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Safeguard Mechanism Taskforce
Department of Climate Change, Energy, Environment & Water
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Sent via email: safeguard.mechanism@dcceew.gov.au

To whom it may concern,

SAFEGUARD MECHANISM GUIDELINES: SETTING INTERNATIONAL BEST PRACTICE BENCHMARKS

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 55 per cent of Australia's mining new capital expenditure[1] and 44 per cent of Australia's corporate income tax receipts by value in 2020-21. Member companies include mining (mineral and petroleum commodities), manufacturing (alumina, basic inorganic chemicals and explosives) and supporting services.

CME welcomes the opportunity to provide input to the Department of Climate Change, Energy, Environment and Water (DCCEEW) consultation on guidelines for setting international best practice benchmarks for new entrants under the Safeguard Mechanism (SGM). The methodology for setting the benchmarks will be relevant to many CME members. Some members have indicated that they are currently designing, commissioning, or constructing facilities that will be considered new entrants under the SGM scheme during commissioning or when operational. Others operate existing facilities that may be considered new entrants in future due to the production of new products or by-products or the expansion of current operations.

The production variables and emission intensities applied to new entrants under the SGM scheme are likely to have a material impact on investment outcomes of future projects in Australia. Best practice benchmarks designed without adequate industry consultation or fair consideration of barriers and opportunities for SGM facilities operating in Australia risk future investments preferencing foreign markets. It is imperative that international best practice benchmarks are realistic and achievable and that industry expertise is utilised to develop them.

In making this submission, CME makes the following recommendations raised by our members:

1. Select appropriate facilities and data to determine best practice intensity values

CME members have expressed concerns with the proposed method for developing international best practice benchmarks, such as the potential to select inappropriate facilities, the potential to incorporate outlier data and lack of clarity on the methodology that will be used to 'adapt' for Australian conditions.

Considering the significant impact that international best practice benchmarks will have on future mining and resource operations, it is critical that the methodology used is informed by clear understanding of the variables that determine the emission intensity for a facility and Australian conditions that dictate mining and industrial practices. To be aligned with DCEEW's four principles for setting default production variables,[2] international best practice production variables and emission intensity should reflect normal operating conditions, available technologies, an appropriate period of sample data and applicability to Australian circumstances.

To ensure benchmarks are appropriate and representative, the following variables and factors must be carefully considered when selecting facilities and data:

- Geology: Unalterable geological characteristics such as ore grade, mineral complexity, and deposit depth can dictate the mining and processing practices employed at facility and therefore the emissions

[1] Australian Bureau of Statistics, *5625.0 Private New Capital Expenditure and Expected Expenditure Australia*, December 2022 reference period, tables 1 and 15.

[2] The principles of setting default production variables are that they are effective, consistent, practical, and robust. DCCEEW, July 2023, *Framework for developing default production variables and emissions intensity values*.

intensity of the facility. Setting benchmarks based on geology not found in Australia or only found at limited sites, rather than based on best practice emission management, will disadvantage Australian projects and potentially quarantine Australia's mineral resources. Some examples of geological distinction include:

- Lithium extraction from brine cannot be applied to mining Australia's hard-rock lithium ores.
- Hematite and magnetite iron ores have materially different processing and energy requirements due to different grade ranges and chemical composition.
- Bauxite ores have materially different processing and energy requirements due to different grade ranges and chemical composition.
- Nickel sulphide ores have simpler processing requirements than nickel laterite ores and should be considered independently.
- Underground mining is likely to generate a materially different emissions intensity than surface mining.

Benchmarks must be developed that are representative of Australian geology.

- Energy sources: The energy choices and associated emissions of a mining operation can be heavily constrained by geographical factors. For instance, hydroelectric generation requires specific topography and climatic conditions, which are unavailable throughout much of Australia. Moreover, mining operations located close to grid electricity with connected renewable generation have access to an electrification pathway for decarbonisation that is not available to remote operations. Energy options are further limited by the local availability of fuels and regulatory conditions, including laws and policies concerning energy sources like nuclear energy. When developing best practice benchmarks, any facilities considered for inclusion should be meticulously screened and adapted to accommodate these energy constraints and align with the Australia's energy policy.
- Representative years: Data selected to develop international best practice production variables must be representative of normal operating conditions and achievable emission benchmarks. Recent years have seen significant disruptions across mining and resources operations due to the coronavirus pandemic and other factors which have impacted markets and supply chains such as global skills shortages, geopolitical tensions, and the war in Ukraine. Facilities in some parts of the State may also be impacted be extreme weather conditions particularly during the wet season. In addition, the use of only two years of data is not sufficient to capture the range of ordinary operating conditions. To understand a trend in facility data, more than two data points should be considered to ensure data included for benchmarking is as representative as possible. CME recommends 5 years of data with minor disruptions be considered which is aligned with previous SGM baseline calculation methodology.

CME recommends that, in collaboration with industry, DCCEEW carefully screens all facilities under consideration for benchmarking for factors that impact applicability to Australia. In some cases, these facilities should be excluded from consideration when data cannot be adapted for Australian conditions.

2. Improve the integrity of benchmark development methods

The proposal to select the two facilities with the lowest emissions intensity (which are essentially outliers) may not align with DCCEEW's stated principle of robustness, which requires outliers to be avoided.[3] The use of outlier data is likely to result in emissions intensity benchmarks that reflect the unique operating conditions of the two selected facilities, instead of international best practice, and may become a significant barrier to future investment in Australian industry. Data used to develop best practice benchmarks must be representative. The methodology should require outlier data to be identified for exclusion using statistical tests, and the retained dataset screened for variables and factors (detailed above) to ensure suitability.

Additionally, CME members have concerns about how data will be sourced for use in benchmarking activities and how it will be adapted to Australian conditions. Emissions data related to international facilities is not always publicly available and if publicly available may be aggregated. Deep industry knowledge is required to interpret and analyse such data to identify which elements are representative of best practice and/or which elements need to be 'adapted' to the Australian context.

[3] DCCEEW, 13 August 2019, *Framework for developing default production variables and emissions-intensity values*

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Further, the emission accounting methodologies utilised by international facilities are likely to differ to those of SGM facilities and may not be appropriate for direct comparison. Significant industry knowledge, understanding of assumptions used to derive published data and interpretation is required to identify elements of this data that are reflective of best practice and relevant for comparison and input to the development of SGM best practice benchmarks. It is important that DCCEEW collaborate closely with industry to refine benchmark development methodologies and inputs to ensure they are relevant.

Whilst the proposed methodology for developing international best practice benchmarks may be suited to mature and established global industries, it is not applicable to new industries developing in Australia to support domestic and international decarbonisation ambitions. The requirement to select facilities with lowest emissions' intensities that make up 10% of Safeguard production cannot be satisfied for commodities that are not yet produced in Australia or do not meet the SGM threshold, such as rare-earth elements, vanadium, and graphite. The global sample size for these facilities is limited, which may result in insufficient data for benchmark development. Benchmarks that are appropriate, realistic, and tailored to specific commodities cannot be generated from the application of broad and generalised methodologies.

CME recommends that best practice benchmarks are developed in close consultation with industry, using bespoke and commodity-specific methods. Industry expertise should be utilised to interpret available data to ensure it is reflective of best practice emissions management and applicable for use. Development of individual commodity benchmarks should be prioritised based on the timeframe in which individual commodities will need to utilise the benchmarks.

CME recommends that DCCEEW revise the proposed methodology to incorporate alternative statistical approaches to avoid reliance on outlier data and clarify how data will be adapted for Australian conditions.

3. Make scheme rules for new entrants fairer and more achievable

CME recognises the Federal Government's expectation that new SGM facilities meet or exceed international best practice emissions intensities and the desire to send a global signal that Australia is serious about its commitment to reduce emissions to net zero by 2050. However, these benchmarks must be realistic, fair, and achievable to enable industry to deliver on these expectations and ensure future Australian businesses remain internationally competitive.

CME members have expressed concerns that the 4.9% decline rate is not reasonable when applied to new facilities that have been designed to achieve the lowest possible emissions profile, as set by best practice benchmarks. The application of an annual decline rate is based on calculation alone rather than metrics that drive real abatement, such as best practice performance or technology maturity. New facilities will have very limited opportunities to reduce emissions by 4.9% annually when available low-emissions technologies have already been adopted.

New emission reduction technologies take decades to become commercially available. Development involves years of research, feasibility studies, demonstration, and piloting prior to them attracting sufficient investment that makes them commercially viable for adoption by an industrial facility. When the technology is applied at a facility it results in a step-change in emissions performance rather than linear annual decline. It is unrealistic to expect new technologies to be commercially available annually and therefore for annual declines to occur in practice.

In addition, infrastructure and major equipment are designed for decades of use. The adoption of emission reduction technology by a facility represents a significant capital investment which will be 'paid back' over the equipment's lifetime. Replacing equipment sooner than the expected end-of-life causes both inefficient use of resources and undue financial burden. With such limited capability for continued emissions reductions, the 4.9% decline rate will simply inflate the cost of Safeguard Mechanism Credits (SMC's) or Australian Carbon Credit Units (ACCU's) required to maintain compliance to SGM.

CME recommends that DCCEEW consider alternative decline regimes for new SGM facilities that are reflective of technology development timeframe, to ensure fair outcomes and viability of Australian industry. Alternatives DCCEEW could consider include:

- Applying an annual decline rate only when new technologies become available based on a technology scan to determine if best practice technology availability has changed.
- Applying a decline rate from no earlier than 2030 to enable SGM entities to plan and develop future abatement activities.
- Applying a discounted decline rate that reflects limited ability to reduce emissions where best practice is applied.

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- Applying no decline rate until the planned 2026-27 review of the SGM rules and include a technology scan within the review to determine if international best practice benchmarks have changed.

4. Redefine 'new entrants' to reduce disadvantage for existing operations

CME understands that SGM settings aim to incentivise low-emissions operation in new facilities by applying international best practice emissions intensities when setting baselines for new entrants under SGM. However, some existing facilities or facilities that are in final design and construction phases are disadvantaged by the current definition of 'new facility' and face disproportionate costs of compliance. CME recommends that the definition of 'new facility' is clarified and applied to facilities designed post 1 July 2023. The following facilities should be considered as an existing facility:

- Facilities that have been in care and maintenance for a number of years but recommence operations after 1 July 2023. These facilities have existing set infrastructure designed under different policy settings.
- Facilities that have been 'approved' but have not yet commenced operations. Facilities in the project development phase that range from Final Investment Decision (FID) stage, construction through to commissioning currently qualify as a 'new entrant'. These facilities already have finalised the design of key technology and infrastructure (and in many cases would have entered into procurement contracts for long-lead items) and have limited capability to make changes. Again, these facilities have existing set infrastructure design based on different policy settings.
- Facilities that begin production of a new product, such as a by-product that becomes commercially marketable. In most cases, facilities will utilise existing equipment and infrastructure for by-product development or innovating existing product offerings. New entrant requirements under SGM disincentivise the development of by-products and are not aligned with Australia's 2030 circular economy aspirations or downstream value-adding objectives under the Australian Critical Minerals Strategy.

To be aligned with the objectives of SGM, the rules for new entrants should not create disadvantage for existing or incumbent operations. CME recommends that DCCEEW provide clear guidance on how 'new entrants' are defined, including specific guidance for existing facilities and facilities at FID, construction or commissioning phases that do not currently meet SGM thresholds.

5. Rely on industry expertise for development of international best practice benchmarks

There is an opportunity for DCCEEW to collaborate closely with industry and utilise the deep expertise and global presence of the WA mining and energy sector when developing international best practice benchmarks. Developing benchmarks without the involvement of industry risks material impacts from misunderstanding and misuse of data and future investment diverting to other jurisdictions ('carbon leakage').

With operations in multiple jurisdictions, including some of the most energy-efficient mines in the world, the sector, including CME's members, can offer valuable insights into a wide range of mining techniques and technologies. In some cases, these companies may also have privileged access to production, energy, and emissions data, which could enable development of best practice emissions intensities that suit the unique geological and operational conditions present in Australia.

CME recommends that establishment of best practice emissions intensity values involves extensive consultation with industry to utilise industry expertise and ensure that the best practice intensity values are reflective of current practices, technology availability and Australian circumstances.

6. Conclusion

In summary, CME supports a collaborative consultation process with industry to develop international best practice benchmarks that are reasonable, achievable and support Australia's decarbonisation goals.

Should you require further information regarding this submission, please contact Ms Adrienne LaBombard, Director of Policy & Advocacy, on 0400 912 525 or at A.LaBombard@cmewa.com.

Yours sincerely,

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