FY2013 BHP BILLITON EEO PUBLIC REPORT

Part 1 - Corporation Details

Controlling Corporation

Insert the name of the Controlling Corporation exactly as it is registered with the EEO Program.

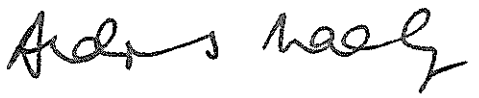
BHP Billiton Limited

This report also covers the controlling corporations separately registered but part of the BHP Billiton Group being BHP Billiton Energy Coal Australia Pty Ltd, Billiton Manganese Australia Pty Ltd, and Billiton Aluminium Australia Pty Ltd.

Table 1.1 - Major Changes to Corporate Group Structure or Operations

Table 1.1 – Major Changes to Corporate Group Structure or Operations in the last 12 months
There have been no major changes to the corporate group structure or operations in the last 12 months.

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.*	 **Andrew Mackenzie, CEO** **Date** 19 · 11 · 2013

Part 2 - Assessment Outcomes

Assessment Details – Hunter Valley Energy Coal

It is compulsory to complete a separate table for each entity* that has been assessed

Name of entity	Hunter Valley Energy Coal (HVEC)

Total energy use in the last financial year	6,020,401	GJ
Total percentage of energy use assessed when assessments were undertaken	100	%

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

Energy efficiency opportunities were identified during an on-site workshop involving personnel from various departments representing a wide spectrum of skills and knowledge. Opportunities identified in the workshop were prioritised against appropriate business contextual information and project charters developed for high priority projects. Specialist consultants are engaged to support with EEO implementation including initial data collection and analysis, assessment, and establishment of management systems and reporting. EEO opportunities are assigned to a project owner and their progress is tracked in the form of a project tracker. The project tracker is updated on an annual basis and signed off by the site's leadership. The outcomes of the EEO process are incorporated by the General Manager into existing business planning processes.

* Entity is group member, business unit, or key activity. Please note that, for individual sites that use more that 0.5PJ of energy, all energy use must be assessed (less a small proportion for non integral energy use).

Energy efficiency opportunities identified in the assessment – Hunter Valley Energy Coal

It is compulsory to complete a separate table for each entity that has been assessed

Status of opportunities identified and evaluated 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	Under Investigation	1	1	358	-	-	-	-	358
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	2	1	63	1	8,831	-	-	8,894
	Implemented	2	2	53,697	-	-	-	-	53,697
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	5	4	54,118	1	8,831	-	-	62,949
Status of opportunities identified and evaluated to an accuracy greater than ±30%									
Business Response	Under Investigation	7	6	V-N/A	1	V-N/A	-	-	V-N/A
	To be Implemented	1	1	V-N/A	-	-	-	-	V-N/A
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	8	7	V-N/A	1	V-N/A	-	-	V-N/A

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

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

Assessment Details – Kwinana Refinery

It is compulsory to complete a separate table for each entity* that has been assessed

Name of entity	Kwinana Refinery (KNR) – Nickel West

Total energy use in the last financial year	3,972,198	GJ
Total percentage of energy use assessed when assessments were undertaken	100	%

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

After analysis of site energy data, energy efficiency opportunities were identified in routine business improvement meetings involving personnel from various departments. The opportunities identified were prioritised against internal business criteria and project charters were developed for projects considered as high priority. The Energy Steering Committee provided a review process of the EEO activities at each facility ensuring consistency in approach and sharing of learnings between facilities.

* Entity is group member, business unit, or key activity. Please note that, for individual sites that use more that 0.5PJ of energy, all energy use must be assessed (less a small proportion for non integral energy use).

Energy efficiency opportunities identified in the assessment – Kwinana Refinery

It is compulsory to complete a separate table for each entity that has been assessed

Status of opportunities identified and evaluated 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	Under Investigation	1	1	134,816	-	-	-	-	134,816
	To be Implemented	-	-	-	-	-	-	-	0
	Implementation Commenced	-	-	-	-	-	-	-	0
	Implemented	-	-	-	-	-	-	-	0
	Not to be Implemented	1	-	-	1	2,435	-	-	2,435
Outcomes of assessment	Total Identified	2	1	134,816	1	2,435	-	-	137,251
Status of opportunities identified and evaluated to an accuracy greater than ±30%									
Business Response	Under Investigation	-	-	-	-	-	-	-	-
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	-	-	-	-	-	-	-	-

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

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

Assessment Details – Leinster Operations

It is compulsory to complete a separate table for each entity* that has been assessed

Name of entity	Leinster Operations (LNO) – Nickel West

Total energy use in the last financial year	1,131,548	GJ
Total percentage of energy use assessed when assessments were undertaken	100	%

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

After analysis of site energy data, energy efficiency opportunities were identified in a workshop involving personnel from various departments. The opportunities identified were prioritised against internal business criteria. The Energy Steering Committee provided a review process of the EEO activities at each facility ensuring consistency in approach and sharing of learnings between facilities.

* Entity is group member, business unit, or key activity. Please note that, for individual sites that use more that 0.5PJ of energy, all energy use must be assessed (less a small proportion for non integral energy use).

Energy efficiency opportunities identified in the assessment – Leinster Operations

It is compulsory to complete a separate table for each entity that has been assessed

Status of opportunities identified and evaluated 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	Under Investigation	-	-	-	-	-	-	-	-
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	-	-	-	-	-	-	-	-
Status of opportunities identified and evaluated to an accuracy greater than ±30%									
Business Response	Under Investigation	6	6	V-N/A	-	-	-	-	V-N/A
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	3	1	V-N/A	2	V-N/A	-	-	V-N/A
Outcomes of assessment	Total Identified	9	7	V-N/A	2	V-N/A	-	-	V-N/A

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

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

Assessment Details – Olympic Dam

It is compulsory to complete a separate table for each entity* that has been assessed

Name of entity	Olympic Dam

Total energy use in the last financial year	5,933,397	GJ
Total percentage of energy use assessed when assessments were undertaken	100	%

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

A site-wide Energy Mass Balance (EMB) project and a site business review was completed in 2012. Energy efficiency opportunities were identified by involving personnel from various departments, and external specialists, representing relevant skills and knowledge. Project owners have been assigned to each opportunity and the outcomes of the EEO process were incorporated by the site's General Managers into existing business planning processes.

* Entity is group member, business unit, or key activity. Please note that, for individual sites that use more that 0.5PJ of energy, all energy use must be assessed (less a small proportion for non integral energy use).

Energy efficiency opportunities identified in the assessment – Olympic Dam

It is compulsory to complete a separate table for each entity that has been assessed

Status of opportunities identified and evaluated 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	Under Investigation	1	1	21,671	-	-	-	-	21,671
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	1	1	360	-	-	-	-	360
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	2	2	22,031	-	-	-	-	22,031
Status of opportunities identified and evaluated to an accuracy greater than ±30%									
Business Response	Under Investigation	-	-	-	-	-	-	-	-
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	-	-	-	-	-	-	-	-

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

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

Assessment Details – Pyrenees

It is compulsory to complete a separate table for each entity* that has been assessed

Name of entity	Petroleum – Pyrenees

Total energy use in the last financial year	3,866,038	GJ
Total percentage of energy use assessed when assessments were undertaken	100	%

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

An EEO Champion was responsible for coordinating activities to meet the assessment requirements for Pyrenees. An energy baseline and associated analysis was prepared prior to opportunity identification workshops being held with a cross-section of Facility, Operations and Engineering personnel. Opportunities identified were screened to determine overall viability prior to undertaking more detailed evaluation.

* Entity is group member, business unit, or key activity. Please note that, for individual sites that use more that 0.5PJ of energy, all energy use must be assessed (less a small proportion for non integral energy use).

Energy efficiency opportunities identified in the assessment – Pyrenees

It is compulsory to complete a separate table for each entity that has been assessed

Status of opportunities identified and evaluated 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	Under Investigation	-	-	-	-	-	-	-	-
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	-	-	-	-	-	-	-	-
Status of opportunities identified and evaluated to an accuracy greater than ±30%									
Business Response	Under Investigation	5	4	V-N/A	1	V-N/A	-	-	V-N/A
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	1	1	V-N/A	-	-	-	-	V-N/A
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	6	5	V-N/A	1	V-N/A	-	-	V-N/A

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

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

Assessment Details – TEMCO

It is compulsory to complete a separate table for each entity* that has been assessed

Name of entity	Manganese Australia – TEMCO

Total energy use in the last financial year	7,198,566	GJ
Total percentage of energy use assessed when assessments were undertaken	100	%

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

Energy efficiency opportunities were identified by involving personnel from various departments representing a wide spectrum of skills and knowledge. Opportunities were identified in a workshop and prioritised against business criteria. As required, specialist consultants are engaged to support with EEO implementation including developing energy mass balances and undertaking energy efficiency assessments. EEO projects were assigned to project owners and their progress is tracked in the form of a project tracker. The project tracker is updated on an annual basis and reviewed, with updates signed off by the leadership. The outcomes of the EEO process are incorporated into existing business planning processes.

* Entity is group member, business unit, or key activity. Please note that, for individual sites that use more that 0.5PJ of energy, all energy use must be assessed (less a small proportion for non integral energy use).

Energy efficiency opportunities identified in the assessment – TEMCO

It is compulsory to complete a separate table for each entity that has been assessed

Status of opportunities identified and evaluated 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	Under Investigation	1	-	-	1	14,040	-	-	14,040
	To be Implemented	1	1	5,184	-	-	-	-	5,184
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	2	1	5,184	1	14,040	-	-	19,224
Status of opportunities identified and evaluated to an accuracy greater than ±30%									
Business Response	Under Investigation	-	-	-	-	-	-	-	-
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	-	-	-	-	-	-	-	-

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

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

Assessment Details – WAIO Port

It is compulsory to complete a separate table for each entity* that has been assessed

Name of entity	WAIO – Port

Total energy use in the last financial year	1,294,022	GJ
Total percentage of energy use assessed when assessments were undertaken	100	%

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

WA Iron Ore understands the importance of driving efficiency through its operations in order to operate in a sustainable and cost effective manner and strives to achieve many of the EEO key requirements through its existing business systems and processes. Energy efficiency opportunities were identified and assessed by involving personnel from various departments representing a wide spectrum of skills and knowledge. Opportunities identified were prioritised and filtered by considering annual energy savings, payback period and other business criteria. EEO projects were then assigned to project owners for detailed evaluation.

* Entity is group member, business unit, or key activity. Please note that, for individual sites that use more that 0.5PJ of energy, all energy use must be assessed (less a small proportion for non integral energy use).

Energy efficiency opportunities identified in the assessment – WAIO Port

It is compulsory to complete a separate table for each entity that has been assessed

Status of opportunities identified and evaluated 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	Under Investigation	-	-	-	-	-	-	-	-
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	-	-	-	-	-	-	-	-
Status of opportunities identified and evaluated to an accuracy greater than ±30%									
Business Response	Under Investigation	-	-	-	-	-	-	-	-
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	1	-	-	1	V-N/A	-	-	V-N/A
Outcomes of assessment	Total Identified	1	-	-	1	V-N/A	-	-	V-N/A

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

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

Assessment Details – WAIO Rail

It is compulsory to complete a separate table for each entity* that has been assessed

Name of entity	WAIO – Rail

Total energy use in the last financial year	5,566,011	GJ
Total percentage of energy use assessed when assessments were undertaken	100	%

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

WA Iron Ore understands the importance of driving efficiency through its operations in order to operate in a sustainable and cost effective manner and strives to achieve many of the EEO key requirements through its existing business systems and processes. Energy efficiency opportunities were identified and assessed by involving personnel from various departments representing a wide spectrum of skills and knowledge. Opportunities identified were prioritised and filtered by considering annual energy savings, payback period and other business criteria. EEO projects were then assigned to project owners for detailed evaluation.

* Entity is group member, business unit, or key activity. Please note that, for individual sites that use more that 0.5PJ of energy, all energy use must be assessed (less a small proportion for non integral energy use).

Energy efficiency opportunities identified in the assessment – WAIO Rail

It is compulsory to complete a separate table for each entity that has been assessed

Status of opportunities identified and evaluated 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	Under Investigation	-	-	-	-	-	-	-	-
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	-	-	-	-	-	-	-	-
Status of opportunities identified and evaluated to an accuracy greater than ±30%									
Business Response	Under Investigation	3	2	V-N/A	1	V-N/A	-	-	V-N/A
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	2	2	V-N/A	-	-	-	-	V-N/A
Outcomes of assessment	Total Identified	5	4	V-N/A	1	V-N/A	-	-	V-N/A

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

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

Assessment Details – Worsley Alumina

It is compulsory to complete a separate table for each entity* that has been assessed

Name of entity	Aluminium Australia – Worsley Alumina

Total energy use in the last financial year	44,044,951	GJ
Total percentage of energy use assessed when assessments were undertaken	100	%

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

Worsley Aluminium's energy efficiency opportunities were identified by involving personnel from various departments representing a wide spectrum of skills and knowledge. Opportunities identified in Area workshops were ranked and prioritised against business criteria. EEO projects were assigned to project owners for evaluation and inclusion in a project opportunity tracker earmarked for periodic review. Site leadership provided the required sign-off for selected projects with the outcomes of the EEO processes incorporated by the General Manager into existing business planning processes

* Entity is group member, business unit, or key activity. Please note that, for individual sites that use more that 0.5PJ of energy, all energy use must be assessed (less a small proportion for non integral energy use).

Energy efficiency opportunities identified in the assessment – Worsley Alumina

It is compulsory to complete a separate table for each entity that has been assessed

Status of opportunities identified and evaluated 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	Under Investigation	-	-	-	-	-	-	-	-
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	-	-	-	-	-	-	-	-
Status of opportunities identified and evaluated to an accuracy greater than ±30%									
Business Response	Under Investigation	9	7	V-N/A	2	V-N/A	-	-	V-N/A
	To be Implemented	-	-	-	-	-	-	-	-
	Implementation Commenced	-	-	-	-	-	-	-	-
	Implemented	-	-	-	-	-	-	-	-
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	9	7	V-N/A	2	V-N/A	-	-	V-N/A

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

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.

Condensate Recovery from Hydrogen Plant – Kwinana Refinery	Voluntary Information	
Status: Under investigation **Area:** Refinery Kwinana generates steam from a boiler and from the hydrogen plant using a waste heat recovery process. Steam produced from the boiler is used across the process, however due to a condensate imbalance that destabilises the boiler, the steam generated from the hydrogen plant can't be utilised and is currently vented. Installation of a condensate recovery process to the demineralised water tank would allow for the steam generated in the hydrogen plant to be utilised and subsequently would reduce the natural gas consumption in the boiler due to a decreased steam load. Implementation of this opportunity would result in an annual energy saving of approximately 135 TJ.	Equipment Type	V-N/A
	Business Response	V-N/A
	Energy saved (GJ)	V-N/A
	Greenhouse gas abated (CO2-e)	V-N/A
	$s saved	V-N/A
	Payback period	V-N/A

Auto Engine Start Stop – WAIO Rail	Voluntary Information	
Status: Under investigation **Area:** Locomotives Automatic Engine Start Stop is a software modification which automatically and safely shuts down locomotive engines after a given period of idle time. Based on preliminary analysis this opportunity is expected to save approximately 31TJ of energy per annum. It also has the potential to improve maintenance and service life.	Equipment Type	V-N/A
	Business Response	V-N/A
	Energy saved (GJ)	V-N/A
	Greenhouse gas abated (CO2-e)	V-N/A
	$s saved	V-N/A
	Payback period	V-N/A

Internal Cooling Water (ICW) outlet temperature – Worsley Alumina	Voluntary Information	
Status: Under investigation **Area:** Area 4 In the final stages of alumina production, aluminium tri hydrate is calcined at high temperature in a fluid bed calciner to drive off its chemically combined water to form aluminium oxide. After calcining, the product is indirectly cooled using circulated water. This opportunity aims to improve heat recovery by improving the water flow control to the calciner coolers. If implemented, this opportunity has the potential to save approximately 526TJ of energy per annum by increasing the water discharge temperature of the alumina cooling stage by 4 degrees Celsius, thus improving energy recovery from the ICW system whilst still effectively cooling the product.	Equipment Type	V-N/A
	Business Response	V-N/A
	Energy saved (GJ)	V-N/A
	Greenhouse gas abated (CO2-e)	V-N/A
	$s saved	V-N/A
	Payback period	V-N/A

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

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.

Part 3 – EEO Energy Use

The following table has been added by BHP Billiton for compliance with the EEO Regulations Schedule 4 – Information in reports to the public about energy efficiency opportunities assessments (no new development or expansion)

Energy use			
Group member and/or business unit and/or key activity and/or site (or part thereof) that has had an assessment completed by 30 June 2013 (Include all assessments completed to date for the current 5 year cycle).	**Period over which the assessment was undertaken**	**Energy use in the baseline year (1.7.2010 to 30.6.2011) of the assessed entity expressed in TJ[1, 2,3]**	**Energy use for the period 1.7.2012 to 30.6.2013 of the assessed entity expressed in TJ[2,3,4]**
Aluminium Australia – Worsley Alumina	January – June 2013	35,641	44,045
NSW Energy Coal – HVEC	July – December 2012	4,088	6,020
Manganese Australia – TEMCO	January – June 2013	7,972	7,199
Olympic Dam	July – December 2012	5,511	5,933
WAIO – Rail	January – June 2013	4,889	5,566
WAIO – Port	January – June 2013	1,740	1,294
Nickel West – Kwinana Refinery	January – June 2013	2,524	3,972
Nickel West – Leinster Operations	January – June 2013	1,151	1,132
Petroleum – Pyrenees	January – June 2013	3,612	3,866
Total energy use of assessed entities (or part thereof)		**67,127**	**79,027**
Total energy use of the whole corporate group		**93,369**	**111,317**
Total energy use of assessed entities (or part thereof) for the relevant period expressed as a percentage of total energy use for the relevant period		**72%**	**71%**

1. FY11 energy use has been reported in accordance with BHP Billiton's second cycle EEO Assessment Plan.
2. Differences between total and individual energy use are due to rounding.
3. Total energy use of the corporate group is the sum of EEO energy use of all sites which are assessed as part of EEO plus other small NGER facilities under the 0.5PJ threshold (such as offices and closed sites). Note that total energy use does not include BHP Billiton Mitsubishi Alliance Coal Operations.
4. Energy use data is a subset of FY2013 NGER energy consumption data. EEO energy use data includes primary energy sources, reductants, and electrodes. Non-combusted energy sources are excluded.