

PUBLIC REPORT

Part 1 - Corporation Details

Controlling Corporation

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

Paper 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

No major changes to the Maryvale site during this reporting period.

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*.



James Henneberry, CEO Australian Paper

Date 21 December, 2012

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	Maryvale Mill	
Total energy use in the last financial year	16,299,261	GJ
Total percentage of energy use assessed when assessments were undertaken	98.04	%

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

Key Element 1: Leadership

The parent company of Australian Paper, Nippon Paper Company of Japan has set energy reduction targets for all its operations globally. The target for the Australian Paper Maryvale Mill is a 1% reduction per annum in energy intensity.

The company Safety, Health, Environment and Quality Policy statement commits it, amongst others, to the conservation and efficient use of energy. Approximately 50% of the Maryvale Mill energy use is from renewable energy sources.

An Energy Management Plan has been put in place by Australian Paper Maryvale to ensure the activities required of the EEO and EREP process are met by Australian Paper; this plan covers key activities and milestones, and assignment of suitable resources to ensure EEO obligations are met.

Energy Management Plan Key Elements

Leadership, setting up of an energy management team

Resources, Status, Timelines

Energy Behaviour Survey

Site Energy KPI's

Annual Reporting EREP and EEO

Energy Balance updates

EEO Workshop

Energy Team Meetings

Small Group Activities (Maintenance and Operations)

EEO Opportunity assessment

Energy metering and accuracy

Energy Communication Strategy

Key members of the Energy Management Team have Energy and Resource Efficiency related objectives set in their personal targets. Resources both financial and in people's time have been made available to carry out the assessment.

Key Element 2: People

An Energy Management Team consisting of people from the following groups has been set up to manage both EEO Assessments, Victorian Environmental and Resource Efficiency Plans and the Maryvale Mill's own Business Improvement Process.

Energy Management Team

Environment Manager

General Manager Engineering

Projects Manager

Senior Process Engineer Projects

Maintenance Manager Power/Recovery

Production Manager Power/Recovery

Electrical and Reliability Manager

Commercial Manager

To support the above through the EEO process, an external expert familiar with paper mills is used.

A Process Engineer from engineering consultants Beca AMEC has assisted in the evaluation of opportunities and funding is budgeted to allow for new opportunities currently under investigation to be evaluated and prioritized.

Key Element 3: Information Data and Analysis

The understanding of energy use has been progressed through a series of studies that have been undertaken to both benchmark the Maryvale Mill against international standards for the pulp and paper industry, and to improve the measurement, management and reporting of energy use on the site.

Energy balances have been completed for gas, renewable energy, electricity and steam and have contributed to a much greater understanding of site energy use. The energy balances are updated on a regular basis. The identification of metering gaps is underway for steam, natural gas and electrical metering. Capital projects will be raised to close the gaps.

Australian Paper also submits sustainability information to Nippon for global Nippon sustainability reporting.

Maryvale Mill is currently ahead of its 1% per annum energy intensity reduction target. An Environment Dashboard Monthly Report is distributed that details the imported energy reduction target (GJ/tonne pulp and paper) for the month and year to date, and the actual mill performance.

Key Element 4: Opportunity Identification and Evaluation

EEO Workshops were completed in December 2009. Due to the large nature of the Maryvale site the exercise was broken into five groups, as summarised below. The workshops were facilitated by an energy consultant.

- Group 1 – General: Store, Workshop, Offices and Laboratory
- Group 2 – Brown Paper Machines – M1, M2, M4 Paper Machines
- Group 3 – White Paper Machines – M3 and M5 Paper Machines
- Group 4 – Fibre Line, Batch Mill, Continuous Mill and NSSC Mill
- Group 5 – Power Recovery, Power Plant, Waste Water and Filtration

The attendees include a range of personnel from plant operators, mechanical trades, superintendents and managers.

The Workshops discussed data analysis, energy use and benchmarking information to gain common understanding of current energy performance. Following on from this, brainstorming sessions generated the initial Energy Efficiency Opportunity list. Initial screening was then carried out by the Energy Management Team to exclude ideas that could not be implemented due to health and safety reasons, production/quality issues or were judged likely to have a payback of well over five years. Reasons for excluding opportunities have been recorded.

The Energy Team meets regularly to review and prioritise the energy reduction projects under investigation and to identify new opportunities. The Energy Team includes representatives from each of the area Small Group Activities. The Energy Efficiencies Opportunities list is updated to reflect the current status of projects, energy savings and new opportunities that are under investigation.

Beca AMEC has also assisted in the evaluation of opportunities during 2011 and 2012. This work has been conducted in conjunction with the Energy Management Team and the Maryvale Project Group. This work includes evaluation of energy returns and initial evaluation of project cost estimates. This evaluation has resulted in the selection of a total of 13 projects for capital approval and implementation.

This Energy Opportunity list will be adopted by the Maryvale Mill as single register of energy opportunities for the site going forward for both EEO and EREP and Nippon Paper purposes.

Opportunities still under investigation will be evaluated in the next 5 year cycle.

Key Element 5: Decision Making

The Maryvale site has a robust project approval process that requires approval by appropriate personnel within the organisation relevant to the project being considered. The approval process has a series of gates that are required to be achieved before the project can be implemented. Managers responsible for decision making will be presented with information as per Key Requirement 5.1 in the EEO Industry Guidelines

The energy efficiency opportunity projects will be managed by the capital projects manager and the capital project approval processes. The capital projects manager is also a member of the Energy Management Team. This has ensured that there is a good understanding of the EEO process and requirements by the people who are responsible for implementation of the EEO energy efficiency opportunity

Key Element 6: Communication

The implementation of EEO and EREP requirements are included on the site Zero Harm – Sustainability Action Plan, this plan is issued to the EPA on an annual basis and is discussed with the Community Consultative Committee. The Zero Harm – Sustainability Action plan drives the Sustainability priorities for the site.

The Site has implemented the following mechanisms to communicate energy KPI's and Energy Activity.

Maryvale Monthly Report to Head Office – Energy Trends & KPI's - CEO

Energy Behaviour Survey – All Maryvale Employees

Maryvale Lead Team meeting Energy Trends and KPI's - Area Managers

Mill Newsletters – Mill Employees

Community Consultative Committee Energy Trends & Targets - Community

Triple Bottom Line, GRI Metric – Customers and Community

Sustainability Action Plan – EPA & Community Consultative Committee

The EEO outcomes will be communicated from Senior management to the Community Consultative Committee, to the Maryvale Lead team and to all mill employees through Mill Notices.

* Entity is group member, business unit, or key activity. 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 entity that has been assessed

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	10	6	49,220	2	56,918	2	12,320	118,458
	Implementation Commenced	2	-	-	1	3,115	1	1,058	4,173
	To be Implemented	-	-	-	-	-	-	-	-
	Under Investigation	1	-	-	1	3,024	-	-	3,024
	Not to be Implemented	-	-	-	-	-	-	-	-
Outcomes of assessment	Total Identified	13	6	49,220	4	63,057	3	13,378	125,655

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 No 1	Voluntary Information	
A project was implemented to upgrade the steam system on M5 paper machine from Low Pressure to Intermediate Pressure steam. This has allowed more power to be generated on site and has reduced the need for purchased electricity.	Equipment Type	Steam system design
	Business Response	Implemented
	Energy saved (GJ)	56,250
	Greenhouse gas abated (CO2-e)	18,670 tCO2-e
	\$s saved	900,000
	Payback period	2.4 years
Description of Opportunity No 2	Voluntary Information	
A reduction in the volume of 'clean water' to the spill system, by diversion of the Dilute Non-condensable Gas scrubber and pump seal water, has resulted in a reduction in loading to the evaporators and steam demand.	Equipment Type	Spill reduction
	Business Response	Implemented
	Energy saved (GJ)	10,080
	Greenhouse gas abated (CO2-e)	3,345 tCO2-e
	\$s saved	50,000
	Payback period	1.3 years
Description of Opportunity No 3	Voluntary Information	
Installation of restrictors on pump seal water in the Neutral Sulphite Semi-Chemical mill has reduced the volume to the spill system, saving subsequent evaporator steam.	Equipment Type	Spill reduction
	Business Response	Implemented
	Energy saved (GJ)	3,360
	Greenhouse gas abated (CO2-e)	1,115 tCO2-e
	\$s saved	17,000
	Payback period	1.2 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 involved.

