



MARKET SUMMARY REPORT

Electricity and Gas – November 2023

Shell Energy Retail Pty Ltd
ABN 87 126 175 460

Introduction and Further Reading

This report provides information on wholesale price trends for all regions within the National Electricity Market (NEM), the Western Australia Energy Market, the East Coast Wholesale Gas Market and environmental scheme certificates. Wholesale gas price trends reference the ICAP Gas Forward Price Curve Data, published under permission by ICAP Energy.

Please note that all electricity prices are presented as a \$ per megawatt-hour (MWh) price and all certificate prices as a \$ per certificate price.

You can obtain the latest pricing information for the spot and contract markets on a daily basis from the “Market” section of the Shell Energy Customer Portal.

Tasmanian contract prices are the non-regulated prices published by Hydro Tasmania on a weekly basis. All NEM spot prices are published by the Australian Energy Market Operator (AEMO). NEM contract prices are sourced from the ASX.

Further information can be found at the locations noted below:

Tasmanian energy market - a comprehensive weekly report is published by the Office of the Tasmanian Energy Regulator which can be found [here](#).

Western Australia Energy Market - AEMO publishes a detailed market report which can be found [here](#).

NEM Spot Market – AEMO publish a range of detailed information which can be found [here](#).

Environmental Certificates – information about environmental certificates can be found [here](#).

Large-scale Generation Certificates (LGCs) – information about LGCs can be found [here](#). You can also refer to our [Energy Education video on LGCs](#).

Small-scale Technology Certificates (STCs) – information about the STC program can be found [here](#). You can also refer to our [Energy Education video on STCs](#).

Victorian Energy Efficiency Certificates (VEECs) – information about the VEEC program can be found [here](#). You can also refer to our [Energy Education video on VEECs](#).

Energy Saving Certificates (ESCs) – information about the ESC program can be found [here](#). You can also refer to our [Energy Education video on ESCs](#).

Contract Market

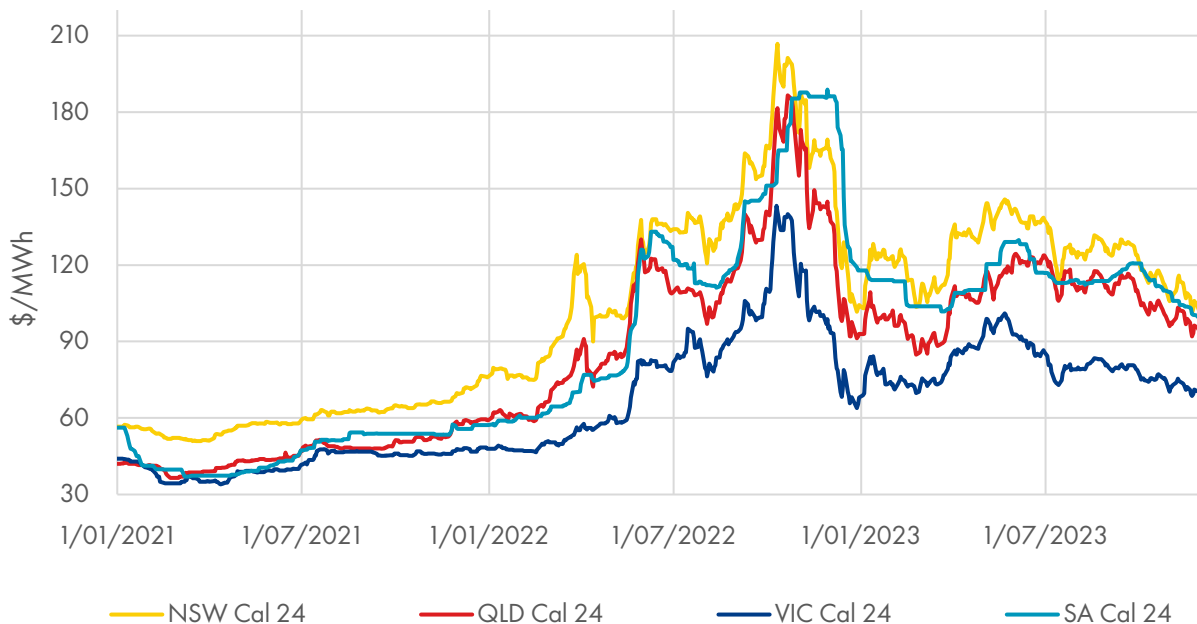
Calendar Year 2024 (CY24)

In November, swap contracts for the Calendar Year 2024 (CY24) saw a general decrease across all states, except for Tasmania, which experienced a slight month-on-month increase due to higher interconnector imports driving higher spot outcomes. The decline in contract prices in the remaining states was largely attributed to high temperatures that failed to yield higher spot prices, despite numerous coal outages across the National Electricity Market (NEM). This led to a decrease in price expectations for future periods of high temperatures, including anticipated El Nino conditions in 2024. During November, renewable energy generation averaged 42%, while gas generators incurred lower fuel costs due to an excess of gas following loading issues at APLNG's Curtis Island facility. Increased trading activity as participants rebalanced their positions following options exercise on CY24 ASX contracts contributed to the downward trend in forward prices.

November 2023

State	Previous Close	Period Low	Period High	Closing Price
QLD	96.00	92.01	103.31	92.23
NSW	105.81	99.66	115.81	99.66
VIC	70.34	68.60	75.40	69.48
SA	109.43	99.40	109.18	99.40
TAS	71.46	70.51	72.47	71.58

CY24 Flat



Source: ASX data

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Contract Market

Calendar Year 2025 (CY25)

Swap contracts for Calendar Year 2025 (CY25) mirrored the dynamics of 2024 swap contracts, with a decrease in closing prices observed across all states, with the exception of Tasmania. Longer-dated forward contracts saw minimal movement, primarily due to low market liquidity.

November 2023

State	Previous Close	Period Low	Period High	Closing Price
QLD	93.67	90.45	97.45	91.23
NSW	114.39	106.36	119.09	106.36
VIC	68.72	66.22	70.90	68.19
SA	111.14	103.95	111.14	103.95
TAS	68.78	69.07	70.66	70.66

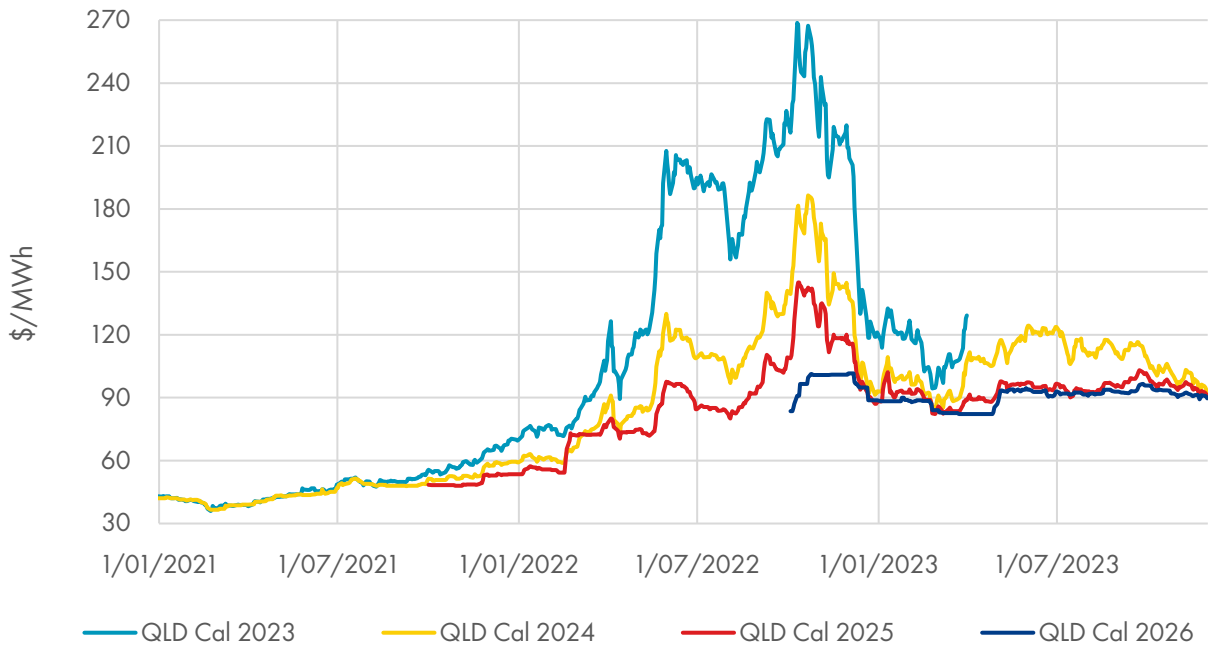
CY25 Flat



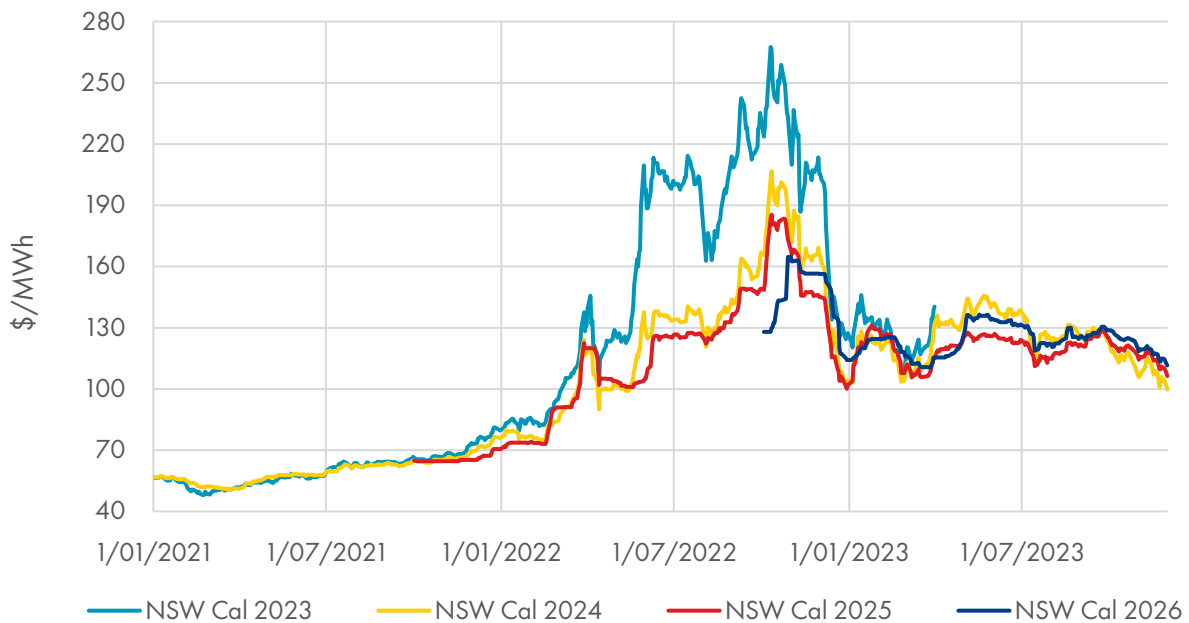
Source: ASX data

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Contract Market - QLD Calendar Years Flat



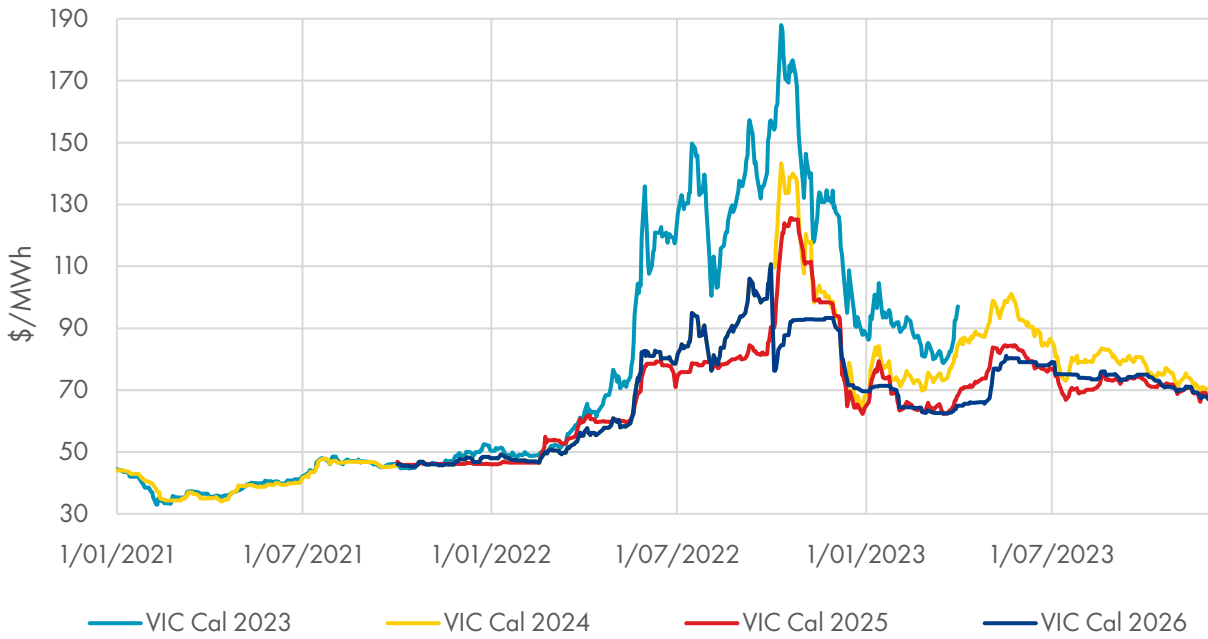
Contract Market - NSW Calendar Years Flat



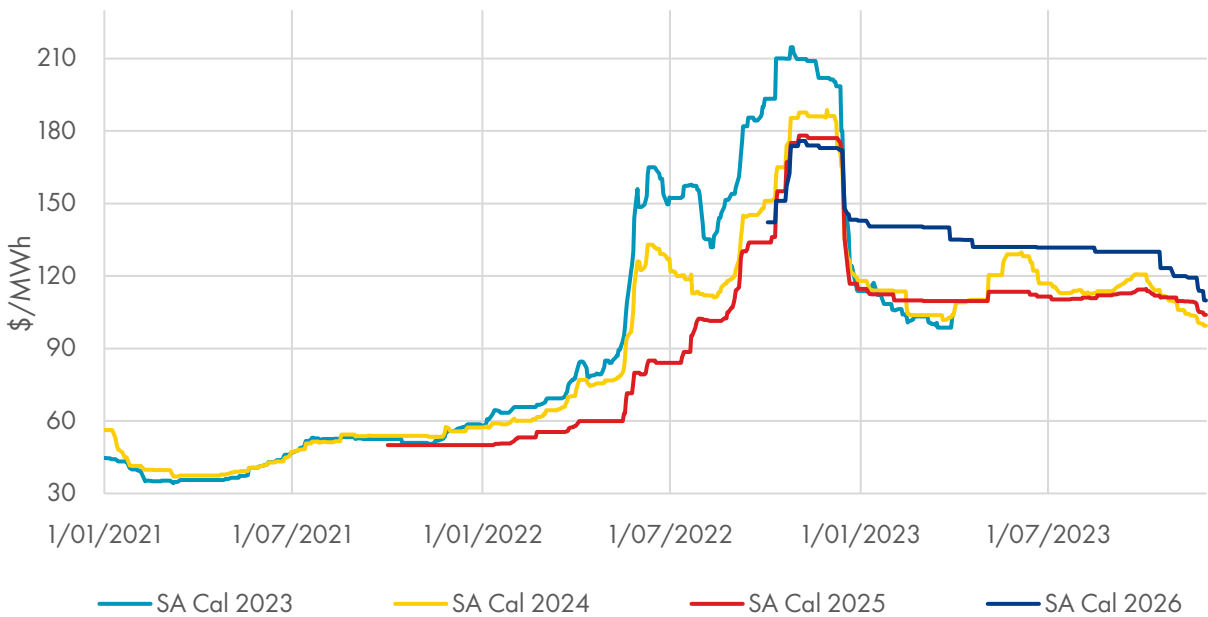
Source: ASX data

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Contract Market - VIC Calendar Years Flat



Contract Market - SA Calendar Years Flat



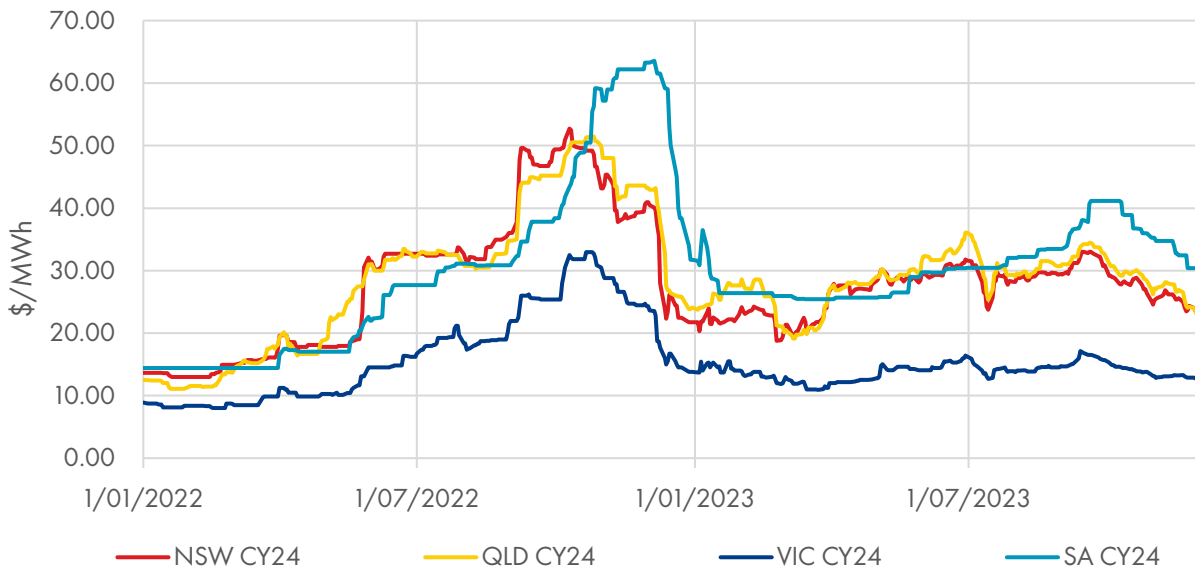
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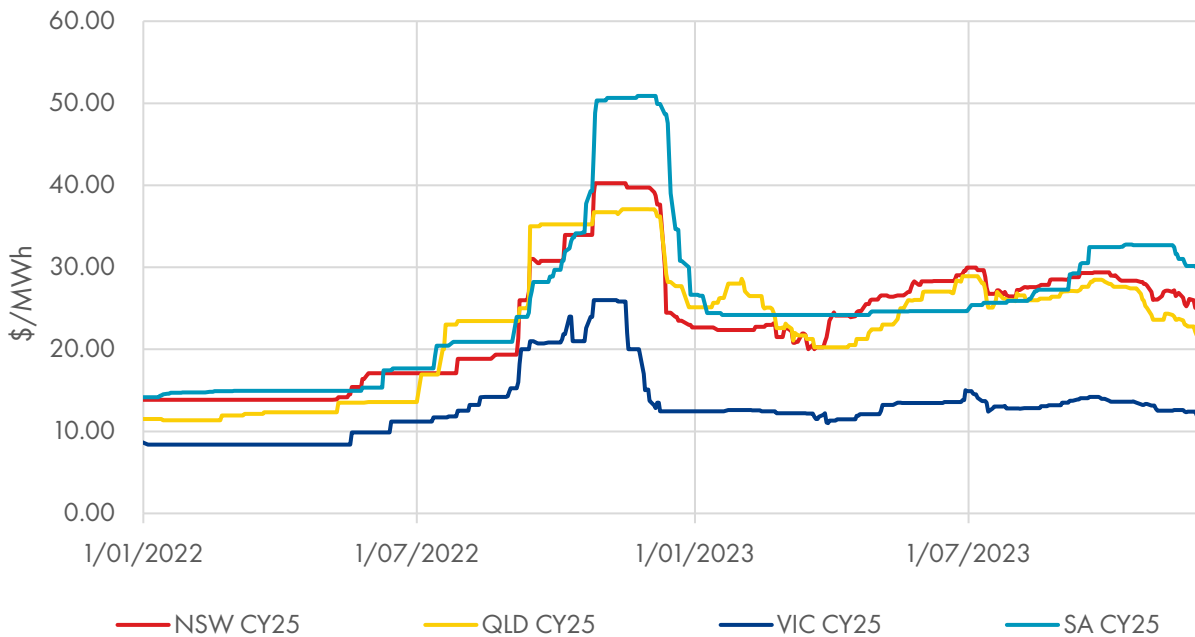
Cap Contract Market

The cap contract market persistently experienced a downward trend on a month-to-month basis. Even with high temperatures and substantial coal outages, spot outcomes remained weak. These spot conditions, in conjunction with governmental indications of an energy policy to achieve energy transition goals, resulted in subdued closing prices for cap contracts.

Calendar Year 2024 (CY24)



Calendar Year 2025 (CY25)



Source: ASX data

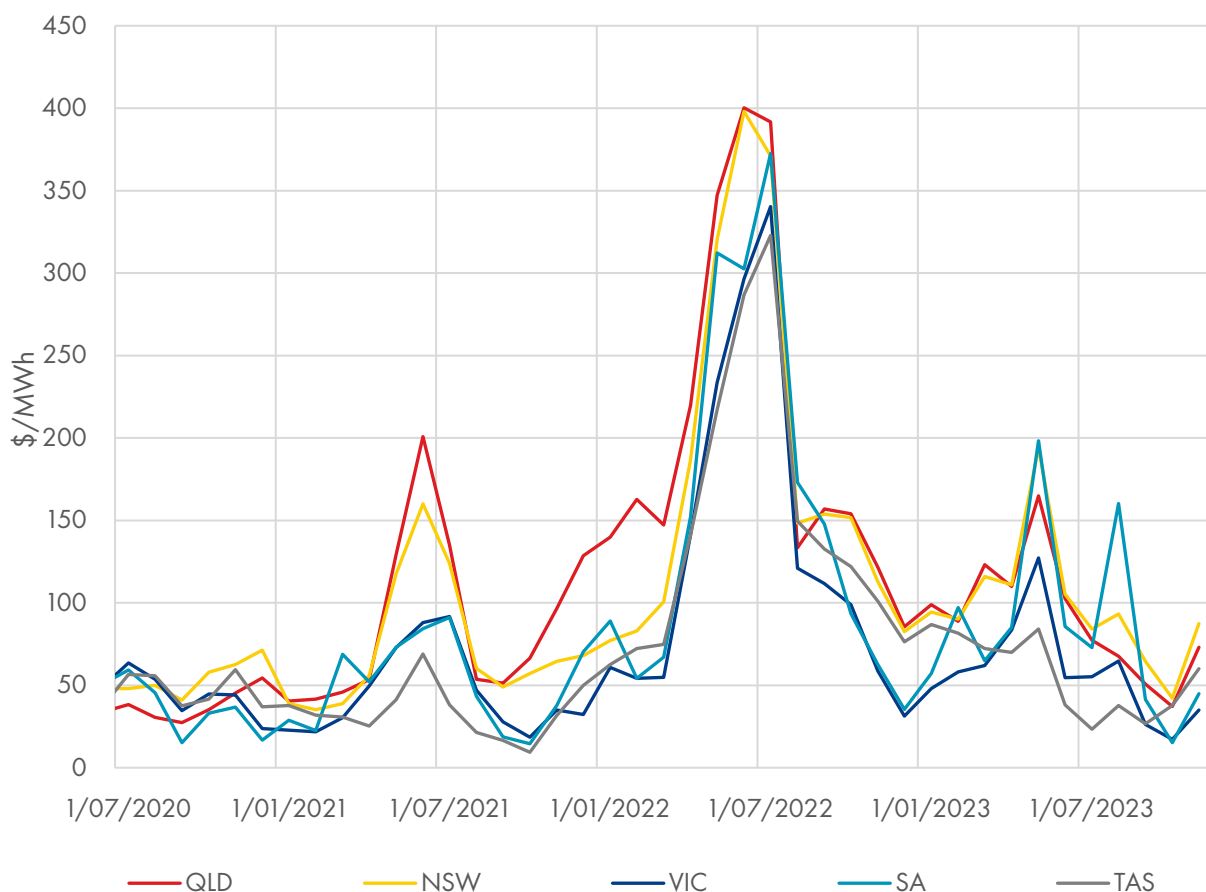
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Spot Prices: National Electricity Market

In November 2023, the southern regions of the National Electricity Market (NEM) experienced relatively subdued demand and price outcomes. Queensland and New South Wales saw a slight increase in spot prices due to below-average availability of thermal generation. Large scale wind and solar generators contributed 12.1% and 8.6% to the total generation respectively. Reduced Variable Renewable Energy (VRE) generation was due to constraints imposed by the Australian Energy Market Operator (AEMO), coupled with seasonally lower wind conditions across the east coast.

November 2023

State	Average Spot Price	Max 5 Min Spot Price	5 Min Intervals at \$1,000 or Above	5 Min Intervals at \$0 or Below
QLD	72.97	13,390.01	8	1,386
NSW	87.35	15,433.42	8	652
VIC	34.94	314.85	0	2,300
SA	44.92	16,600.00	5	2,576
TAS	59.97	914.23	0	85



Source: NEM Spot Market - AEMO

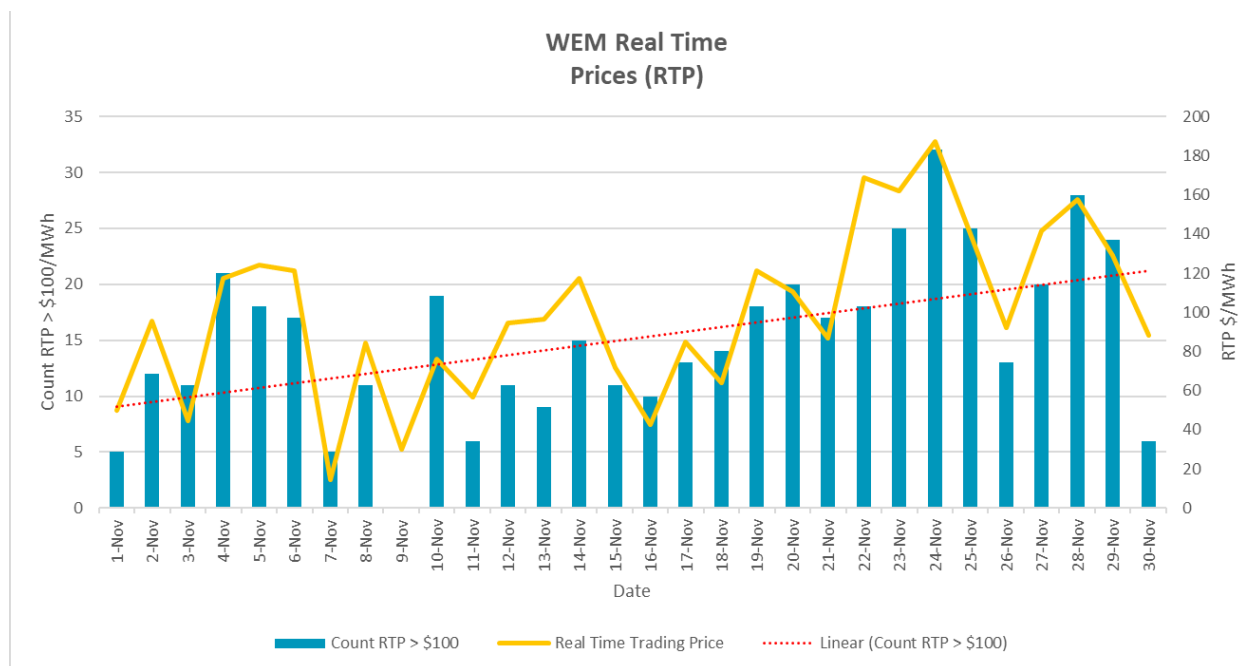
Western Australia Energy Market

WEM Short-term Electricity Market (STEM) and Real-time Energy Market (RTM) Prices

November 2023 was the second month following the implementation of 5-minute dispatch in the Wholesale Electricity Market's (WEM) reform.

The Short-Term Energy Market (STEM) average flat price saw a decrease of 4% to \$76.75 in November. The month recorded 305 intervals with prices above \$100, a significant drop from the 700 intervals in the previous month. Additionally, there were 17 intervals with prices below \$0, compared to 62 the previous month. Real-time market prices averaged at \$98.90 in November, which is an 18% increase from October. 454 real time price intervals were above \$100, compared to 441 in October. 250 intervals were prices below \$0, compared to 313 in October.

The WEM witnessed volatility due to a surge in demand towards the end of the month, particularly on November 23rd, which set a demand record of 4069 MW at 6pm. This high demand, along with an unusually high number of generator outages, led to an increase in Real-Time Market (RTM) prices as seen in the graph below.



Source: Western Australia Energy Market - AEMO

Emission Schemes

Large-scale generation certificate (LGC) spot contracts closed at \$47.00 in November, which was \$2.00 lower than last month's close of \$49.00. At the close of the month, all contracts (excluding CY24) experienced a decline in price in response to the federal government's announcement of the Capacity Investment Scheme (CIS). The CIS is designed to back 9 GW of dispatchable capacity and 23 GW of variable capacity across the nation, providing long-term revenue support for investors.

- CY23 closed \$2.25 lower at \$47.50;
- CY24 closed \$0.5 higher at \$50.25;
- CY25 closed \$1.00 lower at \$45.25;
- CY26 closed \$1.75 lower at \$37.25;
- CY27 closed \$3.50 lower at \$29;
- CY28 closed \$2.50 lower at \$25;
- CY29 closed \$3 lower at \$18.

Victorian Energy Efficiency Certificate (VEEC) spot contracts closed at \$87.50, which was \$1.70 higher than last month's close of \$85.80. VEEC quarterly vintages closed between \$87.25 and \$87.40. Certificate creation picked up, averaging 89,600 per week which was over the 2023 weekly average of 72,000 per week and under the 2022 weekly average of 160,000.

Energy Saving Certificates (ESC) spot contracts closed at \$24.25, \$1.75 lower than last month's close of \$26. ESC quarterly vintages closed between \$24.50 and \$25.50. Creation this month averaged 190,000 certificates per week, compared to the 2023 weekly average of 160,000 and the 2022 weekly average of 80,000 certificates per week.

Small-scale Technology Certificates (STC) spot contracts closed at \$39.30, \$0.55 lower than last month's close of \$39.85. STC quarterly vintages closed between \$39.25 and \$39.50. The clearing house returned from its deficit and moved into surplus territory.

Gas Forward Market

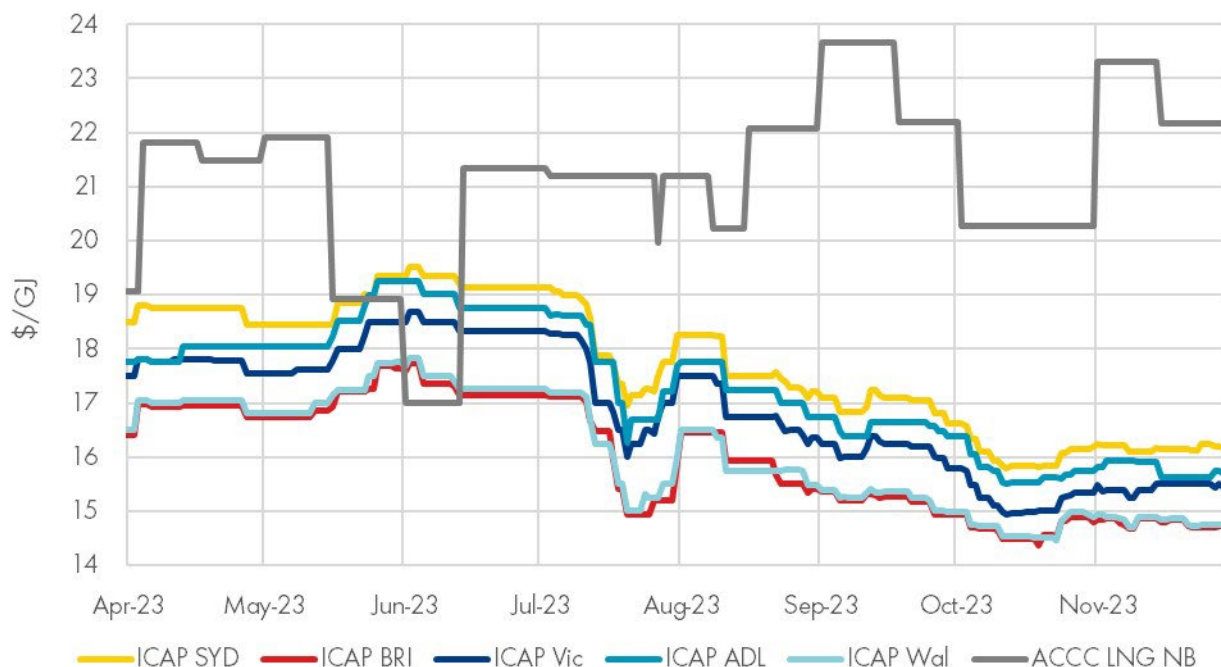
Calendar Year 2024 (CY24)

All domestic forward contracts for Calendar Year 2024 (CY24) traded sideways for most of the month, softening by less than 1% overall. The Victoria CY24 forward price closed the month at \$15.44/GJ, recovering by nearly \$0.50/GJ after reaching the lowest point for the year below \$15.00/GJ in October. The ACCC LNG netback (NB) forward price remained at above \$22.00/GJ, representing a spread of greater than \$6/GJ between international spot LNG prices and the Victorian domestic market. Calendar Year 2024 forward market liquidity remains low following the commencement of the Mandatory Code of Conduct on 11 July, the end of the transitional period in early September, and the announcement of conditional ministerial exemptions from the ACCC Mandatory Gas Code of Conduct on 27 November, including enforceable supply commitments from APLNG and Senex totalling 300PJ.

November 2023, \$/GJ

Market	Period Low	Period High	Opening Price	Closing Price	Monthly Change	Monthly Change (%)
ICAP Brisbane	\$14.67	\$14.85	\$14.83	\$14.73	-\$0.11	-0.7%
ICAP Sydney	\$16.09	\$16.24	\$16.24	\$16.16	-\$0.08	-0.5%
ICAP Adelaide	\$15.63	\$15.93	\$15.80	\$15.69	-\$0.11	-0.7%
ICAP Victoria	\$15.25	\$15.50	\$15.49	\$15.44	-\$0.05	-0.3%
ICAP Wallumbilla	\$14.71	\$14.93	\$14.83	\$14.75	-\$0.08	-0.6%
ACCC LNG NB	\$22.16	\$23.30	\$23.30	\$22.16	-\$1.14	-4.9%

CY24 Flat Calendar Year | 1 April 2023 to date



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Source: ICAP Energy Gas Forward Price Curve Data, ACCC historical and forward short-term LNG netback price

(<https://www.accc.gov.au/regulated-infrastructure/energy/gas-inquiry-2017-25/lng-netback-price-series>)

<https://www.minister.industry.gov.au/ministers/king/media-releases/joint-media-release-gas-code-secures-supply-domestic-market>

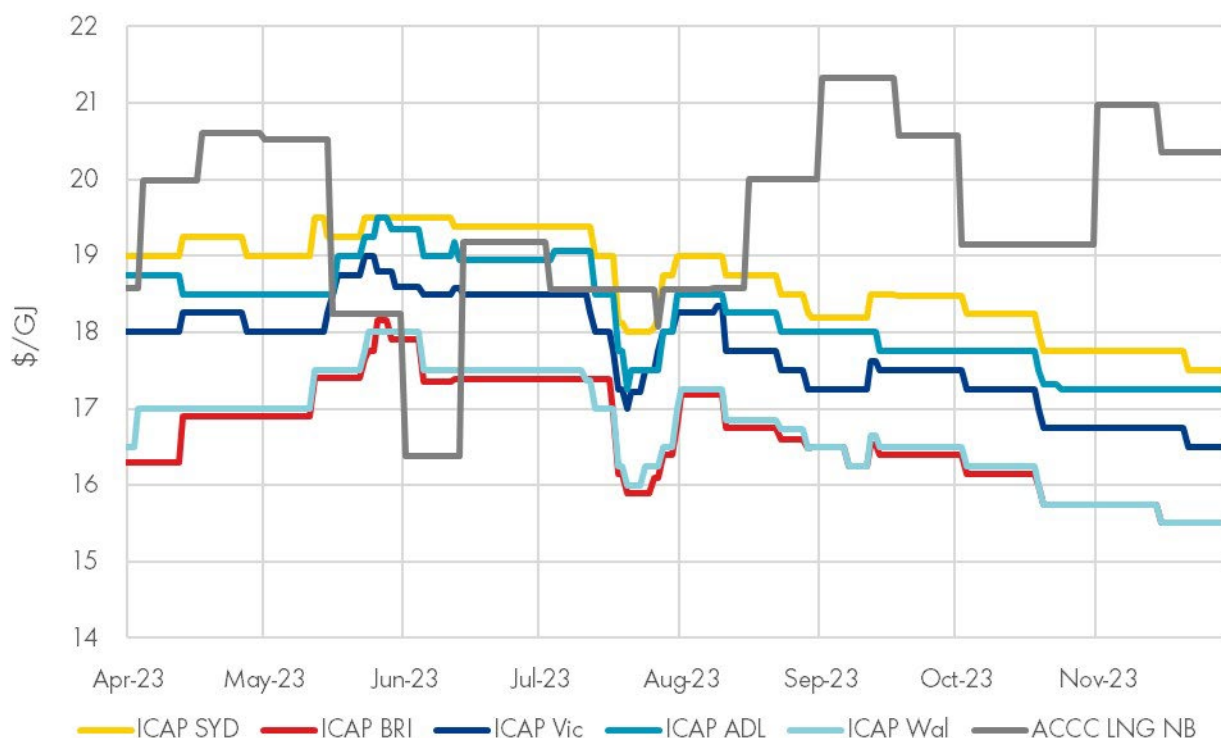
Calendar Year 2025 (CY25)

Domestic forward contracts for Calendar Year 2025 (CY25) fell by up to \$0.25/GJ in November, across Brisbane, Sydney, Victoria and Wallumbilla markets. The Sydney market is trading \$2.00/GJ higher than Wallumbilla, with the Victorian market at a \$1.00/GJ discount to Sydney. The ACCC LNG netback forward price declined, however still ending the month above \$20.00/GJ. The Calendar Year 2025 forward market continues to be affected by reduced liquidity. For the CY25 contract, the ACCC LNG netback forward price remains nearly three dollars higher than all domestic markets.

November 2023, \$/GJ

Market	Period Low	Period High	Opening Price	Closing Price	Monthly Change	Monthly Change (%)
ICAP Brisbane	\$15.50	\$15.75	\$15.75	\$15.50	-\$0.25	-1.6%
ICAP Sydney	\$17.50	\$17.75	\$17.75	\$17.50	-\$0.25	-1.4%
ICAP Adelaide	\$17.25	\$17.25	\$17.25	\$17.25	\$0.00	0.0%
ICAP Victoria	\$16.50	\$16.75	\$16.75	\$16.50	-\$0.25	-1.5%
ICAP Wallumbilla	\$15.50	\$15.75	\$15.75	\$15.50	-\$0.25	-1.6%
ACCC LNG NB	\$20.36	\$20.97	\$20.97	\$20.36	-\$0.61	-2.9%

CY25 Flat Calendar Year | 1 April 2023 to date



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Source: ICAP Energy Gas Forward Price Curve Data, ACCC historical and forward short-term LNG netback price (<https://www.accc.gov.au/regulated-infrastructure/energy/gas-inquiry-2017-25/lng-netback-price-series>)

Spot Prices: East Coast Gas Market

Spot prices traded between \$7.32/GJ and \$14.80/GJ for the month of November. The Victorian Declared Wholesale Gas Market (DWGM) average 6am price peaked at \$14.80/GJ early in the month, due to high power generation demand, coal generation unit outages, planned Longford maintenance and physical constraints at the Culcairn injection point to the DWGM. In late November, a shipping issue at the APLNG LNG export facility in Gladstone resulted in an oversupply of gas in the spot market, prices falling below \$8.00/GJ in Queensland. This issue was resolved later in the month and into December as APLNG production continues to recover after deep curtailment.

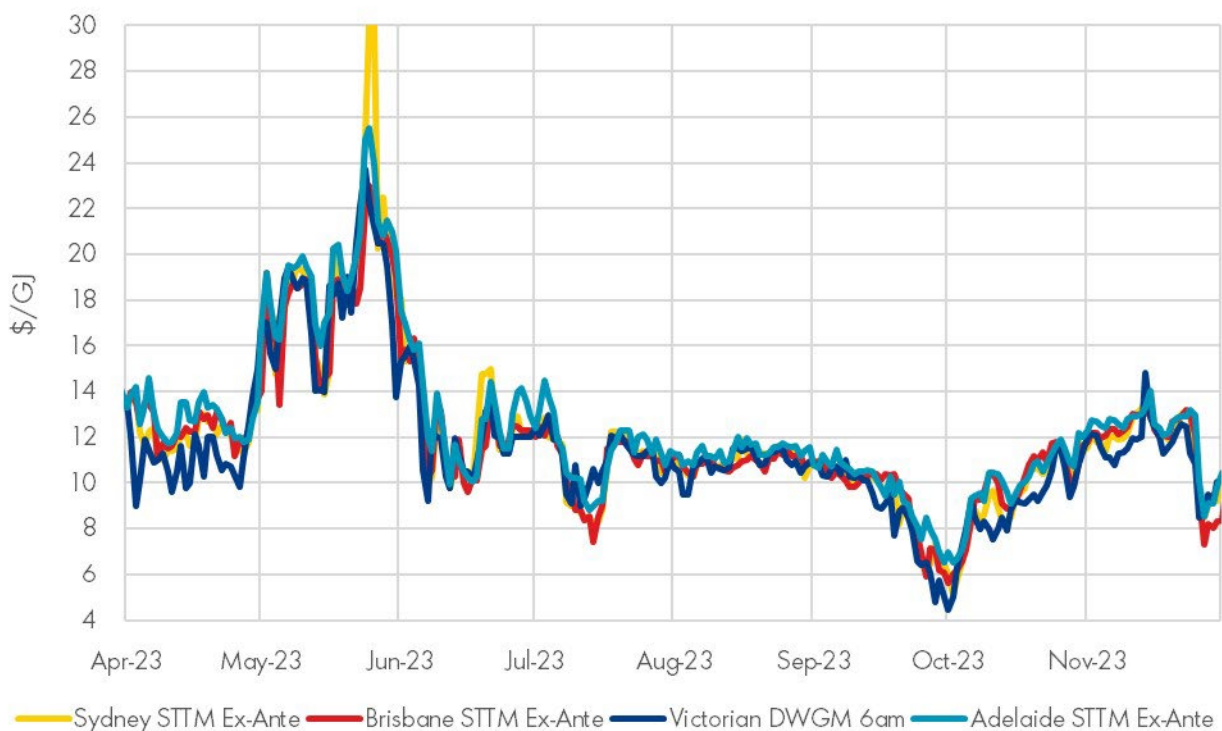
These periods of market undersupply and oversupply were eased by responses at the Iona storage facility in Melbourne, observing high withdrawals from storage early in the month followed by high injections to storage later in the month. Iona ended November at 20.3PJ inventory, around 5.5PJ more inventory than this time last year.

November 2023, \$/GJ

Market	Average Spot Price	Minimum Spot Price	Maximum Spot Price
Brisbane STTM ¹	\$11.78	\$7.32	\$13.25
Sydney STTM	\$11.81	\$8.50	\$13.96
Adelaide STTM	\$12.18	\$8.52	\$14.05
Victorian DWGM ² 6am	\$11.44	\$8.50	\$14.80

¹STTM = Short Term Trading Market, ²DWGM = Declared Wholesale Gas Market. The STTM and DWGM markets represent the daily balancing markets administered by AEMO, which primarily serve to balance wholesale supply with end consumer demand.

Gas Spot Prices | 1 April 2023 to date



Source: AEMO MarketData



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ENERGY

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You can view the Shell Cautionary Note on our website at:

<https://www.shell.com/investors/disclaimer-and-cautionary-note.html>

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