

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	Bulk Mine Services	
Name of the subject(s) of certification	Bulk Mine Services	
Type of certification	<input checked="" type="checkbox"/> Organisation <input type="checkbox"/> Part of organisation	<input type="checkbox"/> Product/service <input type="checkbox"/> Event
Reporting year period	From 1/01/2013	To 31/12/2013
Emissions in this reporting year	305 t CO ₂ -e	
Base year period	From 1/01/2011	To 31/12/2011
Emissions in the base year	449 t CO ₂ -e	

2. Description of Organisation Activities

Bulk Mine Services (BMS) was established as a separate operation within Transforce Bulk Haulage (Transforce) in 2012. Transforce commenced operations in 1999, carting predominately bulk agricultural commodities and building materials. It is based at Dubbo, central west NSW. In 2012 it founded BMS, the 1st Carbon Neutral certified bulk haulage company in Australia under the Carbon Neutral Program of the National Carbon Offset Standard (NCOS).

BMS was established in the same year to provide services to mining operations. BMS offered mining operations the opportunity to claim that their haulage activities made a positive contribution to their efforts to reduce emissions of greenhouse gases. But the decision was made to discontinue maintaining certified carbon neutral status for commercial reasons and poor uptake or interest from industry.

Formal Notice

Bulk Mine Services ceased operating as a distinct unit and was assumed into the Transforce Bulk Haulage general operation from September 2013.

The cessation of operation of the BMS brand under the NCOS banner does not mean that emissions for vehicles previously counted and offset will cease to be so. The single BMS unit will be merged into the Transforce fleet. It will:

- continue to be impacted by the company's drive to cut combustion of diesel;
- continue to be impacted by the company's activities that are bringing down the fuel consumption of each unit
- continue to be accountable on an aggregated basis (See "Carbon Neutral Business Expansion");
- continue to offset its emissions.

3. Organisational & Geographic Boundary/ Scope & system Bound

BMS is “a one---truck fleet” operating within Transforce Bulk Haulage which has a fleet of heavy vehicles that ranges from 10 to 20 units, depending on demand. Some are owned by contractors. Vehicles also appear and disappear from the list at various times with the addition of new units and replacement of old units as well as lease and rentals.

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 the operation per vehicle and their share of emissions from shared facilities.

The BMS vehicle is not a particular vehicle. In practice it could be any one of 16.7 full---time---equivalent trucks calculated in operation for the combined Transforce / BMS fleet for 2013, and that 1/16.7th of total emissions have therefore been BMS.



Figure 1. Scope of Emissions

4. Emissions sources

Emission sources covered are:

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

The following sources are not quantified. There not expected to make a material difference to the total emissions.

- 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.

BMS 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 - 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.

5. 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. .

6. 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.

7. Total Carbon Footprint*

**Total emissions for 2012-2013 and 2013-2014 financial years are presented here. The average of these years enables an estimation for calendar year 2013's emissions to be calculated.*

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

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	0.5 kg CO ₂ -e/GJ	1,637.5	kL	31.7
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 CO ₂ -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 CO ₂ -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/m ³	36	M ³	12.5

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	Air travel	Qantas Frequent Flyer Records	Qantas Carbon Offset Tax	0.0	8t/CO ₂ -e	55 flights 8000kg	kg	0.0
3	Copy Paper	Invoices	EPA, Victoria, Greenhouse Gas Emission Factors For Office Copy Paper, October 2013	Not applicable	1.3 CO ₂ /kg	125kg	kg	0.165
Total footprint Transforce/BMS combined (2012-2013)								4843t/CO ₂ -e

Total footprint BMS in tonnes CO₂-e

$$4843 \div 14.35^* = 338\text{tCO}_2\text{-e}$$

**(Full-Time Equivalent Vehicles)*

Table 3: Emission Calculations 2013-2014

\Scope	Emission source	Source of activity data	Methodology reference	Energy content factor	Emission factor	Activity data	Unit	t CO ₂ -e
1	Diesel oil	BP Plus Fleet Control System	NGERS Method. NGA Factors 2014, Table 4, p. 17	38.6 GJ/kL	69.2 kg CO ₂ -e/GJ	1,757.2	kL	4694
1	Diesel oil	BP Plus Fleet Control System	NGERS Method. NGA Factors 2014, Table 4, p. 17	38.6 GJ/kL	0.2 kg CO ₂ -e/GJ	1,757.2	kL	13.6
1	Diesel oil	BP Plus Fleet Control System	NGERS Method. NGA Factors 2014, Table 4, p. 17	38.6 GJ/kL	0.5 kg CO ₂ -e/GJ	1,757.2	kL	34
3	Diesel oil	BP Plus Fleet Control System	NGERS Method. NGA Factors 2014, Table 40, p. 67	38.6 GJ/kL	5.3 kg CO ₂ -e/GJ	1,757.2	kL	360
1	Petrol	BP Plus Fleet Control System	NGERS Method. NGA Factors 2014, Table 4, p. 17	34.2 GJ/kL	66.7 kg CO ₂ -e/GJ	34.6 ⁴	kL	79
1	Petrol	BP Plus Fleet Control System	NGERS Method. NGA Factors 2014, Table 4, p. 17	34.2 GJ/kL	2.3 kg CO ₂ -e/GJ	34.6	kL	2.8

⁴ The increase in Scope 1 Petrol from 11.7 kL in 2012-2013 to 34.6kL in 2013-2014 is due to substitution of some air travel with driving to visit clients and prospects to reduce costs.

\Scope	Emission source	Source of activity data	Methodology reference	Energy content factor	Emission factor	Activity data	Unit	t CO ₂ -e
1	Petrol	BP Plus Fleet Control System	NGERS Method. NGA Factors 2014, Table 4, p. 17	34.2 GJ/kL	0.6 kg CO ₂ -e/GJ	34.6	kL	0.7
3	Petrol	BP Plus Fleet Control System	NGERS Method. NGA Factors 2014, Table 40, p. 67	34.2 GJ/kL	5.3 kg CO ₂ -e/GJ	34.6	kL	6.3
1	Petrol—based oils and greases	Estimations based on Vehicle specification, eg. service intervals, sump capacity	NGERS Technical Guidelines 2013, Division 2.4.5A, p.211	38.8 GJ/kL	27.9 kg CO ₂ -e/GJ	4.6	kL	5.0
2	Electricity	Origin Energy Invoices	NGERS Method. NGA Factors 2013, Table 41, p. 73	Not applicable	0.87 kg CO ₂ -e/GJ	48,021	Kg CO ₂ -e kWh	41.8
3	Electricity	Origin Energy Invoices	NGERS Method. NGA Factors 2013, Table 41, p. 73	Not applicable	0.19 CO ₂ -e/GJ	48,021	Kg CO ₂ -e kWh	9.2
3	Waste To Landfill	Invoices JR Richards & Son	NGERS Method. NGA Factors 2013, Table 42, p. 77	Not applicable	2.5	42	M ³	14.7
3	Air Travel	Qantas Frequent Flyer Records, invoices	3wQantas Carbon Offset Tax.	Not applicable	Not Applicable	Not applicable. Flights covered by Qantas Carbon Offset Tax. 8.5 tCO ₂ -e offset.	kms	0.0
3	Copy Paper	Invoices	EPA, Victoria, Greenhouse Gas Emission Factors For Office Copy Paper, October 2013	Not applicable	Not Applicable	Usage limited to 1 reem of copier paper in the period.	kg	0.0

\Scope	Emission source	Source of activity data	Methodology reference	Energy content factor	Emission factor	Activity data	Unit	t CO ₂ -e
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Total footprint Transforce/BMS combined 2013-2014

5268tCO₂-e

Total footprint BMS in tonnes CO₂-e

$$5268 \div 19^* = 278\text{tCO}_2\text{-e}$$

**(Full-Time Equivalent Vehicles)*

This approach relies on “synthetic data”, ie., data derived from other data to allocate emissions to BMS for the 2013 calendar year (pro rata emissions of 1 notional FTE vehicle, based on the average of 2012-13 and 2013-14 emissions for the entire BMS/Transforce fleet). The uncertainty factor of the approximation can be managed by: 1. Observing that the data points are aligned with the trajectory of the existing curve. 2. Adding a 20% buffer of emissions for abatement.

BMS Emissions Calculation Method 2011 – 2014				
	Baseline 2011	2012-2013	2013*	2013-2014
Total Transforce Emissions ÷ Number FTE Trucks	4498.5 ÷ 10‡ = 449	4843 ÷ 14.35 = 338	5070† ÷ 16.7 = 305	5268 ÷ 19 = 278
BMS Total Emissions	449	338	305	278

**Average of 2012-2013 and 2013-2014 financial years' emissions enables that an estimation for calendar year 2013's emissions can be made.*

‡Total emissions per full time equivalent give a measure of the carbon intensity of the average operating unit.

†The results for 2013 is a notional figure. The uncertainty arising from the calculation is reduced by a buffer of additional offsets (20%).

Offsets Retired

The total emissions for 2013 from the operation by BMS was estimated to be 305tCO₂-e. Offsets to a total of 400 were purchased and retired. The additional 95 units are meant to act as a buffer against uncertainty arising from the method of calculation.

Offsets Retired For BMS 15 December 2014	Offset type	Registry	Serial number	Quantity
<i>Bundled Wind Power Project in Tamilnadu, India, Co-ordinated by Tamilnadu Spinning Mills Association (TASMA-V1)</i>	VCU	APX	3614-160045080-160045479-VCU-009-APX-IN-1-250-01012007-31122007-0	400

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



Signature

General Manager

Date

18/1/16