National Carbon Offset Standard
Carbon Neutral Program
Public Disclosure Summary

An Australian Government Initiative

1. Organisation and Product Information

Table 1: Organisation and Product Information

Organisation Name	Transforce Bulk Haulage	
Name of the subject(s) of certification	Transforce Bulk Haulage	
Type of certification (tick all applicable)	☐ Organisation √ ☐ Part of organisation	☐ Product/service ☐ Event
Reporting year period	1/07/2012	30/06/2013
Emissions in this reporting year	4505 t CO_2-e	

Australian Government
Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education

Base year period	01/01/2011	31/12/2011
Emissions in the base year	4498.5 t CO2-e = 449.9 t CO_2-e per FTE vehicle t CO_2-e	

2. Description of Organisation Activities

Transforce Bulk Haulage is a heavy transport company headquartered in Dubbo, NSW. It carries agricultural produce and construction materials. The activities include the operation of trucks, their washing and maintenance, and office administration.

Organisational & Geographic Boundary/ Scope & System Boundary

Emission sources quantified are:

- diesel and petrol from operation of Transforce, contractor trucks, and staff cars
- oils and greases from vehicle maintenance on site and off
- electricity
- paper
- waste and
- business flights.

Emissions not quantified:

- Refrigerant use in truck and office air conditioning
- Water use and
- Outsourced office cleaning and accounting services.

Tyres are recycled and are therefore not included in the emissions boundary. Manufacture of trucks is also beyond the scope of the organisation's emission boundary.

Transforce has chosen to exclude the following scope 3 emissions:

Waste water from hose down area - It is recycled via a two-stage separation process. The electricity used in the function is captured in the energy bills.

Manufacturing of vehicles, tyres, brake pads, wiper fluids - They go beyond what the customer would expect.of a carbon neutral transport company, ie., it is a transport company and not a manufacturer. It provides services, not products.

Maintenance and cleaning of office building - Transforce's administration occupies approximately 35 sq.m, housing 6 staff. Cleaning and maintaining this space is considered not material in the context of the main sources of emissions

Figure 1. Scope of emissions.
Emissions from vehicle manufacture and the disposal of tyres are not included. Tyres are recycled. Vehicle manufacture is outside the scope of certification.s

Diagram of the Boundary of the Subject of Certification

3. Purchase of GreenPower and Retirement of GreenPower Eligible Large-Scale Generation Certificates (LGCS)

Not Applicable: It was decided that the most effective use of shareholders' funds to reduce emissions was investment in new technology engines. .

4. Purchase of NCOS Carbon Neutral Products

Transforce purchased air travel under the conditions of the Qantas Carbon Offset Tax, paying to offset emissions equivalent to 8tCO2-e in the reporting period.

5. Total Carbon Footprint

Table 2: Emission Calculations 2012-2013

Scope	Emission source	Source of activity data	Methodology reference	Energy content factor	Emission factor	Activity data[1]	Unit[2]	t CO_2-e[3]
1	Diesel oil	BP Plus Fleet Control System	NGERS Method. NGA Factors 2013, Table 4, p. 18	38.6 GJ/kL	69.2 kg CO_2-e/GJ	1,637.5	kL	4375
1	Diesel oil	BP Plus Fleet Control System	NGERS Method. NGA Factors 2013, Table 4, p. 18	38.6 GJ/kL	0.2 kg CO_2-e/Gj	1,637.5	kL	12.7
1	Diesel oil	BP Plus Fleet Control System	NGERS Method. NGA Factors 2013, Table 4, p. 18	38.6 GJ/kL	0.5 kg CO_2-e/GJ	1,637.5	kL	31.7

Scope	Emission source	Source of activity data	Methodology reference	Energy content factor	Emission factor	Activity data[1]	Unit[2]	t CO_2-e[3]
3	Diesel oil	BP Plus Fleet Control System	NGERS Method. NGA Factors 2013, Table 40, p. 72	38.6 GJ/kL	5.3 kg CO_2-e/GJ	1,637.5	kL	336
1	Petrol	BP Plus Fleet Control System	NGERS Method. NGA Factors 2013, Table 4, p. 18	34.2 GJ/kL	66.7 kg CO_2-e/GJ	11.7	kL	26.7
1	Petrol	BP Plus Fleet Control System	NGERS Method. NGA Factors 2013, Table 4, p. 18	34.2 GJ/kL	2.3 kg CO_2-e/GJ	11.7	kL	0.92
1	Petrol	BP Plus Fleet Control System	NGERS Method. NGA Factors 2013, Table 4, p. 18	34.2 GJ/kL	0.6 kg CO_2-e/GJ	11.7	kL	0.24
3	Petrol	BP Plus Fleet Control System	NGERS Method. NGA Factors 2013, Table 40, p. 72	34.2 GJ/kL	5.3 kg CO_2-e/GJ	11.7	kL	2.12
1	Petrol-based oils and greases	Estimations based on Vehicle specification, eg. sump capacity	NGERS Determination 2013, Schedule 1, Part 3, p. 333	38.8 GJ/kL	27.9 kg CO_2-e/GJ	3.3	kL	3.57
2	Electricity	Country Energy Invoices	NGERS Method. NGA Factors 2013, Table 41, p. 73	Not applicable	0.87 kg CO_2-e/GJ	38,678	Kg CO2-e kWh	33.6
3	Electricity	Country Energy Invoices	NGERS Method. NGA Factors 2013, Table 41, p. 73	Not applicable	0.19 CO_2-e/GJ	38,678	Kg CO2-e kWh	7.4
3	Waste To Landfill	Invoices JR Richards & Son	NGERS Method. NGA Factors 2013, Table 42, p. 77	Not applicable	0.14t/m3	36	M^3	12.5
3	Air travel	Qantas Frequent Flyer Records	Qantas Carbon Offset Tax	0.0	8t/CO2-e	61 flights 8000kg	kg	0.0

Scope	Emission source	Source of activity data	Methodology reference	Energy content factor	Emission factor	Activity data[1]	Unit[2]	t CO_2-e[3]
3	Copy Paper	Invoices	EPA, Victoria, Greenhouse Gas Emission Factors For Office Copy Paper, October 2013	Not applicable	1.3 CO2/kg	125kg	kg	0. 165

Scope	Emission source	Source of activity data	Methodology reference	Energy content factor	Emission factor	Activity data[1]	Unit[2]	t CO_2-e[3]
Footprint in tonnes CO_2-e			4843 Minus 338tCO2-e = 4505tCO2-e* *BMS was "a one-truck fleet". To estimate BMS's total emissions we calculate the emissions from the overall Transforce/BMS operation, then divide them by the number of "fulltime equivalent vehicles" to average the contribution of the vehicles. This enables management to apportion to each fleet those emissions caused by shared facilities, enabling a notional "boundary" to be set.					
Total footprint in tonnes CO_2-e			4505tCO2-e					

6. Carbon Offset Purchases and Retirement for this Reporting Period

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	Offset type	Registry	Serial number	Quantity
1. *Kasigau Corridor REDD Project – Phase I Rukinga Sanctuary*	VCU	MARKIT	*1179-53281124-53282123-VCU-001-MER-KE-14-562-01012009-31122009-0*	1000
2. Redd Forests Grouped Project: Protection of Tasmanian Native Forest	VCU	MARKIT	*1613-67429715-67430214-VCU-006-MER-AU-14-641-01042010-30062011-0*	910
3. *Feke II 69.58 MW Hydroelecrtic Power Plant*	VCU	APX	*3472-155590872-1555974- VCU-005-APX-TR-1-534-01012011-30092012-0*	6583
4. Bundled Wind Power Project in Tamilnadu, India, Co-ordinated by Tamilnadu Spinning Mills Association (TASMA-V1)	VCU	APX	*3614-160044480-160045479-VCU-009-APX-IN-1-250-01012007-31122007-0*	600
Total offsets retired in beneficial ownership of Transforce Bulk Haulage				**9093**

Offsets allocated for Transforce for 2012-13	4505
Surplus offsets retired in advance for 2013-14 emissions	4588

7. Emission Reduction Measures

Transforce's strategy for reducing emissions

Engine efficiency	By de-commissioning aging units early in their effective lives, the company gains the benefit of next generation engine efficiency and reduces the likelihood of higher emissions due to declining engine efficiency.
Alternative fuels	New formulations of diesel and biodiesel are being trialled to measure emissions for alternative fuels.
Driver education and incentives	Personnel management - a driver incentive program to change operator behaviour rewards driving practices that reduces fuel consumption with a pay increase.
Intelligence Access Program	Increased payloads per vehicle enabled by installation of in-truck GPS location monitoring technology un the Intelligent Access Program (IAP)which facilitates Heavy Vehicle access to certain areas of the road network where otherwise it would not have been possible. A common use of the IAP system is when road authorities impose IAP as a condition of access to their Higher Mass Limits (HML) network in order to manage risk. HML is a national scheme that permits approved heavy vehicles to operate with additional mass on certain types of axle groups, on a restricted road network and subject to specified conditions.

8. Other Information

Carbon Neutral Business Expansion

Carbon Intensity vs Carbon Emissions

These are two methods for measuring an organisation's carbon performance. Counting Emissions is a matter of setting a boundary or footprint and conducting a new activity that reduces emissions. Measure before and after to observe the progress. But this measurement methodology is reliable only if there is no growth or contraction in the business.

Period	Diesel Combusted	Consumption Growth	Total emissions	Emissions Growth
2013/2014	1,757,168l	+7.8%	5268 tCo2e	+7.9%
2012/2013	1,637,555l	+6.8 %	4505 tCo2e	+10.5%
2011	1,509,418l	Baseline	4498 tCo2e	Baseline

Measurement of Intensity in Fleet Operations

Carbon intensity is a more flexible method for accessing the emissions reductions contribution of many types of businesses. In the freight and haulage sectors of the transport industry, the combustion of fuel represents 95+% of emissions in most cases. The simplest and least expensive method of comparing and tracking the drive to fuel economy which is the most significant element in identifying a baseline is to calculate total emissions in a sub-group of like vehicles and divide that figure by the number of vehicles in the sub-group. A more complex method measures the tonne/litre.

Period	Operating Units (Full time equivalent)	Total emissions	Emissions intensity	Difference
2013/2014	19	5268 tCo2e	278tCo2e	18% reduction
2012/2013	14.35	4505 tCo2e	338tCo2e	8% reduction
2011	11	4498.5tCo2e	449tCo2e	Baseline

The concept of Carbon Intensity recognises that conditions change in business and growth can impose increases in emissions on an otherwise emissions-effective operation.

"Intensity" refers to the emissions generated by a unit of service. The unit can be a tonne of cargo. It can be a unit of transport, such as a single vehicle. By reducing the emissions per vehicle, the growth of absolute

emissions can be replaced as an indicator of an operation's footprint. The growth in capacity of a business that is carbon neutral is proof that addressing climate change need not put constraints on economic growth.

11. Declaration

To the best of my knowledge and having implemented the quality controls and standards required under the NCOS Carbon Neutral Program and made all appropriate inquiries, the information provided in this Public Disclosure Summary is true and correct.

Stephen Fieldus

General Manager

2/02/2016