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4.6.2021

To whom it may concern,

Re:- Submission opposing the Hunter Power Project – the Gas Fired Power Station at Kurri Kurri (“the Development”)

Thank you for reading this submission. I oppose the Development, and submit that the Development consent should not now, or ever, be approved, for the following reasons:-

International Obligations and Domestic Policy

- 1. The Development is inconsistent with and stands in stark contrast to the Commonwealth of Australia’s international obligation to reduce domestic greenhouse gas emissions in accordance with the United Nations Framework Convention on Climate Change and the Paris Agreement. This obligation has been endorsed by NSW¹.**

The Paris Agreement requires Australia, as a Party, to limit global warming to “*well below* 2°² Celsius, compared to pre-industrial limits, and preferably to 1.5° Celsius, by reducing greenhouse gas emissions.

Australia is already experiencing global warming of 1.5° Celsius, and the world is set to exceed 1.5° Celsius between 2030-2033, unless there is a significant reduction in greenhouse gas emissions³. The Development will be a source of greenhouse gas emissions, both fugitive and documented. This is, in my respectful opinion, sufficient reason to refuse development consent.

- 2. Investment in the Development is inconsistent with NSW’s Climate Change Policy Framework, with its stated policy objective to achieve net zero emissions by 2050.**
- 3. The Development is inconsistent with the objectives of the designation of the Hunter Region as a Renewable Energy Zone⁴**
- 4. Arguably the Development is inconsistent with the NSW Government stated policy objective of encouraging investment in renewable energy.**

¹ Climate Change and NSW: Overview. Retrieved from <https://www.epa.nsw.gov.au/your-environment/climate-change/climate-change-nsw-overview#5>. Accessed 3.6.2021.

² Article 2.1(b) of the Paris Agreement.

³ Aim High, Go Fast : Why Emissions need to Plummet this Decade. Retrieved from <https://www.climatecouncil.org.au/wp-content/uploads/2021/04/aim-high-go-fast-why-emissions-must-plummet-climate-council-report.pdf>

⁴ NSW Government Electricity Infrastructure Roadmap. Retrieved from <https://energy.nsw.gov.au/government-and-regulation/electricity-infrastructure-roadmap> accessed 3. June 2021.

Electricity Generation Issues

5. The Development is unnecessary.

As renewable electricity generation capability increases, fossil fuel generation is no longer competitive. The Development is not economically viable. For example, a gas fired peaking powered station was considered not viable as a replacement of the Liddell power station⁵. Gas fired power stations cannot produce electricity as cheaply as renewable technology. The Development will only result in a public funded stranded asset. Advances in technology will only enhance this economically unviable development⁶, especially over its short, 30 year life span.

6. The Development will only operate at 2% designed capacity⁷.

As the proposed Development is intended to operate at no more than 2% of its designed capacity, it is, by dint of its own Environmental Impact Statement, obvious that it is not necessary.

Instead, as batteries are modular, and highly scalable, greater economic efficiency and best value from public monies will be obtained if a battery was installed on the site of the Development, instead of the proposed Development. A battery on the proposed Development site would also align with other domestic and international policy issues referred to above.

Furthermore, as the NSW Government's "Electricity Infrastructure Roadmap" has a policy objective to "attract up to \$32 billion in private investment for regional energy infrastructure by 2030⁸, it is submitted to be unnecessary.

7. The Development is inconsistent with the NSW Climate Change Policy Framework, which has a stated policy objective of achieving net zero by 2050⁹.

The Development can only stand in stark contrast to the stated policy objective of "maximising the economic, social and environmental wellbeing of NSW"¹⁰.

⁵ P.8 Environmental Impact Statement Liddell Battery and Bayswater Ancillary Works Project dated March 2021. Retrieved from <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-8889679%2120210329T022853.285%20GMT> accessed 3.6.2021

⁶ Supported by the IRENA "Renewable Power Generation Costs in 2019" report, retrieved from https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2020/Jun/IRENA_Power_Generation_Costs_2019.pdf accessed 3.6.2021, which found that

⁷ P.iii Environmental Impact Statement Hunter Power Project dated 22.4.2021 retrieved from <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-12590060%2120210427T001516.283%20GMT> accessed 3.6.2021

⁸ NSW Government Electricity Infrastructure Roadmap. Retrieved from <https://energy.nsw.gov.au/government-and-regulation/electricity-infrastructure-roadmap> accessed 3.6.2021.

⁹ P.5. NSW Climate Change Policy Framework. retrieved from <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Climate-change/nsw-climate-change-policy-framework-160618.pdf> accessed 3.6.2021.

¹⁰ P.2. NSW Climate Change Policy Framework. retrieved from <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Climate-change/nsw-climate-change-policy-framework-160618.pdf> accessed 3.6.2021.

Replacement Electricity Generation Capacity

Liddell will be replaced in part by a battery energy storage system with initial capacity of up to 500 MW and 2GWh¹¹, capable of discharging electricity for over 4 hours each day¹².

Any presumably “lost” electricity generation and continuity of electricity supply capacity issues are pre-empted, and prevented by, AGL’s proposed “Liddell Battery and Bayswater Ancillary Works Project”, described as an “efficient, safe and reliable” transition programme to a low carbon future of AGL’s existing assets. This battery will provide storage and firming capacity to the National Energy market.

By June 2024 AGL intends to have added a further 850 MW large scale storage capacity, and 350 MW of coordinated distributed energy resources, including four 50 MW batteries in the NSW Riverina¹³.

In 2018, AGL were granted Planning Approval to upgrade the turbines at Bayswater, one per year, with modern, more efficient turbines.¹⁴

Renewable Electricity Generation is increasing. The National Energy Market requires extra capacity to store (only, not generate) excess energy, firming supply, when available¹⁵.

Environmental Reasons

Omitted aspects of the Development Environmental Impact Statement

The Environmental Impact Statement relating to the Development does not include the impact of all project components – such as the purportedly proposed gas pipe from reported to be between Narrabri to Kurri Kurri, or the consequential climate impacts from fugitive emissions from further gas mines and losses from such a pipeline. The Environmental Impact Statement refers to “an existing Sydney to Newcastle Jemena Gas Network, but the rate of methane leakage from this network is not disclosed. It is known that the full gas economy, from exploration through to end use has far exceeded earlier estimates. Methane is a significant greenhouse gas, and leakage must be prevented.

¹¹ P.1 Environmental Impact Statement Liddell Battery and Bayswater Ancillary Works Project dated March 2021. Retrieved from <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-8889679%2120210329T022853.285%20GMT> accessed 3.6.2021.

¹² P.26 Environmental Impact Statement Liddell Battery and Bayswater Ancillary Works Project dated March 2021. Retrieved from <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-8889679%2120210329T022853.285%20GMT> accessed 3.6.2021

¹³ P.3 RepuTex Energy report “Scenarios for the Replacement of the Liddell Power Station”. November 2020. Retrieved from <https://v.fastcdn.co/u/423c9433/54477761-0-Scenarios-for-the-re.pdf> accessed 3.6.2021.

¹⁴ P.5 Environmental Impact Statement Liddell Battery and Bayswater Ancillary Works Project dated March 2021. Retrieved from <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-8889679%2120210329T022853.285%20GMT> accessed 3.6.2021

¹⁵ P.5 Environmental Impact Statement Liddell Battery and Bayswater Ancillary Works Project dated March 2021. Retrieved from <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-8889679%2120210329T022853.285%20GMT> accessed 3.6.2021

The Non Steady Start Up and Shut Down Emissions have not been considered in the Environmental Impact Statement

NO_x emissions are potentially between 1.7 – 16.7 times higher during start up, when compared to normal operation. Additionally, shut down emissions are potentially between 1.1 to 9.3 times higher¹⁶.

The Environmental Impact Statement for the Development does not seem to investigate these sorts of emissions, although notes that start up will take approximately 30 minutes, before the Development can operate at “full rated load”¹⁷. It states that the Development “may be exempt from the concentration standards under the Clean Air Regulation”¹⁸. Concerningly, the health of the adjacent residents is seemingly then compromised by the Development.

For all of the above reasons, I am opposed to the Development.

¹⁶ Retrieved from https://res.mdpi.com/d_attachment/energies/energies-10-00179/article_deploy/energies-10-00179.pdf accessed 3.6.2021.

¹⁷ P.35 Environmental Impact Statement Hunter Power Project dated 22.4.2021 retrieved from <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-12590060%2120210427T001516.283%20GMT> accessed 3.6.2021

¹⁸ P.49. Environmental Impact Statement Hunter Power Project dated 22.4.2021 retrieved from <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-12590060%2120210427T001516.283%20GMT> accessed 3.6.2021