

SUBMITTER No.	1840	ISSUE REFERENCE:	12023
SUBMITTER TYPE	Council	TOR CATEGORY	Climate & Climate Change Adaptation
NAME	Barcaldine Regional Council	RELEVANT EIS SECTION	3.1.14.3

DETAILS OF THE ISSUE

- What are the specific improvements in energy efficiency referred to in the last paragraph on page 44?
- How can the fugitive methane gas emissions be reduced?
- How can the diesel consumption be reduced?
- Will the mining contractor be required to achieve a reduction?

PROPONENT RESPONSE

What are the specific improvements in energy efficiency referred to in the last paragraph on page 44?

Ongoing improvements in energy efficiency are expected to achieve the greatest emissions reductions for non-gassy coal mines (ACARP, 2001¹). It is expected that Waratah Coal will be a participant in the Energy Efficiency Opportunities Program, and will be required to conduct ongoing assessments of energy efficiency, and energy efficiency opportunities.

Areas where energy efficiency improvements can be made, as identified by the Australian Coal Association Research Program (ACARP), and their priority in terms of potential greenhouse gas emission reductions can be seen in Table 1: Energy Efficiency Strategies.

Table 1: Energy Efficiency Strategies

CLASSIFICATION	DETAILS	PRIORITY	
		Open-cut	Underground
Energy management	Annual energy audits	High	High
	Implementation of an energy management program	High	High
Energy projects	Implement a computerised energy management system to measure and monitor energy usage	High	High
	Bathroom hot water systems with high efficiency, such as using gas heating as opposed to electric	High	High
	High efficiency electric motors for all equipment	High	High
	Ventilation systems – use air compressors with high efficiency (e.g. with variable speed drives)	N/A	High
	Minimising diesel fuel usage by haulage vehicles by minimising haul distances and optimising haul schedule to reduce idling time	Medium	Medium
	Minimise requirement of lighting systems	Medium	Medium
	Optimisation of face shovel and dragline performance to minimise rehandle	High	N/A
Mining process	Blast management to ensure that rehandle is minimised	High	Low

Adapted from Table 11: *Energy efficiency strategies for the coal mining industry*, ACARP, 2001.

¹ ACARP (2001) *Measuring and Reporting Greenhouse Gas Emissions*, CSIRO Exploration & Mining for Australian Coal Association Research Program.

How can the fugitive methane gas emissions be reduced?

Destruction of methane vented from the Galilee Coal Project’s underground mines is done, by converting it to carbon dioxide which will reduce underground fugitive emissions by a factor of 21 (as the global warming potential (GWP) of methane is 21 times greater than carbon dioxide).

Methane mitigation is identified by ACARP as having the greatest potential for greenhouse gas emission reductions for gassy underground mines. Based on gas composition sampling it is not expected that the Galilee Coal Project’s underground mines will produce significant methane emissions. Determining whether the destruction of methane will be a beneficial emissions mitigation method will be best assessed when the underground mines are operational, and actual methane emission rates are known.

How can diesel consumption be reduced?

Diesel consumption can be reduced by maintaining the vehicle fleet, minimising haul distances and optimising haul schedules to reduce idling times.

Will the mining contractor be required to achieve a reduction?

Emissions from mining contractors will be considered under the Energy Efficiency Opportunities Program.

SUBMITTER No.	417	ISSUE REFERENCE:	12024
SUBMITTER TYPE	Council	TOR CATEGORY	Climate & Climate Change Adaptation
NAME	Isaac Regional Council	RELEVANT EIS SECTION	

DETAILS OF THE ISSUE

The EIS should clearly detail the cumulative effect of Greenhouse Gas production of the FIFO and DIDO operational methodology of work force residency for the project and commit to mitigation strategies that are locally based and implemented.

PROPONENT RESPONSE

Greenhouse gas emissions from FIFO were assessed in the EIS to be 23,600 tonnes CO₂-e per annum (1.7% of total Scope 1 emissions).

Emissions from drive-in-drive-out (DIDO) workers are considered to be Scope 3 emissions as the emissions are not under the direct control of Waratah Coal. Scope 3 emissions were not required to be assessed under Queensland Government Coordinator-General’s Terms of Reference (ToR) for the project.

SUBMITTER No.	364	ISSUE REFERENCE:	12025
SUBMITTER TYPE	Government	TOR CATEGORY	Climate & Climate Change Adaptation / Air Quality
NAME	DEEDI (Fisheries Qld)	RELEVANT EIS SECTION	Vol 2 Chap 10; 10.2.3.1

DETAILS OF THE ISSUE

Weather data – The lack of even one weather station on-site to provide base-line data on wind speed, rainfall behaviour and evaporation that affect dust generation and potential to establish rehabilitation is questioned.

Submitter suggests that collection of basic climatic data to inform future decision making in relation to rehabilitation planning should commence.

PROPONENT RESPONSE

A weather station has been installed and commenced collecting data on the 27th April 2012. The following data is collected by the weather station:

- Daily rainfall
- Continuous wind speed, wind gust and direction
- Continuous temperature
- Continuous relative humidity
- Continuous solar radiation, and
- Continuous barometric pressure.

Evaporation rates are also monitored, parametrically using an Envirodata FA056 Evaporation Calculation (EV30). Using this monitor, evaporation rates are calculated using monitored relative humidity, air temperature, wind speed and solar radiation. Evaporation rates will be used to inform the daily road watering requirements to control emissions from haul roads.

The weather station is currently located approximately 1km south south-east from the sensitive receptor “Kia Ora”.

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