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Ms Summa McMahon
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Strategic and Consumer Policy Division
Department of Mines, Industry Regulation and Safety
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Sent via email: EPWA-info@dmirs.wa.gov.au

Dear Ms McMahon,

RENEWABLE HYDROGEN TARGET FOR ELECTRICITY GENERATION IN THE SWIS

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 91 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 \$11 billion in 2021-22, accounting for 27 per cent of general government revenue.² Amid heightened commodity demand, royalties and stronger tax collections from the sector are expected to underpin government fiscal capacity in 2022-23.

Overview

Western Australia is home to several extractive mining operations such as those in iron ore, bauxite, gold, nickel, lithium, and mineral sands. In addition, Western Australia hosts key mineral processing and refining facilities in 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) markets.

Mining and downstream processing operations are energy intensive and dependent on electricity infrastructure and networks for day-to-day functionality. CME members were responsible for just over 28 per cent of the designated electricity generation capacity on the South West Interconnected System (SWIS) in 2020-21³, and the gas-fired power generation of the local resources sector continues to play an important role in grid stability.

The CME membership also includes privately owned energy retailers and distributors within the SWIS and NWIS. Consequently, as large consumers, generators and distributors, CME and its members remain key stakeholders in the evolution of the State's delivered energy generation, transmission and distribution network.

Energy Policy

Developed in consultation with our members, CME continues to apply the following high level energy policy principles to our review of relevant policy documents and proposals⁴:

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

¹ Government of Western Australia, [2021-22 Economic indicators resources data](#), onsite employment under State legislation, Department of Mines, Industry Regulation and Safety, 5 October 2022.

² Government of Western Australia, [2021-22 Annual report on State finances](#), Department of Treasury, 28 September 2022, pp. 8.

³ Australian Government, Electricity sector emissions and generation data 2020-21, Clean Energy Regulator, 28 February 2022.

⁴ CME, Energy Policy available at: <https://www.cmewa.com.au/policy-advocacy/policy-areas/infrastructure/>

- **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.

These should be read in conjunction with CME's climate policy⁵, which advocates for a sustainable development approach to climate change and the transition to net zero emissions, and a framework that balances the social, economic, and environmental aspects associated with emissions reduction and ensures a just transition for those affected by the changes ahead.

Critical to achieving this is the use of transparent price signalling across the whole economy and ongoing promotion of lowest cost abatement, leveraging existing mechanisms where possible, and retaining appropriate consideration of the international competitiveness of trade exposed industries.

The Western Australian hydrogen context

CME represents members across the hydrogen value chain, including production, transport, storage, and use. Amongst our members, hydrogen presents several different opportunities and areas of interest. For some it is a new export opportunity, while others are considering it as a low carbon alternative to products currently supplied to a customer base. Others are undertaking a systematic and long-term assessment of how hydrogen can deliver domestic emissions reduction relative to electrification or other technology options. Some CME members are ready to blend hydrogen into the gas network or include clean hydrogen in their industrial feedstock.

Accordingly, a diversity of views exists among CME members regarding the specific policy levers that may be most effectively applied to support the development of a domestic clean hydrogen industry, whilst remaining consistent with the energy and climate policy principles outlined above.

Common to all is the need for forward looking, sound and fit for purpose reform to establish Western Australia as a low cost, low emissions energy supplier. Australia's key trading partners, Japan, the Republic of Korea (ROK) and the People's Republic of China (PRC) have made clear commitments to utilise clean hydrogen to decarbonise their energy systems, as has the European Union (EU) and the United States (US).

Following extensive consultation with members, and supported by an evidence-based study, CME published its policy position paper *'Towards Competitive Clean Hydrogen'* in November 2021⁶. A number of the matters relevant to current consultation are discussed in that paper.

The commentary within the remainder of this letter is provided in response to the *Renewable Hydrogen Target for electricity generation in the South West Interconnected System the Consultation Paper* (the consultation paper) based on the feedback received from CME member companies. Our commentary is relatively high level and has sought to balance a diversity of views within our diverse membership.

Energy markets are experiencing unprecedented change

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 across the value chain from electricity generation to heavy industry applications.

CME member companies are responding to the energy transition by investing in technologies which will rely on grid-connected renewables, a combination of behind-the-meter or off-grid applications, and new

⁵ CME, Climate Policy, available at: <https://www.cmewa.com.au/policy-advocacy/policy-areas/climate-change/>

⁶ Chamber of Minerals and Energy (2021), *Towards Competitive Clean Hydrogen*

technologies to harness renewable power in their value chains, minimise their climate risks and carbon footprint.

CME supports the development of a domestic hydrogen value chain and recognises that prudent policy and investment settings are required to underpin the establishment of a domestic renewable hydrogen sector. In keeping with the policies adopted by CME and its members, the commercial application of clean hydrogen must be viewed in the context of an energy systems and whole-of-economy emissions reduction context.

A key tenet of CME's energy and climate policies is that efficient energy infrastructure must be informed by least cost, transparent and equitable market trading mechanisms, and pricing to encourage competition and innovation by new and existing participants.

Noting the above, the renewable hydrogen target as currently proposed has raised some concerns and uncertainty among some CME members as outlined below.

Is a renewable hydrogen target in SWIS generation the optimal policy lever?

Critical to the competitiveness, and therefore uptake, of hydrogen as a fuel source will be the reduction in unit costs for its production, storage, transportation and use, all of which require scale.

While there is in principal support for policy settings and incentives to support investments which will be critical for our energy transition and support the development of a domestic clean hydrogen industry, there is a lack of clarity regarding the extent to which a mandated renewable hydrogen target in the SWIS would meet the equitable or lowest cost abatement policy criteria, particularly given its relatively small scale.

Further clarity is needed on the way in which such a renewable hydrogen target would be administered, particularly in the case of SWIS market participants that are both generators and retailers of electricity. Additionally, and subject to how increased costs are proposed to be passed on, a mandated target could have adverse impacts on the international competitiveness of trade exposed industries.

How the hydrogen proposed to be introduced into the network is produced could also have implications for broader decarbonisation objectives. For example, it will be important to understand the intended source of the renewable generation capacity required to produce renewable hydrogen under the proposed target (i.e., existing SWIS renewable generation assets, or additional dedicated renewable generation capacity), particularly in the context of the forecast capacity shortfall in SWIS generation capacity by 2025-26⁷.

Policy levers should encourage the highest and best, efficient use of technology

The growth in global demand for clean hydrogen is primarily driven by decarbonisation objectives. CME members are approaching decarbonisation through a variety of technologies and methods.

A renewable hydrogen target pertaining specifically to generation in the SWIS may inadvertently impede decarbonisation opportunities in hard to abate sectors such as industrial process applications, heavy duty transport, or sectors where the use case for renewable hydrogen may be more compelling in the near to medium term. CME considers that, given the nascency of the renewable hydrogen sector, any technology-specific policy should adopt a light-touch approach and afford flexibility in the overall use case.

While a 'use agnostic' scheme would improve the likely degree of demand stimulation and scale of renewable hydrogen production, consistent with the Energy Policy adopted by CME and its members (which is technology agnostic), an incentive rather than obligation driven policy would minimise the risk of adverse or inefficient market outcomes.

Further clarity regarding the proposed renewable hydrogen target in the SWIS in the context of broader energy systems and economy-wide abatement would be welcomed to facilitate a more fulsome understanding of the proposed mechanism.

Conclusion

CME supports the development of a domestic hydrogen value chain and, consistent with State and Federal Hydrogen Strategies, recognises that prudent policy and investment settings are required to underpin the establishment of a domestic renewable hydrogen sector.

⁷ AEMO (2022), 2022 Wholesale Electricity Market Statement of Opportunities


In keeping with CME Energy and Climate policies and the broader decarbonisation objective, CME considers that government policy intended to support the development of a renewable hydrogen industry should not inadvertently penalise those seeking to decarbonise via other clean technologies.

A broader approach, where other use cases for hydrogen, such as the displacement of diesel in industrial processes, mining equipment or heavy-duty transport, is recommended to support the development and scale of a clean hydrogen industry.

We caution against the use of mandated targets and request further information to ensure targets or other policy settings for internally self-generated electricity or externally sourced renewable power to not provide a disincentive to the propagation of renewable capacity build in the SWIS for the purpose of decarbonisation by direct electrification.

CME greatly appreciates the opportunity to make a submission to the consultation paper and we would welcome the chance to meet to discuss the matters raised in this letter.

Yours sincerely



Adrienne LaBombard
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