

Mr Ian Black
Tallawarra B Project Director
EnergyAustralia Pty Ltd (EnergyAustralia)

12 May 2023

Subject: Tallawarra B Power Station Project - Aviation Impact Assessment

Dear Mr Black

I refer to the following additional information provided by EnergyAustralia to the Department of Planning and Environment (the Department) based on the Tallawarra B Power Station Project (the project) final design (Version 3B) and satisfy condition 1.6 of the project approval:

- updated computational fluid dynamic (CFD) plume modelling for the project's Version 3B design (by Stacey Agnew Pty Ltd, dated 7 March 2023);
- independent expert review report to verify and validate the Version 3B CFD plume modelling (by Mr David Featherston, GHD Pty Ltd, dated 4 April 2023); and
- review of protection surfaces of the project's Aviation Impact Assessment (by Aviation Projects, dated 29 March 2023).

The Department has carefully reviewed the above listed information and notes that the Version 3V plume modelling report and the independent expert review report concluded that project would be able to meet CASA's requirements, as the Version 3B assessment was undertaken in accordance with:

- CASA's latest Advisory Circular (AC) 139.E-02v1.0, dated March 2023, including requirements set out in section 2.5 of the AC for commissioning of an independent review of the plume study for a stack design involving engineering modifications aimed to reduce the impact of the plume rise, such as any CFD modelling undertaken for the assessment; and
- CASA's previous advice (dated 29 March 2021) that a critical plume velocity (CPV) lower than 6.1 m/s by 700 feet above mean sea level (ft AMSL) would be required to be met to achieve an acceptable level of safety for aviation, accepting half of the maximum reported CFD vertical velocity at a horizontal plane is a reasonable and acceptable method for deriving the CPV.

CASA also provided advice (dated 30 March 2023 and 27 August 2021) (**Attachment A**) advising that an independent review should be commissioned. The Department notes that GHD has provided an independent review on the CFD modelling. If CASA provide any further advice we will provide this to EnergyAustralia.

Consistent with the Department's conditional approval of the Aviation Impact Assessment for the project (dated 17 September 2021), the Department considers that the project's Version 3B design satisfies condition 1.6 of the project approval, subject to EnergyAustralia providing the following information prior to operations, to the satisfaction of the Planning Secretary:

- 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 Aviation Impact Assessment (by Aviation Projects, dated 13 February 2020); and the supplementary review of protection surfaces;
- evidence of the performance guarantee test demonstrating that the plant achieves compliance with the CPV as outlined in the plume rise performance guarantee; and
- submission of an ongoing Plume Validation Monitoring Program to be implemented during operations, incorporating a trigger-action-response plan.

The Department also advises that this advice is in relation to condition 1.6 of the project approval only and does not constitute approval or amendment of any other conditions, including noise and air quality operational requirements or limits. EnergyAustralia must comply with the conditions of approval.

If you have any questions, please contact Mandana Mazaheri at Mandana.Mazaheri@planning.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to be "SOD", written over a light blue horizontal line.

Stephen O'Donoghue
Director
Resource Assessments