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Energy Policy WA
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Dear Energy Policy WA

THE WHOLESALE ELECTRICITY MARKET INVESTMENT CERTAINTY REVIEW

The Chamber of Minerals and Energy of Western Australia (CME) is the peak representative body for the resources sector in WA. CME is funded by member companies responsible for 86 per cent of the State's mineral workforce employment.¹

In 2022-23, the WA resources sector accounted for 47 per cent of WA's economic activity,² 91 per cent of goods exports,³ 47 per cent of investment⁴ and 11 per cent of employment (direct).⁵ The sector also contributed 33 per cent of the WA Government's general revenue, enabling the provision of public goods and services such as doctors and nurses, teachers and police.⁶

CME appreciates the opportunity to provide this submission and our sector's insights regarding the Coordinator of Energy's (Coordinator) package of specific Wholesale Electricity Market (WEM) reform initiatives aimed at enhancing investment certainty for renewable generation and new firming capacity. Specifically, the WEM Investment Certainty (WIC) Review proposes:

1. Reviewing the Reserve Capacity Price (RCP) curve to determine if it needs to be adjusted to send sharper signals for investment when demand for new capacity is stronger;
2. A 10-year RCP guarantee for new technologies, such as long-duration storage;
3. A wholesale energy price guarantee for renewable generators, to top up their energy revenues as WEM prices start to decline, in return for them firming up their capacity;
4. Emission thresholds for existing and new high emission technologies in the WEM; and
5. A 10-year exemption from the emission thresholds for existing flexible gas plants that qualify to provide the new flexibility service.

The transition to net zero

A net zero future represents a significant transition for the WA resources sector. CME members are already transitioning their current and future operations to achieve net zero emission targets by 2050 or earlier in order to meet both voluntary corporate commitments as well as obligations imposed by Federal and State Government regulation. We acknowledge the WA Government's work to date regarding the transition of the state's main electricity grids: the South West Interconnected System (SWIS) and the North West Interconnected System (NWIS), however, it is critical this work continue to progress at pace and that there is ongoing communication on the roadmap supported by appropriate and timely investments to provide stakeholders with certainty.

CME's position on the future energy system is that it must supply low emission, reliable and globally cost-competitive energy. This is critical for the decarbonisation of the resources sector. Therefore, we reiterate key

¹ Government of Western Australia, [2022-23 Economic indicators resources data](#), full-time equivalents onsite under State legislation, DEMIRS, 10 November 2023.

² As measured by gross value add (GVA). Australian Bureau of Statistics, [5220 Australian National Accounts: State Accounts](#), Table 6.

³ Department of Energy, Mines, Industry Regulation and Safety (DEMIRS), [2022-23 Economic Indicators Resource Data File](#), 9 January 2024. Australian Bureau of Statistics, [5302 Balance of Payments and International Investment Position](#), Table 21.

⁴ Includes Gross Fixed Capital Formation plus minerals and petroleum exploration. Australian Bureau of Statistics, [5220 Australian National Accounts: State Accounts](#), Table 25. Australian Bureau of Statistics, [8412 Mineral and Petroleum Exploration](#), Table 4.

⁵ Australian Bureau of Statistics, [6291 Labour Force, Australia, Detailed](#), Table 5.

⁶ Includes Commonwealth grants from North West Shelf royalties, iron ore lease rentals, payroll taxes, transfer duties and other payments to government agencies. Government of Western Australia, [2022-23 Annual report on State finances](#), Department of Treasury, 28 September 2023, table 2.1.

recommendations from our 2024-25 State Pre-Budget Submission⁷ including that the State Government release a draft master transmission plan for the SWIS as soon as possible, in collaboration with industry, regulators and other key stakeholders. We have also flagged the need for appropriate resourcing to support the detailed planning and construction of transmission infrastructure to support industry decarbonisation.

With regards to cost-competitive energy, CME would like to raise industry's concerns over the current trajectory of electricity costs in the WEM, noting strong increases in both wholesale electricity prices and the Australian Energy Market Operator's (AEMO) market fees. Wholesale electricity prices have more than doubled from \$46/MWh in 2019 to \$93/MWh in 2023. AEMO's July 2024 'Quarterly Energy Dynamics Q2 2024'⁸ outlined that overall real-time market costs continued to increase, driven by increases in frequency co-optimised essential system services (FCESS) uplift costs.⁹ This resulted in total real-time market costs (which includes energy, ESS and uplift) of an average of \$116.72/MWh, an increase on Q2 2023 (+\$11.01/MWh) and on Q1 2024 (+\$16.52/MWh). In addition, the Economic Regulation Authority (ERA) is currently considering doubling the maximum Energy Offer Price Ceiling in the WEM from the current alternative maximum price of \$738/MWh to \$1,500/MWh¹⁰, as well as changes to the methodology for determining benchmark reserve capacity prices (BRCP) that are expected to increase reserve capacity prices.¹¹ Both of these proposed price changes would be expected to increase the overall cost of electricity to consumers, further risking the competitiveness of electricity costs in the SWIS.

The WA Government must act with urgency given the short timeframes for industry to make these critical investment decisions prior to retirement of coal fired generation in 2030 and the long planning and construction timeframes to deliver new energy infrastructure. Efficient and non-duplicative approvals processes for energy infrastructure projects will be vital to ensure a timely transition. With this in mind, it is important that WA's electricity market legislation does not conflict with planned Commonwealth Net Zero Plans or duplicate the Federal Government's Climate Change legislation and proposed Nature Positive reforms. Electricity Market Regulations should also be aligned with but not duplicate state government policies and programmes including WA's proposed Climate legislation. The next section discusses the responses to the consultation questions.

Responses to consultation design proposals

The purpose of the WIC Review is to provide market proponents with certainty in energy supply during this transition and try and keep electricity prices competitive. **CME supports efficient market signals that facilitate reliable, low emissions and cost-competitive energy system.**

The SWIS Demand Assessment¹² (SWISDA) highlights the massive transformation of the WEM required by 2042. Peak energy demand is expected to triple, while annual demand is expected to increase 5 times under the central 'Future Ready' scenario. This is expected to require 50 GW of new generation and storage along with 4,000 kms of new transmission lines. Of note, the SWISDA modelling forecasts that total gas-fired generation capacity will need to more than double from 3.1GW to 7GW in order to provide critical firming capacity in a renewables-dominated grid.

CME understands the urgency to finalise the recommendations arising from analysis on Initiatives 1 and 2 regarding incentivising renewable capacity. However, third party modelling commissioned by CME (yet to be released) indicates that other aspects of the transition require urgent attention. The modelling indicates that the 1.4GW of battery electric storage completed or due to be commissioned by 2026 is likely to be sufficient until 2030 under a least-cost pathway to 75 per cent renewable generation by 2030 and 90 per cent renewable generation by 2040, assuming new gas-fired peaking plants are built. **There is therefore a critical and immediate need for WA to focus on investment in new transmission infrastructure and generation capacity for gas, wind and solar, rather than short duration battery storage.** Investment in longer-duration (>8 hour) storage solutions will be important over the longer-term. AEMO's 2024 Electricity Statement of Opportunities¹³ (ESOO) confirms this need for urgency regarding new transmission and generation capacity, highlighting a capacity shortfall emerging from 2027 onwards as demand continues to grow amidst retiring coal plants and electrification.

⁷ [CME 2024-25 WA State Pre Budget Submission](#)

⁸ AEMO, [Quarterly Energy Dynamics Q2 2024](#), 15 July 2024

⁹ An increase in FCESS uplift payments (+\$22.0 million) drove a \$22.9 million increase to essential system services (ESS) and uplift costs compared to Q1 2024.

¹⁰ Economic Regulation Authority (ERA), [Energy Offer Price Ceiling 2024: Draft determination](#), 8 April 2024.

¹¹ Economic Regulation Authority (ERA), [Review of the Benchmark Reserve Capacity Price WEM Procedure](#), 5 April 2024.

¹² [SWISDA 2023 to 2042: A future ready grid](#)

¹³ Australian Energy Market Operator (AEMO), [2024 Wholesale Electricity Market \(WEM\) Electricity Statement of Opportunities \(ESOO\)](#)

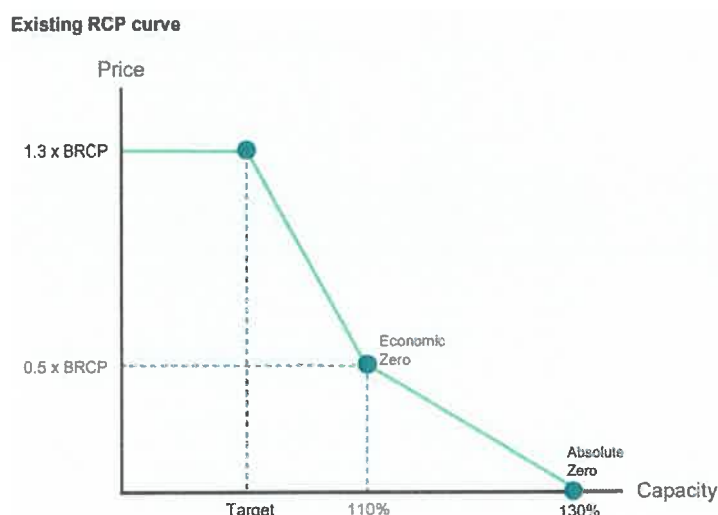
CME's comments on the proposals related to Initiatives 1 and 2 of the WIC review are provided below, as well as our high-level initial views on Initiatives 4 and 5.

Initiative 1 – Reviewing the Reserve Capacity Price (RCP) curve

Design proposals 1 to 5 discuss the Reserve Capacity Price (RCP) curve, together with the Benchmark Reserve Capacity Price (BRCP) and the Reserve Capacity Target (RCT) that determines the RCP paid to Market Participants for each MW of capacity. As highlighted in the consultation paper, the proposal to adjust the RCP curve is to provide stronger incentives for investment in capacity by increasing the RCP cap when AEMO projects a capacity shortfall and introducing a non-zero RCP floor when there is an oversupply of capacity.

The current RCP curve is structured as follows:

- The price cap. When capacity credits issued are at the RCT or below, the capacity price will be 1.3 times the BRCP. This means there is no additional signal or incentive to build additional capacity when below the RCT.
- The 'economic zero point'. When capacity credits issued are 10 per cent above the RCT the RCP is set at 50% of the BRCP.
- The 'absolute zero point'. When capacity credits issued are 30 per cent above the RCT the RCP is set to zero.



International comparisons to the current RCP curve highlight a higher cap relative to the benchmark price (1.5x and 1.6x, with Colombia at 2x). We note that most other markets set their capacity price at the reference price when capacity procured is equal to the target, while the WEM currently has the RCP set to 130% of the benchmark reference price when capacity procured is equal to the target.

The proposed RCP curve is structured as follows:

- Set the Peak RCP to 100% of the Peak Benchmark Reserve Capacity Price (BRCP) if the number of Peak Capacity Credits issued equals the Peak Reserve Capacity Target (RCT) (Design Proposal 1).
- Set the Peak RCP to 100% of the Peak BRCP when the number of Peak Capacity Credits provided is between 95% and 105% of the Peak RCT (Design Proposal 2).
- Set a maximum Peak RCP at 150% of the Peak BRCP, when the number of Peak Capacity Credits issued is 85% of the Peak RCT (Design Proposal 3).
- Set a minimum Peak RCP at 50% of the Peak BRCP, when the number of Peak Capacity Credits provided is greater than or equal to 115% of the Peak RCT (Design Proposal 4).

CME broadly supports the alignment of the new RCP curve to align the WEM with other jurisdictions and set RCP to equal BRCP when the RCT is met. In particular, Design Proposal 2 can play a role in addressing volatility in the RCP from year to year, noting the relatively small size of the SWIS means that a few tens of megawatts can make a material difference to the RCP simply by a single retirement or the addition

of a single new build. However, we do have some concern regarding the minimum peak RCP under Design Proposal 4. While a non-zero floor would mean more certainty for investors (as receiving zero capacity payments might deter investors), it could on the other hand over-incentivise additional capacity when it is not required, increasing costs to end consumers.

Initiative 2 – A 10-year RCP guarantee for new technologies, such as long-duration storage

It is proposed that any new facility providing flexible capacity using a renewable energy source should be able to receive (on request) a fixed RCP for ten years. A facility capable of running on fossil fuels, but in fact only producing energy from renewable sources (for example biogas, biodiesel, green hydrogen, or biomass) would be eligible.

CME would like more information to be provided regarding how the fixed RCP price will be determined over the 10 year period for a facility. CME's concern in supporting this option is that it may increase costs to consumers by allowing storage proponents to lock in higher prices in expectation of RCP declines over the next decade.

Initiatives 4 and 5 – Emissions thresholds and exemptions for existing and new high emission technologies, including gas

As noted earlier, the SWISDA 'Future Ready' scenario and third party modelling commissioned by CME, both indicate that substantial investment in new peaking gas-fired electricity generation will be required to ensure grid reliability while meeting expected increases in demand for low-emissions electricity at lowest cost.

Depending on the particular settings applied, emissions thresholds for existing and new high emission technologies in the WEM and only providing a 10-year exemption for *existing* flexible gas plants could act to disincentivise the new investment in peaking gas-fired generation likely to be required. This is particularly important during the initial transition of the energy system while long-duration storage technology and alternate low-cost firming options are unavailable. All initiatives must be consistent with the stated aims of the WEM reforms to deliver on the energy trilemma of 'reliable, affordable and environmentally responsible electricity supply'.

In ensuring that new fossil-fuelled generation capacity is as emissions-efficient as possible it is important to remember that the goal is decarbonising electricity systems as a whole, and that the CSIRO's 2024 GenCost Report¹⁴ found that natural gas remains the lowest cost firming option. As such, **the WIC Review must deliver settings that incentivise sufficient investment in all the required generation and storage technologies to provide a low emissions, reliable and globally cost-competitive electricity system.**

Conclusion

In conclusion, CME broadly supports the design proposals under Initiative 1, noting that the minimum peak RCP under Design Proposal 4 could over-incentivise additional capacity, thus increasing costs to end consumers. CME would also like more information to be provided regarding how the fixed 10-year RCP price will be determined for a facility under Initiative 2 given the potential impact this will have on energy price.

While not the focus of this initial consultation, CME is concerned that Initiatives 4 and 5 could deter the investment in new gas firming capacity expected to be required to firm an increasingly renewables-dominated grid and ensure reliability and lowest cost on the path to net zero. We also recommend a strong focus on delivering the transmission network expansion required to connect, and therefore provide important investment certainty for new renewable generation investment.

For further information regarding this submission, please contact Aaron Walker, Manager - Industry Competitiveness and Economics, on 0477 679 195 or via email at a.walker@cmewa.com

Yours sincerely



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¹⁴ Commonwealth Scientific and Industrial Research Organisation (CSIRO), '[GenCost: cost of building Australia's future electricity needs](#)', 12 August 2024