



PUBLIC REPORT 2013

Part 1 - Corporation details

Controlling corporation

Insert the name of the controlling corporation exactly as it is registered with the EEO Program.

WILMAR AUSTRALIA HOLDINGS 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

In 2010/11 Wilmar Sugar triggered the thresholds for EEO participation, and Wilmar Australia Holdings Pty Ltd was registered on 18 February 2012. Wilmar Australia Holdings Pty Ltd prepared an Assessment Schedule including 11 sites, providing a total of 99.2% of total baseline energy to be assessed. At 30 June 2013 three facility assessments have been completed. This is Wilmar Australia Holdings Pty Ltd.'s first public report. There have been no significant changes to corporate group structure in the past 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*.

S. W. Rutherford,

Shayne Rutherford, Executive Director

Date *12 December 2013*

Part 2 - Assessment outcomes

Table 2.1 – Assessment details

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

Name of entity	PLANE CREEK MILL, QLD

Total energy use in the last financial year	3,984,836	GJ
Total percentage of energy use assessed when assessments were undertaken	95	%

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

The Plane Creek raw sugar factory processes sugar cane into raw sugar and molasses for mainly international markets over a twenty week operating season from June to November. The factory receives cane at rail sidings, transports the cane by rail to the raw sugar factory, and makes raw sugar as its primary product, cane sugar molasses as a secondary product and at times exports electricity. The raw sugar factory also exports steam and electricity to a distillery which is nearby. Of the total energy used at the Plane Creek site, more than 90% is provided from bagasse, a component of the renewable sugar cane which is crushed.

In order to meet EEO program requirements, the following program was undertaken at the Plane Creek Site.

A review of energy consumption across the site was undertaken, focussing on two periods:

- a broad analysis of the 2011/12 financial year period
- a detailed analysis of the energy used in the 2012 sugarcane crushing season since most of the energy used on site is used during crushing operations.

Energy-intensive processes and equipment were assessed to address the material energy use for the Plane Creek Mill. The site assessment commenced with a series of EEO meetings and a workshop. More than 100 opportunities were brainstormed in the workshop, which involved local site and corporate specialist staff; this provided a cross section of relevant skills. The opportunities identified were ranked for feasibility and payback, and selected for further analysis. A total of 32 opportunities were investigated in further detail and circulated to management for consideration. Those with a payback of less than 4 years are outlined below.

Table 2.2 - Energy efficiency opportunities identified in the assessment

Status of opportunities identified to an accuracy of better than or equal to $\pm 30\%$		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	8	8	100,000					100,000
	Implementation commenced	2	1	13,000	1	100,000			113,000
	To be implemented								
	Under investigation	5			5	69,600			69,600
	Not to be implemented								
Outcomes of assessment	Total identified	15	9	113,000	6	169,600			282,600

Please note that corporate groups **are not required** to report opportunities with a payback greater than four years. Reporting this data is voluntary.

Table 2.3 – Assessment details

Name of entity	SARINA DISTILLERY , QLD

Total energy use in the last financial year	422,084	GJ
Total percentage of energy use assessed when assessments were undertaken	93	%

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

The Sarina Bioethanol Distillery produces ethanol from molasses, and is located adjacent to Plane Creek Sugar Mill which supplies energy and some molasses to the distillery.

To meet its EEO requirement, the Sarina Bioethanol Distillery set up an EEO team to manage the process. An EEO Planning meeting was held and following this a formal EEO Project Plan was developed and circulated to management.

The first task undertaken was an analysis of energy use at the distillery. This analysis looked at the breakdown of energy consumption at the site, energy costs and production data, including historical data dating back to 2004.

An EEO workshop was held at the Sarina Distillery, attended by a broad cross section of people from Wilmar Sugar, including the Group SHE Coordinator, Bioethanol Senior Projects Manager, Senior Site Management and representatives from production and engineering.

Following the EEO Workshop, further investigations of EEO projects were undertaken by the team to determine energy savings and project costs. The outcomes of these investigations were circulated to management for consideration, and those with a payback of less than 4 years are summarised below.

Table 2.4 - Energy efficiency opportunities identified in the assessment

Status of opportunities identified to an accuracy of better than or equal to $\pm 30\%$		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	Implementation commenced	1			1	57,000			57,000
	Under Investigation	3			3	2,310			2,310
Outcomes of assessment	Total identified	4			4	59,310			59,310

Please note that corporate groups **are not required** to report opportunities with a payback greater than four years. Reporting this data is voluntary.



Table 2.5 – Assessment details

Name of entity	YARRAVILLE REFINERY, VIC	
Total energy use in the last financial year	894,200	GJ
Total percentage of energy use assessed when assessments were undertaken	80	%

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

The Yarraville Refinery produces white sugar, caster sugar, brown sugar and other co-products from raw sugar. Major energy sources used in the Refinery are natural gas and electricity.

Existing groups that meet regularly to consider energy use such as the Sugar Water and Energy Efficiency Team (SWEET) team were engaged in the EEO assessment; additionally staff from refineries in Australia and New Zealand to share ideas and expertise. The team undertook an energy analysis, as part of which data regarding energy use and water was analysed for 2011 and 2012. This data was compared with other similar refineries as part of an internal benchmarking process. Energy and water consumption was analysed and compared with production data to understand performance (which is an ongoing activity at Yarraville).

The EEO team completed mass, water and energy balances, and used the Sugars International modelling software (industrial process modelling software) to identify and quantify new opportunities. Energy-intensive processes and equipment were assessed to address the material energy use for the site.

The opportunities which were identified through the process were quantified and communicated to management.

Opportunities identified as part of this process with less than 4 year payback are outlined below.

Table 2.6 - 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	21	13	237,953	8	5,210			243,163
	Implementation Commenced	8	5	113,100	3	1,550			114,650
	To be implemented	1			1	133,000			133,000
	Not to be implemented	1			1*	-15,200			-15,200
Outcomes of assessment		31	18	351,053	13	124,560			475,613

Please note that corporate groups **are not required** to report opportunities with a payback greater than four years. Reporting this data is voluntary.

*Please note this opportunity relates to increasing gas consumption and reducing electricity consumption. Overall energy use is increased, however as gas is a relatively cheaper source of energy, associated financial savings bring this opportunity within the 4 year payback period.

Table 2.7 - Details of significant opportunities identified in the assessment

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

Description of opportunity No. 1	Voluntary Information	
<p>Changing production facility</p> <p>This project is to relocate production capability from one site to another. The product can be produced at Sarina Distillery using a more modern and energy efficient process, a feature of this facility, rather than using the existing process at the other facility. The direct energy consumption at the other distillery is much higher than it is at Sarina Distillery. Moving production there is a significant net energy saving for the business of more than 50TJ per year.</p>	Equipment type	
	Business response	
	Energy saved (GJ)	57,000
	Greenhouse gas abated (CO2-e)	
	\$ saved	\$275,000
	Payback period	
Description of opportunity No. 2	Voluntary Information	
<p>Maximise the use of evaporator vapour for primary juice heating at Plane Creek Mill</p> <p>Using evaporator vapour rather than low pressure steam for juice heating reduces the requirement for low pressure steam. In 2012 primary heaters were run on vapour for about 20% of total crushing hours resulting in energy savings for the site. The intention is to maximise the use of heating using vapour in the 2013 season. The potential energy saving associated with this opportunity is 60,000GJ.</p>	Equipment type	
	Business response	
	Energy saved (GJ)	60,000
	Greenhouse gas abated (CO2-e)	
	\$ saved	\$360,000
	Payback period	
Description of opportunity No. 3	Voluntary Information	
<p>Sugar Australia will upgrade the existing double-effect evaporator in the manufacturing process with a significantly more efficient triple-effect evaporator. This will decrease refinery steam usage which will in turn reduce natural gas consumption at its sugar refining facility in Yarraville. The project is expected to reduce the scope 1 carbon emissions intensity of the facility by 11% and will result in substantial savings in energy costs. The project is supported by a grant from the AusIndustry - Clean Technology Food & Foundries Investment Program.</p>	Equipment type	
	Business response	
	Energy saved (GJ)	133,000
	Greenhouse gas abated (CO2-e)	
	\$ saved	\$650,000
	Payback period	