Australian Government
Department of Resources, Energy and Tourism

Energy Efficiency Opportunities

FIRST PUBLIC REPORT

Controlling Corporation BHP Billiton Limited

Period to which this report relates

(See sub-section 22(2) of the Act and Regulation 7.1 of the *Energy Efficiency Opportunities Regulations (the Regulations) 2006*)

Start July 2006 **End** December 2007

Part 1 - Summary of assessments conducted thus far

Table 1.1 - Description of the way in which the corporation has carried out its assessments and over what period was each assessment taken. A statement saying that the intent and key requirements of the Energy Efficiency Opportunities legislation have been met must be made.

BHP Billiton EEO Assessment Process

BHP Billiton has used an internal program referred to as the Energy Excellence (EEx) program to meet the intent and key requirements of Energy Efficiency Opportunities (EEO) legislation. The overall objective of the EEx program is to identify initiatives and implement processes that ensure energy efficiency and energy source substitution opportunities are integrated into the business. EEx provides a framework for sites to evaluate energy savings opportunities in a manner consistent with EEO while retaining the flexibility to develop projects which can be fully integrated into the individual operations and business culture.

The EEx process requires a compilation of energy baseline data followed by opportunity identification. Opportunities identified are then selected on the basis of cost and benefit for review by management. The result of the management review is a set of energy opportunity projects which are carried forward in the business planning cycle.

Specifically the EEx framework consists of an energy assessment program which includes:

- Energy management evaluation,
- Baseline data collection and analysis,
- Opportunities raising,
- Preliminary assessment of opportunities,
- Ranking and screening of opportunities,
- Management review, and
- Implementation of energy excellence projects.

BHP Billiton EEO Reporting Entities

Figure 1 shows the organisation of BHP Billiton Australian entities and their reporting status under the EEO regulations. Generally, discrete locations are referred to as sites. Some sites form combined groups referred to as businesses. All sites and businesses are categorised into Customer Sector Groups (CSGs) according their main product type.

As shown in Figure 1, the following entities did not meet the reporting threshold specified in the EEO legislation and have therefore been excluded from this report:

- Hay Point site, Illawarra Coal business – sites did not individually meet EEO facility thresholds and were not included in the 80 per cent coverage requirement for the corporation. The combined energy use for these sites is in the order of 2000 TJ,
- Poitrel, Stybarrow and Pyrenees sites – projects in development did not individually meet EEO facility thresholds and were not included in the 80 per cent coverage requirement for the corporation, and
- North West Shelf Domestic Gas and LNG Export, Bass Strait – assessed by JV partner.

BHP Billiton EEO Reporting Period and Results

Energy baseline data from the period July 2006 to June 2007 is reported by site. Energy data for this period was also reported in BHP Billiton's Fiscal Year 2007 Sustainability Report. The data in this report and the data in the Sustainability Report may vary for some sites and energy types due to differences between the EEO program's legislated reporting boundaries and BHP Billiton's sustainability reporting boundaries.

The assessment of energy efficiency opportunities through the EEx process generally took place between July 2006 and December 2007. A significant number of energy saving opportunities were identified through this process and many are in various stages of implementation or are undergoing further investigation. However, it is noted that BHP Billiton's energy use will to continue to grow, despite implementation of some of these opportunities, due to commissioning of new projects in the BHP Billiton growth pipeline.

For this reporting period, the number of opportunities identified for each business is categorised according to their accuracy, payback period and the business response with regard to plans for implementation. Where the accuracy of the assessments is deemed to be good (less than or equal to ±30%) the estimated energy savings per annum is provided. Three examples of significant energy savings opportunities are provided in the final table of the report.

Figure 1:

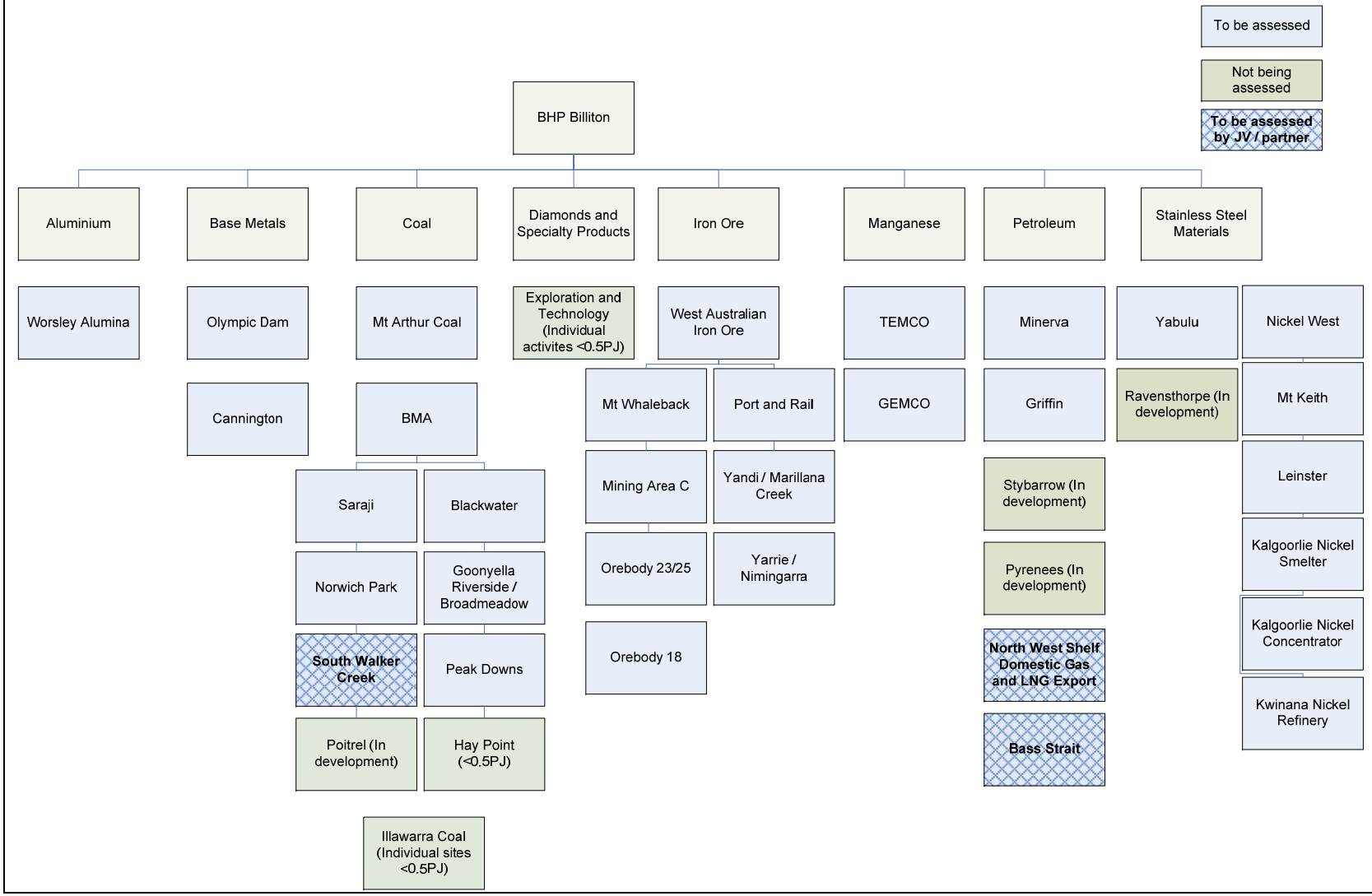

Table 1.2 - Group member/business unit/key activity/site that have been assessed	Energy use per annum in the year the assessment is completed *	Energy data accuracy (if not within ±5%) **	Reasons for not achieving data accuracy to within ±5% **
Worsley Alumina	36,600 TJ		
Olympic Dam	4280 TJ		
Cannington	2480 TJ		
Goonyella Riverside Broadmeadows – BMA	4370 TJ		
Peak Downs – BMA	2900 TJ		
Saraji – BMA	2710 TJ		
Blackwater – BMA	3300 TJ		
Gregory Crinum – BMA	1320 TJ		
Norwich Park – BMA	1880 TJ		
Mt Arthur Coal	2730 TJ		
Port & Rail – WAIO	3520 TJ		
Mt Whaleback – WAIO	2980 TJ		
Area C – WAIO	1330 TJ		
Marillana Creek (Yandi) – WAIO	1210 TJ		
Ore Body 18 – WAIO	622 TJ		
Ore Body 23/25 – WAIO	426 TJ		
Yarrie / Nimingarra – WAIO	258 TJ		
Groote Eylandt Mining Company – GEMCO	959 TJ		
Tasmanian Electro Metallurgical Company – TEMCO	3350 TJ		
Kalgoorlie Smelter (KNS) – Nickel West	4690 TJ		
Kambalda Concentrator (KNC) – Nickel West	1000 TJ		
Kwinana Refinery (KNR) – Nickel West	4390 TJ		
Leinster Operations (LNO) – Nickel West	2250 TJ		
Mt Keith Operations (MKO) – Nickel West	6710 TJ		
Yabulu	17,600 TJ		
Griffin Venture – Petroleum	765 TJ		
Minerva – Petroleum	449 TJ		
Total	**115,000 TJ**		
Total as a percentage of total energy use of the group covered by this report	**100%**		

BHP Billiton note: Differences between total and individual energy uses are due to rounding.

* Energy Bandwidth may only be used if approved in the Assessment and Reporting Schedule
** Data accuracy not within ± 5% can only be included if approved in the Assessment and Reporting Schedule

Part 2 - Outcomes of and business response to opportunities that have been identified and evaluated for each group member, business unit, key activity or site assessed

(See paragraphs 3-6 of Schedule 4 and Schedule 6 of the Regulations)

Group member/business unit/key activity/site >0.5 PJ name:_____Worsley Alumina_____

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	37	5630	384	6010
	Identified (accuracy > ±30%)	-	-	-	-
	*Total Identified	37			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	13	1340	-	1340
	(accuracy > ±30%)	-	-	-	-
	To be Implemented				
	(accuracy ≤ ±30%)	4	1050	-	1050
	(accuracy > ±30%)	-	-	-	-
	Implementation Commenced				
	(accuracy ≤ ±30%)	11	3230	-	3230
	(accuracy > ±30%)	-	-	-	-
	Implemented				
	(accuracy ≤ ±30%)	9	11.0	384	395
	(accuracy > ±30%)	-	-	-	-
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-

BHP Billiton note: Differences between total and individual energy savings are due to rounding.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name:_____Olympic Dam_____

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	-	-	-	-
	Identified (accuracy > ±30%)	112	V-NA	V-NA	V-NA
	*Total Identified	112			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	72	V-NA	V-NA	V-NA
	To be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	10	V-NA	V-NA	V-NA
	Implementation Commenced				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	2	V-NA	V-NA	V-NA
	Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	9	V-NA	V-NA	V-NA
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	19	V-NA	V-NA	V-NA

BHP Billiton note: V-NA indicates voluntary information – Not Available.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name:_____Cannington_____

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	4	331	45.0	376
	Identified (accuracy > ±30%)	33	V-NA	V-NA	V-NA
	*Total Identified	37			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	To be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Implementation Commenced				
	(accuracy ≤ ±30%)	2	330	45.0	375
	(accuracy > ±30%)	-	-	-	-
	Implemented				
	(accuracy ≤ ±30%)	2	0.64	-	0.64
	(accuracy > ±30%)	-	-	-	-
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	33	V-NA	V-NA	V-NA

BHP Billiton note: V-NA indicates voluntary information – Not Available.
BHP Billiton note: Differences between total and individual energy savings are due to rounding.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name: BHP Billiton Mitsubishi Alliance – BMA

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	2	-	26.0	26.0
	Identified (accuracy > ±30%)	16	V-NA	V-NA	V-NA
	*Total Identified	18			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	1	-	16.0	16.0
	(accuracy > ±30%)	13	V-NA	V-NA	V-NA
	To be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Implementation Commenced				
	(accuracy ≤ ±30%)	1	-	10.0	10.0
	(accuracy > ±30%)	-	-	-	-
	Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	3	V-NA	V-NA	V-NA

BHP Billiton note: V-NA indicates voluntary information – Not Available.
BHP Billiton note: Differences between total and individual energy savings are due to rounding.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name: Mt Arthur Coal

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	6	46.0	-	46.0
	Identified (accuracy > ±30%)	52	V-NA	V-NA	V-NA
	*Total Identified	58			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	41	V-NA	V-NA	V-NA
	To be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Implementation Commenced				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Implemented				
	(accuracy ≤ ±30%)	6	46.0	-	46.0
	(accuracy > ±30%)	-	-	-	-
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	11	V-NA	V-NA	V-NA

BHP Billiton note: V-NA indicates voluntary information – Not Available.
BHP Billiton note: Differences between total and individual energy savings are due to rounding.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name: Western Australia Iron Ore – WAIO

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	15	322	5.89	327
	Identified (accuracy > ±30%)	13	V-NA	V-NA	V-NA
	*Total Identified	28			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	13	290	5.71	296
	(accuracy > ±30%)	13	V-NA	V-NA	V-NA
	To be Implemented				
	(accuracy ≤ ±30%)	2	30.9	0.18	31.1
	(accuracy > ±30%)	-	-	-	-
	Implementation Commenced				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-

BHP Billiton note: V-NA indicates voluntary information – Not Available.
BHP Billiton note: Differences between total and individual energy savings are due to rounding.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name: Groote Eylandt Mining Company – GEMCO

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	4	13.5	-	13.5
	Identified (accuracy > ±30%)	15	V-NA	V-NA	V-NA
	*Total Identified	19			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	6	V-NA	V-NA	V-NA
	To be Implemented				
	(accuracy ≤ ±30%)	2	6.12	-	6.12
	(accuracy > ±30%)	6	V-NA	V-NA	V-NA
	Implementation Commenced				
	(accuracy ≤ ±30%)	2	7.41	-	7.41
	(accuracy > ±30%)	2	V-NA	V-NA	V-NA
	Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	1	V-NA	V-NA	V-NA

BHP Billiton note: V-NA indicates voluntary information – Not Available.
BHP Billiton note: Differences between total and individual energy savings are due to rounding.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name: Tasmanian Electro Metallurgical Company – TEMCO

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	4	60.2	-	60.2
	Identified (accuracy > ±30%)	8	V-NA	V-NA	V-NA
	*Total Identified	12			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	8	V-NA	V-NA	V-NA
	To be Implemented				
	(accuracy ≤ ±30%)	1	7.11	-	7.11
	(accuracy > ±30%)	-	-	-	-
	Implementation Commenced				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Implemented				
	(accuracy ≤ ±30%)	3	53.1	-	53.1
	(accuracy > ±30%)	-	-	-	-
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-

BHP Billiton note: V-NA indicates voluntary information – Not Available.
BHP Billiton note: Differences between total and individual energy savings are due to rounding.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name:_____Nickel West_____

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	34	547	7.53	555
	Identified (accuracy > ±30%)	56	V-NA	V-NA	V-NA
	*Total Identified	90			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	52	V-NA	V-NA	V-NA
	To be Implemented				
	(accuracy ≤ ±30%)	16	254	-	254
	(accuracy > ±30%)	-	-	-	-
	Implementation Commenced				
	(accuracy ≤ ±30%)	8	39.4	7.53	46.9
	(accuracy > ±30%)	-	-	-	-
	Implemented				
	(accuracy ≤ ±30%)	10	254	-	254
	(accuracy > ±30%)	-	-	-	-
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	4	V-NA	V-NA	V-NA

BHP Billiton note: V-NA indicates voluntary information – Not Available.
BHP Billiton note: Differences between total and individual energy savings are due to rounding.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name: Yabulu

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	-	-	-	-
	Identified (accuracy > ±30%)	27	V-NA	V-NA	V-NA
	*Total Identified	27			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	8	V-NA	V-NA	V-NA
	To be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	4	V-NA	V-NA	V-NA
	Implementation Commenced				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	2	V-NA	V-NA	V-NA
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	13	V-NA	V-NA	V-NA

BHP Billiton note: V-NA indicates voluntary information – Not Available.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name: Petroleum – Griffin Venture

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	-	-	-	-
	Identified (accuracy > ±30%)	2	V-NA	V-NA	V-NA
	*Total Identified	2			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	2	V-NA	V-NA	V-NA
	To be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Implementation Commenced				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-

BHP Billiton note: V-NA indicates voluntary information – Not Available.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Group member/business unit/key activity/site >0.5 PJ name:_____Petroleum – Minerva_____

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (TJ)		Total estimated energy savings per annum (TJ)
			0 – < 2 years	2 – ≤ 4 years	
Outcomes of assessment	Identified (accuracy ≤ ±30%)	-	-	-	-
	Identified (accuracy > ±30%)	7	V-NA	V-NA	V-NA
	*Total Identified	7			
**Business Response	Under Investigation				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-
	To be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	4	V-NA	V-NA	V-NA
	Implementation Commenced				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	1	V-NA	V-NA	V-NA
	Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	2	V-NA	V-NA	V-NA
	Not to be Implemented				
	(accuracy ≤ ±30%)	-	-	-	-
	(accuracy > ±30%)	-	-	-	-

BHP Billiton note: V-NA indicates voluntary information – Not Available.

*You must ensure that this row is the sum of the two rows above it.
** The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

Note: An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

Details of at least three significant opportunities found through EEO assessments

(See paragraph 7 of Schedule 4 of the Regulations)

Details must include a brief description of the opportunity and may optionally include details of the costs of implementation, energy/dollar savings and any other benefits (such as greenhouse reductions).

BHP Billiton note: The following table outlines opportunities identified through the EEO process which have a payback of four years or less. Savings outlined may not be directly reflected as energy use reduction in subsequent years due to changes in operation such as expansion projects.

Table 1.4 **Steam dump valve replacement – Nickel West**
Status: Implemented **Area:** Power Station The Kalgoorlie Nickel Smelter (KNS) generates part of its electrical load by two steam turbine generators from steam raised from the smelting off gasses. It was identified that two steam dump valves used to by-pass the steam turbine generators and dump directly into the air cooled condensers were leaking large quantities of steam in their normally closed position. As a result this was reducing the amount of steam available for electrical generation. It has been calculated that savings of approximately 54 TJ can be realised annually.
Alloy recovery from launder sands – TEMCO
Status: Implemented **Area:** Smelter This project involves the recovery of alloy from waste sands. The sands are used in the process where alloy is removed from the furnaces. Recovering alloy from the sands has resulted in an energy saving of 37.7 TJ.
Lighting plants auto shutoff – Mt Arthur Coal
Status: Implemented **Area:** Production During the opportunities workshop at Mt Arthur Coal, an opportunity was identified to install automatic shutoff devices on all in pit lighting plants with the potential to reduce fuel usage during times of sufficient natural light. Installation of automatic shutoff devices on lighting plants was estimated to save nine hours of running time per day. This equates to an annual energy savings of approximately 17 TJ. Additional benefits included reduced maintenance and replacement costs. Monitoring of the effectiveness of the devices is undertaken during a routine monthly maintenance inspection.

Part 3 - Voluntary Contextual Information

Reporting corporations may supply additional information that provides more context to the public report. Such information may include:

Voluntary information not available for this reporting period.

Part 4 - Declaration

(See paragraph 8 of Schedule 4 of the Regulations and paragraph 22(4)(c) of the Act)

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*.	 Chair of the Board of Directors/CEO/Managing Director/equivalent officer (state position)