ofgem

Making a positive difference
for energy consumers



We are here to make a positive difference for all energy consumers, now and in the future.





2017-18

Office of Gas and Electricity Markets (Ofgem)

Annual Report and Accounts

HC 1107

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Annual Report and Accounts

(For the year ended 31 March 2018)

Accounts presented to the House of Commons pursuant to section 6(4) of the Government Resources and Accounts Act 2000

Annual report presented to the House of Commons by Command of Her Majesty

Ordered by the House of Commons to be printed on 28 June 2018

HC 1107

This publication is available at www.gov.uk/government/publications

Any enquiries regarding this publication should be sent to us at Ofgem, 10 South Colonnade, Canary Wharf, London, E14 4PU.

ISBN 978-1-5286-0480-2

CCS0618756752 06/18

Printed on paper containing 75% recycled fibre content minimum

Printed in the UK by the APS Group on behalf of the Controller of Her Majesty's Stationery Office

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About us

We are the independent energy regulator of Great Britain, working to protect the interests of current and future energy consumers.

Our core purpose is to ensure that all consumers can get good value and service from the energy market. We favour market solutions where practical, incentive regulation for monopolies, and an approach that seeks to enable innovation and beneficial change while protecting consumers.

This report summarises our progress against the projects described in our 2017-18 Forward Work Programme (FWP). It also assesses how our actions have contributed to protecting the interests of all current and future consumers – from domestic, including vulnerable consumers, to commercial businesses – and the strategic outcomes we seek to bring about, which are:

1. **Lower bills** than would otherwise have been the case.
2. **Reduced environmental damage** both now and in the future.
3. **Improved reliability and safety**.
4. **Better quality of service,** appropriate for an essential service.
5. **Benefits for society as a whole** including support for those struggling to pay their bills.

Chairman's foreword
David Gray

It has been an exciting time to serve as Ofgem's Chairman, with such profound change taking place in the energy industry. As I write my final foreword to our Annual Report before I retire in September, I am struck by two themes that have dominated our work – and the energy debate – over the last five years.

The first is the lack of trust and engagement. Many customers still believe the energy market is difficult to navigate and do not trust it to deliver the best outcome for consumers. That was one reason we referred it to the Competition and Markets Authority (CMA) in 2014. More recently, we have seen real progress – with more new entrants, more choice for customers, and more switching. But these are only a means to an end. Our objective is a market in which customers feel confident, receive good service and pay competitive prices. And on this, we need to do more.

The second theme is change in the industry – driven by technological advances and the imperative of tackling climate change. The energy system is transitioning to one that is lower carbon, more decentralised, flexible, dynamic and responsive – and the pace, intensity and unpredictability of that change continues to increase.

Looking ahead, these two themes will converge. Together, smart metering, digital technology, low cost battery storage, and electric vehicles could offer more attractive and varied services to consumers – and more ways to reduce energy bills. Some of these changes are a way off yet, but they are genuinely exciting and could herald an energy market that is almost unrecognisable from today's.

Our work has involved laying the foundations for these changes. In the years ahead, it will be to secure the maximum consumer benefit from them, and to ensure that – whatever the future looks like – customers are protected.

More immediately, the Government has decided that more needs to be done now for customers on poor value default tariffs, and is passing legislation for a price cap. We will deliver this. We hope that it will provide immediate relief and peace of mind to customers, as well as an opportunity to fundamentally reset the entire energy system for the future.

In the longer term, we would hope that a wide-ranging price cap will not be necessary. But, as Dermot Nolan often says, energy is an essential service – and we recognise that there may be a need for ongoing protection for some customers, particularly those in vulnerable circumstances or those who can't engage effectively. Alongside the price cap, we will therefore need to work with the Government to tackle this.

In the last year, we have said goodbye to David Fisk, Jim Keohane, Nicola Hodson and Rachel Fletcher – and I wish to record my thanks for the experience, expertise and good humour they each brought to their roles. I will shortly be joining them in the ranks of former members of the Authority, and I add my thanks to all Authority members who have served alongside me over the last five years, as well as Ofgem's outstanding staff, who have been a source of tremendous support to me.

Our people truly are our greatest asset – hard-working, professional and committed to ensuring that the energy system works for all consumers. We are lucky to have them – and while the scale and pace of change in the energy industry is greater than at any time that I can remember, I have no doubt that my successor could not wish for a more dedicated or more talented group of colleagues to meet this challenge.

David Gray
Chairman

Chief Executive's Officer's Report
Dermot Nolan

One of the things I like most about this job is the chance to see our work in action. Earlier in 2018, I visited a consumer charity in Glasgow to listen and learn about how it supports local residents with their energy bills and needs. I met and chatted to some interesting people, and it was fantastic to see how the hands-on advice they provide, and our work, helps with the problems that people are facing.

It's easy for a regulator to get caught up in the bubble of economics and politics and lose sight of what it actually means to be in this unique position, at such an interesting time.

That's why, for me, it's also important to step outside the bubble, to listen and learn. And in Glasgow, and in many other places I've been lucky enough to visit this year, I was able to learn a lot and see the real difference we are making.

These occasions reinforce for me that, despite the challenges, we are on the right track and achieving results that are meaningful for consumers up and down the country.

Our work on price protection this year put us at the front of the newspapers, and the heart of the conversation about fairness for consumers in markets such as energy.

We introduced a **price cap** for people on prepayment meters, and extended this safeguard tariff to another one million vulnerable households in early 2018. We then started preparing to implement a wider price cap, working alongside the government.

We launched a number of trials to encourage more consumers to engage and switch, including sending a letter to over 130,000 customers on expensive deals, telling them about cheaper ones available to them and how they could switch. This resulted in a trebling of the switching rate and we will look to build on this in 2018-19.

We introduced an online switching service to help people on poor-value deals to switch quickly, simply and reliably. We have seen some good results so far and will widen it to include more people.

In **networks**, much of our work is about ensuring value for customers. This year we started developing the framework for our next price control, RIIO-2. The price control will be tougher on network companies, and deliver more for consumers. We will give consumers a stronger voice as we develop the framework over the next few years, to achieve fairness in returns and reliability.

On the theme of network costs, in June 2017, we approved modifications to remove some of the so-called "embedded benefit" payments that result from transmission network charges. We believe these payments distorted competition in favour of small-scale generators connected to the distribution network, and substantially increased costs to consumers. This decision was then appealed by some owners of small-scale generation through a judicial review, and is, as I write, under consideration at the High Court.

In October 2017, we rejected charging modification (CMP 261) proposed by some large-scale generators, which would have resulted in a rebate of up to £200m, paid for by consumers. This decision was successfully defended at the CMA after, again, being appealed.

Together, these decisions will save consumers hundreds of millions of pounds a year, while reducing distortions of competition in the market.

The reform of network charging is an important part of our preparations for regulating energy systems for a smart, flexible, low carbon future.

Much of our work involves looking ahead: at what will shape and shake up the energy market, and how we remove barriers to things like smart technologies and storage.

We want to level the playing field so that change benefits everyone, not just those who can afford the latest technology or who are the most engaged.

Our **Innovation Link** advised over 150 innovators with new business models this year. We believe that these innovators will drive the change in the energy system, and we want to facilitate this as much as we can.

Of course, things aren't perfect, and there are still many enormous challenges to be faced. We acknowledge these. There are no easy answers and quick fixes to network charging, the energy transition, price caps and controls.

But I believe at Ofgem, we have talented staff thinking creatively and with a long-term mindset about solutions to these, and what's next on the horizon. Always with the same interests at heart: to protect the consumer, now and in the future.

We want to do more. We want to go further, and we want to make a bigger difference, to more people. We will get there, but it won't be easy.

This year we said goodbye to Rachel Fletcher who left to take up the position of Ofwat Chief Executive, and Martin Crouch, Chris Poulton and Andrew Wright also announced their intentions to leave in 2018.

We will also shortly be saying goodbye to our chairman David Gray, who retires later this year. I have enjoyed working with all of them very much, especially David whose judgment and sound advice I have found of great value.

Our Glasgow and Cardiff teams settled into their new office spaces this year, and in April our London teams moved office from Westminster to Canary Wharf. We also restructured our organisation, moving from six divisions to three. We believe these changes will help us to deliver for consumers better than ever.

Dermot Nolan
CEO

Understanding the impact of our work and the benefits we deliver on behalf of consumers

In 2018 we will publish our first Consumer Impact Report alongside our Annual Report and Accounts. This report assesses quantifiable and non-quantifiable consumer benefits that we expect to result from the regulatory decisions we made in the financial year April 2017- March 2018. We intend to publish this report every year to look at the effects of our decisions on all types of consumers in Britain.

Based on our calculations, we expect **Ofgem's decisions in this financial year to result in direct consumer benefits of £7,800m.**

These are forecasted consumer benefits of decisions that will have impacts across multiple years. They may, in the future, differ from the actual amount realised. However, they give a good sense of the magnitude of the benefits that flow to consumers from the actions we take. In addition, we expect our work to have significant indirect and non-quantifiable benefits, which are summarised in pages 27 – 29.

Ofgem's administrative expenditure for the financial year April 2017 to March 2018 was £90.040 million. This gives a ratio of direct benefits to costs of 87, which means that for the decisions we took in the last financial year, we expect **every £1 we spent to deliver direct benefits of £87 to consumers.**

Performance Report

Enabling a better functioning retail market

In 2017-18, we continued our work to bring about a retail market that works for all consumers, where competition constrains prices, drives efficiency and delivers the range of services and products that customers need.

Our work to enable improved retail market functioning covered three main areas, which incorporated implementation of the Competition and Markets Authority (CMA)'s energy market remedies:

- **Supplier conduct** - Ensuring that the licence and our interactions with suppliers drive the standards of conduct and quality of service that we and consumers expect.
- **Supply-side competition** – Setting our regulations to facilitate innovation and vigorous, disruptive competition between suppliers and third-party intermediaries while maintaining consumer trust.
- **Consumer engagement** - Encouraging householders and small businesses to engage in the market and also to take the hassle out of switching.

Supplier conduct

During 2017-18, we continued to implement our move to enforceable principles rather than a reliance on detailed, prescriptive rules. Our **Future Retail Regulation** programme has strengthened protection for consumers while giving suppliers room to innovate and work out how best to put customers at the heart of their business.

In mid-2017 we strengthened the **Standards of Conduct** (the overarching rules requiring suppliers to treat each customer fairly) and the new rules went live in October 2017. The key changes included a specific responsibility on suppliers for vulnerable customers, and the importance of suppliers ensuring that all households have the information they need to engage with the market.

The Standards put responsibility on suppliers to determine how best to do this, and reinforce our expectation that they must put consumers at the heart of their businesses. In doing so, suppliers will need to monitor their customers' experiences, so that they can keep in touch with what their customers need.

To ensure suppliers maintain this focus, we also published our refocused **annual report on vulnerable consumers** in the retail energy market, as it was clear that suppliers could do more to identify and support consumers especially in the area of debt management. We took action to **require suppliers to carry out an external audit of their debt processes and approach to vulnerable consumers.**

We also took steps to protect vulnerable consumers in November 2017 by **introducing a cap on the amount suppliers can charge for installing prepayment meters (PPMs)** under a court warrant. This had the effect of forcing suppliers to engage more effectively with vulnerable customers facing debt, rather than force-fitting a PPM. For the most vulnerable consumers **we prohibited PPM installations altogether**.

In March we published **our decision to limit backbills to 12 months**, subject to limited exceptions. The new SLC (21BA) will apply to both domestic consumers and microbusinesses and will come into force on 1 May. Domestic consumers will be protected from 1 May and microbusinesses from 1 November. This follows our commitment made last summer to publish the decision in early 2018.

The move to overarching rules strengthens our focus on consumer protections, and we do not hesitate to take action where suppliers fall short. We have a range of measures to ensure **compliance**, ranging from monitoring and setting targets, gaining redress and opening formal investigations. Our continued focus on compliance in 2017-18 saw several investigations involving suppliers wrongly charging consumers. These cases were resolved promptly and without recourse to enforcement action, and saw consumers receive compensation and redress payments, while suppliers improved their processes.

Supply-side competition

We are now seeing significant opportunities for innovation across the energy system and have started examining the role that traditional suppliers play in the market, and the opportunities for consumers to access and manage their supply in new ways. In this context, we have been exploring whether the existing **'supplier hub'** market model is still fit for purpose or whether we should consider changes as the energy system evolves. In November 2017, we launched a call for evidence focusing on barriers to innovation and ways to better protect all consumers, regardless of how they access their energy supply.

2017-18 saw continued rapid **growth in the number of new suppliers entering the retail market.** This growth helped to increase consumer choice, exert downward pressure on prices and saw more innovative tariff and service offerings introduced.

As to be expected in a market, there have been a small number of supplier exits and consolidations over the past year. We have also used our Supplier of Last Resort (SoLR) processes to protect consumers when a small energy supplier ceased trading. Our processes were swift and effective, ensuring that customers' credit balances were protected and supplies remained secure. Some new entrants found operating conditions challenging and, in a minority of cases, customer services and supplier conduct standards dropped below what we expect. We carefully monitored this activity during 2017-18, and we **will be initiating a review of supply licence arrangements in 2018-19.**

As part of our wider programme to promote competition among Price Comparison Websites (PCWs) and respond to the CMA's recommendations, we **changed the rules of a voluntary code for PCWs** in July 2017 to make it easier for people to switch to cheaper deals.

Consumer engagement

Consumer engagement is vital to realising the benefits of a competitive retail market. However, engagement isn't just about switching supplier. It is also about understanding and making informed choices, including to opt for better tariffs with the same supplier.

We have built on CMA remedies and launched a number of trials to encourage increased customer engagement and switching behaviours. Learning from successful smaller trials in 2016-17, we launched a **'Cheaper Market Offers Letter' trial** involving over 130,000 customers on expensive deals receiving a letter from either their supplier or Ofgem telling them about three available cheaper deals from rival suppliers. This resulted in a trebling of the switching rate.

In early 2018, we launched a **simplified** '**collective switch**' trial aimed at those consumers on poor value deals who have not switched for more than three years. The trial was conducted with 50,000 customers of one of the larger suppliers, and we are currently evaluating the responses. Depending on the findings, we may choose to roll out various messaging initiatives and simplified collective switches for less engaged customers in 2018-19.

We introduced **a new 'Check Your Energy Deal' trial online switching service**, to help customers who have been on poor value standard variable tariffs for three years or more to find cheaper deals. We want consumers to be able to switch energy supplier, quickly, simply and reliably. During 2017-18 we significantly progressed work in this area, introducing proposals to deliver next-day switching as a new industry standard and improve reliability of the switching process through better management and oversight of industry data.

We are now progressing with the Switching Programme Outline Business Case and introducing key reforms, which will require the Data Communications Company (DCC) to procure a new **Centralised Switching Service (CSS)** that will facilitate reliable and fast switching across gas and electricity markets.

Temporary and targeted retail price protections

The Competition and Markets Authority (CMA) price cap for pre-payment customers remedy was introduced in April 2017, and we performed an integral role in implementing the remedy through **setting the price level for the cap every October and April.**

During summer 2017 we gathered evidence which (taking into account the CMA energy market investigation findings) led us to conclude that introducing price regulation would better protect the interests of vulnerable consumers in the short term, and introduced a **Warm Home Discount safeguard tariff** (applying to those consumers in receipt of a WHD rebate from February 2018). In December 2017 we consulted on extending **this protection to cover an additional c. 2 million vulnerable customers with the introduction of the vulnerable safeguard tariff** from winter 2018. We explained our intention was to introduce such a cap only if a default cap were not to be introduced by winter 2018-19.

On 26 February, the Government introduced proposals for legislation to Parliament, to introduce a **temporary tariff cap for customers on Standard Variable (SVT) and default tariffs.** The proposed legislation places a duty on Ofgem to implement the price cap as soon as practical. Ofgem is committed to protecting energy customers and we are working with Government to ensure we can implement the price cap as soon as possible once the legislation has received Royal Assent.

Facilitating change in the energy system

The need to reduce carbon emissions, technological advancements and greater digitalisation are changing the way energy is produced, generated, transported, stored and supplied to consumers.

Our work in 2017-18 focused on facilitating this energy system transition for the benefit of consumers, structured under three themes:

- **Flexibility, strategy for regulating the future energy system and enhanced System Operation** - Our work on setting out our future-focused strategy, approach to flexibility and expectations for the enhanced electricity System Operator to ensure the system is responsive to a wide range of future outcomes.
- **Addressing how network charges are recovered** - In particular, how residual charges are recovered fairly and distortions reduced.
- **Facilitating key infrastructure as an enabler of the transition** - Ensuring the building blocks for the move to a smarter, more flexible and responsive system are put in place.

Flexibility, strategy for regulating the future energy system and enhanced System Operation

Electricity market and regulatory arrangements were designed for a system with very different characteristics to today and those we now expect in the future. For example, more than a quarter of all generation capacity is now connected to distribution rather than transmission networks. Much, but not all, is intermittent renewable generation, which only generates when the wind blows or the sun shines. In addition, an increasing proportion of generation is now located on consumer premises, partly driven by the growth of solar panels. New technologies are emerging and the costs of many of these technologies, such as storage, are falling rapidly.

We published two major papers to address these challenges in mid-2017 – The **Smart Systems and Flexibility Plan (published jointly with the Department for Business, Energy and Industrial Strategy (BEIS)** and our **Strategy for regulating the future energy system**. The former sets out **29 actions** Government and Ofgem are taking to deliver a smarter, more flexible energy system by removing barriers to smart technologies and storage, enabling smart homes and business, and making markets work for flexibility.

Alongside this, our Strategy work encompasses and aligns with this plan, but focuses on addressing the key challenges and opportunities that future changes could create for different aspects of the energy market and regulatory arrangements. These challenges include **cross-cutting platforms** to support the energy transition, **balancing supply and demand at all times, efficient locational management and development** of the energy system, **system coordination and the institutional framework** and **supporting innovation** while **ensuring good outcomes** for consumers.

How network charges are recovered from users

It is important that charges for access to and use of the energy networks are fair and provide the right incentives to market participants. During 2016 and through early 2017 we reviewed the 'embedded benefits' that smaller (sub-100MW) distribution-connected generators can receive, as we were concerned that the current set of rules could be preventing a level playing field. We concluded that the current level of payments going to these smaller generators were distorting the wholesale and capacity markets, and that the situation was set to worsen if action wasn't taken.

In March 2017 we **consulted on proposals to lower one type of payments that these smaller generators receive for producing electricity at peak times,** with the aim of reducing costs for consumers and preventing market distortions. In June 2017 we accepted a code modification that removes the ability for suppliers to use smaller embedded generation (EG) to reduce their contribution to the Transmission Network Use of System (TNUoS) demand residual. **A new cost reflective payment has been introduced through a three-year phased implementation, which began on 1 April 2018.** This decision has been challenged by industry participants and is currently subject to a judicial review (JR) process.

In addition, we have been examining a range of other network charging issues and considering how residual charges should be levied across gas and electricity networks. To this end, we consulted in Spring 2017 on proposals for a **Targeted Charging Review (TCR)** on electricity residual charges, and launched the TCR **Significant Code Review (SCR)** in August 2017. We have made substantial progress with the SCR, and in the latter half of 2017 started work on detailed assessments of residual recovery mechanisms, with a view to bringing forward a consultation on detailed policy options in the second half of 2018.

Another key development this year was the formation of the **Charging Futures Forum (CFF),** helping to facilitate stakeholder input into proposed changes and steer the various on-going reviews of electricity network access and charging.

We supported the gas industry in taking forward the conclusions of the Gas Transmission Charging Review (GTCR) and the implementation of the Gas Tariff European Network Code. This has now culminated in the **Gas Charging Review (GCR)** process that aims to consider and potentially approve changes to the gas transmission charging methodology in 2018-19.

Collectively, these strands of network charging work - across electricity and gas – have been coordinated to ensure a joined-up approach, and to facilitate consistency, predictability and a level playing field for all market participants.

Key enablers of the transition to ensure the critical infrastructure is in place

We have made considerable progress in 2017-18 with the building blocks for the move to a smarter, more flexible and responsive system. This work has included **monitoring and assessing supplier plans for the roll-out of smart metering** in early 2017 and 2018, and ensuring that the regulatory obligations on suppliers are driving the right mix of efficiency, cost-effectiveness and consumer engagement. As part of the overall smart meter infrastructure, we operate the price control for the Data Communications Company (DCC) and in 2017-18 we implemented the **DCC operational performance regime** and issued our **proposals for the DCC Price Control** in 2016-17.

The roll out of smart metering also offers the potential for more timely and efficient settlement processes (the process of charging suppliers for the difference between how much energy they purchase and how much their customers actually use).

In 2017, the changes we had made to enable half-hourly settlement on an elective basis came into effect, and we **launched a Significant Code Review for market-wide half-hourly settlement** for domestic and smaller non-domestic consumers. In the last quarter of 2017-18 we also issued the **strategic Business Case** and rationale for market-wide HHS and made progress on the design of the new system. The changes we are making to bring forward half-hourly settlement will put incentives on suppliers to help their customers move their consumption to periods when electricity is cheaper, with potentially substantial benefits from making better use of the electricity system and existing infrastructure. In doing so, we are helping to create the right environment for more demand-side response and a smarter, more flexible energy system, as well as promoting innovation and competition in the retail market by enabling new and innovative business models.

Alongside Xoserve and industry, we also successfully concluded **Project Nexus** in June 2017, ensuring that the settlement and administration systems for the GB gas market were upgraded in a way that ensured future benefits to consumers (such as using smart meter data in the settlement process) were incorporated.

In early 2017 we consulted on **potential reforms to industry code governance.** Prompted by the CMA's Energy Market investigation recommendations, the consultation explored the licensing of code managers and associated central delivery bodies, setting a strategic direction for code development and establishing a consultative board, with the aim of enabling strategic change to be delivered smoothly and efficiently. We held industry workshops in late 2017 to explore proposals for the strategic direction and consultative board, and will set out proposals for next steps in 2018-19.

Recognising that much of the innovation in the energy system is being driven by entrepreneurs and new entrants, our **Innovation Link's** advisory service engaged with over 150 different innovators in 2017-18, receiving 88% satisfaction ratings. We finalised the outcomes from the regulatory **sandbox 1** (awarding 3 sandboxes in November 2017) and **launched a second sandbox** call in October 2017, attracting over 30 potential innovations and novel business models. We also ran an **innovation outreach programme,** which included a 1 day seminar on blockchain in energy, as well as engaging with other relevant bodies including techUK, Energy Innovation Centre and Energy Systems Catapult.

Network regulation and RIIO

The networks that transport electricity and gas around the UK form the backbone of our overall energy system. Most are natural monopolies so their revenues and performance need to be regulated in order to provide good value for consumers. As well as administering price controls, we also design and manage the incentives and tendering processes for offshore transmission and interconnectors, and are driving competition into parts of the network where this is most suitable.

Our work in 2017-18 has focused on the following areas:

- **Learning from the first RIIO and developing RIIO-2** – Our RIIO (revenue = incentives + innovation + outputs) price control framework (for electricity and gas transmission and distribution) ensures that the network operators focus not just on cost efficiency, but that they also deliver the right levels of service for consumers.

- **Introducing competition into monopoly areas** – In recent years we have added two more regulated regimes for transmission networks, the first is for offshore transmission, connecting offshore generation to the mainland. The second is for interconnectors, allowing us to import and export power to neighbouring countries such as France and Norway. We are also working on introducing competition into the onshore networks.

Learning from the first RIIO and developing RIIO-2 - Key decisions and learning

In 2013 we set the first eight-year price controls for energy transmission and gas distribution, and this was followed by electricity distribution in 2015. Monitoring network company performance, both in terms of service delivery and financial performance, is a vital part of our work programme and we published our latest **Annual Reports (2016-17)** for each price control in December. This included an additional focus on presenting the key factors driving company performance.

At the start of the year we concluded our work on the **parallel issues identified as part of our mid-period review (MPR)** of the gas distribution (GD1) and transmission (T1) price controls. This covered a range of issues that did not meet the scope of the MPR but where we thought further clarity was required on how the GD and T1 settlements would operate. We set out our views on what constituted compliance with outputs relating to Industrial Emissions Directive compliance in gas transmission and voltage support in electricity transmission to ensure they were delivered in a way that best served consumers. We also set out our intention to delay allowances related to the late delivery of the £1bn subsea Western HVDC link so that the companies did not benefit from the delay.

We also consulted on a **potential MPR for electricity distribution** (RIIO-ED1) in December 2017, covering potential small-scale changes in scope due to government policy changes, and a potentially wider change of scope associated with financial and incentive performance and design. This consultation closed in February 2018, and our decision not to launch an MPR was published following the year-end in April 2018.

Also in 2017-18 we took the decision to remove £277.5 million from National Grid Gas Transmission (NGGT)'s allowance at the **Fleetwood Entry Point** as the works were no longer required. We also reduced NGGT's capacity obligation at the site to protect consumers from having to pay for additional investment at the site if another entry project connected.

In September, following a detailed review of the performance of the Distribution Network Operators (DNOs) in relation to key areas of the previous electricity distribution price control (DPCR5, 2010-2015), we also **returned around £200m to GB consumers.**

We are still keen to improve the quality and transparency of financial reporting by the RIIO-regulated network companies. We have engaged heavily with stakeholders on **potentially introducing revised regulatory accounts** (known as RIIO Accounts) and have received helpful feedback. We now need to consider this further to decide on the most appropriate course of action.

The RIIO-1 price controls for gas distribution and energy transmission networks are due to end on 31 March 2021 with the price control for electricity distribution ending on 31 March 2023. Under the existing RIIO price controls, we have seen considerable improvements in network operator performance and customer satisfaction: the networks are now more reliable and consumers are highly satisfied with the service provided by local network operators. The innovation stimulus - including the **Network Innovation Competition (NIC)** which saw funding decisions for 2017 published in November - has raised research and development spending and should result in significant benefits for consumers from nationwide rollout of successful schemes. Our incentives framework has encouraged greater deployment of lower cost operational solutions and competition is starting to take shape in the onshore sector.

However, we have also learned key lessons relating to company returns, operating assumptions and corrective mechanisms. We have used this learning during 2017-18 to inform our thinking for RIIO2, the next price controls which will apply from 2021 onwards. Our aim is to develop a framework that will be tough, but fair, for companies and investors, deliver good value for consumers, and allow networks to respond to the unfolding energy transition and changing customers' needs.

In July 2017 we published an open letter on our proposals, and used the stakeholder responses to this to inform the publication of our detailed **RIIO-2 Framework Consultation** in March 2018. In this, we set out our proposals in five key areas – giving consumers a stronger voice, responding to how networks are used, driving innovation and efficiency, simplifying the price controls and achieving fair returns and financeability. This stage marked the beginning of the formal consultation process for setting the next price controls, and we intend to publish our decision on the framework in summer 2018.

Introducing competition into monopoly areas

We have promoted competition in connections since 2000, and pioneered the use of competition (via tendering) for offshore networks through our offshore transmission owner (OFTO) regime. In July 2017, we took a major decision to appoint a preferred bidder to own and operate the offshore transmission link to the **Burbo Bank Extension windfarm** for the next 20 years. This completes the procurement process of Tender Round 4 of the OFTO regime, and the extension will see 230,000 UK homes powered using renewable energy.

Wherever possible and appropriate, we also identify opportunities **to deliver competition or competition-like forces within onshore energy networks.** In 2017-18 we planned to finalise the design and commercial arrangements for Competitively Appointed Transmission Owners (CATOs). However, constraints on the Parliamentary timetable meant that enabling primary legislation could not be introduced. We therefore paused the implementation of the CATO regime. In August 2017 we published a consultation setting out two potential alternative delivery models (the 'SPV model' and the 'Competition Proxy' model) that we consider would introduce a significant proportion of the benefits of competition that would have been realised through the CATO regime.

In January 2018 we consulted on applying the Competition Proxy delivery model to the **Hinkley-Seabank onshore electricity transmission project.** The savings that this model will deliver to consumers will depend on the allowed cost of capital (to be finalised in late 2018), but are anticipated to be at least £100m on a net present value basis over 25 years.

In our RIIO-2 framework consultation in March, we set out proposals to extend competition across the sectors (electricity and gas, transmission and distribution), where it is appropriate and provides better value for consumers. These will be developed further during 2018.

Our cap and floor regime encourages competition in the construction of electricity interconnectors, the physical links which allow the transfer of electricity across borders. To date we have granted five projects a cap and floor in principle and these projects are at various stages of the development cycle – once built they will result in significant savings for consumers. **In 2017-18 we made a further three decisions to grant projects a cap and floor, and now expect these projects to progress through the development cycle.**

In November, we rejected a proposal to build a subsea electricity distribution link from Shetland to mainland Great Britain. This decision was taken because a change made at EU level meant tougher emissions targets would not apply to Lerwick Power Station until 2030 and that the station could continue to operate until at least 2025 at a significantly lower cost than that of the proposed distribution solution. In addition, the UK Government announced that, subject to receiving State Aid approval, wind farms on remote islands such as Shetland will be eligible to compete for a Contract for Difference (CfD) in the auction now planned for 2019. This allows for the possibility of further savings being realised if a more integrated solution comes forward following the next CfD round.

An authoritative source of quality analysis

In order to protect consumers' interests and maintain trust in the energy market it is vital that the analysis underpinning our regulatory decision-making is robust, that we maintain our industry-facing expertise and that we drive insights in future regulatory developments.

Our work in 2017-18 has focused on the following areas:

- **Quality assurance, impact assessments and evaluation** – Led by the Office of the Chief Economist, we have focussed on strengthening the quality of our impact assessments and policy evaluations to help improve the robustness of our decisions.
- **Reports and research** – This includes our Regulatory Stances, horizon scanning and future energy system research and publishing trusted and authoritative reports into the functioning of the energy market.
- **Capability improvement** – Working through internal networks, we have prioritised training, development and capability building among our analytical staff.

Quality Assurance, Impact Assessments and evaluation

We have maintained our focus on improving the quality and increasing the number of Impact Assessments undertaken across the organisation. In 2017-18 we implemented a modelling Quality Assurance (QA) framework in line with the recommendations of the Macpherson review[1], which built on our rolling programme of model QA for our business-critical models.

Reports and research

As part of our commitment to making the energy market as transparent as possible, we have maintained and enhanced our **Data Portal** in 2017-18, ensuring that information on retail and wholesale markets, customer service and networks is as accessible and up-to-date as possible, so consumers, market participants and other interested parties can see how the sector is working. This portal gives direct access to all of our interactive data charts in a single location, alongside indicators we consider key to our performance monitoring.

Building on our previous horizon-scanning programme, the **Insights for Future Regulation (IFR)** project is designed to explore the current and future drivers of change and material impacts on consumers and regulation. This is delivered through stakeholder engagement, academic and industrial collaborations and publication of insight papers.

In early 2017 we published reports into **Local Energy,** which considered the current local energy landscape, the types of business models that are emerging and the implications for consumers and regulation, and the **Futures of domestic energy consumption**, which outlined some of the key changes to the energy landscape we could see for domestic consumers over the coming decade.

Research is an essential part of how we understand the energy market and its performance for consumers, and in September 2017 we published proposals to bring together our insights and horizon-scanning activity into a **dedicated Research Hub.** We were keen to explore how we might engage more effectively with research institutions on topics of common interest, and we received a high level of support for the Hub's four proposed priority areas: cross-sector policy interactions, facilitating the low-carbon energy transition, the future consumer, and global trends.

[1] https://www.gov.uk/government/publications/review-of-quality-assurance-of-government-models

We have continued to develop work in these areas during the remainder of 2017-18, with the Research Hub helping us to develop and communicate our research priorities, improve our awareness of external research and stimulate external research activity.

Our 2014 referral of the energy market to the Competition and Markets Authority (CMA) was based on our assessment that the market was not operating as well as it could. Following the CMA's energy market investigation and in implementation of its remedies, we undertook a comprehensive review of energy markets and published our annual **State of the Market** report in October 2017.

Building on our previous Wholesale Energy Markets (2016) and Retail Energy Markets (2016) monitoring reports, the State of the Market report assessed market functioning against our consumer outcomes. Using this framework, the report concluded that: a two-tier market still exists, offering a good deal to consumers able and willing to shop around, but not for less active consumers; many consumers (particularly vulnerable consumers) are worried by and struggle with energy affordability; the need for more low-carbon generation makes it more important consumers get the best deal; and secure supplies have been maintained without out-of-market intervention, but consumers may, on average, have paid more than necessary.

We continue to use the insights from the State of the Market report to act in the best interests of consumers, and take forward a range of interventions ourselves and with companies and government.

Capability improvement

We have continued to build analytical capability throughout Ofgem during 2017-18, **conducting skills audits and using these insights to develop a targeted recruitment and training programme** for analytical professionals, as well as developing internal professional networks for economists.

Linked to our Research Hub initiative, we also re-instituted and refreshed the **Ofgem Academic Panel** in 2017, with the aim of enhancing our strategic and early stage thinking and building wider links with the academic research community.

Core business activities

In addition to our key priority work areas, we also work on a wide range of 'business-as-usual' yet still critical areas. Our achievements in these areas are described below:

- **Security of supply**
- **Compliance and enforcement**
- **Wholesale market monitoring**
- **European work**
- **UKRN**

Promoting security of supply

Our role is to make sure that the electricity and gas markets work properly and that there are no barriers to stop companies doing their job. In this way we ensure energy supplies are uninterrupted for GB homes and businesses and that energy is available on demand at all times. Many facets of our work help to ensure security of supply. For example, we incentivise network companies to keep interruptions to a minimum. Generation and supply companies are also incentivised to make sure that the energy put on to the system balances with the energy their customers consume.

Each year we:

- Scrutinise the costs incurred by National Grid for balancing winter demand, to ensure efficiency and value for consumers
- Manage and implement changes to the Capacity Market Rules
- Deliver our Electricity Market Reform roles and;
- Oversee the behaviour of participants in the Capacity Market.

Compliance and enforcement

We are committed to fostering a culture where energy companies put consumers first and act in line with their obligations. We want to see energy companies across the sector identifying risks that may arise, managing these effectively and putting things right quickly when they go wrong, including offering effective redress to consumers who have suffered.

Appendix III sets out the investigations and enforcement action undertaken in 2017-18, along with a summary of the redress arrangements. In these instances, companies made redress payments either directly to consumers and/or to programmes and funds that would benefit them.

In addition to the compliance activities set out on page 9, we also published the first in what will become a regular series of **'lessons learned' newsletters** in 2017-18 to encourage suppliers to maintain a focus on their own performance and to prevent consumer harm.

Wholesale market monitoring

We proactively monitor Britain's wholesale energy market to understand the trends, risks to and impacts on consumers. This helps us identify market design issues and develop policies. We also monitor the market to identify, and investigate, possible breaches of relevant licences and regulations, including the Regulation on Energy Market Integrity and Transparency (REMIT).

European work

During 2017-18 we have worked closely with government to provide advice and support over the planned UK withdrawal from the European Union. Our aim has been to ensure that the post-departure legal and regulatory framework applying to the energy industry is clear and stable, that appropriate contingency planning is undertaken where appropriate, and that systems operate effectively across borders. We have also continued to play a role in relevant European institutions, such as ACER and CEER to help shape policies in the interests of GB consumers.

UKRN

We continue to play a leading role in the UK Regulators Network (UKRN), including chairing the network during 2017-18. Over the last year, we have supported and provided expert input to a number of UKRN events and research publications, including a joint seminar on UK infrastructure regulation, mental health and vulnerable consumers and disruptive innovation. A good example of our collaborative practice is the joint 2017-18 Ofgem and Ofwat vulnerable consumers' data sharing pilot project. The insights from this project will enable other companies in the water and energy sector to share data in a meaningful and safe way, benefiting service design and delivery to vulnerable consumers.

E-Serve

Ofgem delivery of renewable and social schemes

Ofgem's operational E-Serve directorate delivers a diverse array of renewable and social schemes on behalf of the government. These schemes are worth in excess of £7bn. This relationship with Government makes us different to the regulatory part of Ofgem, However, our focus is still on protecting consumers' interests, while also ensuring public money is managed effectively and efficiently.

Our delivery work in 2017-18 has focussed on the following areas:

- **Delivery:** Led by our E-Serve Management Committee, our focus has been on improving the quality of our core function of scheme delivery and ensuring our decisions are robust and in line with Government and legislative requirements.
- **Assurance:** We established a new, wide-ranging assurance function to add additional strength to our risk management, compliance oversight and audit functions across our delivery portfolio.
- **Improvement:** We completed the first year of a two-year improvement strategy to transform our operational capabilities, and to embrace digital solutions wherever possible.

Delivery

Renewable Electricity

We continued to administer both the Renewable Obligation (RO) and Feed-in Tariff (FIT) schemes. **The continued growth of these schemes was the main driver for the sharp increase in the take-up of renewables in GB, which now makes up nearly 30% of all generation output.** The combined annual value of these schemes is more than £6.5bn.

During the year, the team surpassed its target for the number of RO accreditations, with more than 5,887 MW of renewable generation capacity accredited across 662 renewable generating stations. We also issued 89.8m Renewable Obligation Certificates (ROCs) for 67,191 GWh of renewable generation (as of March 2018).

We oversaw the creation and launch of a new Central FIT Register that has streamlined the registration and amendment of installations for both Ofgem and FIT licensees. The annual levelisation process for the 2016 – 17 period was completed in late 2017. A total of 7,500 GWh of electricity was generated by FIT installations during 2016-17 – an increase on the previous year from 5,594 GWh. In its lifetime, the FIT has resulted in 10.4 million tonnes of CO_2 being saved (as of 31 March 2017).

Over the course of the year, we worked with BEIS on a range of amendments to the schemes and a number of other changes that reflected the changing landscape in which the renewable schemes operate. **In particular, we consulted on the co-location of electricity storage facilities with renewable generation supported under the Renewables Obligation or Feed-in Tariff schemes.**

Renewable Heat Incentive (RHI)

The RHI teams continued to support regulation change throughout the year. In September, this resulted in changes to heat demand limits for Domestic RHI. In Non Domestic RHI, tariff rates were levelled for all biomass capacities to ensure the scheme continued to incentivise at appropriate levels. We carried out extensive audit campaigns to detect and prevent fraud. In the latter part of the year, the teams worked extensively with BEIS to develop further regulations packages. These included a significant number of changes to both the Domestic and Non Domestic schemes.

More than 62,000 participants are accredited currently on the Domestic scheme, resulting in 63,167 installations receiving payments.

More than 18,000 participants are on the Non-Domestic scheme, with 17,739 installations receiving payments. **In total, 25,444 GWh of renewable heat has been generated across the GB NDRHI and DRHI since these schemes began.**

In addition, the teams have continued to support the Northern Ireland RHI Scheme with ongoing amendments, payments and their audit programme. Our teams worked with colleagues across Ofgem to provide information to the NI RHI Public Inquiry.

Energy Efficiency and Social Programmes

Our delivery of government social programmes during 2017-18 has directly contributed to us achieving our corporate priorities of making direct contributions to reducing consumers' energy bills and protecting vulnerable customers. Under the **Warm Home Discount (WHD)** there was more than £323 million of support provided to vulnerable consumers, despite non-compliance by one obligated supplier. This included individual rebates of £140 to nearly 2.2 million vulnerable consumers. Our administration of the **Energy Company Obligation (ECO)** has continued through the year. This saw the closedown of one sub-obligation, the Carbon Saving Community Obligation, which has contributed more than 7.28 MtCO2 lifetime carbon savings in total to the UK's energy efficiency targets. The remainder of the scheme was also due to end, but the Government decided to extend the overall ECO for 18 months. This extension saw **Ofgem publish deemed carbon and cost scores ahead of legislative inception in order to assist BEIS's policy setting, and enable suppliers and the supply chain to be ready for the change in requirements.**

Assurance

During 2017-18, we focussed on assurance, putting this at the forefront of all of E-Serve's activities. At our core, we are determined to achieve value for public money. **Our broad-ranging Assurance Review Improvement Programme implemented a new Three Lines of Defence approach to ensure all our work is robust, of a high quality and stands up to independent scrutiny.**

As part of our First Line of Defence, an initial fast track programme of work saw us strengthen our existing Counter Fraud, Strategic Risk and Vendor Management practices. We delved into our current practices and made a raft of improvements including standardising our method of recording Operating Process documents and developing enhanced staff training. To underpin this activity, we went on to develop a strategic Second Line of Defence to augment the controls we already had in place. This included creating a Central Assurance Team to manage and control activity, including "spot check" audits on work already being conducted internally. Finally, we delivered a strategic Third Line of Defence with the introduction of our own, independent-led Risk and Assurance Committee (which reports into the Audit and Risk Assurance Committee of Ofgem's governing Authority).

Improvement

We introduced a new IT Product Board governance process, and delivered 36 products and started a further six for completion in 2018/19. Of the 36 delivered products, 20 enabled priority legislative changes to scheme registers. The others delivered support, continuous improvement, and other enabling products.

We introduced a Cloud-based development and testing environment. A GDPR review of the IT systems used by our schemes was conducted which enabled us to take action in readiness for the new requirements.

We established a partnership with the Cabinet Office Centre of Excellence for Robotic Process Automation (RPA) and began a pilot project to pave the way ahead for this innovative technology.

Data Analysis tools were developed to enable fraud prevention for our Counter fraud team and to optimise value from our operational audits.

We had planned to introduce a geospatial data tool to give stakeholders a transparent view of scheme installations across GB. As we developed our digital and data capabilities in 2017-18, we opted against this work in favour of deploying other, more sophisticated data models that can track this information better. Achieving progress in this area will be a priority in 2018-19.

We began re-writing the IT system needed to support the ECO3 Legislation, planned to be in place by October 2019. We also began the first phase of implementing a single Customer Relationship Management (CRM) system to support a single enquiries process across Ofgem.

We continued to engage with our stakeholders, and tracked their satisfaction with our administration of the schemes. We saw a steady improvement in this metric across the year, reaching a peak of 87.2% in December 2017. We launched four new surveys to understand our stakeholders' experience of making applications to our schemes. Feedback we received resulted in significant changes and improvements. Scheme websites now carry additional signposting and use simpler language. We publish 'how to' guides and FAQs

Our GB stakeholders

Stakeholder engagement is at the heart of our work, helping to ensure that the views of our stakeholders are considered in the way we regulate the energy system.

Consumer and industry engagement

We doubled the number of Ofgem events held across Great Britain in 2017-18, with over 1000 people attending one or more of our events. This represents a step change in our events programme – and we're really pleased with the positive feedback we've received.

We've also run a programme of stakeholder engagement for our senior leaders, including visits to National Trust's Dyffryn Gardens site in the Vale of Glamorgan, Wales, local energy schemes in South London, and a debt charity and Citizens Advice Extra Help Unit in Glasgow.

Ofgem was represented at many of the major energy conferences across Britain this year including policy forums, roundtables, major industry conferences and consumer summits. We spoke to our audiences about our work on regulating the energy networks, the future energy system, and protecting consumers.

We also continue to support key industry representative groups, such as the Large Users Group and the Sustainable Development Advisory Group.

Government engagement

Our work involves regular engagement with government departments and ministers (including those from BEIS) and we've continued to share our insight and expertise as the energy regulator over the last year.

We've also continued to ensure our work is visible to the UK Parliament, as well as the Scottish Parliament and National Assembly for Wales. To do this, we've met a number of Members of Parliament, Members of the Scottish Parliament and Members of the Welsh Assembly, as well as speaking at cross-party groups about our work. We've given evidence – in person and in writing – to parliamentary committees on topics including price protection in the retail energy market, smart meters, electric vehicles, low carbon housing and the Renewable Heat Incentive Scheme.

Overall, our stakeholder engagement work in 2017-18 has aimed to engage with stakeholders in ways that better suit them. We've reviewed the way we consult, focusing on doing fewer consultations, making them shorter and getting more responses from a more diverse range of stakeholders. This approach has been endorsed by positive feedback on clarity and accessibility of our State of the Market and Forward Work Programme workshops.

A Welsh language version of this report is available alongside the English language version. This report satisfies the Parliamentary reporting requirements under the Utilities Act (2000).

Consumer Impact Report (CIR)

We are committed to making a positive difference for consumers. As part of this, we want to communicate clearly how our work delivers value for money. It is also important that we earn the public's trust by demonstrating and communicating the benefits that Ofgem as an independent regulator brings to consumers and wider society.

As it states in Ofgem's Corporate Strategy:

"We would like to report on the cumulative costs and benefits to consumers of our regulation and how these results change with each intervention. In practice, this is very difficult. Many factors throughout the industry, including the actions of government, influence outcomes, and it can be hard to highlight the particular impact of our contribution. However, we aim to be as transparent and accountable as possible and we will explore what we might be able to provide."

To carry out this strategy, Ofgem has committed to assess annually the expected impacts that its regulatory activities have on consumers, and in the case of compliance and enforcement actions, have delivered to consumers. Our first **Consumer Impact Report** provides an assessment of the expected consumer benefits from Ofgem's recent regulatory decisions.

This report shows that Ofgem's regulatory activities and decisions undertaken in April 2017 to March 2018 are expected to create many significant benefits to consumers.

Based on our calculations, Ofgem's decisions in this financial year will result in:

- **Net present value of direct benefits: £7,800m**
- **Net present value of indirect benefits: £8,800m**
- **Additionally £540m of reduced funding for network companies**

In terms of the costs incurred in delivering these benefits, Ofgem's administrative expenditure for the financial year April 2017 to March 2018 was £90.040 million. This gives a benefit to cost ratio of 87, which means that for the decisions we took in the last financial year, we expect every £1 to deliver benefits of £87 to consumers.

Our approach

Ofgem typically has over 100 specific regulatory decisions in progress at any one time, so it is not practical for this report to cover all of our activities. This is why we assess only the most significant decisions, determined largely by the legal complexity and / or financial impact. As such, the expected consumer benefits shown in this report are only a subset of the benefits that Ofgem's regulatory activities bring to consumers.

Where practical, we quantify the benefits to consumers, and where it is difficult to do so, we describe the expected consumer benefits in a qualitative way. The benefits of a lot of the work we do cannot be easily expressed in financial terms but are nonetheless very important in protecting the interests of consumers.

We have therefore adopted a mixed approach that includes:

- Quantitative assessment: aggregating the financial benefits that are set out in formal impact assessments and those resulting from enforcement and compliance actions;
- Qualitative assessment: for decisions without formal impact assessments, using case studies to demonstrate the likely impact of regulatory decisions.

Quantified consumer impacts

For some of our decisions, we can use impact assessments to analyse and forecast direct and indirect effects on consumers over a long period. Impact assessments are a transparent framework for understanding the estimated impacts of policies and comparing projects with one another, and are prepared according to our guidance.[2] Quantified impact assessments provide the net present value (NPV) of consumer benefits that we expect to result from a decision.

Our approach to quantifying financial benefits is similar to the one adopted by the Competition and Markets Authority to assess the direct financial benefits to consumers of its decisions.

Table 1 summarises the expected financial benefits from some of the decisions made this year.[3] The financial benefits are expected to be realised over different time horizons, ranging from 2018 to 2063.

We define **direct impacts** here as those where we compel companies in the industry to act in a particular way (eg capping the amount they can charge for a service). **Indirect impacts** are those where we enable companies in the industry to act (eg creating the right regulatory regime for companies that want to build an interconnector). **The additional financial benefits** are mainly produced from changes to network companies' funding allowances, which are shown as a cash amount rather than a net present value.

Table 1 - Summary of expected monetised consumer benefits (2018 price year, £millions)

Benefits and breakdown by decision	Central case
a. Total direct impacts	**7,787**
New switching arrangements	40
Safeguard tariff for consumers in vulnerable circumstances	128
New licence conditions for installation of prepayment meters under warrant	18
Charging arrangements for Smaller Embedded Generators	7,582
Enforcement cases	11
Compliance cases	8
b. Total indirect Impacts	**8,776**
Interconnector cap and floor decisions	8,776
c. Total additional financial benefits	**542**
Transmission and gas distribution price controls – Mid-Period Review parallel work	197
Fleetwood entry point in gas transmission	345
d. Aggregate expected benefits (a+b+c)	**17,105**

Note: See the full report for further details on the methodology and expected benefits in different scenarios.

[2] https://www.ofgem.gov.uk/system/files/docs/2016/10/impact_assessment_guidance_0.pdf
[3] Those supported by a formal impact assessment showing a monetised net benefit for consumers.

Qualitative consumer impacts

Many of Ofgem's decisions benefit consumers in ways that are difficult to express in financial terms or monetise. Some of the decisions we have made this year are:

- **Increased protection for consumers in vulnerable circumstances**
  - Capping charges on suppliers for installing a prepayment meter under warrant
  - A safeguard tariff, capping the price consumers in vulnerable circumstances pay for energy
  - Changing the criteria used to prioritise gas network connections for those in fuel poverty, so that they better reflect actual drivers of fuel poverty.

- **Increased protection for consumers against excessive network investment costs**
  - Reducing the entry capacity obligation for National Grid Gas Transmission (NGGT)
  - Setting a cap and floor mechanism to regulate the returns private developers earn from operating interconnectors, thus lowering network charges by allowing access to cheaper generation.

- **Increased security of supply and decarbonisation of the energy system**
  - Connecting new providers of balancing services to the GB System Operator (SO), and helping enhance balancing arrangements between the GB SO and the SO of the connecting country.
  - Introducing a regulatory framework and a procurement methodology which the System Operator has to comply with, to ensure adequate energy provision after a Black Start event.

- **Better aligning the incentives and rules faced by companies in the industry with consumers' interests**
  - Prohibiting electricity generators from paying or seeking to pay or be paid excessively high or low amounts by the System Operator during transmission constraints
  - Limiting the distortions created by the ability of a supplier to use sub-100MW (smaller) embedded generator to reduce transmission use of system charges, and for smaller embedded generators to be paid to help others avoid them.

- **Increased transparency and competition in energy markets:**
  - Changing the rules that Price Comparison Websites must follow to be accredited by Ofgem, making them easier to use and encouraging them to grow
  - Introducing more reliable and faster switching, to unlock innovation, creating more competitive pressure among energy suppliers, which should encourage lower prices, improved customer service and a wider offering of innovative products and services.

This is the first time we have published a Consumer Impact Report alongside our Annual Report. We intend to publish a similar report every year, building on experience and feedback. We expect our methodology to evolve over time. For instance, to reduce the impact of any single decision on our assessment, we plan to report a three-year moving average of the benefits in future.

Sustainability report

Display Energy Certificates are used to show the energy efficiency of public buildings. Our score for our London headquarters has improved dramatically since the certificates were introduced in 2008. Then, we were ranked in band G, with a score of 165. Now we score 62, putting us in band C.

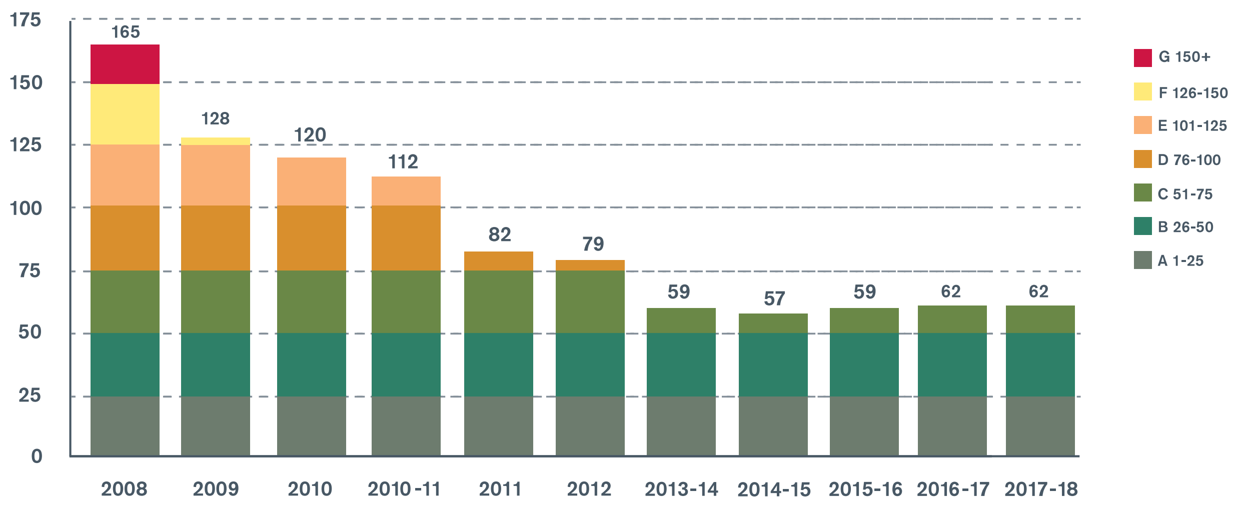
We have achieved this by:

- **increasing the building's automation**
- **improving our controls for heating and cooling**
- **using free cooling where possible**
- **monitoring energy consumption daily**
- **correcting problems quickly**
- **installing more energy-efficient lighting**
- **removing or mothballing equipment we no longer use.**

Our scheduled move to new premises in Canary Wharf will result in continued sustainability performance.

The new premises are rated BREEAM Very Good and incorporate a range of energy saving measures (e.g. LED lighting, intelligent lighting zones, all fixtures and fittings have been optimised for efficiency). In addition, we will be occupying a smaller office area which will reduce overall demand for heating/cooling, lighting and water.

Ofgem Millbank DEC performance

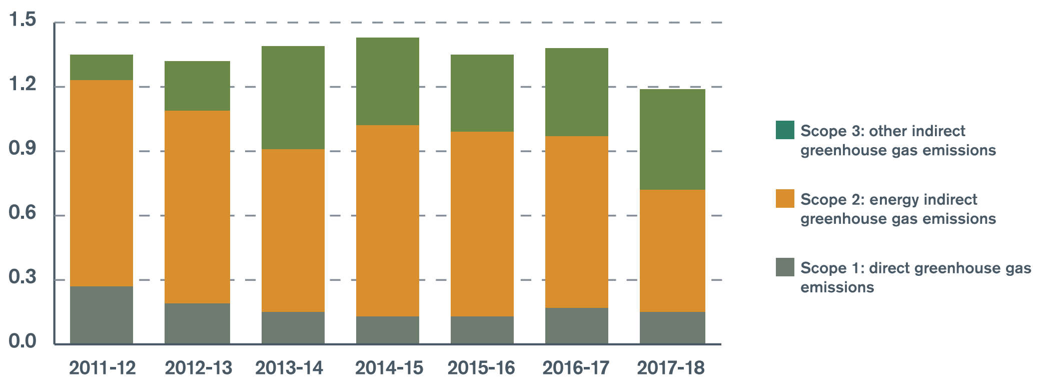


Building and activity related carbon emissions

In the past year, we've reduced our reportable building-related carbon by 179 tonnes. This is mostly attributable to our office move to more efficient premises in Glasgow.

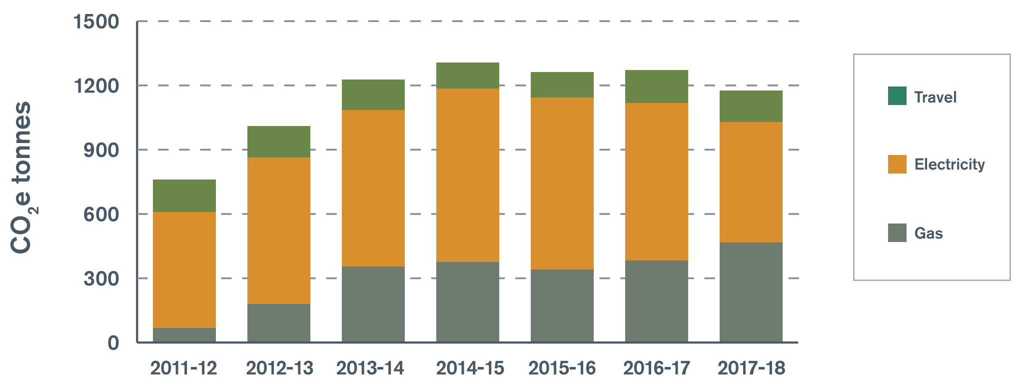
Our travel carbon has increased by 84 tonnes. This is mainly due to a slight decrease in train travel, and increases in the size of our Glasgow office and therefore domestic air travel.

Carbon Usage



Carbon emissions (Scope 1, 2 and 3) per FTE has reduced by 14% again mostly due to the Glasgow office arrangements.

Carbon usage by FTE



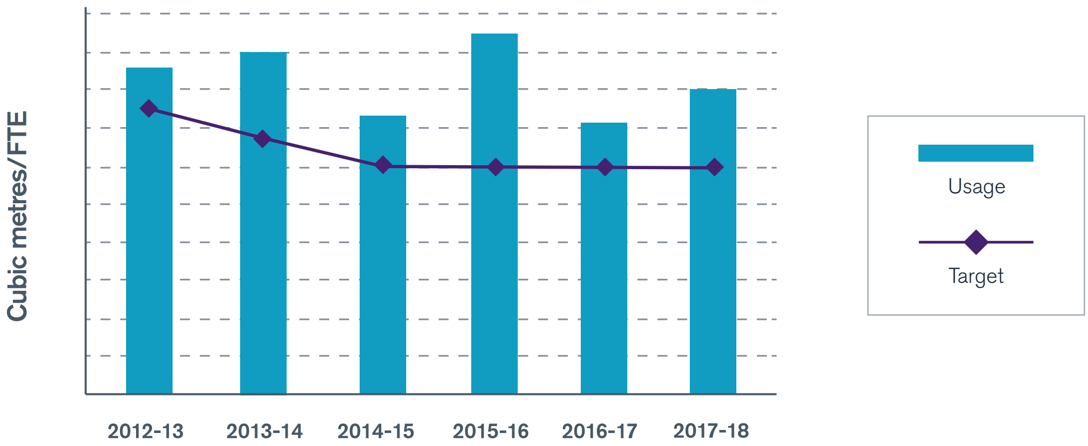
Reductions in Greenhouse Gas Emissions

Greenhouse gas emissions		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
	(Target 25% reduction)	**806**	**758**	**711**	**672**	**672**	**646**
Non-financial indicators (tCO_2e)	Total gross emissions	1,010	1,228	1,307	1,263	1,272	1176
	Per FTE	1.33	1.31	1.27	1.34	1.39	1.28
	Total net emissions (ie less reductions – eg green tariffs)	347	499	496	458	535	613
	Scope 1: direct GHG emissions	147	144	121	118	153	147
	Scope 2: energy indirect GHG emissions	685	729	811	805	736	563
	Scope 3: other indirect GHG emissions	178	355	375	339	382	466
Related consumption data (kWh)	Electricity: non-renewable (k)	42	-	-	-	-	-
	Electricity: renewable (k)	1,274	1,636	1,641	1,742	1,747	1600
	Gas (k)	795	783	656	640	749	797
	LPG	-	-	-	-	-	-
	Other	-	-	-	-	-	-
Financial indicators	Expenditure on energy	£185,177	£244,291	£233,275	£275,616	£239,325	£240,573
	CRC licence expenditure	£1,290	£1,290	£1,290	£1,290	£1,290	£1,290
	Expenditure on official business travel	£296,684	£491,551	£772,248	£661,581	£824,023	£746,596

Reducing water use

We aim to get our annual water use below 6m3 per person. We increased our water usage this year due to a burst pipe in the heating system. We had to drain the system to repair the pipe and re-fill the system once the repair was made.

Water per FTE

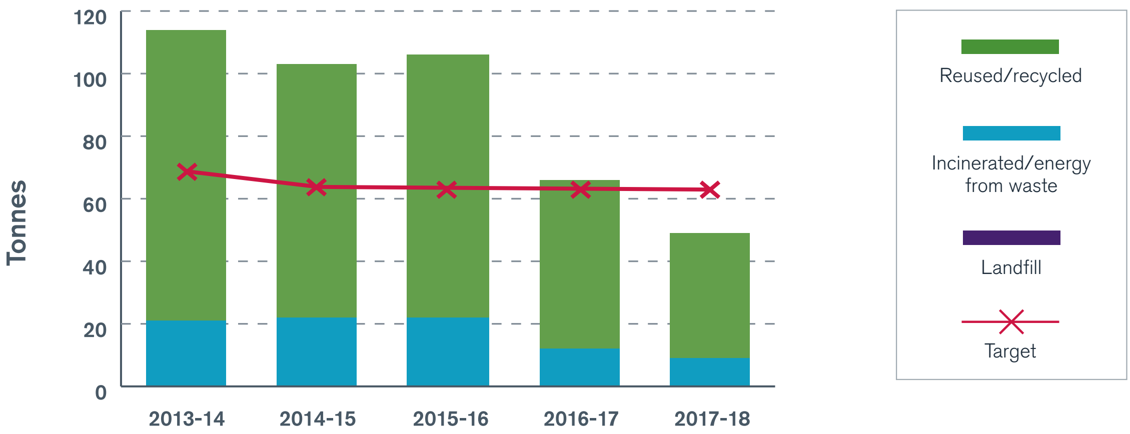


Water			2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Non-financial indicators	**Target (37% reduction)**		**7.39**	**6.69**	**6.00**	**6.00**	**6.00**	**6.00**
	Water consumption (m^3)	Supplied	6,639	8,609	7,553	8,359	6,564	7959
		Per FTE	8.7	9.0	7.3	9.5	7.1	8.0
Financial indicators	Water supply costs		£12,208	£20,517	£18,977	£17,601	£20,271	£33,309

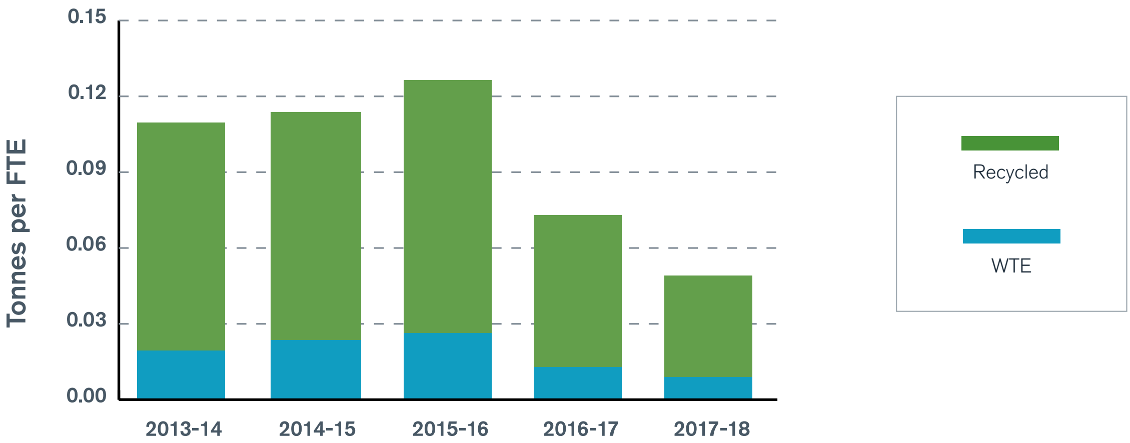
Eliminating waste

Our total waste has significantly reduced due to better monitoring and measuring, and staff engagement with waste diversion and recycling initiatives.

Total waste breakdown



Total waste breakdown by FTE



Waste			2013-14	2014-15	2015-16	2016-17	2017-18
Non-financial indicators (tonnes)	**Target**		**68**	**63.75**	**63.75**	**63.75**	**63.75**
	Total waste		114	102	106	65	49
	Total waste per FTE		0.12	0.10	0.11	0.07	0.05
	Hazardous waste		-	-	1	-	-
	Non-hazardous waste	Reused/ recycled	93	81	84	54	40
		Incinerated/ energy from waste	21	21	21	11	9
Financial indicators	Total disposal cost		£23,592	£24,477	£21,985	£19,442	£29,486