rotork®

Environmental Report 2013

Year ending December 2013

Keeping the World Flowing

1. Executive Summary

Rotork is a global flow control company that manufactures products that are used in markets where the flow of liquids and gases need to be controlled across the industrial landscape.

When you turn on a tap or switch on a light, turn on a kettle or put fuel in your car, a flow control product is being used somewhere in the process of delivering that service.

For nearly sixty years, engineers have relied upon Rotork for innovative, dependable solutions to manage the flow of liquids and gases. Rotork products and services are helping companies in the oil & gas, water and waste water, power, marine, mining, food, pharmaceutical and chemical industries around the world to improve efficiency, assure safety and protect the environment.

Rotork is fully committed to the prevention of pollution, compliance with all relevant legal and regulatory requirements and to the continuous improvement of environmental performance. Through Global Compact and FTSE4Good and the other benchmarks we use; we set an example of good, responsible and effective business.

Due to the new regulations for Mandatory Greenhouse Gases Emissions Reporting for companies in the UK there has been a change in the methodology for the calculations. According to the Department for Environment, Food and Rural Affairs (DEFRA) Environmental Reporting Guidelines issued in June 2013, Rotork chose to use 2012 as the base year by recalculating all previous emissions using the new emission factors issued by DEFRA for 2012. Although Rotork has been collecting information since 2005 it has not been possible to recalculate emissions from any previous years due to the lack of updated emission factors by DEFRA. All future emissions will be compared against data from 2012.

The reporting period is aligned to the financial reporting period and runs from 1st January 2013 to 31st December 2013. This year's report includes performance data from 51 sites in total including all new acquisitions made in 2013. Of the reporting facilities 25 are manufacturing sites, two produce adaptions and associated products and the remainder are varying sizes of sales and service centres with warehouse facilities.

Highlights of figures against the base year of 2012:

- Number of Rotork facilities reporting performance data is up from 44 to 51 out of 54;
- Electricity per £m turnover is down by 11.6%;
- Water consumption per £m turnover is up by 6.8%;
- Waste generation per £m turnover is down by 16.5%;
- Recycling reduced from 74% to 71%.

Rotork has been publicly reporting information via the Carbon Disclosure Project (CDP) since 2009. In 2010 we made a commitment to capture our Scope 3 data for supply chain and all business travel, leading to establishing the carbon footprint for our products and full disclosure of our Scope 3 emissions via the CDP. This project is 87% complete for the base year and 70% for the reporting year.

2. Overview

2.1. Reporting Companies

The number of reporting facilities has increased from 44 to 51. Data from 2013 includes all new acquisitions and one pre-existing office that started reporting during 2013.

	2013	Base year 2012	Change 2012 to 2013
Number of reporting Companies	**51**	**44**	**7**

2.2. Total emissions

The following table illustrates the total emissions of the Company for 2013 compared to the base year. A full breakdown of the emissions and analysis of all operational processes that are included in each category will be presented in the next chapters.

Scope 1, 2 , & 3 Emissions (Tonnes of CO_2e)	2013	Base year 2012	Change 2012 to 2013
Total scope 1 emissions	5,024	4,448	12.9%
Total scope 2 emissions	5,317	5,396	-1.5%
Total scope 3 emissions*	80,277	104,111	-22.9%
Total CO_2e emissions	**90,618**	**113,956**	**-20.5%**
Tonnes CO_2e emissions per £m of turnover (Scope 1 & 2)	18	19	-7.1%
Tonnes CO_2e emissions per employee (Scope 1 & 2)	3	4	-6.1%
Tonnes CO_2e emissions per £m of turnover (all Scopes)	157	223	-29.6%
Tonnes CO_2e emissions per employee (all Scopes)	30	42	-28.9%

*Not 100% completed data

3. Mandatory Greenhouse Gas Emissions - Direct Impacts

According to the new regulations for Mandatory Greenhouse Gas (GHG) Emissions Reporting, Rotork disclosed all Scope 1 and Scope 2 emissions in the Annual Report and Accounts 2013. Scope 3 emissions that are only associated with Scope 1 and 2 emissions were also voluntarily disclosed.

Scope 1 emissions account for:

- Combustion of fuel (gas, oil, liquid petroleum gas (LPG));
- Business travel with vehicles owned by the Company, not private cars;
- Transportation of products with vehicles owned by the Company.

Scope 2 emissions include:

- Purchase of electricity and steam.

Scope 3 emissions that derive from all direct emissions include:

- Transmission and distribution losses for all types of energy (fuel, electricity and steam);
- Well-to-tank emissions for all types of energy, transmission and distribution losses, business travel and transportation of goods.

Scope 3 emissions that are a result of Scope 1 and 2 emissions will be further analysed in section 4.5. Utility invoices were used for the collection of all energy data or meter readings where invoices were not available.

Scope 1 Emissions (Tonnes of CO_2e)	2013	Base year 2012	Change 2012 to 2013
Gas combustion – Heating	1,539	1,210	27.2%
Oil combustion – Heating	69	89	-21.9%
LPG combustion – Heating	644	598	7.6%
Company car	2,739	2,521	8.7%
Transportation of products via company vehicle	33	31	7.5%
Total Scope 1 Emissions	**5,024**	**4,448**	**12.9%**
Scope 2 Emissions (Tonnes of CO_2e)			
Electricity – Purchased	5,227	5,280	-1.0%
DHC – Heating	90	117	-22.9%
Total Scope 2 Emissions	**5,317**	**5,396**	**-1.5%**
Scope 3 Emissions (Tonnes of CO_2e)			
Well to tank emissions	1,805	1,597	13.1%
Transmission and distribution losses	479	447	7.1%
Total Scope 3 Emissions	**2,284**	**2,044**	**11.7%**

Overall, gross Scope 1 emissions increased by 12.9% between 2012 and 2013 whereas gross Scope 2 emissions decreased by 1.5% due to several initiatives that were implemented for energy reduction across the Group.

At the moment, business travel by company car is considered an estimate because data could not be verified apart from the Bath site. Business travel accounts for almost one third of the total Scope 1 and Scope 2 emissions of the Company. The improvement of the quality of the data for future reporting is work in progress.

On 28 January 2014, EEF undertook an assurance audit of the Group's GHG emissions. The audit took place at the Bath site and consisted of a desktop review of the GHG calculations and supporting evidence.

A new KPI was introduced in 2013 measuring the Group's Scope 1 and 2 emissions against turnover. The emissions were reduced by 7.1% per million pounds of turnover and by 6.1% per employee.

Total Direct Emissions	2013	Base year 2012	Change 2012 to 2013
Total Scope 1 emissions	5,024	4,448	12.9%
Total Scope 2 emissions	5,317	5,396	-1.5%
Total Direct Emissions	**10,341**	**9,844**	**5.0%**
Tonnes CO_2e emissions per £m of turnover	18	19	-7.1%
Tonnes CO_2e emissions per employee	3	4	-6.1%

3.1. Electricity Consumption

Purchased electricity accounts for 48.2% of total energy consumed in 2013 whilst new acquisitions account for 3.7% of the total electricity consumption. The amount of electricity used slightly decreased against the base year of 2012 despite the fact that all new acquisitions are included in the calculations. This can be explained by the introduction of several initiatives for energy reduction implemented during 2013 like the replacement of lights with energy efficient ones. When comparing

the intensity figures the decrease is higher. Consumption per £m of turnover decreased by 11.6% against the base year and by 10.6% per employee.

Electricity	2013	Base year 2012	Change 2012 to 2013
Total KWh's of Electricity purchased	11,183,640	11,193,029	-0.1%
KWh's of electricity purchased per £m of turnover	19,335	21,874	-11.6%
KWh's of electricity purchased per employee	3,670	4,108	-10.6%
Scope 2 Emissions (Tonnes of CO_2e)			
Purchased electricity	5,227	5,280	-1.0%

3.2. Steam Consumption

Purchased steam accounted for 1.8% of total energy consumed in 2013. Steam is used for heating purposes in the Sweden facility only. The 21.7% decrease can be explained by the variations of temperature between the years.

Steam	2013	Base year 2012	Change 2012 to 2013
Total KWh's of steam purchased	415,150	530,200	-21.7%
KWh's Steam purchased per £m of turnover	718	1,036	-30.7%
KWh's Steam purchased per employee	136	195	-30.0%
Scope 2 Emissions (Tonnes of CO_2e)			
Purchased steam	90	117	-22.9%

3.3. Natural Gas Consumption

Natural gas is mainly used for heating purposes and it accounts for 36% of the total energy consumption. Gas consumption increased by 28% between 2012 and 2013. All fluctuations of gas consumption are the result of different weather conditions. The new acquisitions accounted for 5% of total gas consumption.

Gas	2013	Base year 2012	Change 2012 to 2013
Total Kwh's of gas consumed	8,361,874	6,531,097	28.0%
KWh's of gas consumed per £m of turnover	14,457	12,764	13.3%
KWh's of gas consumed per employee	2,744	2,397	14.5%
Scope 1 Emissions (Tonnes of CO_2e)			
Gas consumption	1,539	1,210	27.2%

3.4. Liquid Petroleum Gas (LPG) Consumption

LPG consumption accounts for 12.9% of total energy consumption. Gas consumption increased by 7.6% between the base year and 2013. No LPG is used in any of the new acquisitions. However, consumption per £m of turnover decreased by 4.8% and consumption per employee was also reduced by 3.8%.

Liquid Petroleum Gas LPG	2013	Base year 2012	Change 2012 to 2013
Total KWh's of LPG consumed	3,000,304	2,789,249	7.6%
KWh's of LPG consumed per £m of turnover	5,187	5,451	-4.8%
KWh's of LPG consumed per employee	985	1,024	-3.8%
Scope 1 Emissions (Tonnes of CO_2e)			
LPG consumption	644	598	7.6%

3.5. Gas Oil Consumption

Gas oil is used for heating purposes instead of natural gas and for power generation in Spain and India respectively. It accounted for 1.1% of total energy consumption during 2013 and there has been a significant reduction of 20.1% between the reporting year and the base year. There is a reduction of 29.4% for consumption per £m of turnover and 28.6% for consumption per employee. None of the new acquisitions use gas oil.

Heating Oil	2013	Base year 2012	Change 2012 to 2013
Total KWh's of heating oil consumed	254,523	318,733	-20.1%
KWh's of heating oil consumed per £m of turnover	440	623	-29.4%
KWH's of heating oil consumed per employee	84	117	-28.6%
Scope 1 Emissions (Tonnes of CO_2e)			
Oil consumption	69	89	-21.9%

4. Indirect Impacts

The following table presents the total emissions that come from operations which Rotork has no direct control over such as business travel by public means, waste disposal, water supply, product manufacturing and emissions that are associated with the Mandatory GHG Reporting (see section 3).

Scope 3 Emissions (Tonnes of CO_2e)	2013	Base year 2012	Change 2012 to 2013
Business travel	5,282	6087	**-13.2%**
Water - including supply and treatment	38	37	**1.0%**
Waste generation	168	169	**-0.6%**
Product*	72,506	95,775	**-24.3%**
Well to tank emissions (from Scope 1 and 2)	1,805	1,597	**13.1%**
Transmission and distribution losses (from Scope 1 and 2)	479	447	**7.1%**
Total Scope 3 Emissions	**80,278**	**104,112**	**-22.9%**

*Not 100% completed data

4.1. Business travel

The following table presents the breakdown of the emissions that come from business travel by means that are not property of Rotork. There has been an overall decrease of 13.2% of the emissions due to the increased use of video conferences that can substitute some trips of the employees.

Scope 3 Emissions (Tonnes of CO_2e)	2013	Base year 2012	Change 2012 to 2013
Rail – travel	54	30	80.9%
Coach – travel	8	4	115.1%
Air travel	5,220	6,053	-13.8%
Total Scope 3 Emissions	**5,282**	**6,086**	**-13.2%**

4.2. Water

Most Rotork manufacturing facilities use water for sanitary purposes and normal operations. For the majority of the sites water is supplied by local utility providers. However, there are some exceptions like Chennai (India) and Bangalore (India) where water comes in tankers, is stored in sumps and then used for sanitary purposes and gardening. Apart from the water that is supplied by mains, there are three boreholes in Lucca (Italy), with installed meters for the monitoring of water usage. A number of our sales offices are located in shared facilities where water consumption is not metered separately, these offices are not included in the calculations.

Overall, water consumption in absolute figures increased between the base year and 2013 by 20.7%. There is also an increase of 6.8% when comparing the intensity figure of water consumption per £m of turnover and an increase of 7.9% when comparing consumed water per employee. In terms of carbon emissions that are associated with water consumption there has been an increase of 1%.

Water	2013	Base year 2012	Change 2012 to 2013
Total Cubic Metres of Water consumed	**31,899**	**26,433**	**20.7%**
Cubic Metres of water consumed per £m of turnover	55.15	51.66	6.8%
Cubic Metres water consumed per employee	10.47	9.70	7.9%
Scope 3 Emissions (Tonnes of CO_2e)			
Water – including supply and treatment	37.71	37.34	1.0%

4.3. Waste

Rotork operates an assembly-only philosophy using specialised suppliers for the manufacture of the components and sub-assemblies. Effectively this enables the Company to reduce the operational impact on the environment and keep it to a minimum.

Waste generation includes waste that is sent to landfill, packaging waste (card, wood and plastic), metal waste (ferrous and non-ferrous), hazardous materials (paints, oils and adhesives), batteries and waste electrical and electronic equipment (WEEE).

All facilities are encouraged to recycle everything that can possibly be recycled. Higher emphasis is given to the manufacturing sites and the centres of excellence where the production of waste is much higher than the sales offices that mostly use shared communal bins. All new acquisitions are also advised to introduce recycling facilities on site. Waste recycling used to be a Group KPI but was replaced by the Emissions KPI as they illustrate a broader picture of the Company's environmental impact.

Waste generation between 2012 and 2013 decreased by 5.6% and consequently recycling decreased as well by 8.4%. However, emissions from waste that end up in landfill increased marginally; this can mainly be attributed to the fact that all new acquisitions have not yet installed adequate recycling systems.

Waste	2013	Base year 2012	Change 2012 to 2013
Total waste generated (Tonnes)	**2,431**	**2,575**	-5.6%
Waste generate per £m of turnover	4.20	5.03	-16.5%
Waste generate per employee	0.80	0.95	-15.6%
Total waste recycled (Tonnes)	**1,736**	**1,896**	**-8.4%**
Waste - Percentage recycled	**71%**	**74%**	**-3.0%**
Scope 3 Emissions (Tonnes of CO_2e)			
Waste (at landfill)	130	128	1.2%
Waste (by recycling)	38	41	-7.8%

4.4. Supply Chain

Rotork committed to calculate and disclose the carbon footprint of the supply chain i.e. the carbon footprint of the products. GaBi software was purchased in June 2013 and is used for all the calculations associated with the emissions of the products. The Cradle-to-Gate boundary has been chosen since the Company has no control over the products once they are dispatched to the customers.

All GaBi models include emissions from the extraction of raw materials, transportation of the materials from extraction to the supplier, manufacturing of the parts (machining, casting, moulding) and transportation from the supplier to Rotork. For the purposes of this Environmental Report, any operational processes like energy usage, water consumption and waste generation have been excluded from the GaBi models so that the results can be added to the Scope 1, 2 and 3 emissions that are disclosed in this report, otherwise there would be double reporting. Packaging however is included in the calculations. Regarding metal modelling, the cut-off method has been chosen and regional averages were used in order to calculate the recycled content within a metal part.

Any electronic parts and batteries have also been excluded. GaBi databases can provide Rotork with a model of electronic parts and can also calculate their carbon emissions.

The footprint of the products is an ongoing project and it is not 100% complete. Emissions from the supply chain of 2012 are 87% complete, 20 out of 23 manufacturing sites are fully modelled whilst emissions from 2013 are 70% complete due to several sites introducing new product ranges and the collection of data is not currently available. As data comes through any emissions of the base year will be updated.

4.5. Other Emissions (associated with Scope 1 & 2 emissions)

As a result of DEFRA's new methodology, all Scope 1 and 2 emissions are associated with some Scope 3 emissions as well. These are outside the company's control and in order to fully account for Rotork's emissions, Scope 3 emissions for 2012 and 2013 were also calculated and voluntarily disclosed in the Annual Report and Accounts 2013.

It is the first time DEFRA separates these emissions; hence it is necessary to provide the terminology for them.

Transmission and distribution losses are associated with grid losses; they practically give the energy loss that occurs in getting the electricity from the power plant to the facilities. Only electricity and steam can give transmission and distribution losses.

Well-to-tank emissions reflect the emissions from extraction, refining and transportation of primary fuels before their use in the generation of each fuel. Each type of fuel (natural gas, oil, LPG), electricity and steam, diesel and petrol have well-to-tank emissions assigned to them. Transmission and distribution losses from electricity and steam are also connected to well-to-tank emissions.

Business travel that is reported under Scope 3 and water supply have well-to-tank emissions assigned to them and they are already included in the calculations for their emissions, thus there is no need to report them separately under this section.

About this report

1. Greenhouse gasses

All Greenhouse Gas (GHG) Emissions figures are in tonnes of carbon dioxide equivalent (CO2e) and include all six greenhouse gases covered by the Kyoto Protocol – carbon dioxide (CO2), methane (CH4), Nitrous oxide (N2O), Perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and sulphur hexafluoride (SF6) emissions, plus other greenhouse gases not covered under the Kyoto protocol.

2. Organisational boundary

Both the Carbon Disclosure Standard Board (CDSB) and the Greenhouse Gas Protocol (GHGP) allow a company to define the organisational boundaries for carbon reporting according to definitions of 'equity share', 'financial control' or 'operational control'. To give the most representative footprint for Rotork we take a hybrid approach. In essence we report on the emissions associated with energy that we buy or generate worldwide. Where the energy is provided by landlords as part of a full service contract we have not included these emissions.

3. Operational boundary

The Rotork Group of companies has grown considerably since we started gathering environmental performance data in 2003 and still continues to grow with more acquisitions in 2013.

Rotork operates an assembly only philosophy in all but seven of its business units. In all facilities energy is used for IT systems, lighting, heating and cooling. Exceptions are Rotork Gears BV (Losser), Rotork Gears SRL (Parabiago), Rotork Sweden (Falun), Rotork Valvekits UK (Nottingham), Soldo Italy (Verona), Rotork Fairchild USA (Winston-Salem), Renfro Associates (Broken Arrow) and Rotork Fluid Systems Italy (Lucca) where machining processes are in operation.

4. Geographic scope

CO2e emissions that fall within the organisational and operational boundaries have been reported for all worldwide operations with the exception of three sales offices, one of which is located in Switzerland and two in China.

5. Conversion factors

- UK, Europe, Asia, Australia, South America, Canada - conversion factors published by Department for Environment Food and Rural Affairs (DEFRA) and the Department of Energy and Climate Change (DECC).
- USA – conversion factors for electricity by the Environment Protection Agency (EPA), eGRID2012 data.

6. Base Year

The base year stated in the tables in this report is for the Company's direct operational impact for purchased electricity and steam, the consumption of gas, LPG and heating oil, business travel by company car, landfill and recycled waste and water consumption and sewerage and business travel by public means.

The base year is 2012. As we continue to calculate the carbon footprint for the range of products across the Group, the base year results will be updated.

rotork®

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