Making a positive difference
for energy consumers

Consumer Impact Report – Financial Year 2019-20			
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The Consumer Impact Report sets out the benefits that we expect our decisions to have for consumers. It is part of our efforts to provide transparency on the work we are doing and the value we deliver. It discusses the expected benefits in £, as well as the wider benefits that are more challenging to measure financially but just as important.

This year's report looks at our decisions in the retail market, networks, and in enforcement and compliance. We also set out our work helping protect consumers in vulnerable circumstances.

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Contents

Key findings

Demonstrating the benefits we deliver

As the sector regulator, Ofgem's role is to protect energy consumers, ensuring we keep costs as low as possible while enabling the industry to deliver a reliable and low carbon energy system. We are funded by a licence fee that we levy on the energy industry and ultimately, consumers pay for this through their energy bills. Therefore, it is important that we earn consumers' trust by demonstrating the benefits we deliver for them.

In our Strategic Narrative 2019-23, we re-affirmed our commitment to assess the impact our decisions have on consumers and said "the Board will regularly review the progress that the organisation is making in delivering our priorities and in changing the way we work. Through our annual Consumer Impact Report (CIR), we will regularly publish and measure our progress in protecting consumers and delivering (our) priorities".[1]

Our work spans the entire energy system. We consider hundreds of complex issues every year, and our decisions have a major influence on how the energy system works. **We are confident that we deliver real value for energy consumers in Great Britain.**

Identifying and assessing the benefits we deliver for consumers

We follow a rigorous process to assess the expected net benefits of our major decisions. This follows a framework called Impact Assessment. It uses guidance from HM Treasury to ensure a consistent, high standard of analysis of the expected benefits and costs of our decisions. We aim to work out the net benefit in £ to consumers that the decision could generate compared to the costs of implementing it.

Where it's not completely possible to do so, we also consider consumer benefits in a more qualitative way, looking beyond the financial numbers. This is just as important as the quantified benefits – and a prime example of this is our work for consumers in vulnerable situations which deliver significant benefits, but are often difficult to quantify. Another example is our monitoring and compliance work, where the direct benefits of action taken against companies may be modest, but the deterrence effect of our willingness to act is likely to generate considerably greater benefits in the long term.

[1] Ofgem (2019) 'Strategic Narrative' p.8 https://www.ofgem.gov.uk/system/files/docs/2019/07/our-strategic-narrative-2019-23.pdf

The process is not perfect. For example, some of our major decisions will last for years – in a fast moving energy sector, and a changing society, how can we be sure that the benefits we expect today will actually happen? And how can we be sure that decisions we have taken in the past are delivering benefits now? This is a challenge we recognise. It's why we work closely with academic experts and other stakeholders to make sure our assessment processes reflect current best practice.

In the future, we aim to conduct post-implementation reviews of some of Ofgem's key regulatory decisions to check that interventions delivered the benefits that were expected.

How much in £ is expected to be delivered for consumers?

Sometimes our decisions are of major significance following years of work (for example on the future of a network price control) and sometimes they are tweaks to how we already expect the market to operate.

As the scale of the impact of our decision-making varies from year to year, with major decisions less frequent than the more incremental or business as usual ones, we assess the £ benefit of our decisions taken over three years. In this year's CIR, we assess decisions taken from 2017/18 (when we first published the CIR) to 2019/20. **We expect the decisions we have taken in these years to deliver over £11bn of direct benefits to consumers.**[2] We do not expect these to occur solely within these three years, but will accrue over longer periods of time. Given Ofgem's costs of £299m over these three years, this gives a cost benefit ratio of 38.3. This means we expect to deliver on average £38 of benefit for every £1 of our costs.

An overview of the benefits we have delivered

During financial year 2019/20, the benefits we delivered for consumers included the following.

In the **retail market**, we introduced the second tranche of the Guaranteed Standards of Performance. They will ensure that suppliers provide compensation when domestic customers' switches are delayed/erroneous, or when a final bill is delayed. We expect these standards to act as an incentive to improve suppliers' behaviour and contribute to further

[2] We define direct impacts here as those where we compel companies in the industry to act in a particular way.

increasing consumers' willingness to engage with the market, while encouraging suppliers to improve their systems. We expect the measures will deliver consumer benefits of around £63m over one year along with other non-monetised benefits.

We launched a review of our approach to licensing and regulating suppliers in 2018 to raise standards around financial resilience and customer service. This will help to drive up standards for consumers, for example helping to reduce any service disruption when a supplier leaves the market. The first stage of our review concluded in July 2019 with reforms to our licence application process, which will help us increase our scrutiny of potential new entrants. All of this helps our Strategic Narrative priorities of '**protecting consumers**, especially those in vulnerable circumstances, by stamping out sharp practice and ensuring fair treatment' and '**enabling competition and innovation**, which drives down prices and result in new products and services.'

In **networks regulation and the wider energy system**, we took a number of decisions that reduced the costs that could be passed to consumers. We reduced the revenue cap and floor on the Nemo Link GB-Belgium interconnector, thereby reducing consumer exposure to risk and increasing the chances of cap payments throughout the 25-year regulatory regime. The benefits to consumers are uncertain as they are related to unpredictable market prices, but could in some circumstances be up to £6.8m each year for 25 years.

We disallowed around £5.6m of costs as a result of the price control on the Data and Communication Company (DCC). In a May 2019 reopener, we disallowed funding requests by electricity distribution network companies for projects that we did not think were justified or provided poor value for money. We suspended the Secure and Promote Market Making Obligation (MMO) which took effect on 18 November 2019 to avoid disproportionate and potentially unfair costs. These measures help our Strategic Narrative priorities of '**protecting consumers**' and '**enabling competition and innovation**.'

Our **enforcement and compliance** activities prevent and remedy unlawful or anticompetitive conduct and breaches of licence conditions. We want consumers to benefit from timely resolution of any harm to them from these breaches and an improved supplier-customer relationship. For the enforcement and compliance decisions we took between April 2019 and March 2020, we expect the consumer benefits to be about £71 million.
We also work to address **vulnerable consumers'** needs. We have a statutory duty to consider the needs of certain more vulnerable groups of consumers such as those with disabilities or long-term health conditions, of pensionable age, on low incomes or living in

rural areas. We have expanded this to include a wider range of vulnerability, including transient vulnerability, such as job loss, bereavement or short term mental ill health. We published our new **Consumer Vulnerability Strategy in 2019** and it sets out our priorities until 2025 to ensure consumers in vulnerable situations are at the heart of our work.

Furthermore, we administer green energy and social programmes on behalf of the UK government which tackle fuel poverty in Great Britain and assist consumers in more vulnerable situations. The government extended the Warm Home Discount (WHD) scheme until March 2021 as part of its Fuel Poverty Strategy. The Energy Company Obligation (ECO) scheme will continue until March 2022 and obligates larger suppliers to deliver energy efficiency measures to households in Great Britain. However, we acknowledge that Covid-19 has inevitably affected the ability of suppliers to install insulation measures. Our work for vulnerable consumers also helps meet our Strategic Narrative priority of '**protecting consumers**, especially those in vulnerable circumstances, by stamping out sharp practice and ensuring fair treatment.'

Looking to next year

There are three additional areas of our work in 2019/20- 2020/21 that we expect to have a significant positive impact on our work for consumers in future years:

- Work on **networks and the energy system** (Targeted Charging Review, RIIO2 network price control, and cap and floor regime) that has progressed at pace and we expect to generate significant consumer benefits.

- Our February 2020 **Decarbonisation Action Plan**, which sets out actions we are taking to help achieve net zero greenhouse gas emissions by 2050.

- Our **Distributional Impact Framework**, published in May 2020, which will help us assess which groups of consumers may or may not benefit from particular decisions that we could take.

We will aim to incorporate these, and any others, in our future assessments of consumer benefits.

We continue to welcome your feedback and comments, including on our methodology which is set out in Section 6. For questions and requests, please email CIR@ofgem.gov.uk

1. Introduction

Why we need to demonstrate our impact for energy consumers

1.1. Ofgem is the energy sector regulator, and our primary objective is to protect the interests of current and future energy consumers. We are funded through a licence fee that we levy on the energy industry, and consumers ultimately pay for this through their energy bills. So it is important that we demonstrate the value that we bring for the money that consumers pay.

1.2. The Consumer Impact Report (CIR) is one of the main ways we can give consumers an overview of our main regulatory decisions in any financial year. It shows consumers the main decisions we have taken, and how we expect those decisions to lead to financial and non-financial benefits. In our Strategic Narrative 2019-23, we re-affirmed our commitment to assess our impact for consumers and said "the Board will regularly review the progress that the organisation is making in delivering our priorities and in changing the way we work. Through the annual CIR, we will regularly publish and measure our progress in protecting consumers and delivering (our) priorities".[3]

1.3. In our Forward Work Programme for 2019/21[1], we also set out how we planned to use our resources to have the greatest positive impact on consumers. The CIR summarises the progress we have made each financial year in delivering those expected benefits to consumers.

How we determine which decisions to include in the report

1.4. At any one time, Ofgem's activities range from regulatory decisions of substantial impact following years of work, to others of smaller dimension such as industry code modifications, directions and licence applications. To decide which decisions to

[3] Ofgem (2019) 'Strategic Narrative' p.8 https://www.ofgem.gov.uk/system/files/docs/2019/07/our-strategic-narrative-2019-23.pdf

include in the CIR, we use the following criteria. A decision could satisfy any one of these, and does not need to meet them all to be included.

- **Made using a formal impact assessment**. We have a statutory duty to do an impact assessment for our most important decisions, or to publish a statement saying why we are not doing one.[4] Therefore, using an impact assessment indicates the significance of the decision.

- **Categorised as 'red'** in Ofgem's internal decision tracking process. This uses a red / amber / green system to categorise decisions by legal complexity and monetised impact or significance. The 'red' decisions are normally significant ones.

- **Significant enough to be considered by the Gas and Electricity Markets Authority (GEMA)**.

- **Enforcement and compliance cases**.

1.5. For the financial year 2019-20, we look at the qualitative and quantitative benefits of the following decisions:

- **Decisions supported by formal impact assessments,** which this year is 'Guaranteed Standards Switching compensation'

- **Decisions and interventions not supported by formal impact assessments,** which include:

    - Nemo Link Post-Construction Review (PCR)[5]
    - DCC Price control
    - Supplier Licensing Review
    - Promote Market Making Obligation

[4]For detail on when Ofgem carries out impact assessments, see our Impact Assessment Guidance: https://www.ofgem.gov.uk/publications-and-updates/impact-assessment-guidance

[5] The original Nemo Link cap and floor decision relies on the Impact Assessment published in 2014, which doesn't follow our current IA guidance, effective since 2016. Our subsequent 2019 decision on the Post Construction Review for Nemo Link was not supported by an impact assessment.

  - RIIO-1 ED1 reopener
  - RIIO1 – NIC (Network Innovation Competition)

- **Ofgem's enforcement and compliance activities,** which delivered quantified benefits to consumers and these are taken into account in the calculation of the aggregate NPV.

Our approach

1.6. The assessment in the report is based on a combination of three approaches:

- **Looking at our Strategic Narrative priorities and assessing where each decision in 2019/20 has contributed to them.** The priorities are:
  a. Enabling competition and innovation which drive down prices and result in new products and services.
  b. Protect consumers, especially the vulnerable, stamping out sharp practice and ensuring fair treatment.
  c. Decarbonise to deliver a net zero economy at the lowest cost to consumers.

- **Aggregating the quantified expected consumer benefits in £**, where possible, in impact assessments[6] for decisions taken over three financial years (2017/18, 18/19, 19/20) to smooth out any fluctuations in the figures.

- **Reporting the illustrative consumer benefits of those decisions in 2019/20 without quantified benefits.** These decisions were either supported by a qualitative impact assessment or were published without a formal impact assessment.

[6] Where different scenarios are included in the impact assessment, they are also included in the report. It may be possible that the reported lower case, central case and higher case scenarios for particular decisions are driven by different assumptions, with the lower case scenario taken as the more pessimistic scenario and the higher case scenario as the more optimistic one.

Challenges in assessing benefits to consumers

1.7. We know it can be difficult to assess what benefits we expect to deliver for consumers, when these will happen, and how long they will last. That is why we use best practice impact assessment techniques, using guidance from HM Treasury, to help us assess the impact our decisions could have. We discuss our methods regularly with academic and other government experts, to make sure our analysis is the best it can be.

What we expect future CIRs to include

1.8. In 19/20 - 20/21 we published three documents that we expect will help us demonstrate additional dimensions of our benefit for consumers. These are:

- Our February 2020 **Decarbonisation Action Plan**, which sets out the initial action we will take to help achieve net zero greenhouse gas emissions by 2050.
- Our May 2020 refreshed **Impact Assessment Guidance,** which expands on how we assess which groups of consumers may or may not benefit from particular decisions that we could take. It also provides more detail on how we will assess our impact against the government's target of reaching net-zero greenhouse gas emissions by 2050.
- Our May 2020 **Distributional Impact Framework**, which informs our Impact Assessment guidance on how we assess our impact on various groups of energy consumers.

1.9. We will aim to incorporate and use these, and any others, in any future assessment of consumer benefits that we make.

1.10. In the future we also aim to conduct post-implementation reviews of some of Ofgem's key regulatory decisions to check that interventions delivered the benefits that were expected.

Structure of the report

1.11. The report is structured as follows:

- **Sections 2 to 4 –** summaries of decisions and description of the actual and expected benefits for consumers. The sections are organised by market area: *Retail price control and competition measures* (Section 2), *Networks regulation and energy systems measures* (Section 3), *Enforcement and compliance activity* (Section 4).

- **Section 5 – Impact on vulnerable consumers:** work we have carried out to protect the interests of vulnerable consumers.

- **Appendix 1 – Methodology:** details of how we calculate the overall benefits and the issues encountered in the assessment process.

- **Appendix 2 – Enforcement and compliance decisions:** tables with the breakdown of enforcement and compliance benefits.

- **Appendix 3 – Links to source documents:** lists of relevant documents, which decision summaries and expected consumer benefits are based on.

2. Retail price control and competition measures

The retail market is where household and business consumers buy their energy. Our aim here is to promote innovation and encourage competition. This year, we decided on measures to help improve consumers' experience of switching energy supplier. We also introduced higher standards around financial resilience and customer service among suppliers entering the market. Both of these aim to support our Strategic Narrative objectives of protecting consumers and enabling competition and innovation.

Supplier Guaranteed Standards of Performance: switching compensation

Contribution to our Strategic Narrative priorities

☒ *Decarbonising at lowest cost*	☑ ***Protecting consumers***	☑ ***Enabling Competition and Innovation***

2.1. We promote competition and consumer engagement in the market. One way we are doing this is by improving consumers' experience of switching energy supplier. Through the Faster and More Reliable Switching Programme and other work we aim to improve consumer engagement. Whilst switching levels continue to increase, when consumers have a poor experience (such as delayed switches, erroneous transfers and late final bills and credit balances), it can act as a barrier to further engagement.

What we did

2.2. In January 2020, we published our decision and final Statutory Instrument on a second tranche[7] of Guaranteed Standards, relating to delayed switches, responsibility for (rather than resolution of) erroneous switches, and failure to issue a final bill on a timely basis.

[7] In February 2019 we introduced the first tranche of Guaranteed Standards, meaning that from May 2019 onwards, suppliers would have to pay compensation if they fail to meet minimum standards for the identification, notification to customers, and rectification of Erroneous Switches, and the refund of credit balances to customers.

2.3. Where a supplier is in breach of any of these Guaranteed Standards, they will be required to make an automatic compensation payment of £30 to the affected customer. The purpose of these Guaranteed Standards is to create a mechanism where customers receive redress when they suffer episodes of detriment, without a requirement for compliance and enforcement action.

Expected impact on consumers

2.4. We expect an increasing willingness to engage with the market and a greater incentive for suppliers to improve their systems, thereby reducing the incidence of detriment. The measure will deliver direct consumer benefits of about £63m over one year along with non-monetised benefits to be expected over time, such as: a smoother switching process or more reliable supplier systems. Our estimates are based on 2017 data, however, we have started collecting data from suppliers to provide a more up-to-date assessment of the benefits.

2.5. Overall, we expect that improving consumers' experiences and their perception of the energy switching experience will encourage consumers to be more active in the market and switch more frequently between energy suppliers, making the market even more competitive.

Supplier Licensing Review: decision on new entry requirements

Contribution to our Strategic Narrative priorities

☒ Decarbonising at lowest cost	***☑ Protecting consumers***	***☑ Enabling Competition and Innovation***

2.6. We reviewed our approach to licensing and regulating suppliers in 2019 to raise standards around financial resilience and customer service. This is part of our work to enable a better functioning retail market.

2.7. The number of suppliers operating in the retail energy market has increased significantly in recent years, with more than a quarter of domestic customers now getting their energy from small and medium suppliers.[8] This has brought benefits to consumers through increased price competition and pressure on incumbent suppliers to improve their customer service offering. However, we have also seen an increase in supplier failures and inadequate customer service provision in certain cases.

2.8. Ofgem's safety net[9] successfully protects consumers when a supplier fails. Nonetheless, failure is disruptive. It can impose costs on competitors, and frequent failures risk undermining consumers' confidence in the market and motivation to switch to a better energy deal. Our Supplier Licensing Review therefore aims to strengthen our licensing and regulatory regime to drive up standards in the sector and minimise competitors' and consumers' exposure to financial risks and poor customer service.

What we did

2.9. Our licensing and regulatory regime needs to be effective and proportionate in protecting consumers, while facilitating competition and innovation. The overall package of reforms across our Supplier Licensing Review consider potential new measures across the full supplier lifecycle, namely: supplier entry requirements, ongoing requirements on suppliers, and the arrangements for market exit.

2.10. In operating in the supply market and delivering benefits for consumers, suppliers should adopt effective risk management, be adequately prepared and resourced for growth, bear an appropriate share of their risk and provide effective protections for consumers in the event of failure. They should maintain the capacity and capability to deliver a quality service to their customers, and foster an open and constructive dialogue with Ofgem, which maintains proportionate oversight of them.

2.11. The first stage of our review, on supplier entry requirements, concluded in 2019. It modified our licence application process, increasing scrutiny of potential new

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[8] Based on figures from June 2019 https://www.ofgem.gov.uk/system/files/docs/2019/11/20191030_state_of_energy_market_revised.pdf

[9] https://www.ofgem.gov.uk/consumers/household-gas-and-electricity-guide/extra-help-energy-services/ofgem-safety-net-if-your-energy-supplier-goes-out-business

entrants. In order to be granted a licence, applicants must satisfy the entry requirements and provide information to Ofgem to demonstrate that they meet three new qualitative assessment criteria:

- the applicant has the appropriate resources for their proposal to enter the market;
- the applicant understands their regulatory obligations and has appropriate plans in place to meet these; and
- the applicant is fit and proper to hold a licence.

2.12. In a competitive market we would expect some suppliers to fail. Licensing involves a point in time assessment and cannot provide any ongoing assurance of financial resilience or customer service standards. We want to ensure that if supplier failure occurs, the supplier's customers are protected and the wider market impacts are minimised. We have therefore also consulted on new ongoing requirements for active suppliers, and provisions to better manage potential supplier exit, to further mitigate against the risks and impacts of potential supplier failure.[10]

Expected impact on consumers

2.13. The new licensing arrangements aim to raise standards among suppliers entering the market and in doing so improve outcomes for consumers. The strengthened assessment process will lessen the risk of under-prepared and under-resourced companies entering the supply market. In turn, this will help to drive up standards for customers, and potentially reduce disruptive exits by new suppliers. Our qualitative assessment of the changes indicates that the cost impact for entrants would not be significant, and that the new checks would not present undue barriers to entry or innovation. These measures are part of a package of reforms under the Supplier Licensing Review.

[10] https://www.ofgem.gov.uk/publications-and-updates/supplier-licensing-review-ongoing-requirements-and-exit-arrangements

3. Networks regulation and energy system measures

The energy networks and wider system ensure that energy is carried to consumers when and where they need it. This section includes summaries of the major decisions affecting the transmission and distribution networks. These decisions aim to ensure that the network system operates efficiently and competitively. Our work in this area promotes efficient ways to deliver security of supply and supports decarbonisation of energy supplies, innovation and reliability at the lowest cost. It aims to support our Strategic Narrative objectives of protecting consumers, enabling competition and innovation and decarbonising at the lowest costs.

3.1. We identified five main policy interventions in this section. These are:

- Data and Communications Company (DCC) Price Control
- Nemo Link Post Construction Review
- RIIO_ED1 reopeners
- Suspension of the Secure and Promote Market Making Obligation
- Network Innovation Competition

DCC price control

Contribution to our Strategic Narrative priorities

☒ *Decarbonising at lowest cost*	☑ ***Protecting consumers***	☑ ***Enabling Competition and Innovation***

3.2. The DCC is the central communications body licensed to provide the communications, data transfer and management required to support smart metering across Great Britain. It is responsible for linking smart meters in homes and small businesses with energy suppliers, network operators and other third parties.

3.3. To ensure value for money for consumers, Ofgem regulates DCC's revenue through an annual price control (ex-post price control) which assesses DCC’s performance, and whether its costs in the previous year were economic and efficient. Under the DCC regulatory framework, we have a role in ensuring that DCC’s costs are incurred economically and efficiently. We review DCC’s costs and performance after the end of the Regulatory Year in which the costs were incurred, as well as forecast costs that DCC deems certain enough to include in its forecast Allowed Revenue.

What we did

3.4. Through the price control, we seek to ensure that DCC continues to be able to make the required investments to deliver a good quality of service, whilst also focusing the organisation on delivering an efficient operation. Our final decisions for the DCC price control 2019/20 reflect our conclusions on:

- the economic and efficient level of costs incurred in RY18/19 and in the cost forecasts;
- DCC's performance under the Operational Performance Regime (OPR) and Baseline Margin Project Performance Adjustment Scheme (BMPPAS); and
- adjustments to the Baseline Margin (BM) values set out in the licence.

Expected impact on consumers

3.5. Following our decision, in RY18/19, total costs (excluding pass-through costs) were £375m, which was £77.8m (26%) higher than forecast last year. Over the Licence term until 2026, total costs (excluding pass-through costs) are now forecast to be £3.59bn, an increase of £719m (25%) compared to last year's forecast. The variance in costs can be attributed to new scope activities, cost of additional activities not fully scoped becoming clearer, changes in project specifications and additional testing.

3.6. We have identified a total consumer benefit of around £5.5m for 19/20, divided as follows:

- Ofgem disallowed £1.088 million of DCC's internal costs, which will be directly passed on to consumers.
- Ofgem reduced the allowed revenue due to DCC's performance under the OPR by £1.305 million.
- Ofgem reduced Baseline Margin by £2.97 million from RY18/19 to RY20/21. The adjustments reflect changes to DCC's Mandatory Business.

3.7. Following an evidence based approach, we have also disallowed a total of £218.4 million increase in DCC's forecast internal costs from RY 21/22 onwards, not sufficiently justified.

Nemo Link Post-Construction Review (PCR)

Contribution to our Strategic Narrative priorities

☑ ***Decarbonising at lowest cost***

☑ ***Protecting consumers***

☑ ***Enabling Competition and Innovation***

3.8. Electricity interconnectors are physical links that allow electricity to flow across borders. By allowing the trade of energy into and out of the GB energy market they can lower electricity bills for consumers, improve security of supply and support decarbonisation. Electricity interconnectors also have the capability to enhance the European energy market and enable the efficient integration of new renewable energy sources.

3.9. Ofgem created the cap and floor regime[11] to unlock beneficial investment by reducing risks. It strikes a balance between commercial incentives and appropriate risk mitigation for project developers. Before the cap[12] and floor[13] regime was introduced, only a limited number of electricity interconnectors had been either built or proposed.

What we did

3.10. Electricity interconnector projects developed under the cap and floor regime earn revenue from the allocation of capacity to users who want to flow electricity between GB and our neighbours. Interconnectors may also earn additional revenue streams,

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[11] https://www.ofgem.gov.uk/ofgem-publications/59243/cap-and-floor-regime-regulated-electricity-interconnector-investment-application-project-nemo.pdf

[12] The cap is the maximum amount of revenue for an electricity interconnector. This means that, should an interconnector's revenue exceed the cap, the interconnector will transfer the excess revenue to the GB system operator, which will in turn reduce transmission charges. For consumers, the cap on revenues provides benefits in return for their exposure in underwriting the floor.

[13] The floor is the minimum amount of revenue that an electricity interconnector can earn. This means that, if an interconnector does not receive enough revenue from its operations, its revenue will be 'topped up' to the floor level. The funds will be transferred from the GB system operator, which will in turn recover the sum from transmission charges applied to all users of the national electricity transmission system.

such as from participating in the GB capacity market or providing services to system operators. The regime sets a maximum (cap) and minimum (floor) amount of revenue for an interconnector.

3.11. The floor is set at a level that ensures that an interconnector can cover its annual operating expenditure and service its debt. The cap is set to ensure that equity investors receive sufficient, but not excessive, returns. The width between the cap and floor levels is designed so that developers are exposed to the benefits that the interconnector provides and so incentivised to identify and develop projects in a way that maximises these benefits.

3.12. The Nemo Link interconnector project (Nemo Link) is a 1GW electricity interconnector between Great Britain and Belgium that was granted a cap and floor regime in 2014. It commenced commercial operations on 31 January 2019. Nemo Link is the first project to be regulated under our cap and floor regime and therefore the first project to reach the "Post Construction Review" (PCR) stage[14] of our assessment framework.

3.13. We published our PCR decision for Nemo Link in December 2019. As part of our decision, we undertook an assessment of project costs, adjusted the costs allowances accordingly and set the final cap and floor levels for the project.

Expected impact on consumers

3.14. Our December 2019 decision on Nemo Link's PCR adjusted the cap and floor levels for Nemo Link, as follows (2013/14 prices):

- preliminary cap level adjusted downwards from £83.8m to a final cap level of £77m each year - reducing the threshold at which consumers potentially benefit from lower transmission changes by £6.8m; and

[14] There are three main stages to our cap and floor assessment framework – the Initial Project Assessment (IPA), the Final Project Assessment (FPA) and the Post Construction Review (PCR).

- preliminary floor level adjusted downwards from £48.8m to a final floor level of £43.9m - reducing consumer exposure to floor payments by £4.9m for each year of the 25-year regime period.

3.15. We have not attempted to quantify the benefits to consumers from reducing the cap and floor levels for Nemo Link. Consumers will benefit from this decision by paying less at the floor, or by gaining more at the cap, than would otherwise have been the case. These benefits could be significant, but they will depend on the future revenue generated by the project, which is inherently uncertain.

3.16. In our 2013 impact assessment and our 2014 final decision for Nemo Link, we used revenue projections based on economic analysis undertaken in 2011 to inform our analysis and conclusions. Given changes in the energy market since 2011, we do not consider this revenue analysis to be suitably robust to allow us to measure the exact impact of our PCR decision on consumers. Nemo Link's revenue projections will have changed in response to changes in underlying electricity supply and demand; cross-border market arrangements; and the emergence of additional revenue streams, such as the GB capacity market.

3.17. The maximum potential consumer benefit of our PCR decision would occur if consumers gained the full £6.8m reduction in cap level each year for 25 years. Consumers could similarly stand to benefit significantly from the £4.9m reduction in the floor across 25 years if revenues were to be below the final floor level in each assessment period. These maximum potential cap and floor benefits would only occur if Nemo Link's revenues were to be below the final floor level of £43.9m in each cumulative assessment period, or if Nemo Link's revenues were to be above the original cap of £83.8m in each cumulative assessment period. We view both outcomes as highly unlikely. The minimum potential consumer benefit of our PCR decision is zero. If Nemo Link's revenues in each assessment period are between the final (lower) cap and original (higher) floor levels, then consumers would not benefit from this PCR decision.

3.18. However, we consider that by reducing the risk of floor payments and increasing the chances of cap payments, our PCR decision could potentially be of significant overall benefit to GB consumers.

RIIO-ED1 Reopeners

Contribution to our Strategic Narrative priorities

☑ ***Decarbonising at lowest cost***

☑ ***Protecting consumers***

☑ ***Enabling Competition and Innovation***

3.19. The RIIO-ED1 price control sets the outputs that the electricity distribution network operators (DNOs) need to deliver for consumers and the associated revenues they are allowed to collect for the eight-year period from 1 April 2015 until 31 March 2023.

3.20. For cost categories where there was significant uncertainty about expenditure requirements at the time of setting allowances, the price controls include a type of uncertainty mechanism called a "reopener". The mechanism allows network companies to propose adjustments to baseline expenditure allowances for these costs when there is more certainty.

3.21. The overarching principle for uncertainty mechanisms from our RIIO handbook is that the use of reopeners should be limited to instances in which they will deliver value for money for existing and future consumers while also protecting the ability of networks to finance efficient delivery.

What we did

3.22. The reopener mechanism specifies a window in May 2019 during which adjustments to allowances may be proposed. In the May 2019 reopener, the total net funding request was for £133m (2012/13 price year). We decided to increase price control allowances by around £63.3m. The majority of this funding was disallowed because:

- we did not think it represented efficient expenditure; and
- we did not consider there to be sufficient certainty that the costs would be incurred in RIIO-ED1.

3.23. In our decision, we set out that we would assess any additional costs at the end of the price control, and that these would be subject to an efficiency assessment. Some of the disallowed sums will be considered again later in the price control.

Expected impact on consumers

3.24. Our role in assessing these reopeners and determining revised price control allowances is to promote the consumer interest primarily through lower bills, but also through consideration of reduced environmental damage, of reliability and safety, and of quality of service. The requested funding that was not awarded may result in lower price control revenues than would have been the case if we had allowed these cost allowances in full.

Suspension of the Secure and Promote Market Making Obligation

Contribution to our Strategic Narrative priorities		
☒ *Decarbonising at lowest cost*	☑ ***Protecting consumers***	☑ ***Enabling Competition and Innovation***

3.25. On 18 November 2019, we suspended the Secure and Promote[15] Market Making Obligation (MMO). Since the MMO was introduced in 2014, a series of market changes led to a steady decline[16] in the number of obligated parties. By 2019, the number of obligated parties reduced to the point where it risked the policy becoming

[15] Secure and Promote was introduced in 2014 to improve liquidity in the wholesale electricity market. It followed Ofgem's 2008 Energy Supply Probe which identified low liquidity as a barrier to competition and market entry. Secure and Promote placed a Market Making Obligation (MMO) on the six largest vertically-integrated companies at the time of its introduction - Centrica, EDF Energy, E.ON, RWE, Scottish Power and SSE. The MMO obligated the companies to post bids for certain mandated products in two hour-long windows to increase trading opportunities and support robust reference prices.

[16] In August 2018, the number of parties reduced to four, with Ofgem noting in November 2018 that market participants should prepare for suspension of the MMO if the number of obligated parties reduced further.

less effective in meeting its objectives and the remaining parties being subject to disproportionate and unfair costs.

What we did

3.26. Following the release of Scottish Power from the obligation in January 2019, on 19 September 2019 Ofgem received a request for release from RWE following the sale of its shares in Innogy SE to E.ON. In the event of granting the request the obligated parties would reduce to two, therefore on 08 October 2019 we published an open letter seeking views on a proposal to suspend the MMO. On 30 October 2019, RWE were released from the obligation on account of structural changes to the business.

3.27. The decision balanced evidence provided on the costs and limitations of continuing with the two-party MMO against what we reasonably assumed to be the likely impact of suspension.

- Confidential cost evidence provided by the two remaining obligated parties indicated that, following the release of RWE, the costs and market risk they faced materially increased, even in the absence of volatility. This created a strong likelihood that the costs of the obligation would increase beyond those identified in Ofgem's 2013 Secure and Promote Impact Assessment.

- Mandating only two parties under the current obligation placed disproportionate costs on these parties. In 2014, the obligation was placed on six companies with a combined retail market share of 94% and a 70% share of the generation market. This had the effect of spreading the costs and risk of the policy across the market, reducing the risk of any associated competitive disadvantage between the larger market players of the time. As of 30 October 2019, the retail and generation market shares of the two remaining parties was 24% and 36%.

- Confidential evidence on trading patterns indicated that the policy had become less effective in meeting its objectives, specifically in enabling the development of robust reference prices along the curve. This substantiated our concern that lower volumes and a lack of market depth would undermine the opportunities for natural price discovery and price robustness.

Impact of suspension and next steps

3.28. There was no certainty or consensus amongst stakeholders on the potential impact of suspension on the market. While some stakeholders argued that suspension would lead to a significant deterioration in liquidity, others argued that the impact would be muted or positive.

3.29. We anticipated that a likely impact of suspension, on account of the removal of mandated bid-ask spreads for the MMO products, would be wider spreads as posted prices moved to reflect market conditions. This had the potential to increase transaction costs and have a negative impact on price robustness, which could impact suppliers’ and generators’ ability to hedge. On balance, we saw no justified evidence that there would be a widening of spreads sufficient enough to outweigh the costs, risks and unfairness of continuing with the two-party MMO. Nonetheless, we considered that:

- the extent of the cost impact was uncertain and would not necessarily rise in line with wider spreads;
- we saw no clear evidence that wider spreads would result in higher wholesale prices because while price discovery may become impaired, prices would continue to reflect market fundamentals; and
- we did not expect market structures to change significantly as a result of suspending the MMO. Through the Supplier Market Access Rules, small suppliers would still be able to trade bilaterally with parties’ subject to Schedule A of the Secure and Promote Licence Condition and we expected third-party intermediaries to continue to compete when providing small suppliers with a route to market.

3.30. While it is too soon to form a comprehensive view on the impact of suspension, we continue to monitor market liquidity with the view to assess the impact of suspension on liquidity and the need for further intervention. Our analysis of Q4 2019 data indicated that liquidity did not significantly deteriorate. However, bid-offer spreads on all products previously subject to the MMO increased and peak load liquidity declined. To provide the market with time to adjust to the suspension of the MMO, we plan to capture a minimum of 6 months of data before undertaking this assessment.

Network Innovation Competition

Contribution to our Strategic Narrative priorities

☑ ***Decarbonising at lowest cost***	☑ ***Protecting consumers***	☑ ***Enabling Competition and Innovation***

3.31. Although price controls can incentivise innovation, they can also discourage certain types of innovation. This is because increased expenditure on research and development can make companies look inefficient in the context of a five-year price control period, if the cost of these activities does not deliver benefits within that period.

3.32. The resetting of allowances in subsequent price controls can limit the payback period for successful innovation projects. Despite this, network companies have to innovate to find new and better ways of delivering their essential services. Given the scale of the energy system transition challenges that network companies face and the uncertainty associated with these challenges, innovation is important to ensure that network companies deliver a sustainable energy sector and long-term value for money.

3.33. As the innovation is necessarily uncertain, it is not easy or straightforward to monitor the potential benefits to consumers that may result, both in terms of their magnitude and timing.

What we did

3.34. In RIIO-1, we ran an annual Network Innovation Competition (NIC) for flagship innovation projects. In the 2019 NIC, we received one Full Submission to the gas NIC and four Full Submissions to the electricity NIC. These five submissions requested a total of £42.02 million of the £90 million available funding. The five submissions were as follows:

- H21 Phase 2 from Northern Gas Networks requesting £6.8m of gas NIC funding;
- Constellation from UK Power Networks requesting £7.5m of electricity NIC funding;

- DC Share from Western Power Distribution requesting £4.72m of electricity NIC funding;
- Free VE from Western Power Distribution requesting £13.3m of electricity NIC funding; and
- Resilience as a Service from Scottish and Southern Energy Networks requesting £9.7m of electricity NIC funding.

Expected impact on consumers

3.35. Of the five Full Submissions, we decided to award £21.2m of funding from network customers to one gas project and two electricity projects. These are detailed below, along with the aims of the respective projects:

- H21 Phase 2, proposed by Northern Gas Networks, £6.8m funding awarded - the proposed project aims to provide the next stage of quantified safety evidence to confirm the existing gas distribution network is suitable to transport 100% hydrogen. The evidence produced will be used to support the case for a GB hydrogen conversion by trialling the injection of hydrogen into untested parts of network and exploring public perceptions.
- DC Share, proposed by Western Power Distribution, £4.72m funding awarded - the proposed project will develop and trial the use of a DC ring to share load across constrained secondary substations and to power rapid charge points for electric vehicles in more convenient locations for users.
- Resilience as a Service, proposed by Scottish and Southern Electricity Networks, £9.7m funding awarded - the proposed project intends to trial an alternative to standby diesel generation for remote parts of the SHEPD distribution network. The project will test a system through which low carbon technologies on the distribution network could provide resilience services, and will also examine how to facilitate the market for these services.

3.36. Our decision to award funding was informed by the evaluation and recommendations of independent Expert Panels. We expect the outcomes of these NIC projects will help network licensees and industry to better address customers' changing requirements as Great Britain moves towards a smarter, more flexible, low carbon energy system.

3.37. Licensees awarded NIC funding must also make at least a ten per cent contribution to the total costs of projects. Therefore, successful licensees and their partners are contributing £2.4 million to these projects.

4. Enforcement and Compliance

Our Enforcement and Compliance and E-Serve teams identify and respond to market conduct which may be unlawful, anti-competitive, or otherwise harm consumer interests and activities that may be in breach of licence conditions and other regulatory requirements. This section shows in detail both direct and indirect consumer benefits resulting from our work in this area in 2019-20. We estimate the realised consumer benefits to be about £71 million from the enforcement and compliance actions taken by Ofgem over this period. These decisions aim to support our Strategic Narrative objectives of protecting consumers, enabling competition and innovation and decarbonising at the lowest costs.

4.1. As part of our functions, Ofgem identifies and responds to conduct in the gas and electricity markets which may be unlawful, anti-competitive, or otherwise harm consumer interests. Additionally, as administrator of a number of renewable energy and social government schemes, we aim to make a positive difference by ensuring transparency and value for consumers' money.

4.2. Our work includes investigating alleged breaches, imposing orders and directions, and meaningful penalties where breaches have occurred. Through our monitoring and engagement with energy companies, we aim to act decisively to put things right if businesses breach the rules. Our work covers:

- compliance with relevant licence conditions and requirements as defined in the Gas Act 1986 and the Electricity Act 1989;
- alleged anti-competitive agreements and abuse of dominant positions in the gas and electricity sectors;
- consumer protection provisions; and
- renewable energy and social government scheme requirements.

4.3. On the last point, Ofgem delivers renewable energy and social programmes on behalf of government. E-Serve expertise lies in designing, setting up and delivering large scale programmes in the sustainable energy sector and ensures that public money invested in renewable and social schemes is administered responsibly and with environmental sustainability in mind. These programmes range from renewable heat and renewable electricity to energy efficiency and fuel poverty. Among other functions, they require us to:

- identify and take action against fraudulent behaviour and non-compliance;
- monitor suppliers' compliance with their obligation and take appropriate actions if needed;
- provide assurance that business is running as it should through routine and risk-based reviews; and
- ensure eligibility for claims for support under the environmental schemes (this would cover the granting of accreditation or the issue of payments/certificates).

4.4. We work with energy companies, consumer groups and other stakeholders, including the UK's elected representatives, to make sure policy targets are met in the most efficient way possible and in consumers' interest. We are also working with a growing number of delivery partners across government, adding value to their operations by sharing our expertise.

Enforcement and Compliance activity

Contribution to our Strategic Narrative priorities

☑ ***Decarbonising at lowest cost***	☑ ***Protecting consumers***	☑ ***Enabling Competition and Innovation***

4.5. For the enforcement and compliance decisions completed in the period April 2019 to March 2020, we estimate the expected consumer benefits to be about £71 million. In particular, we agreed redress payments totalling about £31.73 million, which are the direct benefit to consumers. We also secured payments of about £39.26 million which provided indirect benefits to consumers.

4.6. We break down the impact of enforcement activities on consumers into four main areas:

- past detriment: past harm caused to consumers by harmful conducts;

additional redress: paid directly to consumers or to the voluntary redress fund[17] over and above the identified/quantified detriment;

- avoided detriment: future harm that would been caused to consumers had Ofgem not intervened. Our approach is based on those used in similar reports by other authorities such as the Competition and Markets Authority (CMA) and the Dutch Authority for Consumers & Markets (ACM); and

- deterrence: future harm to consumers caused by other parties avoided as a result of the threat of Ofgem's intervention.

4.7. The impact of the first three areas rely on rules of thumb to assess the likelihood and the duration of the violation in future. We construct our rules of thumb based on the type of case (e.g. mis-selling, transfer blocking, IT problems, price increase, and competition) and on the nature of companies' behaviours (e.g. self-reported, accidental, and deliberate). The time period we consider to assess the future avoided detriment ranges from zero (self-reported cases) to six years, for the most severe deliberate breaches.

4.8. Our methodology treats each area separately. For the purpose of this report, we use the same methodology to calculate past and avoided detriment. Deterrence is not always quantifiable and/or cannot be easily calculated. By not accounting for deterrence, we are excluding one of the main indirect benefits associated with enforcement activities. The threat of enforcement action increases the expected costs of a breach to business and individuals and impacts negatively on their reputation, making infringement behaviours less attractive.

Direct benefits

4.9. Between April 2019 and March 2020, Ofgem took 14 decisions (see Table 1 Appendix 2) which directly benefited consumers. All companies agreed to make payments in

[17] The Energy Saving Trust was appointed by Ofgem to manage and allocate voluntary redress funds through the Energy Industry Voluntary Redress Scheme. For further information see https://energyredress.org.uk/.

recognition of their failures and some of them also refunded and/or compensated affected customers.

Indirect benefits

4.10. In the same period, we completed a sectoral investigation into Cadent which indirectly benefited consumers through improvements of internal procedures and payments to support consumers in vulnerable circumstances. We also discontinued a competition case into EPEX Spot SE by accepting binding commitments that will improve the functioning of the British energy sector, with no decision made on whether the relevant prohibitions have been infringed. Table 2 in Appendix 2 has more details on these.

4.11. We issued seven final orders and four provisional orders which indirectly benefited consumers through compliance with the relevant licence obligations or through financial payments made to two environmental schemes that we administer. The money received reduced the liabilities of other suppliers, which should be passed to consumers. See Table 3 in Appendix 2 for details.

4.12. We also issued seven notices of proposal to issue final orders to regulated persons that have contravened or were likely to contravene relevant conditions or requirements (Table 4 Appendix 2). During the consultation periods, the regulated persons took action to comply with their obligations and the Authority made the decision not to make a final order. This enforcement action indirectly benefitted consumers by sending a strong message to all market participants to comply with their obligations.

4.13. We concluded two investigations which resulted in a penalty paid to HM Treasury:

1) a competition investigation where the Authority found that Economy Energy, E (Gas and Electricity) Ltd and Dyball Associates entered into an agreement and/or concerted practice to share markets and/or allocate gas and electricity domestic customers. The total amount of the penalty imposed by the Authority was £870,000;

2) a REMIT[18] investigation where the Authority found that Engie Global Markets had engaged in market manipulation in relation to the month ahead contract for the delivery of natural gas at the National Balancing Point on the over-the-counter wholesale energy market. The case resulted in a penalty of £2,128,236.

4.14. Between April 2019 and March 2020 we also investigated 109 potential compliance issues. Of these we initiated 44 as compliance engagements. In the same period, we closed 89 compliance issues, 51 of which we had undertaken compliance engagement. Out of the 51 completed compliance engagements, 16 related to energy price caps overcharges.

4.15. Compliance engagement varies in both nature and scope, ranging from engagement on significant (financial) detriment to consumers to minor omissions on suppliers' websites. It also includes cases where suppliers overcharge customers above the level of the energy price caps.

4.16. The majority of compliance engagements do not lead to any monetary consequences, but instead result in changes to supplier behaviour with positive impacts to consumers. Between April 2019 and March 2020, outcomes of compliance engagements included the following:

- Improvements to customer service, such as complaints resolution and ease of contact;
- Improvement in supplier switching processes;
- Improvements to billing processes;
- Correct tariff offerings made available, such as for customers with pre-payment meters;
- Improvements to the implementation of vulnerable customer policies;
- Changes to information provided on supplier websites;
- Refunds and compensation paid directly to consumers; and
- Compensation paid to the voluntary redress fund.

The combined impact of compliance engagements is set out in Table 3 below.

[18] Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency

Table 3: impact of compliance engagements in £

Type of impact	£, thousands
Refunds paid to customers	101
Compensation payments to consumers	169
Redress payments to the Voluntary Redress Fund	5
Avoided costs to consumers	Unquantified
Total	**£275**

Compliance Environmental Programmes

4.17. Ofgem delivers many of the government's environmental and social support schemes, which are key to enabling low carbon heat and power. The consumer impact from our work on Environmental Programmes comes primarily in the form of savings made to the schemes we administer. These schemes are funded either directly from the Treasury or as a levy on consumer bills. Through the course of our work we ensure that only those who are eligible to receive support get it, and that the correct level of support is provided.

4.18. When we identify an issue that affects what a participant is entitled to, or the payments that have or are due to be made, we report the value against the current financial year rather than the period in which the payment took or, was due to take place. In total during 2019/20, we made decisions that prevented around £601m being paid to scheme participants and over £4m in payments made to scheme participants for which they were subsequently found to be ineligible. For payments already made we adjust future payments to the participant to account for the loss, or where this is not possible, take steps to recover the monies paid.

5. Impact on vulnerable consumers

Our primary duty is to protect current and future consumers. We have a statutory duty to consider the needs of certain vulnerable groups of consumers such as those with disabilities or long-term health conditions, of pensionable age, on low incomes or living in rural conditions. We have expanded this to include a wider range of vulnerability, including transient vulnerability, such as job loss, bereavement or short term mental ill health.

In our new Consumer Vulnerability Strategy (CVS2025), we have set out our vision and our priorities until 2025. In this section, we consider the progress we have made through the actions and decisions that we have taken. Our work for vulnerable consumers aims to support our Strategic Narrative objectives of protecting consumers.

Consumer Vulnerability Strategy

5.1. In October 2019, we updated our Consumer Vulnerability Strategy to take into account changes in the energy sector and vulnerability.[19] We are expecting the energy market to significantly transform as digitalisation, decarbonisation and decentralisation progress. These changes will create new costs and benefits and change the way consumers interact with their energy provider, new business models, and data portability. In setting our regulation frameworks and taking regulatory decisions, we will play a fundamental role in enabling the best value and most effective transition at lowest cost, while assessing the trade-off between current and future consumers' interests; or between consumer groups.

5.2. Consumers in a vulnerable situation may have competing priorities, less free time or feel unable to make complex decisions. In an increasingly complex market, they may need more support in overcoming these barriers. Therefore, they may need more support in overcoming these barriers. We would particularly like to see energy companies build a deeper understanding of behavioural science into how they design and deliver their services for vulnerable customers.

5.3. In this context, we want consumers in vulnerable situations to face fewer barriers to confidently engaging with the changing energy market, receive additional support where needed and are adequately protected. This leads to some key strategic

[19] Ofgem (2019) Consumer Vulnerability Strategy 2025

considerations for us on the distributive fairness of costs, as they will fall differently across consumers. We need to further refine our understanding of policy options on different groups of consumers when developing regulatory interventions and consumer protection measures in particular.[20]

5.4. In the strategy, we set out the five areas of focus for us in the next five years. These are:

- improving identification of vulnerability and smart use of data;
- supporting those struggling with their bills;
- driving significant improvements in customer service for vulnerable groups;
- encouraging positive and inclusive innovation; and
- working with partners to tackle issues that cut across multiple sectors.

5.5. Those priorities are driven by the outcomes we want to see achieved during the lifetime of the strategy. Below we have set out the main pieces of work we have undertaken on vulnerability in the last financial year.

Impact of E-Serve activity

5.6. Ofgem administers green energy and social programmes on behalf of government. Among those, two government schemes impact directly on consumers in more vulnerable situations. The Warm Home Discount (WHD) aims at tackling fuel poverty in Great Britain and requires medium and large energy suppliers to support people who are in fuel poverty or are at risk of it. The Energy Company Obligation (ECO) obligates larger suppliers to deliver energy efficiency measures to domestic premises in Britain. It equally helps reduce carbon emissions and tackle fuel poverty.

5.7. The WHD scheme has been extended until March 2021[21], as a key part of the Fuel Poverty Strategy to ensure, among other objectives, it continues to offer direct support on energy bills to low income and vulnerable households. It retains broadly the same structure as for year 2018-2019, although a few changes have been

[20] Our distributional impact framework published in May 2020 will help us achieve this. https://www.ofgem.gov.uk/publications-and-updates/impact-assessment-guidance
[21] https://www.ofgem.gov.uk/system/files/docs/2019/12/whd_sy8_annual_report.pdf

introduced to further improve delivery to consumers and encourage more innovation.

5.8. Under the WHD scheme, all energy suppliers with over 150,000 domestic customers are required to assist less well-off pensioners (core group), through a direct rebate of £140 to their electricity or gas account. Obligated suppliers must provide those rebates to a wider group of customers who are in or at risk of fuel poverty. For 2018/19, the suppliers met the overall scheme spending obligations providing over £341 million of support to vulnerable consumers including £140 rebates to over 2.2 million vulnerable consumers. For each year of the following scheme's lifetime, the provisional spending target has also been set as £340 million, adjusted by the consumer price index.

5.9. Ofgem determines the exact size of the obligation for each supplier over the threshold and performs a reconciliation against those targets to ensure they are adhered to. We also administer the industry initiatives portion of the scheme, and review and approve each project to ensure it complies with the regulations in achieving tangible reductions in fuel poverty.

5.10. The ECO scheme obligates suppliers to mainly promote measures which improve the ability of low income, fuel poor and vulnerable households to heat their homes. This includes actions that result in heating savings, such as the replacement of a broken heating system or the upgrade of an inefficient heating system as well as the installation of insulation.

5.11. ECO3 applies from October 2018 and runs up until March 2022. It is intended to deliver £8.253bn[22] lifetime bill savings through the installation of energy efficiency measures in domestic households who are deemed to be in fuel poverty. The scheme is broken down into different time phases, with the size of a supplier's obligation calculated for each of them. However, suppliers are only obligated to meet their overall obligation by the end of the scheme in March 2022. Delivery on ECO3 is particularly slow compared to past ECO schemes, which followed a common s-curve pattern, showing an initial exponential growth until the inflection point before

[22]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727065/Energy_Company_Obligation_ECO3_2018-2022.pdf

decreasing from then on. Delivery towards the first two phases has increased.[23] However, ECO phase 3 started in February 2020, and we expect ECO delivery to significantly reduce as a result of the Covid-19 pandemic.

5.12. Ofgem sets the overall obligation for the scheme and performs a final determination on all obligated suppliers to ensure they have complied with the legislation. We also set the evidence criteria for determining household eligibility, and determine the scoring system for what each eligible energy efficiency measure is awarded. We also carry out audits, technical and score monitoring, and seek to counter any fraudulent activity to ensure that only vulnerable customers are targeted and that the benefits to them are maximised within the legislative boundaries.

Consumer archetypes

5.13. We are committed to strengthening our ability to analyse the impact of our decisions on different groups of consumers. As part of the previous Consumer Vulnerability Strategy, we commissioned a set of consumer archetypes to help with this. In our new strategy, we said we would further strengthen our approach to enable us to show the impact of Ofgem's policies in a transparent and comparable way. We have been working on an analytical framework[24] that, alongside with our updated Impact Assessment Guidance[25], aims to improve Ofgem's assessment of the quantitative and qualitative impacts of our interventions in the energy market, at both an individual policy and accumulative level.

5.14. In 2019, as part of the development of this new framework, we commissioned the Centre for Sustainable Energy (CSE) to segment the GB population into a refreshed set of energy consumer archetypes which together represent all households across the country. The purpose is to use these archetypes to help understand how different policies may impact on a selection of different types of households and energy consumers. We also aim to use the archetypes to identify which consumers

[23] https://www.ofgem.gov.uk/environmental-programmes/eco/contacts-guidance-and-resources/eco-public-reports-and-data/scheme
[24] Ofgem (2020) Assessing the distributional impacts of economic regulation https://www.ofgem.gov.uk/publications-and-updates/impact-assessment-guidance
[25] Ofgem (2020) Impact Assessment Guidance https://www.ofgem.gov.uk/system/files/docs/2020/05/impact_assessment_guidance_1.pdf

are most likely to engage with and/or benefit from the energy system transition. Finally, we can also use them to investigate existing or proposed policy designs or to help rebalance any policies which have been identified as unintentionally overlooking or disadvantaging certain households.

5.15. Consumers have been grouped in 13 archetypes, each of them defined by precise quantitative (such as energy use, income and number of households) and qualitative consumer characteristics.[26]

5.16. These archetypes will help to assess how policy impacts are distributed across all GB households. Quantitative variables will facilitate the estimation of monetised benefits on consumer bills, while other more socioeconomic and attitudinal qualities within archetypes, such as information on disability or housing composition, will strengthen our ability to consider specific vulnerabilities in decision-making. In the future, we expect a dedicated section in this report to provide, where possible, a detailed assessment of the distributional impact of our policies as well as a qualitative commentary.

Self-disconnection

5.17. Self-disconnection occurs when PPM customers experience an interruption to their gas and/or electricity supply because the credit on the meter has been exhausted. We are concerned about the impact on PPM customers where they deliberately limit their energy consumption to save money for other goods or services (ie, self-disconnection and self-rationing) and how these situations may lead to or cause consumer detriment.

5.18. Our overarching policy objective is to reduce the number of customers self-disconnecting and self-rationing each year and to reduce the consequent detriment. In August 2019 we published a policy consultation on proposals to improve outcomes for consumers who experience self-disconnection and self-rationing by introducing

[26] The publication of the consumer archetypes was delayed until May 2020 because of the impact of Covid-19. The final report is available at: Centre for Sustainable Energy (2020) Ofgem Energy Consumer Archetypes – final report https://www.ofgem.gov.uk/system/files/docs/2020/05/ofgem_energy_consumer_archetypes_-_final_report_0.pdf

new requirement for suppliers.[27] We are due to follow up with a statutory consultation on our final proposals shortly. The timings of this publication are updated regularly on our website in light of the COVID-19 crisis and the need to prioritise our response to the crisis.

5.19. We want to improve industry identification of self-disconnection and self-rationing so that customers in vulnerable circumstances are quickly identified and provided with the support needed. We are also concerned about the inconsistency in support provided across the market both in terms of voluntary short-term support to stay on supply and the ongoing support to consumers in financial difficulties. In our policy consultation we proposed to formalise the emergency, friendly-hours and discretionary credit offering by suppliers to support those who experience self-disconnection because of a temporary situation. We also proposed to incorporate and update the Ability to Pay principles into the supply licence to ensure those who may be at risk of self-disconnection because they are in financial difficulties or repaying a debt and are protected.

[27] Ofgem (2019) proposals to improve outcomes for consumers who experience self-disconnection and self-rationing

6. Appendix 1 – Methodology

6.1. Our analysis has been subject to our internal quality assurance (QA) process and reviewed by an external expert, Dr Christopher Decker of the University of Oxford.28

6.2. The analysis draws on the results of impact assessments (IA), where possible, and the robust analysis that informed each decision. Our approach strives to quantify impacts as thoroughly as possible and in monetary terms where we can, and ensures that there is consistency in how they are presented.[29]

6.3. Impact assessment, in particular, is a tool to strengthen decision-making. There is a statutory requirement to publish IAs where there are significant impacts from policy changes. IAs provide a structural and transparent framework for understanding the estimated impacts of policies and enable comparisons between projects. Therefore, ex ante IAs are a good way to assess our policies' impact on consumers.

6.4. However, due to differences in the way benefits are calculated, we make some adjustments to enable comparability between results. These are:

Inflation adjustment

6.5. Ofgem's impact assessments use a range of years to express the monetised value of benefits and costs to consumers. For example, most impact assessments relating to network companies use 2013 prices, since this allows easier comparison with previous figures published as part of the RIIO price controls. Others use the price levels in the year they were published.

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[28] Dr Decker is a Research Fellow in Law and Economics in the University of Oxford and a Director of Regulatory Economics Limited, a private consultancy firm which undertakes advisory work mainly for governments and other public bodies. Consistent with the purposes of the review exercise, we asked Dr Decker to confirm: the reasonableness of our assumptions and methodologies for aggregating qualitative impact and for the chapter on vulnerable consumers; the appropriateness of the time period used to assess consumer impacts; and the reasonableness of our presentation of the benefit to consumers. He was not asked to review or comment on the underlying assumptions where these were based on analysis carried out as part of a formal Impact Assessment, nor was he asked to review the calculations that underlie the estimates presented in the report.

[29] For detail on how Ofgem carries out impact assessments, see our published Impact Assessment Guidance:
https://www.ofgem.gov.uk/system/files/docs/2016/10/impact_assessment_guidance_0.pdf

6.6. In order to ensure all figures are comparable, we express the figures published in any impact assessments underlying the analysis in the same price year of the report, and adjust them using the GDP deflator. This our preferred way of making inflation adjustment for consumer impact because: 1) GDP deflator is the most comprehensive measure of inflation compared to other indicators, e.g. CPI/CPIH or RPI; 2) The Treasury's Green Book[30] recommends to adjust costs and benefits from nominal to real terms using the GDP deflator growth rate.

NPV adjustment

6.7. Net present value (NPV) figures are necessarily taken from one point of reference (i.e. the 'present' part of the value is a certain point in time). For example, an NPV calculation based on 2019 and another based on 2020 are not directly comparable – since any benefits are one year closer in 2020.

6.8. To ensure all figures are comparable, we have taken 2020 as the point at which we will calculate NPVs from, and discounting or un-discounting using a real discount rate of 3.5%, in line with Treasury's Green Book.

NPV calculations

6.9. Some impact assessments contain figures for consumer benefits, which are not expressed as an NPV. This is the case for the decisions *RIIO-1 price control reopeners*, DCC price control, *Enforcement and compliance cases*. Where this is the case, we calculate an NPV figure using the inflation rate and 3.5% discount rate described above.

Scenarios

6.10. Where possible, some of our impact assessments contain different scenarios, which consider how consumer benefits would change, depending on other variables. We

[30] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685903/The_Green_Book.pdf and http://cdn.obr.uk/FSR_Jan17.pdf

use the scenarios, corresponding to low, central and high benefits. The central scenario is defined as the most likely, based on the assumptions.

6.11. Results of our adjustments to individual decisions made in the financial year 2019/20 are set out in table 5.

Table 5 - Adjustments to benefit figures

Decision	**Consumer impact from impact assessment/decision (price year and NPV reference year as in published IAs)**	**Adjustments made**	**Adjusted impact (2019 as price year and NPV reference year)**	**Period in which benefits occur**	**Annualized benefit**
Switching compensation	No NPV from impact assessment Estimated annual benefits: £59m Price year: 2017	Inflated from 2017 to 2020 prices NPV reference unchanged	Adjusted annual direct benefits: £62.86m	2020 (1 year)	£62.86m direct benefits
DCC Price Control	Funding increases not allowed amounting to £5.3 Price year: 2019 NPV reference year: 2019	Inflated from 2019 to 2020 NPV reference year changed from 2019 to 2020	Adjusted cash amount £5.58m (additional monetised benefits)	2018/21 (3 year)	£5.58m additional monetised benefits

6.12. Finally, there are four 'health warnings' surrounding the results in this report:

- "Lumpiness" of impacts. Over years, the decisions we include in the report, although always equally significant, may differ in terms of quantified benefits expected to deliver to consumers. That may create lumpiness in total benefits. In order to reduce the impact of any single decision on our assessment and reflect the multi-year timescales involved in developing some of them, we report a three-year moving average of the direct benefits.

- The decisions were taken during the financial year 2019/20, however they have different starting years and cover different periods of time. The estimated aggregate impact from Ofgem activities, in the form of a net present value, may differ significantly from the aggregate benefits calculated on a yearly basis.

- Uncertainty remains a factor in estimating the impact of our work, particularly for the indirect benefits identified in this report, which rely on the behaviour of other parties. This is a general problem with any kind of forecasting and not specific to our report.

- Establishing the counterfactual is one of the most challenging aspects of assessing impacts. The counterfactual is what happens in the absence of a policy, project or programme. Most of our impact assessments use the “do nothing” scenario as the counterfactual. In the case of RIIO1 Price Control reopeners and DCC Price control, we have limited ourselves to stating the impact as the value of the disallowed revenue allowances for network and DCC companies, because the counterfactual here is without Ofgem’s decisions to reject funding allowances, where the network companies’ funding would be the requested amount, and funding reduction is the direct result of Ofgem’s rejection decision.

7. Appendix 2 – Enforcement and compliance decisions

Table 1 – Decisions taken between April 2019 and March 2020 which directly benefited consumers

Company	Breach areas	Case closed	Notes	Total (2019 £, thousands)
SSE	Missed targets - Smart Meter rollout	Apr-19	SSE Energy Services (domestic retail business of SSE) agreed to make a payment £700,000 to the voluntary redress fund for missing its target to install gas smart meters for customers in 2018.	700
Cadent	Gas transportation - failure to maintain accurate records	May-19	Cadent agreed to pay £3m to the voluntary redress fund in recognition of its internal procedural shortcomings. It also covered costs to rectify the issues that led to the investigation (see table below).	3,000
Cadent	Gas transportation - service interruptions and failure to make compensation payments	May-19	Cadent agreed to pay £5.9m to the voluntary redress fund for leaving customers without gas for longer periods than they should have been. It also agreed to pay £300,000 to affected customers and to allocate £6.7m to compensate customers who would experience an unplanned and long gas interruption. Finally, it covered costs to rectify failings (see table below)	12,900
Shell Energy Retail Ltd	Price cap overcharging	Jun-19	Shell agreed to refund a total amount of £190,000 and pay £200,000 to the voluntary redress fund for overcharging affected customers above the level of the price cap.	390
Green Star Energy	Standards of conduct, communication of principal terms	Jul-19	Green Star agreed to pay £60 compensation to each affected customer, 1829 in total. It also made an additional voluntary contribution of £240,260 to the voluntary redress fund.	350.24
Utilita Energy	Environmental programmes / ECO	Jul-19	Utilita agreed to pay £175,000 to the voluntary redress fund for failing to meet carbon emission reduction obligations under the Energy Company Obligation (ECO) scheme between 2015 and 2018.	175

Company	Breach areas	Case closed	Notes	Total (2019 £, thousands)
Shell Energy Retail (then trading as First Utility)	Charging customers for a paper bill (SLC 21B.8)	Jul-19	Shell agreed to pay £100,000 to the voluntary redress fund for charging customers for a paper bill	100
Shell Energy Retail (then trading as First Utility)	Annual statement	Jul-19	Shell agreed to refund £224,864 and make an additional payment of £116,330 to affected customers for not providing annual statements to customers and for failing to allocate payments to the related account. It also agreed to pay £198,106 to the voluntary redress fund.	539
Ovo Energy	Security deposit payments taken from some former Spark customers after it was appointed as the Supplier of Last Resort	Jul-19	Ovo agreed to pay £469,081 in refunds and a further £173,310 in compensation to affected customers for erroneously taking security deposit payments from some former Spark customers.	642
iSupply Energy	Price cap overcharging/ Standards of Conduct	Dec-19	iSupply agreed to pay £1.5 million to the voluntary redress fund for overcharging affected customers on default tariffs and failing to alert Ofgem and put things right quickly.	1,500
Hornsea One Ltd	9 August 2019 power cut	Jan-20	Hornsea One Ltd agreed to pay £4.5 million to the voluntary redress fund for failing to remain connected after lighting strike on 9 August 2019	4,500
RWE	9 August 2019 power cut	Jan-20	RWE agreed to pay £4.5 million to the voluntary redress fund for failing to remain connected after lighting strike on 9 August 2019	4,500
UKPN	9 August 2019 power cut	Jan-20	UKPN agreed to pay £1.5 million to the voluntary redress fund after a technical breach of rules in relation to disconnecting and reconnecting customers as expected in response to a loss of power	1,500

Company	Breach areas	Case closed	Notes	Total (2019 £, thousands)
Utility Warehouse	Price cap overcharging	Jan-20	UW agreed to refund and compensate 3,430 Warm Home Discount customers with £450,000 and to pay a further £200,000 to the voluntary redress fund, in recognition of the seriousness of the breach and the impact on potentially vulnerable customers.	650

Table 2 – Decisions taken between April 2019 and March 2020 which indirectly benefited consumers

Company	Breach areas	Case closed	Notes	Total (2019 £, thousands)
Cadent	Gas transportation - failure to maintain accurate records	May-19	Cadent covered the cost of £3.6 million of the steps taken to investigate and rectify internal procedural shortcomings that led to misreporting data to Ofgem.	3,600
Cadent	Gas transportation - service interruptions and failure to make compensation payments	May-19	Cadent covered the estimated cost of £4.8m to address its failing; it also set up a community fund, worth £20m, to support consumers in vulnerable circumstances.	24,800
EPEX Spot SE	Potential infringement of Chapter II of Competition Act 1998 (TFEU Art 102)	Jun-19	The Authority accepted commitments from EPEX Spot SE and its parent company, EEX. As a result, the investigation was discontinued without any decision on the potential infringement.	unquantified

Table 3 - Provisional and final orders issued between April 2019 and March 2020 which indirectly benefited consumers

Company	Breach areas	Final Order issued/ Provisional Order confirmed	Final Order/ provisional Order revoked	Notes	Total (2019£, thousands)
Avro Energy Limited	DCC User	Apr-19	Aug-19	The final order required Avro to become a DCC User by no later than 25 July 2019. The order was revoked after Avro became a DCC User on 14 June 2019.	unquantified
Solarplicity	Feed-In Tariff (FIT)	Aug-19		The provisional order required Solarplicity to make all outstanding FIT payments when they would become due. Solarplicity ceased trading shortly afterwards.	unquantified
GnERGY Limited	Renewables Obligations	Oct-19		The final order required GnERGY to pay its outstanding Renewables Obligations amount of £673,876, plus interest, which would reduce the mutualisation amount due from other suppliers. GnERGY ceased trading in March 2020.	0
Nabuh Energy Limited	Renewables Obligations	Oct-19	Nov-19	The provisional order required Nabuh to pay its outstanding Renewables Obligations amount of £650,582 forthwith. Nabuh made the required payment shortly afterwards and as a result the provisional order was revoked.	650.582
Breeze Energy Supply Ltd	Renewables Obligations	Oct-19		The provisional order required Breeze to pay its outstanding Renewables Obligations amount of £486,232 forthwith. Breeze ceased trading in December 2019.	0
Daligas Limited	DCC User	Mar-20		The final order required Daligas to become a DCC User by no later than 31 March 2020.	unquantified
Enstroga Ltd	DCC User	Mar-20		The final order required Enstroga to become a DCC User by no later than 31 March 2020.	unquantified
Entice Energy Supply Ltd	DCC User	Mar-20		The final order required Entice to become a DCC User by no later than 31 March 2020.	unquantified
Euston Energy Ltd	DCC User	Mar-20		The final order required Euston to become a DCC User by no later than 31 March 2020. On 1 April 2020 Euston Energy demonstrated that it had become a DCC User.	unquantified

Company	Breach areas	Final Order issued/ Provisional Order confirmed	Final Order/ provisional Order revoked	Notes	Total (2019£, thousands)
Symbio Energy Ltd	DCC User	Mar-20		The final order required Symbio to become a DCC User by no later than 31 March 2020. On 25 March 2020 Symbio demonstrated that it had become a DCC User.	unquantified
Foxglove Energy Supply Limited	Feed-In Tariff (FIT)	Feb-20	Feb-20	The provisional order required Foxglove to make the payment of its FIT Year 10 Quarter 3 Levelisation Payment, in full, by the deadline. Foxglove promptly made the required payment.	602

Table 4 - Notices of proposal to issue a final order consulted on between April 2019 and March 2020 which indirectly benefited consumers

Company	Breach areas	Notice issued	Case closed	Notes	Total (2019£, thousands)
Delta Gas and Power Limited	Renewables Obligations	Oct-19	Oct-19	The Authority consulted on its proposal to issue a final order to Delta for failing to provide robust evidence that it could make its Renewables Obligations payments by 31 October 2019. Delta discharged its obligations in full.	92
Robin Hood Energy Limited	Renewables Obligations	Oct-19	Oct-19	The Authority consulted on its proposal to issue a final order to Robin Hood for failing to provide robust evidence that it could make its Renewables Obligations payments by 31 October 2019. Robin Hood discharged its obligations in full.	9,516
Toto Energy Limited	Renewables Obligations	Oct-19	Oct-19	The Authority consulted on its proposal to issue a final order to Toto for failing to provide robust evidence that it could make its Renewables Obligations payments by 31 October 2019. Shortly afterwards, Toto ceased trading.	0
Better Energy Supply Limited	DCC User	Jan-20	March 2020	The Authority consulted on its proposal to issue a final order to Better Energy requiring it to become a DCC User by no later than 31 March 2020. The Authority revoked Better Energy's licences on 13 March 2020.	unquantified
Ampoweruk Ltd	DCC User	Jan-20	March 2020	The Authority consulted on its proposal to issue a final order to Ampoweruk requiring it to become a DCC User by no later than 31 March 2020. Ampoweruk became a DCC User in January 2020.	unquantified

Company	Breach areas	Notice issued	Case closed	Notes	Total (2019£, thousands)
UK National Gas Ltd	DCC User	Jan-20	March 2020	The Authority consulted on its proposal to issue a final order to UK National Gas requiring it to become a DCC User by no later than 31 March 2020. UK National Gas became a DCC User in January 2020.	unquantified
Green Supplier Ltd	DCC User	Jan-20	March 2020	The Authority consulted on its proposal to issue a final order to Green Energy requiring it to become a DCC User by no later than 31 March 2020. Green Energy became a DCC user in February 2020.	unquantified

8. Appendix 3 - Links to source documents

Switching compensation – Guaranteed standards
Switching compensation – Update Impact Assessment
https://www.ofgem.gov.uk/system/files/docs/2019/09/switching_compensation_-_revised_impact_assessment_final_version_for_pub_0.pdf

Decision – Switching compensation – Overview document:
https://www.ofgem.gov.uk/system/files/docs/2020/02/switching_gsop_phase_2_policy_decision_november_2019.pdf

Data and Communication Company (DCC) Price control
Decision – Data and Communication Company
https://www.ofgem.gov.uk/system/files/docs/2020/02/2020.01_price_control_decision_document_ry1819_0.pdf

Supplier Licensing Review
Decision – Supplier Licencing Review – https://www.ofgem.gov.uk/publications-and-updates/supplier-licensing-review-final-proposals-entry-requirements

Nemo Link Post-Construction Review (PCR)
Decision – Nemo – Overview document:
https://www.ofgem.gov.uk/publications-and-updates/post-construction-review-nemo-link-interconnector-belgium

Secure and Promote Market Making Obligation
Decision to suspend the Secure and Promote Market Making Obligation
https://www.ofgem.gov.uk/publications-and-updates/decision-suspend-secure-and-promote-market-making-obligation-effect-18-november-2019

RIIO1 – NIC (Network Innovation Competition)
Competition Decision on the 2019 Gas and Electricity Network Innovation Competitions
https://www.ofgem.gov.uk/system/files/docs/2019/11/2019_nic_decision_document_for_publication.pdf

RIIO-1 ED1 reopener
https://www.ofgem.gov.uk/publications-and-updates/decision-riio-ed1-price-control-reopeners-submissions-made-during-may-2019-window