

01 July 2021

Mr Jack Turner  
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Email: jack.turner@planning.nsw.gov.au

Dear Mr Turner

**Hunter Power Project – Kurri Kurri Power Station Environmental Impact Statement (SSI-12590060)**

This letter is in response to the Environmental Impact Statement (EIS) exhibited on the NSW Department of Planning, Industry and Environment website in relation to the proposed Kurri Kurri Power Station.

The proposed project involves the following scope of work:

- Two heavy-duty F-class open cycle gas turbines, generator circuit breakers and generator step-up transformers
- 132 kV Electrical switchyard and equipment
- Associated plant infrastructure such as storage tanks; internal roads site office/amenities/workshop etc.
- Direct connection to existing Ausgrid overhead 132 kV transmission lines.

Hunter New England Population Health (HNEPH) has reviewed the EIS report paying particular attention to the management of air quality, noise and issues which may have an impact on public health.

**Air Quality**

Our response in regard to air quality focuses on SO<sub>2</sub> and NO<sub>2</sub> which can exacerbate respiratory disease and PM<sub>2.5</sub> which can cause respiratory and cardiovascular disease. There are minimal emissions of volatile organic compounds and these are not further addressed in our response.

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We note the advice provided by the NSW EPA in relation to updating the AQIA with the revised Ambient Air Quality NEPM standards for NO<sub>2</sub> and SO<sub>2</sub>. The revised standards for 1-hour and annual average NO<sub>2</sub> are now 80 ppb and 15 ppb respectively, and the SO<sub>2</sub> standards for 1-hour and 24-hour SO<sub>2</sub> are now 100 ppb and 20 ppb respectively. The 1-hour SO<sub>2</sub> standard will be lowered again in 2025 to 75 ppb. (See "Key Changes to AAQ Measure, April 2021": <http://www.nepc.gov.au/system/files/pages/d2a74405-16f6-4b06-baf1-7c2fc1c1e12f/files/key-changes-aaq-measure-agreed-ministers-april-2021.pdf>)

Additionally, please state and reference the conversion factors used to convert between µg/m<sup>3</sup> and parts per billion unit measures in the ambient air quality standards.

A revised assessment cognisant of the current and future ambient air quality standards may need to account for other emissions into the air shed including the proposed Newcastle Power Station. It is important that the project's emissions have a minimal contribution to ambient air quality.

Furthermore, there is no evidence of a threshold below which exposure to particulate matter (PM) is not associated with health effects. Therefore, it is paramount that all reasonable and feasible measures are taken to minimise human exposure to PM, even where assessment criteria are met.

## Noise

Environmental noise can have negative impacts on human health and well-being and trigger ongoing community complaints about annoyance and stress. We would like to reinforce to the applicant that they should ensure compliance with all NSW Environment Protection Authority noise criteria and that all reasonable and feasible measures are undertaken to minimise public exposure.

## Legionella

Any Cooling Towers must comply with the requirements of the *Public Health Act 2010* and *Public Health Regulation 2012*. NSW Health recommends that the system should be managed in accordance with the NSW Health Guidelines Legionella Control in Cooling Water Systems 2018. They must be installed and maintained to prevent the growth of *Legionella*

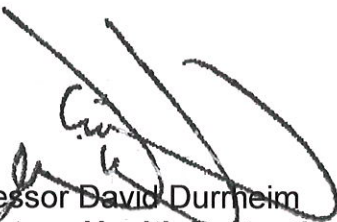
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### **Community Engagement**

We want to strongly emphasise that due to the sensitivity within the community and the concerns already raised by surrounding residences, that the proponent seeks additional specialist advice in relation to ensuring meaningful ongoing community engagement and consultation processes.

Should you require any additional information, please contact Ms Nichole Mason, Environmental Health Officer on 4924 6477.

Yours sincerely



Professor David Durrheim  
**Director - Health Protection**  
**Hunter New England Population Health**

