Mt Piper Energy Recovery Project

Environmental Impact Statement (EIS) Summary





EnergyAustralia

Benefits

The Mt Piper Energy Recovery Project is a state-significant development that will utilise the world's best practice technologies.





The Project

EnergyAustralia, in collaboration with recycling company Re.Group, is developing a \$170 million project to supplement the current electricity output of Mt Piper Power Station with additional energy created from 'refuse derived fuel' (RDF) made from non-recyclable household and commercial waste. Recovering energy from waste is increasingly practised in Europe, the United Kingdom, Asia and the USA as an alternative to sending waste to landfill.

RDF will be thermally processed in a specifically designed boiler to create steam. The steam is then added to the existing Unit 2 turbine at Mt Piper to generate electricity. This will make Mt Piper Power Station the first hybrid coal/RDF power station in Australia.

Energy produced by the new facility would be sufficient to power approximately 40,000 NSW homes, equal to the Lithgow and Blue Mountains Local Government Areas combined.

What will be built?

If approved, the Project will involve the construction and operation of a dedicated boiler and RDF receival infrastructure connected to the existing station, as well as a dedicated flue gas (exhaust) treatment plant. In addition, an Ash Placement Facility will be constructed adjacent to the existing ash repository at Mt Piper to store the ash by-products that would be produced from the energy recovery process. The NSW Government promotes a hierarchy of ways to treat and manage waste through the Waste Avoidance and Resource Recovery Act 2001, which places energy recovery above waste disposal and waste treatment.



This Project has been specifically designed to meet the requirements of the NSW Energy from Waste Policy which requires 'best available technology' from around the world to be used.

Environmental Impact Statement (EIS)

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to prepare an Environmental Impact Statement (EIS) for the project. The EIS takes into consideration key public concerns relating to energy recovery, and uses the knowledge and advice of specialist consultants to accurately assess the Project's potential impacts.



Greenhouse Gas Emissions

A detailed Impact Assessment has been prepared to assess the greenhouse gas (GHG) emissions that will be produced by this Project. Findings show that the Project will substitute coal burning and other GHG-intensive methods of energy production, offsetting any GHGs produced by the Project. In addition, the Project diverts waste away from disposal to landfill, a significant source of the greenhouse gas methane. Over a 25-year period, the Project could eliminate the equivalent of over 7 million tonnes of carbon dioxide, with these savings realised from both the substitution of fossil fuel-generated electricity and landfill avoidance.



Air Quality

An Air Quality Impact Assessment was prepared to assess the potential influence of the Project on ambient air quality, and performance of the proposed technology against NSW EPA air emissions regulations.

The results of this analysis indicated that all air quality impacts were likely to be small and would occur only on land immediately adjacent to the Mt Piper boundary.



Traffic

A detailed Traffic and Transport Assessment was conducted. Findings show that rail is not a viable option for the Project, and no additional road capacity improvements are required to accommodate the heavy vehicles needed to transport RDF to the Project site. The most direct route suitable for delivery of RDF material has been identified as the M4 and Great Western Highway, on to the Castlereagh Highway, and Boulder Road into the Project site.

Under typical operational conditions the Project will contribute an additional 26 to 33 trucks along this route every day. Even at the modelled worst case of 48 trucks per day, the traffic is estimated to increase by no more than 1% on the Great Western Highway. In addition, the very small amount of GHG emitted by these trucks is included in the overall GHG calculation for the Project.



Human Health Risk

A detailed Human Health Risk Assessment was prepared to determine whether any health risks might result from exposure to pollutants from the Project. The assessment concluded there are no acute or chronic health risk issues for workers or residents living in close proximity to the proposed facility.



Soil & Water

ERM conducted a Soils and Water Assessment to review water usage and the potential impact on soil, surface water and groundwater. During the construction phase of the Project, erosion and sediment control principles will follow best-practice guidance. Each ash stream will require specific management in the Ash Placement Facility (designed in accordance with NSW EPA quidelines) and all water that comes into contact with ash will be captured. The Ash Placement Facility and all associated ponds will be fully lined, with higher-risk ash being treated and immobilised for transport before being stored in double-lined cells.

Environmental controls and monitoring will prevent contamination of land, groundwater and surface water. The Soil and Water assessment concluded the Project will have a neutral effect on the Sydney drinking water catchment area.

In addition, the following assessments were made:

- Noise and Vibration Impact Assessment
- Preliminary Hazard Assessment •
- Visual Impact Assessment
- Biosecurity Risk Assessment
- Assessment of the relevant social and economic impacts

- Heritage Assessment
- Assessment of bushfire hazard
- Waste Management Assessment
- **Biodiversity Impact Assessment**
- Assessment of cumulative impact with existing developments.

Assessment Outcomes

These assessments supporting the EIS concluded that the Project will:

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result in a **NET REDUCTION OF GREENHOUSE GASES** compared to NSW average grid electricity

and landfill emissions



result in NO RISK ISSUES **OF CONCERN** in relation to human health exposures



meet regulatory quidelines in the design of the Ash Placement Facility, **PREVENTING CONTAMINATION** of land, groundwater and surface water

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MEET ALL relevant **REGULATORY CRITERIA** for air emissions



have a **NEUTRAL EFFECT** on the SYDNEY DRINKING WATER catchment area



have NO DISCERNIBLE **ADVERSE IMPACT** on road network performance or road safety



result in **MINIMAL** CONSTRUCTION **NOISE** impacts



close to NIL PROBABILITY of a biosecurity hazard escaping from, or surviving, the Project activities



DOES NOT POSE A RISK to the operations of MPPS



have **NEGLIGIBLE IMPACTS** on the biodiversity, heritage, visual amenity and bushfire risk of the area



result in **POSITIVE ECONOMIC BENEFITS** to the region.

Process of Preparation

Specialist consultants and engineers have been engaged to work on the Project throughout the EIS preparation process.



Community Consultation

Throughout the preparation of the EIS, consultation has been undertaken with a range of stakeholders including the local community, various local and NSW Government agencies and neighbouring landholders. This consultation will continue throughout the project.

This feedback has been actively sought and where practical, development plans have been amended to address key concerns.

The Project's EIS is available for public comment, prior to assessment by the NSW DPIE. Both the EIS and feedback provided during the Exhibition process will assist the consent authority to make an informed decision on the merits of the Project.

For more information, visit www.re-group.com/mtpiperenergyrecovery If you'd like to keep track of the process, or make a comment or submission on the proposal, go to www.planningportal.nsw.gov.au/major-projects/project/11541

Got a question? Email us community@energyaustralia.com.au for ways you can get in touch with us.

