Consumer Forum

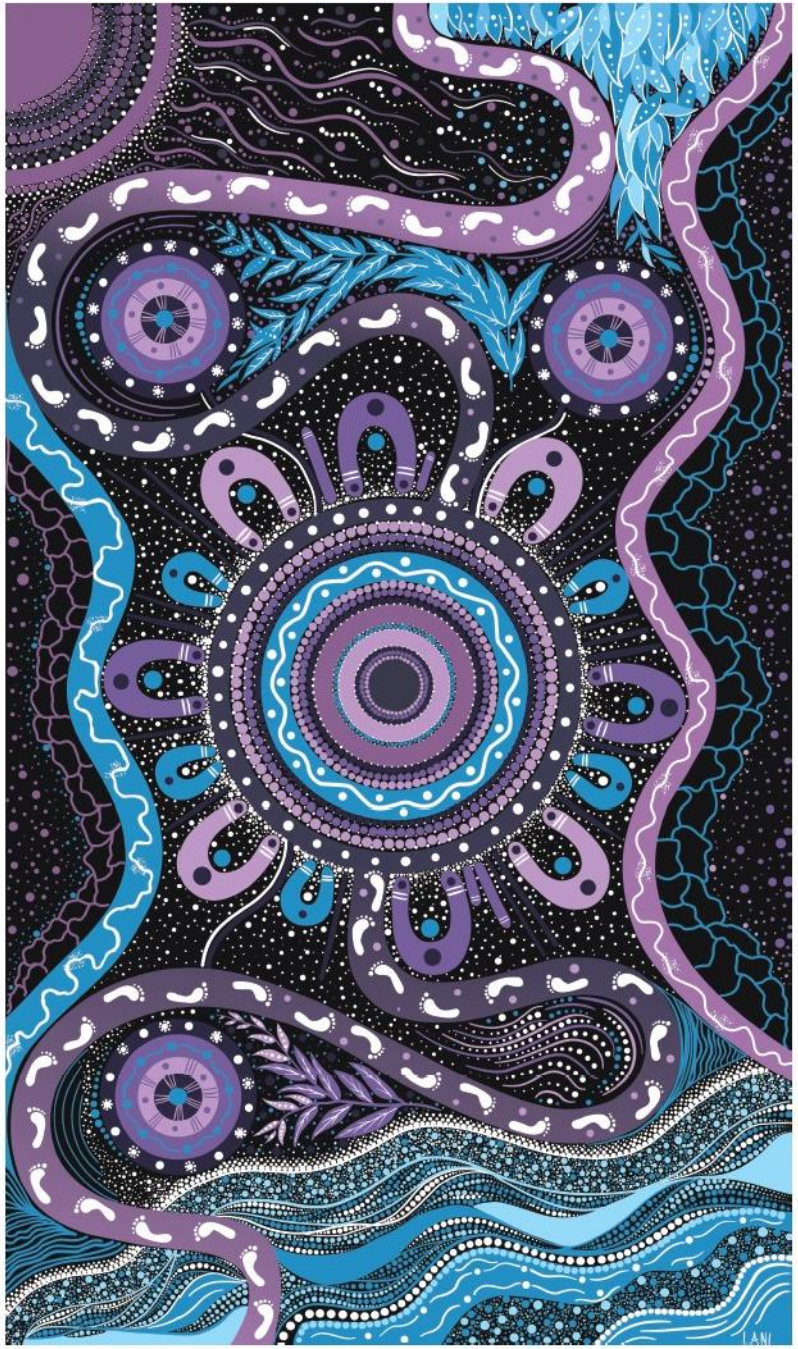
28 June 2024

Emily Duck, Manager,
Consumer and Community

In the spirit of reconciliation, we acknowledge the traditional owners and custodians of the lands we are all joining from.

We pay respect to elders past and present. May we walk gently and respectfully, together.

Bundeena, meaning “noise like thunder” | Royal National Park, NSW
Dharawal Country



“Journey of Unity: AEMO’s Reconciliation Path”

- Artwork by artist Lani Balzan
- Read AEMO’s Reconciliation Action Plan

Today’s agenda

Time	Item	Speaker
10:00 am	Welcome Acknowledgement of Country	Emily Duck, Manager, Consumer and Community Kerri Major, Senior Stakeholder Advisor, Consumer and Community
10:05 am	Update on AEMO initiatives (5 mins) Introduction to Rebecca Irwin	Emily Duck, Manager, Consumer and Community Rebecca Irwin, EGM Government and Stakeholder
10:10 am	AEMO Annual Stakeholder Survey Results (20 min)	Matt Myers, Group Manager, Stakeholder Engagement
10:30 am	Winter readiness (30 mins)	Michael Gatt, Executive General Manager, Operations
11:00 am	2024 ISP publication & key findings (45 min)	Samantha Christie, Manager, Strategic Planning, System Design
11:45 am	Establishment of the Consumer and Community Reference Group (20 min)	Emily Duck, Manager, Consumer and Community
12:05 pm	Other business and next meeting (5 mins)	Emily Duck, Manager, Consumer and Community

Housekeeping

- This session is being recorded for note-taking purposes only
- Muted unless talking, thank you
- Ask questions via the chat function throughout
- We will prioritise one question per person per topic so all voices can be heard, and come back to additional questions if time allows
- We will endeavour to follow up questions we do not get to in session
- Respectful and relevant
- Equal opportunity to engage

Last time we met…

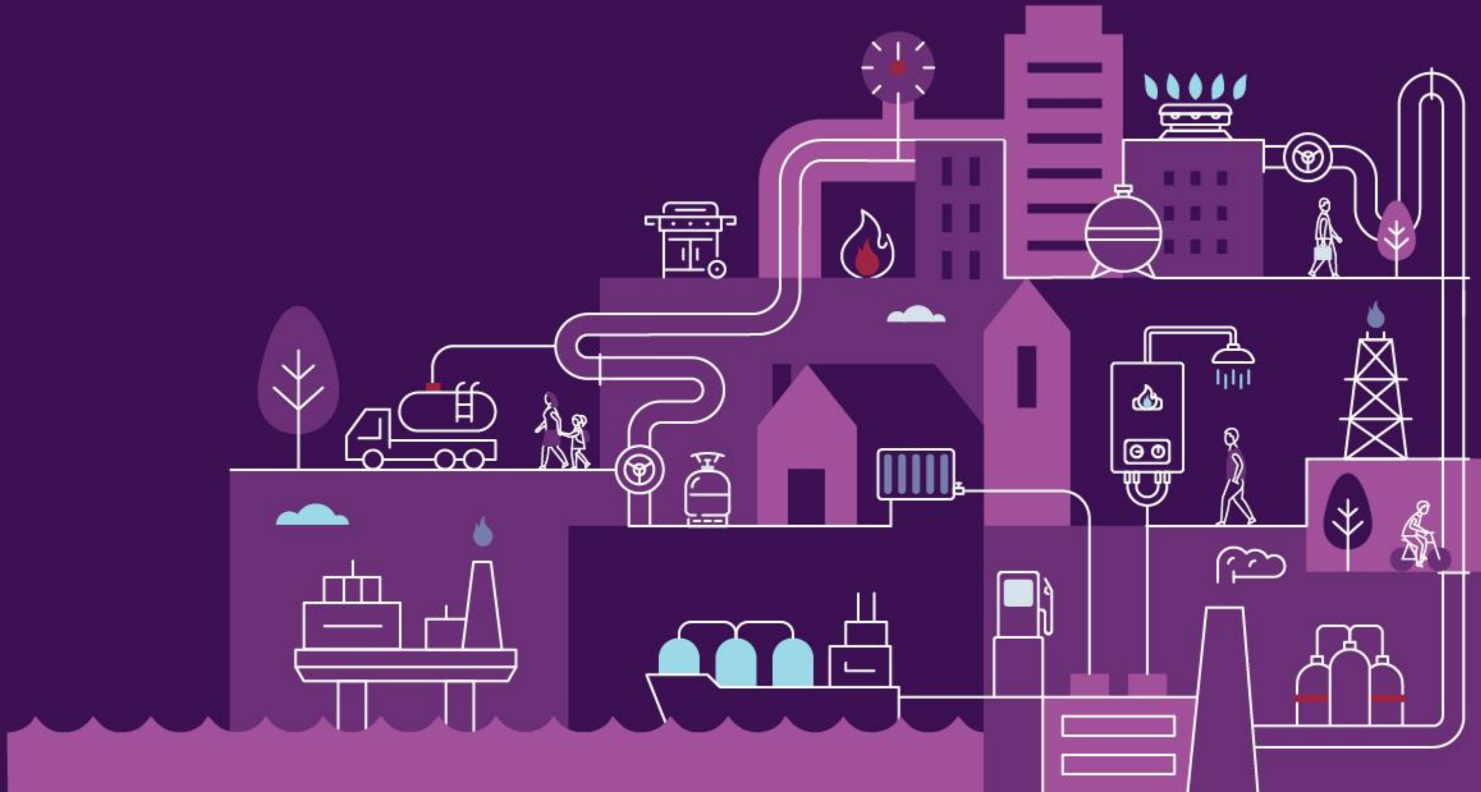
- Available on our website:
  - Meeting summary of the previous Consumer Forum on 17 April 2024

- Need help with terminology? Here's a handy list.

- Please provide feedback to AEMO on Consumer Forums via this survey.

Update on AEMO activities

Emily Duck, Manager,
Consumer and Community



AEMO's strategic corporate plan

Everyday AEMO engages with people and organisations connected to our purpose to 'ensure safe, reliable and affordable energy and enable the energy transition for the benefit of all Australians'.

While our AEMO Strategic Corporate Plan FY24 sets out the priorities, initiatives and values that guide this work and help us keep the lights on and gas flowing for millions of people 24/7, as an independent national body we recognise the opportunity we have to further influence across governments, industry and the consumer sector to ensure that **people remain at the centre of Australia's energy transition**. The FY25 Strategic Corporate Plan will be published on **28 June 2024.**

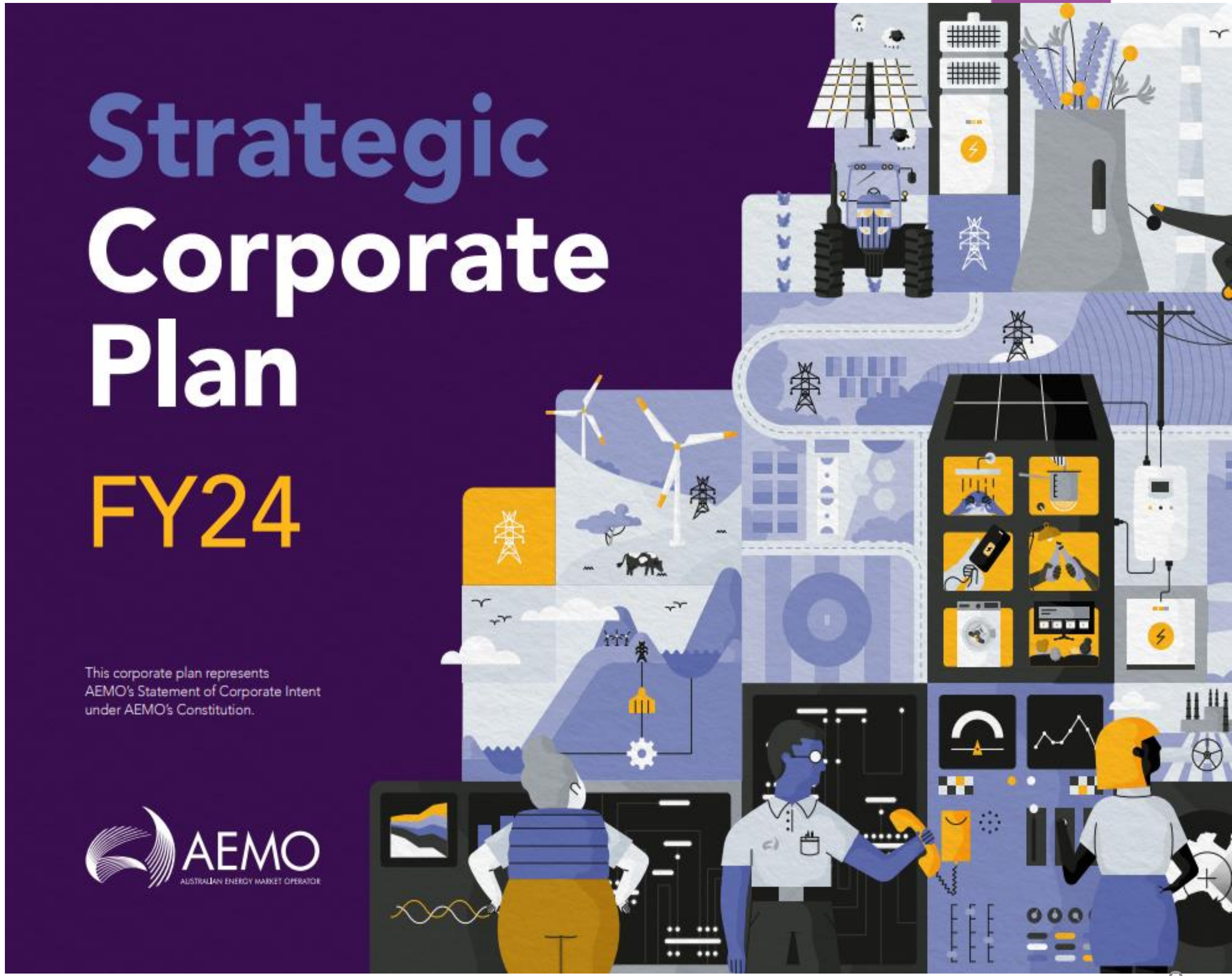
Strategic Priorities

Priority 1 – Operating today's energy systems and markets

Priority 2 – Navigating the energy future

Priority 3 – Engaging our stakeholders

Priority 4 – Evolving the way we work



Update on AEMO initiatives

AEMO's FY24 Strategic Corporate Plan

Strategic Priorities	Area of work	Relevant updates
Priority 1 **Operating today's systems and markets**	System and market operations	• Winter readiness update to be provided at this meeting.
Priority 2 **Navigating the energy future**	Energy system design	• Update to the 2023 ESOO published 21 May 2024. • 2024 Integrated System Plan (ISP) published 26 June 2024 and will be discussed at this meeting. Sign up for the webinar on Tuesday 2 July.
Priority 3 **Engaging our stakeholders**	Embedding a consumer and community focus	• Free AEMO energy education courses for consumer advocates announced at March Consumer Forum. Contact EnergyEducation@aemo.com.au for more information and to register. • AEMO's Stakeholder Engagement Framework and principles shared at March Consumer Forum and published online. • New podcast episode for 'AEMO on Air' launched, discussing all things energy (interview with Robbie Flood, Gas Reform Manager, on the role of gas in the energy transition). Learn more and listen here.
Priority 4 **Evolving the way we work**	Financial health	• AEMO's FY25 Budget and Fees to be published on 28 June, along with the FY25 Strategic Corporate Plan. • AEMO's Reconciliation Action Plan published on 27 May 2024.

Priority 3 – Engaging our stakeholders

Annual Stakeholder Survey Results

Matthew Myers

Group Manager, Stakeholder Engagement

Background

Purpose

- Fifth wave of annual stakeholder research conducted by SEC Newgate for AEMO.
- This research guides AEMO’s understanding of what is driving our reputation with key stakeholders, where we are doing well and where we can focus efforts for improvement.

Methodology

- 61 participants engaged as part of the research – mix of in-depth interviews and online.
- All were asked the same rating questions.
- Participants represent 9 key stakeholder segments, including Consumer Advocates.
- Feedback provided by participants is done so anonymously. AEMO cannot identify which participants provided what feedback.

Quantitative results

AEMO

		2020 (n=40)	2021 (n=34)	2022 (n=37)	2023 (n=52)	2024 (n=57)
Reputation Score		58%	53%	57%	75%	82%
Net Advocacy Score		-43	-18	-13	-5	+10
Trust Scores	Metric A: Delivering on the NEO/NGO	50%	62%	63%	74%	73%
	Metric B: Doing what it says it will do		68%	63%	77%	75%

Performance against key reputation indicators (% who rated AEMO 7 or more out of 10)	2020	2021	2022	2023	2024	Points change 2023 to 2024
Effective operation of Australia's energy market, i.e., helping to keep the lights on	90	97	92	88	**94**	+6
The quality of your relationship with AEMO	73	91	86	91	**90**	-1
Providing you with timely, accurate and easily understood information~	54	71	70	76	**78**	+2
Working collaboratively with other stakeholders to help shape and plan Australia's energy future	50	55	62	75	**71**	-4
Being transparent*	35*	52	46	67	**71**	+4
Being accountable to its members*	35*	48	49	73	**70**	-3
Efficient operation of Australia's energy market, i.e., provides value for money	37	57	33	58	**64**	+6
Efficient energy market planning, i.e., spending money on the right things	48	69	35	51	**59**	+8

TABLE LEGEND

* In 2020 this was one attribute: 'being transparent and accountable'

~ In 2022/23 this was calculated as an average of performance ratings 7+ for 'its information being easy to understand', 'providing information and reports in a timely manner' and 'the accuracy of its information and analysis'

+ In 2022/23 this was calculated as an average of performance rating 7+ for 'being accountable to its industry members' and 'being accountable to its federal and statement government members'

Qualitative themes - strengths and perceived opportunities

Core strengths

- Confidence in AEMO's operation of the market.
- Improved stakeholder engagement and communication.
- Well-respected data and advice.

Perceived opportunities

- Financial management and transparency.
- Conservative, risk-averse approach.
- Call for greater independence and more measured optimism.

Consumer Advocate segment

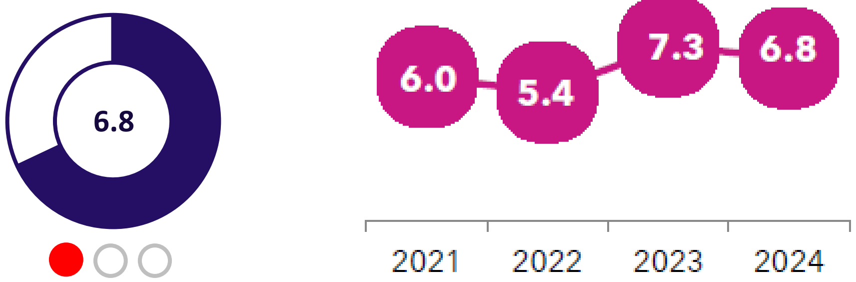
Strengths and positives:

- ISP work continues to be well considered, although the consumer role in CER/DER is lacking for some
- Fulfils its core role of market operation well
- Increased focus on social licence (VNI West) but still more work to do
- New senior appointments who understand and value consumer engagement

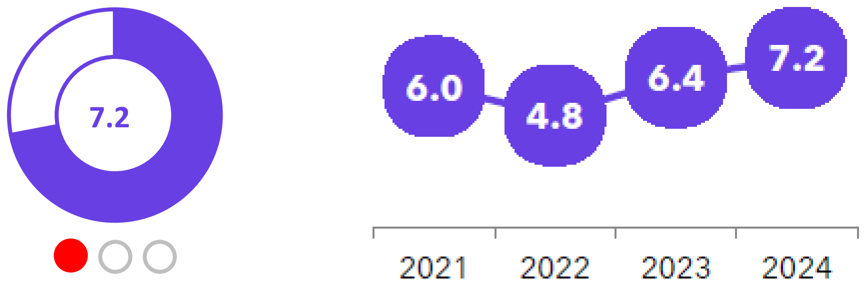
Issues and opportunities:

- Still too conservative and risk-averse
- Insufficient focus on costs to consumers
- When in a crisis, AEMO needs to communicate what’s being done, not just on fixing it
- Inconsistent performance across jurisdictions (role as VIC system planner not as well regarded)

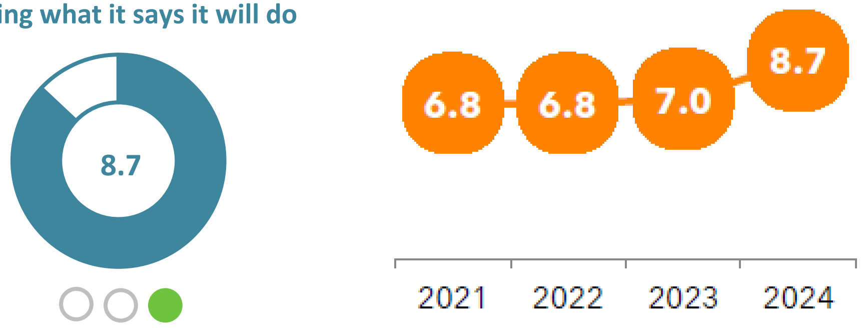
Reputation



Trust Metric A: Delivering on the NEO/NGO



Trust Metric B: Doing what it says it will do



Denotes segment score is higher than the average 2024 overall score for all segments

Denotes segment score is lower than the average 2024 overall score for all segments

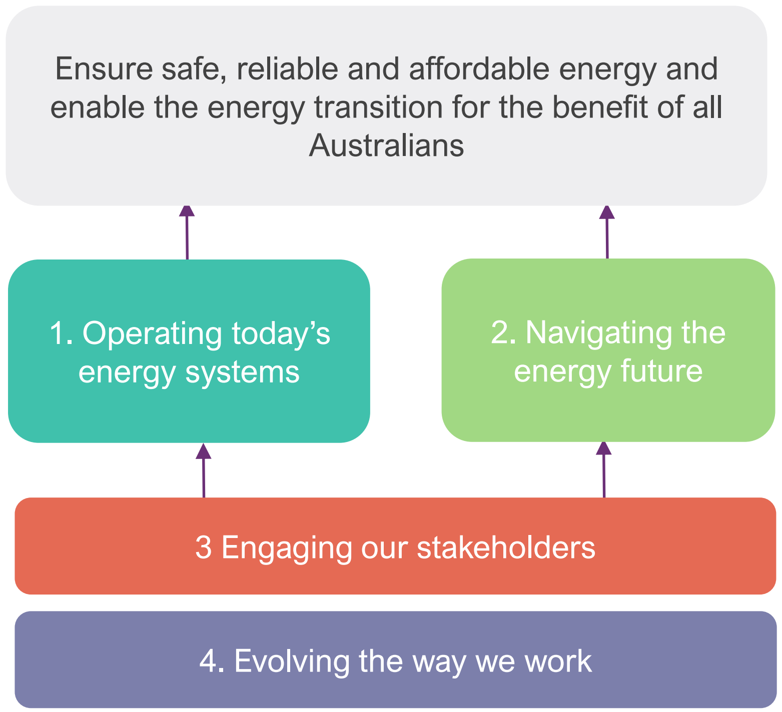
SEC Newgate recommendations

- Balance accountability between industry and government members, while asserting your independence.
- Address concerns around the financials.
- Be bolder and less risk-adverse.
- Pick up the pace.
- Step up investment in consumer understanding and social licence.
- Keep tackling internal inconsistencies.

Why engaging our stakeholders matters and how we use the results

- Our stakeholders are critical to our success and to the success of the energy transition.
- The complexity of the transition means we have to work together to find and deliver solutions.
- To do our job better – keep the lights on and achieve the energy transition – we need to understand, influence and work with our stakeholders.
- **Trust** is the critical enabler of success for our engagement. Without it, we will not be able to perform and will lose our ability to influence and mandate to deliver.

AEMO Strategic Corporate Plan



Priority 1 – Operating today's energy systems and markets

Update on NEM winter readiness

Michael Gatt
Executive General Manager, Operations

Winter readiness overview

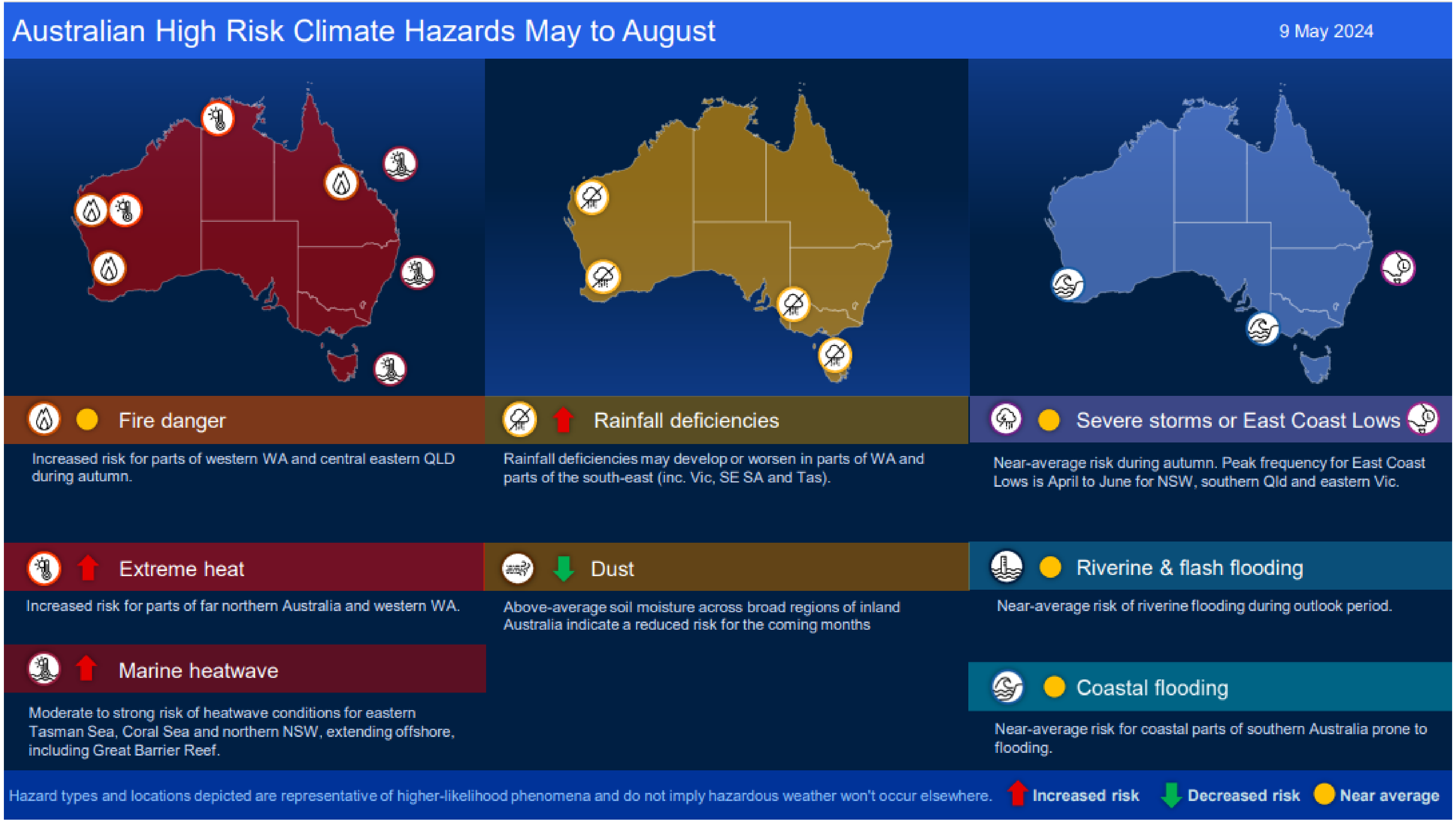
- Winter outlook
- Weather and climate
- Generation availability
- Operational demand
- Gas supply adequacy
- Network outages and augmentations
- Operational emergency preparedness
- Risk review

Winter outlook

- Green: Improved
- Yellow: Similar or unchanged
- Red: Potential to get worse

Impact	Status	Comparison to last winter
Extreme cold snaps	Yellow	Similar, warmer conditions expected for majority of the country. BOM forecast indicates below average potential for cold extremes / frost days however cold snaps could still arise.
Widespread flooding	Red	Above median rainfall likely for the most of WA and SA, southern Queensland and some parts of NSW and Victoria increasing potential for flash flooding. Below median rainfall likely for northern Australia and southern coastal tips.
Extreme peak demand	Red	Similar mild conditions expected, however cold snaps have the potential to drive electricity winter demands higher particularly in the NSW region and gas demands across southern regions. Gas consumption and peak day demand is highly weather-dependant and is anticipated to be higher than in 2023 (warmest winter on record).
Generation availability	Green	More VRE / BESS capacity and additional synchronous generation (2,500 MW) expected to be available in the NEM due to expected return to service of major coal plant and reduced maintenance activities.
Network outages	Yellow	Similar volume of planned electricity network High Impact Outages (HIOs) except for Victoria where volume is increasing due to project works. No major outages of gas system plant.
Reliability	Yellow	Similar, loss of load probability (LOLP) forecast is low (NSW < 30%, Queensland < 5% and zero for all other regions). Potential for unplanned plant outages and/or project/generation delays to lower electricity / gas system reliability.
Fuel supply	Yellow	Similar levels of coal stockpiles for the NEM. Gas storage generally at high levels while Victorian gas production capacity has decreased, increasing the amount of gas required from Queensland.
Health of markets	Yellow	Prudential risks / extreme energy price risks are similar to 2023 and significantly lower compared to 2022 season for the NEM.

High Risk Weather Summary

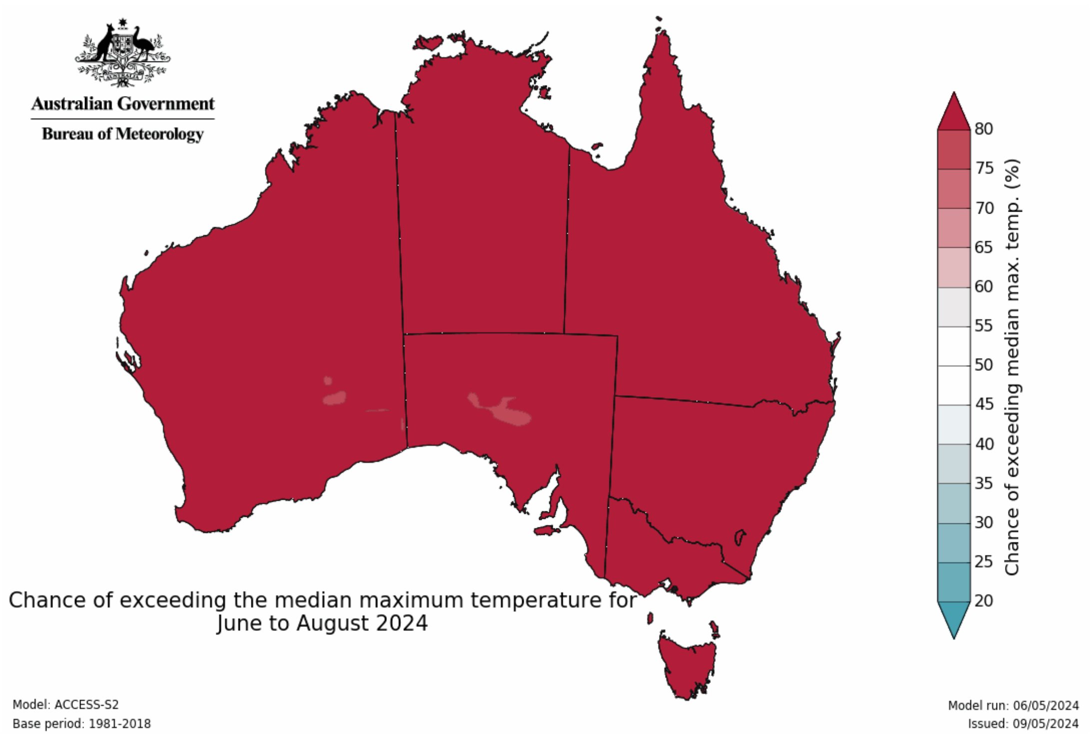


Source: Bureau of Meteorology (9 May 2024)

June to August 2024: climate outlook

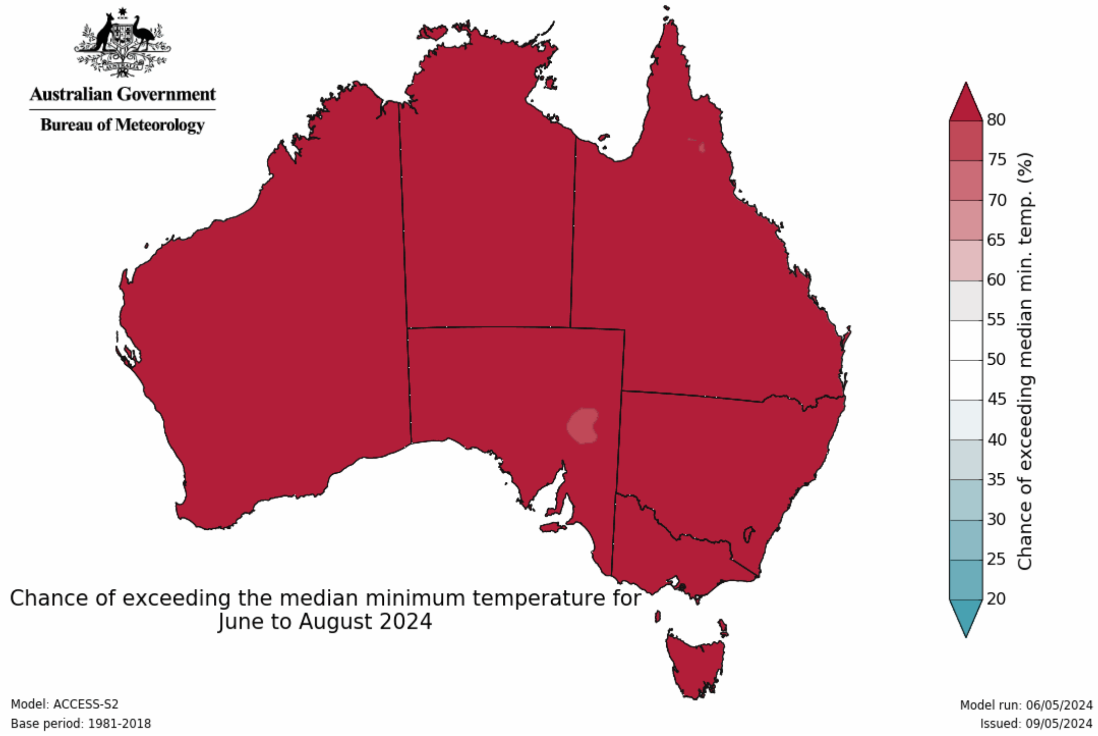
Maximum temperatures

9 May 2024



Maximum temperatures are likely to be above median for all of the country.

Minimum temperatures

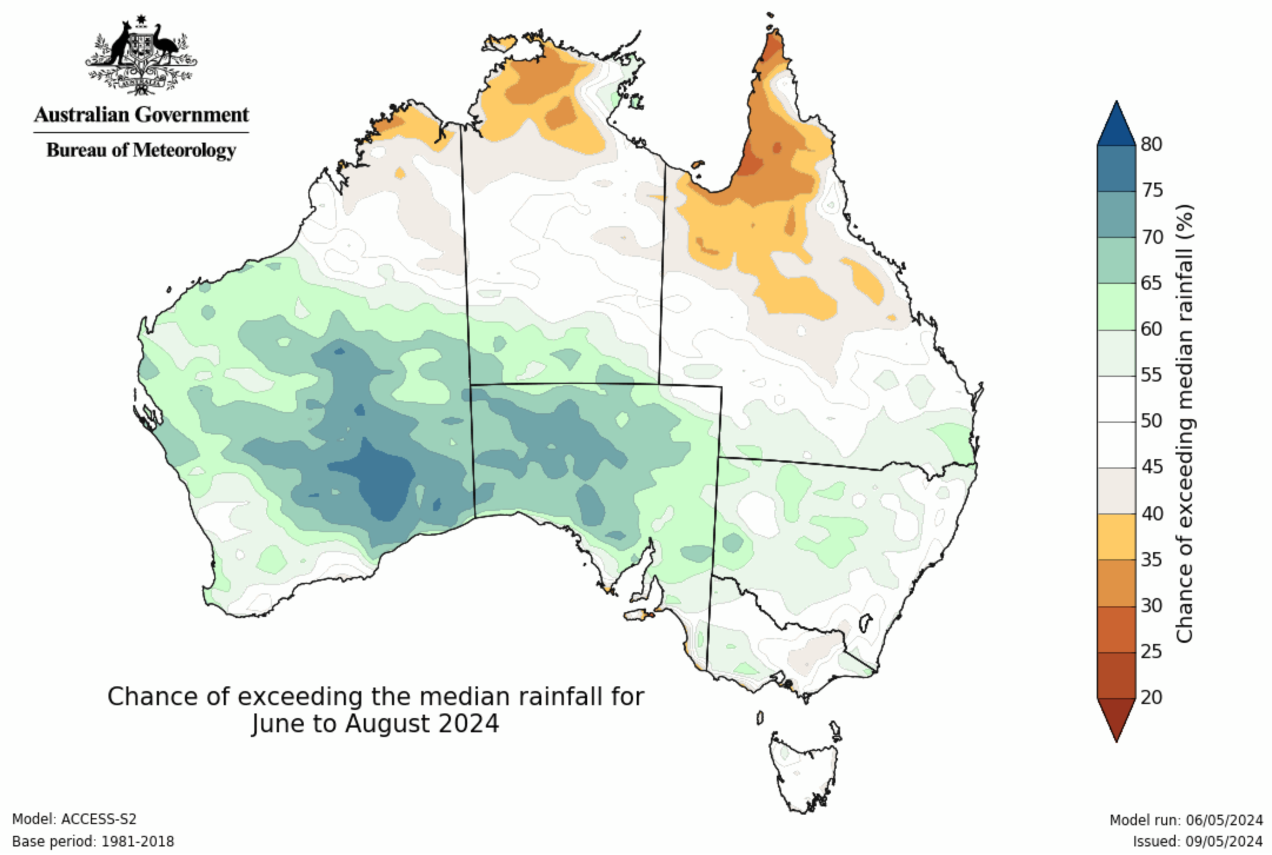


Minimum temperatures are likely to be above median for all of the country.

June to August 2024: climate outlook

Rainfall (9 May 2024)

- Below-median rainfall for north QLD, southern coastal tips of SA and VIC
- Median rainfall for central QLD, coastal NSW, most of Victoria and Tasmania and southern coast of WA
- Median to above median rainfall for majority of WA and SA, southern QLD, inland NSW and parts of VIC

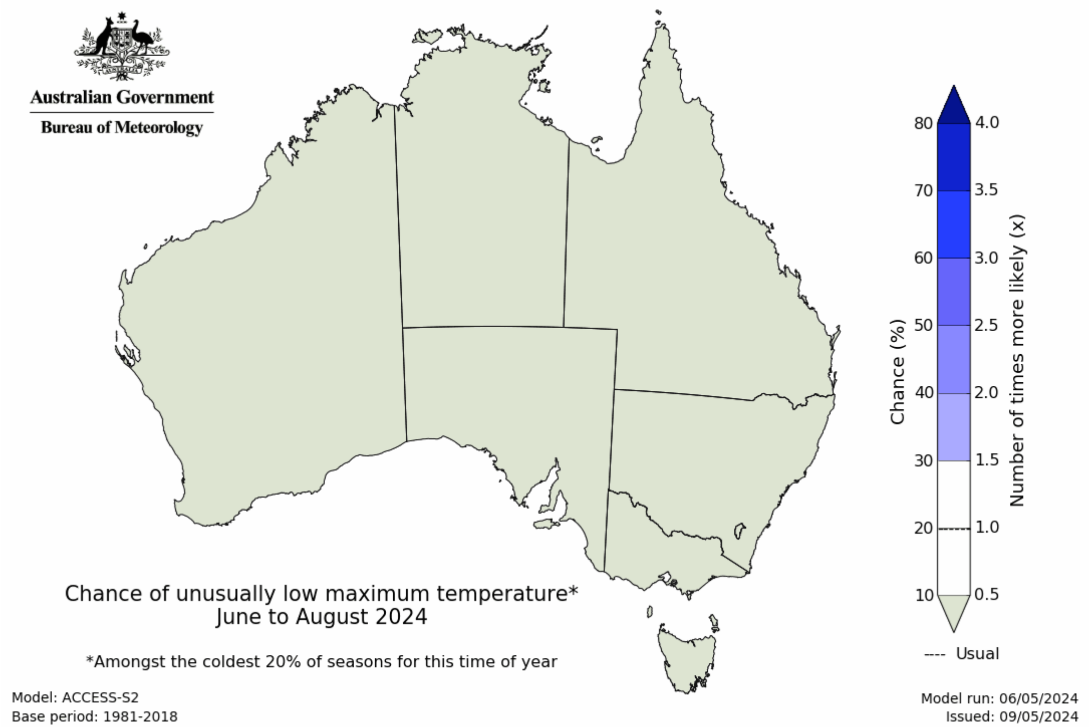


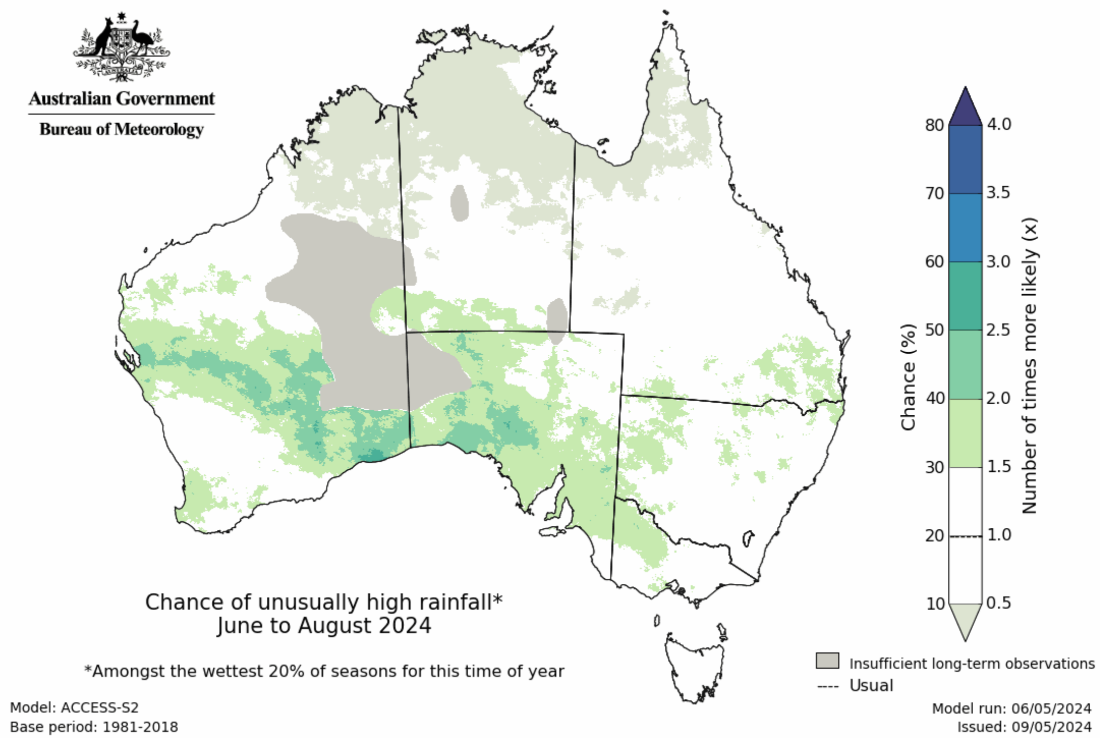
June to August 2024: climate outlook

Chance of unusually cold

9 May 2024

Chance of unusually wet





Low chance of unusually cold conditions across the country.

Increased likelihood of unusually wet conditions for South Australia and some inland areas of Queensland, New South Wales and Victoria.

Generation availability

On average, additional 2500 MW of scheduled synchronous generation capacity is expected to be available in the NEM compared to Winter 2023, mainly in NSW, Queensland and Victoria due to reduced planned maintenance activities and units returning to service following prolonged forced outages. In addition, 600 MW of new battery storage capacity is available in the NEM.

Major generator outages / limitations include:

Hydro generation

- Tumut 1, 3 and Murray capacity reductions
- TAS: Reece 2 (July – August) and Gordon capacity reduction

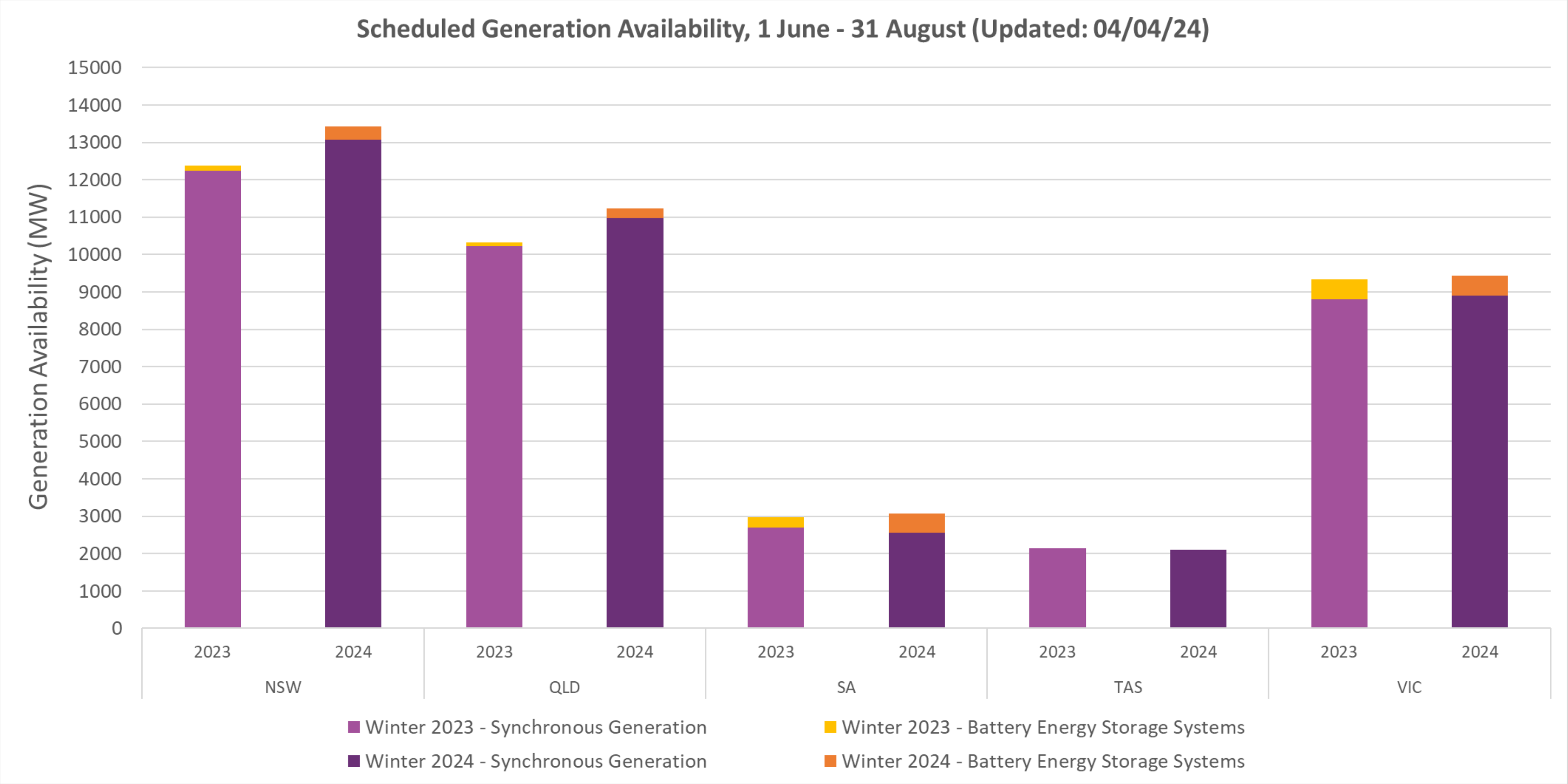
Coal generation

- QLD: Callide B1 & B2 (July – August), Callide C4 (returning from forced outage), Gladstone 4 (June – July), Stanwell 2 (July – August)
- VIC: Yallourn 1 (June)

Gas/diesel generation

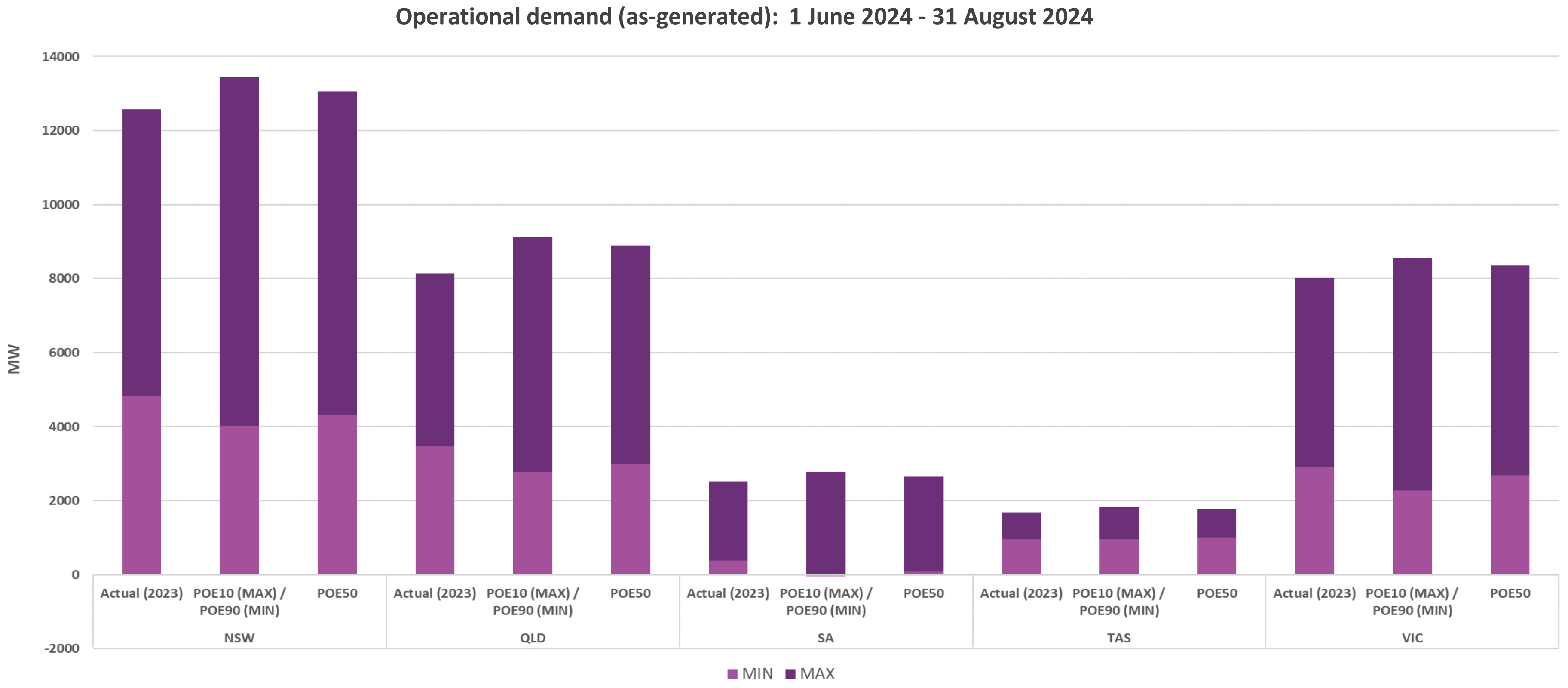
East Coast gas usage to be monitored. Supply from storage / support for Queensland may be required.

- QLD: Braemar 5, 6 & 7 (July – August), Darling Downs (June), Swanbank E (August)
- NSW: Uranquinty 1 & 2 (June), Tallawarra A (August)
- SA: Torrens Island B2 (June), Dry Creek 5 (July – August), Snuggery (mothballed)



Note: Analysis considers generator maintenance, return to service of Callide C3 and C4 (after prolonged forced outages), new gas generating unit at Tallawarra B and additional 600 MW of new battery storage systems in the NEM.

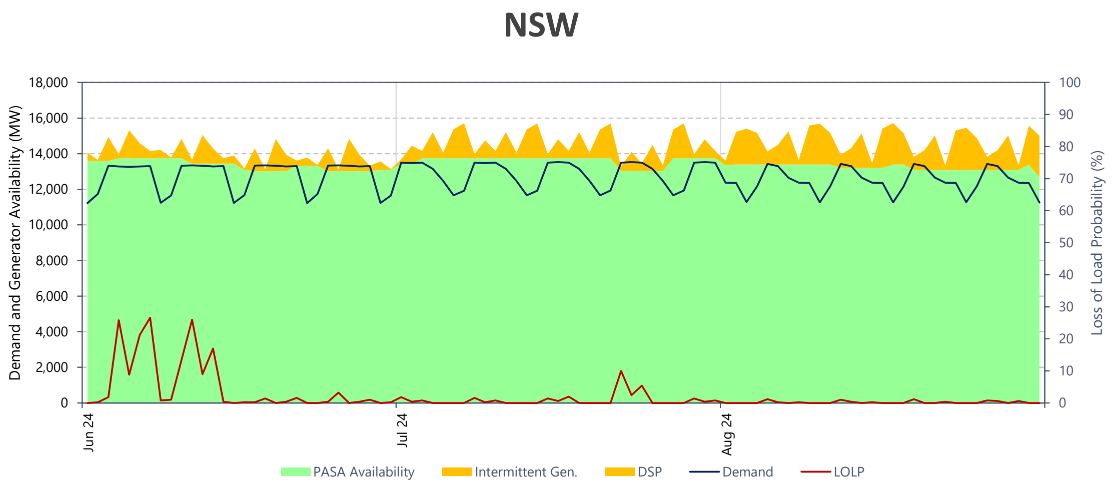
Operational demand

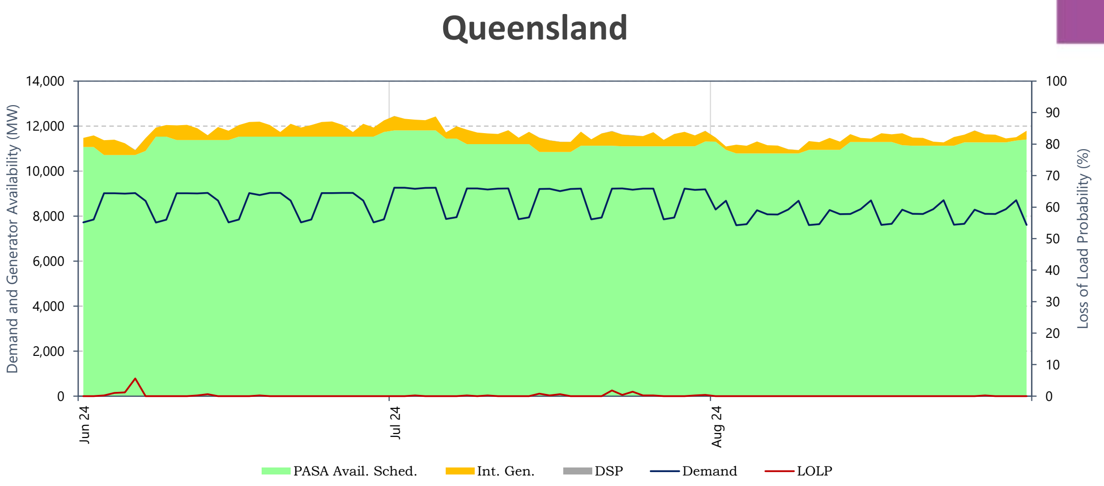


Region	Record Maximum Demand (MW)	Record Minimum Demand (MW)
NEM	35,796 (29/01/09)	11,009 (29/10/23)
NSW	14,744 (01/02/11)	3,719 (29/10/23)
QLD	11,005 (22/01/24)	3,131 (1/10/23)
SA	3,399 (31/01/11)	-26 (31/12/23)
VIC	10,576 (29/01/09)	1,564 (31/12/23)
TAS	1,790 (21/07/08)	732 (21/03/13)

- Demand is highly weather dependent and cold snaps have the potential to drive electricity demands higher, particularly in the NSW region.
- Historically minimum record demands occurred during shoulder seasons except the most recent records for South Australia and Victoria in December 2023. Low demand periods in Winter 2024 are more likely to occur during weekends and public holidays.

Loss of load probability study





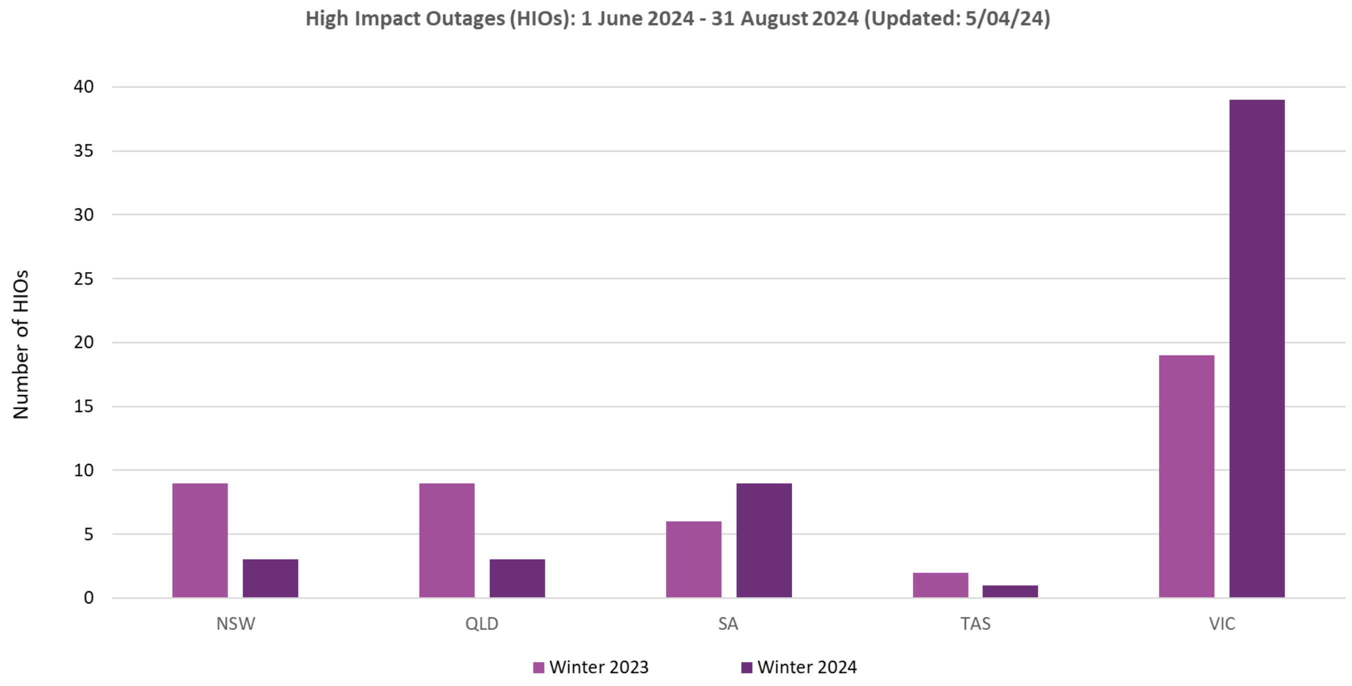
- Risk of load shedding is low in all regions as indicated by Loss of Load Probability Study (LOLP).
- The study shows a low number of days with low LOLP in New South Wales and Queensland regions.
  Victoria, Tasmania and South Australia have no LOLP periods during Winter and for that reason no charts are provided.
- Electricity Statement of Opportunities (ESOO) update is expected to be published in May 2024. There are delays to some network and generation projects (e.g. Project EnergyConnect Stage 1). Although there are no major impacts on reliability for Winter 2024 (also included in LOLP charts above), ESOO will highlight any potential long-term impacts.

Note: MTPASA Run 805 (16 April 2024),
Period shown: 1 June 2024 to 31 August 2024.

High impact outages and augmentations

- Number of planned HIOs are at similar or reduced levels (compared to previous Winter) for all regions except VIC with significantly higher outages driven by project works
- QLD: maintenance/commissioning of Nebo – Strathmore (June), Strathmore - Ross (August) 275kV line and Haughton River no 2 275kV bus (August)
- NSW: maintenance/commissioning of Liddell – Muswellbrook 330kV line
- VIC: project / maintenance activities impacting Hazelwood – Rowville 500kV, Haunted Gully – Tarrone, Heywood – Mortlake, Moorabool – Haunted Gully and Moorabool – Mortlake 500kV lines, Kerang – Wemen and Red Cliffs – Wemen 220kV lines
- SA: maintenance of Tailem Bend – South East (June), Tailem Bend – Tungkillo (June and August), Heywood – South East (July) 275kV lines. Murraylink in July and Aug
- TAS: maintenance of Sheffield – Farrell 220kV lines in June

Note: HIOs are allowed to proceed if there are no identified system security issues.



Inter-regional augmentations on QNI:

- Possible 50 MW increase from NSW to QLD in Winter 2024 (Currently at 850 MW).
- Possible 100 MW increase from QLD to NSW in Winter 2024 (Currently at 1300 MW).

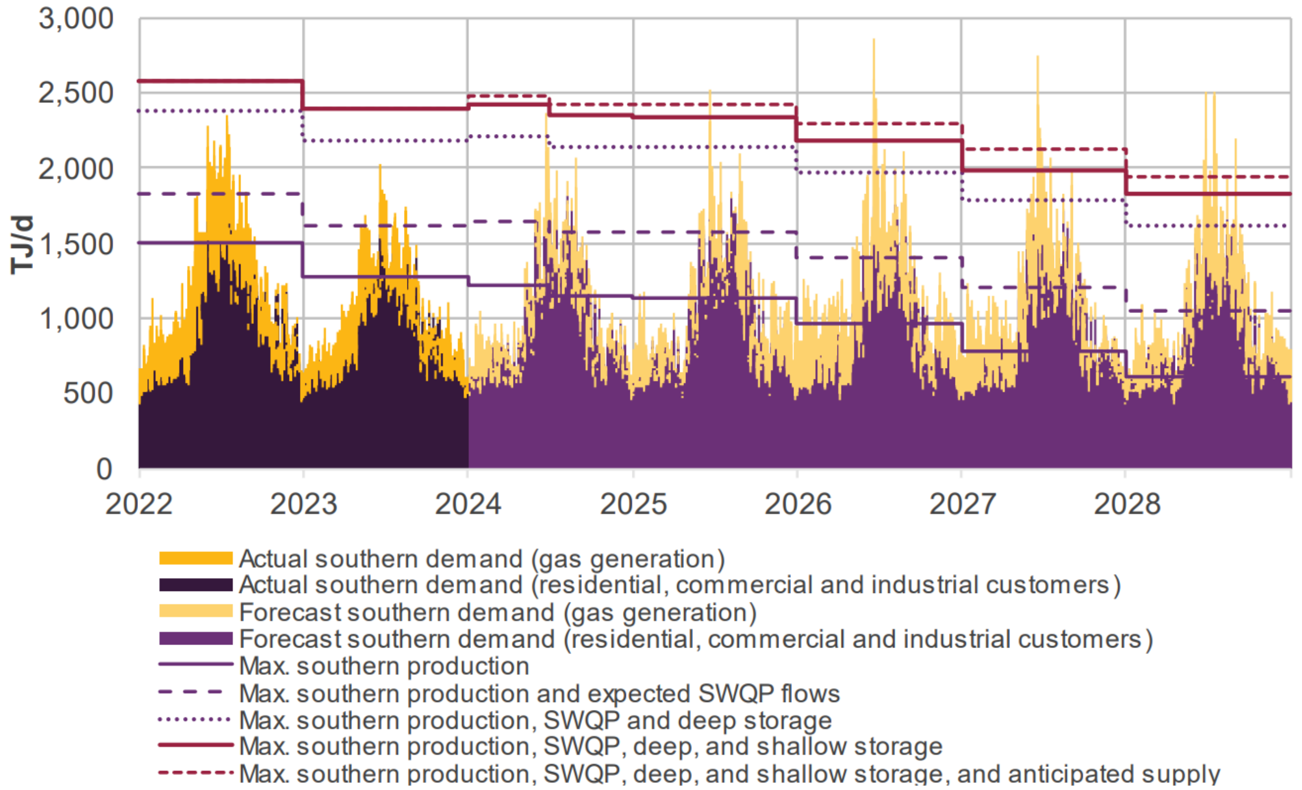
Basslink:

- Possibility of dynamic capacity increases (for short periods only) when monitored by Cable Loading Prediction System (CLPS).

Note: Interconnector capacity increases are dependent on completion of the commissioning tests influenced by prevailing market conditions.

East Coast Gas Demand Outlook

- Winter gas consumption and peak day demand is highly weather-dependant.
- Winter 2024 gas usage forecast is higher than winter 2023, which recorded some of the warmest winter temperatures on record.
- Prolonged outages of coal generators can lead to increased gas consumption and peak day demand events.
- Forecast gas consumption trends for winter 2024 include:
  - Residential and small commercial consumption is forecast to decline slightly due to price impacts and emerging fuel switching to electricity.
  - Large commercial and industrial consumption is forecast to remain relatively stable.
  - GPG consumption is forecast to continue its downward trend. Increased peak day demand is forecast due to expected closure of the Eraring Power Station.



Actual daily southern gas system adequacy since January 2022 and forecast to 2028 using existing, committed and anticipated projects (TJ / day), Gas Statement of Opportunities (GSOO), 21 March 2024.

East Coast Gas Supply Risk

Whole of System:

- There are no supply shortfalls forecast for the East Coast Gas System over the Winter 2024 period.

Southern States:

- A reduction in available supply (an impact of lower operational resilience) or an increase in GPG consumption across the winter months is likely to result in tightening of seasonal supply adequacy through Winter 2024. If additional Queensland gas is not made available to the southern states in response to supply tightening, the reliance on Iona underground storage is likely to increase and result in an elevated storage depletion risk. Depletion of Iona inventory impacts both seasonal gas supply and the daily capacity to support peak day demands.

Northern States:

- Emergency pressure restrictions in place on the Queensland Gas Pipeline, impacting supply adequacy to large industrial customers in Gladstone may continue through to Winter. This does not impact the broader east coast gas system).
- Northern Territory is expected to continue to be dependent on supply from the Ichthys LNG export plant under ‘emergency gas’ arrangements as field production constraints limit supply availability (the Darwin LNG export plant is currently offline until gas from the Barossa field is connected to the plant). Reversal of the Northern Gas Pipeline is being investigated to transport gas from Queensland to the Northern Territory to provide an alternative source of supply if emergency gas is not available from the Ichthys LNG. This would reduce Queensland gas supply to the southern states by up to 10%, impacting the east coast supply balance.

Operations Winter Readiness Emergency Preparedness

- Victorian Gas Emergency Management Consultative Forum (GEMCF) pre-winter committee meeting held on 23 April 2024.
- GEMCF annual Victorian gas emergency exercise held on 24 April 2024.
- Standard Operating Procedure for media communication arrangements has been drafted and is currently going through approval process.
- NEM Emergency Management Forum (NEMEMF) and National Gas Emergency Response Advisory Committee (NGERAC) meeting held on 7 May 2024.
- Gas Industry Winter Briefing held on 8 May 2024.
- WEM weekly seasonal coordination meetings with Energy Policy WA, Western Power and Synergy (ongoing throughout year).

Operations Winter Readiness Training Overview

RTO Training will deliver the following programs of training during May - August 2024. An indication of topics is provided:

NEM RTO

6 x SMS 2 – 2024:

- Minimum System Load (MSL) in VIC & SA
- Incident debrief 13 Feb 2024
- NSW satisfactory / secure state considerations
- QLD security considerations
- Restart from an interconnector
- Various ‘Skill Shot’ exercises

WEM

- Operating under "Lack of Reserve" conditions
- Voltage control & stability
- SCADA & AGC functionality refresh (post reform)
- Control Room logging & reporting
- Zone separation & synchronisation (Islanding)
- Significant recent events
  - Investigation into the Response of the West Kalgoorlie Power Station

Gas RTO

- Curtailment functional exercise
- DFS 2.0 (New Demand Forecasting System)
- Market Clearing Engine (MCE) Update
- Business Continuity Plan and Disaster Recovery Exercises (Control Room)

Reliability Emergency Reserve Trader (RERT)

- To mitigate any potential reliability risks AEMO maintains a panel of suppliers that can provide / contract reserves at short notice – the short notice RERT panel.
- Short notice RERT costs are only incurred if reserves are pre-activated or activated, as such reserves are not guaranteed to be available.
- Typically, short notice RERT panel agreements were designed to cover the summer months only, however AEMO is now encouraging 12-month panel membership with extension options.
- During Winter 2022 the NEM experienced coal and gas limitations which resulted in supply scarcity. AEMO used short notice RERT to manage the supply scarcity and the risk of credible contingencies causing involuntary manual load shedding.
- Contracted / activated RERT amount is published on AEMO website post-event.

Network and generation risks

Risks	Mitigation
Network and generation forced outages exceeding limits historically observed.	• More VRE / BESS capacity and synchronous generation (2500 MW) is expected to be available in the NEM due to return to service of major coal plant and reduced maintenance activities. • Ensuring regular maintenance activities are carried out and risks identified early. AEMO is monitoring network and generation availability across all regions. • RERT Panel: Short Notice RERT.
Network and generation maintenance / commissioning activities extending beyond target completion dates.	• AEMO is working closely with TNSPs and Generators to understand delays / modifications to planned maintenance due to resourcing issues, sourcing of replacement parts, industrial action(s) or other reasons. • Risk managed through ACCC interim authorisation maintenance co-ordination for NEM regions. • New MT PASA interface with information on generating unit status and recall times.
Storms / flash flooding impacting coal supply and transmission in the NEM.	• BOM is predicting median / below median rainfall across majority of the country. • Contingency management framework / plans. • Contracting coal from diverse sources and building up coal stock. • Monitor coal generation availability and stockpile levels.
Cold snaps / unplanned generation outages resulting in elevated / co-incident demand for gas consumption and GPG, reducing availability of GPG.	• Availability of scheduled generation has improved in the NEM. • Signal to industry if there is a forecast shortfall. • AEMO directions to increase gas supply from Queensland, utilisation of LNG storages. • Coordinated response with NEM to respond to possible gas generation fuel supply shortfall. • Switching to alternative fuel source (diesel). • RERT Panel: Short Notice RERT.
Unplanned network events including during high/low demand periods.	• Contingency management framework / plans. • Minimum demand framework.

AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

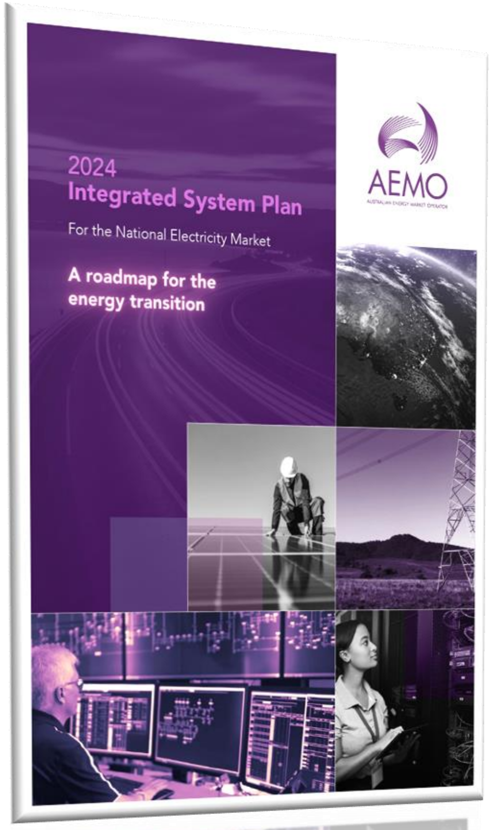
Priority 2 – Navigating the energy future

2024 ISP publication and key findings

Samantha Christie

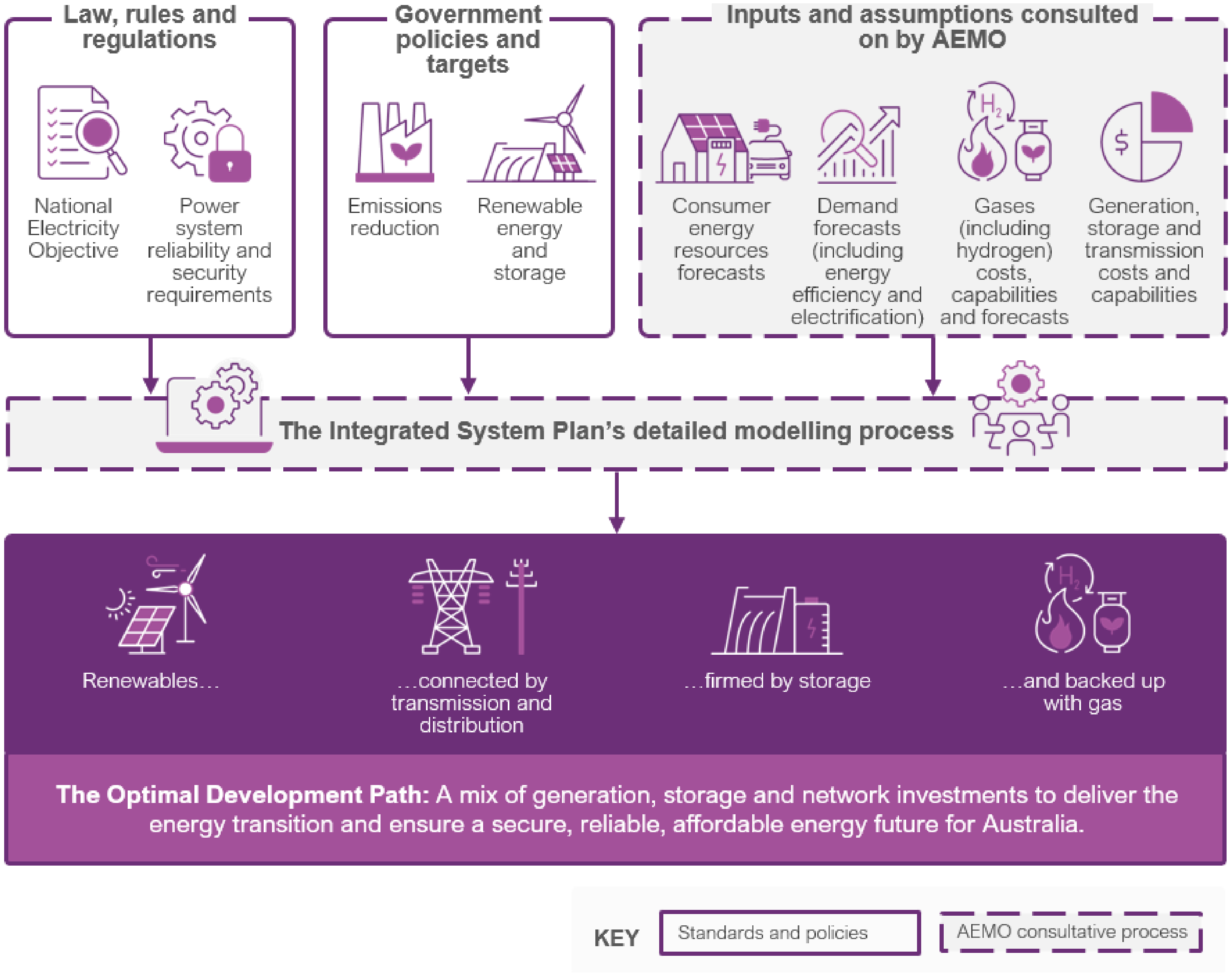
Manager, Strategic Planning, System Design

Integrated System Plan



- A roadmap for the National Electricity Market (NEM) energy transition
- Optimal development path for reaching net zero by 2050
- Least-cost path for transition within Commonwealth and State policies
- Provides lots of detailed information for policy makers, investors, consumers, communities, researchers and other stakeholders
- Serves regulatory purpose of justifying actionable and future new transmission

Inputs and outputs of the ISP methodology



Feedback addressed from the Draft ISP

Consultation

AEMO's 2024 ISP takes into account feedback from a wide range of different groups and sources, including workshops, webinars, public forums, other engagements and submissions.

2,100 stakeholders engaged

12 webinars hosted

85 presentations and reports

220 written submissions

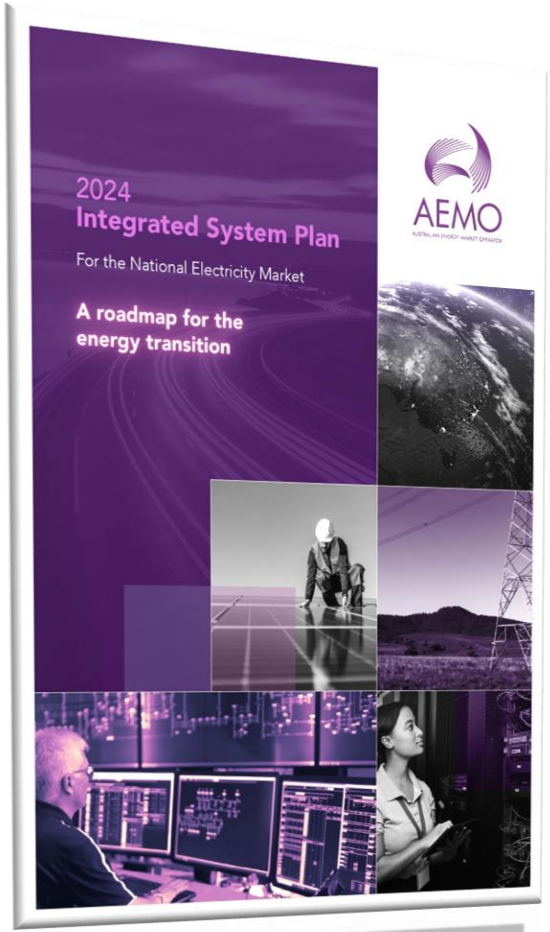
Key feedback themes

- Concerns over gas-powered generation expansion
- Delivery risks to the optimal development path may compound
- Further analysis is required on potentially actionable projects
- Suggested improvements to the ISP modelling approach
- More work is needed to integrate consumer energy resources
- Adjustment to the demand forecast could be included
- Social licence for the energy transition requires broad consultation
- What is the role of the Integrated System Plan?
- Additional suggestions for generation and storage technologies
- Hydrogen assumptions could be explored further
- 2026 ISP scope to expand as the energy transition continues

ISP model now includes the latest inputs and responses to stakeholder feedback

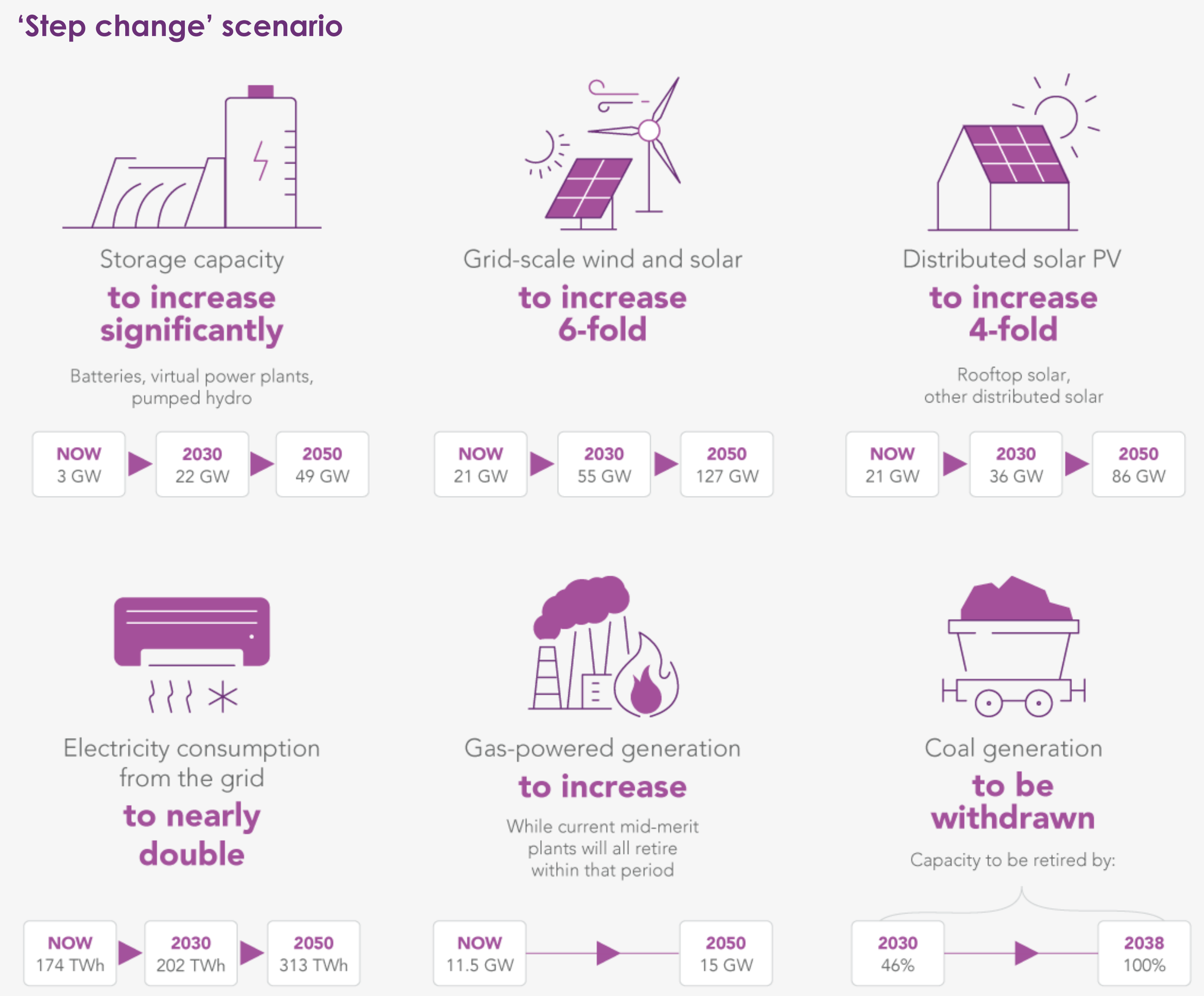
- **Value of emissions reductions**
- **Latest generation and storage project statuses**
- **Updated gas infrastructure consideration**
- **Updated policies**
- **Updated transmission options**
- **New and updated sensitivity analysis**

Key findings



Renewable energy *connected with* ***transmission and distribution****, firmed with* ***storage*** *and backed up by* ***gas-powered generation*** *is the lowest cost way to supply electricity to homes and businesses as Australia transitions to a net-zero economy.*

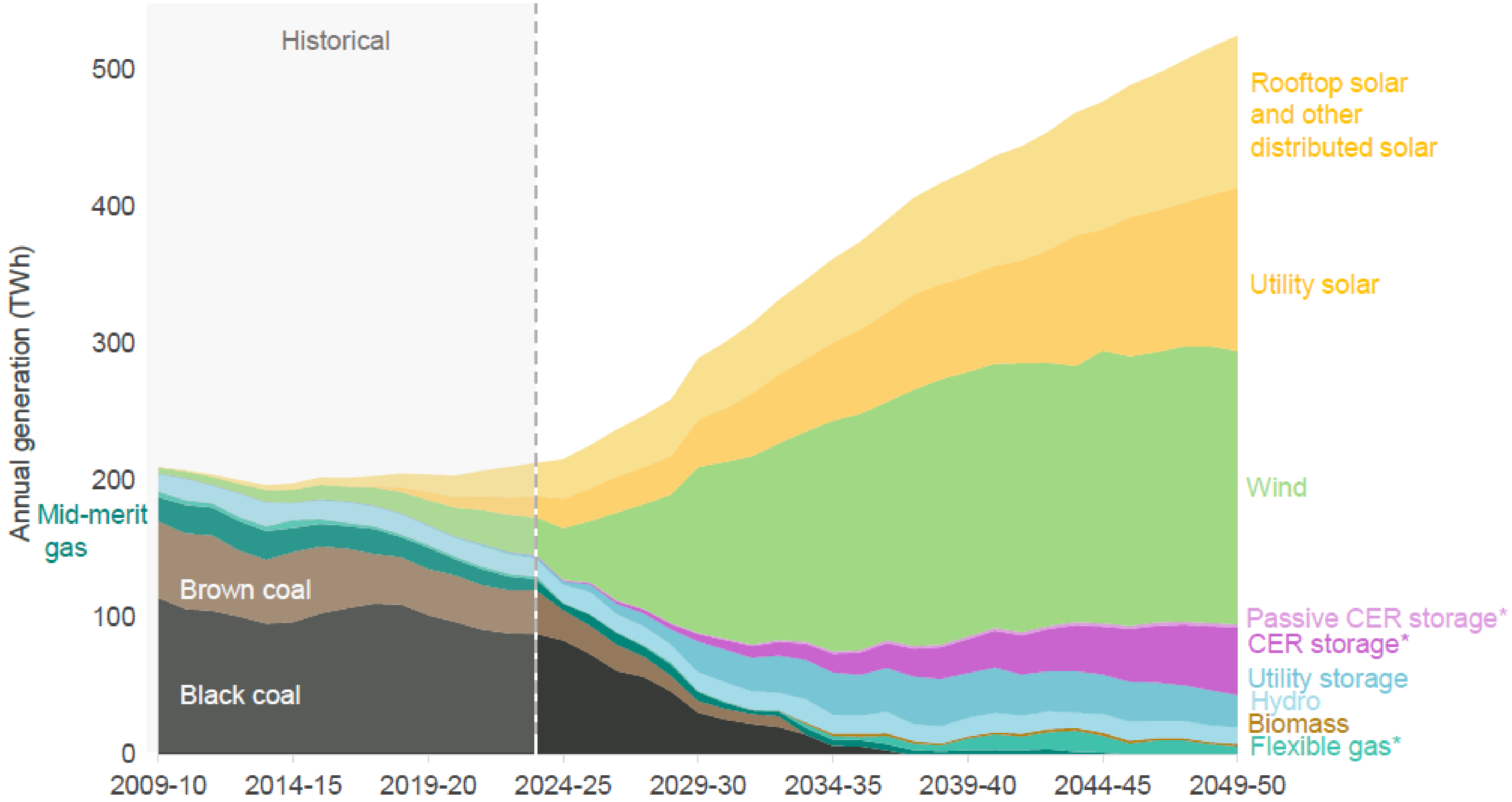
Key findings in the 2024 ISP



- With coal-fired generation retiring, Australia's energy transition is well underway, with renewable energy accounting for 40% of electricity delivered through the NEM in 2023.
- The Optimal Development Path (ODP) is the lowest-cost path through the NEM's transition to a net zero future. It has an annualised capital cost of $122 billion to 2050.
- The ODP calls for around 10,000 km of new transmission projects by 2050 to connect new generation across the power system, of which 2,500 km is underway.
- Investment in transmission projects identified in the 2024 ISP will reduce costs for consumers. These transmission projects cost $16 billion, and are expected to recoup their investment costs, save consumers a further $18.5 billion in avoided costs, and deliver emissions reductions now valued at $3.3 billion.
- If consumer batteries are coordinated effectively, they have the potential to help lower costs for all consumers by offsetting the need for an additional $4.1 billion of grid-scale investment.

NEM generation and storage mix in the 2024 ISP

TWh, 2009-10 to 2049-50, *Step Change*



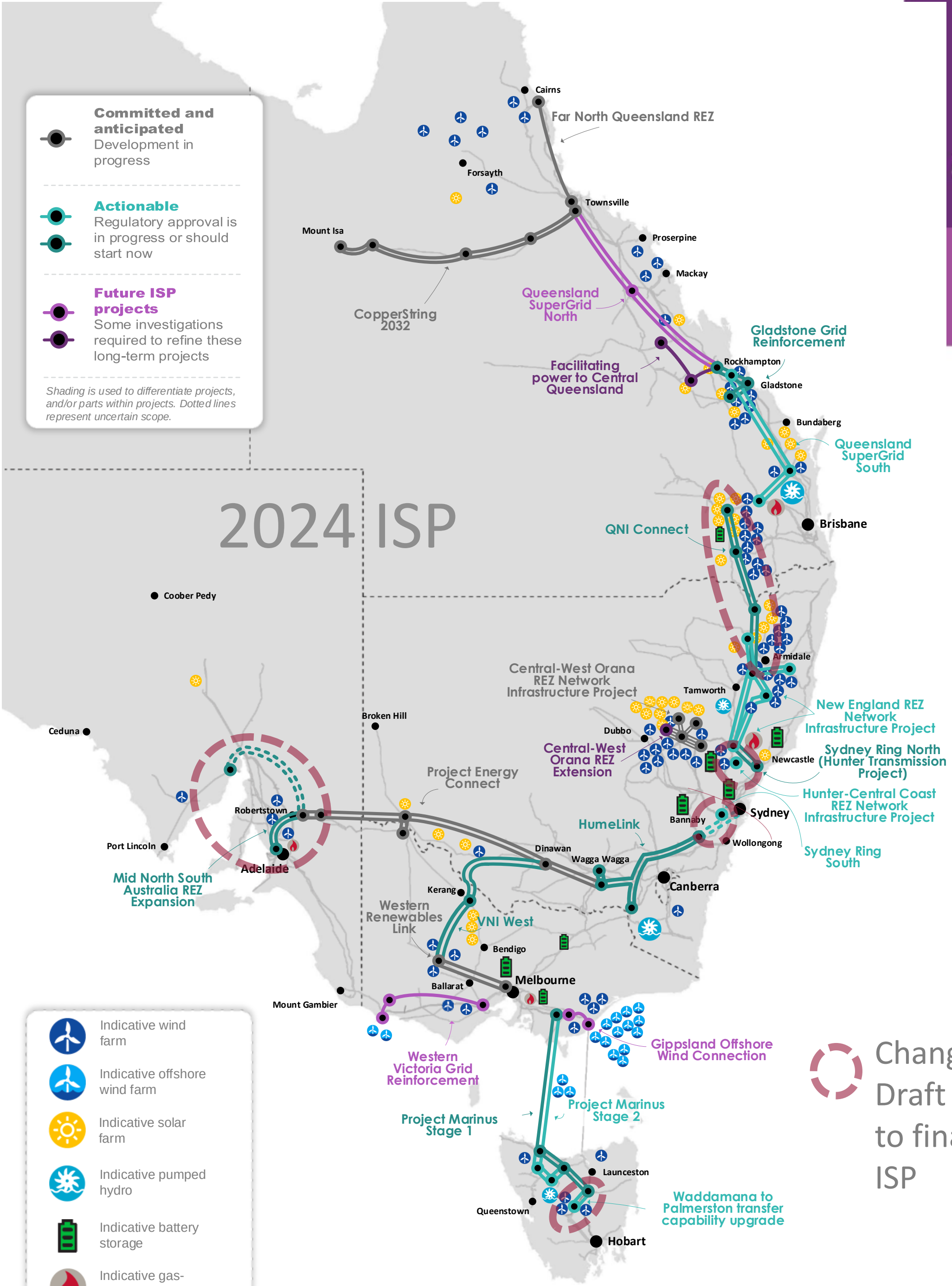
Notes: Annual generation for 2023-24 has been estimated for the full financial year.
"Flexible gas" includes gas-powered generation and potential hydrogen capacity.
"CER storage" means consumer energy resources such as batteries and EVs.

Transmission projects in the 2024 ISP

The ISP forecasts that close to 10,000 km of transmission will be needed by 2050 to connect new generation across the NEM.

Seven additional transmission projects have progressed to ‘actionable’ status since the 2022 ISP, allowing more coordinated and effective community consultation to commence earlier. Of these, five have progressed to actionable status since the Draft 2024 ISP.

Work for both new and previously actionable projects should continue or commence as soon as possible.



The map generally shows network upgrades required in all scenarios and generation and storage in Step Change by 2050.

Changes from Draft 2024 ISP to final 2024 ISP

Consumer Energy Resources (CER)

The 2024 ISP includes greater recognition of the role of consumer resources and distribution networks, and explicitly recognises CER as a significant resource and the contribution it makes in the transition. Many households and businesses are taking steps to shape their own energy futures by investing in CER, practicing energy efficiency, and adopting innovative ways to reduce and manage their demand.

Rooftop solar is now three times as common in Australia as backyard pools. Rooftop systems contributed 13% of the NEM's total generation in Q1 2024, more than utility-scale solar (8.6%), wind power (11.8%), hydro (5.3%) and gas (4.1%).

If consumer devices like solar panels, batteries and electric vehicles are enabled to actively participate in the energy system, then this will result in lower costs for all consumers. Home batteries, if effectively coordinated, can save consumers around $4.1 billion in avoided costs for additional grid-scale investment.

Work on the 2026 ISP is underway

- 2026 ISP Consumer Panel established
- Implementation of the ISP Review recommendations
- 2026 ISP Engagement Plan – to be discussed at next Consumer Forum
- Development of the scenarios to apply to the 2026 ISP has commenced

For more information

- The 2024 ISP is available online.
- A 3-page overview of the ISP is also available.
- Sign up to our webinar on Tuesday 2 July for more details.

Priority 3 – Engaging our stakeholders

Establishment of the Consumer and Community Reference Group

Emily Duck

Manager, Consumer and Community

ACSL purpose

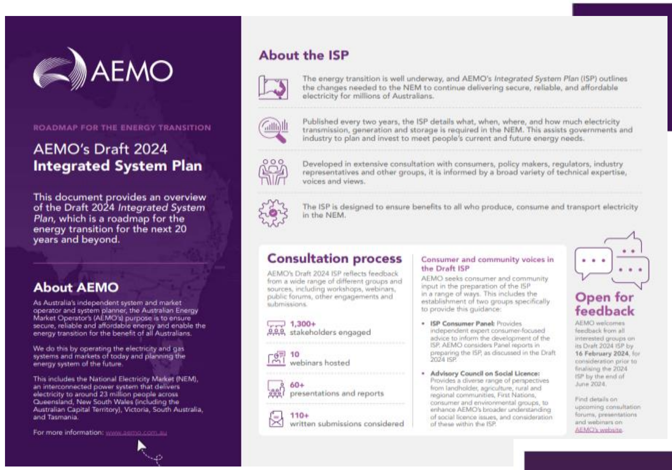
AEMO's Advisory Council on Social Licence (ACSL) has served as a strategic advisory body to AEMO on social licence related business planning, policy, reform and advocacy matters at a strategic national or infrastructure portfolio level.

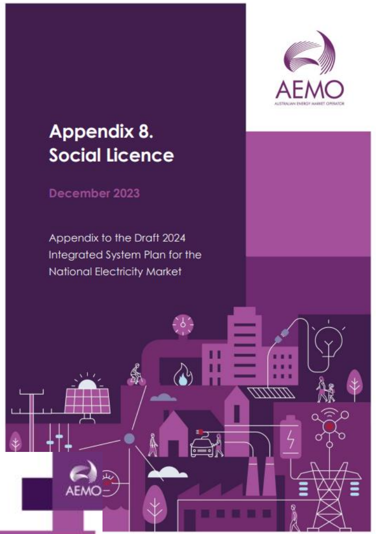
- Launched to fill a knowledge and engagement gap across governments and industry to better understand community sentiment, challenges and opportunities presented by the energy transition and construction of new energy infrastructure
- Three core roles under the Terms of Reference: input to ISP development*; strategic advice on community sentiment and social licence, and acting as a stakeholder conduit to share community network insights with AEMO and information with networks
- Comprised of 12 highly-regarded individuals representing a diverse range of interests - including households, businesses, regional communities, Aboriginal and Torres Strait Islander, agricultural and environmental groups
- Topics have included: emerging Government and industry guidelines, strategies and research; ISP social licence framing and sensitivities; VIC transmission community engagement; CER; AEMO's broader engagement approach
- 5 ACSL meetings held (~ quarterly)

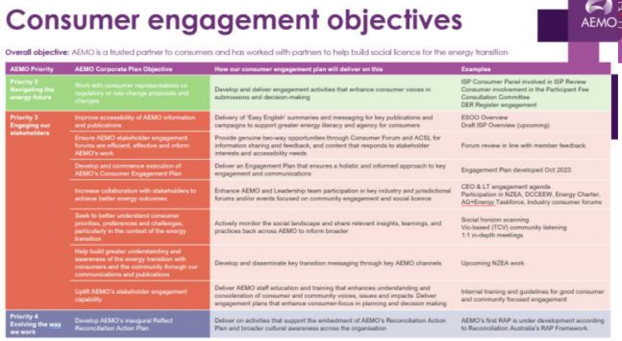
*Separate purpose to the ISP Consumer Panel, as the ACSL considers broader social licence risks to ISP execution, as well as other matters.

Key achievements

- **Directly shaping the development of the Social Licence Appendix in the 2024 Integrated System Plan (ISP)** and sensitivity modelling, Victorian Planning engagement, consumer-focused explainers for key publications, and various social licence-related submissions.
- **Enhancing AEMO's awareness and providing key insights on consumer and community concerns** around the energy transition, including advice on engagement approaches and AEMO's potential role.
- **Providing enhanced visibility and agency with government departments**, with government attendees at ACSL meetings sharing insights and exchanging views with members on upcoming reform and social licence matters.







Evolving the ACSL

Following ACSL member and internal consultation, AEMO will be evolving the Advisory Council on Social Licence into a **Consumer and Community Reference Group (CCRG)**

Group purpose

AEMO's Consumer and Community Reference Group is a cohort of respected consumer and community sector representatives who provide guidance and input to our key business planning and decision-making to help us enable the energy transition.

Their diverse range of expertise is drawn upon by areas across our business, including to complement the work of other dedicated consultation groups (such as the ISP Consumer Panel) in providing additional, broader voices and context.

Benefits

- Engagement aligned to advocate expertise, interest and capacity
- Reduces capacity ask on advocates
- Allows for deeper consultation and 1:1 relationship building
- Aligns with ACSL member feedback and preferences
- Provides value to AEMO through deeper consultations

Group makeup

- EOI callout, with current ACSL members invited to participate.
- Around 15 members sought.

Likely engagement topics

Note: still being confirmed

- Relevant consumer and community issues related to AEMO's strategic priorities
- For example, consumer energy resources, community engagement approaches, consumer and community sentiments, and other sub-topics related to future ISPs.

Engagement approach

- Engagement opportunity scoped with business
- Engagement callout to CCRG members (including a brief that includes number of participants sought, time commitment)
- Feedback loop to ensure transparency in use of input and outcomes
- Payment for time in line with AEMO's policies

Consumer and Community Reference Group

Why join?

The CCRG is an invaluable opportunity for consumer advocates to provide input and expertise to shape how AEMO performs our core roles in the energy market, including system planning, operations, and market reforms. CCRG members will help to improve understanding of consumer and community sentiments, embed a consumer-centric focus at AEMO, and influence reforms and processes that would benefit consumers

How it works (full Terms of Reference will be made available)

Members will be invited to participate in consultations on key topics as they arise based on their areas of expertise, interests and capacity. For example, exploring the role of consumers in enabling consumer energy resources (CER) integration, and community sentiment around renewable infrastructure projects., or delivery on future ISPs.

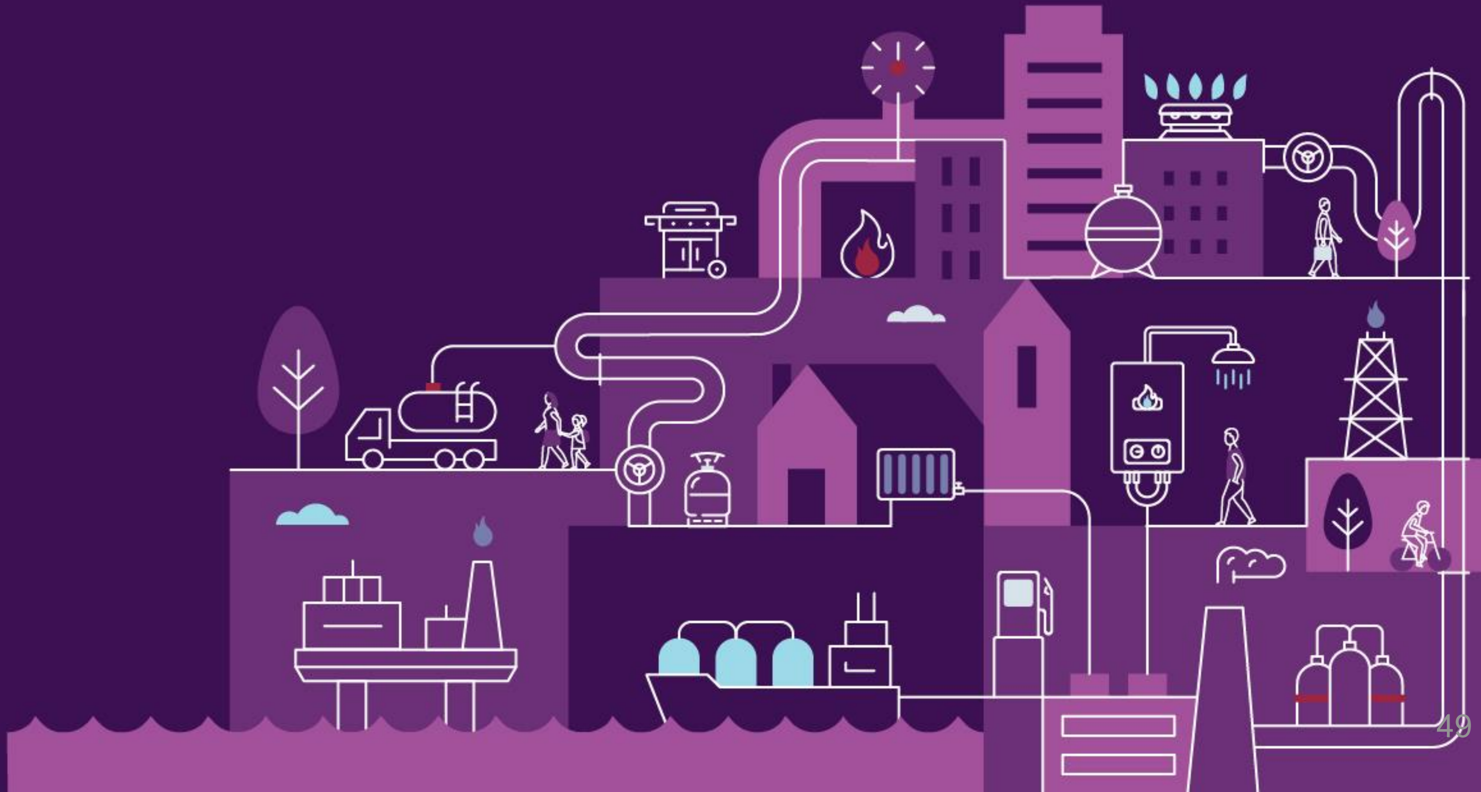
Expressions of Interest (EOI)

AEMO will seek EOIs from consumer and community advocates to join the CCRG in July 2024. AEMO's Consumer Forum mailing list will be informed by email with a link to the Terms of Reference and invitation to apply.

28 June 2024	July**	July-August	September 2024
AEMO Consumer Forum	**Call for EOI opens**	**Call for EOI closes**	**Launch of CCRG**
Opportunity for Q&A on the CCRG	3-week duration	3-week duration	Announcement on website

** Timing to be confirmed.

Next meeting



Potential agenda items

Next Consumer Forum

- Proposed for 29 July 2024

Proposed agenda items

- FY25 AEMO Corporate Plan and Priorities
- 2026 ISP Engagement Plan

Following Consumer Forum

- Proposed for September 2024

Proposed agenda items

- FY24 Results presentation
- CER update

Survey for proposed agenda items and feedback
https://forms.office.com/r/fKZ06zepb4

Thank you