transition plans
- **Powering Skills Organisation** reviewing the UEE Electrotechnology Training Package qualification to remove outdated content
- **Treasury** announcing national licensing for electrical trades

If local workers are to benefit from the promise of jobs through the transition, strong employment pathways and promotion of these are required to ensure sufficient workforce supply to meet peak demand.

End-of-life needs national coordination

Australia is entering a steep growth phase in end-of-life (EOL) solar panels, with waste volumes projected to rise from around 59,000 tonnes in 2025 to more than 91,000 tonnes by 2030 and towards one million tonnes by 2035. Current practices – landfilling, stockpiling and unregulated resale – are creating environmental risks and wasting valuable materials, despite up to 95% of panel components being recoverable. Recycling remains limited due to weak incentives, inconsistent rules and the absence of national standards.

The same challenge is emerging for batteries, where rapid uptake is driving a parallel waste stream of valuable but hazardous materials.

A coordinated national response is now essential. We recommend a mandatory product stewardship scheme for panels and batteries, supported by consistent landfill restrictions, stronger reuse standards, improved traceability and expanded recycling capacity. Together, these measures would shift the system from disposal to recovery, retaining value, reducing risk and ensuring end-of-life management keeps pace with the clean energy transition.

Our CEO, Jackie Trad, visiting the Snowy 2.0 pumped hydro project Kosciuszko National Park, NSW Walgalu Country



What matters now

To deliver on its considerable promise, Australia's clean energy transition needs coordinated and decisive action from governments and industry. We must unlock investment, deliver infrastructure at speed and ensure the system can operate effectively as it changes.

Raising investment confidence

Investment confidence must improve if Australia is to deliver the scale of build required this decade.

In 2025, uncertainty across policy, market settings and project timelines weakened investor confidence in new generation. A lack of bipartisan support for renewables, evolving state positions and unclear timelines for coal plant retirements have made it harder for projects to secure long-term revenue certainty. Emerging sectors like offshore wind, hydrogen and long-duration storage face additional challenges, particularly in securing offtake and managing risk.

In 2026, we will push hard for policy changes to get investment decisions across the line. To help get there, the Clean Energy Council is dialling up our advocacy for clearer, more stable policy settings. This will include building bipartisan support for the transition, grounded in its economic benefits – from lowering energy costs to creating jobs and strengthening Australia's industrial base – and pushing for firm and definitive coal exit timelines.

We will continue to work with governments to reduce regulatory excess and speed up approvals. This includes continuing reforms under the EPBC Act and advocating for greater alignment and streamlining across state-based approvals.

At the same time, market reform will play a critical role. The next phase of wholesale market design, informed by the NEM Review, will be central to creating durable revenue frameworks and allocating risk more effectively. The Clean Energy Council will continue to lead this work to ensure reforms deliver efficient, investable outcomes that unlock the capital required.

We will continue to advocate for improvements to the Capacity Investment Scheme to ensure remaining tenders deliver projects that actually get built. This means pushing for stronger deliverability assessments that screen out speculative bids, greater transparency in tender outcomes to strengthen investment signals and requirements and commercial terms that better reflect the realities of renewable project timelines and costs. We welcome recent changes to the tender process that place greater weight on project deliverability, and will monitor closely whether they translate into higher rates of financial close.

The Safeguard Mechanism review in 2026-27 offers another key opportunity to strengthen investor confidence, complementing the recommendations of the NEM Review.

Accelerating transmission, connections and skills

Delays in transmission, connections and workforce capacity are now directly impacting the pace – and cost – of the transition.

Transmission projects are not being delivered quickly enough to keep up with new generation and storage. Connection processes remain slow and complex, creating uncertainty for developers and delaying projects reaching operation. The consequences are material. Estimates suggest a one-year delay to a major transmission project could increase household electricity prices by up to 20%.

At the same time, workforce constraints are becoming more acute. Australia will need an additional 40,000

workers by 2030 to meet its clean energy targets. Shortages in critical roles – particularly electrical engineers and grid technicians – already exist, putting pressure on construction timelines and limiting the ability for regional communities to fully capture the economic benefits of the transition.

Transmission must be built on time, projects must connect faster and workforce capacity must scale in parallel with demand. We will continue to advocate for firm, publicly committed delivery dates for transmission projects under Rewiring the Nation and state Renewable Energy Zone programs.

The Clean Energy Council will work with industry and government to remove delivery bottlenecks by accelerating progress on all three fronts. This includes identifying near-term opportunities to unlock capacity.

We are also progressing connection reform in partnership with AEMO, including formal rule change proposals to move from “best practice” guidelines to clear, enforceable standards – providing developers with greater certainty on timeframes and technical requirements.

Integrating consumer energy resources

As rooftop solar and batteries continue to grow, the focus must shift from installation to integration.

Australia now has one of the highest penetrations of distributed energy in the world. But without better coordination, much of this capacity is underutilised, limiting its value to both consumers and the broader system. Unlocking that value will depend on how effectively storage is integrated and how well these resources can respond to system needs.

A key opportunity is expanding participation in VPPs. The Clean Energy Council will continue to support this shift by progressing implementation of the national Consumer Energy Resources roadmap. This provides a coordinated framework to ensure rooftop solar and batteries operate safely and efficiently alongside the grid, with clearer roles, standards and technical requirements.

We will also continue to advance priority reforms identified in our Powering Homes, Empowering People roadmap – including measures to improve interoperability, enable flexible exports and support greater consumer participation – so distributed energy can play a full and active role in Australia’s energy system.

Building community trust

The clean energy transition can only succeed when local communities are properly engaged, impacts are mitigated and jobs and benefits are shared broadly. The Clean Energy Council will continue to help foster improving engagement practices among industry and

offer communities real-world examples they can use when talking to developers through its Best Practice Charter program. We’ll also continue to work on supporting the development of the Developer Rating Scheme and encouraging members to participate in order to provide communities with confidence that proponents are conducting thorough and fair consultations.

Seizing Australia's great economic opportunity

As the peak body for the clean energy industry, the Clean Energy Council is dedicated to accelerating Australia’s clean energy transition. The transition represents the greatest economic opportunity of our generation: to capitalise on our world-leading clean energy resources and establish a competitive advantage for new and emerging markets. The switch from an ageing coal-fired fleet is inevitable but any delays present real risks to investment, jobs and energy security.

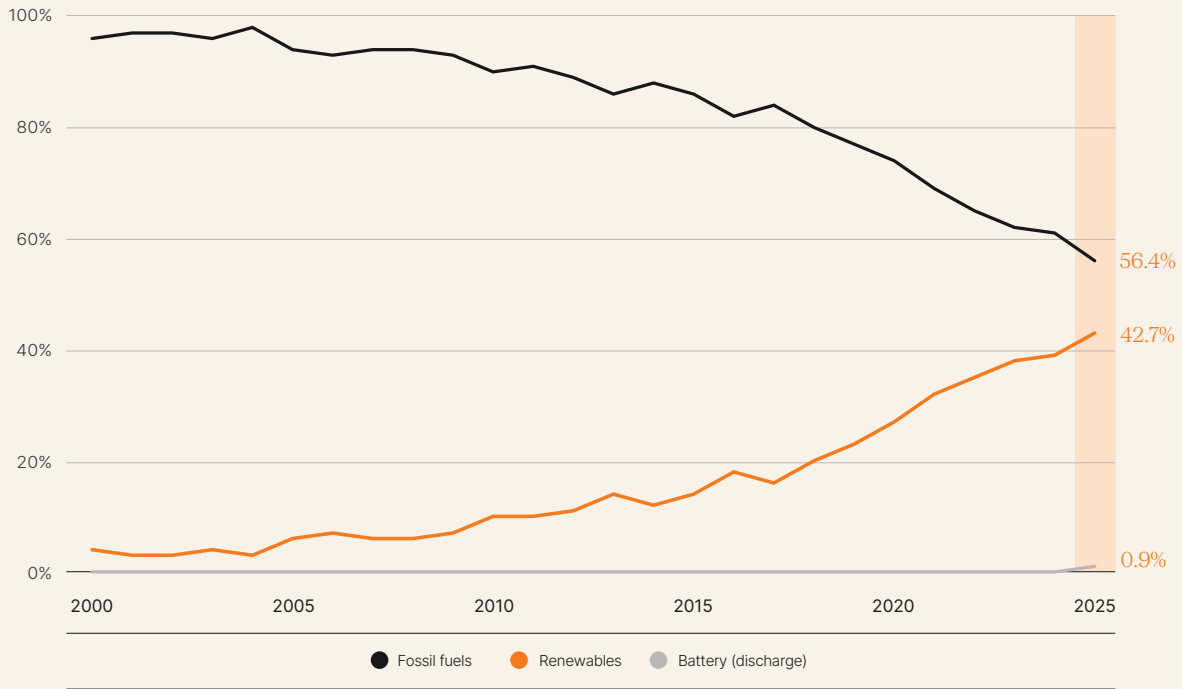
In 2026, we are focussed on working with all industry members, governments and communities to unlock investment in renewables, to build political and community support for renewables projects and to build awareness of the tremendous economic, social and employment opportunities clean energy is delivering across Australia.



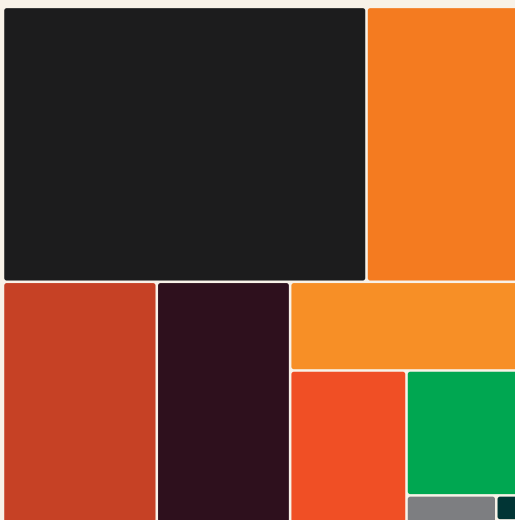
The clean energy transition is the economic reform of our generation.

Appendix

Growth of renewables contribution to the NEM and SWIS over time

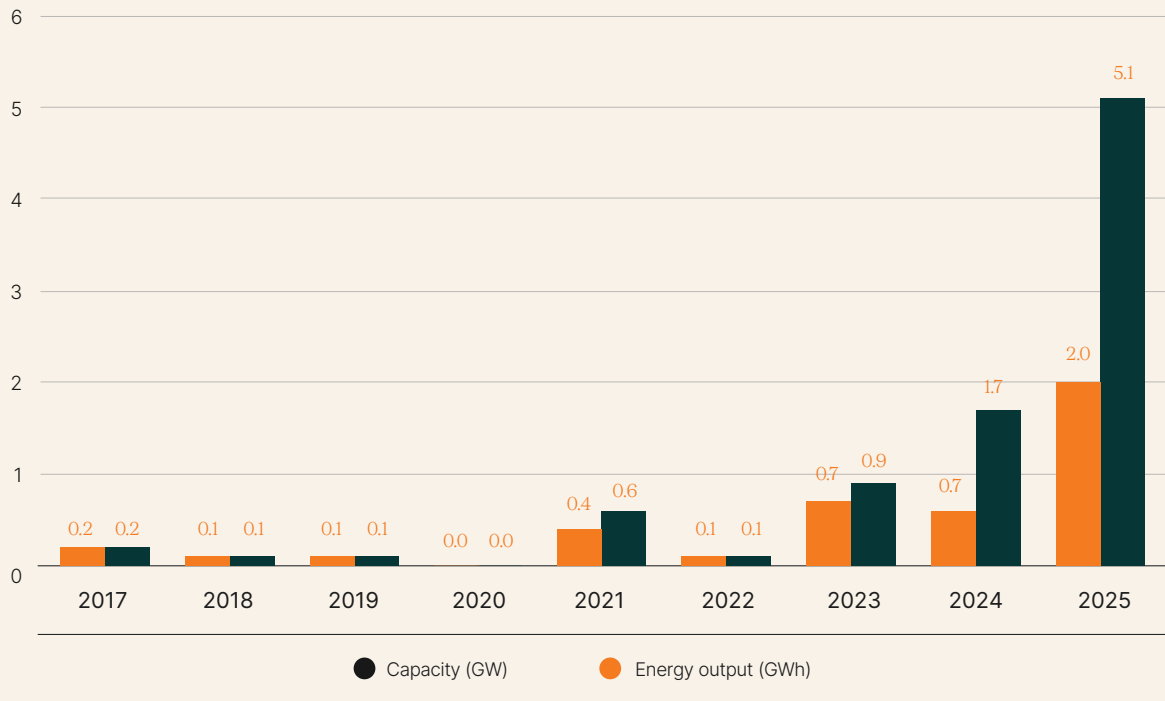


Australia's electricity generation mix in 2025 (fuel types by GWh)

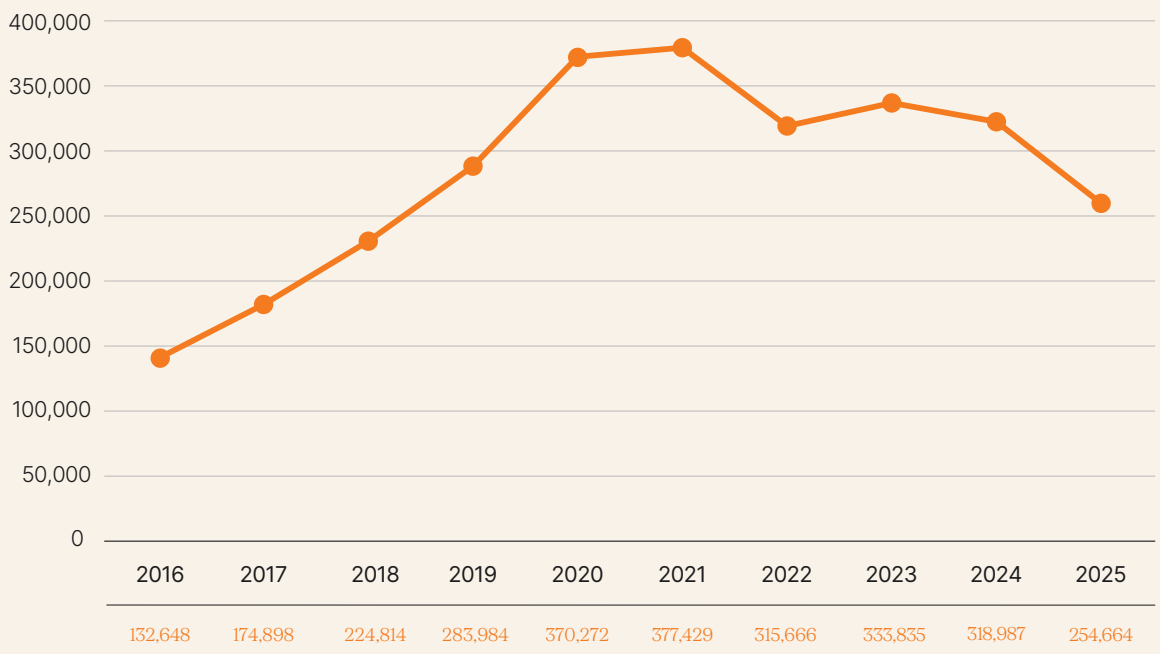


Type of Fuel	Total GWh	MWh %
● Coal (black)	91,791	37.5%
● Wind	38,398	15.7%
● Solar (rooftop)	33,927	13.9%
● Coal (brown)	29,661	12.1%
● Solar (utility)	18,714	7.7%
● Gas	16,328	6.7%
● Hydro	12,901	5.3%
● Battery (discharging)	2,212	0.9%
● Bioenergy	505	0.2%
● Distillate	32	0.0%
Total	244,469	100.0%

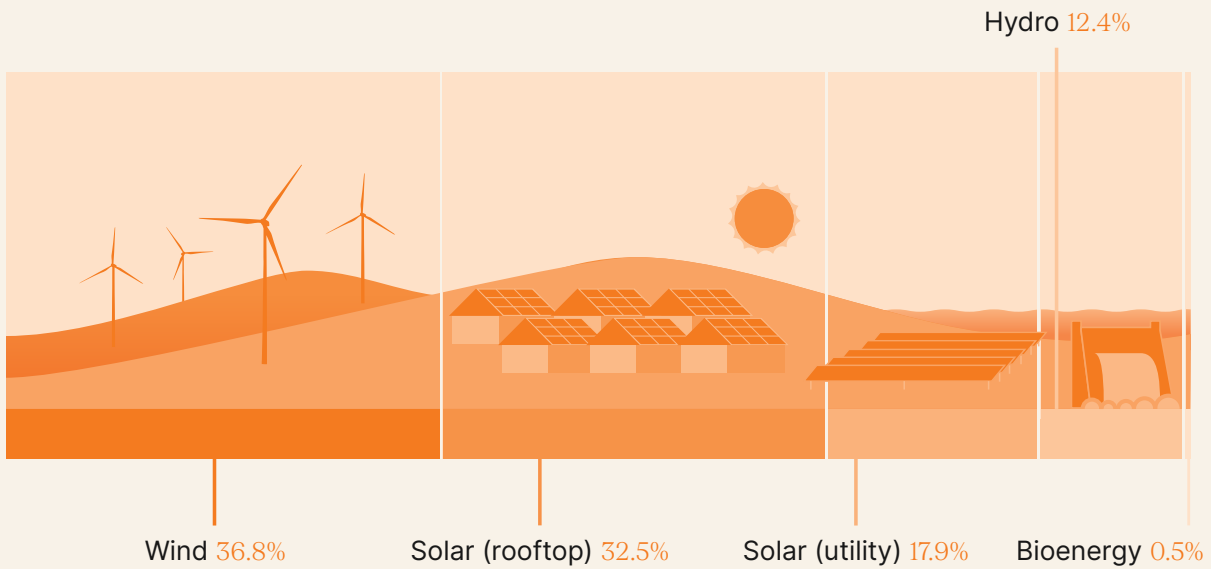
Annually commissioned storage project capacity (GW) and energy output (GWh)



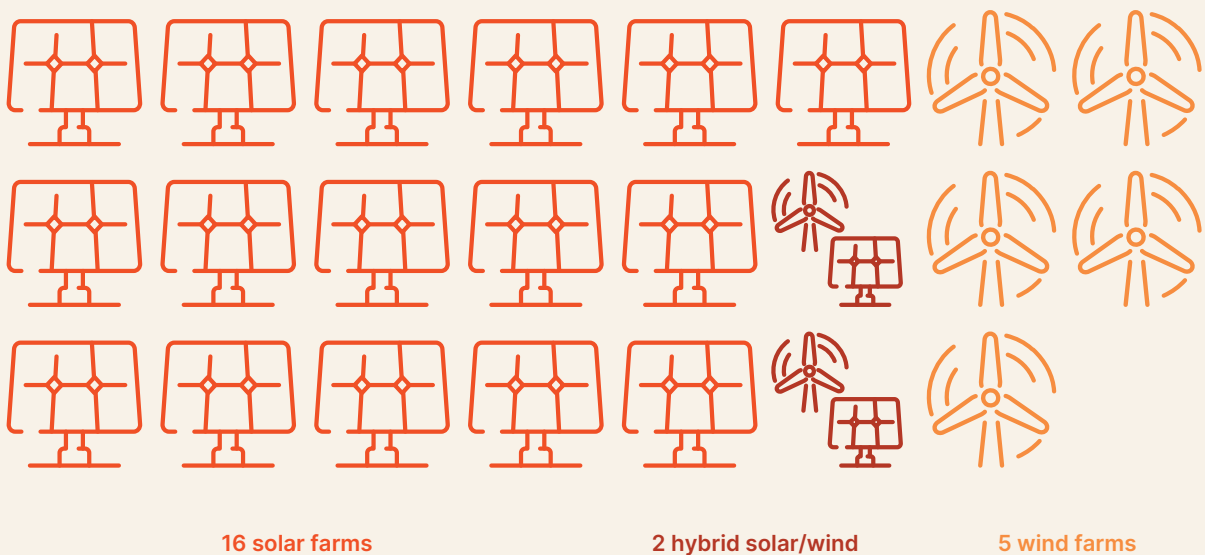
Annual rooftop solar PV installations



Renewable generation by technology type



Large-scale renewable energy generation projects commissioned in 2025



Project completion time by state, months

Project completion time – from financial commitment to commissioning

State	Solar	Onshore wind	Storage
NSW	22	31	23
QLD	23	37	28
SA	19	23	20
VIC	22	28	22
WA	21	N/A	27
Total average by tech:	21	30	24

*Based on project duration from Financial Commitment to Commissioned. Any project not reaching this final stage was omitted.

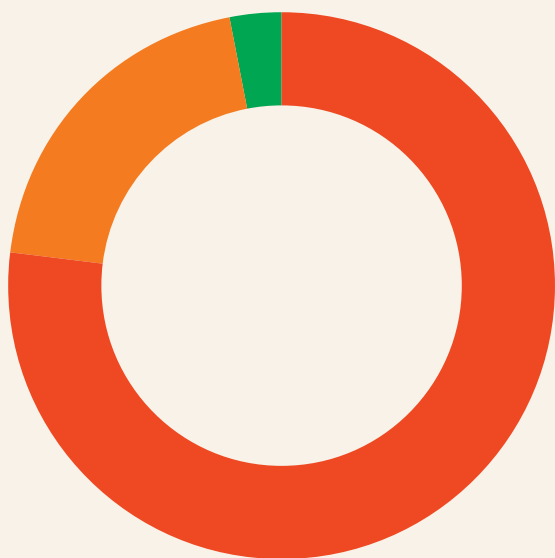
*Each category needs a sample of at least 5 projects to be included.

*Only captures internal data dating from 2014 onwards.

Generation projects by development stage reached, capacity

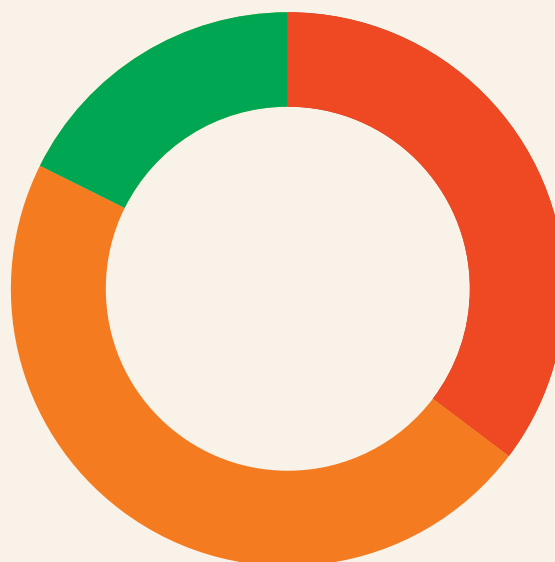
State	Financially committed		Under construction		Commissioned	
	Projects	Capacity (MW)	Projects	Capacity (MW)	Projects	Capacity (MW)
ACT	0	-	0	-	0	-
NSW	5	530	4	568	8	1,077
NT	0	-	0	-	0	-
QLD	1	240	1	240	5	1,002
SA	3	824	0	-	1	412
TAS	0	-	1	21	0	-
VIC	3	391	2	186	6	524
WA	2	298	5	508	4	300
Total	14	2,283	13	1,523	24	3,315

All projects that have received a CIS Agreement or LTESA since scheme commencement by current lifecycle stage, as of December 2025



CIS Agreement totals

● Pre-FID	53
● FID / Under construction	12
● Commissioned	1

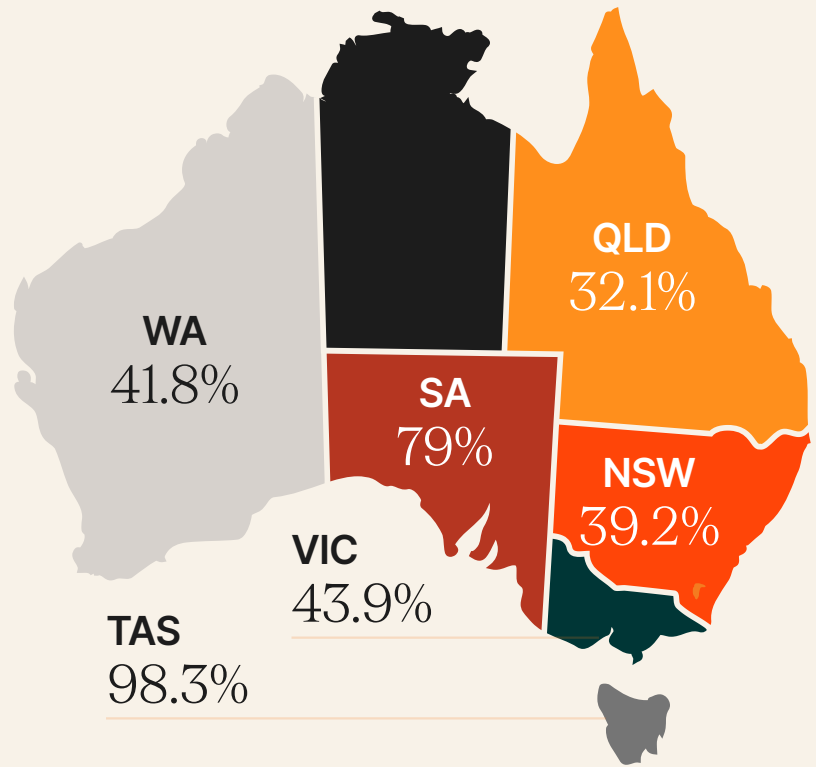


LTESA totals

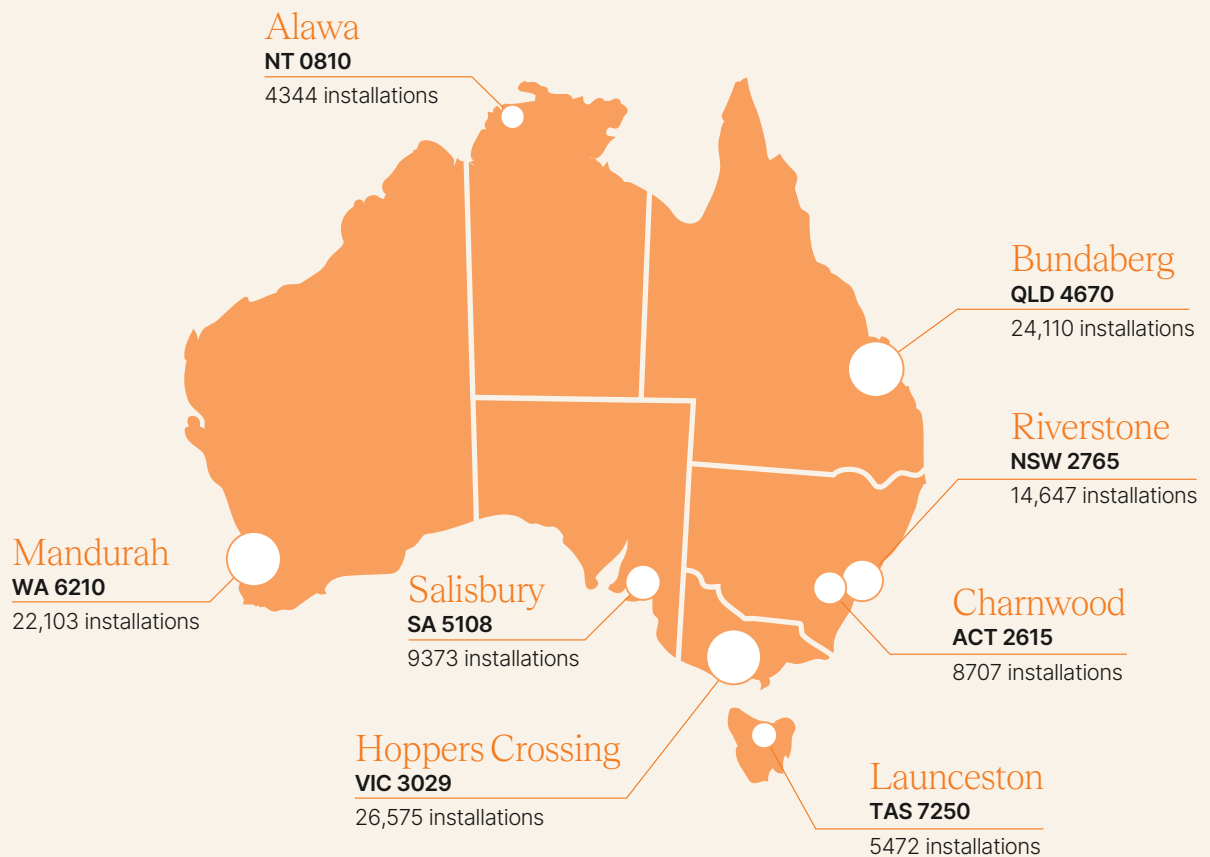
● Pre-FID	6
● FID / Under construction	8
● Commissioned	3

Renewable energy penetration by state as proportion of generation, 2025

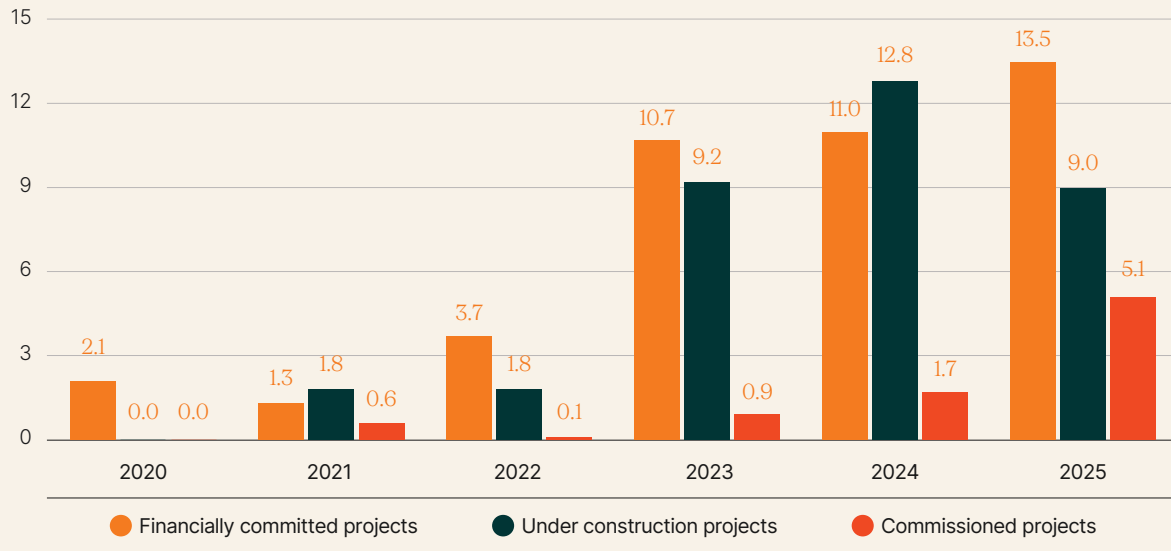
National
42.7%



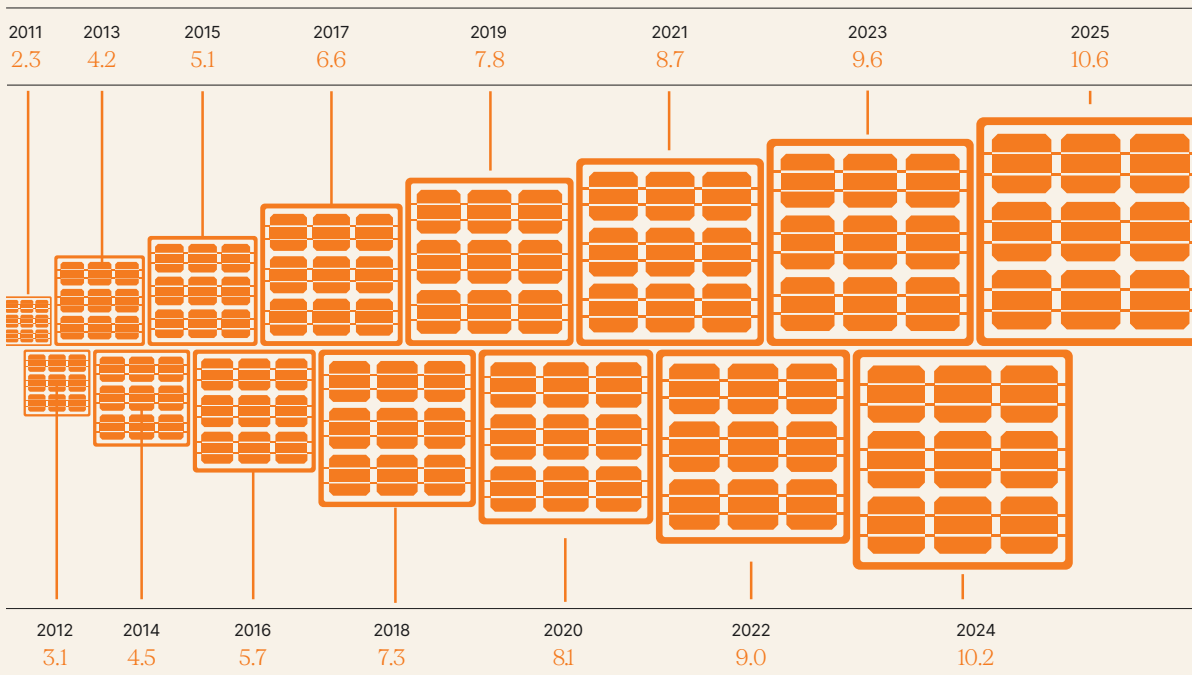
Top rooftop solar PV postcodes in each state, by number of installations



Total energy output of large-scale battery storage projects by development stage (GWh)



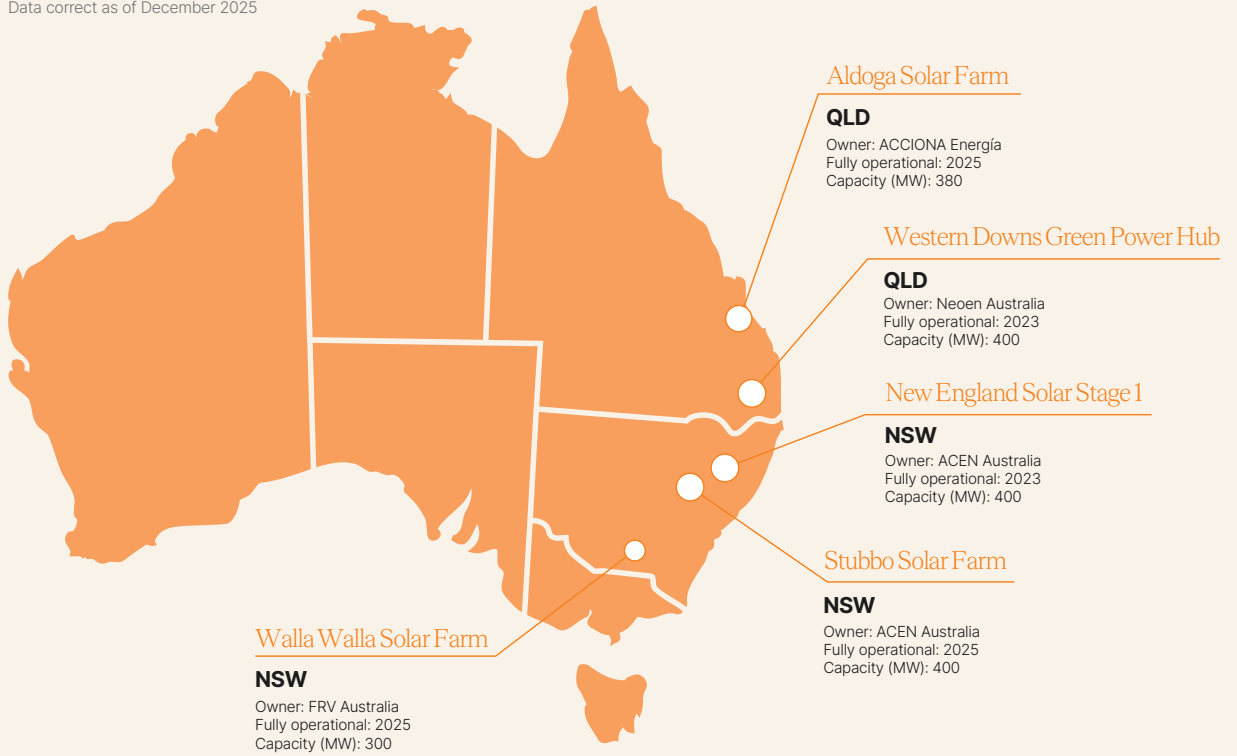
Average rooftop solar PV system size (kW)



Source: Institute for Energy Economics and Financial Analysis

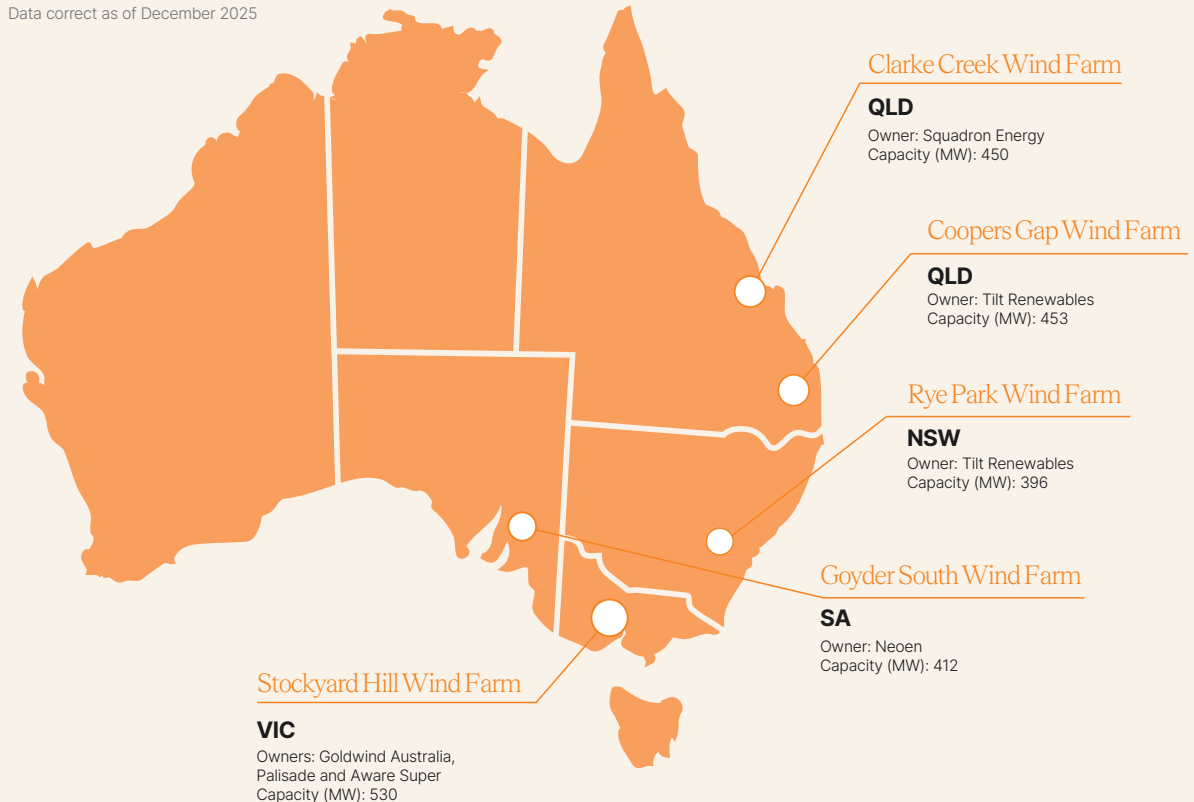
Top five Australian solar farms by capacity (MW)

Data correct as of December 2025

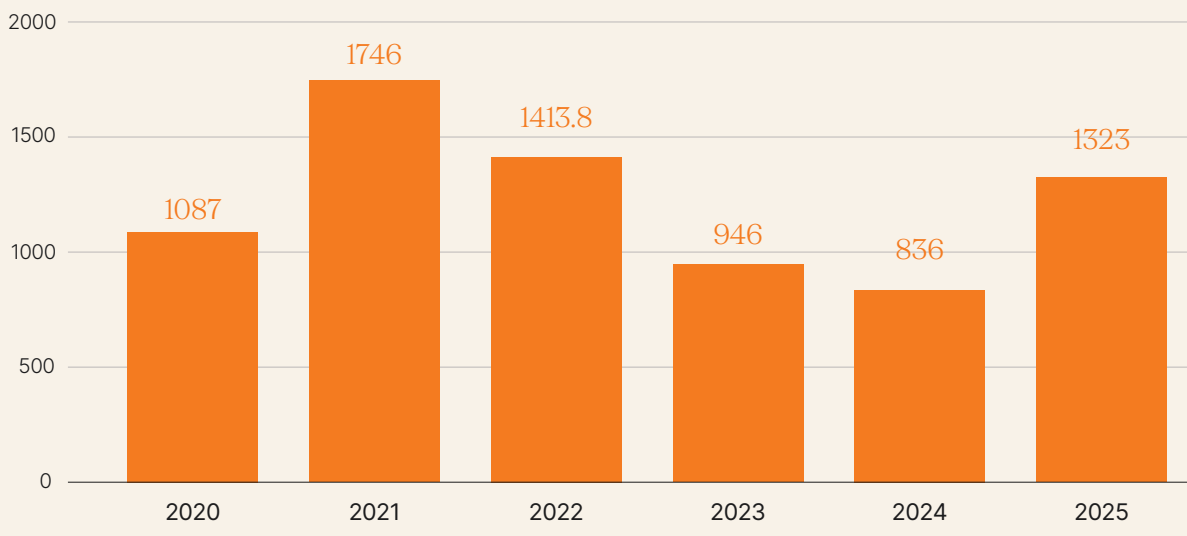


Five largest wind farms in Australia by capacity (MW)

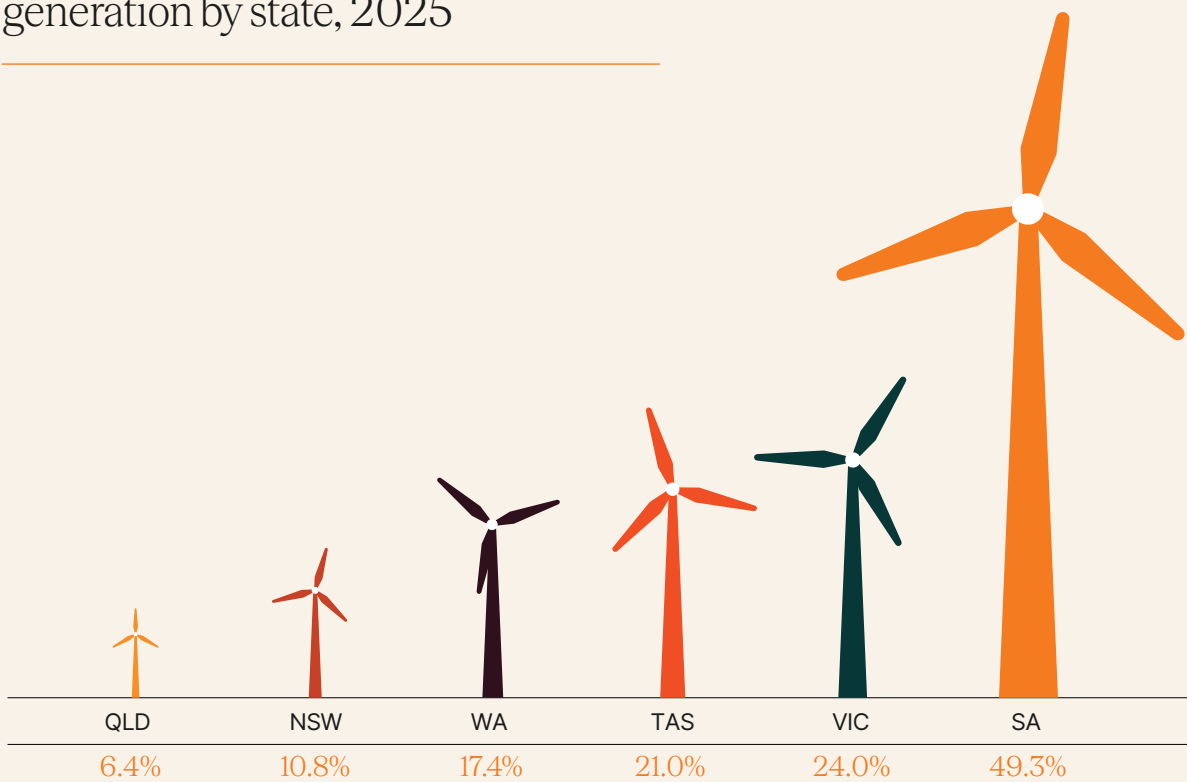
Data correct as of December 2025



Annual installed wind capacity in Australia (MW)



Percentage of Australia's wind generation by state, 2025



About the Clean Energy Council

Established in 2007, the Clean Energy Council is Australia's peak body for the clean energy industry, representing nearly 1000 members across renewable energy development, consulting and supply chains, powering homes and businesses nationwide. Together, our industry is creating thousands of jobs, strengthening the economy and delivering sustainable, reliable energy for all Australians.

We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner. We lead and support the growth of clean energy in Australia by:

- **Providing a strong voice for our members**
- **Standing up for and promoting the clean energy industry**
- **Developing and driving effective policy and advocacy**
- **Working with industry to continually improve standards and maintain integrity**
- **Working closely with local, state and federal governments to remove roadblocks and increase demand for clean energy products**

In 2025 we welcomed:

199

new members

92

event partners

- **Providing services and initiatives to members and the wider industry that help grow the sector**

Clean Energy Council members are companies who work in or support the clean energy sector. They join to receive various member benefits such as getting the latest industry updates, networking opportunities, contributing expertise to key industry discussions and having a central voice to represent the sector.

A special thank you to our sponsoring members. They are industry leaders at the forefront of influence and innovation. They take an active role in the Clean Energy Council through policy and advocacy initiatives and have access to key industry engagement opportunities.



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