

PUBLIC REPORT TEMPLATE 2011

Please note that this template has been updated based on feedback from a number of Corporations during the recent review of regulations. It is not compulsory for you to use this Public Report template. You may wish to continue to use the previous template, or you may report in another format of your choice. Either is acceptable provided you report all the information required by the EEO Act and Regulations.

There is an explanatory document at pages 5-14 of this template that fully explains how to complete it. There is also some targeted guidance on the template itself.

Part 1 - Corporation Details

Controlling Corporation

Period to which this report relates

Insert the name of the Controlling Corporation exactly as it is registered with the EEO Program. The period to which the report relates is the total period of participation up to 30 June prior to when the report is due.

BM Alliance Coal Operations Pty Ltd

From

1 July 2009

To

30 June 2011

Table 1.1 - Major Changes to Corporate Group Structure or Operations

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Table 1.2 – Aggregate energy assessed covered in this report

Total energy use covered by all assessments in this report	4,485,000	GJ
Total energy assessed as percentage of total energy use of the corporate group**	24	%

* If this report covers only part of the corporate group, then the percentage should be computed on the total energy use for that part of the group covered in this report

Please note that corporations are required to assess 80% or more of their energy use in the first five-year assessment cycle and 90% or more in subsequent five-year assessment cycles. Accordingly, for those corporations with a 2005-06 trigger year (i.e. those corporations at the end of their first-five year assessment cycle), the value in "Percentage of corporation's energy use assessed" above, must be more than 80%.



Declaration

Declaration of accuracy and compliance

The information included in this report has been reviewed and noted by the board of directors and is to the best of my knowledge, correct and in accordance with the *Energy Efficiency Opportunities Act 2006* and *Energy Efficiency Opportunities Regulations 2006*.

Stephen Dumble
CEO and Asset President

Date 23/12/11

Part 2 - Assessment Outcomes

Table 2.1 – Assessment Details

It is compulsory to complete a separate table for each group member, business unit, or key activity that has been assessed

Name of group member or business unit or key activity

Goonyella Broadmeadow Mine

Total energy use in the last financial year

4,815,000

GJ

Energy use assessed in this entity as a percentage of total entity energy use*

93

%

Energy use assessed in this entity as a percentage of total corporate energy use

24

%

Accuracy of above estimates related to energy use assessed - only required if not $\pm 5\%$ or better

%

Period over which assessment was undertaken

01/10./2010

31/12/2011

Description of the way in which the entity carried out its assessment

The assessment was done in two main stages:

1. BMA Group

- Business-wide assessment of GHG abatement activities, including projects to reduce energy intensity (GJ per tonne of coal produced).
- Opportunity identification workshops by key activity (open cut mining, underground mining, coal processing & port handling).
- Cross-functional think-tank formed to oversee project evaluation according to key criteria set by senior management.
- Study findings and short-list of projects recommended to senior management.
- BMA GHG abatement target adopted, based on agreed projects, and measurement & verification plan developed.

2. Goonyella Broadmeadow Mine (first site in BMA's assessment schedule)

- Site-specific EEO workshops to drill down further than the asset-wide identification process:
 - Front-loaded by asset-level assessment.
 - Guided also by analysis of the site's energy use by (i) key sub-activity (eg. overburden stripping, coal mining, coal handling & processing), and (ii) equipment type (eg. draglines, excavators, dump trucks, dozers, loaders, coal handling & processing plant).
 - Opportunities ranked by selection criteria set by senior management and short-listed for evaluation.



- Short-listed opportunities modelled:
 - Purpose built model based on the mine's Life of Asset plan.
 - Estimated reductions in energy intensity compared to baseline and value (NPV, payback period).
 - Concept-level analysis ($\pm 30\%$ or better where feasible given available information)
- Decision-making
 - Modelling results reported back to site/validated.
 - Assessment outcomes/recommendations to senior management.

* Please note that, for individual sites that use more than 0.5PJ of energy, all energy use must be assessed (less a small proportion for non integral energy use).

Table 2.2 - Energy efficiency opportunities identified in the assessment

It is compulsory to complete a separate table for each group member, business unit, or key activity that has been assessed

Table 2.2 – Energy efficiency opportunities identified in the assessment

Status of opportunities identified to an accuracy of better than or equal to ±30%		Total Number of opportunities	Estimated energy savings per annum by payback period (GJ)						Total estimated energy savings per annum (GJ)
			0 – < 2 years		2 – ≤ 4 years		> 4 years		
			No of Opps	GJ	No of Opps	GJ	No of Opps	GJ	
Business Response	Implemented	1	1	28,270					28,270
	Implementation Commenced	1	1	105,500					105,500
	To be Implemented	1			1	81,560			81,560
	Under Investigation	2	1	33,350	1	59,210			92,560
	Not to be Implemented								
Outcomes of assessment	Total Identified	5	3	167,120	2	140,770			307,890
Status of opportunities identified to an accuracy of worse than ±30%									
Business Response	Implemented								
	Implementation Commenced								
	To be Implemented								
	Under Investigation	1			1	179,360			179,360
	Not to be Implemented								
Outcomes of assessment	Total Identified	1			1	179,360			179,360

Please note that Corporate Groups **are not required** to report opportunities with a payback greater than 4 years. Reporting this data is voluntary.

Table 2.3 - Details of significant opportunities identified in the assessment

Corporate Groups are required to provide at least 3 examples of significant opportunities for improving the energy efficiency of the group that have been identified in assessments.

Description of Opportunity	Voluntary Information	
<p>Upgrading the flotation circuits at each of the mine's coal processing plants, to the latest design of Jameson Cell, to restore fines circuit recovery to benchmark performance levels and improve overall plant yield. Cell monitoring, control and automation will also be upgraded to current best practice.</p> <p>The increase in yield will result in less plant feed per tonne of product coal, with a corresponding reduction in the amount of overburden stripping, coal mining and handling required to deliver planned coal production.</p> <p>The reduction in activity will be reflected in lower diesel use by excavators, dozers, trucks and loaders per tonne of product coal than otherwise; also fewer fugitive greenhouse emissions associated with coal mining.</p>	Business Response	Implementation commenced
	Energy saved (GJ)	105,500 pa
	Greenhouse gas abated (tCO2-e)	12,840 pa
	Payback period	2 yr
<p>The current spirals-based circuit for reprocessing of flotation tailings at one the mine's coal processing plants is sub-optimal. Replacing the spirals with a state-of-the-art fluidised bed separator (Reflux Classifier) to scavenge fines tailings will provide a more effective solution, and improve overall plant yield.</p> <p>The energy and greenhouse intensity benefits are similar in nature to those described above.</p>	Business Response	To be implemented
	Energy saved (GJ)	81,560 pa
	Greenhouse gas abated (tCO2-e)	9,880 pa
	Payback period	3 yr
<p>The implementation of a real-time payload monitoring information system for two electric mining shovels at the mine should enable operators to optimise the payloads of haul trucks being fed by the shovels (increased mean payload and lower payload distribution). This will reduce the number of truck-loads of overburden required to be moved to expose a given quantity of in-situ coal, and hence the diesel used in the trucks (i.e. improved fuel efficiency in litres/bcm).</p>	Business Response	Implemented
	Energy saved (GJ)	28,270 pa
	Greenhouse gas abated (tCO2-e)	1,970 pa
	Payback period	1 yr

Please note that the "Description of the Opportunity" above should include information on the specific nature and type of opportunity, as well as information on the type of equipment and/or process involved.