



PUBLIC REPORT

Controlling Corporation

Transpacific Industries Group Ltd

Period to which this report relates

Start 1 July 2007

End 30 June 2009

Part 1 – Information on assessments completed to date

Table 1.1 – Description of the way in which the Corporate Group (or part of it) has carried out its assessments

Transpacific Industries Group Ltd ("Transpacific") is the leading provider of integrated industrial services, waste management, resource recovery and transport solutions to customers across Australia and New Zealand with a particular focus on the solid, liquid and hazardous waste management markets. Our corporate philosophy is that all waste is a resource and we aim to incorporate recovery, recycling and reuse throughout all our operations. This philosophy is carried through into the efficiency of our operations where we seek to minimise our waste and conserve resources such as water and energy.

Due to the corporate group's diverse operations Transpacific decided to assess each division separately according to its energy profile. To ensure compliance and shared learning across the organisation, group wide procedures and reporting structures were established in the reporting period. A *Carbon Group* was established at senior management level to lead carbon reduction initiatives and implement energy efficiency plans. This group meet quarterly to review EEO progress and other carbon and greenhouse initiatives.

Transpacific conducted its first energy efficiency assessments in the reporting period within the Liquid & Hazardous Waste Division and Energy Division. Assessments were carried out at four significant energy consuming facilities:

1. Transpacific Technical Services – a liquid waste treatment plant in Adelaide, SA
2. Transpacific Waste Services - our largest liquid waste treatment facility located in Sydney, NSW
3. Transpacific Refiners - a hydrogenation facility in Rutherford, NSW
4. Nationwide Oil Wetherill Park - a used oil refinery in Sydney, NSW.

In line with the group's Assessment and Reporting Schedule, assessments will be undertaken in the Solid Waste Division (including Landfills) in the next reporting period, with a focus on fleet and fuel efficiency initiatives. Assessments from this reporting period will also continue to be reviewed to refine existing opportunities and further identify additional opportunities through more detailed energy mass balances, with key learnings integrated into future assessments.

Organisational Restructure



Subsequent to this reporting period, Transpacific has undergone an organisational restructure. The Energy Division has now been absorbed within other Transpacific divisions. Due to the changes Transpacific may be required to develop a new Assessment and Reporting Schedule that will be aligned to the organisation's new structure.

Table 1.2 – Energy use assessed

Group member and/or business unit and/or key activity and/or site that has had an assessment completed by the end of this reporting period.	Period over which assessment was undertaken¹	Energy use per annum in GJ² in the current reporting year
TWS Homebush	July 2008 – December 2009	117,949
TTS Adelaide	July 2008 – June 2009	17,486
Energy Division – NWO Wetherill Park	July 2008 – December 2009	465,981
Energy Division – Transpacific Refiners Rutherford	July 2008 – December 2009	91,432
Total energy assessed		692,848
Total energy use of the group in the current reporting year		3,030,865
Total energy assessed expressed as a percentage of total current energy use		23%

1. This should be the start and finish date (month and year) for the assessment (planned assessment dates were nominated in Table 3.1 of the approved ARS).
2. Energy Bandwidth may only be used if approved in the Assessment and Reporting Schedule.



Part 1 – Information on assessments completed to date (continued)

Table 1.3 – Accuracy of energy use data

	% achieved	Reasons for not achieving data accuracy to within $\pm 5\%$
TWS Homebush	$\pm 5\%$	
TTS Adelaide	$\pm 5\%$	
Energy Division – NWO Wetherill Park	$\pm 5\%$	
Energy Division – Transpacific Refiners Rutherford	$\pm 5\%$	



Part 2 - Energy Efficiency Opportunities that have been identified and evaluated

Part 2A - New Assessments completed during the reporting period

Name of Group member or business unit or key activity or site: TWS Homebush

Energy use of the entity during the current reporting period

117,949	GJ
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Table 2.1 – Opportunities assessed to an accuracy of $\pm 30\%$ or better

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (GJ)			Total estimated energy savings per annum (GJ)
			0 – < 2 years	2 – \leq 4 years	> 4 years	
Outcomes of assessment*	Total Identified	3	720	280		1,000
Business Response*	Under Investigation					
	To be Implemented	2	720	280		1,000
	Implementation Commenced					
	Implemented					
	Not to be Implemented	1			1	0

Table 2.2 - Opportunities assessed to an accuracy of worse than $\pm 30\%$

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (GJ)			Total estimated energy savings per annum (GJ)
			0 – < 2 years	2 – \leq 4 years	> 4 years	
Outcomes of assessment	Total Identified	1	40,000			40,000
Business Response	Under Investigation	1	40,000			40,000
	To be Implemented					
	Implementation Commenced					
	Implemented					
	Not to be Implemented					



Name of Group member or business unit or key activity or site: TTS Adelaide

Energy use of the entity during the current reporting period

17,486	GJ
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Table 2.1 – Opportunities assessed to an accuracy of $\pm 30\%$ or better

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (GJ)			Total estimated energy savings per annum (GJ)
			0 – < 2 years	2 – \leq 4 years	> 4 years	
Outcomes of assessment*	Total Identified	Nil				
Business Response*	Under Investigation					
	To be Implemented					
	Implementation Commenced					
	Implemented					
	Not to be Implemented					

Table 2.2 - Opportunities assessed to an accuracy of worse than $\pm 30\%$

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (GJ)			Total estimated energy savings per annum (GJ)
			0 – < 2 years	2 – \leq 4 years	> 4 years	
Outcomes of assessment	Total Identified	Nil				
Business Response	Under Investigation					
	To be Implemented					
	Implementation Commenced					
	Implemented					
	Not to be Implemented					

Name of Group member or business unit or key activity or site: Energy Division – NWO Wetherill Park

Energy use of the entity during the current reporting period

465,981	GJ
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Table 2.1 – Opportunities assessed to an accuracy of ±30% or better

Status of opportunities identified		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	
Outcomes of assessment*	Total Identified	Nil				
Business Response*	Under Investigation					
	To be Implemented					
	Implementation Commenced					
	Implemented					
	Not to be Implemented					

Table 2.2 - Opportunities assessed to an accuracy of worse than ±30%

Status of opportunities identified		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	
Outcomes of assessment	Total Identified	Nil				
Business Response	Under Investigation					
	To be Implemented					
	Implementation Commenced					
	Implemented					
	Not to be Implemented					



Name of Group member or business unit or key activity or site: Energy Division – Transpacific Refiners Rutherford

Energy use of the entity during the current reporting period

91,432	GJ
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Table 2.1 – Opportunities assessed to an accuracy of $\pm 30\%$ or better

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (GJ)			Total estimated energy savings per annum (GJ)
			0 – < 2 years	2 – \leq 4 years	> 4 years	
Outcomes of assessment*	Total Identified	1				
Business Response*	Under Investigation					
	To be Implemented					
	Implementation Commenced					
	Implemented					
	Not to be Implemented	1			1	0

Table 2.2 - Opportunities assessed to an accuracy of worse than $\pm 30\%$

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (GJ)			Total estimated energy savings per annum (GJ)
			0 – < 2 years	2 – \leq 4 years	> 4 years	
Outcomes of assessment	Total Identified	Nil				
Business Response	Under Investigation					
	To be Implemented					
	Implementation Commenced					
	Implemented					
	Not to be Implemented					



Part 2 - Energy Efficiency Opportunities that have been identified and evaluated

Part 2B - Update of assessments originally reported in previous reporting periods

This is the first reporting period for Transpacific therefore there are no opportunities from previous reporting periods to update.



Part 2 - Energy Efficiency Opportunities that have been identified and evaluated

Part 2C - Details of at least three significant opportunities found through EEO assessments

Table 2.5 – Description of 3 significant opportunities

Opportunity 1

Compressed air systems are often associated with leaks based on the high pressure exerted onto the piping of the system. The amount of energy then required by the compressed air system to keep these leaks running while also running the functions of the equipment is increased considerably. The Homebush Bay site has two compressors rated at 21kW and 18.5kW. A preliminary external audit conducted identified a few a key leaks and based on a compressor setup of 150 Horsepower motor running 24 hours 7 days a week at a pressure of approximately 140 PSI the estimated energy savings following leak fixing equate to 200,000kWh per year which is the equivalent to 720 GJ.

Opportunity 2

An external audit of the lighting efficiency at TWS Homebush revealed an opportunity to install Light Eco Plus and Save it Easy in line T5 upgrades. The audit revealed a potential energy saving of 280 GJ by installing T5 lighting throughout the main administration building, fluorescent lighting throughout the plant, and installation of Light Eco on HID lighting throughout the plant and de-lamping certain areas.

Opportunity 3

At TWS Homebush, the plant processes produce potentially odorous air (waste air) which is captured onsite and treated through a thermal oxidizer known as the odour control furnace (OCF). A by-product of the process is an air stream which has been heated up to 620°C.

Another process on the site utilises thermal oil within the heat exchangers to dry the solid waste stream. The thermal oil has to be heated to approximately 200°C with the aid of an auxiliary thermal oil heater which has an approximate natural gas consumption rate of 170m³/hr.

The energy efficiency opportunity in relation to the above two processes is that it may be possible to harness the energy emitted by the OCF to heat the thermal oil, which would lower the need of natural gas in the auxiliary thermal oil heater and at the same time reduce the running time of fans required to cool the heated air stream from the OCF. Predicted energy savings are approximately 40,000 GJ per annum.



Part 3 - Voluntary Contextual Information

Table 3.1 – Contextual Information

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Table 3.2 – Energy use expressed in Greenhouse Gas emissions and as an energy use indicator

Period of energy use _____ to _____			
Name of group member/ business unit/ key activity/site	Energy use pa (GJ)	Energy use pa (GGE)	Energy use as an indicator*
Total			

Table 3.3 - Opportunities assessed to an accuracy of ±30% or better (\$ value)

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (\$)			Total estimated energy savings per annum (\$)
			0 – < 2 years	2 – ≤ 4 years	> 4 years	
Outcomes of assessment*	Total Identified					
Business Response*	Under Investigation					
	To be Implemented					
	Implementation Commenced					
	Implemented					
	Not to be Implemented					



Part 3 - Voluntary Contextual Information (continued)


Table 3.4 – Changes in energy use as an indicator

Name of group member/ business unit/ key activity/site	Current energy use as an indicator	Previous energy use as an indicator	Reasons for change
Total			

Part 4 - Declaration

Table 4.1 - Declaration of accuracy and compliance (mandatory information)

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*.


TREVOR COONAN - GROUP CEO
Insert Title of Signatory here