

FIRST PUBLIC REPORT TEMPLATE (19 May 2008)

Controlling Corporation

Alex Fraser Group

Period to which this report relates

Day after the end of the trigger year or date that 1st assessment started

Start 1st July 2006

End

Date 1st assessment completed or up to the day that the report due

30th June 2008

Summary of assessments conducted thus far

Table 1.1 - Description of the way in which the corporation has carried out its assessments and over what period was each assessment taken. A statement saying that the intent and key requirements of the Energy Efficiency Opportunities legislation have been met must be made.

Alex Fraser Pty Ltd (The Alex Fraser Group) is 51% owned by the Swire Group, a multinational, multi-disciplined business group that recognises its responsibility as a corporate citizen to continually strive to lessen the impact of its activities on the environment. The Alex Fraser Group has a long history of resource recovery and reuse. Our primary business activity is the recycling of construction and demolition material into high-grade civil construction materials. This activity recovers precious resources and dramatically reduces the carbon footprint of major projects. In 2008 the Group commissioned a Life Cycle Analysis of the environmental impacts of its crushed concrete aggregate product. The analysis, by RMIT University Centre for Design concluded that recycled concrete aggregates have a carbon footprint 65% less than traditionally quarried stone aggregates.

The Alex Fraser Group has committed itself to the Energy Efficiency Program and the intent and key requirements of the Energy Efficiency Opportunities have been met. The energy assessment followed the key requirements of the program.

The Assessment Report makes use of 24 months of energy data, generated by the company's accounting system. A multi-disciplinary team including members from General Management, Finance, Projects and Human Resources examined the activities responsible for the largest consumption of energy and considered business cases proposing design changes, alternative equipment purchases, software implementation, building specifications and training. Six initiatives were identified and agreed prior to June 2008. The three initiatives tabled in this report have been finalised.

Table 1.2 - Group member/business unit/key activity/site that have been assessed	Energy use per annum in the year the assessment is completed *	Energy data accuracy (if not within $\pm 5\%$) **	Reasons for not achieving data accuracy to within $\pm 5\%$ **
Recycling Industries	74,341 GJ		
Queensland Recycling	35,338 GJ		
Total	109,679 GJ		

Table 1.3 - Outcomes of and business response to opportunities that have been identified and evaluated to an accuracy level of $\pm 30\%$

Status of opportunities		Number of opportunities	Estimated energy savings per annum by payback period		Total estimated energy savings per annum (GJ)	**** Accuracy range (%)
			0 - <2 years	2 - ≤ 4 years		
*Outcome of assessment	Identified	6	9,634	4,938	14,572	< $\pm 30\%$
**Business response	Under investigation					
	To be implemented	2	2,978	928	3,906	< $\pm 30\%$
	Implementation commenced	1		3,860	3,860	< $\pm 30\%$
	Implemented	3	6,656	150	6,806	< $\pm 30\%$
	Not to be implemented					
***Other categories (information that may be provided voluntarily)						
Energy efficiency opportunities prior to commencement of the program	Previously identified, not yet implemented (pre-assessment cycle)					
	Energy efficiency savings implemented (2000 to beginning of the assessment cycle)					
Opportunities that have been identified but <u>have not been</u> evaluated to an accuracy of $\pm 30\%$	(See paragraph 3 of Schedule 4 of the Regulations) Under further investigation		N/A	N/A		> $\pm 30\%$

*This row requires totals for the information requested

**These rows splits the totals in row one into the 5 categories of business response to these opportunities.

***The information in this part of the table should not be added to information in the first part.

****The accuracy ranges for projected or actual costs [for calculating payback periods], benefits and energy savings

Table 1.4 - Details of three opportunities found through EEO assessments

Details must include a brief description of the opportunity and may optionally include details of the costs of implementation, energy/dollar savings and any other benefits (such as greenhouse reductions).

Opportunity 1
<p><i>Eliminating diesel consumption/CO₂ emissions by redesigning conveyor systems.</i> One activity that uses a lot of diesel fuel in our business is the handling of raw and finished material by heavy earthmoving equipment. Our concrete recycling plants move raw material through various stages of processing via fixed conveyor belts. A fixed conveyor deposits the finished material into a single conical stockpile, whose volume is limited by the fixed elevation of the conveyor. This fact necessitates the 'double handling' of finished material to a larger stockpile by an earthmoving machine. In the design for our new concrete recycling plant at Laverton we have incorporated a telescopic radial conveyor to handle finished material. This equipment not only allows for a larger, radial stockpile to be created, but the conveyor is also able to extend telescopically to deposit second and subsequent stockpiles, increasing the finished product volume significantly, and almost eliminating the need for double handling by earthmoving machines.</p>
Opportunity 2 *
<p><i>Reducing diesel consumption/CO₂ emissions with innovative gearbox software for on-highway truck fleet.</i> The company operates a fleet of 14 on-highway trucks that transport finished product, industrial bins and demolition waste around the Melbourne metro area. The fleet is a large user of diesel and each truck completes several thousand gear changes each day. Fuel use varies significantly depending on load and traffic conditions but also on gear selection. The fleet has been fitted with transmission shifting software that modifies the factory-set shift points in the upper engine RPM range to make a significant improvement in fuel economy. Over millions of gear changes this reduction in consumption of diesel is substantial.</p>
Opportunity 3 **
<p><i>Reducing diesel consumption/CO₂ emissions by increasing the skills of earthmoving equipment operators.</i> The company operates a fleet of approximately 40 earthmoving machines including hydraulic excavators and wheel loaders. For a given application an earthmoving machine has a range of fuel consumption that can be attributed to factors such as site layout and operator skill. For example a Caterpillar 980H wheel loader in a high workload application can use between 35.5 – 40.0 litres of diesel per hour. Operator technique such as how much throttle to use when raising the bucket on a wheel loader and the angle the bucket penetrates the stockpile are a matter of judgment, with poor operators using more fuel to achieve the same result as a good operator. We have employed a dedicated operator trainer to audit the skills of our operators, develop operator training programs and coach operators on the job. Operators use the company intranet to record diesel use and machine hours for each shift. This information is analysed against tones of material moved to compute a fuel use KPI for each site.</p>

*If there are less than three significant opportunities, provide details of those identified.

**If no significant opportunities have been identified in the assessment, a statement to this effect.

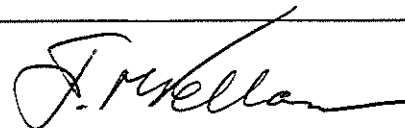
Voluntary Contextual Information

Reporting corporations may supply additional information that provides more context to the public report. Such information may include:

- Energy use and energy saved by energy type, as greenhouse gas emissions, as an indicator, or as an index;
- Energy savings achieved in the period 2000-2005;
- Opportunities with a greater than four year payback and the business response;
- Changes in total energy use/energy use indicator broken down to include causes of increase or decrease;
- Energy use and energy efficiency opportunities presented in dollars; and
- Other contextual information about the corporation's energy use and management.

Declaration

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*.



~~Chair of the Board of Directors/CEO~~ Managing
Director/equivalent officer (state position)