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Sent via email: REC.Consultation@dmirs.wa.gov.au

Dear David

MINING AMENDMENT REGULATIONS (NO. 5) 2019 – CONSULTATION DRAFT

The Chamber of Minerals and Energy of Western Australia (CME) is the peak resources sector representative body in Western Australia (WA). CME is funded by member companies responsible for more than 90 per cent of the State's mineral and energy production and workforce employment.

CME welcomes the opportunity to comment on the abovementioned consultation draft, which gives effect to the decision made by the Government¹ on 9 October 2019 to introduce new royalty arrangements for lithium. Earlier efforts by the Department of Mines, Industry Regulation and Safety (the Department) to engage with CME and its members in frank and robust discussions regarding a review of lithium royalty rates on 22 and 28 January 2019 are also appreciated.

In preparing this submission, CME has sought feedback from member companies responsible for the vast majority of Western Australia's lithium production and development projects currently underway. Further to correspondence from the Department dated 20 November 2019 and our subsequent discussion with yourself on 7 January 2020, we have structured our comments into the following two sections:

1. The proposed *Mining Amendment Regulations (No. 5) 2019* which amends Regulation 86 of the *Mining Regulations 1981* (the royalty regime) to introduce a new five per cent feedstock royalty rate for lithium hydroxide and carbonate production, where those are the first products sold from spodumene concentrate used as feedstock.
2. The Government's broader commitment to implement the Future Battery Industry Strategy for Western Australia (the Strategy) and Diversify WA (the economic development framework). Correspondence from the Hon. Bill Johnston MLA, Minister for Mines and Petroleum; Energy; Industrial Relations dated 9 October 2019 stated these proposed amendments "*I believe [will] also encourage downstream processing and manufacturing... [of the] Western Australia's battery materials industry.*" This consultation draft thus provides a relevant and timely opportunity to consider these commitments.

Context

Since the Western Australian gold rush in the 1890s, a world-class resources sector has underpinned the Western Australian economy. With a long-term vision and support of government, the sector has invested hundreds of billions of dollars into exploration, production capacity, processing and export infrastructure such as ports. This was led in particular by the boom in the 1960s when the embargo on iron ore exports was lifted, followed by the State's first export of liquified natural gas (LNG) cargo in the 1980s. Throughout this time, a predictable policy and regulatory framework with the bipartisan support of government has facilitated productivity and growth of these sectors.

Governments have had a strong track recording of working with industry (and its customers) to establish new and emerging commodity sectors, assisting where needed to ensure these sectors are competitive

¹ All references to government hereafter refer to the Government of Western Australia, unless otherwise indicated.

participants in global supply chains. This stable investment and evolving policy environment have, and will continue to, convert the State's enviable mineral wealth into competitive sectors capable of commanding substantial share in global markets for metals (e.g. iron, gold and base metals) and LNG. More recently, this has expanded to include an increased focus on "battery minerals" (e.g. lithium, graphite, nickel, cobalt and manganese, etc.) and other rare earth elements that are core inputs to the manufacturing of a range of hi-tech products, which will be critical for a lower emissions future.

The forecasted expansion in the application of lithium-ion (Li-ion) batteries in energy storage systems, such as electric vehicles (EVs), has in recent years fuelled a dramatic increase in global demand for lithium and other battery minerals. In Western Australia, this has led to a major increase in exploration, resource development, expansion of existing and commissioning of new spodumene mines and plants (from one² to seven operations in the past two years), as well as investment into two technical battery-grade lithium hydroxide conversion plants.

These investments have positioned Western Australia as a key supplier to the rapidly expanding EV supply chain. For example, direct employment in the Western Australian lithium sector rose 46 per cent to 3,596 full-time equivalents³ in 2019, with royalty revenue receipts also increasing 5.8 per cent to \$83.2 million.⁴ BMW also recently announced it will receive 100 per cent of its supply of lithium hydroxide from Australian mines for use in its high-voltage batteries in EVs.⁵

However, as elaborated below, weakened global market demand in the short term and current oversupply weighing down on lithium prices has contributed to recent decisions by project proponents to defer new projects, expansion plans and/or enter care and maintenance. With increased competition for supply and access to lithium and other battery minerals, the continued sustainability and economic growth of this sector is entirely dependent on its ability to remain globally competitive.

Global lithium market outlook

Over the past 12 months, the price of spodumene concentrate has declined with some producers publishing guidance of US\$560 per tonne.⁶ Technical and battery-grade lithium hydroxide has also declined by 34 per cent to US\$14,257 per tonne,⁷ with prices expected to decline further to US\$9,500 before recovering to \$10,925 per tonne in 2021.⁸ There is a consensus amongst forecasts that depressed prices will remain for the next several years until growth in sales demand for EVs will drive any significant price recovery.

Factors contributing to deterioration of current market conditions include:

- Rapid growth in spodumene concentrate production;
- Rapid increase in production of hydroxide, particularly from recommissioned, expanded and new conversion plants that have come online in the People's Republic of China (PRC) sooner than expected;
- Unexpected delays in the commercialisation and market penetration of "very" nickel-rich Li-ion battery chemistries such as nickel-cobalt-manganese (NCM) type-811 batteries;
- Policy incentives designed to encourage PRC EV manufacturers to switch from lithium-iron-phosphate to NCM battery chemistries being less effective than expected in the short-term. The US-China trade dispute, PRC's decision to cut subsidies to EV production by 50 per cent and drop subsidies for vehicles

² Excludes two other operations which had intermittent production over the past decade.

³ The employment total includes lead and zinc. Government of Western Australia, *WA Battery minerals profile*, Department of Jobs, Tourism, Science and Innovation, December 2019, p. 3.

⁴ Government of Western Australia, *WA Mineral and petroleum: Statistics digest 2018-19*, Department of Mines, Industry Regulation and Safety, September 2019, p. 11.

⁵ BMW Group, *Securing raw material supplies for battery cells: BMW Group signs supply contract with Ganfeng for sustainable lithium from mines in Australia*, media information, 11 December 2019.

⁶ Commonwealth of Australia, *Resources and energy quarterly*, Office of the Chief Economist, Department of Industry, Innovation and Science, December 2019, p. 119.

⁷ Government of Western Australia, *WA Battery minerals profile*, Department of Jobs, Tourism, Science and Innovation, December 2019, p. 1.

⁸ Commonwealth of Australia, *Resources and energy quarterly*, Office of the Chief Economist, Department of Industry, Innovation and Science, December 2019, p. 118.

with ranges under 250 kilometre have contributed to a decrease in EV sales and price of lithium.⁹ As the Office of the Chief Economist has noted, demand in the PRC is “key to critical mass on EVs”.¹⁰

The medium-term outlook for demand of nickel-rich Li-ion batteries is positive and will continue to present a significant opportunity for Western Australia. However, the immediate future of the Western Australian lithium sector is less certain, a fact shown by recent announcements by proponents to curtail production, defer shipments and wind back on projects to preserve the value of their deposits.

Regulations proposed to be amended and inserted

The Western Australian royalty regime and its *ad valorem* method has generally been recognised as robust and stable, having stood through the test of time with three comprehensive reviews. It should be acknowledged, the regime was not originally designed to accommodate the extent or complexity of downstream processing for minerals now relevant to Western Australia, i.e. lithium. Any amendments to the regime hence ought to balance keeping an appropriate level of certainty, whilst also providing sufficient confidence that new and emerging commodities will be treated on their own merits.

In regulation 86 in the Table item relating to Lithium delete “Minerals” and insert: (concentrate)

The regulations ambiguously apply to “lithium minerals”, leaving an uncertain possibility of imposing royalties imposed more than once on its sale. Without these amendments, proponents may be penalised on the first sale of lithium as spodumene concentrate and again afterwards at the sale of the downstream processed product, i.e. as lithium carbonate or hydroxide.

For the purposes of providing clarification, CME therefore supports the proposed removal of “minerals” and replacing it with “concentrate”. This will mitigate future risk of incorrect interpretations of the regulations with royalties levied on all points of sale of lithium as spodumene concentrate, hydroxide or carbonate.

86AE. Rates of royalty lithium: feedstock and sales to related parties

- (1) For the purposes of calculating royalty payable on lithium concentrate under regulation 86, the royalty value is worked out using the method determined under subregulation (2) in the following circumstances –
 - (a) the sale of the concentrate is to a related corporation;
 - (b) the concentrate is not sold but is used as feedstock in the production of lithium hydroxide or lithium carbonate

Introducing a five per cent royalty rate for spodumene concentrate ensures there is consistency with rates applied to concentrates produced by other sectors and more generally the royalty regime’s netback method. At this point in time, CME supports introduction of the five per cent feedstock royalty rate for spodumene concentrate, acknowledging this amendment will effectively keep the status quo application of the second-tier *ad valorem* royalty rate of five per cent.

These amendments will also help clarify the feedstock’s application to both points of sale with related corporations and instances where the concentrate is not sold but subject of a non-arm’s length transaction within vertically integrated corporations (i.e. an intragroup transfer of assets). CME supports this amendment as it ensures the royalty regime will treat all lithium producers equally, providing certainty a royalty will be levied in instances where no first point of sale exists.

Although the majority of spodumene concentrate produced in Western Australia is used as feedstock for processing into lithium hydroxide and carbonate for the manufacture of Li-ion batteries, CME notes there is no mention of other processed compounds in Regulation 86AE subregulation (1)(b) such as chlorides. To safeguard the regulations should proponents determine it is viable to diversify productions in the future, it

⁹ Kalantzakos, S., *The geopolitics of critical minerals*, sustainable energy transition series, Istituto Affari Internazionali Papers 19, issue 27, December 2019, pp. 7.

¹⁰ Commonwealth of Australia, *Resources and energy quarterly*, Office of the Chief Economist, Department of Industry, Innovation and Science, December 2019, pp. 119-120.

would be prudent to replace “lithium hydroxide or lithium carbonate” with “lithium chemicals”. The definition for lithium chemicals could then be specified in the supporting documents to include lithium hydroxides, carbonates and chlorides.

- (2) The Minister may from time to time determine a method for working out the royalty value of lithium concentrate that takes into account prices obtained for lithium concentrate of the same or a similar grade to the lithium concentrate concerned.

For most commodities, the royalty payable is determined by multiplying the prescribed royalty rate by the royalty value, with the royalty value derived from the gross invoiced value of the product sold. Where it is internal or to a related corporation, the absence of an arm’s length transaction means the invoiced value is not linked to a fair market price. CME understands this presents a challenge for the Department’s Resource and Environmental Compliance Division in ensuring the calculated royalty payable is equitable across all Western Australian lithium producers. The proposed insertion of Regulation 86AE subregulation (2) seeks to address this by providing Ministerial discretion. [CME is therefore supportive of the intent of this amendment.](#)

The proposed amendments however introduce two sources of uncertainty for vertically integrated corporations. Firstly, “*from time to time determine a method*” provides unilateral Ministerial discretion to determine a method of any kind at any point in time to calculate the royalty payable. Secondly, “*takes into account prices obtained for lithium concentrate of the same or a similar grade*” creates uncertainty with what price would be applied under this method.

Whilst CME understands the Minister or Director General of Mines typically has the discretion to determine the royalty payable for other commodities, [increased certainty and clarity on royalties is needed to support this new and emerging sector.](#) This would align with the Strategy’s vision and objectives.

Noting it would be unrealistic and impractical to amend drafting to specify a method which is likely to be complex and unclear, [CME recommends the principles underpinning the proposed method are described in either an explanatory memorandum, explanatory statement or other supporting documents.](#) This could be contained within the schedule of forms to the regulations or in the guidelines and definitions used overleaf to the production reports and royalty returns, which producers are required to submit for specified periods on a regular basis. Further clarification of the method in this manner would ensure producers are able to leverage an existing process to discuss royalty valuation concerns on a contemporaneous basis.

A simple outline of the proposed method to determine the royalty value and royalty payable should be included in these documents for transparency. This could include a table listing what benchmark price indices, obtained on which dates, were used by the Minister to determine a prescribed price. CME notes however currently available indices report a price for six per cent chemical-grade spodumene concentrate and therefore some discretion is needed to choose prices of same or similar grade to the products produced in Western Australia. Suggested clarification could be formed like:

$$\text{Royalty payable} = \text{quantity obtained} \times \text{prescribed price}^*$$

Where:

- *Quantity obtained is the tonnage volume of spodumene concentrate acquired from the lithium producer in the period stated; and*
- **Prescribed price could be the average fair market price per tonne of spodumene concentrate of same or similar grade within the period stated.*

CME understands lithium producers currently submit royalty returns for quarterly periods and therefore [recommends the prescribed price by whichever method of determination is aligned to be calculated on a quarterly basis.](#) This will provide producers with some stability whilst ensuring the royalty payable is equitable in reflecting current market values. Like some other commodities, CME notes this will require the Department to undertake quarterly price audits to examine benchmark price indices available for spodumene concentrate of same or similar grade. This would be additional to the data sources cited in the Department’s annual major commodities resources file which is released annually.

Alternatively, the Minister could determine an average price across all lithium producers with arm's length contracts at each quarter. However, this creates inequitable outcomes for producers with different arrangements, e.g. longer-term offtake agreements and intra-group transfers. Given the split of CME's membership and commerciality of this matter, there is limited consensus on whether the average price should be calculated as a mean, median, a fair market price or a hybrid combination of these methods. [CME thus urges the Government to consider undertaking further consultation on this matter outside of the amendment drafting process.](#) Should there be a hybrid combination, it is important any decisions on weightings is discussed to ensure competing interests are balanced without unduly distorting outcomes.

Need for effective mechanisms to support investment in downstream processing and manufacturing of battery materials in Western Australia

Realising the diversification potential

While the proposed amendments to the regulations are supported, CME and members do not consider this clarity alone will encourage longer-term establishment or growth of downstream processing industries, i.e. in providing the feedstock needed for manufacturing and value addition of goods within Western Australia. As described above, the royalty amendments only address a perceived risk. It does not provide a financial incentive to invest in downstream capital beyond the production of spodumene concentrate within Western Australia, unless the capital produces high purity lithium metal. CME maintains more can be done to incentivise growth of the Western Australian lithium sector, through both royalties and non-royalty means.

CME understands there is approximately \$10 billion of potential new battery downstream processing projects planned or under commercial consideration within Western Australia. Should current market dynamics endure, it is probable these feasibility studies will instead favour the export of spodumene concentrate to new and existing processing facilities overseas, such as in China, Korea or Japan. This is despite the advantages Western Australian producers have, including comparatively lower energy costs, proximity to markets and competitive initial capital investment costs. Effective streamlining of regulatory assessments and approval processes has the potential to further improve competitiveness of doing business in Western Australia.

For Western Australia to maintain and grow its role in the global Li-ion battery supply chain, it is vital the sector and government work together to ensure there is a supportive policy and regulatory framework for maintaining the sector's competitiveness. With recent deterioration in market conditions, every effort should be made to build the sector's preparedness to take advantage of the next upturn in sales demand for EVs and consequent rise in price for lithium and other battery minerals.

It has now been a year since the launch of the Strategy and half a year since Diversify WA. To reap the full potential of the State's mineral wealth and well-established capabilities in mining and energy, [CME recommends the Government take this opportunity to review the following suggested mechanisms to support the Western Australian lithium sector.](#)

Evidence to lower royalty rates on a case-by-case basis

The presiding *ad valorem* netback method is now almost 40 years old. It was established when the production of high purity metal was the finished product. Western Australia's commodity production base has since evolved and expanded to service new and emerging markets. More complex downstream processing circuits is required to develop feedstock concentrates of higher grade and progressive chemical treatment. It is important to note, capital investment in these downstream circuits is equivalent to or greater than the investment required to produce a high purity metal from processed ore. Examples include lithium hydroxide, magnetite concentrates, pellets and heavy rare earths. The current netback method does not accommodate the significant complexities inherent in contemporary value-adding downstream processing industries.

Consideration of discounted royalty rates for intermediary products below the second-tier five per cent on concentrates would incentivise investment and facilitate sustained development of downstream pathways. CME appreciates any consideration of adjustments to royalty rates will need to be assessed on a case-by-case basis using reliable mine-head data, which was previously not possible for this commodity. Such an analysis should remain consistent with the long-established *ad valorem* method, acknowledging the existing

three-tiered regime does not contemplate the processing complexity and intensity nor capital and operating costs associated with the production of saleable processed compounds in today's environment.

As lithium production continues to expand in accounting for an increased proportion of the State's mineral production, CME recommends the Government consider a lower royalty rate to effectively incentivise downstream chemical processing within the sector. This would assist in address the opaqueness of global supply chains and volatile price differentials experienced between tiers. It is acknowledged however, further to the discussion between CME, members and the Department on 28 January 2019, that a new tier previously proposed for secondary treated metallurgical products was inappropriate in addressing the abovementioned inherent challenges.

It is further acknowledged the potential revenue foregone by lowering the royalty rate imposed on lithium needs to be weighed against the potential benefits of a stronger economy, job creation and additional diversified investment in the downstream industry. For example, it could result in increased government revenue from other streams such as payroll tax and dividends from government trading enterprises.

Use of non-royalty incentives

In addition to lowering royalty rates for products subject to intensive processing, CME recommends consideration of practical non-royalty incentives. Such incentives could capitalise on the State's strategies for downstream processing of battery minerals and the Commonwealth Government's broader strategy on rare earths and critical minerals, as well as provide continued support for upstream industries. This could include targeted investment in the following:

- Shared multi-user, multi-purpose infrastructure located close to well-established strategic industrial areas, ensuring they are effectively "turn-key" ready for new and emerging industries to establish themselves. This should be delivered alongside supportive policies and coordinated planning to ensure:
 - Integration with existing networks, e.g. access arrangements to ports, rail and electricity, etc.;
 - Future planned development corridors, urban encroachment (a growing and sprawling population) and enough buffers allowed for industrial interfaces, noting there is a pending decision on Draft State Planning Policy 4.1;
 - Longer-term industrial trends, noting DevelopmentWA (formerly Landcorp) is currently undertaking a 30-year view on global megatrends for the purposes of planning strategic industrial areas;
 - Industrial ecosystem efficiency – Co-locating similar land uses to maximise economies of scale on inputs and outputs, noting the Future Battery Industries Cooperative Research Centre has proposed this as one of their research themes;
- The Future Battery Industry Team, WA Future Battery Industry Skills Strategy and Ministerial Taskforce are acutely aligned on high priority actions most likely to yield value-for-money and development-focused outcomes for both proponents and taxpayers;
- Regulatory efficiency and approval timeframes – It is important the Government, through its flagship Streamline WA initiative, make meaningful progress towards the prioritised areas of reform. Inefficient and duplicative assessments and approvals processes should not create bottlenecks and undue delays as this directly affects the viability of prospective projects.

In this regard, priority establishment of a Commonwealth-State Government bilateral approvals agreement and continued access to an effective and robust lead agency approach at a State level will significantly assist proponents to convert "proposed" projects into "committed" in a timelier manner, bringing forward employment opportunities and royalty revenue from new projects.

Conclusion

The proposed amendments to introduce a new feedstock royalty rate is welcomed by CME and provides much needed clarity for its members and all other lithium producers in Western Australia.

Acknowledging the Government's vision for downstream diversification of industries in Western Australia, CME maintains more can be done to encourage investment in and realise the full potential of downstream processing in battery minerals within Western Australia. Now is a prudent and timely juncture to consider

these matters, having regard for the competitiveness and resilience of the sector under challenging and prevailing market conditions.

CME thanks the Department for granting an extension to submit comments on the proposed amendments. Should you have questions regarding the matters raised in this submission, please contact Linh Nguyen in the first instance on 0439 488 672 or via email at L.Nguyen@cmewa.com.

Yours sincerely



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