Mr Paul Farnworth
Tallawarra B Project Director
EnergyAustralia

By email: Paul.Farnworth@energyaustralia.com.au

17 September 2021

Dear Mr Farnworth

Tallawarra B Power Station Project - Aviation Impact Assessment

I refer to the following information provided by EnergyAustralia to the Department of Planning, Industry and Environment (the Department) to demonstrate that Tallawarra B Power Station Project (the project)'s open cycle gas turbine (OCGT) can satisfy condition 1.6 of the project approval:

- Memorandum from Katestone dated 15 June 2021 (**Attachment 1**) providing response to Civil Aviation Safety Authority (CASA) advice and further analysis of representative meteorological conditions;
- Additional CFD modelling report prepared by Stacey Agnew dated 13 August 2021 on the plume rise associated with the 99.9 percentile meteorological conditions (**Attachment 2**);
- Mr David Featherston's second expert review report to verify and validate the CFD model methodology, assumptions used and the model outputs including the meteorological conditions considered for the assessment, dated 8 July 2021 (**Attachment 3**); and
- *Updated Plume Rise Assessment for the Tallawarra B Power Station Aviation Impact Assessment*, dated 30 July 2021 (**Attachment 4**).

The Department has further consulted with CASA, which has confirmed (see **Attachment 5**) its previous advice that a critical plume velocity (CPV) lower than 6.1 m/s by 700 feet above mean sea level (ft AMSL) would achieve an acceptable level of safety for aviation, noting that based on the design and CFD modelling the plume velocity is predicted to achieve this performance measure.

However, CASA also advise that the modelling must be validated using the final design and actual plume data during power plant operation.

The Department has carefully considered CASA's advice and all the information provided by EnergyAustralia and considers that the project's OCGT plant could be operated to meet CASA's requirements of a CPV of no more than 6.1 metres/second at or below 700 ft AMSL.

Consequently, the Department considers that the Aviation Impact Assessment and additional information listed above satisfy condition 1.6 of the project approval. However, this approval is subject to the following prior to operations, to the satisfaction of the Secretary:

- EnergyAustralia providing a report confirming that all the mitigation measures and the inclusion of a plume symbol on aeronautical charts have been or would be implemented (noting that some measures can only be implemented after operations have commenced), as listed in Section 10 of the *Tallawarra B OCGT Aviation Impact Assessment*, dated 13 February 2020 (see **Attachment 6**).

- Evidence of the performance guarantee test demonstrating that the plant achieves compliance with the CPV as outlined in the plume rise performance guarantee (see **Attachment 7**).
- Submission of an ongoing Plume Validation Monitoring Program to be implemented during operations, incorporating a trigger-action-response plan.

If you wish to discuss this further, please contact Mandana Mazaheri, Team Leader on 9995 5093, or email at mandana.mazaheri@planning.nsw.gov.au.

Yours sincerely

Steve O'Donoghue
Director Resource Assessments