



Ugland Marine Services AS

Environmental Report

2015

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1 Scope

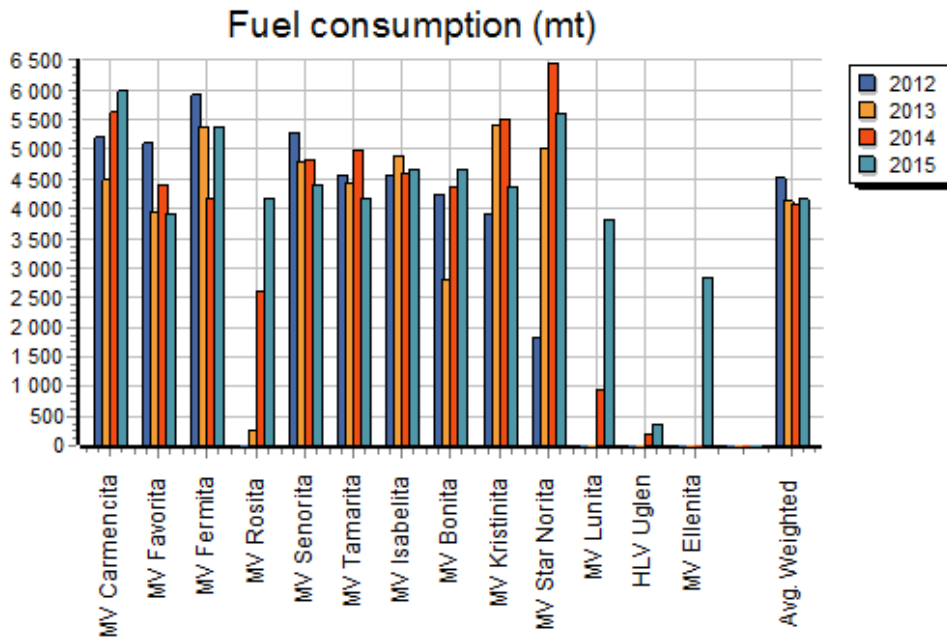
The purpose of this section is to present the company vessel and office environmental performance. In the report some of the more significant aspects are recorded for the latest period and compared with previous data.

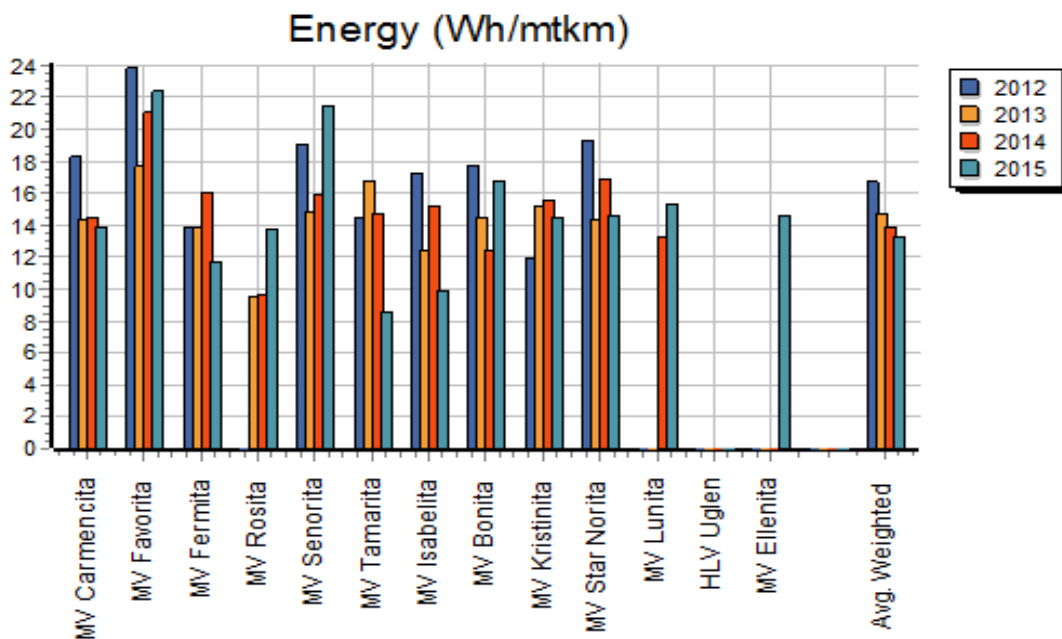
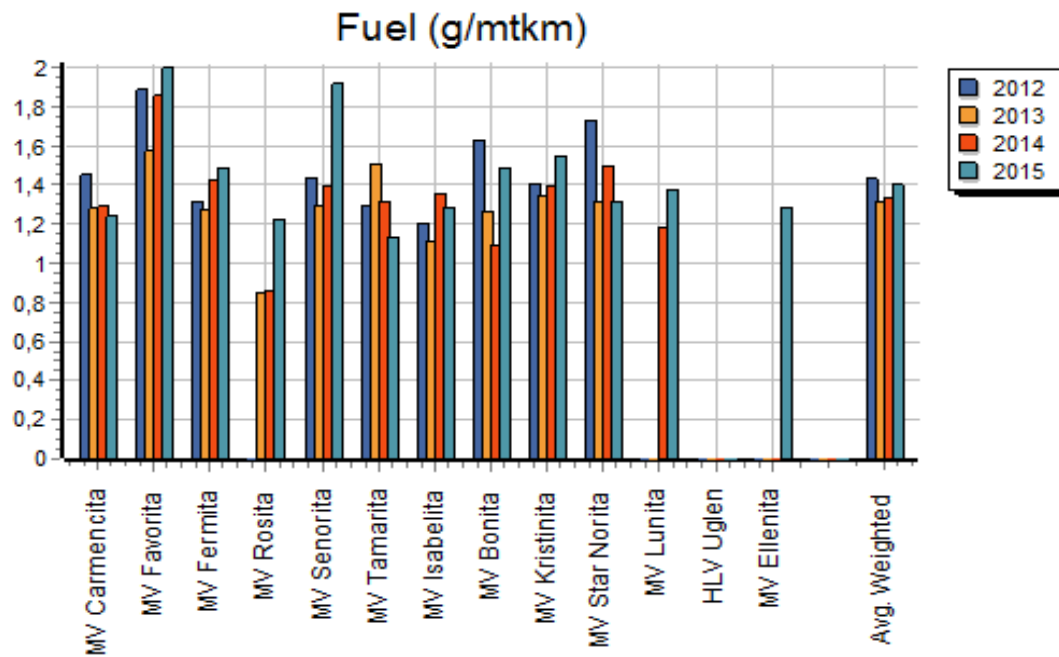
The report is compiled to include environmental elements in accordance to Global Reporting Initiative (GRI – G4)

2 Fuel consumption and air emissions

The main consumers of fuel oil and lube oil on board are the main and auxiliary engines producing propulsion and electric/hydraulic energy. Boilers may also in some instances be significant consumers.

PSV are excluded from this list





Comments:

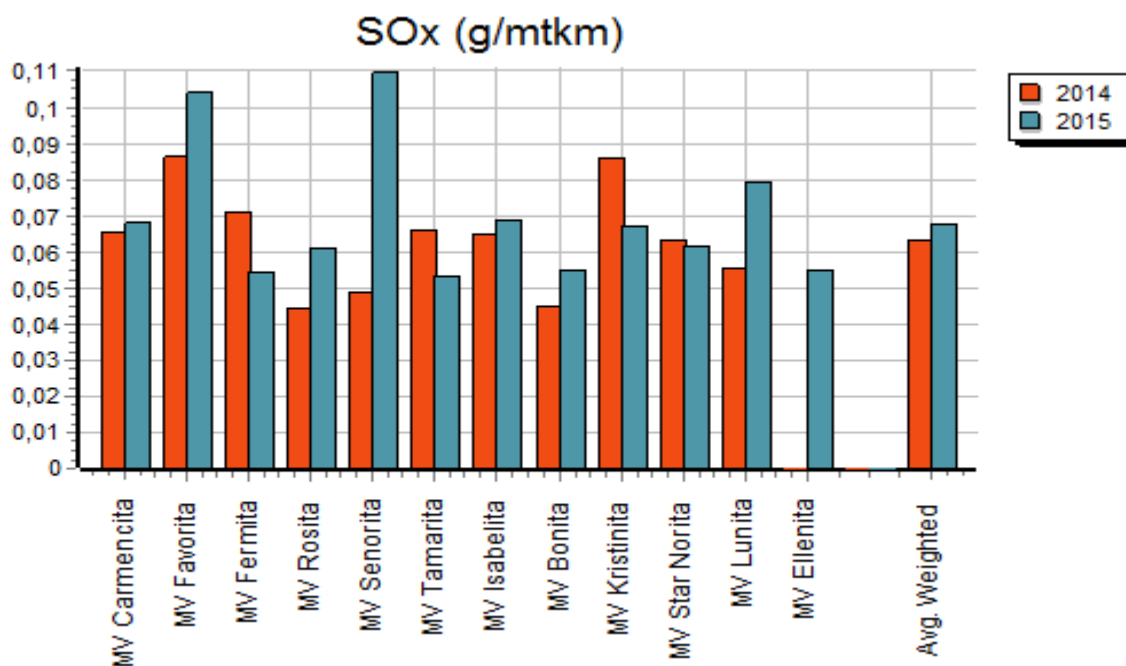
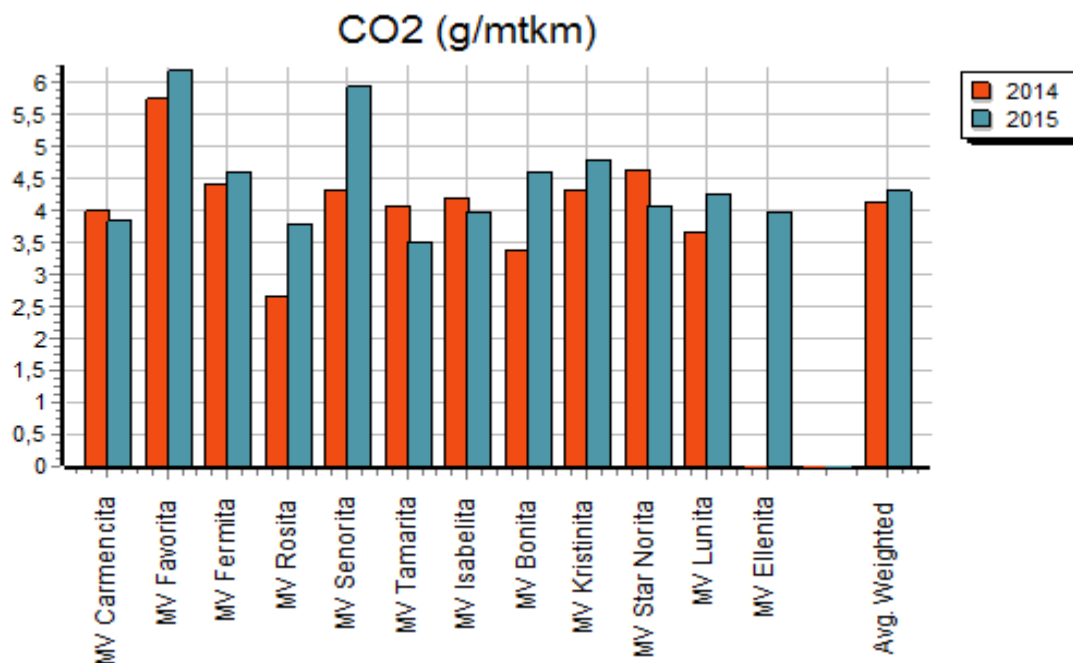
- Ellenita: Delivered September 2015, and Lunita had its first full year 2015.
- Senorita/Favorita/Tamarita/Bonita/Star Norita: Due to identified errors in environmental reporting from named vessels the figures will not be fully correct.

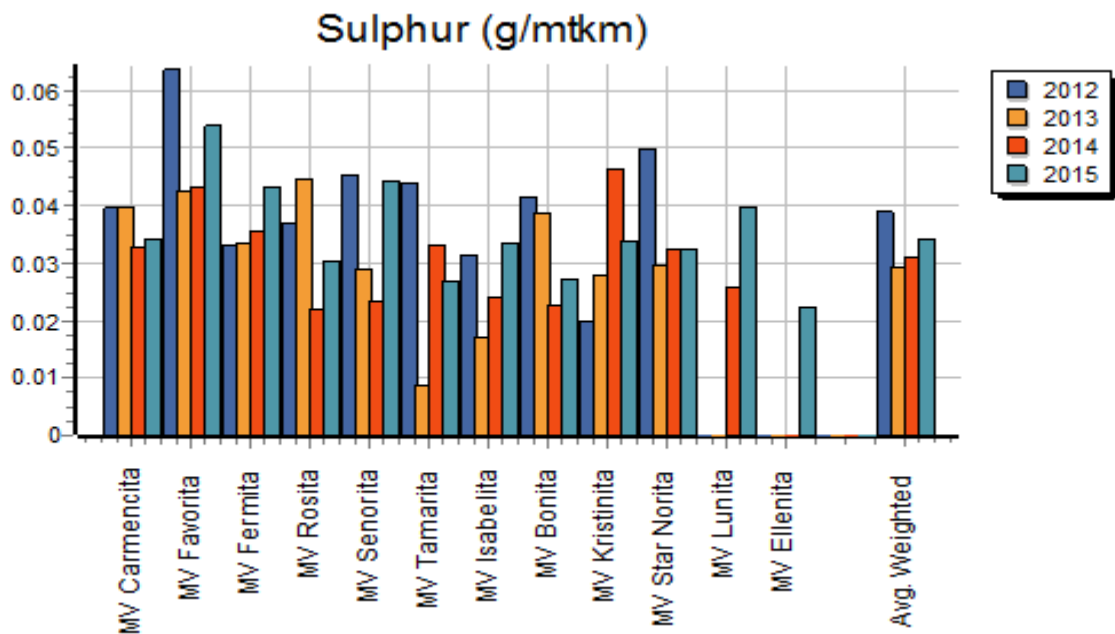
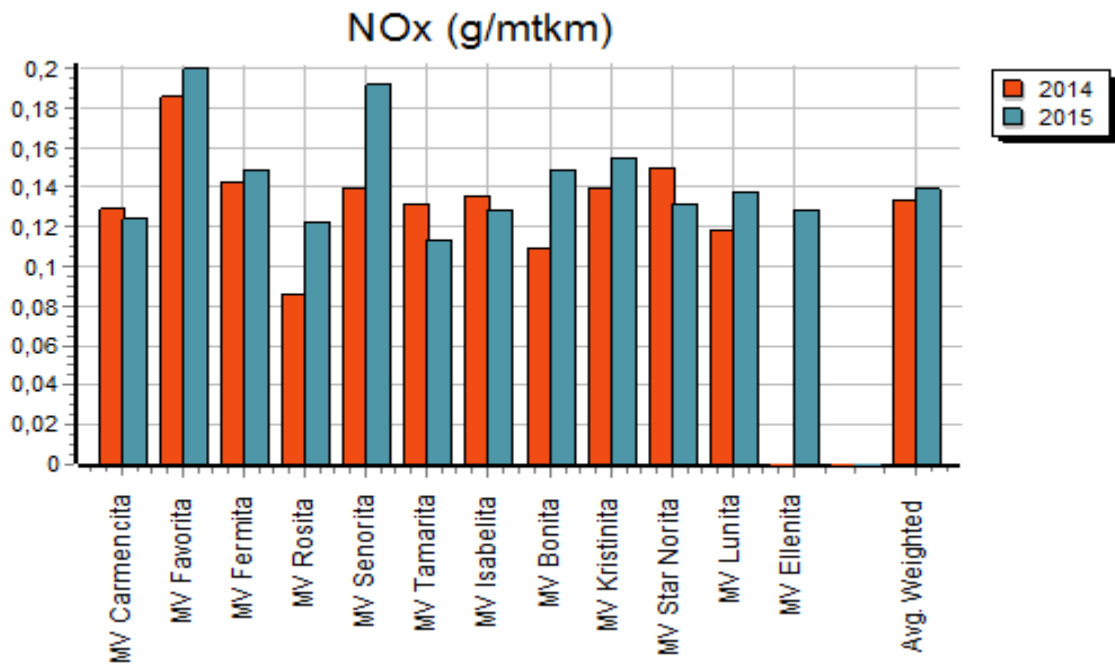
The specific energy consumption from our vessels compared with other means of transport is shown in the table below.

Energy Use	UMS vessels 2009/2010/2011/2012/2013/2014/2015	Rail - Electric	Rail - Diesel	Heavy Truck	Boeing 747-400
Wh/tonnekm	20.2 / 19.3 / 17.9 / 17.2 / 15.0 / 14.0 / 12.9	43	67	180	2000

Emission monitoring – Bulk.

PSV and Uglen are excluded due to the nature of cargo versus distance sailed.





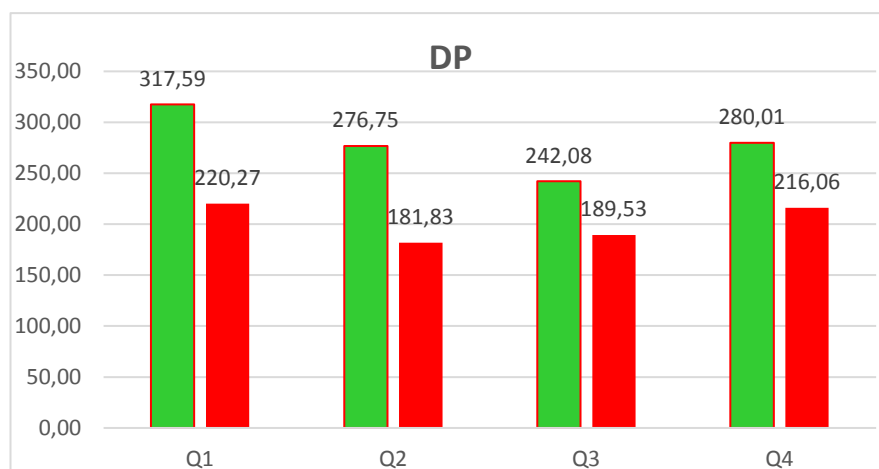
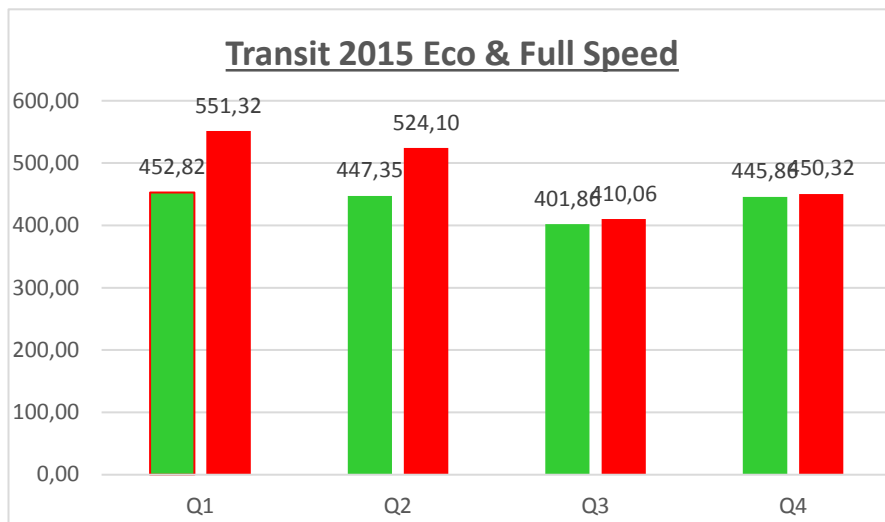
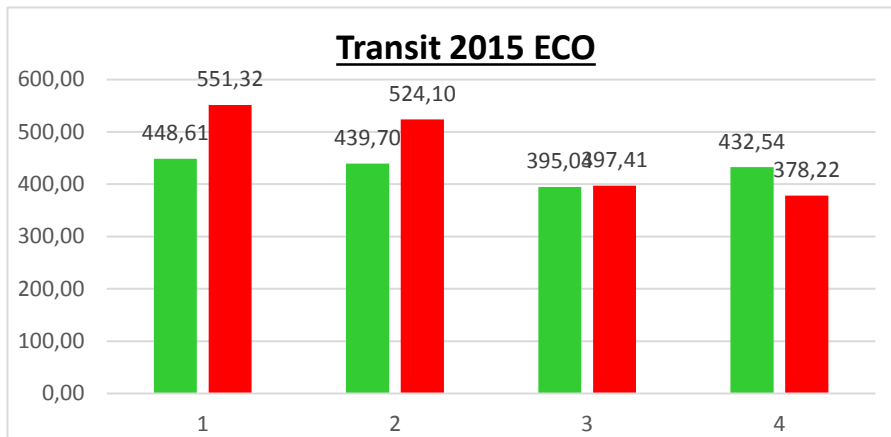
The air emissions resulting from combustion and burning of fuel oil from our vessels compared with other means of transport are illustrated below.

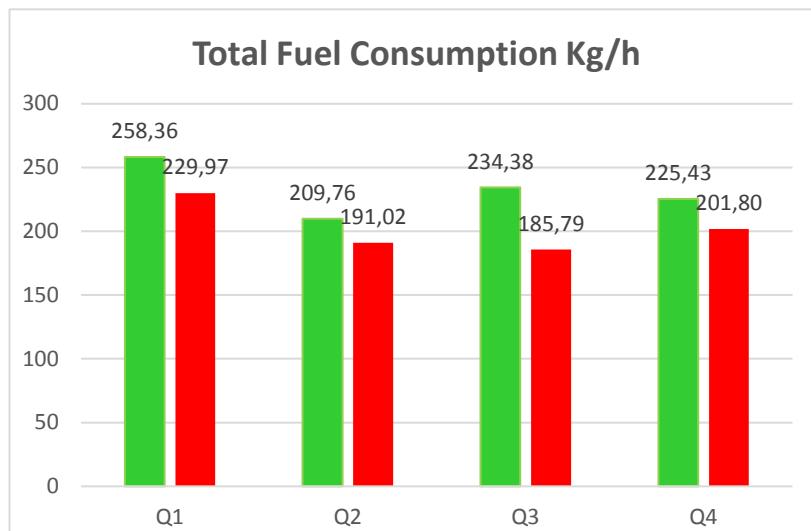
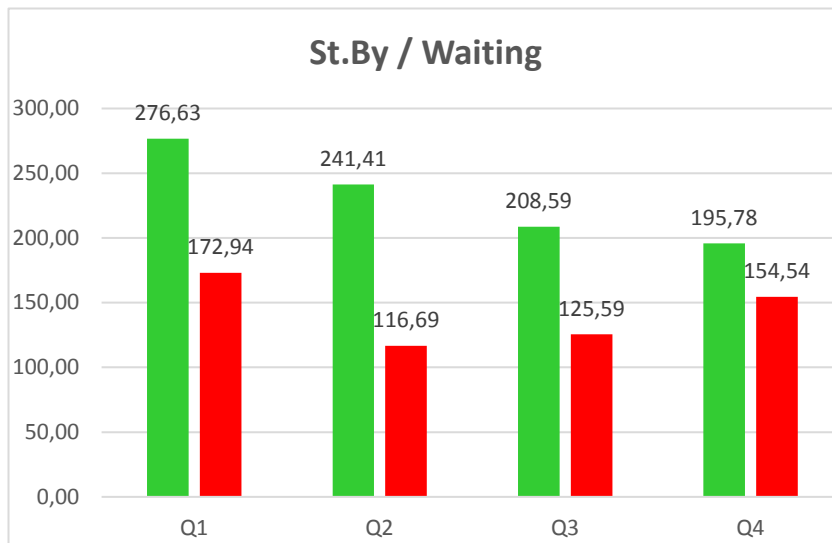
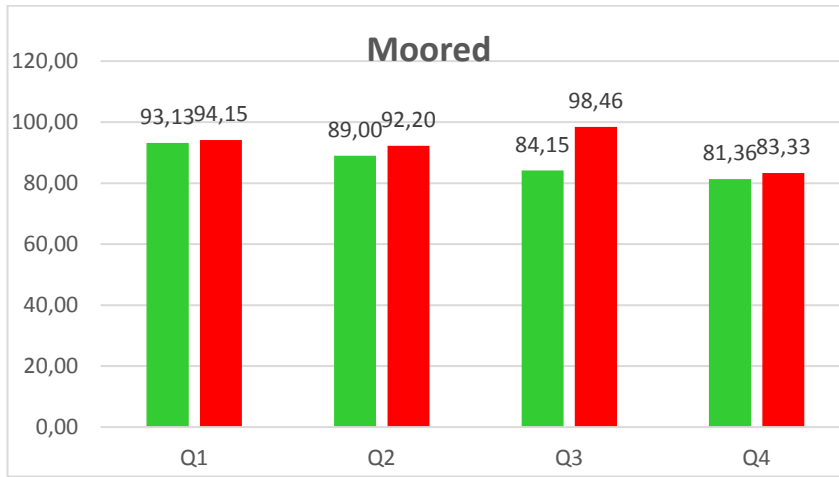
Emissions (g/tonnekm)	UMS vessels 2009/2010/2011/2012/2013/2014/2015	Rail - Electric	Rail - Diesel	Heavy Truck	Boeing 747-400
CO ₂	5.59/5.34/4.94/4.69/4.19/4.29/4.24	18	17	50	552
SO _x	0.091/0.092/0.089/0.083/0.070/0.059/0.066	0.01	0.00005	0.00006	0.17
NO _x	0.180/0.172/0.159/0.151/0.135/0.138/0.14	0.044	0.35	0.31	5.69

Consumption monitoring – PSV

Fuel (DO) consumption for PSV has been monitored in following conditions as shown below:

Color code: Juanita Evita Table in Kg/hrs



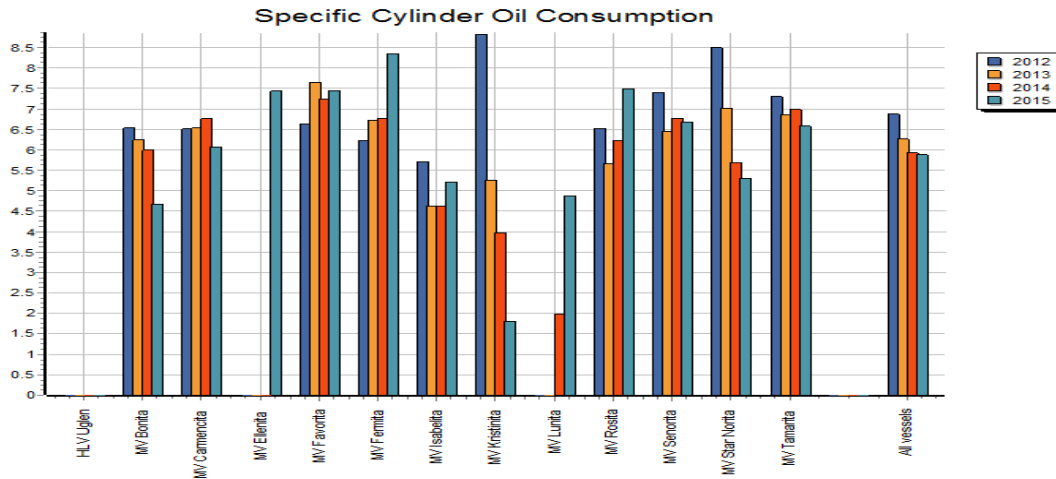


Comments:

- All figures are collected from excel spreadsheet reported by each vessel.
- Figures based on raw data; no corrections made to vessel condition, weather or speed.
- Target for fuel consumption PSV to be established for year 2016.

3 Cylinder oil

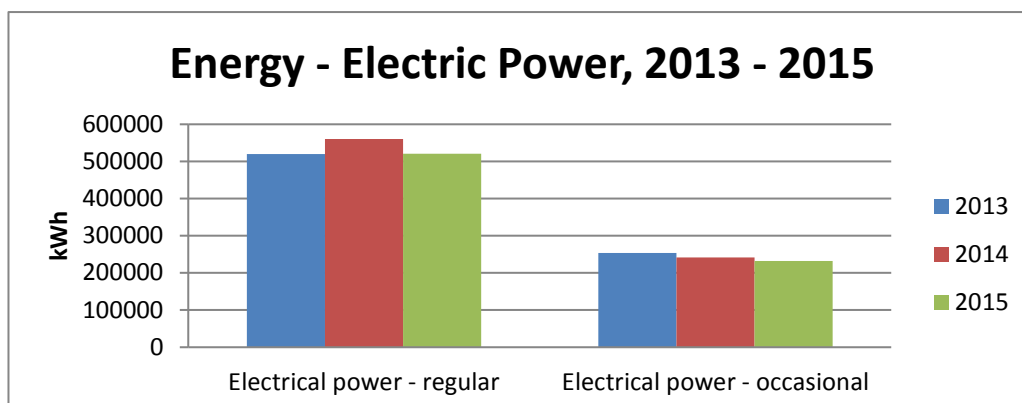
The Bulk vessels have for some time been in a supervised program for controlled reduction of specific cylinder oil consumption. For most vessels noticeable savings have been achieved. The graph gives litres of cylinder oil relative tonnes of fuel.



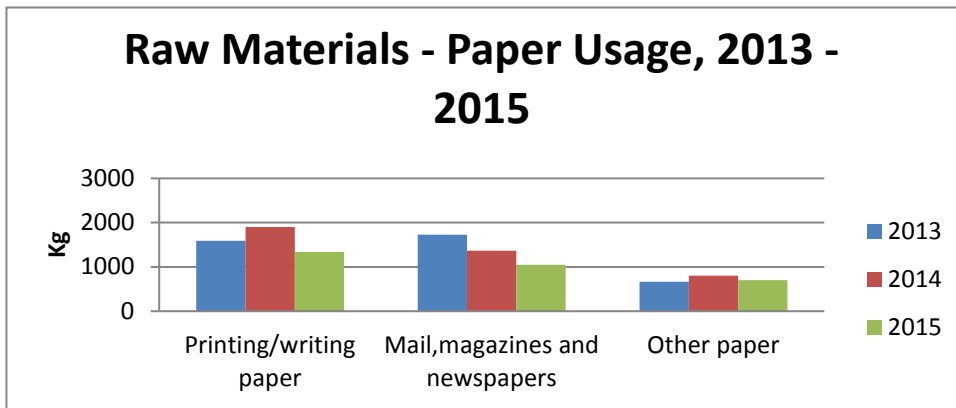
4 Environmental impact from office operation: 2013 - 2015

The office operation consumes energy for heating, lighting and cooling purposes in addition to other office equipment (office machines/computers etc.). The consumed energy is mainly electric power. An oil fired boiler is provided as backup, and tested at regular intervals for contingency purposes. During 2015 an emergency diesel generator has been installed and testing continued into the early part of 2016. Testing at regular intervals to maintain the required power contingency security will consume diesel and contribute to emissions. The raw materials consumed are mainly paper and tap water. Office equipment and utensils contribute to a lesser degree.

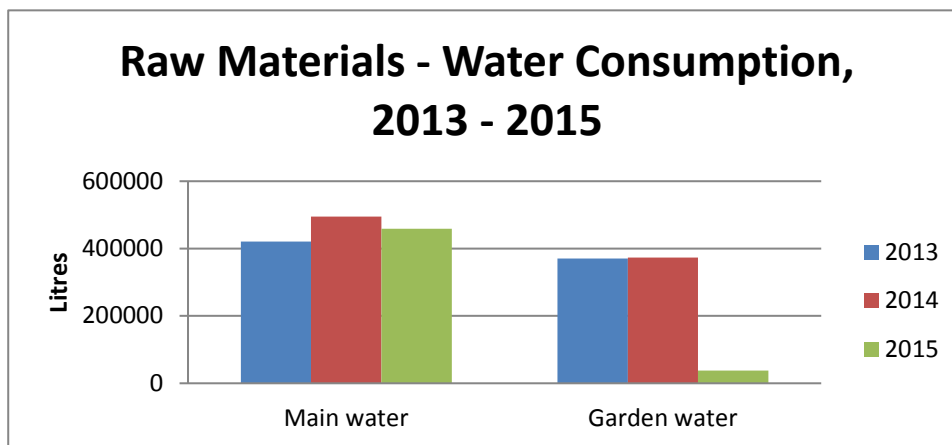
Achieved 2013 - 2015:



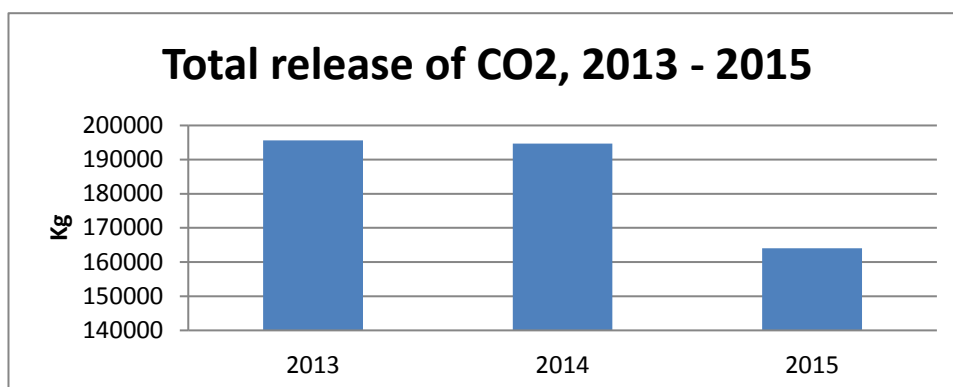
Total electric power consumption 2014 increased by 3,6 % from 2013. This primarily caused by NYMO staff using half of the third floor in the office building in 2014 (+13 % additional office area). In 2015, the NYMO staff no longer used the building resulting in reduced electric power consumption for 2015.



The usage of printing/writing paper increased last year, while at the same time post/mail, magazines and newspapers decreased. Work to reduce paper consumption continues, and encourage reading magazines and newspapers electronically together with the first full year of electronic board papers ie no paper/copies to the board members or management.



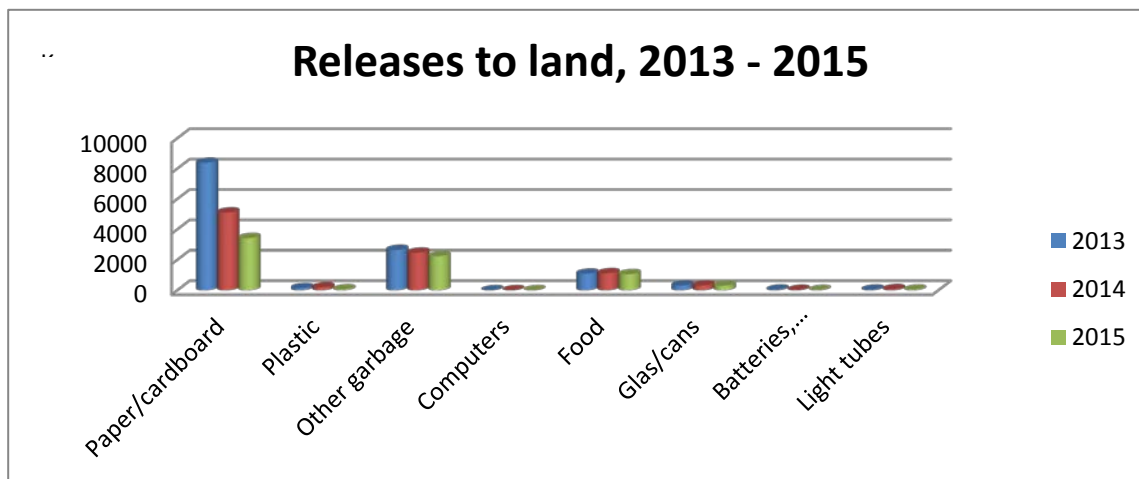
Water consumption has increased by 9,7 % in 2014 compared to 2013. This is caused by the unusual hot and dry summer/autumn in 2014. In 2015, we had a wet summer, and this can be shown in the decrease in garden water used in 2015 by 89% compared to 2014.



Reporting of releases to air is limited to the effect of employees travel activities, where CO2 emissions are accounted for, and the use of the oil fired boiler. This boiler has only been test fired in the last years. Office staff are recommended not to use air transport for business in the Oslo area

and encouraged to use the public long distance bus and or train transportation. The total release of CO2 is decreased by 16 % in 2015 compared to 2014, and decreased by 0,5 % in 2014 compared to 2013. A significant portion of the total CO2 releases are caused by air flights linked to the overall activity of the company.

During 2015 an emergency diesel generator has been installed and testing continued into the early part of 2016. Testing at regular intervals to maintain the required power contingency security will consume diesel and contribute to emissions. 2016 will be the first full year of fuel/emission's measurement.



The total release to land from 2015 compared with 2014 has been reduced by about 23.3 %. The food waste increased by 2.8 % in 2014 compared to 2013. This is primarily due to ca 30 additional employees from NYMO who used the company canteen in 2014. This is no longer the situation in 2015, and the food waste in 2015 is lower than 2013.

5 Global Reporting Initiative (GRI-G4) Category: Environmental

GRI – G4 EN3 - Energy Consumption within the Organization			
		2014	2015
a)	Total fuel consumption (11 ships) from non-renewable sources	1893 TJ	1933
b)	Total fuel consumption from renewable sources	None	None
c)	Total electricity consumption (office)	1.8 TJ	1.8 TJ
d)	Total energy sold	N/A	N/A
e)	Total energy consumption (ship and shore)	1894,8 TJ	1934,8 TJ
f)	Methodology: Continuous reporting of actual values		
g)	Source: DnV Services laboratory analysis of fuel energy content		

GRI – G4 EN6 - Reduction of Energy Consumption			
		2014	2015
a)	Reduction of energy consumption (14 vs/2010 - 11 vs/2013/2014/2015)	875 TJ	835 TJ
b)	Type(s) of energy (ships/office)	Fuel oil/Electricity	Fuel oil/Electricity
c)	Baseline for calculation	2010 - 2015	2010-2015
d)	Methodology: Continuous reporting of actual values		

GRI – G4 EN8 – Total water withdrawal by source			
		2014	2015
a)	Total water withdrawn from municipal water supply	868 mT	497 mT*
b)	Methodology: Continuous reporting of actual values		

GRI – G4 EN23 – Total volume of Waste			
		2014	2015
a)	Total volume of hazardous and non-hazardous waste (ship)	654 m3	701 m3*
b)	Source: Disposed directly by the Organisation and actual values reported.		

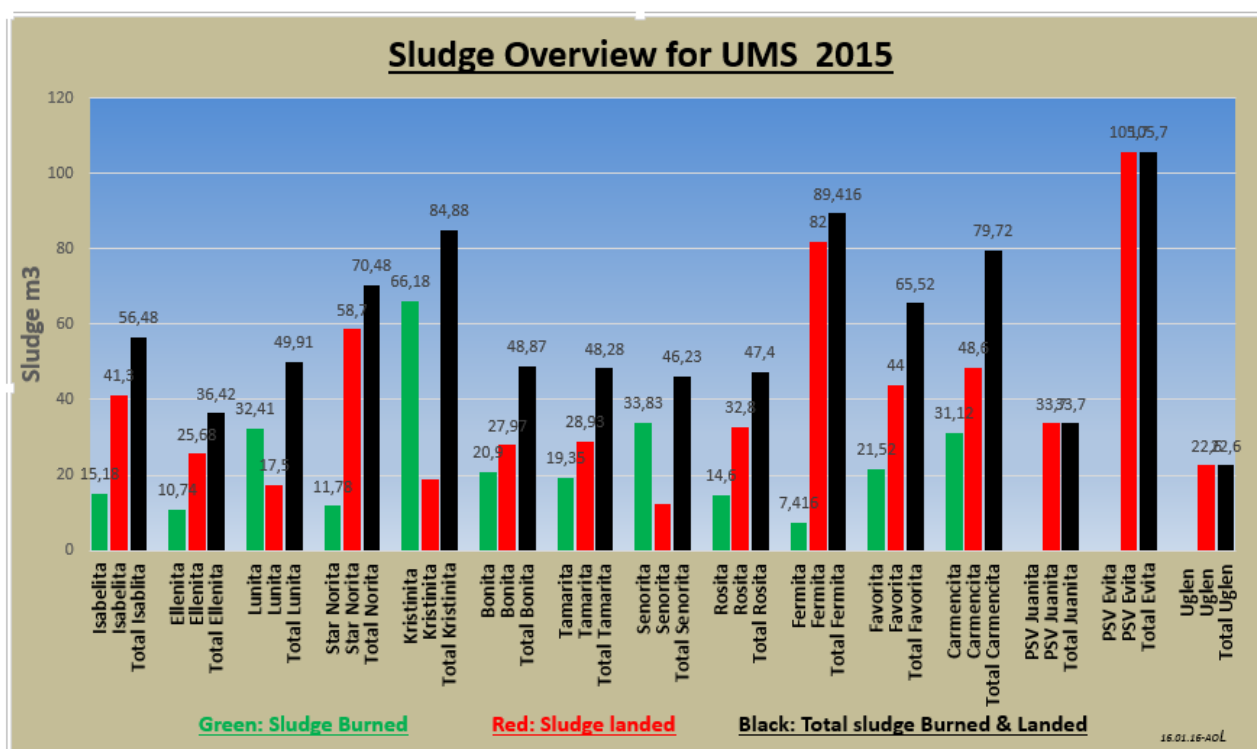
GRI – G4 EN24 – Significant spills			
		2014	2015
a)	Total number and volume of significant spills	NIL	NIL
b)	Location and material		
c)	Impact of significant spills		

6 Environment - Targets and Improvement Programs 2015

Targets and improvement programs 2015 – Ships

Monitoring of sludge incinerated on-board.

Target has been set to reduce the amount of Sludge incinerated by 5% compared to year 2014. Target has been met, with 23% reduction in sludge incinerated on board during 2015.



Targets and improvement programs 2015 - Office

Following environmental programs have been oncoming during 2015:

1. Establish EMS-committee/group to review and agree on new actions and programs from 2016.
2. Reduce releases to land:
 - Reduction in waste of food by 5% from 2014 to 2015 by evaluating what kind of waste and initiate adequate actions
 - Reduction in paper consumption by considering increased use of electronic filing system.
3. Continuing monitoring of existing parameters for environmental impacts from office operations, and initiate necessary actions against unwanted increase in pollution.

7 Oil spill 2015

No oil spill reported during 2015.