Australian Government
Clean Energy Regulator

Quarterly Carbon Market Report






CLEAN ENERGY REGULATOR

June Quarter 2025

Contents

Report objective

Carbon markets play a key role in Australia's efforts to reduce emissions. The Clean Energy Regulator (CER) has prepared this report to support the effective operation of Australia's carbon markets.

This report consolidates information across the national carbon markets that the CER administers for the June Quarter 2025 (April to June 2025). It provides information on supply and demand trends and opportunities that may inform market decisions.

Questions? Suggestions? Please get in touch

To help ensure our QCMRs are as helpful and informative as possible, we welcome your feedback on this report. Please provide feedback to: Manager, Renewable Energy Market Analysis via

- Email: enquiries@cer.gov.au
- Post: Clean Energy Regulator, GPO Box 621 Canberra ACT

Report disclaimer

All figures are sourced from the CER unless otherwise referenced. All statements in this report reflect current policy settings, other than in specific instances where the Australian Government has announced or is consulting on proposed policy changes.

This Quarterly Carbon Market Report (QCMR) represents the views of the CER at the date of publication. The CER is providing this information to the market to increase market transparency, help identify genuine low-cost carbon abatement opportunities, and assist entities that produce or need to source units and certificates under the schemes the CER administers. The CER has used its best endeavours to ensure the quality of the information in this document but cannot guarantee its accuracy or completeness. The QCMR is not legal, business, or financial advice. You should obtain independent professional advice on your circumstances before making any investment decisions. The information is provided as general information only. Neither the CER, nor the Commonwealth of Australia will accept liability for any direct, incidental, or consequential loss or damage resulting from the QCMR, or the information provided through the QCMR, or the availability or non-availability of the QCMR.

Version history

Version	Date	Changes
1.0	26/09/2025	Initial publication

Glossary

The CER glossary includes definitions/explanations of many terms and acronyms used throughout this report.

Highlights

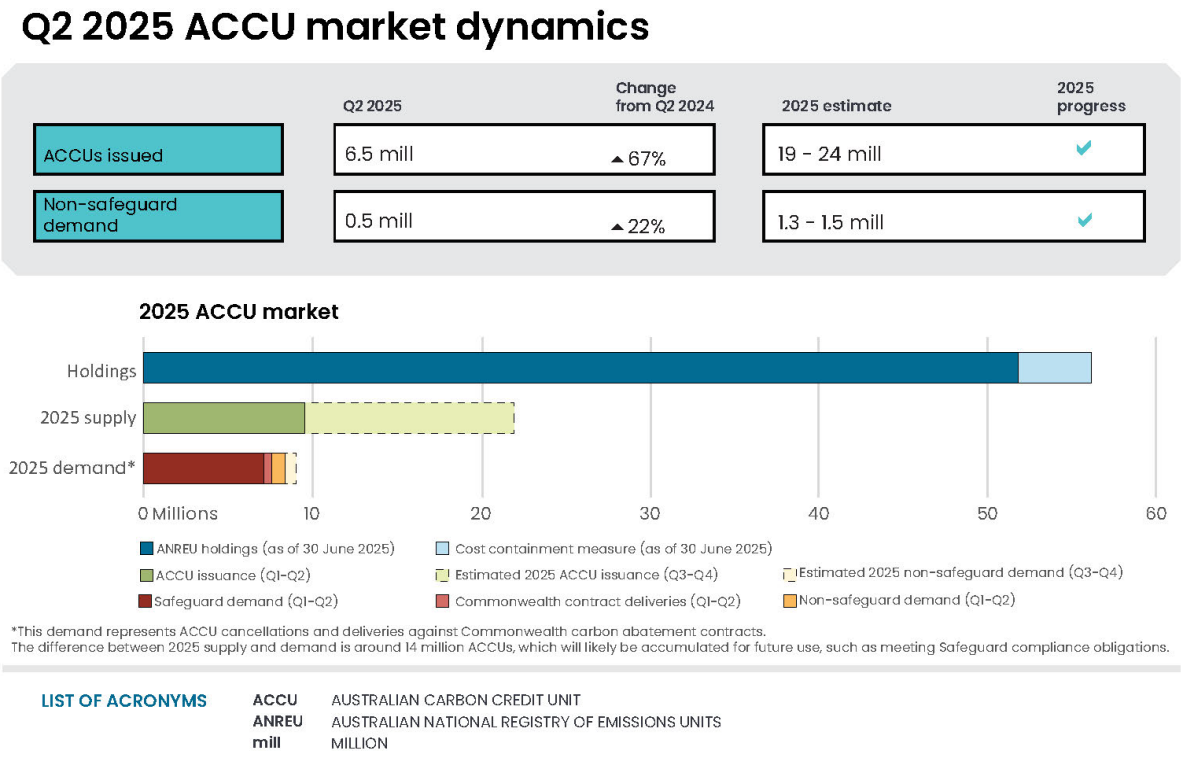
- Renewables in the National Electricity Market (NEM) hit a quarterly record 37% of generation in Q2, thanks to new power stations and better wind conditions. Renewable electricity production increased by 18% compared to Q2 2024, from 17 terawatt-hours (TWh) to 20 TWh.
  - » Renewables penetration in the first half of 2025 reached 40% in the NEM, up from 35% in the first half of 2024.
- Discharge from utility-scale batteries reached a high of 0.6% of supplied electricity in the NEM.
- We approved 1.5 gigawatts (GW) of large-scale capacity in Q2, with a total of 2.6 GW approved so far in 2025. Our projection for approvals in 2025 has been revised upward to 3.0-3.5 GW.
  - » Capacity reaching final investment decision (FID) has been modest this year after a strong 2024, but most projects from Tender 1 of the Capacity Investment Scheme (CIS) have made progress toward FID. Future tenders are expected to support more capacity and be faster, with the CIS expanding to 40 GW by 2030 and using a single stage bid process.
- Large-scale generation certificate (LGC) prices have declined in Q2 due to supply exceeding demand, with the future price for 2028 vintage LGCs at $10.
- Non-RET demand for LGCs has been strong in 2025, with 7.2 million surrenders in the first half of the year. We expect total non-RET LGC surrenders to be at the upper end of its 2025 projection of 12.5-15 million, with potential for more surrenders in response to low LGC prices and as entities seek to meet their 2025 climate commitments.
- The Cheaper Home Batteries Program had a strong start, receiving more than 55,000 applications to the middle of September 2025, representing over one gigawatt-hour (GWh) of capacity. Of these applications, nearly 41,000 had been validated, representing over 700 megawatt-hours (MWh) of capacity.
  - » 45% of batteries are being installed concurrently with either a new solar PV system or an upgrade to an existing solar PV system, suggesting the Cheaper Home Batteries Program may accelerate solar PV installations.
- Solar PV installed in the first half of 2025 is down 12% to 1.3 GW compared to the first half of 2024, which appears to have been driven by the Cheaper Home Batteries Program causing delays in consumers deciding to install systems, and new systems installed with batteries not being commissioned until after the program commenced.
  - » It is expected that PV capacity will recover to the end of the year as the effects of the Cheaper Home Batteries Program play out, with 2.9 to 3.2 GW of capacity still anticipated for 2025.
- 2025 Australian carbon credit unit (ACCU) issuances remain on track to meet the projected range of 19 to 24 million ACCUs with the first half of 2025 seeing a record issuance of 9.5 million ACCUs.
- The Department of Climate Change, Energy, the Environment and Water (DCCEEW) has made progress on a new landfill gas method, two new proposed savanna fire management methods, and a new abatement calculation tool for savanna fire management.
- The CER is working on migrating ACCUs from the Australian National Registry of Emissions Units (ANREU) to the new Unit and Certificate Registry in late 2025. In the new registry ACCUs will also be given attributes for more information.
- The CER has approved the first Nature Repair Market project and is assessing 2 more applications.

1. Australian environmental markets

Insights

- The Australian carbon credit unit (ACCU) supply for 2025 remains strong, with 6.5 million ACCUs issued in Q2 2025. The total issuance for the first half of the year was a record 9.5 million ACCUs. Annual supply is tracking to meet the CER's estimated range of 19-24 million.
- Given the time to develop, implement and credit new projects, it is expected that ACCU supply to 2030 will be dominated by existing projects and projects currently being developed and registered.
- As existing projects reach the end of their crediting period, new methods and project development will be critical to securing future ACCU supply.
- Recent progress on new ACCU methods includes DCCEEW consulting on a new draft landfill gas method and new proposed savanna fire management methods. Integrated farm and land management and other proponent-led methods remain in development.
- Market sentiment and commentary has shifted away from concern regarding tightening supply following DCCEEW's consultation on these new methods.
- Moving into the second year of the reformed Safeguard Mechanism and beyond, ACCUs and Safeguard Mechanism credit units (SMCs) will remain a vital part of compliance strategies. Safeguard entities will likely secure supply early to meet future compliance obligations. However, the importance of on-site abatement continues to grow as facility baselines decline.
- ACCU and SMC market dynamics continue to be largely determined by safeguard demand. ACCU supply is expected to go through cycles of tightening due to the complex balance of issuance, method development and safeguard demand.
- The CER expects to migrate ACCUs from the Australian National Registry of Emissions Units (ANREU) to the Unit and Certificate Registry in late 2025. Once migrated, ACCUs will include additional information requested by the market. Market participants will then be able to trade and surrender both ACCUs and SMCs from the same Registry.
- The first Nature Repair Market project has been registered, and another 2 applications are being assessed.

Image 1.1 Q2 2025 ACCU market dynamics



Progressing the second year of the reformed Safeguard Mechanism

With the first compliance year of the reformed Safeguard Mechanism successfully completed, safeguard entities will be turning their attention to potential on-site abatement opportunities and ensuring they have sufficient supply of ACCUs and SMCs to meet their upcoming 2024-25 compliance obligations.

While the result from the first year was promising, the continuing abatement challenge is substantial. Baselines will continue to decrease at a default rate of 4.9% per financial year, aligning with the scheme's 2030 emissions reduction target.

- For existing safeguard facilities, the scheme specifies a 'hybrid' approach to baselines, initially focusing on facility-specific emissions intensity values and gradually transitioning to industry-average values by 2030. This approach incentivises production in sectors with the lowest emissions intensity, while also considering individual facility circumstances to keep initial costs manageable. By starting with values closer to facility-specific metrics, costs are introduced in increments, allowing businesses time to plan and implement emissions reduction projects.
    - » For 2023-24, the industry-average to facility-specific emissions-intensity values ratio was 10:90 and for 2024-25 the ratio will shift to 20:80. The transition to industry-average emissions-intensity increases from 10% per year to 20% from the 2027–28 financial year.
- For new facilities, baselines will be determined using emissions intensity values set using international best practice levels and adapted for the Australian context. The baseline for shale gas facilities is set to zero tonnes of carbon dioxide equivalent (CO_2-e) per year.

Overall, the combination of a shift to industry averages and annual declining baselines creates incentives for both onsite emissions reduction projects and demand for ACCUs and SMCs. While on-site abatement is critical, many of the required investments will take time, and the use of robust offsets remains essential to support this transition, particularly for hard-to-abate sectors. The CER expects to publish preliminary estimates of gross and excess emissions positions later this year.

Looking beyond 2030, the Australian Government has submitted Australia's next Nationally Determined Contribution (NDC) under the Paris Agreement to the United Nations Framework Convention on Climate Change (UNFCCC) and published a new Net Zero Plan. The Net Zero Plan and NDC includes Australia's 2035 emissions reduction target of a 62 – 70% reduction on 2005 levels, calculated as an emissions budget for the years 2031 to 2035. Settings under the existing Safeguard Mechanism will be reviewed in 2026-27, including the decline rate for the period to 2035, to ensure the scheme's design is appropriately calibrated and effectively delivering emissions reductions in line with Australia's targets. These processes will continue to involve consultation led by DCCEEW and advice from the Climate Change Authority (CCA).

ACCU and SMC market dynamics summary

Table 1.1 ACCU supply and demand summary for Q2 2025

ACCU	**Q2 2025**	
	Supply	**Demand**
Balance carried forward from Q1 2025	46.0m	
Change during the quarter:		
ACCU supply	+6.5m	
ACCU Scheme contract deliveries*		-0.1m
Non-safeguard cancellations		-0.5m
Safeguard surrenders		-0.2m**
Net balance at the end of Q2 2025	51.7m	
Cost containment measure	4.3m	

*Totals may not sum due to rounding. *This refers to ACCUs delivered under Commonwealth carbon abatement contracts in the quarter. These ACCUs are held in the cost containment measure and are available to eligible Safeguard entities to purchase at a fixed price of $82.68 for 2025-26. ** 0.2 million ACCUs were surrendered to meet 2023-24 safeguard compliance during the quarter. This occurred after the surrender deadline as part of an enforceable undertaking.*

Table 1.2 SMC supply and demand summary for Q2 2025

SMC	**Q2 2025**	
	Supply	**Demand**
Balance carried forward from Q1 2025	6.9m	
Change during the quarter:		
SMC supply	~	
Safeguard surrenders		~
Net balance at the end of Q2 2025	6.9m	

~ value is less than 100,000.

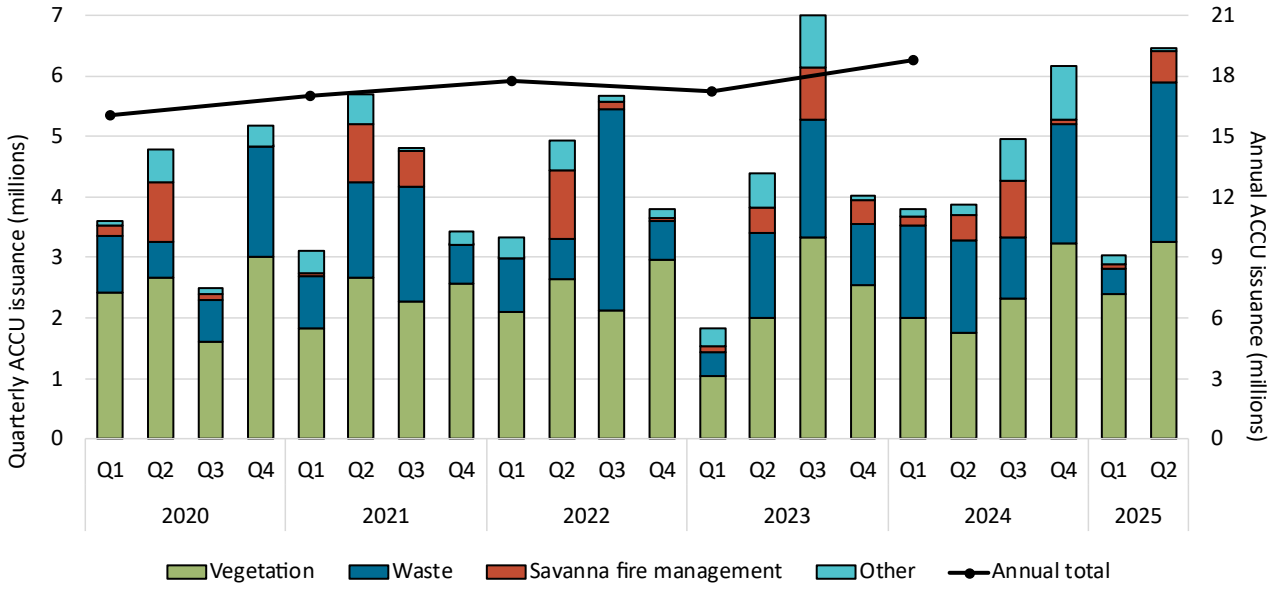
Strong ACCU issuances with some residual SMC issuances in Q2 2025

ACCU supply is on track to meet the CER's estimated range of 19 to 24 million for 2025.

In Q2 2025, 6.5 million ACCUs were issued, 67% higher than the 3.9 million in the same period last year. In Q2 2025, around 0.97 million ACCUs were issued to 37 projects claiming for the first time. The backlog of waste method crediting applications discussed in the Q1 2025 Quarterly Carbon Market Report (QCMR) was cleared in Q2 2025. This led to the second highest quarter for waste ACCU issuances (2.6 million).

Processing times have declined with a continued focus on the timely assessment of crediting applications supported by quality applications being submitted that require fewer requests for further information. At the end of Q2 2025, around 200 crediting applications were on hand for an estimated total of 7.4 million ACCUs, 82% of which were submitted in the quarter.

Figure 1.1 ACCUs issued by method type



Where a safeguard facility with emissions below its baseline is eligible for SMCs, there is no deadline by which these SMCs must be claimed. In Q2 2025, one entity claimed 18,600 SMCs relating to the 2023-24 compliance period. On 1 August 2025, the 2023-24 safeguard data highlights were updated accordingly. At the end of Q2 2025, 185,000 SMCs are yet to be claimed.

In Q2 2025, 99 ACCU Scheme projects were registered, including 57 under the soil carbon methods. Additionally, 37 avoided deforestation projects finished their crediting periods. A further 11 avoided deforestation projects will finish their crediting period in 2025. Once projects finish their crediting periods and submit a certificate of entitlement for their final ACCUs, they will no longer contribute to ACCU supply.

The native forests protected by these projects must be maintained for their permanence period, which for all but one of these projects is 100 years. The projects must continue to submit reports every 5 years. If any reversal of abatement is recorded, the CER has the power to require the relinquishment of ACCUs. In 2024, 1.9 million ACCUs were issued to the 48 avoided deforestation projects finishing their crediting periods this year, contributing 10% of total 2024 supply. After these 48 avoided deforestation projects have completed their crediting periods, 14 active avoided deforestation projects will remain.

On 21 May 2025, crediting period and permanence period dates were added to the ACCU project register as part of the first tranche of transparency updates. Further information on these updates see more ACCU project register transparency improvements.

Figure 1.2 Estimated ACCU issuance in 2025

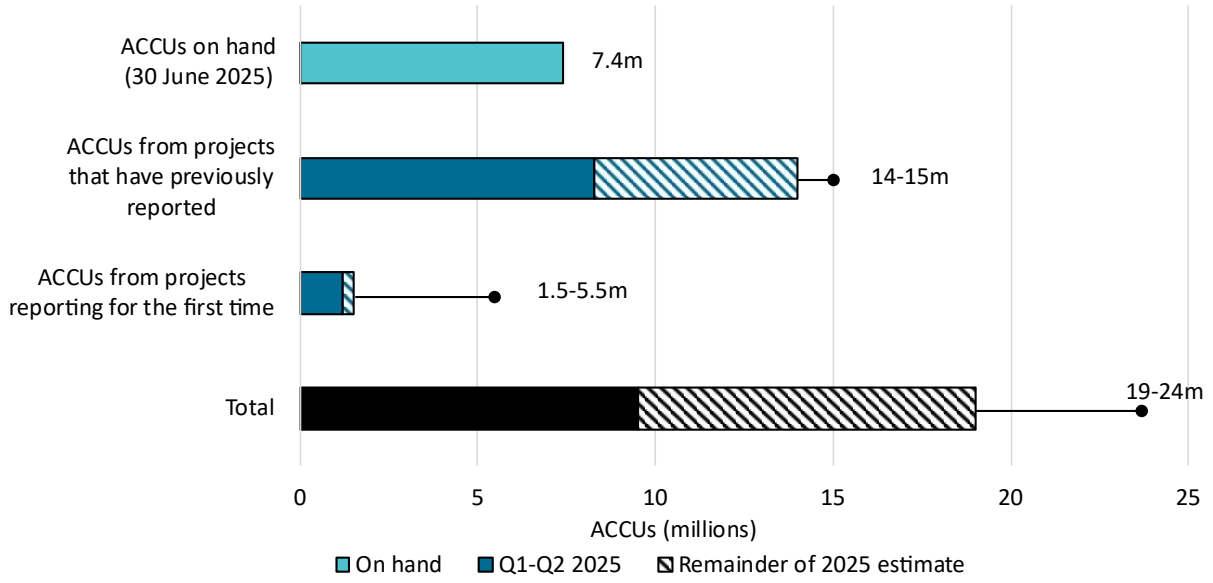
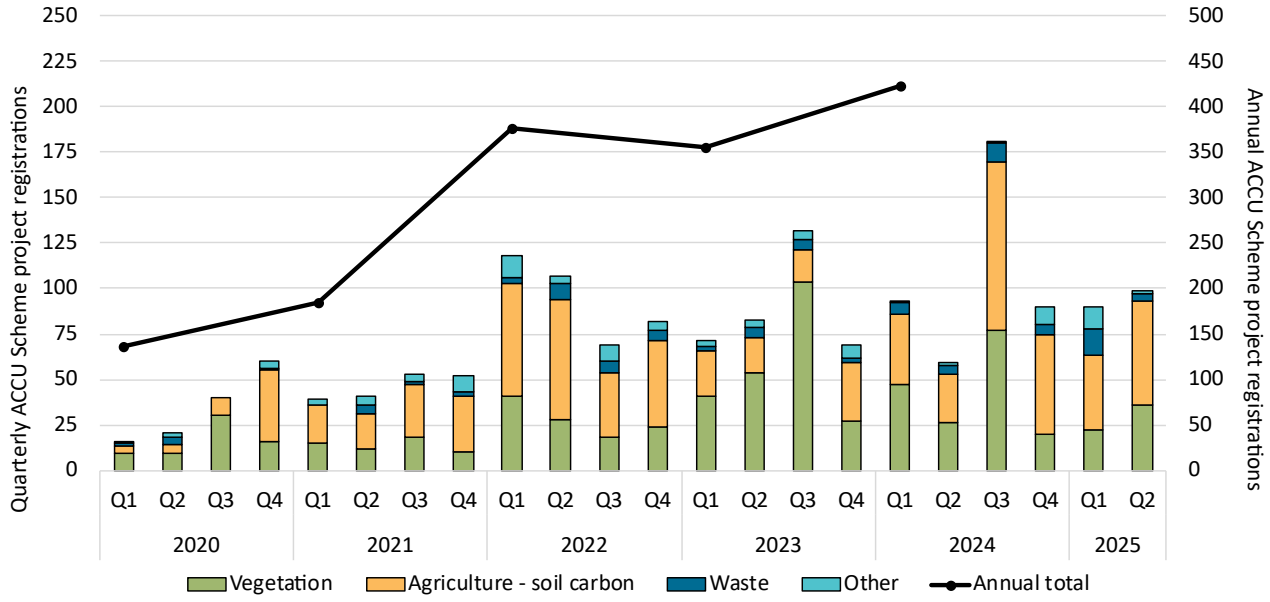


Figure 1.3 Registered ACCU Scheme projects by method type



Longer-term ACCU supply influenced by new methods

ACCU supply is expected to grow over the coming years, driven by additional methods, and expected increases in project registrations. Recent progress on new ACCU methods includes DCCEEW consulting on a new draft landfill gas method, a proposed variation of the animal effluent management method, a new abatement calculation tool for savanna fire management, 2 new proposed savanna fire management methods and ongoing work to develop the proposed Integrated Farming and Land Management method. These supply-side developments have likely contributed to shifting market sentiment with less concern around tightening supply in coming years.

The future ACCU supply-demand balance will be influenced by decisions on both the supply and demand side that naturally have long lead times:

- On the supply side, the average lead time from project registration to first credit issuance is just under 2 years.
- On the demand side, the dominant source is safeguard entities' who will consider the lead time and cost-effectiveness of onsite decarbonisation investments, impacting their future ACCU demand.

These characteristics suggest periodic cycles of tightening supply can be expected over time.

The CER will continue to monitor and analyse trends in these increasingly complex and interconnected markets.

Sources of ACCU supply and the CER's approach to projection

Future ACCU supply will come from:

1. new credits from existing projects
2. credits from new projects using existing methods
3. credits from new projects using new methods, comprised of those that are under development and those that will be developed in the future.

Historically, the QCMR has provided projections of (1) for the current calendar year. This is broken down into credits where claims are 'on hand', credits from projects that have reported in the past, and credits from existing projects that are yet to report.

Considering (2), CER analysis of ACCU project development timeframes suggests that almost all projects that will contribute to Australia's 2030 emissions reduction target will have already started development.

Over time, the CER expects to expand the projections in quarterly updates to cover (2) and methods under development (3), and to extend the timeframe of the analysis. This QCMR presents work on (3) with landfill gas method abatement estimates discussed below. Overall, CER's approach will provide the market with a more holistic, informed, and longer-term outlook on projected ACCU supply based on CER ACCU Scheme data. These quarterly updates complement Australia's official annual emissions projections produced by DCCEEW.

Method development

Market participants have shown increased interest in and sensitivity to the potential impact of new methods on ACCU supply over the last quarter. As methods sunset or are reviewed, and new methods are developed the CER expects market interest will be sustained and amplified.

It is important to note that all changes to methods and the making of new methods are subject to public consultation and consideration by the Emissions Reduction Assurance Committee (ERAC) that provides advice to the Minister on the making of new methods. The ERAC is yet to provide advice for methods under consultation. Great care should be taken in making assumptions about the potential volume and timing of ACCU supply until the methods are finalised. Crediting will depend on the final method settings, and the choices made by individual project proponents.

Six ACCU methods sunsetting with 2 under review

ACCU methods automatically end or 'sunset' after 10 years. This means no new projects can be registered under these methods once sunset, but existing projects continue as normal. The following methods are sunsetting on 1 October 2025:

- Beef cattle herd management 2015
- Estimating sequestration of carbon in soil using default values 2015
- Facilities 2015
- Oil and gas fugitives 2015
- Reducing greenhouse gas emissions from fertiliser in irrigated cotton 2015
- Reforestation and afforestation 2.0 2015

These methods, except for beef cattle herd management and reforestation and afforestation, have had low or no uptake since creation. These methods will be reviewed by the ERAC, who will consider and provide advice on the potential to remake the methods.

New landfill gas method

The draft new landfill gas method is with the ERAC to determine if it meets the offsets integrity standards following public consultation which closed in June 2025. The new method addresses recommendation 10 of the Independent Review of Australian Carbon Credit Units (Chubb Review) to have upward sloping baselines. This accounts for the business-as-usual emissions reduction likely to occur at landfills without the ACCU Scheme.

It is proposed that projects transitioning to the new landfill gas method will be able to extend their crediting period for up to 12 years. The extension is significant as 74 landfill gas projects (representing 43% of total landfill gas projects) have crediting periods ending in 2026. These projects account for around 3.8 million ACCUs each year, and about 80% of annual issuances from landfill gas projects.

The extension of crediting periods means that projects ending in 2026 would remain a material part of ACCU supply until 2038. CER estimates that issuances to landfill gas projects could fall from current levels of 4 to 5 million ACCUs to below 4 million over time. This gradual decline is driven by upwards sloping baselines under the new method. The CER will continue to monitor supply impacts from the new landfill gas method, which depends on factors such as the number of new projects registered and when existing projects transition to the new method.

New savanna fire management methods

DCCEEW is developing 2 new savanna fire management methods. On 14 August 2025, DCCEEW released public consultation material on the methods.

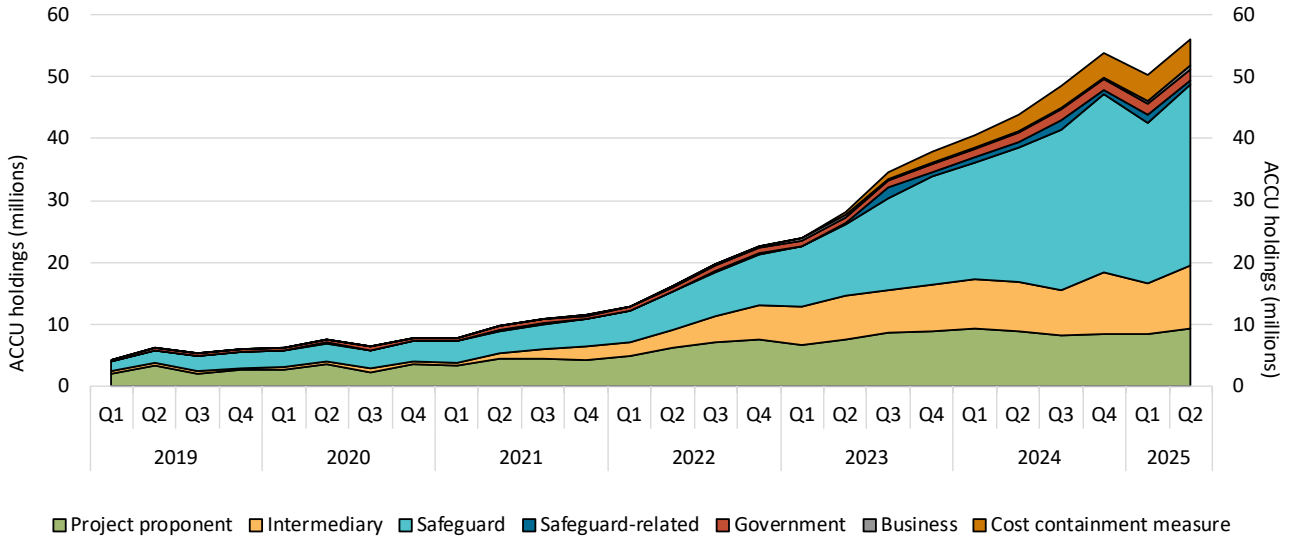
For the first time, a savanna fire management method is proposed to account for sequestered carbon in living and dead biomass, enabled by improvements in scientific modelling. On 13 June 2025, the Savanna Carbon Accounting Model (SavCAM), which is proposed to estimate abatement from these methods, was released for testing by DCCEEW. The tool incorporates the latest science and an independent assessment by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) has confirmed its abatement estimates are valid. Because the proposed method would credit sequestration in these additional carbon pools, SavCAM shows that on average, credited abatement for most projects is likely to be higher than under earlier savanna fire management calculators.

ERAC will formally invite public submissions on the methods, possibly commencing in October 2025. The feedback will inform the ERAC's assessment of whether the methods meet the legislated Offset Integrity Standards, prior to making a recommendation in relation to the proposed methods.

ACCU and SMC holdings build ahead of the 2024-25 safeguard compliance period

At the end of Q2 2025, ACCU holdings, excluding the cost containment measure, rebounded to 51.7 million. This followed ACCU holdings dipping to 46.0 million at the end of Q1 2025 after the surrender period for the 2023-24 safeguard compliance year. Safeguard and safeguard-related holdings had the largest increase, rising from 27.4 million at the end of Q1 to 29.8 million at the end of Q2 2025. Business holdings (that is, holdings by businesses for their own voluntary purposes) also had a large proportional increase of 64%, rising from 0.4 million ACCUs at the end of Q1 to 0.6 million ACCUs at the end of Q2 2025. Holdings are categorised based on the available information for accounts, so values should be treated as estimates.

Figure 1.4 ACCU holdings (in millions) by market participation



At the end of Q2 2025, 18 safeguard corporate groups held over double the ACCUs surrendered to meet their 2023-24 compliance obligation. However, these ACCUs could be held for a range of purposes in addition to safeguard compliance, including surrender against voluntary targets, or for another entity.

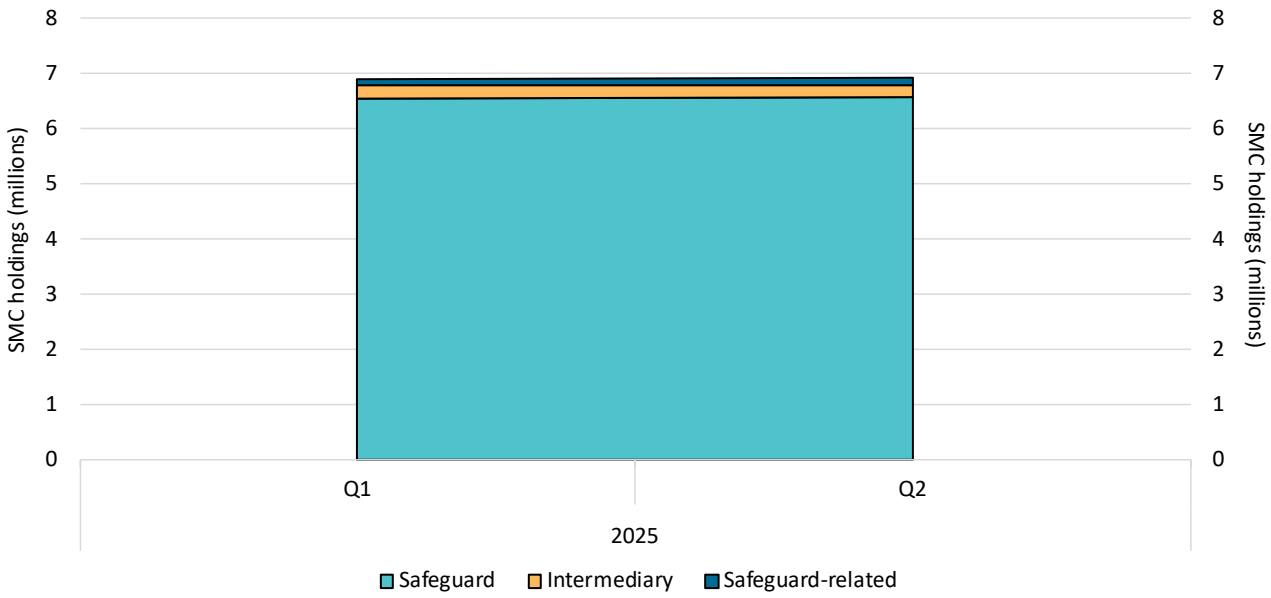
With varying hedging strategies, safeguard entities' ACCU holdings are only one indication of a forward ACCU position and may be an underestimation. For example, market intelligence suggests safeguard entities are entering into longer-term offtake agreements with ACCU projects, where the safeguard entities agree to buy a share or all the future ACCUs issued. In this case the future holdings of ACCUs cannot be determined as these agreements are not visible.

More broadly, carbon market dynamics are evolving as safeguard entities look to secure their future supply of ACCUs and SMCs at the desired price to meet potential excess emissions. The market has observed the rise of more sophisticated derivative instruments and use of futures contracts as safeguard entities and financial intermediaries hedge against potential future ACCU price movements.

At the end of Q2 2025, 6.9 million SMCs were held in the Unit and Certificate Registry. Of these, 6.7 million were held by a safeguard or safeguard-related entity and 0.2 million SMCs were held by intermediaries. Most SMCs (88%) were held by the responsible emitter they were issued to or a related entity, including subsidiaries or other entities in the same corporate family. SMCs are not offsets and can only be surrendered

to meet safeguard compliance obligations. As such, it is unsurprising for SMC holdings to be concentrated in the receiving entities account in the early years of the reformed scheme.

Figure 1.5 SMC holdings (in millions) by market participation



Non-safeguard related ACCU cancellations grow in Q2 2025

The lower end of the CER's estimated range of 1.3 to 1.5 million ACCU cancellations, excluding safeguard surrenders, is expected to be observed in 2025. In Q2 2025, 0.5 million ACCUs were cancelled for voluntary, non-safeguard compliance and government purposes, bringing the total to 0.7 million for the first half of 2025.

Figure 1.6 ACCU voluntary, compliance, and government cancellations

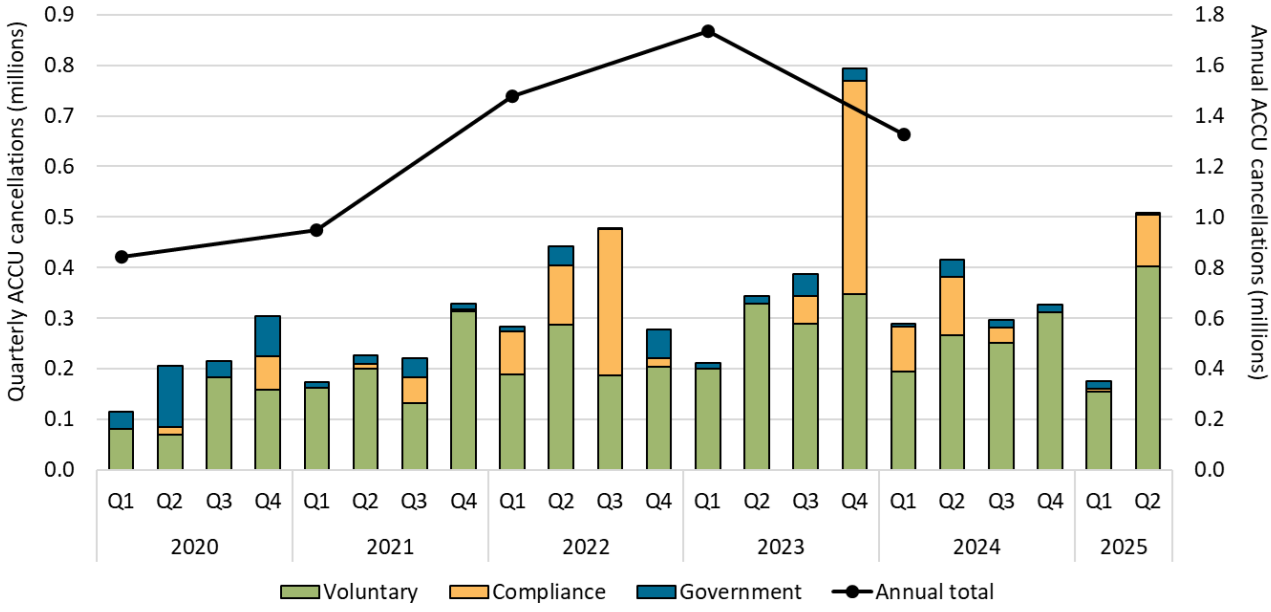
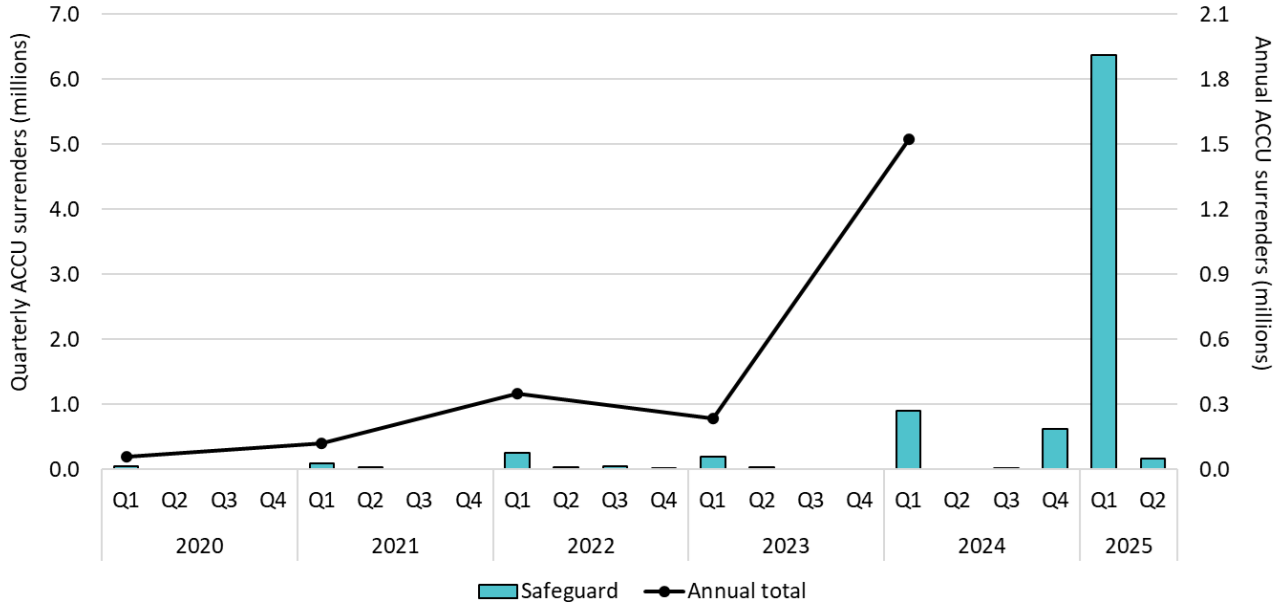


Figure 1.7 ACCU safeguard surrenders

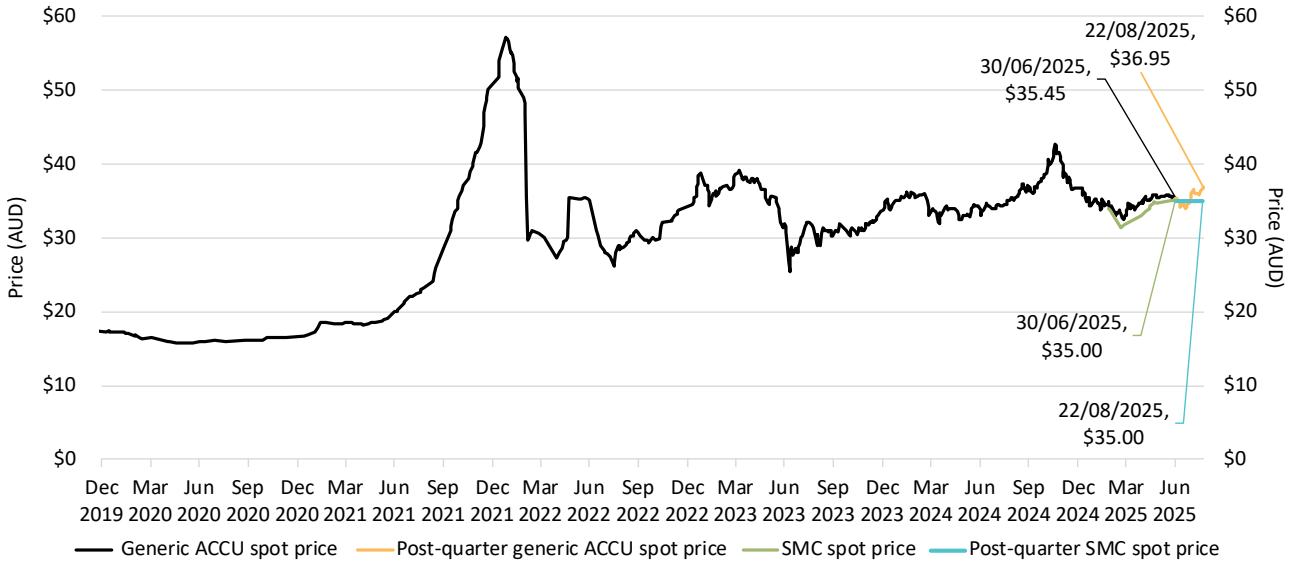


Small increases in ACCU and SMC spot prices

The generic ACCU weighted-average spot price rose from around $33 at the end of Q1 2025 to around $35.50 at the end of Q2 2025. Prices increased to around $36.95 on 22 August 2025. Generic (no avoided deforestation) ACCU trades made up 61% of reported transactions in Q2 2025. This is despite generic, generic (no avoided deforestation) and human-induced regeneration ACCUs trading at similar prices. Transactions involving safeguard or safeguard-related entities fell from 43% in Q1 2025 to 33% in Q2 2025. This is expected to increase later in the year ahead of the 31 March 2026 safeguard surrender deadline.

As expected, there was limited SMC trading in Q2 2025. During Q2 2025, 27 transactions for a total 375,000 SMCs were recorded in the Unit and Certificate Registry. The SMC spot price increased over Q2 2025 from $33.00 to $35.00. However, SMC transactions are low compared to ACCU transactions, and the market is new, resulting in prices being more volatile. The price spread between SMCs and ACCUs has tightened. In April 2025, the reported SMC price was around $1.80 lower than the generic ACCU spot price, tightening to around $0.50 lower at the end of June 2025.

Figure 1.8 Generic ACCU and SMC volume weighted spot price



First Nature Repair Market project registered and 2 new methods under development

On 12 August 2025, the CER approved the first project under the Nature Repair Market. The Biodiversity Market Register on the CER's website provides details on the first registered project. The Biodiversity Market Register will be updated regularly. At the end of Q2 2025, there were 2 applications on-hand for Nature Repair Market projects. Both applications and the approved project overlap with existing ACCU Scheme projects. Proponents may be able to streamline implementation and administration of each project when delivered in this manner.

At the end of Q2 2025, another two Nature Repair Market methods were under development by DCCEEW.

Improvements to market data transparency and infrastructure

More ACCU project register transparency improvements

As reported in the Q1 2025 QCMR, amendments to the Carbon Credits (Carbon Farming Initiative) Rule 2015 allowed the CER to publish more information in the ACCU project register. Updates were actioned in 3 stages over May to July 2025. Changes since the Q1 2025 QCMR include the type of estimation or modelling approach used by the project to calculate carbon abatement and where applicable, abatement modelling start dates. These changes increase transparency to support market participation and informed decision making. The CER is also making it easier for project proponents to voluntarily publish additional information about their project on the register. This will provide even greater transparency and information to the market.

ACCU migration to the Unit and Certificate Registry is on track

The Unit and Certificate Registry is built on Trovio's CorTenX technology. It will continue to deliver a modern and secure place to hold and transfer units and certificates to support Australia's expanding carbon and environmental markets.

The Unit and Certificate Registry currently holds SMCs. ACCUs are on track to be migrated from ANREU in late 2025. The forthcoming Renewable Electricity and Product Guarantee of Origin certificates and Nature Repair Market biodiversity certificates will also be held in the unit and certificate registry.

The Unit and Certificate Registry will enrich the information associated with each ACCU, and in future will enable more digital interoperability. Responses to the consultation run in late 2024 by the CER indicated broad support for interoperability, to allow external account holder systems and third-party platforms to connect to the Registry. In July and August 2025, the CER held targeted consultation to inform prioritisation of interoperability functions and models. Next steps for wider public consultation will be published on the CER website in the coming months.

The Unit and Certificate Registry will make it easier to view, filter and sort holdings by attributes. Attributes are immutable pieces of information, such as project method and location. The CER consulted on additional attributes during April and May 2025. A full list of these attributes will be published on the CER website prior to the ACCU migration.

The CER expects to add more functionality such as customised tagging of units and certificates within the next year. These additions align with information collected for the project register and in response to feedback received from consultations on the Unit and Certificate Registry.

Once ACCUs are migrated to the Unit and Certificate Registry, ANREU will remain operational to host certified emission reductions. In the first half of 2025, certified emission reductions were valued at $0.31 - $0.77, depending on vintage. Insights from CER discussions with holders of certified emission reductions

suggest the trading environment for these units is uncertain. Many market participants are looking for buyers and voluntary cancellation options. Timing on when trading activity and cancellations may occur seems to be driven by a range of factors. These include corporate annual emissions inventory cycles, forward contract delivery timeframes, and expectations around future demand.

The CER will continue to prioritise the useability, functionality and interoperability of the Unit and Certificate Registry.

Understanding certified emission reductions

In addition to units and certificates issued by the CER, the ANREU holds international certified emission reductions issued under the UNFCCC Clean Development Mechanism (CDM). The CDM allows for the generation of certified emission reductions in 'non-Annex I countries' (predominantly developing countries) which could be traded or cancelled to meet Annex I countries' emissions targets under the Kyoto Protocol. A certified emission reduction represents one tonne of CO_2-e.

The Kyoto Protocol's second commitment period concluded in 2020. However, at this stage there is no international agreement to formally close the CDM, under which certified emission reductions are issued. Some activities under the CDM have applied to transition to the Paris Agreement Crediting Mechanism established under Article 6.4 of the Paris Agreement. Transition arrangements are underway with elements remaining subject to decisions by parties to the Paris Agreement under the UNFCCC. The issuance of certified emission reductions is expected to taper off as the remaining supply of as-yet credited pre-2020 abatement runs out.

The CER is required to maintain ANREU for the holding, trading, and cancellation of certified emission reductions in Australia. This aligns with the *Australian National Registry of Emissions Units Act 2011* and is consistent with Australia's international obligations under the Kyoto Protocol and Paris Agreement. International negotiations on the future of the international transaction log, including connecting with national registries (including ANREU) are ongoing.

At the end of Q2 2025, 10.0 million certified emission reductions were held in 25 ANREU accounts. Most accounts are held by environmental consultation services, major manufacturers, and energy providers. Certified emission reductions continue to be cancelled. In the first half of 2025, 0.9 million certified emission reductions in ANREU were cancelled for voluntary purposes by 13 entities. This is smaller than previous years such as 2023, where 13 million were cancelled for voluntary purposes and 21.8 million for compliance purposes across the year. Since 2010, 146.2 million certified emission reductions have been held in ANREU, of which:

- Most (61.6 million) were cancelled for voluntary purposes
- 21.8 million were cancelled for compliance purposes
- 52.6 million were transferred to an account outside Australia, so further details are unavailable from ANREU.

Integrity and transparency

Over Q2 2025, the CER reviewed and verified the status of projects that have missed or are near their reporting deadline. When projects miss their reporting deadlines, the CER actively engages with project proponents to bring them back into compliance. However, some projects are not reporting because the project is no longer proceeding. This may be because regulatory approvals or consents could not be obtained, or the proponent has chosen not to proceed with the project.

During Q2 2025, the CER contacted 70 projects proponents regarding missed reporting deadlines. The CER expects some of these projects to be revoked over the coming months. Project revocations are a standard

compliance process to ensure the ACCU Scheme operates with integrity. While this may result in fewer active ACCU projects, this will have a negligible impact on overall projected ACCU supply as a percentage of revocations is already assumed in ACCU supply projections.

2. Large-scale renewable electricity

Insights

- Generation from large-scale renewables is strong and continues to set records.
  - » A Q2 record of 13.0 million Large-scale Generation Certificates (LGCs) were created in Q2 2025, up 17% from Q2 2024. The year-to-date total reached 27.2 million, tracking toward the upper end of the CER's projection of 54–57 million.
  - » Total large and small-scale renewables share of generation across the NEM averaged 37.2% in the quarter, up from 31.9% in Q2 2024 and a Q2 record.
    - › This increase has been driven by new renewable power stations, as well as better generation conditions for wind power, which saw a 31% year-on-year increase compared to Q2 2024, from 5.8 TWh to 7.6 TWh.
    - › Hydroelectricity (3.5 TWh to 3.7 TWh, 4%) and utility-scale solar (3.1 TWh to 3.6 TWh, 17%) also saw year-on-year increases compared to Q2 2024.
  - » Renewables penetration in the first half of 2025 reached 40% in the NEM, up from 35% in the first half of 2024.
- Discharge from utility-scale batteries increased to a new all-time quarterly average in the NEM, reaching 0.6% of electricity supplied to the grid in the quarter, up from 0.3% in Q2 2024.
- Capacity being added to the grid remains strong with 2.6 GW of large-scale renewable capacity approved for LGC creation by 22 August 2025. The CER has revised its 2025 projection for large-scale approvals up from 2.7–3.1 GW to 3.0–3.5 GW.
- Renewables investment is being supported by the CIS to develop projects ready for operation by 2030.
- Draft recommendations on the wholesale market settings for next decade from the independent NEM review were consulted on, with submissions closed on 17 September.
- In July, the Australian Government announced the CIS will support 40 GW of capacity, up from 32 GW. This increase has been facilitated by the competitiveness of tenders to date, and reduced costs of installing new solar and batteries.
- In Q2 2025, 6 projects reached FID, totalling 672 MW of capacity and bringing cumulative 2025 FID capacity to 952 MW. As frequently noted, FIDs for individual projects are separate commercial matters and hence variable over time. We will continue to provide updates each QCMR.
- The outlook for voluntary demand for LGCs remains strong.
  - » 4.5 million LGCs were surrendered in Q2 2025, bringing the year-to-date total to 7.2 million—24% higher than the same time in 2024.
- LGC prices have continued to decline over the quarter. Both supply and demand for LGCs are expected to continue growing over the remaining duration of the Renewable Energy Target (RET), with LGC prices adjusting to balance supply (including inventories) and demand (including shortfall charge redemption).

Market dynamics

Image 2.1 2025 Q2 LGC market dynamics

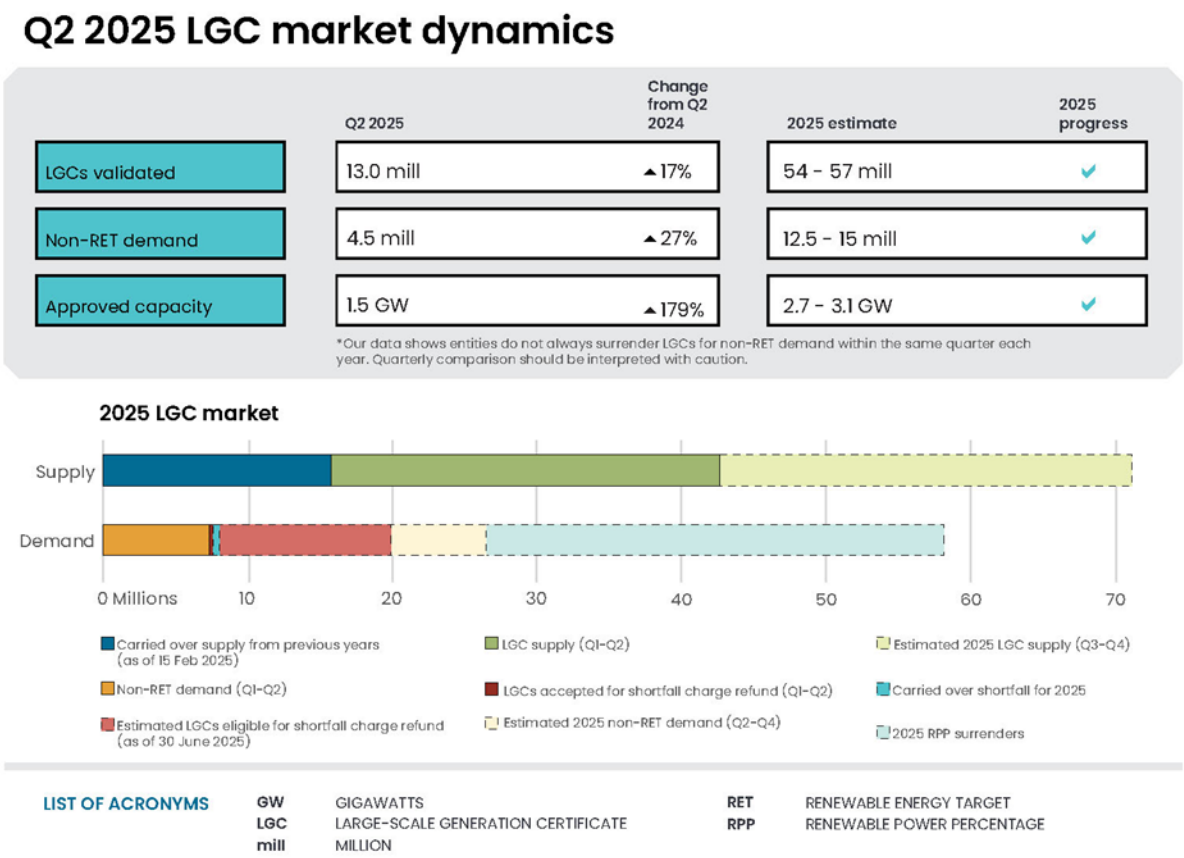


Table 2.1 LGC supply and demand balance

	LGCs (millions)	
	Supply	**Demand**
Supply carried over from previous years (as of 15 Feb 2025)	15.9	
LGC supply (Q1-Q2 2025)	+27.2	
Estimated 2025 LGC supply (Q3-Q4 2025)	+26.8 to +29.8	
Non-RET demand (Q1-Q2 2025)		-7.2
Estimated 2025 non-RET demand (Q3-Q4 2025)		-5.3 to -7.8
2025 RPP surrenders (before any shortfall)		-32.0
LGCs accepted for shortfall charge refund (Q1-Q2 2025)		-0.3
Estimated shortfall charge refund (Q3-Q4 2025)		-4.1
Carried over shortfall for 2025 (less than 10% of liability)		-0.4
Estimated balance as of 15 Feb 2026^		20.5 to 21.0

Notes: There is a total of 12.0 million LGCs in shortfall that are eligible for shortfall refunds to be claimed, representing $779.5 million in consolidated revenue. This excludes LGCs in shortfall from entities under administration.

Estimated 2025 LGC supply, and non-RET demand (Q3-Q4) based on the range of CER estimates for 2025 LGC creations (54 to 57 million) and non-RET surrenders (12.5 million to 15 million) after subtracting Q1-Q2 2025 figures.

^Sum of all supply items, less the sum of all demand items. This assumes no further shortfall is taken for the 2025 compliance year.

LGC creations are a function of eligible renewable generation capacity and how much of that capacity is used to produce electricity, which in turn is a function of weather conditions and economics.

A record total of 13.0 million LGCs were created during the quarter, bringing the year-to-date total to 27.2 million. This is a significant increase on the 24.9 million created through the same period in 2024. Total LGC creations are on track to reach closer to the upper end of the CER's projected 54 to 57 million for 2025.

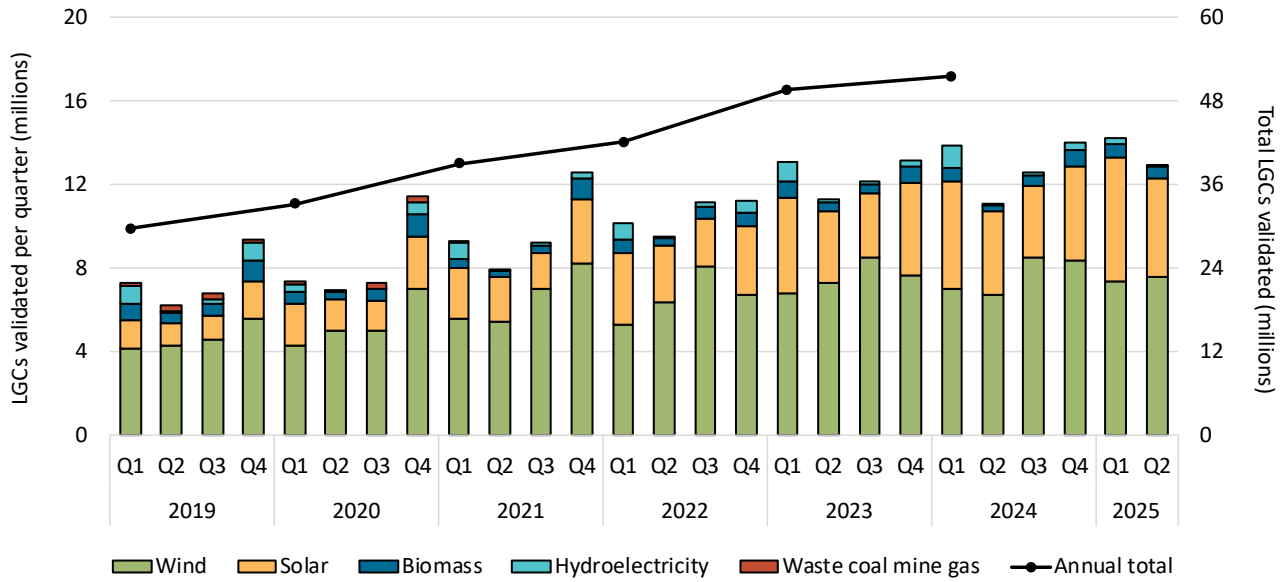
Most renewable technologies saw growth in LGC creations in the first half of 2025 compared to the first half of 2024 which was affected by both a wind drought and below-average Tasmanian rainfall. Wind, solar and biomass increased creations year-on-year by 9%, 16% and 37%, respectively.

In addition to favourable weather conditions, the growth in LGC creations is attributed in part to the commissioning of utility scale power stations that were accredited under the Large-scale Renewable Energy Target (LRET) over the last 12 months. Several of these power stations are still being commissioned and may generate a higher rate of LGCs in the future. An additional 1.1 million LGCs have been created in aggregate by such power stations in Q2 2025, including:

- MacIntyre Wind Farm (923 MW, Qld)
- Golden Plains Wind Farm East (756 MW, Vic)
- Stubbo Solar Farm (520 MW, NSW)
- Walla Walla Solar Farm 1 and 2 (353 MW, NSW)
- Goyder South Wind Farm 1B (196 MW, SA)
- Cunderdin Hybrid PV Solar and BESS (128 MW, WA).

Large-scale renewable generation contributed a Q2 record of 27.7% (14.9 TWh) of all electricity in the NEM. Wind (7.6 TWh), utility-scale solar (3.6 TWh), and hydroelectricity (3.7 TWh) all saw year-on-year increases in output in Q2 2025. In the NEM, utility-scale battery discharge increased to a new quarterly high of 0.6%, driven by significant increase in battery capacity and helping to make more efficient use of variable renewable energy.

Figure 2.1 LGCs validated by technology type



As highlighted in the Q1 2025 QCMR, supply continues to exceed demand in the LGC market. The RET has been successful in incentivising investment in large-scale renewable energy, with LGC creations outpacing compliance and voluntary demand despite robust growth in the latter. These conditions have driven down both spot and forward prices. A key future development to monitor is how prices will change if voluntary

demand increases materially above historical trends due to mandatory climate disclosures and entities reaching voluntary 100% renewable targets.

The LGC spot price reached its peak for Q2 2025 at $22.25 in early April but fell 26% to end the quarter at $16.50, reaching $12.60 on 22 August. All prices may be trending towards the current future price for 2028 vintage LGCs, which reached $10.25 at the end of Q2 2025.

In the last QCMR, we noted that these price declines are unlikely to materially impact investment, because the drivers of investment are changing, with the Capacity Investment Scheme and outcomes following the NEM review (discussed further below) to dominate future investment decisions. We also noted that liable entities tend to lock in prices for the LGCs they require through power purchase agreements, which hedge producers of renewable electricity against negative price movements in the spot market.

One area where lower LGC prices may have more of an effect on decision-making is in commercial and industrial solar PV at sizes above the 100kW threshold for the Small-scale Renewable Energy Scheme (SRES). Commercial and industrial solar investment will also be impacted by the short timeframe before the end of the RET, which further reduces the incentive to install solar. These effects may be offset by increasing electricity prices for some commercial and industrial customers. The government is currently considering the Climate Change Authority's (CCA) recommendation for measures to incentivise commercial and industrial solar PV. The CCA's options included raising the threshold for the SRES and extending the SRES timeframe for this market segment.

As discussed in previous QCMRs, the ongoing declines in LGC prices are expected to incentivise further growth in non-RET demand, as lower prices reduce the cost to entities of reaching renewable energy targets. Market intelligence indicates that both buyers and sellers are acting cautiously in the LGC market, both waiting out for further price movements in their favour.

Figure 2.2 LGC reported spot and forward prices

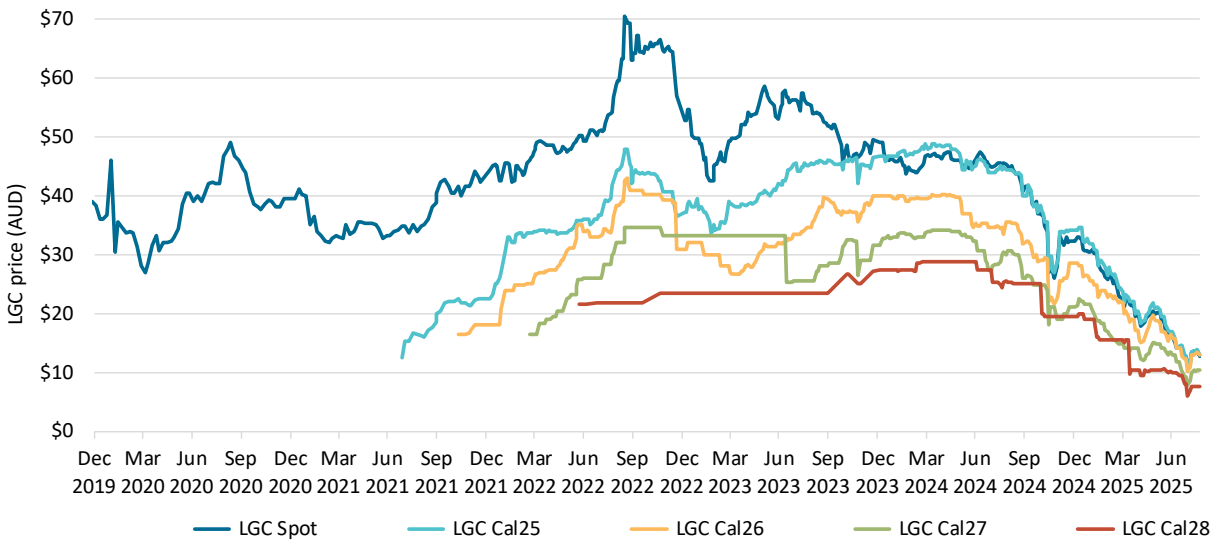


Figure 2.3 LGC reported spot price

Strong approvals in Q2 2025 and 2025 projection revised up

In Q2 2025, a total of 1.5 GW of new large-scale solar and wind projects were approved to generate LGCs. This includes 4 major power stations:

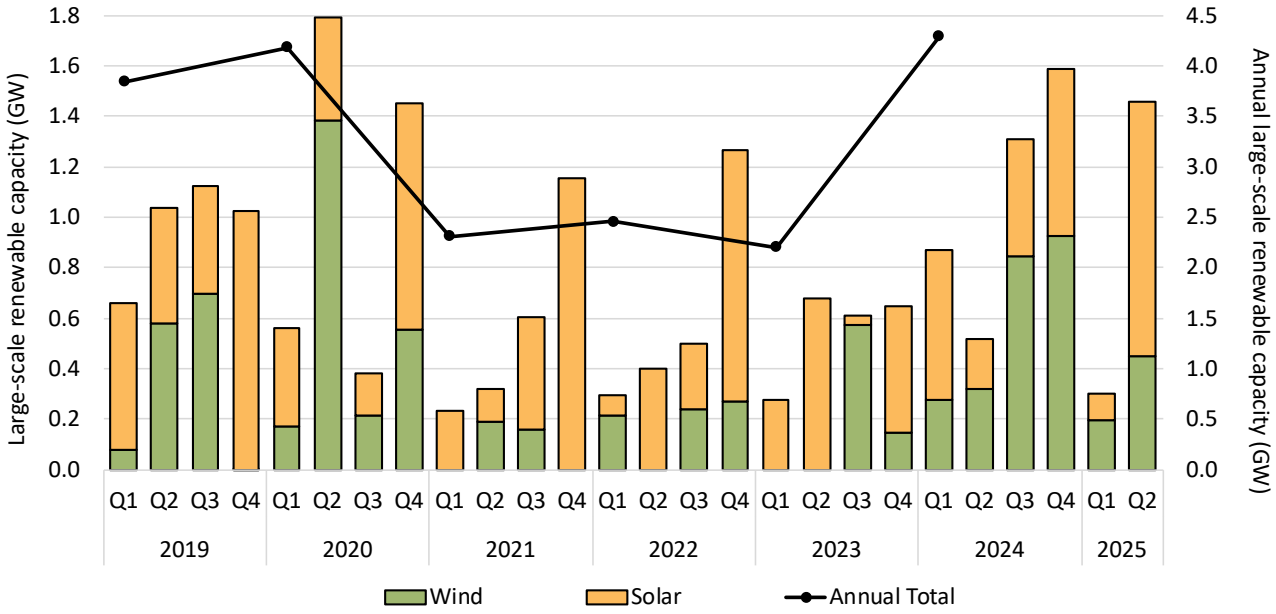
- Stubbo Solar Farm (520 MW, NSW)
- Clarke Creek Wind Farm (450 MW, Qld)
- Wollar Solar Farm (346 MW, NSW)
- Mokoan Solar Farm (58 MW, Vic).

Mokoan Solar Farm is the first project successful under Tender 1 of the CIS to be approved under the LRET.

From 1 July 2025 to 22 August 2025, an additional 820 MW of capacity has been approved, including 440 MW from Culcairn Solar Farm, and 46 MW from two biomass projects including Kwinana Waste to Energy Facility (42 MW, WA). These approvals bring total approved capacity to date for 2025 to 2.6 GW.

As of 22 August 2025, 691 MW of large-scale capacity is under assessment by the CER. If all of this is approved within the year—and assuming no further applications that can get approved—the total approved capacity for 2025 could reach 3.3 GW. Given the approvals to date and the current project pipeline, the CER is revising its projection of approved large-scale capacity for 2025 upward to 3.0 to 3.5 GW from the conservative 2.7 to 3.1 GW forecast in the Q4 2024 QCMR.

Figure 2.4 Approved large-scale wind and solar capacity



Modest year to date for FID after a strong 2024

In Q2 2025, 6 projects reached FID, totalling 672 MW of capacity. Notable projects include:

- Wandoan South Solar Farm (240 MW, Qld)
- Cloudbreak Solar Farm (190 MW, WA)
- Lancaster Solar Farm (106 MW, Vic).

This brings the cumulative FID capacity to 952 MW by the end of Q2 2025. This is around 75% of the average we have seen over the first 2 quarters since 2019. It should be noted however that FID is inherently variable over time. For example, FID in 2022 was more than double the FID capacity in 2023 due to a big Q4 2022.

In the Q4 2024 QCMR, we observed that we would expect revenue underwriting agreements available to projects supported through finalised CIS contracts would increase the likelihood of reaching financial milestones such as FID in a reduced timeframe. It was also noted that total capacity reaching FID in 2025 could be around 6 GW or potentially more. Based on progress to date, we now expect this capacity to reach FID over a longer timeframe.

Publicly available information shows 10 of the 19 projects awarded under Tender 1 of the CIS have made progress towards FID, with several receiving development approvals, being granted Renewable Energy Zone (REZ) rights, or starting Environment Protection and Biodiversity Conservation (EPBC) Act assessments during Q2 2025. Of the 6.4 GW of capacity supported under Tender 1 of the CIS, 4.5 GW has advanced in its development since the announcement of successful projects. This includes 1 GW that has had EPBC applications approved, started construction, or been accredited under the LRET. Overall, one of the 19 Tender 1 projects (Goulburn River Solar Farm, 450 MW, NSW) has reached FID and is under construction and one (Mokoan Solar Farm) has been accredited.

Figure 2.5 CIS Tender project capacity by development stage as of 31 July 2025

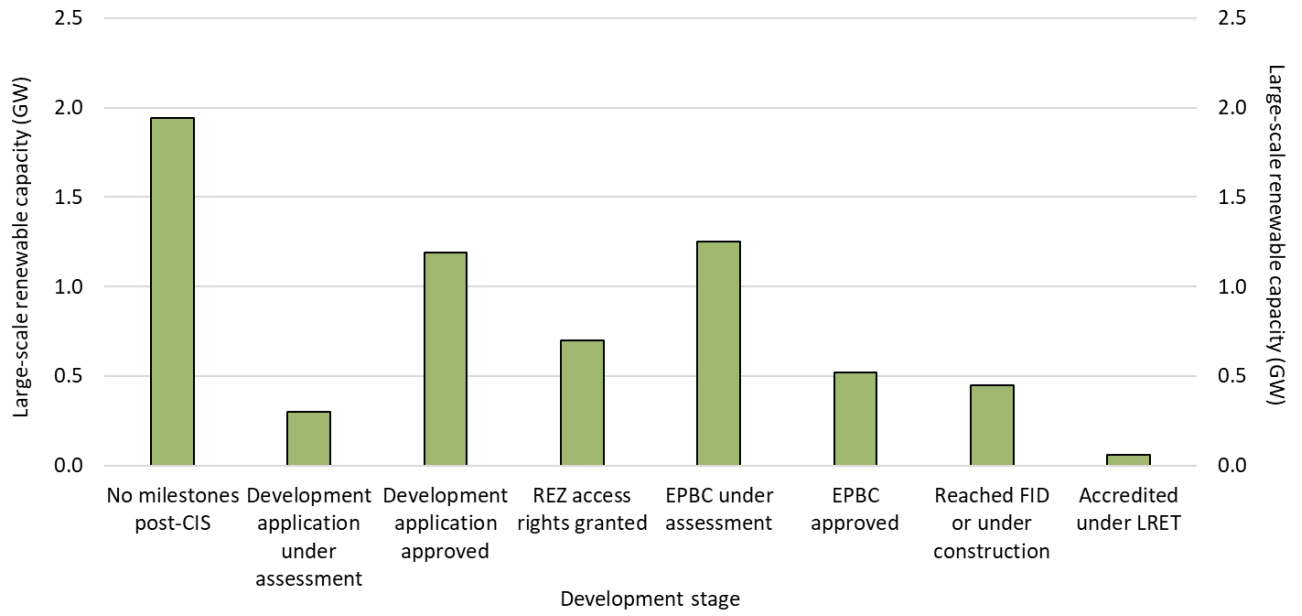
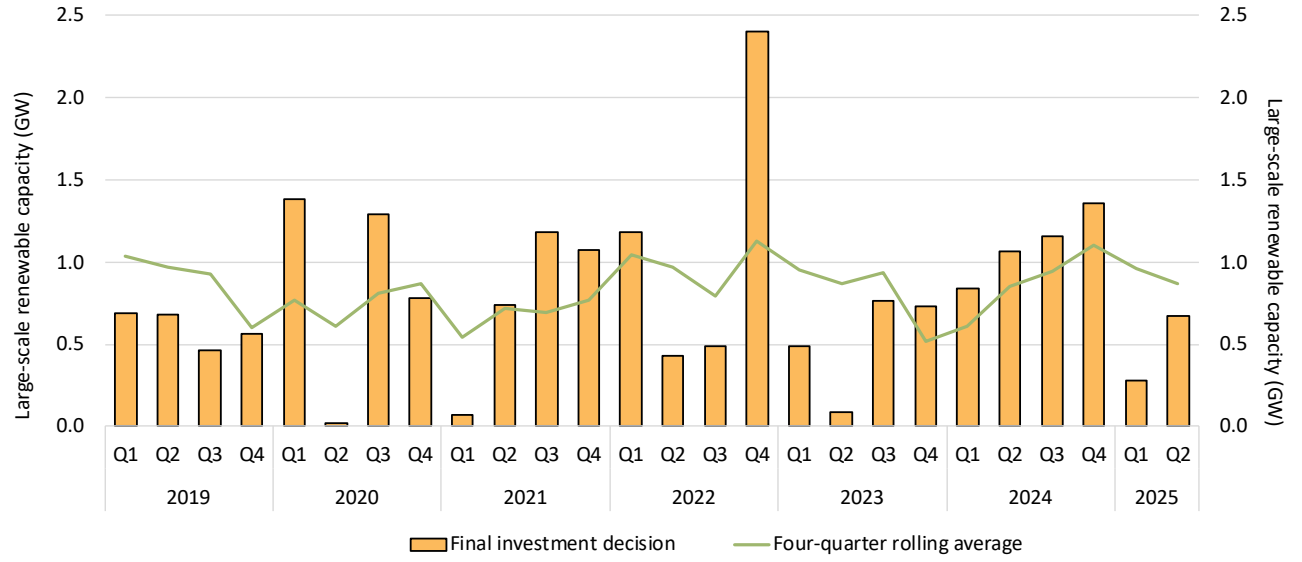


Figure 2.6 Final investment decision capacity (GW) for large-scale renewable generation



Capacity Investment Scheme update

On 29 July, the Australian Government announced a 25% expansion of the CIS to support 40 GW of new renewable energy by 2030. This increase raised targets from:

- 23 GW to 26 GW of renewable generation capacity
- 9 GW to 14 GW of clean dispatchable capacity.

This increase has been facilitated by the competitiveness of tenders to date and reduced costs of installing new solar and batteries.

This followed an 18 June announcement that future CIS tenders will use a single-stage bid process—submitting project and financial details together—cutting the tender timeline from 9 to around 6 months for faster certainty to project proponents and less overlap between tender rounds. Unsuccessful bids may now also be placed on a reserve list for potential Capacity Investment Scheme Agreements if successful projects do not proceed.

Stage B (financial bids) for Tender 3 and Tender 4 closed in Q2 2025, on 1 May and 5 June respectively. Results are expected in September and October respectively:

- Tender 3 targets 16 GWh of dispatchable capacity (equivalent to 4 GW for 4 hours) for the NEM. It received 124 bids totalling 135 GWh in Stage A (project bids).
- Tender 4 aims to secure 6 GW of generation capacity for the NEM. It received 84 bids totalling 25.6 GW in Stage A.

CIS Tenders 5 (Western Australian Wholesale Electricity Market (WEM) generation) and 6 (WEM dispatchable) opened on 29 August 2025. Tender 7 (NEM generation) is expected to open during Q3 2025.

Tender 4 shows growing interest in hybrid solar-storage projects over standalone solar. While both Tenders 1 and 4 had 84 bids, the total generation capacity of Tender 4 bids was 5% lower (from 27 GW to 25.6 GW), but the storage capacity increased by 67% (from 16 GWh to 26.7 GWh). This shift toward storage helps projects better match electricity supply with demand.

NEM wholesale market setting review draft report released

On 6 August 2025, the NEM wholesale market settings review panel released its draft report, with consultation closing on 17 September 2025. The draft report finds that the NEM is facing mounting pressures, becoming more weather dependent, more energy constrained, less scheduled, and less dispatchable. It presents a vision of managing risks in the NEM to ensure it has sufficient investment in critical assets and services, more efficient and stable prices for consumers, reduced reliance on government intervention, and has a more unified transition from the ageing coal-fired power station fleet.

The panel made 9 draft recommendations, themed around supporting the efficient operation of the spot market, and reforms to:

- enhance liquidity in the short-to-medium-term derivatives market
- support new investment in the services the NEM needs
- ensure access for consumers to reliable electricity at fair, simple, and stable prices.

The final report and its recommendations will be considered by energy ministers through the Energy and Climate Change Ministerial Council.

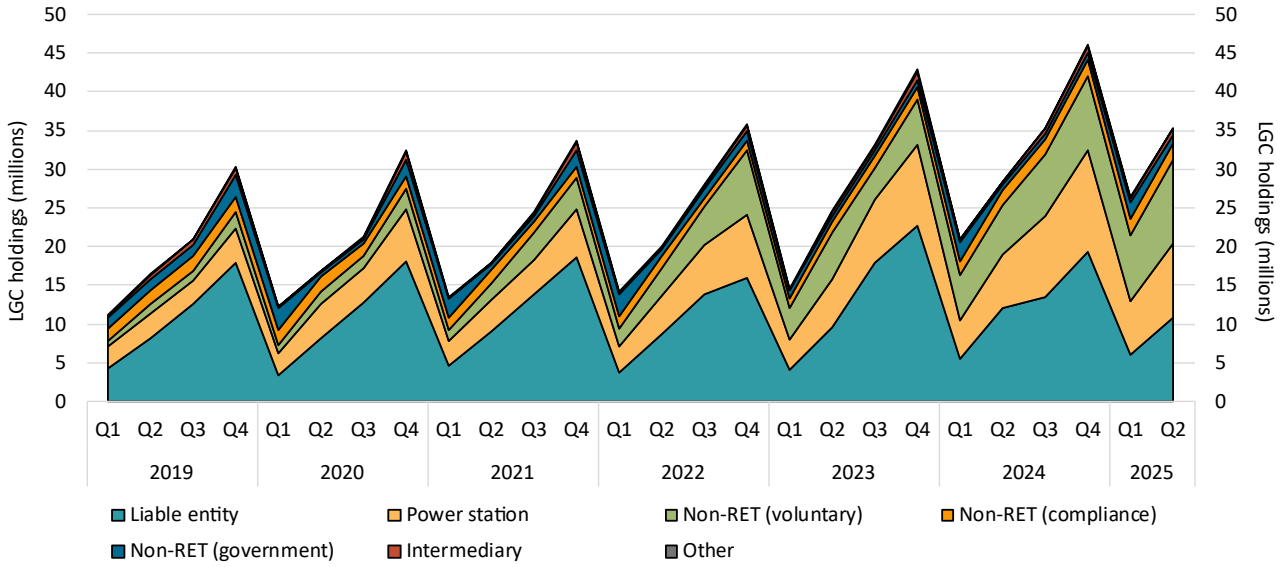
Strong non-RET demand to date in 2025

LGC holdings increased by 9.0 million across the quarter, rising from 26.4 million to 35.4 million. This increase was driven by increases in holdings by liable entities (+4.8 million), power stations (+2.6 million), and non-RET (voluntary) (+2.2 million) accounts. Non-RET (government) entities saw a 1.1 million decrease in holdings due to the ACT Government surrendering certificates for the 2024–25 financial year to meet their 100% renewables target.

In Q2 2025, 4.5 million LGCs were surrendered for non-RET purposes, bringing the year-to-date total to 7.2 million. Compared to the same period in 2024, non-RET surrenders have increased by 1.4 million, or 24%. This growth was driven by existing participants surrendering more LGCs.

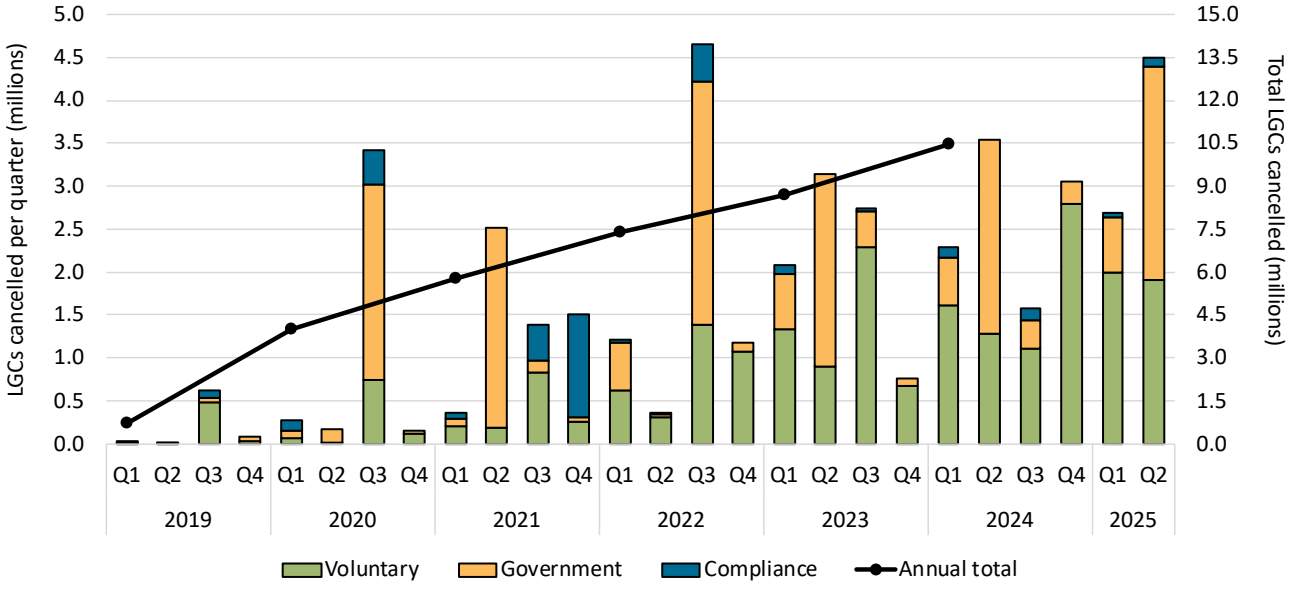
The CER expects that non-RET LGC surrenders will total towards the upper end of its 2025 projection of 12.5 to 15 million. There is potential for further upside; non-RET voluntary surrenders: insights from improved data classification provides insights for potential voluntary demand from new CER analysis.

Figure 2.7 LGC holdings (in millions) by market participation



In addition to the potential for growth in voluntary demand from existing sources, the number of entities surrendering LGCs for the first time is growing. In Q2 2025, 60 unique entities surrendered LGCs for the first time, a 62% increase compared to 37 first-time surrenders in Q2 2024. Although the volumes surrendered by these new entrants are currently small (with a median surrender of around 159 LGCs), they are expected to increase over time. Historically, entities tend to surrender more LGCs in subsequent years following their initial participation. For example, the median second-year surrender for entities is 67% higher than the amount surrendered in the first year.

Figure 2.8 Non-RET LGC cancellations by demand source



Non-RET voluntary surrenders: insights from improved data classification

Improvements to the CER's classification of non-RET surrenders mean more insights into potential non-RET demand for LGCs.

Entities with voluntary renewable energy or other climate commitments are one source of voluntary demand for LGCs. Entities with large emissions from electricity ('Scope 2 emissions') without a compliance obligation to manage emissions such as the Safeguard Mechanism may be a future source of increased demand. Table 2 shows the top 100 entities by Scope 2 emissions, aggregated by industry. It shows scope 2 emissions according to National Greenhouse and Energy Reporting (NGER) data, and recent LGC surrender activity.

Based on publicly available information, over 90 of these 100 entities would report in the first tranche of mandatory climate reporting. This would require entities to report on *climate-related information* such as their metrics and targets in relation to scope 1, 2, and 3 greenhouse gas emissions.

LGC surrenderers tend to be companies in the supermarket, data centre, telecommunications, and transport sectors. Although many of these organisations have already surrendered significant volumes of LGCs, there is still considerable potential for growth. For example, all 5 entities aggregated under the retail trade industry have 100% voluntary renewable electricity commitments, mostly by 2025.

This analysis has been made possible by recent improvements in how the CER classifies non-RET surrenders. Previously, surrenders were classified based on the account making the surrender, which posed challenges because entities often surrender on behalf of others. This made it difficult to accurately analyse trends and identify the true source of LGC demand.

The CER has implemented a process to identify the actual benefitting entity for each non-RET surrender. This is based on information provided in surrender notes, which are submitted as free text. These changes do not affect the total number of LGCs surrendered for non-RET purposes but do improve the classification of surrenders across voluntary, compliance, and government categories.

The new identification process does not account for surrenders made by entities through programs such as GreenPower, as the CER cannot ascribe these surrenders to specific benefitting entities. Gaps in the data on non-RET surrenders also may not allow for surrenders to be attributed across multiple time periods (e.g. surrenders for multiple quarters or years) unless specified in the surrender notes.

Where applicable, these updates have also been applied to LGC holdings.

*Table 2.2**1** LGC surrenders by top 100 Scope 2 emitters*

	No. of entities	Scope 2 emissions (Mt CO2-e)	Electricity consumption based on market-based residual factors (million MWh/LGCs)	LGC surrenders (millions)	
				2024	Q1-Q2 2025
Mining	23	24.8	30.6	0.4	0.7
Electricity, gas, water, and waste services	22	13.9	17.2	0.3	0.2
Manufacturing	22	9.8	12.0	<0.1	<0.1
Retail trade	5	3.3	4.0	0.9	0.3
Information media and telecommunications	9	3.3	4.0	0.2	0.5
Transport, postal and warehousing	8	2.0	2.5	0.2	0.3
Other industries	11	2.0	2.5	<0.1	<0.1
Total (top 100)	**100**	**59.0**	**72.8**	**2.0**	**2.0**

Note: Scope 2 emissions are reported under the National Greenhouse and Energy Reporting (NGER) scheme. To estimate electricity consumption, these emissions are divided by the market-based emissions intensity factor, which is 0.81 kg CO_2-e per kWh for 2024–25. This is for illustrative purposes only and will differ from the actual level of electricity consumption. Only includes surrenders which the CER was able to allocate to the entity based on details provided in the non-RET surrenders data. Numbers have been rounded and may not sum to totals.

Renewable Electricity Guarantee of Origin scheme register

The Renewable Electricity Guarantee of Origin (REGO) scheme is expected to commence in November this year and operate alongside the RET. It will certify renewable electricity from an expanded set of sources relative to the RET. It is intended to provide an ongoing renewable electricity certification mechanism once the RET ends in 2030. REGO certificates will be tradeable like LGCs, but unlike the RET there are no annual scheme targets. Only LGCs can be surrendered for compliance under the RET.

There will be 3 types of systems eligible to register under REGO as renewable electricity facilities: electricity generation systems (systems that generate electricity from an eligible renewable energy source), energy storage systems (systems that can store energy and release electricity), and aggregated systems (multiple generation or storage systems managed as a single facility). Electricity generation and energy storage systems can register from the start of the scheme. More work is planned to include aggregated systems into REGO.

During the period up to the end of 2030 when both schemes are active, facilities already registered under the LRET will have the option to create either LGCs or REGOs for each unit of electricity. This includes below-baseline generators, which will be eligible to produce REGOs for all their generation, although only below-baseline REGOs can be created for electricity generation below the facility's baseline. Storage facilities will be required to demonstrate that the electricity they have stored is from renewable sources to be eligible to create REGOs from subsequent electricity dispatch. This can be demonstrated through a direct supply

relationship with an eligible renewable electricity generation system, or through the retirement of REGOs or surrender of LGCs.

For generators eligible to produce either certificate, it is expected LGCs will be preferred over REGOs unless the buyer of the certificate requires time stamping as LGCs can be used for both RET obligations and voluntary surrenders, while REGOs cannot be surrendered under the LRET.

The GO register will enable users to identify and inspect facility's characteristics and registration status and the attributes of REGO certificates. It will display additional details compared to the current REC Registry, including:

- Temporal information on electricity generation or dispatch (choice of hour, day, month, or year).
- Identification of REGO certificates from 'below baseline' generation from pre-1997 facilities.
- Electricity exported from Australia.

The REGO scheme aims to furnish a comprehensive range of attributes as certificate inclusions. Tables 2.3 and 2.4 provide a comparison of some key attributes in both the current REC Registry and the forthcoming GO register, noting GO register attributes are subject to legislative finalisation. DCCEEW have also consulted on additional optional content relating to First Nations ownership status and other verifiable co-benefits associated with the contribution of First Nations peoples, with policy development ongoing.

Table 2.3 Summary of power station and facility information available in the REC Registry and proposed for the GO Register

	REC Registry	GO register
Name/Location/Identifier	Yes	Yes
Accreditation date	Yes	Yes
Facility type		Power station/electricity generation/energy storage/aggregated system
Status	Yes	
Fuel source	Yes	Yes
Baseline	Yes	Yes
Network connection		Yes
Other schemes participation		TBC
Native title or Indigenous Land Use Agreement		TBC

Note: Items labelled TBC are still subject to finalisation following consultation by DCCEEW

Table 2.4 Summary of certificate information available in the REC Registry and proposed for the GO Register

	REC Registry	GO register
Amount of electricity represented	Yes	Yes
Timestamp		TBC
Energy source	Yes	TBC
Originating facility accreditation code	Yes	TBC
Certificate status	Yes	Yes
Certificate type		Standard REGO/residual REGO/below baseline REGO/storage REGO

Certificate serial number	Yes	TBC
Serial number sequence	Yes	
Exported electricity		TBC
Retirement purpose		TBC
Retirement beneficiary		TBC

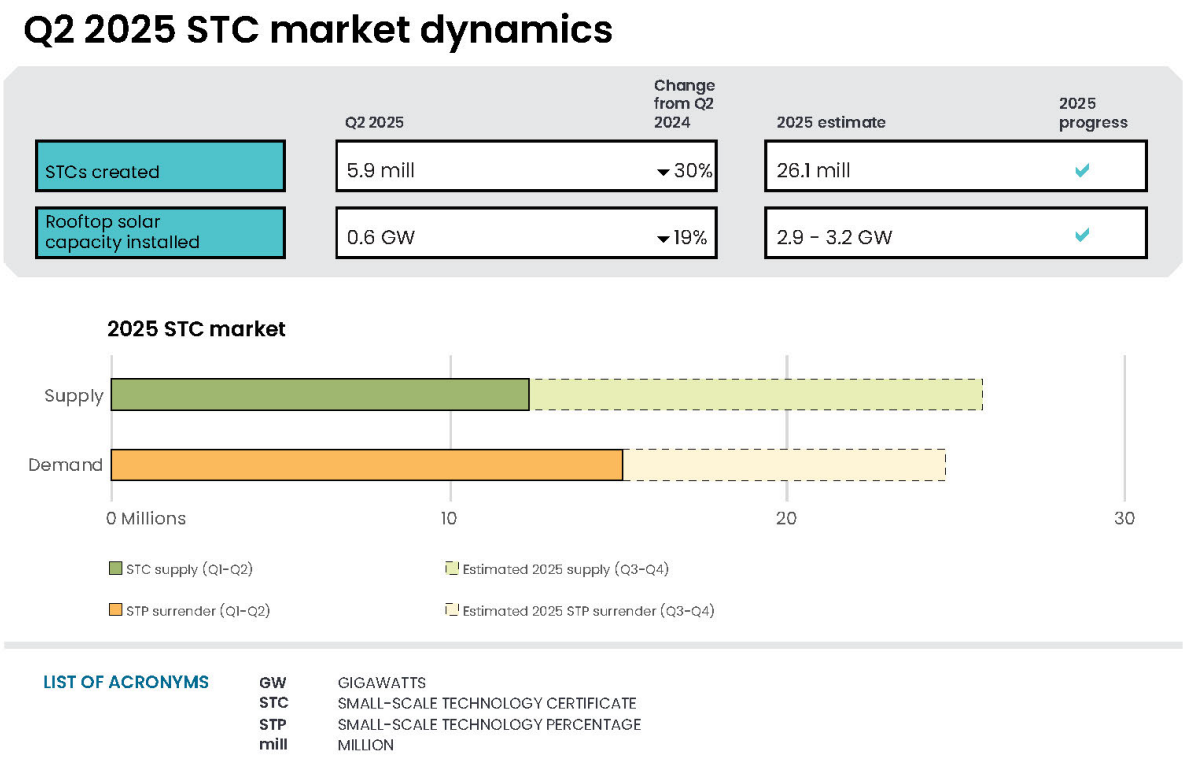
Note: Items labelled TBC are still subject to finalisation following consultation by DCCEEW

3. Small-scale Renewable Energy Scheme

Insights

- The Cheaper Home Batteries Program opened for applications on 1 July 2025, with the CER receiving around 55,000 applications by mid-September, representing over one GWh of capacity.
  - » Of these applications, nearly 41,000 had been validated, representing over 700 MWh of capacity. This is greater than the initial operational capacity of the Waratah Super Battery, Australia's largest in-service battery, at 700MWh.
- Around 45% of solar batteries are installed concurrently with a PV system, with the remainder retrofitted. ('Concurrent' systems include those installed from scheme announcement to launch.)
- On average, households are installing batteries with capacity equivalent to the energy their solar PV generates when it runs at full capacity for 2 hours.
- There was a 12% decline in PV capacity to 1.3 GW in the first half of 2025 compared to the same period in 2024. Market intelligence suggests:
  - » Some prospective system owners delayed installations, awaiting the Cheaper Home Batteries Program.
  - » A proportion of battery/PV combination installations that were ready to commission before 1 July, were commissioned and registered subsequently.
  - » Longer term, we expect to see an increase in PV capacity as households seek to make full use of their newly installed batteries.
- There is expected to be strong demand for new solar PV systems to replace older and smaller systems that have reached the end of their contracted feed-in tariff.
- With lower PV capacity, quarterly STC creations were below expectations. More liable entities therefore turned to the STC Clearing House to meet their quarterly surrender requirements.

Image 3.1 2025 Q2 STC market dynamics



Strong start to the Cheaper Home Batteries Program

The Cheaper Home Batteries Program opened on 1 July and is progressing well with strong interest.

- Batteries installed with new or existing solar PV systems are now eligible to create STCs, which will reduce the cost of the typical battery by around 30%. Further details on eligibility and the rate of STCs that may be created per kilowatt-hour of battery capacity are available on DCCEEW's website.
- The obligations of liable entities under the SRES – generally electricity retailers – are not affected by the inclusion of batteries in the scheme. This will ensure the cost of the Cheaper Home Batteries Program will not be passed through to electricity prices.
- The government will regularly purchase STCs equivalent to the volume created through the Cheaper Home Batteries Program for battery installations through the STC Clearing House. These STCs will subsequently be cancelled to remove them from the market.

Cheaper Home Battery Program – results so far

The Cheaper Home Batteries Program saw 40,619 battery installations validated by the CER with a total capacity of 725 MWh through to 14 September 2025, with an additional 14,935 installations representing 314 MWh of capacity under assessment. To put this in context, this is already bigger than the 700 MWh initial operational capacity of Australia's largest in-service battery, the Waratah Super Battery.

As with all other eligible systems under the SRES, there is a 12-month window for registered persons to create STCs. Consequently, this figure will increase over time as more systems that were installed apply for STCs under the scheme.

Figure 3.1 Small-scale cumulative validated battery capacity installed by state and territory in kWh.

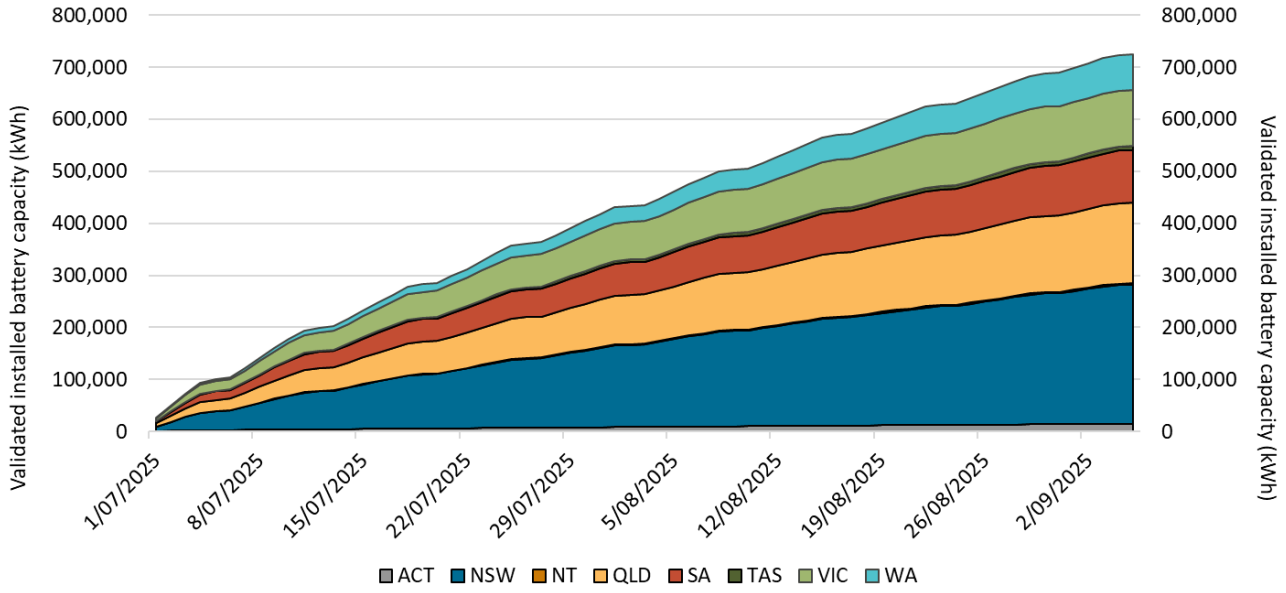
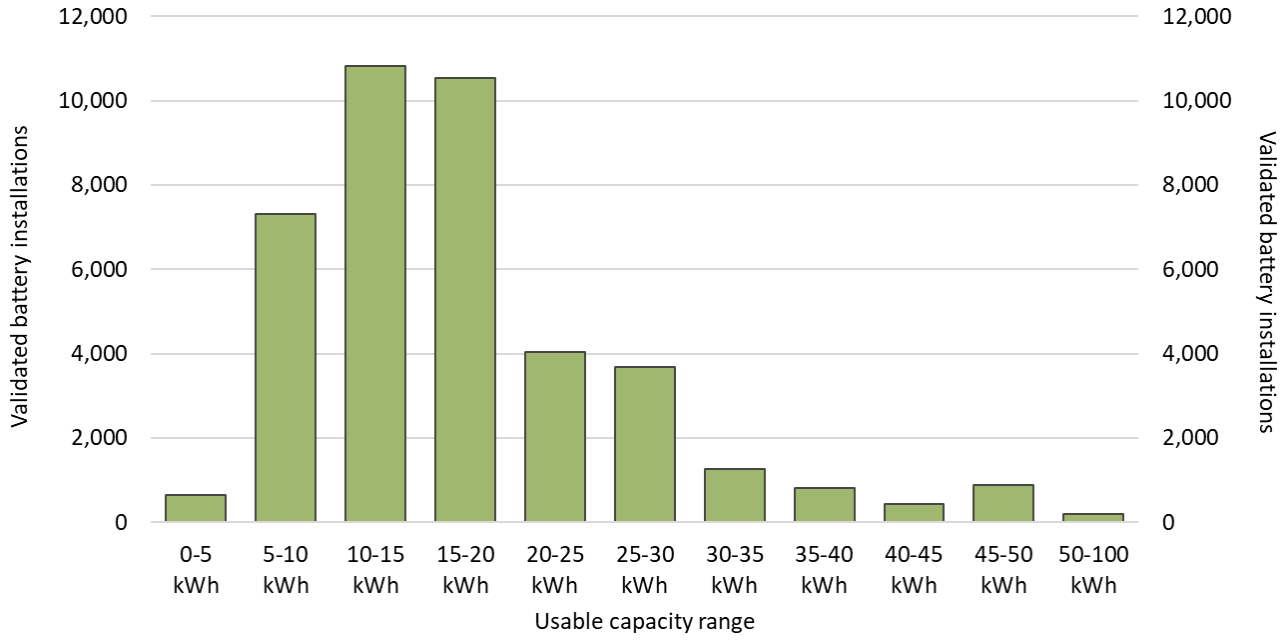


Figure 3.2 Distribution of validated battery usable capacity in 5 kWh ranges.



Early insights from the Cheaper Home Batteries Program

CER analysis of the first 2 complete months of solar batteries data, July and August 2025, show that:

- 54% of validated batteries were sized 10-20 kWh for a total capacity of 237 MWh, with an average validated battery capacity of 15 kWh.
- Around 45% of battery installations are estimated to be 'concurrent' installations. This includes all installations during the period from scheme announcement to launch.
- Of the concurrent battery installations, 47% have been connected to a replacement, addition, or extension solar PV system.

- » For comparison, 29% of solar PV installations in Q2 2025 were replacements, additions, or extensions. This suggests that the inclusion of batteries may further grow in the SRES as households and businesses add to their existing systems or replace for a bigger system.

- The remaining 55% of battery installations are estimated to be 'retrofitted' to an existing solar PV.
  - » 47% of battery installations can be linked to solar PV installed over 12 months ago. This proportion may rise as existing solar PV holders consider a future battery installation.
- Unsurprisingly, households and businesses with bigger solar PV systems tend to install bigger batteries. On average, installed battery capacity is equal to the maximum amount of energy that the solar PV system can generate over 2 hours.

Batteries provide benefits to their owners through lower electricity bills but also have wider benefits by helping us use our existing network and generation assets more efficiently. Some of the NEM review's draft recommendations relate to changes that will be important for realising these benefits.

Figure 3.3 Distribution of validated battery installations by type

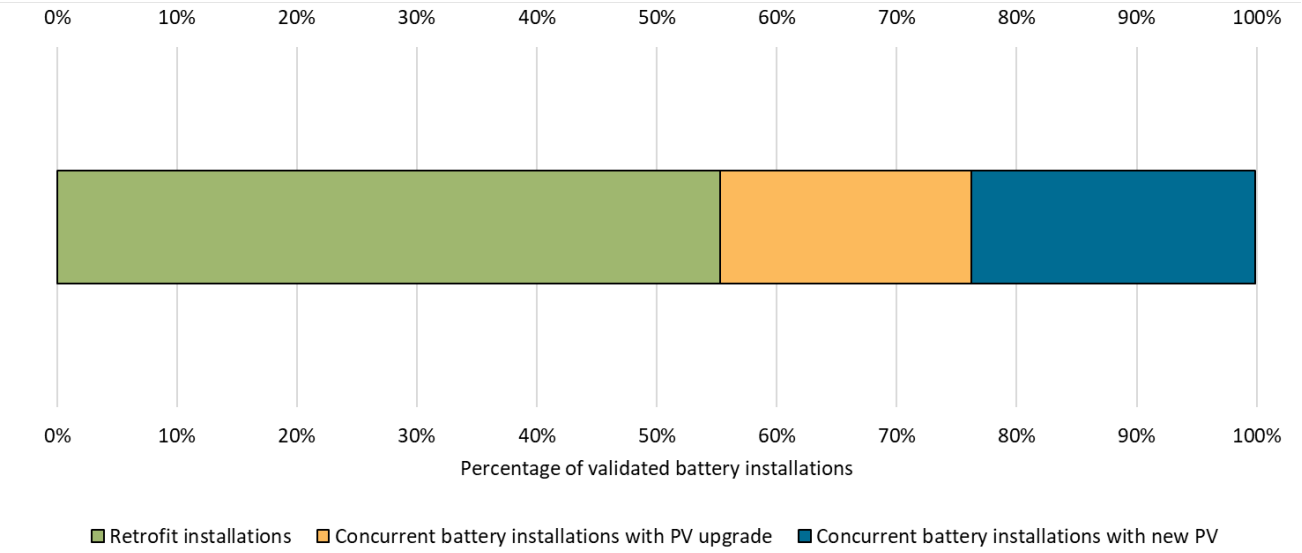
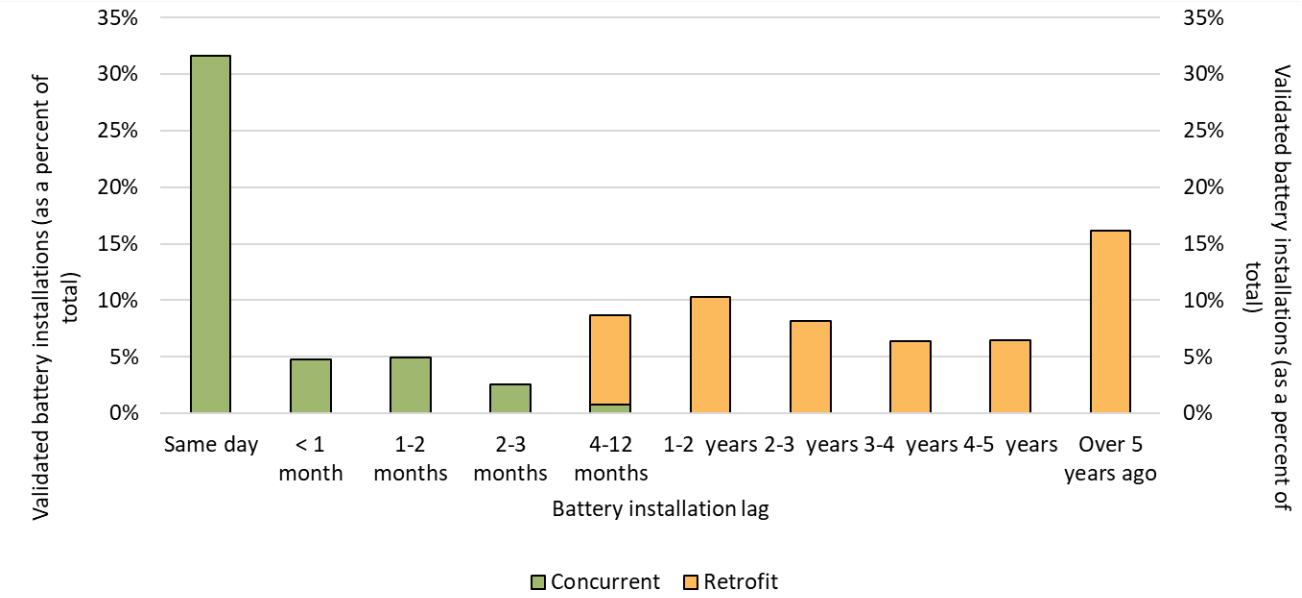


Figure 3.4 Lags between validated battery installation and associated solar PV installation, by type



Solar batteries and the NEM wholesale market review

As the NEM wholesale market settings review has noted, one important ingredient for realising the network benefits of batteries is increased visibility of a broader range of resources including solar batteries.

As the draft review notes, effectively orchestrating household battery storage into the NEM wholesale market could significantly benefit consumers. While poor management would mean significant amounts of small-scale storage interacting with the grid could create issues like those caused by rooftop solar, with higher costs of managing system security risks. AEMO would face the challenge of managing a system in which the behaviour of a substantial volume of demand and supply is not operationally visible or predictable.

The Panel's recommendations aim to pre-empt these issues so that the maximum benefit from household batteries can be delivered to all consumers. Submissions on the draft report closed on 17 September with feedback guiding work towards the final recommendations and implementation plans.

Improved solar battery data now part of the monthly SRES postcode data

The Cheaper Home Batteries Program means improved information about solar battery installations, allowing for a more accurate picture of battery uptake.

More reliable information about battery installations will assist distributed network service providers (DNSPs) in network planning, while also providing emergency services a clearer understanding of electrical risks when attending jobs.

The CER will continue to publish additional data and insights in future QCMRs and monthly data updates in the SRES postcode data.

Prior to 1 July 2025, the CER reported monthly battery installations at state, territory, and national levels, however, this data was voluntarily reported to the CER. As a result, these figures were likely to be underestimates of solar battery numbers and capacity. While the pre-1 July data is still available on the CER website as an archived dataset, it has been superseded by data from the Cheaper Home Batteries Program.

The early insights in this report will be updated and expanded as more scheme data becomes available and we implement improvements to historical scheme data.

- All battery installations under the SRES must be connected to a solar PV system. The accreditation code of solar PV systems is reported to the CER where this is known. Where this is not available, the CER has conducted preliminary analysis to match battery installations to solar PV systems installed under the SRES using address data.

STC market dynamics

Rooftop solar installations in Q2 2025 were lower than the same period in 2024, leading to reduced STC creations (see the 'Solar PV update' below for more details). The average weekly STC creation rate was around 420,000, below the average weekly supply of 500,000 consistent with the 2025 small-scale technology percentage (STP). The relative shortfall meant more liable entities sourced STCs from the STC Clearing House.

With the increased demand, the STC Clearing House remained in deficit throughout Q2, with material use in the lead up to the 28 July Q2 surrender deadline. As a result, the STC market price remained near its market

cap of $40 throughout this period. Q2 2025 surrenders were 6.4 million STCs, with 5.8 million being purchased from the Clearing House throughout June and July. This resulted in the Clearing House being 4 million in deficit following the surrender deadline.

Figure 3.5 Weekly STC supply and the required supply to meet the STP

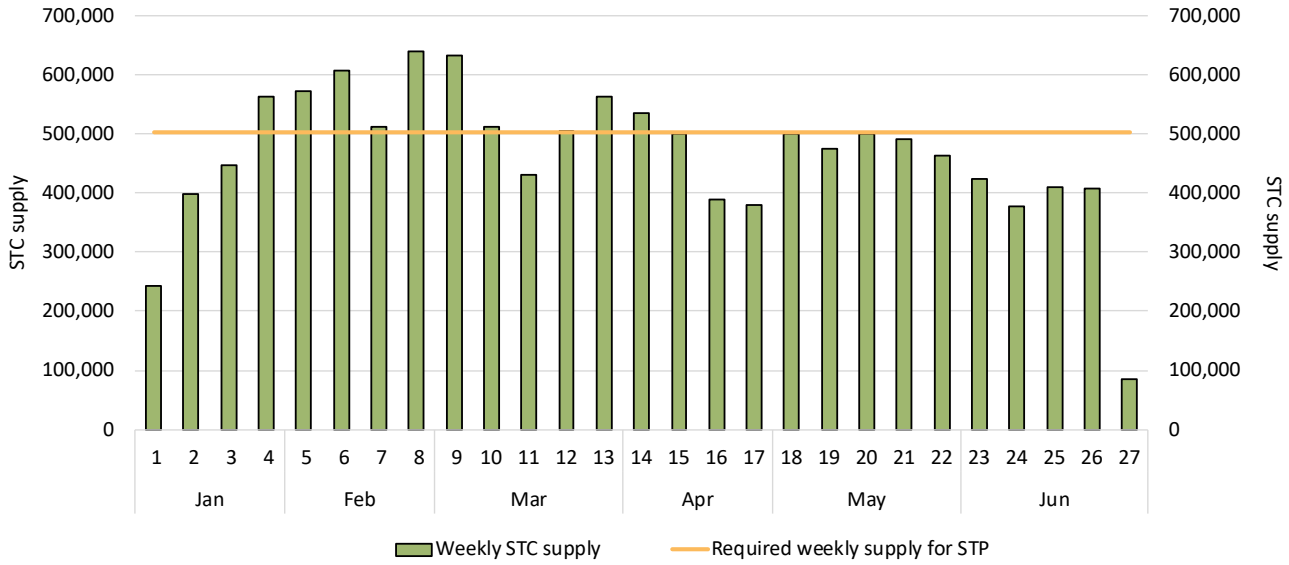
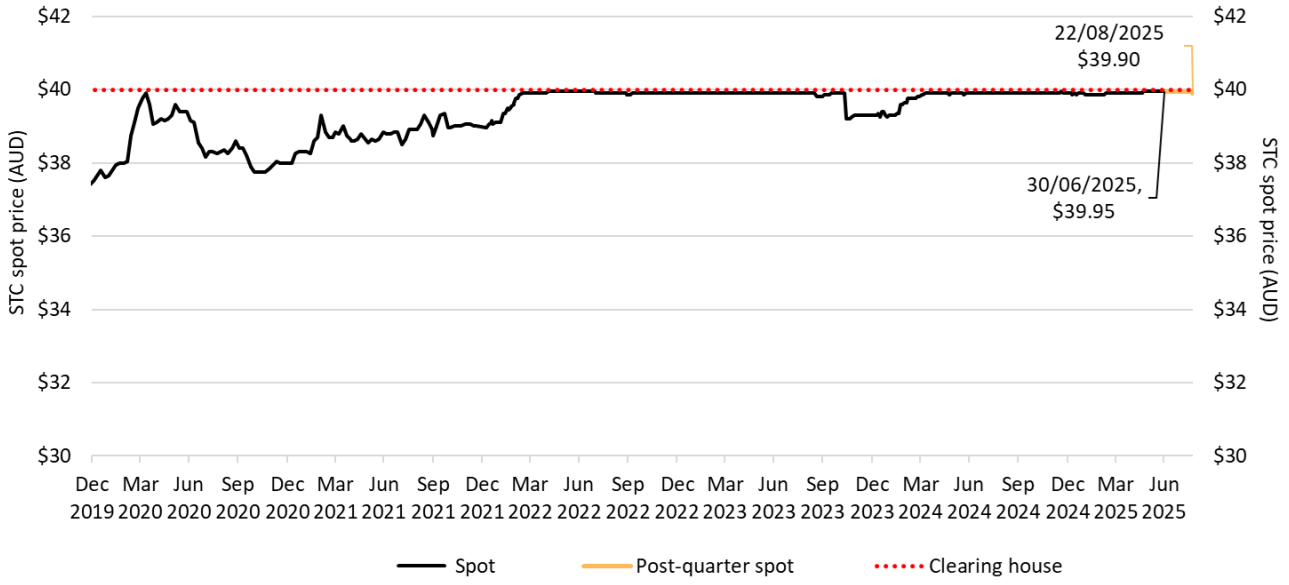


Figure 3.6 STC reported spot and clearing house prices



Solar PV installs dip, but pickup expected

Installed PV capacity in both Q1 and Q2 2025 was lower than the same quarters in 2024. There was a 12% decline in capacity to 1.3 GW in the first half of 2025 compared to the same period in 2024.

Average system sizes increased to 10.1 kW in Q2 2025, up from 9.9 kW in Q1 2025 and 9.6 kW in the same quarter last year.

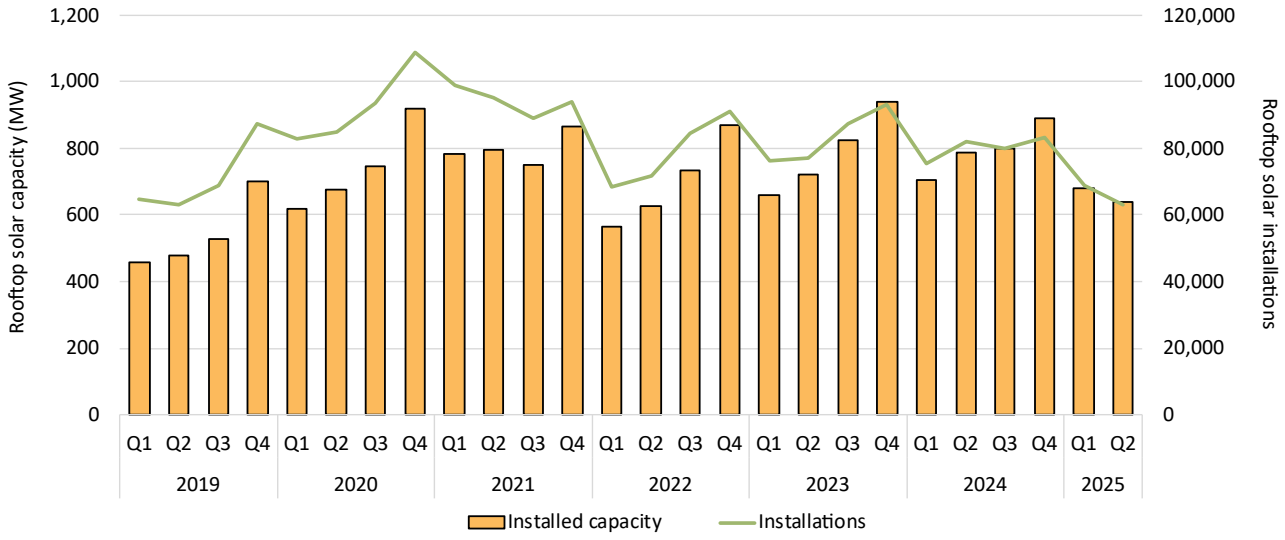
Market intelligence suggests the decline in installations is related in part to the rollout of the Cheaper Home Batteries Program, and was broadly anticipated:

- Consumers were awaiting the Cheaper Home Batteries Program roll-out before committing to installing a PV system. Industry intelligence indicates that, since the roll-out on 1 July, installers are focusing on

battery installations for their recent PV system client base, rather than pursuing new clients for PV systems.

- In some cases, systems were also being physically installed to the point of 'Ready to Commission' in Q2 but not finalised until Q3. The installation of battery and PV systems is not considered finalised until a certificate of electrical compliance or equivalent is issued by the installer. Installers are finalising the installation of these Q2 'Ready to Commission' systems in Q3 and submitting STC creation applications in line with Solar Accreditation Australia's published transitional arrangements. These PV systems will only appear in the Q3 figures.

Figure 3.7 Small-scale rooftop solar installations and installed capacity in megawatts (MW)



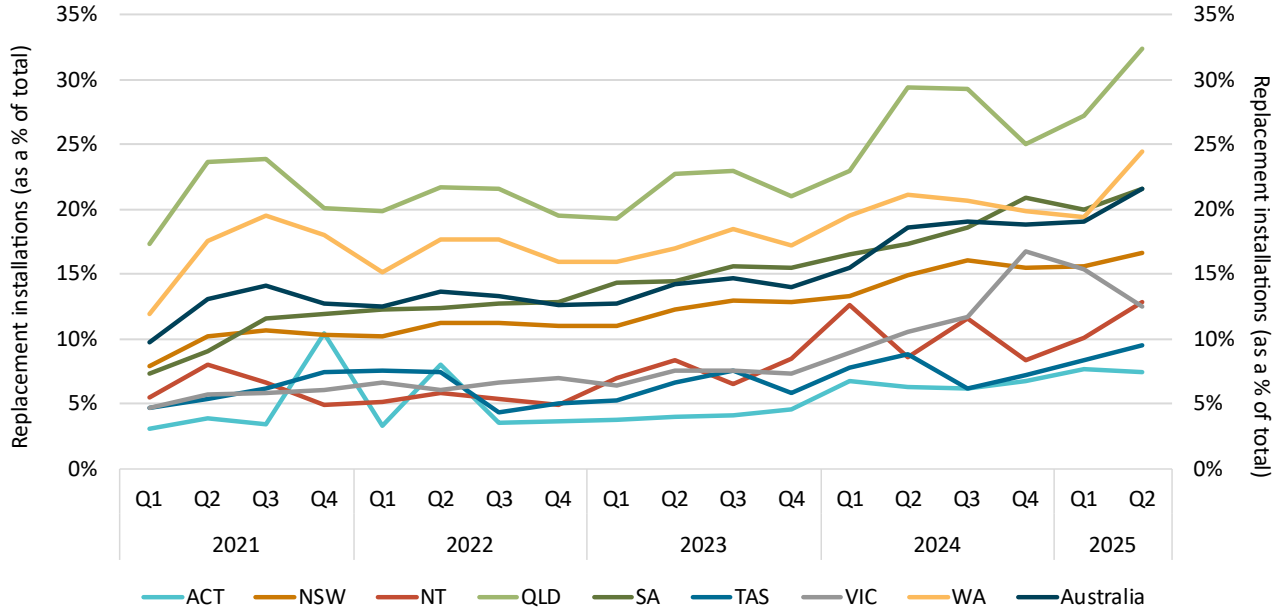
As the backlog of 'Ready to Commission' Q2 installations are finalised and installers pivot back to installations of new PV systems, as well as replacement and upgrades to older systems, PV capacity and installation figures should recover through to the end of the year. As such, the CER has left our estimate of 2.9 to 3.2 GW of installed capacity in 2025 unchanged but note that the uncertainty around the range has increased as the initial impacts of new policy play out.

The share of PV systems that were replacements was a new record of 22% of total installs in the quarter, up from 19% in each of the previous 4 quarters. Around one-third of all Q2 2025 installations in Queensland were replacement systems, up from 27% in Q1.

- Although it is not possible to attribute this increase to a single factor, higher replacement rates in the quarter could be partially driven by the impact of Cyclone Alfred.
- CER data shows that replacement rates in cyclone-affected regions have increased relative to other areas in Queensland. This included regions such as Moreton Bay and Redland. While these regions typically had higher replacement rates even prior to the cyclone, the difference in replacement rates has increased in Q2 2025.

In addition to weather events, other factors are likely to increase replacement rates, including that some smaller, older systems are receiving historically high state-based solar feed-in tariffs which end in the coming years. Replacements installed in 2025 on average are replacing a system 11.6 years old. Given the number of systems installed each year increased until 2021, more systems will reach replacement age later this decade and in the early 2030s, This will likely increase the proportion of installations that are replacements over time, other things equal. It is expected that replacement systems will have significantly higher capacity, consistent with the growth in the average size of systems installed.

Figure 3.8 Replacement small-scale rooftop solar as a proportion of total installations by state and territory



Air source heat pump installations expected to remain highest in Victoria

Around 20,000 fewer air source heat pumps (ASHPs) have been installed in the first half of 2025 relative to the same point last year. Around 22,400 ASHPs were installed in Q2 2025, bringing the total number installed to date in 2025 to around 41,000. This is compared to around 61,000 at the same point in 2024.

Following changes in NSW in June 2024 that reduced state government support for ASHPs to a maximum of $900, while Victoria maintained incentives that can reduce installation costs by up to $2500. The higher incentive in Victoria continues to see the highest rates of installation in that state.

Figure 3.9 ASHP installations by state and territory and associated STC validations