



PUBLIC REPORT 2011

Part 1 - Corporation Details

Controlling Corporation

Pechiney Consolidated Australia Pty Limited

From

1 July 2006

To

30 June 2011

Period to which this report relates

Table 1 - Major Changes to Corporate Group Structure or Operations

Table 1.1 – Major Changes to Corporate Group Structure or Operations

No changes occurred to the Corporate Group Structure in the 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*.

Sandeep Biswas,
Director, Pechiney Consolidated Australia Pty Ltd

Date 15/12/2011

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

Tomago Aluminium Company

Total energy use in the last financial year

29,830,000

GJ

Period over which assessment was undertaken

From

1/07 /2006

to

30/06/2011

Percentage of entity energy use assessed*

100

%

Percentage of corporation's energy use assessed

100

%

Accuracy of energy use assessed - only required if not $\pm 5\%$ or better

%

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

Prior to energy assessments being completed energy maps detailing the breakdown of Plant energy consumption were prepared based on energy use data from 2005. The EEO assessment built upon the established programmes to meet the requirements of the NSW Energy Saving Action Plan. To meet the EEO requirements, Energy focus workshops were conducted with production Business Units in 2006. These workshop sessions formed the primary means of capturing a record of what energy savings measures have been commissioned in the past, what measures are currently in progress and most importantly "brainstorm" potential ideas for future energy savings opportunities. Following these initial workshops, follow-up sessions were conducted in 2007-2008 with personnel external to the organisation. In 2008-2009 further opportunities were identified through the site's Continuous Improvement Department and the engagement of an external company with previous experience in completing assessments in aluminium smelters.

Since the introduction of the EEO requirements, 20 projects have been assessed under the program. This report provides the detail on the status of these projects.

* 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%.

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

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	5	3	363,800	1	18,000	1	0.3	381,800
	Implementation Commenced	1	1	1,309,700					1,309,700
	To be Implemented								
	Under Investigation								
	Not to be Implemented	3	1	65,000			2	5,200	70,200
Outcomes of assessment	Total Identified	9	5	1,738,500	1	18,000	3	5,200	1,761,700
Status of opportunities identified to an accuracy of worse than $\pm 30\%$									
Business Response	Implemented	6	4	248,000			2	3,100	251,100
	Implementation Commenced	1					1	1,900	1,900
	To be Implemented								
	Under Investigation	1					1	10,000	10,000
	Not to be Implemented	3	1	7,000	1	38,000	1	1,500	46,500
Outcomes of assessment	Total Identified	11	5	255,000	1	38,000	5	16,500	309,500

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

Note: The savings anticipated in regards to the project currently under implementation and implemented has been revised from the 2010 report. This revision was made as accuracy on the project increased.



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>The electrolysis of aluminium is a key consumer of electrical energy. A number of projects focusing on reducing the electrical energy required in the smelting process have been implemented at the Tomago Aluminium site throughout the assessment period. Opportunities involved improving electrical efficiencies and reducing electrical losses in the electrolytic process.</p>	Business Response	5 opportunities implemented
	Energy saved (GJ)	540,000GJ
	Greenhouse gas abated (CO ₂ -e)	135,000 tonnes
	Payback period	Opportunities payback less than 4 years

Description of Opportunity	Voluntary Information	
<p>Compressed air is a key utility on an aluminium smelter site. An opportunity was identified to improve and upgrade the control system that manages the air compressors that are used to generate compressed air for the site. The total energy used to generate compressed air was 166,000 GJ per annum and energy savings of 28,000 GJ per annum were calculated.</p>	Business Response	Implemented
	Energy saved (GJ)	28,000 GJ per year
	Greenhouse gas abated (CO ₂ -e)	7,000 tonnes per year
	Payback period	Opportunity payback less than 2 years

Description of Opportunity	Voluntary Information	
<p>A number of processes at Tomago Aluminium use natural gas for heating. A series of opportunities were identified to improve and optimize natural gas consumption. An upgraded control system was installed on anode bake furnace No1 which improved natural gas combustion in this area. The other natural gas opportunity involved optimizing the burner efficiency in the cast products furnaces through regular tuning of burners.</p>	Business Response	2 opportunities implemented
	Energy saved (GJ)	21,000 GJ
	Greenhouse gas abated (CO ₂ -e)	1,000 tonnes per year
	Payback period	one opportunity had a 1 year payback and the other had a 4 year payback