



## PUBLIC REPORT 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.

Mossman Central Mill Co Ltd.

From

1 July 2006

To

30 June 2011

#### Table 1.1 - Major Changes to Corporate Group Structure or Operations

##### Table 1.1 – Major Changes to Corporate Group Structure or Operations

The energy consumed per tonne of cane crushed is higher than typical due to the extremely wet finish to the 2010 crushing season, a crop size being significantly down on previous years and low fibre yielding cane. All these factors required increased importing of electricity for the 2010 season.

Mossman Central Mill's energy requirements come from on average > 98% renewable sources that are in fact a by-product of the process that needs to be consumed. The process is highly efficient with electricity and steam generated on site for the sites consumption.

Improved data collection and recording through the NGERS process has improved accuracy of data collection, analysis and recording .Significant increases in electricity cost have also been experienced during the period.

Financial pressures continue to dictate capital funding priorities.



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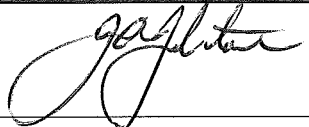
**Table 1.2 – Aggregate energy assessed covered in this report**

<b>Total energy use covered by all assessments in this report</b>	<b>1,857,446</b>	<b>GJ</b>
<b>Total energy assessed as percentage of total energy use of the corporate group*#</b>	<b>100</b>	<b>%</b>

\* If this report covers only part of the corporate group, than 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**

<b>Declaration of accuracy and compliance</b>	
<p>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 <i>Energy Efficiency Opportunities Act 2006</i> and <i>Energy Efficiency Opportunities Regulations 2006</i>.</p>	
	<p>Alan Johnstone General Manager/CEO</p>
	<p>Date <i>5<sup>th</sup> November, 2011</i></p>



## 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**

Mossman Central Mill

**Total energy use in the last financial year**

1,857,446

GJ

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

100

%

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

100

%

**Accuracy of above estimates related to energy use assessed - only required if not ±5% or better**

10

%

Error accumulated due to the level of accuracy and assumptions made in determining fibre and ash levels in cane, bagasse and mud.

**Period over which assessment was undertaken**

01/...10../2008

10/...06../2011

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



## **Collection of energy use data and evaluation of data**

- Production data is collated by the Operations Manager using Mossman Mill Factory work figures documents.
- Electricity imported and exported data is collated by the Engineering Manager in the company's ORER report using invoices and actual meter readings.
- Additional energy use data is obtained from the annual NGER report by the Deputy General Manager of Operations. This data has in turn been obtained from either direct use measurement or consumption data and is captured in the company's maintenance system or financial system (Pronto)

## **Identification of improvement opportunities**

- During the review of the operational energy use data collected, areas for improvement are identified and appropriate engineering staff investigates opportunities. These improvements will be included in the initial draft offseason maintenance work plan.
- The site management has identified a number of potential energy improvements during the initial ARS development; these are also included in the initial draft offseason maintenance work plan.
- All members of the company are encouraged to advise their supervisors of any identified energy opportunities that could be included for consideration.
- The Engineering Manager in conjunction with the Assistant Engineering Manager develops the site offseason maintenance work plan. During this process energy improvement opportunities are identified and evaluated for consideration and inclusion.
- The offseason maintenance work plan is reviewed by the Operations Manager, Deputy General Manager Operations and the General Manager prior to approval.

## **Evaluation and Prioritising of Opportunities**

- The Engineering Manager evaluates identified improvements with consideration taken as to the effectiveness of the proposal, the financial viability of the proposal and any safety aspect of the proposal. The final aspect will be the ability for the project to be completed within the allowable company budget.
- All proposals are recorded in a database, with information on payback, financial justification and implementation date.
- Each year all proposals on the data base will be re-evaluated, by the Engineering Manager for consideration.

\* 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

<b>Table 2.2 – Energy efficiency opportunities identified in the assessment</b>									
<b>Status of opportunities identified to an accuracy of better than or equal to ±30%</b>		<b>Total Number of opportunities</b>	<b>Estimated energy savings per annum by payback period (GJ)</b>						<b>Total estimated energy savings per annum (GJ)</b>
			<b>0 – &lt; 2 years</b>		<b>2 – ≤ 4 years</b>		<b>&gt; 4 years</b>		
			<b>No of Opps</b>	<b>GJ</b>	<b>No of Opps</b>	<b>GJ</b>	<b>No of Opps</b>	<b>GJ</b>	
Business Response	Implemented	6	3	25,000	3	12,500	nil	nil	37,500
	Implementation Commenced	2	2	55,000	nil	nil	nil	nil	55,000
	To be Implemented		nil	nil	nil		nil	nil	0
	Under Investigation	2	1	5,000	1	10,000	nil	nil	15,000
	Not to be Implemented	3	1	40,000	nil	nil	2	100,000	140,000
Outcomes of assessment	Total Identified	13	7	125,000	4	22,500	2	100,000	247,500
<b>Status of opportunities identified to an accuracy of worse than ±30%</b>									
Business Response	Implemented								
	Implementation Commenced								
	To be Implemented								
	Under Investigation								
	Not to be Implemented								
Outcomes of assessment	Total Identified								

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><b>Power factor correction analysis</b> It has been investigated and shown that Mossman Mill by applying a power correction system can save approximately 250kwh during crushing operations. This will delivery approximately \$100k in saving in the first year and result in approximately 20000 GJ saving. An external consultant was been engaged to conduct the review in the 2010/2011 off maintenance season. The Power Factor Correction System is designed to maximize the kw reductions from reduced I2R losses in cables and Transformers which will significantly improves the electrical efficiencies within the mill. The project involves the installation of four PFC systems which will provide a 240-300kwreduction at the 6MW generator which will reduce the import from ERGON. The total 415V current will be reduced by in excess of 823A and the voltage improve by 7-9V at the switchboards with the systems installed.</p>	Business Response	Implementation commenced
	Energy saved (GJ)	20,000
	Greenhouse gas abated (CO2-e)	
	\$s saved	
	Payback period	1 to 2 years

Description of Opportunity	Voluntary Information	
<p>Purchase and install a new vacuum pump for the NQEA filters, this new pump will replace an out dated inefficient model.</p>	Business Response	Implementation completed
	Energy saved (GJ)	
	Greenhouse gas abated (CO2-e)	
	\$s saved	\$10,000
	Payback period	1 to 2 years

Description of Opportunity	Voluntary Information	
<p>Improve heat transfer at the cooling towers, repack and completely fill all three cooling towers. This project will increase the surface area available for water cooling in the tower and will lead to cooler condensation water which will reduce strain on vacuum pumps, reduce water requirements and therefore water pumping requirements.</p>	Business Response	Implementation commenced
	Energy saved (GJ)	
	Greenhouse gas abated (CO2-e)	
	\$s saved	\$100,000
	Payback period	2 to 3 years

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