



Sustainability, Energy & Carbon Management

A low-angle, upward-looking photograph of a modern building's facade, showing a grid of windows and structural elements against a clear blue sky. The image is partially obscured by a dark, semi-transparent overlay on the right side where the title text is located.

# Greenhouse Gas Assessment

for **Pangolin Associates Pty Ltd**  
**FY 2013/14**

## Authored by

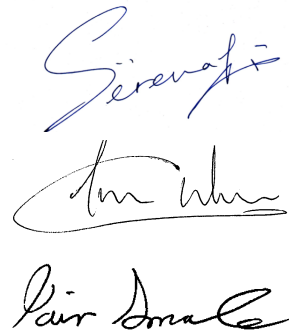
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This assessment report has been prepared for Pangolin Associates Pty Ltd.

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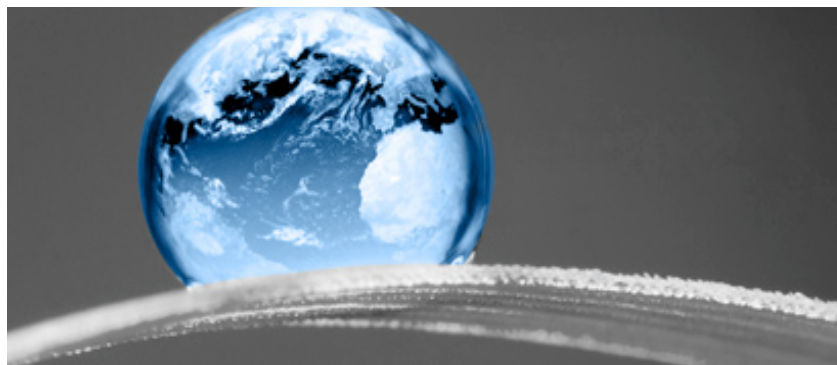
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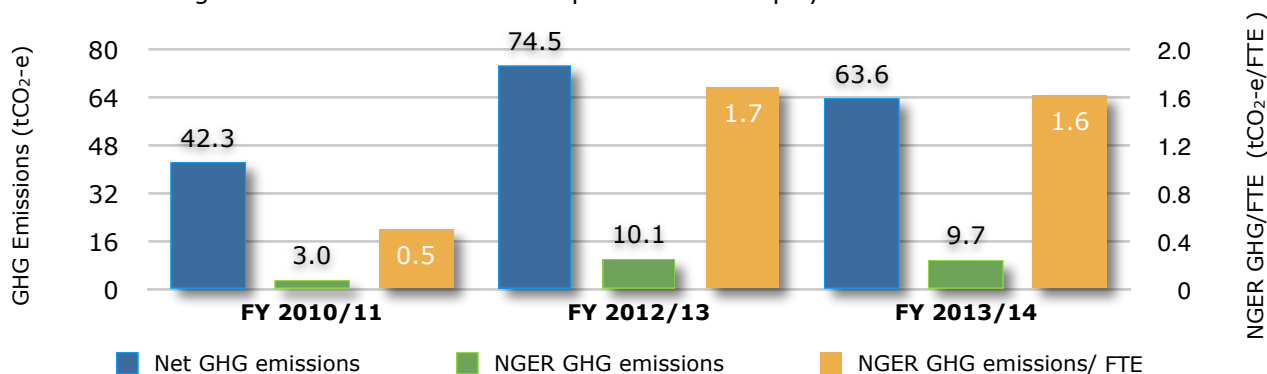


Pangolin Associates were commissioned to conduct a comprehensive assessment of the greenhouse gas (GHG) emissions accountable to the Australian operations of Pangolin Associates Pty Ltd ('Pangolin') for the financial year FY 2013/14.

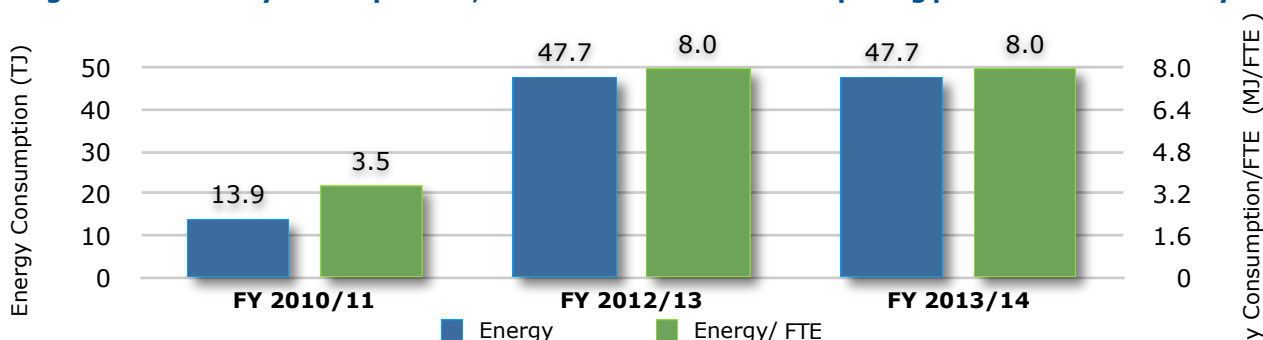
Based on best available data, the estimated net total carbon emissions for Pangolin was 63.6 tonnes of carbon dioxide equivalents (tCO<sub>2</sub>-e). This total includes indirect contributions along the supply chain (scope 3 emissions) and any voluntary carbon credit and renewable GreenPower purchases.

A comparison of the individual activity contributions to overall gross GHG emissions revealed that 'Business Flights' was the largest contributor, at 31.7 tCO<sub>2</sub>-e (49.8% of gross GHG Protocol emissions), from a total of 117,321 passenger.km per annum

Changes to net GHG emissions, emissions subject to reporting under the National Greenhouse and Energy Reporting Act (NGER) and energy consumption profiles for Pangolin over time are presented below and benchmarked against the number of full time equivalent FTE employees.



**Figure I: A summary of GHG protocol, NGER GHG Emissions with reporting period and FTE intensity<sup>1</sup>**



**Figure II A summary of energy consumption with reporting period and FTE intensity<sup>1</sup>**

<sup>1</sup> Includes numerical rounding to one decimal point. Table columns and figure percentages may not sum due to rounding.

Further comparisons of Pangolin's GHG performance to the prior assessment period and base year (BY) are summarised below. Overall year on year (YoY) emissions changed by -11.0 tCO<sub>2</sub>-e, a decrease of 14.6% over the prior year. However, in a like for like (LfL) net comparison where only activities measured in both assessments were compared (totals presented are based on a revised comparison, taking into account boundary changes, emission factor and estimation method updates to prior year assessments) there was a decrease of 6.6 tCO<sub>2</sub>-e representing a net change of -9.40%.

Compared to the base year emissions of FY 2010/11, the current assessment emissions resulted a net increase of 15.5 tonnes of CO<sub>2</sub>-e or 36.90% in a LfL net comparison. Note that the YoY and YoBY net comparisons shown below may not be directly comparable due to differences in the operational boundary over successive reporting periods.

## Reporting Obligations

The minimum reportable emissions for Pangolin was 0.0 kilotonnes (kt) of CO<sub>2</sub>-e, as defined by scopes 1 and 2 emissions covered under the NGER Act. Total energy consumption was 0.1 TJ.

Under Section 13 of the NGER Act, Pangolin is below the corporation threshold and/or below the facility threshold and therefore has no mandatory reporting obligations.

Primary statement of GHG emissions for Pangolin								
CO <sub>2</sub> -e emissions (tonnes)		Reporting Year			Percentage Change			
Associated Inventory/Service:		FY 2010/11 <sup>a</sup>	FY 2012/13 <sup>a</sup>	FY 2013/14	YoY		YoBY <sup>b</sup>	
Scope 1	Transport Fuels	0.0	0.0	0.0		0.0%		0.0%
Scope 2	Purchased Electricity	3.0	10.1	9.7	▼	-4.0%	▲	223.3%
Scope 3	Equipment, Flights, Third Party Services, Off-site Waste Disposal, Transmission & Distribution losses, Fuel Extraction, Production & Distribution losses, Other Utilities	39.3	64.4	53.9	▼	-16.3%	▲	37.3%
NGER (scope 1 & 2) <sup>1,2,a</sup>		3.0	10.1	9.7	▼	-4.0%	▲	223.3%
Gross Total (scope 1, 2 & 3) <sup>1,2,a</sup>		42.3	74.5	63.6	▼	-14.6%	▲	50.5%
Credits <sup>d</sup>		0.0	0.0	0.0				
GHG Protocol (scope 1, 2 & 3)	Net Total <sup>1,2,a</sup>	42.3	74.5	63.6	▼	-14.6%	▲	50.5%
	Like for Like YoY <sup>1,c</sup>		70.2	63.6	▼	-9.4%		
	Like for Like YoBY <sup>1,c</sup>	41.9		57.4			▲	36.9%
Energy Consumption (TJ)	Net Total <sup>1,2,a</sup>	13.9	47.7	47.7		0.0%	▲	242.7%
(a) Unless otherwise stated, these values are unrevised and based on the original reported findings (b) Year on Base Year (YoBY) (c) Like for like totals reflect operational boundary changes, emission factor and estimation updates, acquisitions and divestments. Only includes activities that were mutually assessed in both accounting periods (Note: BY like for like total may not be displayed due to lack of data). (d) For GreenPower accounting description, please see Appendix B								

2 Scope 1 & 2 emissions are tabulated according to the National Carbon Offset Standard for the relevant reporting period.



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