

OCEANA GROUP LTD CARBON FOOTPRINT

ANALYSIS AND FINDINGS

FY2017



This report was developed by:



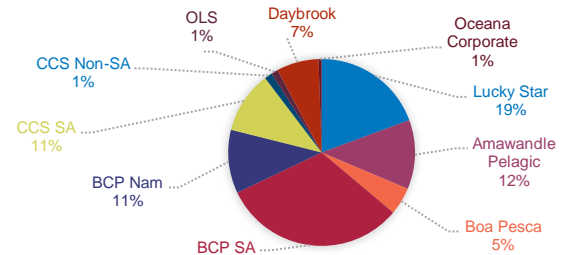
Making business better

This report summarises the Greenhouse Gas (GHG) emission inventory for the Oceana Group Ltd for the 2017 financial year (October 2016 to September 2017).

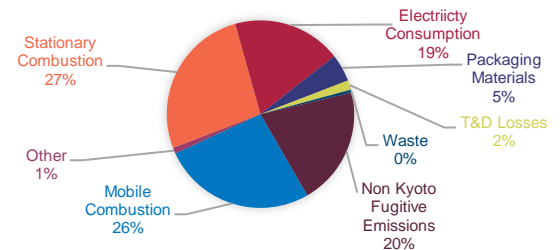
Emissions were measured in accordance with the GHG Protocol Corporate Standard (WRI & WBCSD, 2004) using the Operational Control approach.

All Scope 1 emissions (direct sources) as well as Scope 2 emissions (emissions from electricity consumption) were measured. Limited Scope 3 emissions were included in the assessment.

Although this is **the ninth reporting year**, the baseline year was reset as 2016 due to fundamental boundary changes in the organization, including the purchase of Daybrook in the United States and the shutdown of Fries operations in South Africa. (Previously, the baseline was FY2013).



355 273 tonnes CO₂e



SCOPE	SOURCE CATEGORY	LUCKY STAR	BCP	CCS	OLS	DAYBROOK	CORPORATE	TOTAL
Scope 1	Mobile Combustion	16 078	75 999	10	1 696	205	26	94 014
	Stationary Combustion	75 267	0	245	0	18 748	0	94 260
Scope 2	Purchased Electricity - Location Based	15 712	3 098	38 341	2 157	6 415	853	66 575
	Purchased Electricity - Market Based *	15 712	3 098	38 341	2 157	7 255	853	67 415
Total Scope 1 & 2		107 056	79 096	38 595	3 854	25 369	879	254 849
Scope 3	Purchased Goods and Services: Packaging	14 609	1 994	238	17	0	0	16 859
	Purchased Goods and Services: Paper consumption	14	9	42	1	0	48	113
	Purchased Goods and Services: Water consumption	569	20	160	1	99	0	848
	Fuel and energy related sources: T&D losses	1 381	273	3 486	190	448	75	5 854
	Business Travel: Flights	134	1 154	149	3	0	793	2 233
	Business travel: Rental vehicles	14	1	6	0	0	8	30
	Business travel: Subsidised travel	191	36	37	0	0	84	347
	Waste generated in operations	1 383	248	224	6	0	11	1 873
Total Scope 3		18 295	3 735	4 342	218	547	1 020	28 157
Total Scope 1, 2 & 3		125 352	82 831	42 937	4 072	25 916	1 899	283 007
Outside of Scopes	Refrigerants non-Kyoto gases (HCFC-R22)	2 987	69 180	100	0	0	0	72 266
Total Out of Scopes		2 987	69 180	100	0	0	0	72 266
Total Measured Emissions		128 338	152 011	43 037	4 072	25 916	1 899	355 273

VESSELS & OPERATIONS



51% of the total Scope 1, 2 and refrigerant gas emissions arise from fishing vessels

- **BCP accounts for 87% of these**
- **Lucky Star accounts for 11 % of these**

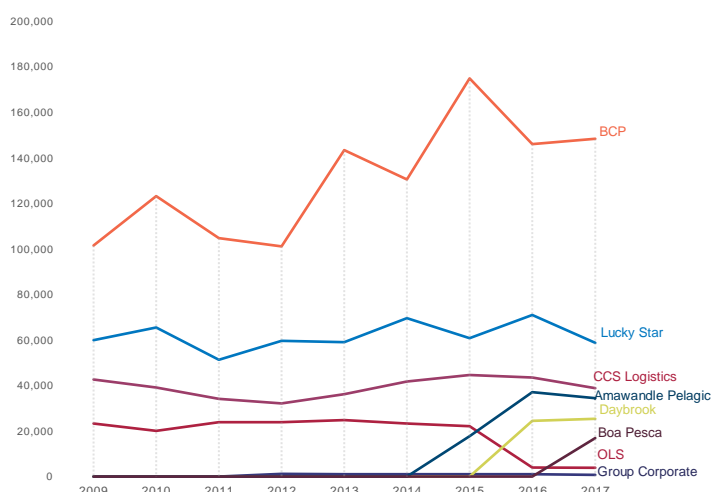
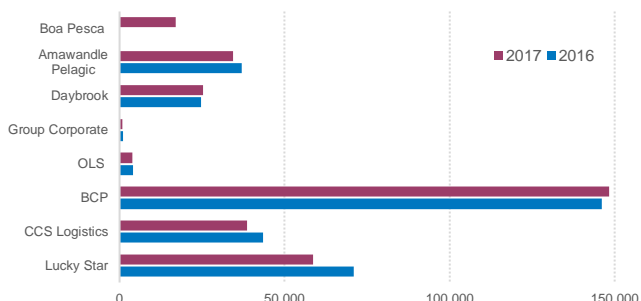


49% of Scope 1, 2 and refrigerant emissions are from land based operations

- **Lucky Star accounts for 57% of these**
- **CCS accounts for 24 % of these**

ANNUAL TRENDS & PERFORMANCE

Despite the inclusion of Boa Pesca, which accounted for almost 17 000 tonnes CO₂e, annual emissions across the group decreased by less than 1%. The fries division was closed at the end of 2016.



Oceana has set the following annual intensity emission reduction targets:

- Year-on-year 2.5% reduction in tonnes CO₂e per tonne of land-based product handled
- Year-on-year 2.5% reduction in tonnes CO₂e per tonne of sea-based product handled

SEA BASED

23% Reduction in product

11% Intensity Reduction



LAND BASED

11% Reduction in product

1% Intensity Reduction



NATIONAL GREENHOUSE GAS REPORTING GUIDELINES



- Promulgated by the Minister of Environmental Affairs on 3 April 2017.
- Entities that conduct any of the listed activities above a specified threshold are required to report on emissions from that activity.
- The regulations require companies to apply the operational control approach when consolidating emissions, which Oceana already does.
- Emissions from mobile combustion sources (including the vessel fleet) are to be reported on, while emissions from purchased electricity and refrigerants are excluded.
- Companies are required to report should they exceed the threshold for a given sector. Note that thresholds are cumulatively applied.
- Reporting is aligned to the calendar year, which means Oceana would have to change some aspects of its reporting to accommodate this. Submissions for the preceding calendar year are to be made by 31 March.
- Companies are to register all facilities which exceed the threshold within 30 days of the regulations coming into effect.

CARBON TAX IMPLICATIONS



- It is unclear as to when the carbon tax legislation will be promulgated,
- However, an updated draft policy was released for comment in December 2017.
- Oceana meets the minimum tax threshold (10 MW(th)) due to the capacity of the land-based factory boilers. Oceana will be liable for carbon tax on those respective emissions. Additionally, mobile fuels will be taxed at the pump, and so will not form part of direct carbon tax liability.
- The price on carbon will however be experienced indirectly through any increases in the electricity and fuel (diesel and petrol) prices.

Phasing out of R22

- Under the Montreal Protocol, non-Kyoto refrigeration gases, including R-22 are being phased out globally given their high GHG emissions and ozone depleting characteristics. Oceana still uses R-22 predominately for refrigeration purposes. (According to the Montreal Protocol Technology and Economic Assessment Panel, 70% of the global fishing fleet continues to use R-22 as the main refrigerants.
- Ammonia is an option, already in use at Oceana, which would satisfy the Montreal Protocol, and reduce carbon emissions due to its zero emissions.
- As a party to the Montreal Protocol and its amendments, South Africa is committed to following the agreed phase out as follows:
 - Freeze consumption in 2013 at the baseline consumption (2009-2010);
 - Reduce 10% by 2015;
 - Reduce 35% by 2020;
 - Reduce 67.5% by 2025;
 - Allow 2.5% annual consumption during 2030-2040



RECOMMENDATIONS



FLEET MANAGEMENT

Oceana should create a framework for evaluating which ad-hoc investments are both viable and likely to impact the efficiency of the current fleet, and streamline that process. Oceana should research, evaluate, and design specifications for all new vessels to underpin future fleet replacement programmes.



DATA MANAGEMENT SYSTEM

Oceana has been collecting and analyzing environmental and sustainability data monthly for many years. However, current manual data systems are limited. Oceana could enhance the way the company performs this function by migrating to a current, live and digitized reporting system that will provide:

- The ability to benchmark current vs. past environmental performance
- Complete, accurate and reliable repository of non-financial data
- An understanding of the relationship between financial and environment performance
- Granular data to inform decisions and drive resource efficiency at a site/brand level
- The ability to disseminate relevant and accurate communication and disclosure to all stakeholders at any time
- Switched from a compliance based, annual reporting framework to a performance based monthly one.



RENEWABLE ENERGY

The installation of Solar PV and other energy efficiency features at CSS facilities and the land-based processing plants will have material impact of lowering overall emissions. Electricity consumption at CCS and Lucky Star contributes **21%** of total scope 1 and scope 2 emissions.



R22 REPLACEMENT FOR REFRIGERATION

Through the introduction of Ammonia to replace Freon R-22 refrigerant gases, both at land-based plants and on vessels, carbon emissions would be reduced considerably.



ALTERNATIVES FUELS

Investigate fuel switching to replacement fuels such as Ethanol, Biodiesel, Liquid Petroleum Gas (LPG), Compressed Natural Gas (CNG) or Biogas, where appropriate and where feasible.