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# Loy Yang B Turbine Retrofit Project

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ENGIE in Australia is proposing to implement a Turbine Retrofit project at its Loy Yang B Power station through the retrofit of existing turbines with a higher efficiency design.

The proposal would see a retrofit of the Loy Yang B's Unit 2 turbine during the planned 2019 Major Outage and the Loy Yang B's Unit 1 turbine during the planned 2020 Major Outage.

The retrofit would increase generating capacity, with improved efficiency and

result in a reduction in greenhouse emissions intensity on a tonnes of CO<sub>2</sub> per MWh basis.

The increased generating capacity would result in an increase in coal usage and emissions during any period where that increased capacity was dispatched. However, an environmental assessment undertaken by an independent expert indicates that these additional emissions will fall within Loy Yang B's existing EPA accredited licence.

There are two components to the potential project:

- Turbine retrofits - replacement of the High Pressure, Intermediate Pressure and Low Pressure turbines, including HP & IP inner casings and connection points.
- Balance of plant modifications - modifications to the Boiler Feedwater Pumps, Cooling Water Pumps and Induced Draft Fans.





Significant work has gone into the turbine blade design to improve turbine efficiency, resulting in a reduction in greenhouse intensity (on a tonnes of CO<sub>2</sub> per MWh basis).

ESTIMATED NET <b>THERMAL</b> EFFICIENCY IMPROVEMENT	ESTIMATED POWER INCREASE ON TOP OF CURRENT 1026MW - TURBINE CAPACITY (CORRECTED)
4.8%	114MW

Approval from the Victorian Environment Protection Authority (EPA) is being sought for the project through a Works Approval application. As part of the approval process, Loy Yang B is committed to ensuring the community is well informed.

A range of engagement methods have been implemented to ensure all stakeholders and interested community members have the opportunity to ask questions and learn more about the project. Feedback from the community is encouraged.

The project would equate to a significant investment of tens of millions of dollars at the Loy Yang B site, supporting and maintaining local employment.

