

Tallawarra B Power Station

Exhaust plume monitoring



The Tallawarra B power station is on the traditional Country of the Dharawal peoples. EnergyAustralia respects and acknowledges their continued connection to Country, culture and community.

About the Tallawarra B Power Station

In June 2024, EnergyAustralia's Tallawarra B gas-fired power station, located in Yallah, New South Wales, commenced commercial operation. The power station was built to provide fast backup for renewables and ensure a reliable power supply. With the ability to dispatch at full capacity within 30 minutes, it can power around 180,000 homes and small businesses during times of high demand.

The construction of Tallawarra B commenced in 2022, and took over 250 workers more than two years to build, at a total cost around \$300 million.

Minimising aviation impacts

Tallawarra B is located near Shellharbour Airport. As a condition of the project's approval, the NSW Government's Department of Planning, Housing, and Infrastructure required EnergyAustralia to implement measures to ensure aviation safety.

In response, EnergyAustralia has invested around \$15 million in a purpose-built plume dispersion device and other measures, to manage and monitor the power station's exhaust plume.

Plume dispersion

The power station features a purpose-built plume dispersion device to ensure the safety of planes flying nearby. The device sits on top of the exhaust stack and reduces the vertical velocity, or height, of the exhaust gas plume. It does this by splitting up the exhaust stream and discharging it at an angle that's horizontal or lower. Splitting the plume draws in cooler air and results in a reduced plume rise.

The NSW Government has confirmed the plume dispersion device means the power station meets an acceptable level of safety for aviation.



Plume monitoring with aircraft fly-throughs

To confirm the velocity of the power station's exhaust plume EnergyAustralia will use an aircraft to conduct fly-throughs of the exhaust plume and capture key data that will be used to calculate the plume's velocity.

Turbulence Solutions, is a specialist in inflight flow measurements. The company is based in Austria and operating for more than 10 years in this field and has been engaged to conduct this program.

A high-wing manned aircraft, likely to be a Cessna 172 (example pictured below), will have various sensors fitted to the wing struts. A certified pilot for this type of activity will then fly the plane through the plume above the power station. The plane will fly at various altitudes, recording key data at a rate of around 60 fly-throughs per hour. This is scheduled to start in early August 2024 and is expected to take three (3) weeks to complete.

Approval for this aircraft work to take place has been obtained from the Civil Aviation Safety Authority (CASA). EnergyAustralia has also briefed the Shellharbour Airport Users Group and other aviators using Shellharbour Airport about the aircraft fly-through program.

As always, the safety of power station workers and the community is our priority.



Contact us

Should you have any questions or need more information, please contact us.

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Public disclaimer: The views expressed herein are not necessarily the views of the NSW Government. The NSW Government does not accept responsibility for any information or advice contained herein.