

ofgem

Making a positive difference
for energy consumers

ForwardWorkProgramme

consultation 2020-2022





Consultation Overview

This consultation document sets out our planned Forward Work Programme for the extended period of 2020-22. We welcome your views on how we can ensure that all consumers receive fair, competitive services.

It comes during an important time of change for our retail markets and energy networks as the government has recently committed to the United Kingdom (UK) becoming a net zero carbon economy by 2050.

To respond to this challenge as a regulator, we have set out in our new [Strategic Narrative](#) document how we intend to change as an organisation. There will also be a change of leadership at Ofgem during this consultation period, as our current Chief Executive, Dermot Nolan, will hand over to Jonathan Brearley, who will take up his new position in February 2020.

Through this consultation document, our aim is to clearly set out how this change is represented in and supports our medium-term planning. For us, it is important that all stakeholders are able to see and comment on our goals for the 2020-22 period.

As such, we will again be seeking your feedback at our energy conference events in Port Talbot, Birmingham, Glasgow and London. Dates and further details can be found on our website. We will also be seeking additional feedback and consumer perspectives through our Consumer First panel meetings in Falkirk, Hemel Hempstead, Blackpool and Swansea.

This consultation document is a representation of activities that we may carry out during the extended period of 2020-22, based on our strategic priorities and affordability. Given that not all activities mentioned in this consultation may be affordable, we will continue to prioritise those activities that we consider will deliver the best outcomes for energy consumers with the resources that we have. As a result, our final published Forward Work Programme may differ to this document, not least to address responses to this consultation.

Please respond to this Forward Work Programme by **noon on Friday, 21 February 2020**. Unless you ask us not to, we will publish your response on our website when we publish our final Forward Work Programme for 2020-22, before the start of the new financial year.

Who we are

We are the independent Great Britain (GB) energy regulator, 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 services from the energy market. In support of this we favour market solutions where practical, incentive regulation for monopolies and an approach that seeks to enable innovation and beneficial change while protecting consumers.

We are governed by the Gas and Electricity Markets Authority (the Authority), which consists of non-executive and executive members and a non-executive chair. Non-executive members bring experience, expertise and skills from a range of fields.

Our aim is for Ofgem to operate as an efficient organisation, driven by skilled and empowered staff that act quickly, predictably and effectively in the consumer interest, based on independent and transparent insight into consumers' experience and the operation of energy systems and markets.





Chief Executive's Foreword

Welcome to our planned Forward Work Programme.

In our Strategic Narrative published in July 2019, we set out a medium-term strategy for delivering a better energy market for consumers and driving forward efforts to decarbonise.

Our Forward Work Programme for the period 2020-22 will mark an important milestone in setting out how we will practically meet the priorities set out in our strategy to enable competition and innovation in the sector, protect consumers and contributing to delivering a net zero economy at the lowest cost to consumers by 2050.

In February 2020, during the consultation period for this work programme, I will be stepping down as Ofgem's chief executive. I am delighted to be handing over to Jonathan Brearley, who is currently an executive director at Ofgem. With many years of experience in the energy sector and of tackling climate change, Jonathan is extremely well placed to realise Ofgem's ambition to play a key role in delivering a sustainable future for consumers – and I wish him every success in the role.

I also hope that you can take part in shaping our work programme, before Jonathan finalises and launches our final Forward Work Programme in 2020. As in previous years, we plan to hold energy conferences across the country during the consultation period. At this crucial time of change and transition, we value all the feedback we receive, whether at our events or in formal written responses, more than ever.

As I have said many times over the past six years, the pace of change in the energy sector has been considerable – and it seems that this will only intensify.

I am confident that we can come together to build on the progress made so far to deliver an energy system that genuinely works for all consumers, now and in the future.

Crucial in helping us to achieve this will be creating a more diverse workforce across the energy sector. At Ofgem, we have redoubled our efforts to become a more diverse and inclusive organisation – and I know Jonathan is deeply committed to making further progress in this regard. To bring together the new ideas needed to meet the challenges that lie ahead, the sector itself will also need to become far more representative of the consumers that we all ultimately serve.

It has been an enormous privilege to lead Ofgem for the last six years. Without doubt, the greatest privilege of all has been leading a team of such talented, dedicated and passionate professionals.

To them, my thanks and best wishes for meeting the exciting opportunities ahead.



Dermot Nolan
Chief Executive Officer





Context and organisation of our planned forward work programme

In 2019, we launched our new Strategic Narrative, for the period 2019-23.

During this period, decisive progress will be made on the transformation of retail and wholesale markets and energy networks while the generation sector will continue to evolve its low carbon proposition. Our approach to this new era of sectoral change is guided by our overriding goal to protect the interests of consumers, now and in the future, with particular emphasis on protecting the vulnerable, using whatever means of intervention best achieves that goal. We believe that these interests are best protected by an energy system that can attract investment and innovation and keep costs as low as possible, while also promoting sustainability.

This planned Forward Work Programme focuses on three key strategic objectives for consumers, set out in our Strategic Narrative.

To deliver these objectives, we will encourage innovation that is likely to benefit consumers, while remaining conscious that innovation can benefit certain consumer groups, while leaving others behind, or causing some to bear a greater share of the system costs than necessary. We will take steps to prevent significant detriment of this kind, particularly when the consumers affected are vulnerable.

This planned Forward Work Programme has been organised around these three strategic objectives. Our planned activities for 2020-22 are described under one of the three objectives to indicate to readers where they are likely to create the greatest impact for energy consumers. However, many of our activities deliver impact across two or even all three of our strategic objectives. To illustrate how our strategic objectives are delivered through our activities, we have included colour-coded circles throughout this document.

Sitting beneath our strategic objectives in this document are the foundations to all of our work as a regulator. As we evolve, we have recognised that gathering, storing, using and sharing data effectively is key for us to continue to be fit-for-purpose in a rapidly changing, interconnected world. The “Our Foundations” section in this document sets out how we intend to respond to this data challenge across all of our activities. We also have a number internal strategies that will be central to us developing our internal capability to make us responsive and flexible in our approach.





Enabling competition and innovation which drive down prices and result in new products and services

Retail Markets

 **Retail Market Change**

Encouraging change in the retail market will be a key part of delivering a net zero carbon economy by 2050. To achieve this goal, we will need to see more innovation in business models, products and services in the retail market. Through our work, we have identified how regulation can get in the way of innovators from delivering positive change.

To reduce these obstacles, we will continue to run our Innovation Link service, to help innovators understand the sometimes complex nature of the current regulatory framework. By enabling trials to test their new products, services and business models, and by making changes to our rules, we can help innovators to find a successful route to market by supporting and enabling their innovation.

We will continue to work with government through our joint review into the design of the future retail market, to see how changes to the energy regulatory framework could encourage innovation, particularly for products and services that can help deliver carbon reductions.

We will also continue to help consumers to access and share data in a safe, convenient way, which will enable new products and services to emerge to improve lives – particularly for the vulnerable – and reduce bills and carbon emissions.

Key Milestones before and beyond 2020/21

Feb-Mar 20	Launch next phase of the regulatory sandbox as part of the Innovation Link service
Beyond	Potential development of legislative programme for changes to the future retail market design by government





Faster more reliable switching

We will continue prepare for the “go-live” phase of our multi-year switching programme, which should make it easier, quicker and more reliable for retail consumers to switch energy supplier. Once implemented, the programme aims to increase consumer confidence in the benefits of switching, to create higher levels of engagement with the market, as well as to enhance competition and innovation among suppliers.

➔ Key Milestones during and beyond 2020/21

Apr 20	Switching programme enters testing phase
Jul 21-Sept 21	Switching programme “go-live”

Consumer outcomes

We anticipate that these activities will help to deliver: lower consumer bills, lower environmental impacts, improved reliability and safety, better quality of service, better social outcomes.





The Energy System



Network Price Control Design, Development and Implementation

The electricity and gas networks are privately owned monopolies, which means their customers have no choice but to use their services. Left unregulated, a private monopolist can exploit its customers by restricting output, degrading service quality and / or by raising prices. That is why we regulate these networks by limiting how much they can charge customers and by setting standards for the quality of service. These limits are called price controls.

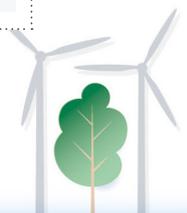
Price controls don't only protect consumers, they also protect investors because regulators operate independently of political intervention, and have duties to have regard to the need for networks to be able to finance their activities.

In 2020, we will make our determinations on the next gas distribution, transmission, and the Energy System Operator (the ESO) price controls that start in April 2021. We will also set the detailed methodology for the next electricity distribution price control, which starts two years later in April 2023. Our objective is to strike a tough but fair settlement for consumers through our RIIO-2 framework for all sectors. We want networks to maintain high reliability and customer service standards, while improving efficiency and lowering costs to consumers. We also intend to set price controls that enable the networks to play a full role in facilitating the energy system transition, including decarbonisation at the lowest cost.

We intend to simplify the way we set outputs, incentives and cost allowances in the price controls, and reform our reporting arrangements on company performance to make them more transparent and easier for people to understand and assess. We also intend to expand the scope for competition across the sectors where competition delivers value for consumers and encourages the penetration of flexible and non-traditional alternatives to network reinforcement. Our aim is that innovation will be more targeted at genuine research and development challenges in the energy transition and better coordinated with government innovation funding for inventors and disruptors.

We also intend to give consumers a stronger voice in the process of setting price controls. In the spring of 2020, we will be holding open hearings, to challenge the transmission and gas distribution companies on their spending plans. Stakeholders are invited to attend these events and submit evidence in support of or in contention to these spending plans.

Given rapid change in the energy sector, the role that network companies currently play could look very different in the future. It is easy to imagine that batteries in homes for distributed grid storage will grow in number, while the building of new pipelines and the laying of cables may be less necessary to our future energy needs. Through a combination of reforms to network charges, system operation and price control arrangements, our aim is that any new investment is focused on delivering the government's net zero carbon commitments, is efficient and that legacy costs are fairly recovered.





➔ Key Milestones before, during and beyond 2020/21

RIIO-2 gas distribution, gas and electricity transmission and ESO price controls:

Jan-Dec 20	Informal licence consultations
Mar 20	Open hearings
Jul 20	Draft determinations
Nov 20	Final determinations and impact assessment
Feb 21	Licence decision
Apr 21	Price controls commence, and will run for five years

RIIO-2 electricity distribution price control:

Dec 19	Framework decision
Jun-Aug 20	Sector methodology consultation
Dec 20	Sector methodology decision
2021	Network company business plan submission and challenge
Jan-Sept 22	Informal license consultations
Apr-Jun 22	Open hearings
Jul-Dec 22	Draft determinations
Oct-Dec 22	Final determinations and impact assessment
Feb 23	Licence decision
Apr 23	Price control commences, and will run for five years





 **Energy System Operations**

Following its legal separation from the National Grid in April 2019, the ESO is now responsible for balancing electricity supply and demand in real time, in a manner that avoids fluctuations or disruption of supply. To ensure robust performance in this key area (as mentioned above), we will design and set a price control for the ESO under our RIIO-2 framework, which will include an incentives regime. Once the RIIO-2 period has started, we will regularly assess and review the ESO's performance against its two-year business plan.

We will also set incentives for the Gas System Operator (GSO) functions as part of National Grid Gas Transmission's price control. Through these incentives, our goal is for the GSO is to deliver higher performance and increased consumer benefit, both through greater efficiency and greenhouse gas reductions.

As already planned, we will embark on a strategic review of how system operation is undertaken across the electricity and gas transmission networks, which will consider whether further change is needed. This will ensure that we have the right framework for system operation in place to tackle current and future challenges.

In 2020, we will start the work to update the distribution network operators' data sharing licence requirements, starting with more accessible information on future distribution grid needs. This is a key enabler to assist stakeholders to plan where to connect, what future opportunities there could be to provide flexibility, and to facilitate whole system solutions.

As we continue to develop our policy approach to distribution system operation (DSO), we will consider how the electricity system can play its role in delivering a net zero carbon economy. Our goal is for innovators and flexibility providers to access the full range of markets for their flexibility through better information, improved coordination and transparent processes. The expectation that networks will clearly signal their needs and use flexibility where it is most efficient for consumers will underpin the next electricity distribution price control under our RIIO-2 framework.

 **Key Milestones before and during 2020/21**

Jan 20	Launch strategic system operation review
Jul 20	Decision on CLASS and implementing the new whole electricity licensing requirements





Value for Money for Network Projects

In addition to developing competition models to drive value in onshore network projects, we will also continue to review and approve the need for and costs of large, strategic network projects, to ensure that they represent value for money and to deliver savings for consumers.

We will continue to carry out tender processes for the ownership and operation of Offshore Transmission Owner (OFTO) assets. These assets are generally built by offshore windfarm developers but need to be divested after the windfarm has been commissioned. We will continue to develop our tendering regime, with the aim of protecting consumers from exposure to long-term risks, while ensuring value for money.

We expect that offshore wind construction will increase to respond to net zero carbon targets. To maximise the exploitation of offshore assets and generation, while minimising financial and environmental costs to consumers, we will work with government, the Crown Estate, the ESO and industry to develop coordinated solutions for transmission networks linking the windfarms to the onshore grids, while exploring the options for meshed grids rather than radial links. These solutions are likely to become increasingly important in a net zero world. Their potential could enable large-scale decarbonisation at lowest cost, helping us to decarbonise more quickly and efficiently than would otherwise be the case.

Key Milestones before, during and beyond 2020/21

Dec 21	Competition model(s) for onshore networks ready for implementation development completed
2021	Review “end of revenue-stream” issues relating to OFTO licences
2020-2022	Complete OFTO Tender Rounds 5, 6, and launch 7

Consumer outcomes

We anticipate that these activities will help to deliver: lower consumer bills, lower network bills, lower environmental impacts, improved reliability and safety.





Core and Support



Engineering Technical Support and Consultancy

Our in-house engineering specialists will provide ongoing support to policy teams to ensure that network companies deliver effective technical, competitive solutions in a rapidly changing energy system. We will carry out reviews of OFTO, interconnector and network price control submissions, as well as for industry codes and licence modifications. By driving efficiency and effectiveness in this competitive market, we aim to continue to reduce overall project costs, for the benefit of consumers.

Consumer outcomes

We anticipate that these activities will help to deliver: lower consumer bills, lower network bills, lower environmental impacts, improved reliability and safety.





Protecting consumers, especially the vulnerable, stamping out sharp practice and ensuring fair treatment

Retail Markets



Protecting Domestic and Microbusiness Consumers

Protecting consumers in vulnerable situations is core to Ofgem's role. As the market evolves due to decarbonisation, decentralisation and digitalisation, our aim is that it continues to deliver positive and fair outcomes for all consumers, especially the most vulnerable. To reflect this, we updated our [Consumer Vulnerability Strategy](#) in October 2019, which will run until 2025. The strategy looks across all of Ofgem's activities, including competitive retail and network price controls.

As the market undergoes this transition, consumers may choose to engage with a broader range of companies about their energy products, many of which are not regulated under our current regime. We will work with government to consider changes to the regulatory framework to allow us to respond promptly to any emerging consumer protection issues.

Default and prepayment tariff caps continue to protect over 15 million households, ensuring they are not overcharged for the energy that they use. We will continue to update these caps every six months in line with external costs, and will monitor suppliers' compliance against them, in line with our obligations. In 2020, we will conduct a first review of whether the conditions exist to enable us to recommend that the default tariff price cap be lifted.

During the period, we will develop a successor regime to the current default tariff price cap, which must expire no later than 2023. This will include conducting engagement trials with consumers and ensuring that regulations and market rules keep pace with energy market developments.

We will also continue to take steps to better understand the issues faced by the UK's five million microbusiness consumers, so that they are able to access a competitive retail market and secure adequate levels of consumer protection.





➔ Key Milestones during and beyond 2020/21

Consumer Vulnerability Strategy 2025

Apr 20-Mar 21	Create analytical framework to assess effects of policies
	Strengthen rules to protect consumers on meters from self-disconnection
	Update the “ability to pay” principles and provide targeted support
	Propose a “vulnerability principle” for gas and network companies

Strategic review of microbusiness retail market reform

Apr-Jun 20	Authority decision on microbusiness action plan
Beyond	Microbusiness action plan implementation

Consumer outcomes

We anticipate that these activities will help to deliver: lower consumer bills, better quality of service, better social outcomes





The Energy System



Ensuring System Stability and Security

Black start is the process used to recover from an event which results in the full or partial shutdown of the transmission system. We will continue to play an active role in the regulation of black start to ensure that GB consumers have the right level of protection. We will assess the cost incurred by the ESO in regard to the delivery of value for money to consumers. We will also review the ESO's plans on how it prepares for such events. In doing so, we will work closely with the Department for Business, Energy and Industrial Strategy (BEIS) so that coordinated policies are developed to reflect the value to consumers of this protection.

Following the establishment of our Cap and Floor regime for new investment in electricity interconnectors, we will continue to work with developers to deliver regulatory approval for new interconnector links, to increase the capacity and security of supply for GB's wholesale electricity market. Additional capacity to new connecting markets allows for the import of cheaper and cleaner power, reducing both its wholesale and retail market price. As such, we will also consider the extent to which there is further consumer value in additional interconnection in the future, taking into account the impact of the UK's planned exit from the European Union (EU), and consider the means by which new interconnections may be incentivised.

It is important that any future trading arrangements and relationship with the EU supports competitive markets and is compatible with our regulatory regime.

To support this, we will continue to:

- provide expertise to government to shape the UK's future energy relationship;
- facilitate our energy transition through implementing flexible cross-border electricity market arrangements; and
- work with European partners to ensure that congestion and consumer costs are minimised and that security of supply is protected.

The GB Capacity Market is intended to incentivise investment in more sustainable, low-carbon electricity capacity at the least cost for energy consumers, and is needed to help secure electricity supplies for the future. Ofgem will continue to play an important role by:

- making determinations on disputes and providing scrutiny and challenge to achieve effective power capacity procurement; and by
- making decisions on changes to the Capacity Market rules, to oversee the effectiveness of the Market and to set revenues and incentives for the ESO.

Key Milestones before and during 2020/21

2020

Authority decision on Capacity Market rule change process





Competent Authority Regulation

In May 2018, Ofgem and BEIS became the joint Competent Authority under the Networks and Information Systems Regulations 2018, which implement the 2016 EU Directive on the security of network and information systems. The NIS Regulations impose duties on Operators of Essential Services (55 identified for Downstream Gas and Electricity at publication) and give us powers and responsibilities to ensure that the operators meet those duties, including cyber security.

Through activities under the NIS Regulations, our goal is to increase the over-all cyber security and resilience of these service providers, in relation to the energy network and information systems that support their delivery of these essential services. Our vision is that the operators demonstrate control improvement and risk reduction for their systems and services. Competent Authority activities are delivered under three main areas: Advisory; Assurance; and Research and Development (R&D).

➔ Key Milestones before, during and beyond 2020/21

Dec 19-Apr 20	Advisory: RIIO-2 determinations / decision recommendations
Jul 20	Advisory: Develop cyber resilience guidelines
Dec 19-Sept 21	Assurance: Develop and implement inspection framework
Dec 19	R&D: Develop cyber assurance standards
Jun-Sept 20	R&D: Report on system modelling, proactive discovery and architecture guidance

Consumer outcomes

We anticipate that these activities will help to deliver: lower network bills, lower environmental impacts, improved reliability and safety.





Core and Support



Monitoring, Compliance and Enforcement

Through our ongoing monitoring of the retail and wholesale markets, we will maintain an evidence-based understanding of the markets that we regulate. We will monitor evidence and trends on the health of individual energy suppliers and develop the market intelligence needed to understand the operation of the wholesale market, including the conduct of individual market participants.

We will continue to publish a range of indicators and develop a wider picture of both the retail and wholesale markets to inform our policy development.

We may intervene in the retail market to protect consumers when energy suppliers do not comply with our regulations and where appropriate, we will ensure that consumers are compensated. Our enforcement activity, including under the Regulation on Wholesale Market Integrity and Transparency (REMIT) will continue to act as a credible threat across the wholesale energy market, which will help us to drive up levels of compliance and confidence in the market. In September 2019, we made our first finding for a breach of REMIT regulations¹.

We will continue to protect consumers against non-compliance for new products and services, including those enabled by data access and smart meters. In addition to carrying out our core enforcement activities, we will also respond to potential changes in regulation arising from NIS Regulations, third party intermediaries, heat and heat network regulation and regulated asset base model regulation as necessary.



¹ [Engie Global Markets breach](#)



Retail Policy and Compliance

During 2019, we continued to see failures of suppliers in the retail energy market, which required us to step in and appoint “suppliers of last resort” to provide affected consumers with a stable supply of energy. In October 2019 we published our [Supplier Licensing Review](#) consultation, with a view to introducing new ongoing requirements and market exit arrangements. We will continue to monitor and engage with energy suppliers and ensure that we are well prepared to take action to protect consumers where necessary. We will also continue to refine our processes based on learnings from market exits and work with BEIS to consider possible changes to legislation.

We will continue to carry out our statutory duty to review and make decisions on energy code modifications and continue to oversee and approve annual tariff caps for gas metering by network companies. Effective governance of the codes contributes to a better functioning energy system, which in turn delivers good value energy to consumers, facilitates decarbonisation and ensures energy supply reliability. As an exemplar and potential stepping stone towards greater code reform being considered in our joint work with BEIS, we intend to create a new Retail Energy Code to rationalise codes for the retail energy market and bring them under innovative governance that is more open to innovation and challenge.



Key Milestones before, during and beyond 2020/21

Mar 20	Consultation on licence changes under the Supplier Licensing Review
Apr-Oct 20	Implementation of new ongoing and exit requirements
Jan 21	Implementation of remaining changes under the Supplier Licensing Review
Apr 21	Retail Energy Code in full operation





Wholesale and System Policy and Compliance – Ensuring Continuing Value for Consumers

Through our monitoring of the wholesale markets, our aim is for customer harm to be minimised, and that identified harms can be put right quickly through effective casework. In the light of the recent suspension of the Market Making Obligation, we will continue to monitor liquidity and consider potential action if evidence suggests that this would be in the interest of consumers.

As well as developing new price controls (see page 7 and 8) we will continue to monitor the four price controls that are already in place, to ensure that existing policy is having its desired effect. During the period, our gas transmission and distribution and electricity transmission price controls will come to an end. Our electricity distribution price control will continue until 2023. We will close these controls out by considering if any adjustments need to be made to network allowed revenues, to take full account of the delivery of outputs during the RII0-1 framework period. For instance, where networks have fallen short of their committed targets, we may use this close-out process to claw back funding for consumers.

In addition, we will continue ongoing activities to:

- Issue decisions on industry code, modification proposals, determinations and derogations for electricity and gas connection and network charging.
- Monitor and carry out compliance and enforcement activities, issue code modifications and manage relationships with system operators.

➔ Key Milestones beyond 2020/21

2022	Gas and electricity transmission price control close down
2022	Gas distribution price control close down

Consumer outcomes

We anticipate that these activities will help to deliver: lower consumer bills, lower network bills, lower environmental impacts, improved reliability and safety, better quality of service, better social outcomes.





Decarbonising to deliver a net zero economy at the lowest cost to consumers

Retail Markets

Smart Metering

Smart meters are anticipated to bring net benefits to consumers, businesses and the nation as a whole, which are projected to be worth £6 billion up to 2034². They are expected to help decarbonise the energy sector, enable energy suppliers to offer new products and services to customers and allow consumers to take control of their energy consumption. They are an important feature for modernising the retail energy market. Through our smart metering activities, we are helping consumers to manage and reduce their energy costs, while laying the foundations for a net zero carbon future.

As part of our smart metering oversight work, we will continue to monitor the activities of both the Data Communications Company (DCC) and energy suppliers. The DCC is a monopoly licenced to provide GB-wide smart metering communications services, and our focus will be on both the efficiency of DCC costs and the quality and reliability of DCC services, through the application of price control and incentive arrangements. Energy suppliers are responsible for installing smart meters for their customers, and we will continue to monitor their progress in delivering installations and the quality of the experience that they offer their customers.

Our market-wide settlement reform builds on the opportunity provided by the smart meter rollout. It will place incentives on electricity suppliers to develop new tariffs and services which will help customers move their consumption to times when electricity is cheaper to generate or transport. We expect this to enable significant benefits for consumers and the energy system as a whole.

Key Milestones before and during 2020/21

Feb 20	Authority decision on DCC price control for the 2018/19 year
2020/21	Review DCC Operational Performance Regime
Jul-Sept 20	Decision on market-wide settlement reform
Oct-Dec 20	Implementation of market-wide settlement reform

Consumer outcomes

We anticipate that these activities will help to deliver: lower consumer bills, better quality of service, better social outcomes.

² BEIS, Smart Meter Roll-Out Cost-Benefit Analysis (2019), p.63





The Energy System



Energy Network Reforms

To meet the demands of the future energy system, we will continue to make changes to rules which underpin industry access to electricity networks and the charges faced for using the system through our two closely linked Significant Code Reviews (SCR) – the Access and Forward-Looking Charges SCR and the Targeted Charging Review (TCR) SCR. We will consult on a proposed methodology for electricity distribution as part of the development of our RIIO-2 framework, in order to create a more flexible and dynamic electricity network by 2023.

We will continue to align our Access reforms with our TCR. Our aim is to allocate residual charges in a fairer way, save money for consumers through efficient use of the system and help facilitate decarbonisation. Following our TCR [decision](#) in November 2019, we will take an oversight role while industry develops detailed changes to the relevant codes.

For gas networks, we are consulting on major changes to the gas transmission charging arrangements, which will remove significant distortions and implement new legislation on gas tariffs.

In addition, through our ongoing code modification and charging decisions, we will continue to consider how the electricity and gas markets can work efficiently to deliver a fairer market price for consumers and a level playing field for shippers, suppliers and other market participants.

➔ Key Milestones during and beyond 2020/21

Jul-Sept 20	Authority decision for consultation on the Access SCR
Jan-Jun 21	Final Authority decision on the Access SCR
Apr-Sept 20	Authority approves code changes to implement TCR
Jul-Sept 20	Final Authority decision on changes to gas transmission charging (UNC0678)
Beyond	Authority approves code changes to implement Access SCR





  **Decarbonising Heat and Transport**

Heating homes and businesses currently creates around 38% of all carbon dioxide emissions in the GB market, with 77% of that demand being met by gas. Gas fuelled heating is the cheapest option for most buildings, which means decarbonising will have a significant effect on the gas network and market if carbon emissions from the gas sector are to be eliminated.

Alongside plans to develop a pathway to decarbonise GB heat requirements, we are currently developing an approach to work with a wide range of stakeholders to understand the impact of changes to the gas network, as part of our approach to supporting decarbonisation (see page 23). We are conscious of the Competition and Market Authority's proposals that heat networks should be regulated by Ofgem, and are supporting BEIS to develop their thinking on heat network regulation and related consumer protection that could see such networks becoming a regulated part of low-carbon heating solutions for the future.

A second large source of greenhouse gas emissions in the GB market comes from transport, accounting for 27%. Reaching net zero by 2050 will almost certainly mean abandoning all carbon-based fuels. Research suggests that although energy demand has fallen by 12% since 2010 to around 50 terawatt hours (TWh), a widespread switch to electric transport could increase electricity demand by 19 TWh by 2030³, which would be a significant increase to required network capacity. As part of our developing Decarbonisation Strategy, we will seek to understand how regulatory approaches could incentivise a sustainable transition.

   **Achieving Net Zero Through Wholesale Markets**

Energy production in the GB market has seen a 64% reduction in carbon emissions since the 1990s, which is a significant step in the direction of net zero. However, industry analysis suggests that for a low cost pathway to be established, we will need to increase our renewable production by a factor of four⁴. We will continue to work with BEIS on how the wholesale power market can deliver next zero objectives, and explore whether the Capacity Market needs reform given the net zero pathways. We also expect to further our work looking at barriers to the growth of low carbon flexibility technologies.

We will also work with BEIS to assess a framework that would allow for new nuclear power to be delivered under a regulated asset base (RAB) financial model, which could also apply to all low carbon technologies. Should this policy option be advanced, Ofgem could play a role in developing a RAB regulator regime and specific regime for individual licence holders.

 **Key Milestones during 2020/21**

Apr-Jun 2020

Issue a call for evidence on barriers to growth of low carbon flexible technologies

Consumer outcomes

We anticipate that these activities will help to deliver: lower environmental impacts, better social outcomes.

³ National Grid, Future Energy Scenarios (2018), p. 72

⁴ Committee on Climate Change, Net Zero: The UK's contribution to stopping global warming (2019), pp. 96, 140





Core and Support



Renewable Energy and Social Scheme Administration

Ofgem administers a number of renewable energy and social schemes on behalf of government that have helped to facilitate the beginning of decarbonisation in both power and heat, and will continue to support generation in the coming decades. They also support those living in, or at risk of living in fuel poverty through energy efficiency measures in their homes, and energy bill rebates through the Warm Home Discount.

In 2018/19, accredited generators from our Renewable Obligation and Feed-in-Tariff (FIT) schemes made up almost 30% of all generated renewable energy output in the UK, with a combined value of £6.7billion. The FIT scheme in that year generated 6.02 gigawatt hours (GWh) of electricity from its renewable energy installations.

The Energy Company Obligation (ECO) scheme continues to reduce carbon emissions and tackles fuel poverty, by obligating suppliers to promote energy efficiency measures that heat the homes of vulnerable and low income households. Through the life of ECO2, the scheme contributed savings of more than 27 metric tonnes of carbon dioxide.

While the majority of our current scheme portfolio will cease to be open to new applications during this period, we will continue to accredit applications that are submitted before closure dates (as set out below). We will, however, continue to administer the ongoing servicing requirements for the schemes to play our part in delivering a net zero carbon economy during this period.

Scheme Status	Scheme lifetime		
	2019/20	2020/21	2021/22
New - Jan 2020	Smart Export Guarantee Tariff (SEG)		
Open to Mar 2022	Energy Company Obligation (currently ECO3)		(Payable for 7 years)
Open to Mar 2021	Domestic Renewable Heat Incentive (RHI)		(Payable for 20 years)
	Warm Home Discount (WHD)		
Closed Mar 2019	Feed-in-Tariff	(Payable for 20 years except solar PV (25 years if installed before 1 Aug 2012) and micro-CHP (10 years))	
Closed Mar 2017	Renewable Obligation (including Northern Ireland)	(Differing grace periods – payable for 20 years)	
Closed Feb 2016	Northern Ireland RHI	(Payable for 20 years)	

Key Milestones during and beyond 2020/21

2020-22	Administer the renewable energy and social schemes
	Tackle unethical behaviour, fraud and non-compliance
	Modernise our registers
	Develop new decarbonisation schemes





Approach to Supporting Decarbonisation

In June 2019, the UK government committed to the goal of achieving a net zero carbon economy by 2050. In order to deliver this commitment, our Authority requested a review of what net zero delivery would mean for Ofgem's work programme.

During 2020, we will set out Ofgem's approach to decarbonisation, and how we will use our role to enable the most effective transition to net zero carbon at the lost cost to consumers. While much of our existing work already delivers towards our decarbonising objectives, we will consider how we can further increase the pace and cost effectiveness of the transition. Issues such as how and when electric vehicles owners charge their cars and whether they use their batteries for distributed grid storage will impact on the overall system, and therefore its costs.

To enable the most efficient transition at the lowest cost, we will be:

- take an independent view on plausible pathways to net zero and their impact on consumers;
- engage with and understand the needs of consumers;
- develop tools and analysis to help inform decision making;
- work effectively with stakeholders; and
- choose effective and appropriate regulatory tools to respond to policy questions.



Consumer Insights

The roadmap to decarbonisation will require the involvement of consumers. We will continue to use our consumer research tools, including our Consumer Panel to engage the public effectively, ensuring that the consumer voice is heard and acted on. We aim to facilitate the necessary behaviour change by designing and trialling behavioural interventions to encourage consumers to make choices that support decarbonisation.

Consumer outcomes

We anticipate that these activities will help to deliver: lower environmental impacts, better social outcomes.





Our Foundations

In addition to setting out the strategic objectives for Ofgem's regulatory policy activities, our Strategic Narrative document also challenges our senior leadership team to build our foundations to continue to be a fit-for-purpose regulator in a rapidly changing energy market.

Ofgem currently works within a well-established team and hierarchical structures. In developing this Forward Work Programme, we have considered not only how we can best deliver our strategic objectives, but also the best way we can structure our work and what tools we need to continue to be an effective regulator.

Our aim for the period of the work programme is to establish a more project-based approach within less rigid structures. Teams will be formed and reformed more often to draw on the specialist skills of our colleagues, and will work in multi-disciplinary ways across our offices in Glasgow, Cardiff and London. We want these agile teams to operate in a more decentralised way with more autonomy, knowledge sharing and joint decision-making.

Central to this change is one common factor: how we receive, retain, process and use data.

Bellow we describe how Ofgem will support agile, data and evidence-driven working to help all colleagues to effectively plan and structure their work. Also, how will we gather, store, use and share data to effectively deliver our remit as a regulator, as we continue to transform with the changing energy market.

Data, Digital And Technology And Cyber Security Strategy Development

The energy system has modernised and continues to transition to an increasingly digitalised marketplace. Data and digital services are fundamental to how we all make decisions as individuals, as private enterprise and as a society. These include data and digital driven agendas such as decarbonisation, the protection of vulnerable customers' data and how we can encourage innovation and competition within industry.

Ofgem's vision is to become an adaptive, digitally enabled and data-driven regulator that will facilitate a secure, resilient and modern energy market. To realise this, we are developing a strategy for Data, Digital and Technology (DDaT) and Cyber Security, to modernise and decarbonise our energy system, though an integrated approach to digital and data-driven technology. A consultation on this strategy will be published in in early 2020.

Our draft DDaT and Cyber Security strategy will aim to address our three strategic objectives as follows:

Enabling competition and innovation

We will review how we can best facilitate the emergence of the digital energy market. We expect digitalisation to be a key enabler to innovation in the sector, for example, in the flexibility markets, customised tariffs and the choice of infrastructure for generation and storage on the grid.





Protecting consumers, especially the vulnerable

Our aim is for data to be made available where possible, including moving towards an approach where all data is presumed open so that it is available and accessible unless there is a good reason for it not to be. This will have the effect of data supporting consumers directly, as they will be able to control its use and make effective decisions about their personal energy choices. Better use of data will also help Ofgem to increasingly target our regulatory policies and responses, to ensure that consumers are adequately protected.

Decarbonising to deliver a net zero economy

We want to be able to assist in the development of market-driven solutions, ultimately reducing burden and increasing efficiency in the market operation as we transition to net zero. Better use of data can help enable delivery of those solutions including across markets. Data is imperative to the measurement of emission levels and of the effectiveness of opportunities to reduce them. While data aids decarbonisation we will also aim to improve the cyber security and resilience in the downstream gas and electricity sector to protect the supply of energy for consumers through our Competent Authority remit (see page 15).

In our planned DDaT and Cyber Security strategy, we will set out how we can modernise energy data. We intend to maximise the use of common data approaches and best practices, to ensure that our regulation is clear, simple and transparent. This will mean working collaboratively with industry, and taking a leadership role to provide a clear direction about changes to our regulatory approach. Consumers and their needs will be at the heart of this, with data enabling greater integration of the retail, wholesale and systems elements of the energy market. Integration of data will also be central for us to develop a broader, strategic view such as how the electricity, heat and transport sectors can work more effectively together.

Evidence for effective decisions

Ofgem will continue to operate a dedicated internal function to provide analytical advice to all policy teams and put in place analytical frameworks to ensure that decisions made by our Authority are supported by robust evidence.

We will also continue to develop, publish and communicate data and analysis that provides independent, trusted and reliable information to help stakeholders understand developments in the energy sector and respond to them.

During the period, we will continue to provide an assessment of how well the energy market is working for consumers in terms of competition, affordability, decarbonisation, security of supply and networks.

We will continue to use our expertise in social research and behavioural science to ensure that policy decisions are underpinned by robust evidence on consumers' needs and behaviours. Where possible we will take a 'people first' approach, ensuring that behavioural considerations are addressed at embryonic stages of policy formulation.

We will also review and update Ofgem's policy on licensees' company costs and revenue reporting, to ensure that we can effectively monitor profitability in the energy market and that the policy is fair to those required to report to us. Since this policy was put in place in 2009, the structure of the retail energy market has changed significantly, with market share of the six largest suppliers now lower than 70%. In addition, vertical integration is no longer a significant feature in the wholesale-retail market. Following a public consultation, we will consider what changes should be made to this policy, to make it more effective and proportionate.





Responding to risk

In planning our Forward Work Programme, as well as with our current activities, we continually assess potential benefits and risks to consumers and the implications for our regulatory policy.

As we cannot operate without taking risk, we have established a risk appetite as a part of our management framework and continue to develop our horizon scanning activities. We recognise that systematic and proportionate risk management is an effective means of mitigating risks and exploiting opportunities for current and future energy consumers.

In 2020, we will consider how we can refresh this approach to risk management to ensure that we are maximising our ability to deliver our three strategic objectives.





Reducing Burdens

Each year, we set out how we intend to simplify our regulatory approach, with the aim of reducing burdens, and to operate in a more efficient, effective way. In developing this consultation document, we have begun the process of formulating our simplification plan for 2020/21 that we will include our published Forward Work Programme. That plan will also include details of what simplifications we implemented during 2019/20, and the outcomes they achieved. Simplifications currently planned for 2020/21 include:

Enabling competition and innovation which drive down prices and result in new products and services

- Identifying and reducing barriers to market entry, through our Innovation Link service.
- Collaborating across Ofgem to provide engineering solutions for technical activities.
- Working with experts, Ofwat and across Ofgem to share best practice for price control development (including incentives) and implementation.
- Collaborating with regulators, governments, the ESO, the Crown Estate and the oil and gas industry to develop efficient solutions for OFTO, interconnector and large onshore transmission investment projects.

Protecting consumers, especially the vulnerable, stamping out sharp practice and ensuring fair treatment

- Working with regulatory counterparts across Europe to ensure security of supply and stability for energy following the UK's planned departure from the European Union.

Decarbonising to deliver a net zero economy at the lowest cost to consumers

- Working closely with government and industry partners to optimise technical options, analysis and design work for the market-wide settlement reform programme.

Our foundations

- Developing an agile, project-based approach to working, to make best use of colleague expertise and resource.
- Implementing our DDaT and Cyber Security strategy to become an adaptive, digitally enabled and data-driven regulator, that asks industry for less data and it uses more effectively.
- Implementing principle-based code modifications that reduce burdens on industry, while ensuring that consumers remain adequately protected.
- Continuing to learn and respond to monitoring, compliance and enforcement casework data.





Our finances

HM Treasury provided Ofgem with a two-year budget settlement, following the Spending Review, which was completed in September 2019.

Increases were provided to Ofgem's resource departmental expenditure limits, which are obtained from fees charged to the energy industry and bilateral agreements with BEIS, for environmental and social schemes administration delivery funding allocation. An increase was also provided for Ofgem's capital allocations, to reflect our planned increased presence at our Glasgow office.

Conditions set out in our settlement, include:

- playing a key part in decarbonisation and regulated asset base financial modelling;
- efficiency and value for money in the provision of our public services; and
- considering impacts on our decisions on all of the nine legally protected characteristics.

Below is an estimate of the overall expenditure which the Authority expects to incur in 2020/21 in the exercise of its functions. Expenditure in 2021/22 will be subject to a further government Spending Review in 2020.

£m total budget	Allocated 2019/20	Allocated 2021/22
Total expenditure	£105.5m	£107.3m

