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12 March 2018

Ms Sally Munk
Principal Environmental Planner
Industry Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Reference:

Dear Ms Munk,

Subject: Mt Piper Power Station Energy Recovery Project (SSD 8294)- Summary of changes to proposal

I refer to the meeting on Tuesday 22nd January 2018 with Department of Planning and Environment and EPA, Re.Group and EnergyAustralia. In this meeting we discussed the Mt Piper Energy Recovery Project ("the Project"), including a change to the Project scope, increasing the fuel supply and thermal capacity of the project. Energy Australia and Re.Group were asked to provide the Department with a summary of the changes to the proposal and the reasoning behind the change.

Joint venture partners Re.Group and EnergyAustralia have investigated the feasibility of the Project. As we discussed, the Project was found to be a technically viable opportunity to:

- Hybridise a renewable energy technology with the existing coal-fired Mt Piper Power Station
- Provide baseload renewable energy
- Reduce the reliance on landfill for NSW
- Provide additional employment in the Lithgow region
- Implement a widely used international technology for the first time in Australia, with lower cost and less risk than a standalone facility
- Provide a reference facility for future hybrid renewable energy projects at other power stations.

However, it was also determined that the initially proposed capacity of 100,000 tonnes per year of RDF and 14 MWe, as detailed in the Project Overview, did not have economic merit. At this scale, the costs of the Project were significantly higher than initially anticipated. As a result, the Project does not provide returns appropriate to the nature and risks of the Project.

However, at the larger scale of 200,000 tonnes per year of fuel and circa 27 MWe, the increased costs can be offset with increased earnings, and the Project is financially viable.

As mentioned in our meeting, given the modest amount of fuel required (compared to total potential supply), the increased scale is not limited by the fuel sources. It will not materially change the physical size of the development, and it can be completely contained within the areas indicated in the Project Overview. There is also no change required to the type of boiler technology or emission control equipment.

This change in scope for the project will increase the scale of potential environmental impacts for the development, however there are no qualitative changes in the types of impacts expected. The studies for the Environmental Impact Statement are underway, and will fully address and where appropriate, model the impacts of the increased capacity. Further detail is given in the following table.

Potential Impacts	**Changes**
Air quality	The increase in fuel (RDF) intake will increase air used for combustion and the emission gases accordingly. Detailed design and combustion modelling will determine exact quantity of emission gases but their concentration in the flue gas would remain the same. The air impacts will be quantified in the air quality modelling in the EIS.
Human Health Risk	The potential impact of the increased emissions from the larger sized plant will be determined and quantified in the human health risk assessment required in the SEARs.
Odour	The larger plant size will result in double the quantity of RDF handled on site. However, the key design criteria have not changed; all RDF handling equipment and storage areas will be used to supply combustion air – keeping these areas under negative pressure as per the Project Overview. No increase in odour impact is expected.
Waste Management	All waste productvolume from the plant is likely to double as the quantity of RDF used in the plant has doubled. Quantity and composition of the ash and other by-products will be determined and a comprehensive study is being carried out to determine the size and engineering requirements of the ash repository required for the Project. Other waste material will not be significantly increased. The waste management report required by the SEARs will address these increased volumes.
Noise & Vibration	The larger plant size is not likely to impact overall noise and vibration effects of the larger Mt. Piper Power Plant as it is still relatively small. As the plant is being constructed and operated from within the existing power plant area, the overall increase of the size of the Project will be inconsequential in terms of noise and vibration impact. Detailed assessment of the noise and vibration impacts from the Project will be addressed in the reports required by the SEARs.
Traffic & Transport	The change to the project scope does not change the type of vehicles to be used, or the roads affected by traffic associated with the proposal. The number of vehicle movements required for the construction and operation

	phases will be larger. This will be explored in more detail in the traffic study required by the SEARs.
Soils & Water	The boiler from the Project will extract water from the existing Mt. Piper Power Plant Unit 2 and deliver the resulting steam into the same system. The power generating capability of Unit 2 is assumed to remain the same as the original design and as such, water requirements are unlikely to change relative to the Project Overview. However, this will be confirmed in the soils & water report required by the SEARs.
Flora & Fauna	Physically the plant size will not materially increase. The original site location (as described in the Project Overview) will not change. As this location is well within the existing cleared area, the impact to Flora and Fauna attributed to the Project is likely to be small to none. This will be explored in more detail in the study required by the SEARs.
Aboriginal & non-Aboriginal Cultural Heritage	There is no change in the location of the proposed boiler and associated equipment. As such, there is no change in the potential for impact on items with heritage value. This will be explored in more detail in the heritage study required by the SEARs.
Socio-Economic	The overall impact is likely to be positive as a bigger Project is likely to increase employment opportunities during construction as well as the operation phase. Investment into the project is also increased and will positively affect the community. This will be addressed in the EIS as required by the general requirements of the SEARs.
Biosecurity	From biosecurity risk standpoint, animal & plant disease and pest risks are not expected to increase with the upscaled Project. An analysis in accordance with relevant Department of Primary Industry guidelines shall be carried out to address this as required by the SEARs.
Hazards and Risk	The increased plant size is unlikely to add new hazards and risks to the operations of the Project or the current plant. A Preliminary Hazard Analysis in accordance with Hazardous Industry Planning Advisory Paper No. 6 shall be performed as required by the SEARs.
Greenhouse Gas and Energy Efficiency	The increase in plant size is likely to increase direct greenhouse emissions from the Project, due mainly to the combustion of more RDF. However, as noted in the Project Overview, the net impact of the Project is a reduction in greenhouse gas emissions (due to a reduction in landfill emissions, and the offset of grid electricity), so the larger size will be a net benefit for greenhouse gas emissions. The potential impacts of these emissions on the environment and a detailed description of the measures that would be implemented on site to ensure that the project is energy efficient would be addressed in the EIS as required by the SEARs.
Visual amenity	The existing Mt Piper power station is a dominant visual feature in the landscape and despite the increase in size of

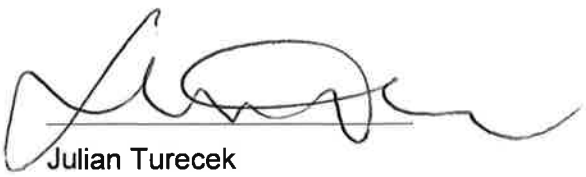
	the Project, it is unlikely to have any additional impact to the visual amenity. The Project will incorporate the same visual amenity design features to the larger sized plant, and the existing SEARs requirement for a visual amenity report will describe the impact.
Bushfire Risk	The newer, larger sized Project would have small to no impact to the earlier bushfire risks. A bushfire impact assessment, in accordance with Planning for Bushfire Protection 2006 and associated Fact Sheets and Practice Notes, shall be prepared in accordance to SEARs.
Compliance with Energy from Waste Policy	The increase in Project size does not impose any requirements or change to the RDF to be utilised, or the technology to be used. The original requirements and outcomes remain unchanged, including process design and control, emission control equipment design and control as well as emissions monitoring with real-time feedback to the controls of the process. As required by the SEARs, we will include a full assessment of compliance with the NSW Energy from Waste Policy Statement in the EIS.

Based on this information, EnergyAustralia and Re.Group conclude that the existing SEARs address all potential aspects of the proposed development, and the only changes are quantitative changes which will be detailed in the various studies in due course. We also conclude that there is no need for amendment to the SEARs.

We hope that this summary will provide DPE with the information that is required. We understand that this document will be circulated to various agencies for comment.

Please do not hesitate to contact Amanda Jones if you have any concerns or comments regarding this document on 03 8628 1082 or at amanda.jones@energyaustralia.com.au.

Yours Sincerely,



Julian Turecek

Head of Assets, EnergyAustralia