

RBS Sustainability Briefing

Our financing of the energy sector in 2013



About this document

This report is the fourth 'Our financing of the energy sector' briefing that we have produced since 2010. The aim remains the same: to provide enhanced disclosure on our lending to the energy sector in the context of sustainable development. This report provides information on our lending to the energy sector up to the end of 2013. It also includes trend analysis using data from previous reports as well as new metrics on the water and waste intensity of our clients.

Our intention is to continue to set a benchmark for financial services disclosure around this topic and we plan to produce updated reports of this type each year in line with our sustainability reporting process:

rbs.com/sustainable

We continue to view climate change and energy security as two of the biggest challenges to ensuring a safe, sustainable future for the world's inhabitants. The use of energy is the primary source of man-made greenhouse gas emissions worldwide – predominantly through the burning of fossil fuels – and is therefore of key importance to tackling climate change.

To meet our responsibilities to our customers and society we must continue to manage our direct and indirect operational impacts, and contribute towards more sustainable growth through our products and services.



Working with Trucost 2013 is the third consecutive year we have used data from Trucost to help us carry out the analysis for parts of this report. We use this data to analyse the activities of our energy clients. Trucost are one of the world's foremost environmental data experts and providers of this information.

Note on data We have taken all reasonable steps to ensure the accuracy and completeness of the data contained in this report. However, in some cases there are gaps in the data available which means we have to make use of approximations and/or information provided on a voluntary basis that has not been independently verified.

Contents

1. Key points	01
2. About RBS	02
2.1 Our lending to the energy sector	02
2.2 'Oil & Gas' and 'Power' Terminology	02
3. The world's use of energy	03
3.1 Global energy supply	03
3.2 Emissions	03
4. UK context and use of energy	04
5. Energy lending as a proportion of our total lending	05
6. Lending to specific energy projects	06
6.1 Mapping our lending to specific energy projects	06
7. General lending to the power sector	07
7.1 Power sector activities over time	07
7.2 Power client carbon intensity	08
7.3 Power client water footprint	08
7.4 Power client waste (to landfill) intensity	08
8. General lending to the Oil & Gas sector	09
8.1 Oil & Gas client carbon intensity	09
8.2 Oil & Gas client water footprint	09
8.3 Oil & Gas client waste (to landfill) intensity	09
9. Mapping lending exposures with carbon intensity	10
10. Implications for RBS strategy	11
11. Our commitments	12
11.1 Disclosure	12
11.2 Policies	12
11.3 Sustainable energy financing	12
11.4 Collaboration	12

1. Key points

General lending:

- Across the whole of RBS, approximately 2.8% of our total lending is committed to the energy sector with lending decreasing slightly in absolute terms since 2012.
- Of this 1.8 percentage points is to the Oil & Gas sector, and 1 percentage point is to the Power sector, which uses a mix of gas, nuclear, coal and renewables.
- Our total lending exposure to the energy sector has decreased by around 65% since 2008.
- On average, the distribution of gas and electricity accounts for more than half the revenue of our top 25 Power clients.

Structured finance:

- 65% of our 2013 structured financing in the energy sector was to renewable energy projects, with the remainder split between oil and gas project financing.
- Wind power projects accounted for 57% of our structured financing provided to the energy sector in 2013. This is a 4 percentage point increase on 2012.
- RBS was the #1 lender to UK renewable energy projects from 2011 – 2013.

Client carbon intensity:

- Using data from Trucost, we estimate that our top 25 Power clients and top 25 Oil & Gas clients are on average less carbon intensive than the industry average, as they have been consistently since 2011.

2. About RBS

RBS is a UK-based banking and financial services company. Headquartered in Edinburgh, RBS serves personal, business, corporate, public sector and charity customers in the UK and beyond with a range of financial products and services.

2.1. Our lending to the energy sector

RBS is predominantly a deposit and lending bank. We take money in deposits and other sources and lend it in the form of loans. For the energy sector, as with other sectors, we provide loans and other banking services (such as overdraft and money transmission services) but we do not usually 'invest' in energy companies or take ownership stakes in them. The money we have lent to the energy sector is continually being repaid and re-lent.

The majority of our lending to the energy sector is in the form of general corporate lending, which isn't usually tied to any specific use or project. When we provide general corporate lending, the client will make use of it in a variety of ways (for example by investing in their facilities or operations, purchasing other businesses or paying other costs). Much like the provision of a loan to a personal customer, a bank is restricted under these circumstances in stipulating how the loan is used, provided the client meets its requirements for the credit risks they represent.

We also offer structured finance for specific energy projects in the UK, Ireland and US where we know what the funds will be used for. These include wind farms, power stations and solar installations. This type of lending is usually done as part of a group of banks who all lend to the same project. The repayment terms of the loan tend to be more closely defined, usually involving a source of cash-flow identified at the outset

(e.g. earnings from the sale of electricity), and the repayment period is generally longer, over 10 years in some cases.

For both the Power and Oil & Gas sectors, RBS has a range of policies and procedures in place to ensure we assess the social and environmental risks associated with specific clients and projects. More details of these policies can be found at: [rbs.com/sustainable/policies](https://www.rbs.com/sustainable/policies)

2.2. 'Oil & Gas' and 'Power' Terminology

Throughout this document, we refer to the two main parts of the energy sector as 'Oil & Gas' and 'Power'. These two terms are how most large banks (including RBS) classify their energy sector clients. The Oil & Gas sector primarily focuses on hydrocarbon extraction, production and distribution, whereas the Power sector focuses on electricity generation and transmission. Most renewables activity takes place within the Power sector, although some Oil & Gas companies do have renewable energy operations.

3.The world’s use of energy

Around the world, the demand for energy remains strong as populations grow and general living standards improve. Electricity is primarily obtained from coal, gas, nuclear and renewables (hydro, biomass, wind, solar etc.), whereas oil tends to be used primarily as a transport fuel, heating fuel and in many industrial processes and products. Globally, total energy consumption is roughly twice what it was in 1970, with oil providing the largest proportion¹. At the end of 2011 global energy consumption was around 8918 Mtoe².

3.1. Global energy supply

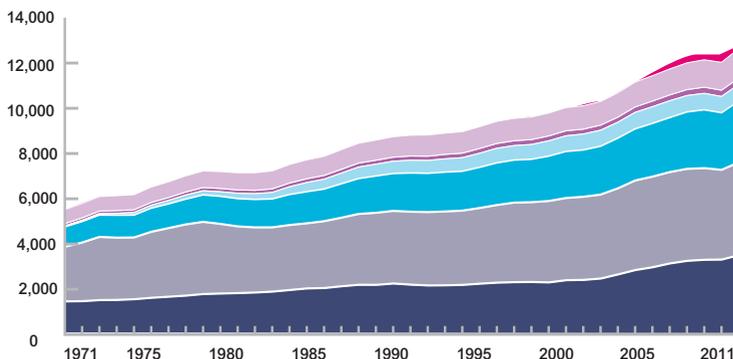
Global energy supply is still heavily dependent on fossil fuels with over 80% of total primary energy supply coming from oil, coal/peat and natural gas. The remainder of the world’s energy supply is from

nuclear power, hydro and combustible renewables (mostly biomass). As a proportion of the total global energy supply the contribution of low carbon forms of supply is still very small. The role of low carbon, including renewables, is most significant within the electricity sector, and growing steadily.

3.2. Emissions

The atmospheric concentrations of greenhouse gases have increased to levels unprecedented in at least the last 800,000 years³. In particular, CO₂ concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions. Annual CO₂ emissions have more than doubled since the early 1970s⁴.

World total primary energy supply from 1971 to 2011 by fuel (Mtoe)



World total primary energy supply 2011 by fuel (Mtoe⁵)

Coal/peat	28.8%
Oil	31.5%
Natural gas	21.3%
Nuclear	5.1%
Hydro	2.3%
Biofuels/waste	10.0%
Other (wind, solar, geothermal etc.)	1.0%

¹IEA, Key World Energy Statistics, 2013 (2011 figures) ²IEA, Key World Energy Statistics, 2013 (2011 figures) ³IPCC, Climate Change 2013: The Physical Science Basis, 2014 ⁴IEA, Key World Energy Statistics, 2013 (2011 figures) ⁵IEA, Key World Energy Statistics, 2013 (2011 figures)

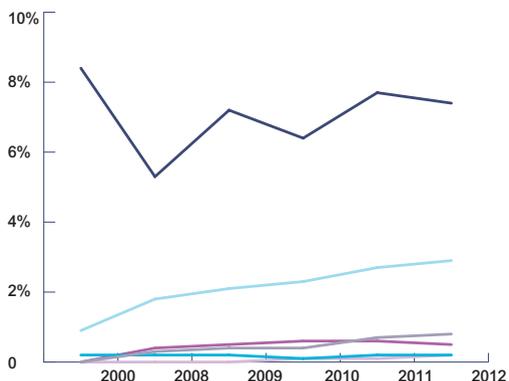
4. UK context and use of energy

The UK is a net importer of electricity. Net imports contributed 3.2% of electricity supply in 2012, the highest share since 2000. Electricity generation (including pumped storage) in the UK fell by 1%, from 367 TWh in 2011 to 364 TWh in 2012. However, total energy supply (including net imports) increased by 0.6%⁶.

The contribution of the energy industry to the UK GDP is significant, both historically and in recent years. In the 1980s the energy industries' peak contribution to GDP was more than 10%. Now the energy industries contribute between 3-4% of GDP⁷.

In 2012, UK emissions of the basket of six greenhouse gases covered by the Kyoto Protocol were provisionally estimated to be 571.6 million tonnes of carbon dioxide equivalent which was 3.5% higher than the 2011 figure⁸. The table below shows that the highest proportion of the UK's energy generated from low carbon sources was in 2011 (12%), with 2012 being only 0.1 percentage point. The accompanying graph also demonstrates the trends associated with each category of low carbon energy generation⁹.

Proportion of UK energy supplied from low carbon sources, 2000 to 2012



Proportion of UK energy supplied from low carbon sources, 2000 to 2012

	2000	2008	2009	2010	2011	2012
● Nuclear	8.4%	5.3%	7.2%	6.4%	7.7%	7.4%
● Bioenergy	0.9%	1.8%	2.1%	2.3%	2.7%	2.9%
● Wind	0.0%	0.3%	0.4%	0.4%	0.7%	0.8%
● Transport fuels	0.0%	0.4%	0.5%	0.6%	0.6%	0.5%
● Hydro	0.2%	0.2%	0.2%	0.1%	0.2%	0.2%
● Other	0.0%	0.0%	0.0%	0.1%	0.1%	0.2%
Total	9.4%	8.0%	10.5%	9.9%	12.0%	11.9%

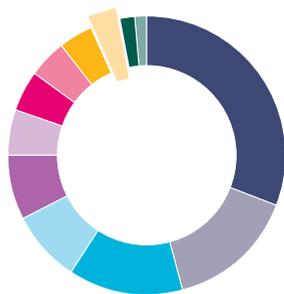
⁶DECC, UK Government. DUKES 2013 ⁷DECC, UK Government. UK Energy in Brief 2013 ⁸DECC, UK Government. UK Energy in Brief 2013

⁹DECC, UK Government. UK Energy in Brief 2013

5. Energy lending as a proportion of our total lending

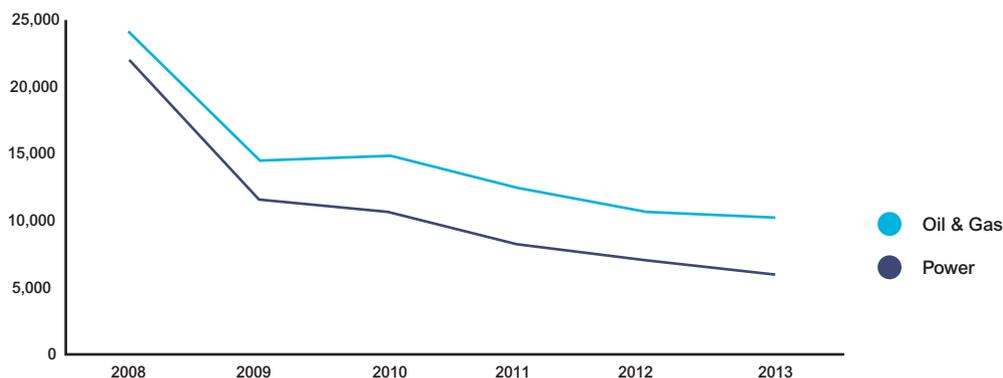
Around 2.8% of all our lending is committed to the energy sector (1.8 percentage points to Oil & Gas and 1 percentage point to Power). This compares to 30.9% of our lending committed to personal customers and 13.4% of our lending committed to the property sector, as the chart shows.

The total amount of lending we provide to the energy sector has dropped in absolute terms in comparison to the amount we were lending in 2012, showing an overall decrease since 2008. This is primarily as a result of changes to our business, particularly in our international banking division. However, our overall lending has also decreased by approximately the same proportion over the year.



Total RBS Lending to all Sectors		
Credit Risk Assets at December 2013	(£m)	%
Personal	177,122	30.9
Sovereigns & Quasi Sovereigns	86,046	15
Property	76,527	13.4
Other financial institutions	47,660	8.3
Banks	43,356	7.6
Transport	29,625	5.2
Services	27,509	4.8
Retail and leisure	26,586	4.6
Manufacturing	23,808	4.2
Power and Oil & Gas	16,040	2.8
Telecoms, media and technology	11,271	2.1
Other natural resources	7,405	1.3

Changes in lending to the Power and Oil & Gas sectors 2008 – 2013, by Credit Risk Assets (£millions)



6. Lending to specific energy projects

Our structured finance teams in the UK, Ireland and the US provide loans to specific energy projects such as wind farms and power stations. Often, a group of banks will be involved in financing a project, each providing a share of the loan and taking a share of the risk.

We have categorised our lending to different types of energy projects over the course of 2013. During this period, we provided more finance to wind projects than all other energy projects combined. We have over twenty years of experience in financing sustainable energy projects across a range of sectors and RBS is ranked #1 lender to UK renewable energy projects in the period 2011 – 2013¹⁰.

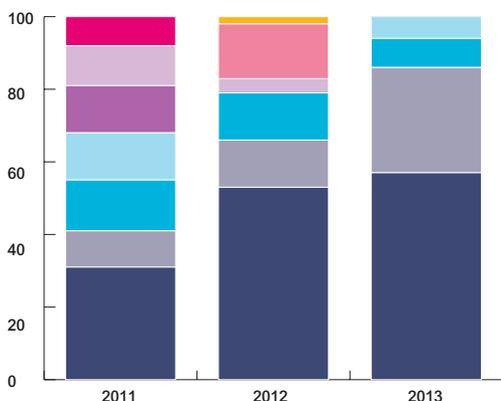
To understand and manage the social and environmental risks inherent in project financing, we have an environmental, social and ethical (ESE) risk management framework in place and have adhered to the Equator Principles since their inception.

More details of our approach can be found in our Sustainability Reporting information at: rbs.com/sustainable/policies

6.1. Mapping our lending to specific energy projects over time

This year we are including a tracker of our structured finance from the earliest comparable date. The chart below shows the change in structured finance from 2011 to 2013 in percentage terms.

Energy structured finance 2011 – 2013



RBS energy structured financing in 2011 – 2013 (% of total)

	2011	2012	2013
Wind	31	53	57
Oil	10	13	29
Solar	14	13	8
Gas	13	0	6
Biomass	13	0	0
Short term operating reserve	11	4	0
Transmission	8	0	0
Combined cycle gas turbine	0	15	0
Fuel cell	0	2	0

¹⁰Infrastructure Journal 2013 renewables league tables

7. General lending to the power sector

In addition to structured finance for specific projects, we also provide general lending to power companies. These companies are primarily involved in the generation and distribution of electricity.

This lending is not tied to specific projects, which means we are generally unable to associate it directly with the activity of our clients. However, using data provided by Trucost and our own research, we have analysed the spread of activities, measured by revenue, that our top 25 Power clients are involved in.

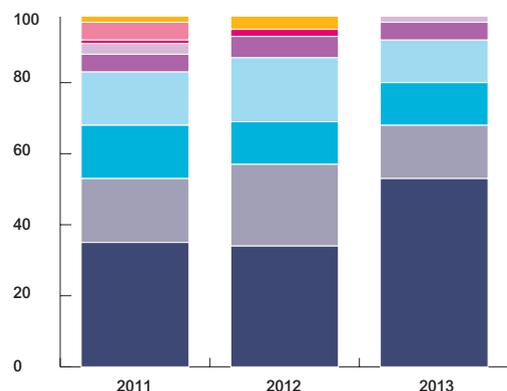
Almost all of these Power companies are involved in a range of different activities and generation types, so

we have used a mechanism that gives more weighting to the activities of those we lend the most to. The chart below shows that our lending to our top 25 Power clients mainly supports gas and electricity distribution followed by nuclear power generation. The distribution activities of our top 25 clients account for 53% of their revenue, up from 34% from last year.

7.1. Power sector activities over time

The chart below shows the changes to our Power sector clients' activities from 2011 to 2013.

Power sector activities supported by our general lending (top 25 Power clients, by percentage of revenue)



Power sector activities supported by our general lending (top 25 Power clients, percentage of revenue)

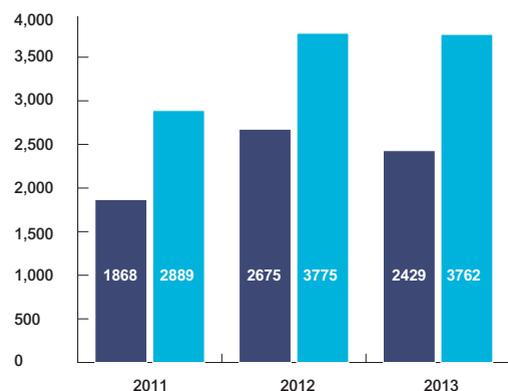
	2011	2012	2013
● Distribution (gas and electricity)	35	34	53
● Nuclear electric power generation	18	23	15
● Gas power generation	15	12	12
● Coal power generation	15	18	12
● Renewable power generation	5	6	5
● Other electric generation and transmission	3	0	2
● Petroleum power generation	1	2	1
● Extraction, production and manufacturing	5	0	0
● Other business activities	3	5	0

7.2. Power client carbon intensity

We have used Trucost's Portfolio Analyser Tool to calculate the carbon intensity of our top 25 Power Clients. This tool calculates carbon intensity using tonnes of CO₂ equivalent (CO₂e) emitted per \$million of revenue. The results show that our 'portfolio' (our top 25 Power clients) is significantly (35%) less carbon intensive than the Trucost average for Power companies.

We have also included our Power client carbon intensity from 2011 and 2012, as reported in previous Our Financing of the Energy Sector reports.

Power client carbon intensity 2011-2013 (tCO₂e/\$m revenue)

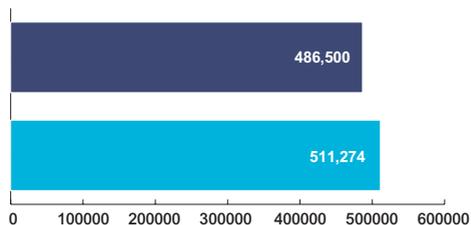


- RBS top 25 average
- Trucost power industry average

7.3 Power client water footprint

This year for the first time we have also used Trucost's Portfolio Analyser Tool to calculate the water footprint of our top 25 Power Clients. The tool calculates water footprint using cubic metres (m³) of water used per \$million of revenue. The results show that our 'portfolio' (our top 25 Power clients) is slightly (5%) less water intensive than the Trucost average for Power companies.

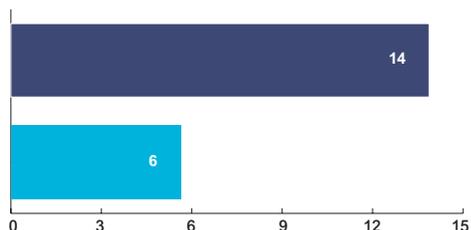
Power client water footprint (m³/\$m revenue)



7.4 Power client waste (to landfill) intensity

This is also the first year we have used Trucost's Portfolio Analyser Tool to calculate the waste (to landfill) intensity of our top 25 Power Clients. The tool calculates waste intensity using tonnes of waste per \$million of revenue. The results show that our 'portfolio' (our top 25 Power clients) is significantly (133%) more intensive in terms of waste to landfill than the Trucost average for Power companies.

Power sector waste intensity (tonnes/\$m revenue)



8. General lending to the Oil & Gas sector

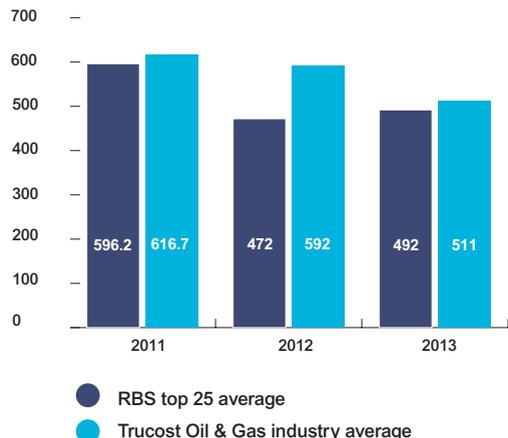
As with Power companies, we also provide general lending to Oil & Gas companies. Again, this lending is not tied to specific projects, which means we are generally unable to associate it directly with specific activities.

8.1. Oil & Gas client carbon intensity

We have used Trucost's Portfolio Analyser Tool to calculate the carbon intensity of our top 25 Oil & Gas clients. This tool calculates carbon intensity using tonnes of CO₂e emitted per \$million of revenue. The results show that our 'portfolio' (our top 25 Oil & Gas clients) is slightly less (4%) carbon intensive than the Trucost average for Oil & Gas companies.

We have also included our Oil & Gas client carbon intensity from 2011 and 2012, as reported in previous Our Financing of the Energy Sector reports.

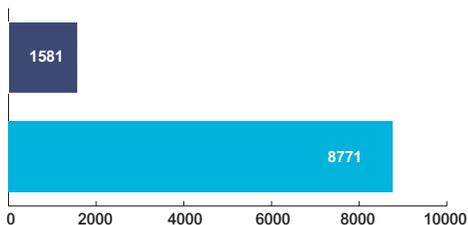
Oil & Gas client carbon intensity 2011-2013 (tCO₂e/\$m revenue)



8.2 Oil & Gas client water footprint

This year for the first time we have also used Trucost's Portfolio Analyser Tool to calculate the water footprint of our top 25 Oil & Gas Clients. The tool calculates water footprint using cubic metres (m³) per \$ of revenue. The results show that our 'portfolio' (our top 25 Oil & Gas clients) is significantly (82%) less water intensive than the Trucost average for Oil & Gas companies.

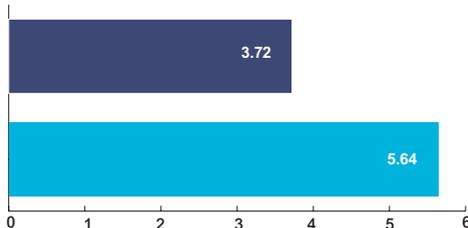
Oil & Gas client water footprint (m³/\$m revenue)



8.3 Oil & Gas client waste (to landfill) intensity

This is also the first year we have used Trucost's Portfolio Analyser Tool to calculate the waste (to landfill) intensity of our top 25 Oil & Gas Clients. The tool calculates waste intensity using tonnes of waste per \$million of revenue. The results show that our 'portfolio' (our top 25 Oil & Gas clients) is significantly (34%) less intensive in terms of waste to landfill than the Trucost average for Oil & Gas companies.

Oil & Gas waste intensity (tonnes/\$m revenue)

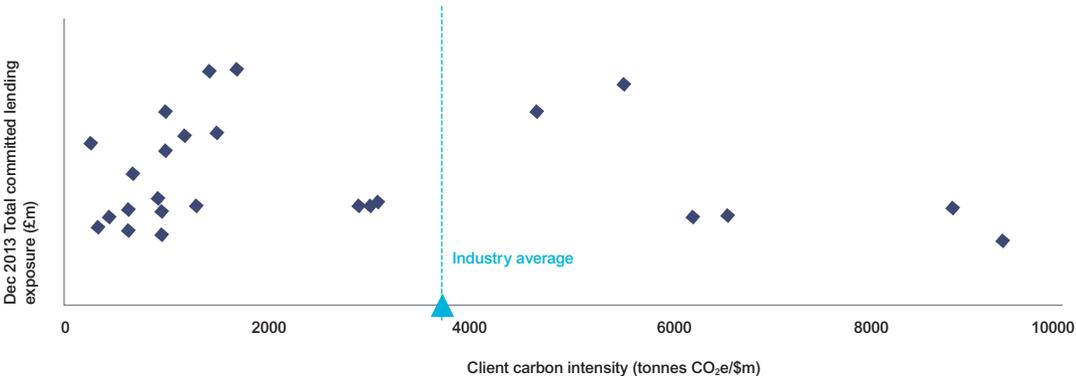


9. Mapping lending exposures with carbon intensity

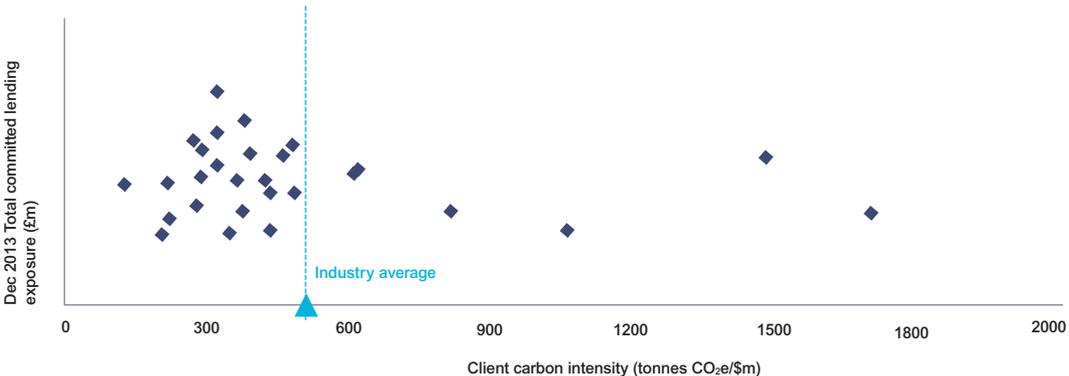
Energy clients who have high CO₂e emissions relative to their turnover (i.e. are carbon intensive) pose enhanced environmental, social and ethical risks. The charts below show our lending exposures to our top 25 Power and Oil & Gas clients compared to their carbon intensity, and the industry average.

The data for both sectors shows that there is a correlation between high lending exposures and lower than average carbon intensity. By tracking this data over time we are able to analyse the carbon risks in our lending and trends in our clients' approach to managing their emissions.

**Carbon intensity vs. lending exposure:
RBS Top 25 Power clients**



**Carbon intensity vs. lending exposure:
RBS Top 25 Oil & Gas clients**



10. Implications for RBS strategy

Rebuilding trust in our organisation will depend on us becoming a more responsible and sustainable bank. The information contained within this report provides us with a number of insights to help inform our strategy towards energy financing. These include:

- Over the coming years the UK will continue to expand its renewable energy capacity to help meet climate change targets and replace old energy infrastructure. There will be a continued need for structured finance solutions for this sector and RBS remains fully committed to supporting these projects.
- The increasing significance of wind power as a proportion of our total structured finance (rising to 57% last year) demonstrates the maturity of this technology and the attractiveness of wind projects to developers and financiers.
- The increasing significance of gas and electricity distribution for our top 25 Power clients highlights a need for us to continue to ensure we are fully aware of the ESE risks associated with these activities, alongside generation.
- The waste intensity of our Top 25 Power clients is well above Trucost's industry average and we will seek to better understand the reasons for this and the options available to our clients to help reduce it.
- The declining carbon intensity of our top 25 Oil & Gas clients (and the Trucost industry average) is encouraging from a climate risks point of view. However the 'downstream' emissions from this sector remain an area of further investigation for us as we seek to better manage our indirect carbon footprint.

11. Our commitments

11.1. Disclosure

We remain committed to providing enhanced disclosure on our financing of the energy industry in the years to come. As part of our RBS Sustainability reporting, we plan to report on our lending to the energy sector each year. We also believe there is substantial scope to provide further analysis of the role RBS plays in financing the wider low carbon transition, including but not limited to, the energy industry.

Although the shape and focus of RBS as a business is likely to change over the coming years (which may mean that year-on-year comparisons are not always available or valid) we will continue to publicly disclose our approach to energy and climate change through initiatives such as the Carbon Disclosure Project.

11.2. Policies

In addition to our long-standing adoption of the Equator Principles for project finance, over recent years we have introduced revised environmental, social and ethical (ESE) risk policies and position statements governing our lending to key sectors, including the Power and Oil & Gas sectors. These policies require that additional checks are made to ensure that clients have adequate procedures in place to mitigate adverse environmental and social impacts. In certain circumstances, these policies also prevent the provision of finance where the environmental and/or social impacts are considered too high.

11.3. Sustainable energy financing

We are committed to supporting the renewable energy and energy efficiency industries through a variety of financing and advisory services. With over 20 years worth of expertise in this market, we are continuing to develop ways to finance all sizes of installation, from micro-generation projects to large-scale wind farms and commercial retrofits.

11.4. Collaboration

The most effective way of addressing the energy financing challenge is through cross-sector collaboration. In this spirit, RBS will continue to participate in forums and initiatives such as the UN Environment Programme Finance Initiative and the Equator Principles which are focused on addressing climate change risks in energy sector financing. We will also continue our non-lending support for the clean energy industry including our sponsorship of events and hosting of educational learning events for those working in the industry.

More information on our overall approach to Sustainability, including our annual Sustainability Report, can be found on our website at: [rbs.com/sustainable](https://www.rbs.com/sustainable)



A copy of this report can be found at
[rbs.com/sustainable/energyfinancing](https://www.rbs.com/sustainable/energyfinancing)



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