

## PUBLIC REPORT TEMPLATE

### Controlling Corporation

**Foster's Group Limited**  
ABN 49 007 620 886  
Head Office 77 Southbank Blvd, Southbank, Melbourne, Vic 3006

### Period to which this report relates

Start 1<sup>st</sup> Jan 2009

End 30<sup>th</sup> 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**

#### Introduction

Foster's Group Limited (FGL) has integrated the requirements of the Energy Efficiency Opportunities Assessment (EEOA) into its company wide Energy & Water Efficiency Program (EWEP), which is a key component of our overall sustainability agenda. This program assesses energy consumption arising from key processes within our 10 main production facilities with the support of our local site teams. For more detail on our approach, please refer to our 2008 Public Report.

**This report details activities undertaken during our second wave of assessments which focussed on refrigeration processes within our 10 facilities within our EWEP program.**

Refrigeration, a significant energy intensive process within Foster's, constitutes around 6.8% of our total energy usage. Heating requirements, which were assessed during our first wave in 2008, constitute around 70% of total energy use. The remaining energy consuming processes include miscellaneous electrical uses such as air compressors, motors and lighting. These processes will be assessed during our third wave during FY10.

#### Background

Foster's has a long history of Energy Management within its organisation. Originally participating in the Greenhouse Challenge Foster's has made significant reductions in energy usage over the past decade (see Figure 1). In 2000, a case of product took 13.82 MJ to produce and this has been reduced to 10.34 MJ per case in 2009. This represents a 32% fall in this time period combined with the addition of wine into our Australian operations. Foster's public commitment to energy efficiency is evident through our Energy Reduction Target, which is to reduce energy consumed per unit of production by 10% by FY11 against a baseline of FY07.

Since 2008, our Australian beer and wine businesses have participated in the Energy and Water Efficiency Program (EWEP). This program was created to enable Foster's to deliver on its public energy and water efficiency targets, and to ensure compliance with the various state and federal energy & water efficiency programs. Since the program began our Australian manufacturing sites have improved energy efficiency by around 4% from using 10.77 MJ per case produced to 10.34 MJ per case. The major contributor to this has been our EWEP participating sites<sup>1</sup> primarily our beer business which has reduced the energy consumed per unit production by 7% in the same time period.

Through this program Foster's has developed a more rigorous approach to understanding energy use across the business and has developed detailed mass and energy balances across all major sites better enabling Foster's to understand the implications and savings of energy projects.

With Foster's internal Energy and Water Efficiency Program, long term commitment from our involvement in the Greenhouse Challenge and our targets for improved efficiency, energy management is a core element of our operational efficiency. We are committed to sustainable reductions in energy usage and vigorously challenging the mindset of our current practices.

#### **EWEP Assessment Approach**

Our Energy & Water Efficiency Program defines our methodology for conducting assessments within our manufacturing facilities. This ensures that a consistent and coordinated approach is adopted and maintained for the duration of the program.

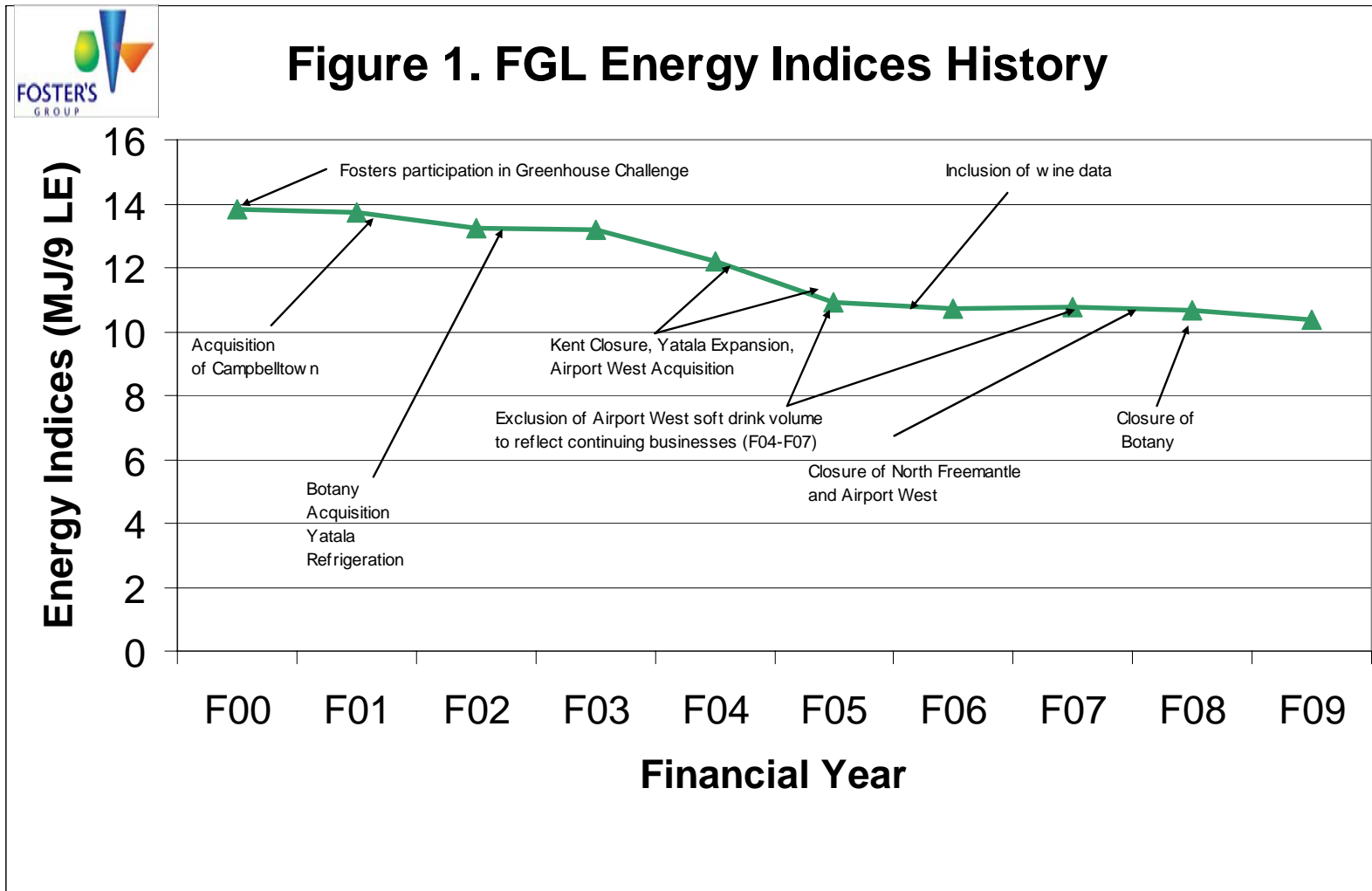
Our first stage in conducting our refrigeration assessment was to understand consumption usage and patterns across our sites. To this end we performed mass & energy balances across all ten manufacturing facilities correlating this to refrigeration generation within a site. In more closely reviewing hot and cold brine pumping and brine temperatures we were able to build a more complete picture of refrigeration requirements and usage.

Our second stage in conducting the assessments was to hold idea sessions on site with key engineering and operational personnel to brainstorm areas for investigation for improving refrigeration efficiency. At five of our larger sites we also invested in a refrigeration consultant (Gordon Brothers), to model, optimise and recommend changes to improve energy efficiency. As a result of our activities a number of opportunities have been identified which are being further investigated. Additionally, changes to existing processes arising from the Idea Sessions have seen several opportunities implemented right away with no capital cost incurred..

During our second wave we also revisited and further refined two significant opportunities for energy savings that were initially identified in our first wave. These were boiler energy consumption at our Tasmanian brewery and gas usage at our Queensland brewery. These opportunities have progressed further and are in the final stages of presentation to management.

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<sup>1</sup> Sites participating in the Energy & Water Efficiency Program constitute over 80% of energy consumed within Australia.





**Table 1.2 – Energy use assessed ((NB energy only relating to refrigeration uses))**

<b>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.</b>	<b>Period over which assessment was undertaken<sup>2</sup></b>	<b>Energy use per annum in GJ<sup>3</sup> in the current reporting year</b>
Abbotsford Brewery	1 <sup>st</sup> Jan 2009 – 30 <sup>th</sup> Jun 2009	45,031
Cascade Brewery, Beverages and Maltings	1 <sup>st</sup> Jan 2009 – 30 <sup>th</sup> Jun 2009	2,759
Campbelltown Beverages	1 <sup>st</sup> Jan 2009 – 30 <sup>th</sup> Jun 2009	1,545
Coonawarra Winery	1 <sup>st</sup> Jan 2009 – 30 <sup>th</sup> Jun 2009	3,270
Great Western Winery	1 <sup>st</sup> Jan 2009 – 30 <sup>th</sup> Jun 2009	3,086
Karadoc Winery and Packaging Facility	1 <sup>st</sup> Jan 2009 – 30 <sup>th</sup> Jun 2009	19,926
Penfolds Winery and Packaging Facility	1 <sup>st</sup> Jan 2009 – 30 <sup>th</sup> Jun 2009	3,919
Rosemount Ryecroft Winery	1 <sup>st</sup> Jan 2009 – 30 <sup>th</sup> Jun 2009	1,655
Wolf Blass Winery and Packaging	1 <sup>st</sup> Jan 2009 – 30 <sup>th</sup> Jun 2009	8,625
Yatala Brewery	1 <sup>st</sup> Jan 2009 – 30 <sup>th</sup> Jun 2009	26,734
<b>Total energy assessed</b>		<b>117,000</b>
<b>Total energy use of the group in the current reporting year</b>		<b>1,716,232</b>
<b>Total energy assessed expressed as a percentage of total current energy use</b>		<b>6.8%</b>

<sup>2</sup> 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).

<sup>3</sup> 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		
Entity	% achieved	Reasons for not achieving data accuracy to within $\pm 5\%$
All 10 manufacturing sites	$\pm 5\%$	

## 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: Foster's Group Limited

Energy use of the entity during the current reporting period

1,716,232 <sup>4</sup>	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	11	1,137	4,930	6,110	12,177
Business Response*	Under Investigation	6		4,930	6,110	11,040
	To be Implemented	0		0		0
	Implementation Commenced	3	186			186
	Implemented	2	951			951
	Not to be Implemented					

<sup>4</sup> This is the total FGL annual FY09 energy consumption

Name of Group member or business unit or key activity or site: Foster's Group Limited

Energy use of the entity during the current reporting period

1,716,232	GJ
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<b>Table 2.2 - Opportunities assessed to an accuracy of worse than ±30%</b>						
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	<b>NIL</b>				
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

Name of Group member or business unit or key activity or site: Foster's Group Limited

Energy use of the entity during the current reporting period

1,716,232	GJ
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<b>Table 2.3 - Opportunities assessed to an accuracy of ±30% or better</b>						
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	<b>33</b> (29)	<b>21,183</b> (29,328)	<b>49,591</b> (50,949)	<b>79,438</b> (0)	<b>150,212</b> (80,187)
Business Response*	Under Investigation	<b>11</b> (10)	<b>5,721</b> (6,107)	<b>4,256</b> (46,098)	<b>38,340</b> (0)	<b>48,317</b> (52,205)
	To be Implemented	<b>1</b> (4)	<b>14,629</b> (14,629)	<b>29,395</b> (0)		<b>29,395</b> (14,629)
	Implementation Commenced	<b>0</b> (1)	<b>2,802</b> (2,802)			<b>2,802</b> (2,802)
	Implemented	<b>18</b> (14)	<b>15,462</b> (5,700)	<b>15,940</b> (4,851)	<b>2,000</b> (0)	<b>33,402</b> (10,551)
	Not to be Implemented	<b>3</b> (0)			<b>39,098</b> (0)	<b>39,098</b> (0)

Note: In Table 2.3 Numbers in brackets represent the original reporting year. The differences in the updated spreadsheet reflect the following factors:

- 1) Implementation of additional opportunities that were listed “under investigation”.
- 2) Opportunities listed previously as “under investigation” are now listed as not to be implemented as payback periods exceed business criteria.
- 3) Greater understanding of process has lead to further opportunities arising from original assessment.
- 4) Additional projects due to the creation of the >4 year payback period criteria.

Name of Group member or business unit or key activity or site: Foster's Group Limited

Energy use of the entity during the current reporting period

1,716,232	GJ
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**Table 2.4 - 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 – ≤ 4 years	> 4 years	
Outcomes of assessment*	Total Identified	<b>NIL</b>				
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 2C - Details of at least three significant opportunities found through EEO assessments

**Table 2.5 – Description of 4 significant opportunities**

**Opportunity 1**

During our first round of assessments in 2008, we looked at opportunities for replacement and upgrade of boilers at our Tasmanian brewery. This constituted a fuel switch and upgrade to a more efficient boiler, estimated to save in the order of 32,500 GJ of energy and 5,703 t CO<sub>2</sub>-e. At the time of our initial assessment, a number of external factors meant that costs of progressing were prohibitive. Since the original assessment, changes to these factors have occurred and the project has become more attractive triggering a review of our initial assessment. The payback period of this project is just over 4 years and is in the final stages of management review to determine feasibility of progressing.

**Opportunity 2**

Gordon Brothers (a refrigeration consultant) was engaged to review the refrigeration process at our Karadoc winery. Karadoc currently uses diesel powered refrigeration units to supplement the permanent refrigeration system during peak vintage times. The review highlighted a number of significant savings that could be realised by installing additional and more efficient permanent refrigeration. The project would save in the order of 3,980 GJ and 541 t CO<sub>2</sub>-e. A key issue at present, which may prevent this project from occurring, is the amount of power currently available to the site to allow for permanent electrically driven refrigeration. Assessment of this project continues and we are exploring options for overcoming this limitation.

**Opportunity 3**

Gordon Brothers reviewed the refrigeration at our Coonawarra winery. Like Karadoc, they also hire units to supplement the refrigeration needs during vintage. The hire units at Coonawarra while electrically driven and more efficient than their diesel counterparts represent an opportunity to improve the efficiency with which energy is consumed on site through the installation of permanent purpose built plants. Coonawarra has two refrigeration plant rooms, and with careful management and swapping of loads from one plant to another, plus additional capacity, significant energy savings in the order of 2,190 GJ and 543 t CO<sub>2</sub> –e could be realised. The payback period of this project is around 5 years. Assessment of this project for feasibility continues.

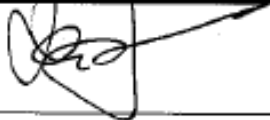
**Opportunity 4**

A review by Gordon Brothers at our Wolf Blass winery has identified a number of opportunities that will potentially will improve the efficiency of the refrigeration system. These include improved condenser control and utilisation of the hot and cold brine system. The projected savings are in the order of 2,360 GJ and 682 t CO<sub>2</sub>-e. Payback period of project is around 3 years. Assessment of this project for feasibility continues.



## Part 4 - Declaration

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

<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> 21/12/09</p> <p><b>Ian Johnston</b> Chief Executive Officer Foster's Group Limited</p>
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