

Responsible Business 2017: Enabling the low carbon transition

We are tackling climate change by reducing emissions across our business and providing products and services that lead to a lower carbon future.

Helping customers cut their carbon emissions

More than 90% of our carbon emissions are associated with the energy consumed by our customers. So the biggest contribution we can make in tackling climate change is to help them cut their carbon by using our energy efficiency and Connected Home products, alongside our distributed energy solutions. We calculate this has saved our customers nearly 31mtCO₂e since 2008 – equivalent to the annual emissions of around nine million UK homes. During 2015-20, we are investing £1.2 billion to strengthen our ability to provide cutting-edge products and services through our Connected Home and Distributed Energy & Power (DE&P) businesses.

Reducing operational impact

We have shifted away from being a large-scale energy producer and now emit over 70% less carbon for every pound of revenue than we did in 2010.

In 2017, our total carbon emissions decreased by 19%. This was mainly due to the sale of our Exploration & Production business in Canada and two power plants in the UK. The average carbon intensity of our Central Power Generation remained relatively stable at 125gCO₂/kWh. Instead of generating power for our customers, we will now predominantly buy it for resale from third parties.

Meanwhile, the internal carbon footprint of our property, fleet and travel reduced 11% in 2017 against our target to cut emissions by 20% during 2015-25. The decline was achieved through planned carbon reduction activities alongside headcount reductions arising from the reorganisation of our business.

Following these changes, we are reassessing our targets for both carbon intensity of Central Power Generation and internal carbon footprint.

Total carbon emissions

2017†	4,103,348tCO ₂ e
2016 ⁽¹⁾	5,073,320tCO ₂ e

Scope 1

2017†	4,044,754tCO ₂ e
2016 ⁽¹⁾	4,986,299tCO ₂ e

Scope 2

2017†	58,594tCO ₂ e
2016 ⁽¹⁾	87,022tCO ₂ e

Total carbon intensity by revenue

2017	146tCO ₂ e/£m
2016 ⁽¹⁾	187tCO ₂ e/£m



We are a world leader for disclosure and action on tackling climate change and water scarcity.

Helping St George's Hospital to deliver operational efficiency

St George's Hospital in Tooting is the largest healthcare provider in South West London. During 2017, we continued to work with the hospital to deliver end-to-end solutions that improve energy efficiency and operational performance. An energy centre is being installed to replace the existing 40-year-old system. This comprises of a new Combined Heat and Power (CHP) plant, efficient boilers and lighting alongside Heating, Ventilation and Air Conditioning (HVAC) systems. Meanwhile, energy use is optimised through a building management system.

Each year the St George's Hospital project is projected to save:

6,000tCO₂e

Carbon emissions avoided

£1m

Cost savings





Decarbonising the energy system

Centrica is revolutionising the way energy is generated, managed and consumed, by leading the transition to a decentralised energy system that enhances grid flexibility, supports renewables and reduces reliance on fossil fuels. However, as we transition to a lower carbon energy system, gas will remain an important part of the energy mix to back up intermittent renewables.

During 2017, we:

- created Centrica Business Solutions, a one-stop shop for large-scale energy users to harness distributed energy products and services;
- recruited homes and businesses to the £19 million local energy market trial in Cornwall, which will test the use of flexible demand, generation and battery storage while rewarding local homes and businesses for being more flexible with their energy;
- completed a 3MW battery storage scheme for Gateshead Council, to help keep the national electricity network in balance;
- launched a £180 million investment programme to build three new flexible power generation facilities and one of the world's largest battery storage facilities, to meet peaks in local demand and back up intermittent renewables; and
- grew the infrastructure needed to lower emissions from transport, having installed around 13,000 electric vehicle charge points since 2013.

Entering a pioneering contract with Europe's single biggest onshore wind installation

Providing a route-to-market for renewable power generators is one of the distinctive capabilities of Neas Energy, part of our Energy Marketing & Trading business. Neas has signed a landmark, long-term balancing and hedging contract with Europe's biggest onshore wind farm, Markbygden ETT in Sweden.

The agreement includes the management of price risks in the Nordic electricity and certificate market, as well as the physical sale and balancing of power production in the Nordic wholesale market.

Underpinning this contract is a 19-year fixed volume corporate Power Purchase Agreement (PPA) with Norsk Hydro, a leading global aluminium producer, where Centrica is offtaking power for the first year and subsequently 77% of the power will be bought by Norsk Hydro as a corporate PPA, with the remainder to be sold on the power markets.

650MW

Wind farm supported

497,000tCO₂e

Carbon emissions avoided

Acquiring REstore, Europe's leading demand-response aggregator

Whether it's reducing energy use at certain times, supplying energy back into the grid or increasing consumption when the grid is over-supplied, demand-response is helping energy markets become more flexible which will help enable renewable generation, reduce the need for fossil-fuelled back-up plants and reduce carbon emissions. Last year, we strengthened our ambitions in this area by acquiring REstore NV.

REstore delivers cloud-based demand-side management software and demand-response services to over 150 of Europe's largest energy users, such as ArcelorMittal and Total. With these capabilities, we are now playing a leading role in reducing pressure on the electricity grid and lowering carbon emissions.

850MW

Flexible power capacity to grid operators



† Included in PricewaterhouseCoopers LLP ("PwC") limited assurance engagement scope. See centrica.com/assurance for full details.

(1) Restated due to availability of improved data.