22 April 2022

Ms Elizabeth Walters
Assistant Director Electricity
Economic Regulation Authority
Level 4, Albert Facey House
469 Wellington St
Perth WA 6000

Sent via email: publicsubmissions@erawa.com.au

Dear Ms Walters

WESTERN POWER'S FIFTH ACCESS ARRANGEMENT REVIEW – ISSUES PAPER

The Chamber of Minerals and Energy of Western Australia (CME) is the peak representative body for the resources sector in Western Australia. CME is funded by member companies responsible for more than 89 per cent of the State's mineral and energy workforce employment,[1] ranging from mining (mineral and petroleum commodities), manufacturing (alumina, basic inorganic chemicals and explosives) and supporting services.

The value of royalties received from the sector totalled $12.7 billion in 2020-21, accounting for 31.7 per cent of general government revenue.[2] Amid heightened commodity demand, royalties and stronger tax collections from the sector are expected to help underpin government fiscal capacity in 2021-22. [3]

Overview

The Perth, Peel, South West and Goldfields-Esperance regions of Western Australia are home to several extractive mining operations such as those in Bauxite, Gold, Nickel, Coal, Lithium, and Mineral Sands. In addition, these regions host key mineral processing and refining facilities both existing (e.g. alumina, synthetic rutile, titanium dioxide pigment, zircon and zirconia products, and nickel sulphate) and emerging (e.g. lithium hydroxide, separated rare earth oxides, and hydrogen).

Mining and downstream processing operations are energy intensive and dependent on electricity networks and infrastructure for day-to-day functionality. CME members were responsible for just over 28 per cent of the designated electricity generation on the South West Interconnected System (SWIS) in 2020-21, [4] and the gas-fired power generation of the local resources sector continues to play an important role in grid stability. Furthermore, CME membership also includes privately owned energy retailers and distributors within WA's energy network. Consequently, as large consumers, generators and distributors, CME and its members remain key stakeholders in the State's delivered energy network, including the Western Power componentry.

In consultation with our members, CME has adopted the following high level energy policy principals which we continue to apply to our review of relevant policy documents and proposals.[5] These should be read in conjunction with our climate policy and further detail is available on CME's website[6]:

- Lower emissions future – with a long history of technological adoption and value-add, the WA resources sector will play a key role in supporting the economy's ongoing transformation to a cleaner energy future.
- One systems approach – promote whole-of-government coordination on all aspects of renewable and non-renewable energy use and delivery, rather than a traditional siloed approach on individual

[1] Government of Western Australia, *2020-21 Economic indicators resources data*, onsite employment under State legislation, Department of Mines, Industry Regulation and Safety, 10 October 2021.
[2] Government of Western Australia, *2020-21 Annual report on State finances*, Department of Treasury, 24 September 2021, pp. 167-168.
[3] Government of Western Australia, *Budget Paper No. 3: Economic and Fiscal Outlook*, Department of Treasury, 9 September 2021.
[4] Australian Government, Electricity sector emissions and generation data 2020-21, Clean Energy Regulator, 28 February 2022.
[5] CME, Energy Policy available at: https://www.cmewa.com.au/policy-advocacy/policy-areas/infrastructure/
[6] CME, Climate Policy, available at: https://www.cmewa.com.au/policy-advocacy/policy-areas/climate-change/

parts. A genuine whole-of-system approach will minimise inadvertent and unintended outcomes for the economic growth of the WA resources sector.

- Keep the lights on – maintain secure, stable and reliable energy supply, supporting diversification of a broad range of high-reliability generation sources and provide certainty on essential system services for large industrial loads; ensuring the rapid introduction of intermittent renewable generation does not present a risk to the system.
- Low and stable costs – efficient energy infrastructure informed by least cost, transparent and equitable market trading mechanisms and pricing to encourage competition and innovation by new and existing participants. As a critical input, the cost of energy is a barrier to new or increased value-adding economic activity in WA.
- Sustainable – future proof and provide fit-for-purpose policy and regulation to keep pace with a changing environment. Public investment in developing technology or infrastructure should be coordinated and complement private investment.

Access Arrangements cover a broad range of complex and highly technical content, which have a varied magnitude of impact amongst CME's diverse membership. As such, this submission is structured around three priority areas in Western Power's Access Arrangement which were identified as having a direct existing or future impact on the Western Australian resources sector.

The three priority areas include:

- Energy network transformation
- Responding to climate change
- Network tariffs and pricing

The supporting commentary within the rest of this submission is provided a high-level, seeking to raise key concerns and point to opportunities for clarification or further consideration by Western Power and the Economic Regulatory Authority.

1. Energy network transformation

The States' energy market is undergoing rapid change as the historical patterns of energy consumption and generation are being transformed, driven by a global shift towards decarbonisation and the large-scale adoption of renewable technologies. The result is an energy grid subject to multidirectional energy flows and new consumer demands, with consequences to the stability and reliability of the energy supply in the existing network and a shifting peak energy demand profile.

The energy transformation is rapidly taking place, technology-led and commercially driven to a significant extent, with infrastructure and regulators largely reactive to the changing landscape. CME member companies are responding to the energy transition by investing in behind-the-meter or in off-grid applications, and new technologies to harness renewable power in their value chains, minimise both their climate risks and carbon footprint. For instance, Alcoa of Australia were recently awarded a total of $10.3 million in Commonwealth and State Government grant funding to conduct pilot trials for electric calcination[7], in addition to a previous award of $11.3 million of Commonwealth grant funding to test and adapt Mechanical Vapour Recompression (MVR) technology in the South West[8]; Alinta Energy have also partnered with Fortescue Metals Group to deliver the largest remote solar farm in the Pilbara;[9] and South 32 are on track for the completion of a pre-feasibility study to transition to lower carbon energy alternatives in the South West in FY2022.[10] However, as industry, Government and domestic households continue to progress towards decarbonisation, these ambitions are subject to the capability and reliability of the existing transmission network, associated infrastructure, and the regulatory environment.

[7] Alcoa Corporation, Alcoa receives funding to pilot carbon-reduction technology for alumina refining, supporting Refinery of the Future initiative, Alcoa, 11 April 2022

[8] Alcoa Corporation, Alcoa explores technology to reduce carbon emissions, Alcoa, 20 May 2021

[9] Alinta Energy, Alinta Energy and Fortescue switch on WA's largest remote solar farm, Alinta Energy, 2022, retrieved 21 April 2022.

[10] South 32 Limited, 2021 Annual Report, South 32, September 2021, pp. 18

The Chamber of Minerals & Energy of Western Australia Level 10, 2 Mill Street Perth WA 6000
Locked Bag N984 Perth WA 6844 p +61 8 9220 8500 e chamber@cmewa.com w cmewa.com

Modernisation of the network – capital investment strategy

The modernisation of the network and the replacement of end-of-life assets is an important step towards managing energy reliability and changing customer requirements in an evolving energy network. As such, CME strongly supports a network which safely facilitates multidirectional energy flows and provides in principle support for Western Powers proposal to introduce the three-zoned modular grid model and proposed substantiative investments to replace ageing assets on the network.[11]

CME notes the proposed access arrangement is primarily focused on the Distribution network (65.0% of capex over the forecast period) and SCADA & Telecommunication network (110 per cent increase in investment to 8.9% of gross capex), with little capital expenditure allocated to the Transmission network (16.1% of capex over the forecast period) or to growth projects more broadly (only $1.06 billion of the $4.63 gross capex spend, which is also a 6.3 per cent decrease on the previous arrangement).[12] Furthermore, the total capital investment for both the Transmission network and growth projects peaks in 2022/23 and then steadily declines over the life of the agreement.[13] With customer-driven transmission projects having a major influence on growth capex expenditure under Western powers forecast expenditure model, CME seek further clarity on how Western Power plans to support the growth and decarbonisation requirements of large industrial consumers and generators on both the transmission and distribution network, particularly as companies seek to further electrify operations, and consider expansion opportunities or new connections. Additional clarity on how the AA5 will accommodate potential future increased demand scenarios is important to enable business certainty in commercial asset investment and infrastructure planning. This clarity is required up to and beyond the 2022-2027 forward estimates of this access arrangement (i.e. towards 2030 net-zero targets), aligning with the ramp up of commercial scale projects.

In addition, with $910.2 million of capex expected to be recovered from customers through capital contributions or gifted assets, and no capital expenditure targeted at improving overall service levels,[14] it is important that asset investment be efficient, forward-looking, and fully transparent with proponents. For example, CME seeks clarity on how the investments in the SCADA and Telecommunications network will benefit large and industrial network participants, including keeping with the CME energy policy principle of investment sustainability (i.e. what provisions have been employed to mitigate risks of rapidly changing technologies rendering assets obsolete or unsupported). CME recommends further information is shared regarding the relative benefits of the proposed level of investment (e.g. 110 per cent increase) in SCADA and Telecommunication and any analysis of the supporting business case against alternatives, such as increasing the level of investment in transmission infrastructure.

Timelines for projected investment

Strategic, longer-term infrastructure planning is inherently complex, requiring consideration across multiple disciplines, stakeholder groups, and in this case policy and regulatory dimensions.[15] However, a lack of alignment is apparent between Western Power's forecast timeline for industry decarbonisation and electrification (stated to become competitive in mid-2030's),[16] and existing industry commitments to decarbonise before 2030 targets. As outlined above, feedback from CME members suggests sufficient incentive to invest in decarbonisation already exists and commencement of planning and implementation for this transition are already well underway across the sector. Notably, the successful and commercial scale rollout out of new technologies has the potential to electrify refineries and other processing facilities in the South West, requiring substantial renewable power to meet these demand needs. Further, CME members have noted certainty on the Government's own decarbonisation trajectory and planned investments is fundamental to support the acceleration of these activities as the 2030 target approaches. Respecting the estimated 5-year lead time required for infrastructure planning and construction, CME is concerned the timelines for action proposed under the AA5 would leave insufficient time for industry to execute their net-

[11] Government of Western Australia, Proposed revisions to the access arrangement for the Western Power Network 2022/23 Issues paper, Economic Regulatory Authority, 4 March 2022.

[12] Western Power, Access Arrangement Information - AA5 Forecast capital expenditure report, AA5 Project Team, 1 February 2022, pp. 2-6.

[13] Western Power, Access Arrangement Information - AA5 Forecast capital expenditure report, AA5 Project Team, 1 February 2022, pp. 7.

[14] Western Power, Access Arrangement Information - AA5 Forecast capital expenditure report, AA5 Project Team, 1 February 2022, pp. 2-6, 19-83.

[15] Western Power, Access Arrangement Information, AA5 Project Team, 1 February 2022, pp. 26-27.

[16] Government of Western Australia, Western Power's fifth access arrangement – Public forum presentation, Economic Regulatory Authority, 25 March 2022, pp. 21.

The Chamber of Minerals & Energy of Western Australia Level 10, 2 Mill Street Perth WA 6000
Locked Bag N984 Perth WA 6844 p +61 8 9220 8500 e chamber@cmewa.com w cmewa.com

zero commitments. Additional certainty is required to enable businesses to act strategically, act with responsiveness to new decarbonisation opportunities, and facilitate efficient commercial asset and infrastructure investment.

Investment planning during uncertainty

Energy transformation is accompanied by interdependencies of other government strategies which could permanently affect the evolving energy landscape. CME acknowledges the Government's WA Climate Strategy and Whole of System Plan (WOSP) provides some high-level strategic alignment, however the presence of the uncertainties and complexities in the delivery detail complicates planning for all stakeholders. As technologies and policies evolve, the need to connect more load-bearing electrification services will coincide and compete with the priority to connect more large-scale renewable technologies.

To balance the risk of inefficient or improperly timed asset investment and mitigate the likelihood of a future access arrangement (AA6) which is unpalatable to Government and consumers. CME welcomes Western Power and the Economic Regulatory Authority's intent to continually assess impact of the energy transformation, including the WOSP, on the access arrangement.[17] It is noted however, there is no formal mechanism within the current regulatory model for assumptions made now to be reviewed again prior to the AA6 process. Further it is unclear to what extent the WOSP process will mitigate these issues. To further support the implementation of a one-system approach, CME recommend an interim review process be implemented to ensure currency and alignment of infrastructure and asset investment plans with industrial customer requirements. Furthermore, any resultant material changes need to be underpinned by robust consultation, respecting different exposure and risk profiles exist between varying distributors, consumers, and generators, and the role large industrial loads play in supporting grid stability.

2. Responding to climate change

CME welcomes Western Power's on-going participation in the State's energy transformation, including the WOSP process,[18] and the ambition for the network to work synergistically with existing industries, nascent industries (e.g. hydrogen) and Government, in support of a one-system approach to economic decarbonisation. As such, CME strongly welcomes the proposed intent by Western Power to support decarbonisation by evolving network requirements to safely incorporate renewables, and support industrial, transport and processing electrification.[19] In addition, CME welcomes the on-going ambition for the incorporation of large-scale renewable power generation into the network, enabling greater than 50 per cent SWIS energy generation to be by renewable sources by 2031,[20] and greater than 70 per cent in the 2040s.[21] However, CME requests further clarity be provided on how the stated ambition for renewable energy incorporation will intersect with the development of industry, and the role of Western Power in both the Sectoral Emission Reduction Strategy and State Infrastructure Strategy more broadly.

In keeping with the CME energy policy principle of 'keeping the lights on' and mitigating risks of unintended consequences on businesses and industries during the low emissions energy transition, CME do not consider it pragmatic to exclude the critical role gas-fired generation does and should play in balancing the system in the near-term. This is relevant to the SWIS and the AA5 as higher proportions of intermittent renewables risk the reliability and stability of energy to consumers whilst technology evolves and becomes feasible on a commercial scale (including hydrogen and blended gases). Domestically produced gas is well-positioned to continue to underpin the transition model in the near-term, especially if power system security and reliability management are prioritised, or in the event the supply of renewable technologies and the associated base metals is unable to meet the unprecedented demand forecast.[22] Until commercial confidence in firming

---

[17] Western Power, Access Arrangement Information, AA5 Project Team, 1 February 2022, pp. 28.

[18] Western Power, Access Arrangement Information, AA5 Project Team, 1 February 2022, pp. 28-31.

[19] Western Power, Access Arrangement Information, AA5 Project Team, 1 February 2022, pp. 23.

[20] Government of Western Australia, Proposed revisions to the access arrangement for the Western Power Network 2022/23 Issues paper, Economic Regulatory Authority, 4 March 2022, pp. 18.

[21] Government of Western Australia, Western Power's fifth access arrangement – Public forum presentation, Economic Regulatory Authority, 25 March 2022, pp. 21.

[22] International Monetary Fund, Metals Demand From Energy Transition May Top Current Global Supply, IMF Blog Insights & Analysis on Economics & Finance, 8th December 2021.

The Chamber of Minerals & Energy of Western Australia Level 10, 2 Mill Street Perth WA 6000
Locked Bag N984 Perth WA 6844 p +61 8 9220 8500 e chamber@cmewa.com w cmewa.com

capacity and supply chain security are assured, gas as a transition energy source should continue to be considered in support of a lower emissions future for the SWIS.

3. Network tariffs and pricing

The ability to compete in global markets with reliable access to low cost, stable energy inputs is critical to attracting investment and realisation of the State's aspirations to pursue economic diversification into high value-adding industries. As such, ensuring the stable and efficient cost of reliable energy is one of CME's energy policy principles and remains a key issue for our members.

CME welcomes the presence of caps for the efficient pricing transition in the proposed tariff structure,[23] noting the cap ideally should include total distribution and a proportion of the applicable transmission network costs. Similarly, CME welcomes the exclusion of charges for distribution-connected storage systems for exporting energy into the grid.[24] However, CME recommends oversight should continue to be maintained on the total charges billed to stakeholders, including the proposed new tariffs for grid-connected batteries and dedicated electric-vehicle fast-chargers.[25] The latter being particularly important as governments and industry seek future and near-term measures to reduce their carbon footprint. These points of regulatory oversight are relevant for all stakeholders in the energy network and may help to further mitigate any risk of 'bill shock' or future price distortion amongst impacted consumers.

In relation to deferred revenue, CME notes the proposal for Western Power to recover $182.9 million in deferred revenue throughout the access arrangement period.[26] CME recommends utilisation of any deferred revenue, needs to reflect the true and efficient pricing for the period of the AA5, in order to minimise any distortion of the pricing signal across future agreements.

Finally, as outlined in the AA5 CME supports the further facilitation of multidirectional energy flows in distribution networks and the proposed role of the energy network as a platform for sharing and accessing renewable energy.[27] We note industry do not anticipate the introduction of time of use tariffs from Western Power will fundamentally change how the sector consumes energy. However, some CME member companies are keen to take advantage of this opportunity to diversify and deliver network and system security functions to the grid during times of high demand.

Conclusion

The energy transformation is bringing significant challenges – as well as opportunities - into our state's economy, with the electricity and utilities sectors particularly impacted. Historical energy consumption and generation patterns are fundamentally shifting, with stakeholders considering modifying their energy behaviours in an unprecedented way in the joint drive to decarbonise and meet future reliability demands.

As Western Australia continues to progress into the next phase of development within the whole-of-system-plan and encroaching towards decarbonisation targets, it has therefore, never been more important for all stakeholders to align objectives and priorities and ensure the efficient allocation of capital investment and resources. A robust implementation plan executed in step with industry and Government ambitions, is needed to underpin a safe and reliable energy sector, able to capitalise on new opportunities and support economic growth and productivity.

---

[23] Western Power, Access Arrangement Information - Tariff Structure Statement technical summary, AA5 Project Team, 1 February 2022, pp. 48.

[24] Western Power, Access Arrangement Information - Tariff Structure Statement Overview, AA5 Project Team, 1 February 2022, pp. 16.

[25] Western Power, Access Arrangement Information - Tariff Structure Statement Overview, AA5 Project Team, 1 February 2022, pp. 10, 15.

[26] Western Power, Access Arrangement Information, AA5 Project Team, 1 February 2022, pp. 240.

[27] Western Power, Access Arrangement Information - Tariff Structure Statement Overview, AA5 Project Team, 1 February 2022, pp. 3, 9.

The Chamber of Minerals & Energy of Western Australia Level 10, 2 Mill Street Perth WA 6000
Locked Bag N984 Perth WA 6844 p +61 8 9220 8500 e chamber@cmewa.com w cmewa.com

For further information or should you have questions regarding this letter, please contact Adrienne LaBombard, Manager – Industry Competitiveness, on 0400 912 525 or via email at a.labombard@cmewa.com.

Yours sincerely

Robert Carruthers
Director – Policy & Advocacy

The Chamber of Minerals & Energy of Western Australia Level 10, 2 Mill Street Perth WA 6000
Locked Bag N984 Perth WA 6844 p +61 8 9220 8500 e chamber@cmewa.com w cmewa.com

Appendices

Appendix A – Past CME submissions relevant to energy transformation

- *Energy & Governance Legislation Reform – Consultation Paper*, submission to Energy Policy WA, November 2021.
- *Foundations for a Stronger Tomorrow – Draft State Infrastructure Strategy*, submission to Infrastructure WA, September 2021.
- *Future Fuels Strategy – Discussion Paper*, submission to the Department of Industry, Science, Energy and Resources, April 2021.
- *Modern Manufacturing Strategy – critical minerals roadmap*, submission to the Department of Industry, Science, Energy and Resources, November 2020.
- *Climate Change in Western Australia – Issues Paper*, submission to the Department of Water and Environmental Regulation, November 2019.

The Chamber of Minerals & Energy of Western Australia Level 10, 2 Mill Street Perth WA 6000
Locked Bag N984 Perth WA 6844 p +61 8 9220 8500 e chamber@cmewa.com w cmewa.com