RAMBOLL

ENVIRONMENT
& HEALTH

Chairman

Environment Protection Authority

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Attention – Kushal Subedi

RE: APP-0028670 - K2 Project – RFI Notice requesting further information – Updated Information Summary

Date 01/08/2025

I refer to my email yesterday (31st July 2025), which provided the reviewed application documentation for the K2 project and included additional information and clarifications to the following documents:

- Request for Information (RFI) response
- Proposal Content Document (PCD)
- Greenhouse Gas Management Plan (GHGMP)
- Referral Supporting Document

This letter has been prepared to provide a summary of the additional information and clarifications.

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Ref 318002114

Project Life

It is acknowledged that there were inconsistencies in the project documents in relation to project life. This was due to the specification of a construction period of between 24 months and 36 months.

For the purposes of the current documentation, we are seeking to retain this range of construction period. In doing this, we have corrected the overall project life to 48 years. This combines the maximum construction period of 36 months and the operational period of 45 years.

Note that this period is not an extension or change to the proposal because these periods were specified at certain points in the documentation. Rather this is a consolidation of the project details in one place – the PCD.

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GHG Emissions Estimates

GHG emissions estimates provided with the original referral were based on dispatch forecasts available to Perth Energy at the time of referral and presented an operational life of 2029 to 2058. Since referral, the dispatch demand has been recalculated and the GHG emissions estimates have been updated to reflect the full 45 years of operations. Perth Energy is taking this opportunity to present the additional information in the updated Proposal Content Document (PCD) and supporting documentation to ensure it aligns with the proposed operational life.

As a result of this additional information, the annual average Scope 1 emissions have decreased, and total Scope 2 and 3 emissions have increased. This is a result of the longer time scale over which emissions have been estimated. These changes to emissions estimates reflect the provision of additional information and not a change to the Proposal itself.

Gross and Net GHG Emissions

Gross (GHG emissions with no mitigation) and Net (Gross GHG emissions minus offsets) have also been documented in the GHGMP. Scope 1 GHG emissions over the life of the Proposal have now also been provided to give clarity and context to the data presented. What these figures show is that later in the Project life (post 2050) emissions are reduced. Changes have been made to the PCD, GHGMP and Supporting Document where necessary to reflect the additional information relating to Scope 1, 2 and 3 GHG emissions estimates.

Electricity Supply Context and the SWIS

The K2 Project is a peaking power station, designed to provide critical firming and system stability services to the Southwest Interconnected System (SWIS) in Western Australia. It is being developed in direct response to the State's energy transition strategy and the anticipated retirement of significant coal and gas-fired generation capacity by 2030.

The State of Western Australia has committed to retiring all State-owned coal-fired power stations by 2030, including Collie, Muja C, and Muja D. These facilities currently contribute a substantial share of the SWIS's MWh generation, system inertia, and peak capacity. The June 2025 AEMO WEM Electricity Statement of Opportunities (ESOO) flags further uncertainty around the privately owned Bluewaters Power Station and the retirement of Synergy's gas-fired units at Pinjar.

This confluence of retirements represents a significant loss of long-duration, fast-response firming capacity and essential system services. The K2 project will participate in the Reserve Capacity Mechanism (RCM), which will require it to be available when called upon by AEMO. K2 can only bid into the market at its short-run marginal cost (SRMC), ensuring it is operational when cheaper sources (including coal and/or renewables) are unavailable. This market structure ensures that K2's utilisation will inherently reduce the grid's carbon intensity, as it displaces higher-emission or unavailable generation only when necessary. Perth Energy will not decide when to increase or decrease K2's dispatch rather it will be dictated by the demand set by AEMO.

Closing Remarks

Our response to the RFI issued for the K2 Project provides additional clarity and context. It does not present any change to the project. We request the RFI response be assessed on this basis.

Please contact me should you require anything further.

Yours sincerely

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