ofgem

Making a positive difference for energy consumers

Report

Great Britain and Northern Ireland Regulatory Authorities Reports 2020

Publication date:	31 July 2020	**Contact:**	Caitlin Bromfield, Analyst Catherine Contiguglia, Senior Policy Manager
		Team:	Wholesale Markets
		Tel:	020 7901 3169
		Email:	Caitlin.Bromfield@ofgem.gov.uk Catherine.Contiguglia@ofgem.gov.uk

Regulatory Authorities Report pursuant to section 5ZA of the Utilities Act 2000 and section 6A of the Energy (Northern Ireland) Order 2003:

The Great Britain (GB) report covers:

- Developments in the GB energy markets in the calendar year 2019 and the first six months of 2020. In some cases, data is only available for a subset of this period (ie the 2019 calendar year only). Where this is the case, it is clearly stated.

- The regulation and performance of the GB electricity and gas markets along the themes of network regulation, promoting competition and security of supply.

- Our compliance with the Electricity and Gas Directives on consumer protection and dispute settlement. Since GB energy markets have been fully liberalised and the regulatory structures in place for a number of years, this report is intended as an updated version of the submissions made since 2007. In accordance with the structure agreed by the Council of European Energy Regulators (CEER), this report includes references to compliance with the Clean Energy Package.

Finally, for further information on Ofgem's wider activities, please consult our Annual Report. The 2018-19 Ofgem Annual Report is available at the link below.[1]

Legal basis

All National Regulatory Authorities (NRAs) are obliged to report annually to the European Commission, in accordance with Directives 2009/72/EC (Electricity Directive) and 2009/73/EC (Gas Directive). The structure of the report is based on that agreed by CEER.

Ofgem is the GB Office of Gas and Electricity Markets. It is governed by the Gas and Electricity Markets Authority (the Authority). The terms 'the Authority', 'Ofgem', 'us' and 'we' are used interchangeably in this document. The Northern Ireland National Report, from the Northern Ireland Utility Regulator, is in the second section of this United Kingdom (UK) Report.

As the NRA for GB, Ofgem's above annual reporting requirement is specified in section 5ZA of the Utilities Act 2000. The Utility Regulator's equivalent requirement is specified in section 6A of the Energy (Northern Ireland) Order 2003.

Definitions

References to the 'Electricity Regulation', unless otherwise specified, refer to the Regulation on the internal market for electricity (EU) 2019/943 which replaced the Regulation (EC) No 714/2009 and entered into application on 1 January 2020. The term 'Electricity Directive' is used throughout the report to refer to the Electricity Directive 2009/72/EC. The term 'Gas Directive' is used throughout the document to refer to the Gas Directive 2009/73/EC.

Contents

1 Chair's foreword ... 4

2 Main developments in gas and electricity markets... 7
2.1 Evaluation of the market development and regulation ... 7
2.1.1 Investment ... 7
2.1.2 Wholesale markets ... 10
2.1.3 Retail markets ... 13
2.1.4 Compliance and enforcement ... 16
2.2 Report on the implementation of the Clean Energy Package ... 18

3 The electricity market ... 19
3.1 Network Regulation ... 19
3.1.1 Unbundling ... 19
3.1.2 Technical functioning ... 20
3.1.3 Network tariffs for connection and access ... 28
3.1.4 Cross-border issues ... 32
3.1.5 Security and reliability regulation ... 41
3.1.6 Monitoring of supply and demand ... 45
3.1.7 Implementation of Network Codes and Guidelines ... 46
3.1.8 Compliance ... 51
3.2 Competition and market functioning ... 64
3.2.1 Wholesale markets ... 64
3.2.2 Retail markets ... 75
3.2.3 Consumer protection and dispute settlement for electricity ... 100

4 The gas market ... 115
4.1 Network regulation ... 115
4.1.1 Unbundling ... 115
4.1.2 Technical functioning ... 118
4.1.3 Network and LNG tariffs for connection and access ... 121
4.1.4 Cross-border issues ... 126
4.1.5 Compliance ... 129
4.2 Competition and market functioning ... 132
4.2.1 Wholesale markets ... 132
4.2.2 Retail markets ... 138
4.2.3 Consumer protection and dispute settlement ... 148
4.2.4 Security of supply ... 148

1 Chair's foreword

The past year in Ofgem has been an exciting one dedicated to and shaped by change. Internally, we welcomed Jonathan Brearley as our new Chief Executive, taking over the post from Dermot Nolan, who led Ofgem since 2014.

The year began with a major change when the UK left the EU on 31 January and entered into the transition period where we continue to be subject to EU rules. Negotiations to determine the future relationship between both parties are currently underway. While we cannot predict the final outcome of these negotiations, we are committed to working with our fellow regulators in Europe and to act in the spirit of cooperation.

COVID-19 has undoubtedly presented a serious and unexpected challenge on a national and international scale. Our response has been to take a flexible approach to make sure our overriding objectives of protecting consumers, ensuring secure energy supplies, and maintaining the safety of consumers and the workforce are upheld. As we transition to a new phase of response, our policies remain focused on allowing companies to meet the needs of consumers – especially those in vulnerable situations - as well as on how to support a green post-COVID recovery.

In the midst of these changes, our focus over the past months has been setting out our action plans to support the urgent call for achieving net zero carbon emissions. In June 2019, the UK Parliament committed to reducing greenhouse gas emissions to net zero by 2050. In February, we released our 'Decarbonisation Action Plan' to set out actions that we will take in the next 18 months to begin our next steps in the journey to net zero.

We were also able to announce a number of landmark achievements over the year. Our investigation of the 9 August 2019 power cut that impacted supply for over 1 million consumers resulted in voluntary payments from Hornsea One Ltd, Little Barford and UK Power Networks into the Voluntary Redress Fund, and helped inform our review into management of Electricity System Operators. Then in April, we imposed a record fine of £37.2m on InterGen for a breach under REMIT, sending a strong message that we will not tolerate wholesale market manipulation.

A large amount of our work is influenced by developments in Europe. We are working with colleagues in the Department for Business Energy and Industrial Strategy (BEIS) to implement the Clean Energy Package. Over the last year, we have also continued to work towards, and delivered the methodologies and decisions required for, implementing European network codes and guidelines on Forward Capacity Allocation, Capacity Allocation and

Congestion Management. We also continued our work to implement the System Operation Guidelines Regulation, the Emergency and Restoration Code and the Electricity Balancing Guidelines in GB.

Under the cap and floor regime, IFA2 and NSL interconnectors are anticipated to be operational by 2020 and 2021, respectively. In July 2019, engineering, procurement and construction contracts were awarded to Viking Link, and construction is expected to be completed by the end of 2023. The ElecLink interconnector, which was granted an exemption in 2014, is under construction and is expected to be operational in 2021.

During 2020, we are also undertaking a review of GB System Operation to assess whether the System Operator has the right governance framework in place to deliver the UK's net zero emission target at lowest cost to consumers. We expect to complete and publish the review this year.

We have continued to work on setting the RIIO-2 price controls. The current RIIO-1 price controls are due to be replaced by the RIIO-2 price controls for gas and electricity transmission and gas distribution network companies in 2021, and for electricity distribution network companies in 2023. Between January 2019 and July 2020, we published decisions on the methodology we will apply for setting the RIIO-2 price controls for gas distribution and gas and electricity transmission networks and the Electricity System Operator, as well as a decision on the electricity distribution price control framework.

We published our final decision on the Targeted Charging Review in November, which sets a fixed residual network charge for all households and businesses. These measures will support the energy transition by ensuring the costs of maintaining the electricity grid are spread fairly, even as we move to a more decentralised system.

In the retail space, we advanced a range of work to support an energy transition that serves all consumers. After collecting valuable information from stakeholders via a joint consultation with BEIS on the future energy retail market, we announced earlier this year our plans for supporting retail market innovation. We will facilitate this through the launch of our expanded Innovation Sandbox Service and extending our ability to provide relief from certain supplier obligations for innovators.

Looking forward, we need to consider policy trade-offs, such as how to support decarbonisation in a way that is fair in terms of benefits and costs incurred by both current and future customers. In October 2019, we published our 'Consumer Vulnerability Strategy 2025', describing the outcomes we expect the industry to achieve to ensure vulnerable consumers are not left behind by the pace of change caused by trends in digitalisation, decarbonisation and decentralisation.

To ensure these considerations are also clearly spelled out in all we do, we have updated our guidance on impact assessments, which form a vital part of our policy decision-making process. We set out in more detail how we consider distributional impacts on consumers, and impacts on decarbonisation.

Meanwhile, we also made strides in other areas to ensure protection of consumers. We consulted on proposals to improve outcomes for consumers who self-disconnect and self-ration, and implemented new Guaranteed Standards requiring suppliers to provide consumers with compensation when switches go wrong.

The prepayment meter and default tariff cap currently protect around 15 million households. We will continue to monitor the market and assess whether conditions for effective competition in domestic supply contracts are in place to justify a recommendation to the government to remove the default cap.

Martin Cave

Martin Cave

2 Main developments in gas and electricity markets

Chapter summary

This chapter shows some of the most notable work that we have done since the last Regulatory Authorities Report was published in August 2019. Further information about our activities is in our Annual Report and Accounts 2018-19.[2]

We have grouped the main developments into four areas:

- Investment
- Wholesale Markets
- Retail Markets
- Compliance and Enforcement

We also address the implementation of the Clean Energy Package in Great Britain.

2.1 Evaluation of the market development and regulation

2.1.1 Investment

2.1.1.1 Interconnectors

Interconnectors are the physical links that allow the transfer of gas and electricity across national borders. Our cap and floor regime is the regulated route for electricity interconnector investment in Great Britain (GB) and sits alongside the existing exemption route.

The first interconnector project to be regulated under our cap and floor regime, the 1GW Nemo Link interconnector to Belgium, commenced commercial operations at the start of 2019. In September 2019, we published our decision on the Post Construction Review (PCR) for Nemo Link and set the cap and floor levels.[3] In 2019, we also certified NGNSL and NGIFA2 as Transmission System Operators under the ownership unbundling requirements of the Third Package.[4] The IFA2 interconnector (to France) and the NSL interconnector (to Norway) had

[2] https://www.ofgem.gov.uk/publications-and-updates/ofgem-annual-report-and-accounts-2018-19
[3] Our 2019 decision: https://www.ofgem.gov.uk/publications-and-updates/decision-post-construction-review-nemo-link-interconnector-belgium
[4] Our 2019 certification: https://www.ofgem.gov.uk/publications-and-updates/certification-under-ownership-unbundling-requirements-third-package-decision-gas-and-electricity-markets-authority-national-grid-north-sea-link-limited-and-national-grid-ifa2-limited

their provisional cap and floor levels set at the Final Project Assessment (FPA) and are under construction. They should become operational in 2020 and 2021 respectively.

The Initial Project Assessment stage for our second cap and floor window concluded in 2018. We decided to grant a cap and floor regime, in principle, to three new interconnectors – NeuConnect (to Germany), NorthConnect (to Norway) and GridLink (to France). These projects collectively represent 4.2GW of potential new capacity. In March 2020, the Ministry of Petroleum and Energy (MPE) in Norway announced that they were unable to come to a decision regarding NorthConnect's application. As such, the MPE would require a better understanding of the impacts of the current interconnection that is under construction in Norway before making a decision on NorthConnect's application.

In May 2020, we also decided[5] to change aspects of our electricity interconnector cap and floor regime for the Greenlink and NeuConnect interconnector projects to enable project finance solutions. This was followed by our October 2019 consultation,[6] which provided our minded-to position on changes requested by the developers in relation to the two projects.

The exemption route for new interconnector investment remains available. The ElecLink interconnector project to France (granted an exemption in 2014) is currently under construction. ElecLink is awaiting a decision from the Intergovernmental Commission (IGC)[7] in relation to the necessary safety consents that are required before the project can progress to commercial operations. Aquind, a 2GW interconnector to France, also applied for an exemption in 2017. We agreed with the French regulator, the Commission de Régulation de l'Énergie (CRE), to refer the Aquind exemption request to the Agency for the Cooperation of Energy Regulators (ACER) because we were unable to reach a joint agreement on the decision within the required six-month timeframe. ACER's decision was published in June 2018 and the exemption was not granted. Aquind appealed against this decision to ACER's Board of Appeal, but it was rejected. Aquind have since submitted a challenge to this decision to the Court of Justice of the European Union (EU) and these legal proceedings are still ongoing.

There are three gas interconnectors to GB in operation, including IUK to Belgium, Balgzand Bacton Line Company (BBL) to the Netherlands (NL) and Moffat to the Republic of Ireland. Prior to July 2019, the BBL gas interconnector to NL could only physically transport gas from NL to GB. Technical modifications have been made to allow for reverse physical flows. We

[5] Our May 2020 decision: https://www.ofgem.gov.uk/publications-and-updates/decision-proposed-changes-our-electricity-interconnector-cap-and-floor-regime-enable-project-finance-solutions
[6] Our October 2019 consultation: https://www.ofgem.gov.uk/publications-and-updates/consultation-proposed-changes-our-electricity-interconnector-cap-and-floor-regime-enable-project-finance-solutions
[7] The IGC is the safety authority for the Channel Tunnel in terms of Directive 2004/49/EC on rail safety.

approved a modification to BBL and National Grid Gas's (NGG) interconnection agreement to reflect this change.

2.1.1.2 Offshore transmission owners and tenders

Offshore transmission is needed to connect offshore wind generation. In the reporting period, we continued to manage the offshore transmission competitive tender process to grant licences to operate new offshore transmission assets.

Tender round six began in October 2018, representing over £2.7bn of transmission investment and connecting approximately 2.5GW of offshore wind generating capacity – the biggest tender round to date. We select the most competitive bids from companies to own and operate the links to offshore sites over revenue periods of up to 20/25 years.[8]

Between January 2019 and July 2020, we granted licences in respect of the following tender round five projects:

- The £447m transmission links for the Walney Extension offshore wind farm near Cumbria, United Kingdom (UK)
- The £501m transmission links for the Race Bank offshore wind farm near Norfolk, UK
- The £329m transmission link for the Galloper offshore wind farm located near Suffolk, UK

We have appointed preferred bidders in respect of the following tender round five and six projects:

- The £313m transmission link for the Rampion offshore wind located near East Worthing in Sussex, UK
- The £498m transmission link for the Beatrice offshore wind located near Wick Harbour, UK
- The £1,398m transmission link for the Hornsea Project One offshore wind located in the Hornsea zone in the south North Sea, UK

[8] Licences granted from tender round six onwards will have a revenue period of up to 25 years, licences prior to this are up to 20 years.

2.1.1.3 RIIO (Revenue = Incentives + Innovation + Outputs)

The current set price controls for GB gas and electricity transmission (RIIO-T1) and gas distribution (RIIO-GD1) networks will end on 31 March 2021. The electricity distribution price control (RIIO-ED1) will end on 31 March 2023. Once RIIO-1 ends, Ofgem will need to put in place a new set of price controls, known as RIIO-2.

RIIO is designed to encourage network companies to:

- Put stakeholders at the heart of their decision-making process
- Invest efficiently to ensure continued safe and reliable services
- Innovate to reduce network costs for current and future consumers
- Play a full role in delivering a low carbon economy and wider environmental objectives

In May 2019, we published our RIIO-2 Sector Specific Methodology Decision[9] for electricity transmission and gas transmission and distribution companies.

We also published our RIIO-ED2 Framework Decision[10] for electricity distribution companies in December 2019.

2.1.2 Wholesale markets

2.1.2.1 Creating a more independent, future-proofed system operator

The Electricity System Operator (ESO, also referred to as NGESO) has a central role in our energy system. This rapidly changing system needs an ESO that proactively responds to system challenges and maximises consumer benefits across the full spectrum of its roles. This includes playing a prominent role in the transformation to a low carbon energy system. We want the ESO to work closely with its stakeholders and other energy system parties to ensure there is a coordinated approach to electricity system planning and operation. We also want a more dynamic, flexible ESO that readily responds and adapts to emerging issues and new developments.

---

[9] Our May 2019 decision: https://www.ofgem.gov.uk/publications-and-updates/riio-2-sector-specific-methodology-decision
[10] Our December 2019 decision: https://www.ofgem.gov.uk/publications-and-updates/riio-ed2-framework-decision

We are in the process of designing a dedicated ESO price control for the 2021-25 period, which will come into effect as of April 2021 and will be fundamental to delivering these aims. In 2019, the ESO legally separated from other National Grid group businesses and therefore RIIO-2 will be the first, specifically tailored price control for the separate ESO, in order to reflect its markedly different nature to that of the other RIIO-2 sectors. Our work on the new price control builds on the introduction of the new ESO incentives framework, which we introduced in April 2018, to encourage the ESO to proactively identify how it can maximise consumer benefits across the full range of its activities. This approach moved away from the use of targeted, mechanistic incentives towards a principles-based, evaluative incentives approach. It is designed to increase transparency of the ESO's activities and make the ESO more accountable to its stakeholders across the full spectrum of its roles.

The ESO is responsible for day-to-day system operation, including balancing supply and demand and constraint management. The ESO ensures that supply and demand match through the procurement of balancing services, which includes the accepting of bids and offers from generators and suppliers to either increase or reduce their supply or demand. As the ESO is a legally separate entity within the National Grid group, this helps to reduce the potential for real or perceived conflicts of interest in the ESO's activities and increase its independence from National Grid Electricity Transmission (NGET). Prior to this NGET was the designated System Operator for electricity.

In February 2020, we launched a review of GB system operation to assess whether we have the right governance framework in place to deliver the UK's target set in legislation of net zero emissions by 2050. The review is considering the current and future challenges facing both electricity and gas system operation in the context of decarbonisation and the roles that future system operators will need to perform to respond to the challenges of the net zero target. We expect to publish the report in late summer 2020.

2.1.2.2 Security of supply

Security of supply, in both electricity and gas, is a priority for both Ofgem and the UK government. During the reporting period, work in this area included:

- Managing changes to the Capacity Market (CM) Rules to ensure consumers are protected and objectives delivered
- Delivering our mandatory Electricity Market Reform (EMR) roles: dealing with disputes on Contracts for Difference (CfD) and the CM, publishing reports on NGESO's delivery

of its EMR delivery body role and the operation of the CM, receiving and logging price maker memorandums

- Overseeing the behaviour of participants in the CM and referring to enforcement, and taking part in the government's energy ministry - the Department for Business, Energy and Industrial Strategy's (BEIS) - operational and policy boards

On 15 November 2018, the General Court of the Court of Justice of the EU ruled in favour of Tempus Energy in Tempus Energy Ltd and Tempus Energy Technology Ltd v European Commission.[11] This judgment effectively annulled the European Commission's State Aid approval for the GB CM scheme and a "standstill" period was introduced by the UK government. During the standstill, the Secretary of State postponed the 2018 T-1 Auction for Delivery Year 2019-20, the auction was subsequently held in the summer of 2019, and the 2018 T-4 Auction for Delivery Year 2022-23 was suspended and rearranged as a T-3 Auction in 2020. On 25 January 2019, the Commission appealed the General Court's judgement. On 24 October 2019, the European Commission declared the approval of the CM scheme under EU State Aid rules.[12]

2.1.2.3 Wider European work

Since the referendum by which the UK decided to leave the EU, Ofgem has continued working very closely with the government to provide impartial, expert advice on energy issues. We endeavour to ensure we understand the views of industry and maintain working relationships with our neighbouring regulators.

It is impossible to predict the outcome of the UK's future relationship with the EU; however, Ofgem is committed to a close and collaborative working relationship with our fellow regulators in Europe.

Following the exit of the UK from the EU on 31 January, the UK is no longer a member of ACER. Future participation in ACER is part of ongoing negotiations between the EU and the UK about the Free Trade Agreement. The UK continues to be a member of CEER.

[11] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62014TA0793&from=EN
[12] https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6152

Over the coming years we will continue to act in the spirit of cooperation that we have always tried to bring to our engagement with our European counterparts. We continue to believe that an integrated and liberalised European energy market provides benefits for consumers.

We have continued to plan for the process of implementing the necessary regulatory changes to ensure that the new relationship with the EU is as smooth as possible.

2.1.2.4 Regulation on Energy Market Integrity and Transparency (REMIT)

In September 2019, we published our decision on the investigation into Engie Global Markets (EGM) for breach of REMIT. We found that EGM had breached Article 5 of REMIT. Article 5 provides that "any engagement in, or attempt to engage in, market manipulation on wholesale energy markets shall be prohibited". EGM admitted the breach of Article 5 of REMIT and agreed to settle during the early settlement window and paid a penalty of £2.12m.

In April 2020, we published our decision on the investigation into InterGen under REMIT and the Electricity Act 1989. It was found that over a period of four days in winter 2016, InterGen sent misleading signals to National Grid about how much energy it would supply during peak hours in order to boost profits. These breaches demonstrated weaknesses in InterGen's procedures, management systems and internal controls with respect to REMIT compliance. At the conclusion of the investigation, Ofgem imposed payments amounting to £47.8m (reduced to payments of £37.2m after settlement discount on the penalty levied) on InterGen.

2.1.3 Retail markets

2.1.3.1 Price protection for domestic customers

In January 2019, we introduced the default tariff cap,[13] which provides price protection for domestic customers on default tariffs such as standard variable tariffs (SVTs). This is one of the most significant energy market interventions in recent years and should save approximately £1bn per year for up to 11 million domestic customers who remain on their supplier default or standard variable tariffs. As well as protecting loyal customers, the default tariff cap is designed to ensure domestic customers pay prices that more closely reflect the underlying cost of supplying them energy. Using published methodologies,[14] we update the

[13] https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-decision-overview
[14] https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/default-tariff-cap?page=1

level of the cap twice a year (in February and August to take effect in April and October respectively) to reflect the estimated costs of supplying electricity and gas to homes for that six month period.

The default tariff cap is a temporary measure intended to protect disengaged customers until the right market framework is in place for competition to be effective. In 2020, according to the requirements of the Domestic Gas and Electricity (Tariff Cap) Act 2018,[15] we are carrying out an annual review[16] of the market to assess whether the conditions for effective competition are in place such that the default tariff cap is no longer required. This framework and the result of this assessment will form the basis of our recommendation to the Secretary of State, who will make the decision by 31 October 2020 whether to extend the cap for the following year or not. If the Secretary of State decides to maintain the default tariff cap, we will carry out a further review in the following year. The default tariff cap will cease to have effect at the end of 2023 at the latest.

We also administer a price cap for customers with prepayment meters (PPM cap). PPM customers are often some of the most vulnerable in society. This cap provides price protection for these customers and is set at a level that reflects the estimated costs of supplying energy to a PPM customer. The methodology for this was developed by the Competition and Markets Authority (CMA), and was implemented by Ofgem in April 2017. The CMA further reviewed the cap in the summer of 2019[17] and altered the methodology, largely aligning it with the default tariff cap. The PPM cap provides price protection for a further four million customers who use PPMs. This means around 15 million domestic customers are protected by a direct cap on prices that suppliers can charge.

The PPM cap will cease to have affect by the end of 2020, after which PPM customers on a default tariff would be automatically covered by the default tariff cap. We are currently assessing whether that level of protection is appropriate and if further measures are needed.[18]

[15] https://www.gov.uk/government/collections/domestic-gas-and-electricity-tariff-cap-bill
[16] https://www.ofgem.gov.uk/publications-and-updates/framework-conditions-effective-competition-domestic-supply-contracts
[17] https://assets.publishing.service.gov.uk/media/5d405962e5274a4016893bd0/Final_Decision_PPPC.pdf
[18] https://www.ofgem.gov.uk/publications-and-updates/policy-consultation-protecting-energy-consumers-prepayment-meters

2.1.3.2 Switching programme

Ofgem is leading a major programme to improve customers' experience of switching by designing and implementing a new switching process that is reliable, fast and cost-effective. The aim is to facilitate greater engagement in the retail energy market by increasing customers' confidence in their ability to switch supplier with ease. In addition, the programme aims to foster innovation by revamping the existing arrangements. We envisage that increased switching will exert additional competitive pressure on suppliers, causing them to consider the prices they charge and the services they provide for fear of losing market share.

Over the past year, Ofgem's Switching Programme[19] has entered its "Design, Build and Test" phase. Working with the Data Communications Company (DCC), the organisation that has the responsibility under its licence for procuring and managing the development of the new switching services, we have put providers for the build and integration of the new systems in place and started development and testing. We continue working with industry parties to ensure the industry is co-ordinated in developing, testing and putting in place new systems and processes. We have also launched a new Retail Code Consolidation Significant Code Review (SCR). This SCR, combined with Switching SCR that was already in place, has allowed the development of the Retail Energy Code and drafting for changes to licences to provide the regulatory underpinning for the new switching arrangements.

2.1.3.3 Electricity settlement

Reforming the existing electricity settlement process will attribute the costs of gas and electricity consumption more accurately across the day. This will incentivise suppliers to offer new products and services that will help customers to use electricity at times of day when it is cheaper to generate and transport.

To realise the benefits of the smart meter roll-out more fully, we are seeking to introduce market-wide half-hourly settlement. Over the past year we have made policy decisions on access to data for settlement purposes[20] and on supplier agent functions.[21] In April 2020, we published our draft impact assessment, which included an updated economic assessment.

[19] https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/smarter-markets-programme/switching-programme
[20] https://www.ofgem.gov.uk/publications-and-updates/decision-access-half-hourly-electricity-data-settlement-purposes
[21] https://www.ofgem.gov.uk/publications-and-updates/decision-agent-functions-under-market-wide-settlement-reform

This continued to indicate substantial potential benefits, and we will be making our decision on when and how market-wide settlement reform will be introduced through our Full Business Case due later in 2020.[22]

2.1.3.4 Future supply market arrangements

The 2019 joint BEIS and Ofgem review into the retail energy market outlined our vision for the future energy retail market, the key challenges we need to address and the outcomes we want the energy retail market to deliver.[23] The review considered how the regulatory framework could be changed to better facilitate the launch of products and services in the retail energy market.

More recently Ofgem set out it in its Decarbonisation Action Plan[24] priorities and steps we will take as a regulator to achieve "net zero" at lowest cost. One of those priorities is to accelerate innovation to create innovative products and services that help consumers use energy in ways that supports decarbonisation.

In 2020 we are undertaking a number of initiatives to facilitate this, including launching an expanded Innovation Sandbox Service, and taking steps to ease regulatory barriers for innovative business models.[25]

2.1.4 Compliance and enforcement

In 2019-20 we completed seven investigations, 11 alternative actions and a further 73 compliance cases, resulting in £62.9m in compensation to consumers, or in redress. We also consulted on 14 final orders and issued seven final and four provisional orders, resulting in the recovery of £10.8m. Our alternative action and compliance cases[26] included taking action against Shell Energy, which was charging for paper billing. Following our engagement, Shell removed these charges and updated its bills to reflect the removal of these charges. It also made a payment of £100,000 into the Voluntary Redress Fund in recognition of its failings.

---

[22] We are reviewing the project's timescales in light of the ongoing public health situation.
[23] https://www.gov.uk/government/consultations/flexible-and-responsive-energy-retail-markets
https://www.ofgem.gov.uk/publications-and-updates/flexible-and-responsive-energy-retail-markets
[24] https://www.ofgem.gov.uk/publications-and-updates/ofgem-s-decarbonisation-action-plan
[25] https://www.ofgem.gov.uk/news-blog/our-blog/supporting-retail-market-innovation-net-zero
[26] Compliances cases relate to the work that Ofgem does with suppliers when we become aware of an issue and to prevent this issue causing consumer harm. We work with the supplier to help put things right and how they will ensure the issue does not arise again. Where potential breaches are serious or indicate repeated instances of non-compliance, or where a supplier is unwilling or unable to co-operate with us to put things right, we are more likely to open an enforcement case.

Our compliance and enforcement approach goes beyond simply penalising companies financially. We secured changes to behaviours and processes using our bespoke and more general statutory powers. Following our engagement, we found EPEX Spot SE, a power exchange operating in GB, had abused a dominant position in relation to access to cross-border intraday electricity trading platform between the GB and Irish energy markets. EPEX Spot SE proposed commitments to us to address our competition concerns and submitted a project plan to address those concerns. Epex Spot SE appointed a Commitments Compliance Officer whose function was to monitor compliance with the commitments and the provision of bi-weekly reports to Ofgem. In addition to this, EPEX created and delivered compliance training for all EPEX staff involved. EPEX also carried out a review of its competition law compliance procedures to assess its ongoing suitability.

2.2 Report on the implementation of the Clean Energy Package

The UK entered into the transition period after leaving the EU on the 31 January 2020. During this period, the UK continues to be bound by, and obligated to implement, EU law.

The energy ministry, BEIS, is leading the implementation of the Clean Energy Package (CEP).[27] Ofgem is committed to assisting BEIS to deliver the benefits of the CEP for all consumers.

Ofgem's focus is on the implementation of the Electricity Directive, Electricity Regulation, and the Risk Preparedness Regulation. It also takes into account the ACER Regulation when engaging with ACER and other EU National Regulatory Authorities (NRAs).

At present, Ofgem is working with BEIS towards the transposition of the Electricity Directive by 31 December 2020. Our role is to provide technical expertise to BEIS on proposed legislative and regulatory changes and to work with industry to support implementation. This includes drafting necessary licence conditions and monitoring the evolution of subsequent industry codes. BEIS is leading on any legislative changes required. Licence conditions will be amended via a Statutory Instrument (SI) mechanism, on the basis of the European Communities Act 1972,[28] which allows the UK government to transpose EU law into domestic legal framework. BEIS is expecting to lay the SI in October 2020.

For further information on our European work please see Sections 3.1.4, 3.1.7 and 4.1.4.

[27] The CEP is composed of the following acts: Energy Performance of Buildings Directive 2018/844, The recast Renewable Energy Directive (EU) 2018/2001, The revised Energy Efficiency Directive (EU) 2018/2002, Governance of the Energy Union and Climate Action (EU) Regulation 2018/199, Regulation on risk-preparedness in the electricity sector (EU) 2019/941 (Risk Preparedness Regulation), Regulation establishing a European Union Agency for the Cooperation of Energy Regulators (EU) 2019/942 (ACER Regulation), Regulation on the internal market for electricity (EU) 2019/943 (Electricity Regulation) and the Directive on common rules for the internal market for electricity (EU) 2019/944 (Electricity Directive).

[28] The European Communities Act 1972 can be found at: http://www.legislation.gov.uk/ukpga/1972/68/contents

3 The electricity market

Chapter summary

This chapter details developments in Great Britain's electricity sector during 2019 and the first half of 2020. This is broken down into sections covering network regulation, promoting competition, and security of supply in the wholesale and retail electricity markets.

3.1 Network Regulation

3.1.1 Unbundling[29]

3.1.1.1 Transmission System Operators

Under Article 10(1) of the Electricity Directive, any undertaking that owns a transmission system is to be certified as ownership unbundled before it is approved and designated as a transmission system operator (TSO).

Between January 2019 and July 2020, we have published final decisions to certify six TSOs,[30] (pursuant to section 10D ('Certification') of the Electricity Act 1989 (EA89) and Article 3(2) of Regulation (EC) No 714/2009).

Under Article 10(4) of the Electricity Directive, we have an obligation to monitor the continuing compliance of certified TSOs with the requirements of Article 9. Under Article 11(1), the Authority is to notify the European Commission of any circumstances that would result in a person or persons from a third country acquiring control of a TSO. Between January 2019 and July 2020, we did not carry out a formal review of the certification of any TSOs (pursuant to section 10I ('Monitoring and review of certification') of the EA89).

---

[29] Articles 9, 10, 11 and 26 of the Electricity Directive 2009/72 (the Electricity Directive) and Article 51 of the Electricity Regulation 2019/943 (that replaced Article 3 of the Electricity Regulation 714/2009) outline our obligations in respect of certification of transmission system operators (TSOs) as being ownership unbundled. The Electricity and Gas (Internal Markets) Regulations 2011 and the Gas and Electricity (Ownership Unbundling) Regulations 2014 amended the Electricity Act 1989 (Electricity Act) and the Gas Act 1986 to implement the Third Package, including the ownership unbundling requirements for TSOs and the requirements for Distribution System Operators (DSOs). The Electricity Act includes the requirement for the holders of electricity interconnector and electricity transmission licensees to be certified as independent under one of the grounds for certification in the Electricity Act. The Utilities Act 2000 designates the Authority as the National Regulatory Authority (NRA) for GB, with the responsibility for administering the certification process in GB.

[30] Diamond Transmission Partners Galloper Limited, Diamond Transmission Partners Walney Extension Limited, Diamond Transmission Partners RB Limited, National Grid North Sealink Limited, National Grid IFA2 Limited and Eleclink Limited.

We continue to monitor the certification status of the certified TSOs in Great Britain (GB), including through the review of annual declarations submitted by the relevant entities.

3.1.1.2 Distribution System Operators

Under Article 26 of the Electricity Directive, we have an obligation to ensure that where the Distribution System Operator (DSO) is part of a vertically integrated undertaking, it should be independent at least in its legal form, organisation and decision-making from other activities not relating to distribution.

During the reporting period, we reviewed the information submitted to us by DSOs relating to business independence, financial reporting and output performance. In that context, we were satisfied that the Electricity Directive requirements relating to unbundling were correctly complied with.

3.1.2 Technical functioning

3.1.2.1 Security and reliability standards, quality of service and supply

Transmission

Under Article 37(1)(h) of the Electricity Directive, National Regulatory Authorities (NRAs) must monitor compliance with, and review the past performance of, network security and reliability rules as well as offsetting or approving standards and requirements for quality of service and supply. The National Electricity Transmission System Security and Quality of Supply Standard (NETS SQSS) is a technical standard that licensees are required to comply with.

NETS SQSS contains coordinated criteria and methodologies that transmission licensees and the Electricity System Operator (ESO, also referred to as NGESO) are required by their respective licences to use when planning and operating a transmission system. Any changes to the NETS SQSS is subject to approval by Ofgem.[31] In 2019, we approved two changes to

[31] https://www.nationalgrideso.com/codes/security-and-quality-supply-standards

the NETS SQSS: one in relation to the clarification of the applicability of the N-1-1 Criterion[32] and another in relation to National Grid legal separation.[33]

National Grid Electricity System Operator (NGESO) is responsible for day-to-day electricity system operation, including balancing supply and demand and constraint management. In order to do this, the ESO procures balancing services, which includes the accepting of bids and offers from generators and suppliers to either increase or reduce their supply or demand. The costs NGESO incurs are recovered from users of the system via Balancing Services Use of System (BSUoS) charges.

NGESO, as required by its licence, submits to Ofgem a report on an annual basis called the National Electricity Transmission System (NETS) Performance Report that provides an overview of system security and quality of service and supply.

System reliability

National Grid Electricity Transmission (NGET) is the owner of the onshore transmission system in England and Wales. The onshore system in Scotland is owned by SP Transmission Plc (SPT) and Scottish Hydro Electric Transmission plc (SHE-T), collectively the "onshore transmission operators (TOs)".[34] The onshore TOs are incentivised to maintain a reliable and secure system.

The GB regulatory framework is designed to ensure that the TOs plan and operate a reliable network based on three main building blocks – the NETS SQSS, Network Output Measures (NOMs),[35] and the Energy Not Supplied (ENS) incentive. The ENS incentive was introduced to enhance the existing regulatory and legislative framework by providing a financial incentive to encourage TOs to go above the minimum standards required by the NETS SQSS, and to deliver a higher level of reliability, where it is good value for consumers.

Under the incentive mechanism, network reliability is measured by the total volume of ENS to customers due to loss of supply events. Each onshore TO has an annual ENS volume target and is either rewarded or penalised each year according to its performance against its target. All onshore TOs significantly outperformed their targets in year five (2018-19) of the RIIO-ET1 price control.[36] Since the beginning of RIIO-ET1 in 2013, all three onshore TOs have

[32] https://www.nationalgrideso.com/document/135661/download
[33] https://www.nationalgrideso.com/document/135666/download
[34] In England and Wales, connection voltage up to 132kV is normally owned by the DSO. In Scotland and offshore, the level of 132kV already qualifies as transmission voltage.
[35] This will be known in RIIO-2 as the Network Asset Risk Metric (NARM).
[36] https://www.ofgem.gov.uk/data-portal/volume-energy-not-supplied-electricity-transmission-riio-t1

reduced ENS to a level below their annual target each year, and have therefore received rewards under the ENS incentive each year.

Ofgem opened an investigation into the power outage that took place on Friday 9 August 2019 in England. The aim of the investigation was to establish the circumstances and causes of the outage, the lessons that can be learned to improve the resilience of GB's energy network and to investigate the compliance of the key licensed parties involved with their licence and code obligations. The investigation found that the combined loss of two large generators, as well as the smaller loss of generation at a local level, together triggered the subsequent disconnection, loss of power and disruption to more than one million consumers. Two large power stations, Hornsea One Ltd (co-owned by Orsted) and Little Barford (operated by RWE) did not remain connected after a lightning strike. They have agreed to make a voluntary payment of £4.5 million each into Ofgem's Voluntary Redress Fund.[37]

Key investments in system reliability

Onshore TOs are funded to carry out a number of network investments during the RIIO-ET1 period to maintain and improve the security and resilience of the network. Onshore TOs are expected to manage network risk through the delivery of NOMs. NOMs is the framework that ties the TOs in to the delivery of specified asset interventions (e.g. asset replacements, refurbishments, and network capacity related activities) by linking activities to allowed revenues. NOMs can be considered as a forward-looking indicator of network performance.

Offshore Transmission Owners' (OFTOs) system availability incentive targets are set out in each individual OFTO's licence. The mechanism incentivises the OFTOs to maintain system availability and therefore export capacity available to offshore generators. OFTOs receive financial rewards or incur penalties for performance above or below this target.

Distribution

In GB, licensed electricity Distribution Network Operators (DNOs) and independent Distribution Network Operators (IDNOs) are required to design their networks to meet the requirements of the Engineering Recommendation standard P2/7.[38] This standard sets out system planning and network capacity requirements and details the minimum standards for the security of supply. In the event that a licensee cannot comply with Standard Licence

---

[37] Ofgem's report on the power outage can be found here: https://www.ofgem.gov.uk/publications-and-updates/investigation-9-august-2019-power-outage
[38] http://www.dcode.org.uk/assets/files/Qualifying%20Standards/ENA_EREC_P2_Issue%207_(2019).pdf

Condition (SLC) 24 of the electricity distribution licence (Distribution System planning standard and quality of performance reporting), it can apply to Ofgem for a derogation.[39] In 2019-2020 Ofgem did not grant any new derogations.

The electricity distribution price control, RIIO-ED1, began in April 2015 and will run until March 2023. The revenues that the 14 DNOs are allowed to recover for this period are linked to the delivery of outputs that provide for long-term reliability of the distribution system, minimise the number and duration of interruptions, and ensure compliance with climate change adaptation requirements.

The Electricity (Standards of Performance) Regulations 2015 (SI 2015/699) specify minimum levels of service customers should expect from their DNO. If a company fails to meet a standard of performance, it must make a payment to the affected customer. The standards cover areas such as restoring supply during an unplanned interruption, making and keeping appointments, and voltage quality.

We also have other financial incentives to encourage improvements in performance. The Interruptions Incentive Scheme drives DNOs to reduce the frequency and duration of power cuts experienced by their customers. The number of customer interruptions has fallen by 14% on average since the start of RIIO-ED1, and the duration of interruptions has fallen by 10% on average since the start of the price control.

Innovation

Innovation will be essential for DNOs and TOs[40] to deliver security and reliability of supply at an efficient cost, while dealing with uncertainty. In the RIIO-ET1 price control, we established the Network Innovation stimulus, to help network companies understand what they need to do to provide environmental benefits, reduce costs and maintain security as GB moves to a low carbon economy. The stimulus has a number of different components, including the Network Innovation Competition (NIC), the Network Innovation Allowance (NIA), and the Innovation Roll-out Mechanism (IRM).

The stimulus includes two annual NICs, one for electricity network companies and one for gas network companies. The Electricity NIC is an annual opportunity for electricity network companies to compete for funding for the development and demonstration of new

---

[39] SLC 24.2 of the Standard conditions of the Electricity Distribution Licence.
[40] Onshore TOs and OFTOs

technologies, operating and commercial arrangements. Up to £70m per annum is available through the electricity NIC and up to £20m per annum is available through the gas NIC.

In 2019, we received four submissions for the 2018 Electricity NIC seeking a total of £34.1m. In October 2019, Ofgem decided to fund two of these projects. The successful projects received a total of £14.42m. The 2020 NIC is underway and we are currently assessing the 12 submissions we received on 6 April 2020.[41]

The NIA is designed to fund smaller scale research, development and demonstration projects. The NIA provides each licensee with an allowance to spend on innovation projects in line with the Gas NIA Governance Document and Electricity NIA Governance Document. In 2018-2019, TOs claimed a total of £9.5m under NIA.[42]

The IRM is designed to facilitate the roll-out, in advance of the next price control period of proven innovations, which will provide long-term value for money to consumers. To qualify, roll-outs must deliver carbon and/or environmental benefits and must not provide a commercial return for the licensee within the price control. In addition, the cost efficiencies delivered from rolling out smart grid solutions and wider network innovation from Low Carbon Network Fund trials were reflected in reduced revenues for DNOs in the RIIO-ED1 period.

For electricity transmission, there were two application windows for the IRM, the first one in May 2015, and the second in May 2018. In 2015, we decided to award £24.28m IRM funding to SP Energy Networks to use aluminium conductor composite reinforced (ACCR) solution (the "new conductor") on two circuits in southwest Scotland.[43] Ofgem did not receive any IRM applications in 2018. There are no further windows for transmission licensees to apply for IRM funding in the RIIO-ET1 price control period.

For electricity distribution, there are two application windows for the IRM, the first one in May 2017, and the second one in May 2019. In 2017, we decided to award £8.01m IRM funding to SP Energy Networks for its Dumfries and Galloway Active Network Management scheme.[44] In 2019, we decided to award £15.09m to Electricity North West Limited to fund the roll-out of its Smart Street project.[45]

[41] https://www.ofgem.gov.uk/network-regulation-riio-model/current-network-price-controls-riio-1/network-innovation/electricity-network-innovation-competition
[42] Data for financial year 2018-2019 not yet available.
[43] https://www.ofgem.gov.uk/publications-and-updates/decision-sp-transmission-limiteds-submission-2015-innovation-rollout-mechanism-application-window
[44] https://www.ofgem.gov.uk/system/files/docs/2017/10/final_decision_document_17_oct_2017.pdf
[45] https://www.ofgem.gov.uk/system/files/docs/2019/10/decision_document_-_enwl_irm.pdf

3.1.2.2 Monitoring time taken to connect and repair

Under Article 37(1)(m) of the Electricity Directive, regulators are required to monitor the time taken by TSOs and DSOs to make connections and repairs. Here we report on how we monitored this requirement during 2019.

Transmission

As set out above, NGET is the owner of the onshore transmission system in England and Wales. The system in Scotland is owned by SPT and SHE-T, and the offshore network is owned by a variety of OFTOs.

All customers wishing to directly connect to the NETS will require a contract with the ESO. The process of connecting to the NETS is summarised below:

- Applications for a connection to the transmission network in Scotland and offshore, at voltages of 132kV and above, are made directly to the ESO.
- Once the application fee has been received, the project can be 'clock started' meaning the ESO must offer terms for a connection within three months.
- The ESO, in turn, makes an application to the relevant network company (NGET, SPT, SHE-T) asking it to specify the most economic and efficient design and provide costs for the completion of necessary work.
- The ESO utilises the information received from the network company and produces an offer. The offer includes a contract and details of any onshore construction works needed as a result of the connection.
- Upon receipt of the connection offer, the user has three months to accept or decline the connection offer. Once the offer is signed, the user becomes a contracted customer.

For offshore generators and interconnectors, the connection point is sometimes less obvious because of its distance from the onshore transmission system. The ESO carries out a process called 'CION' (Connection and Infrastructure Options Note) to identify the connection point with the lowest cost.[46]

Each network company is required by its licence to deliver timely connections to the network. For both SPT and SHE-T a timely connections financial incentive is in place under the RIIO-1

[46] Please see the CION Process Guidance Note: https://www.nationalgrideso.com/connections/registers-reports-and-guidance

price control framework, by which companies are financially penalised if they fail to offer terms for connection to its transmission network within the specified period. NGET currently has no direct financial incentive on timeliness of connection offers but it needs to comply with its licence obligations, failing which financial penalties may be levied through enforcement action.

We receive biannual 'Timely Connections' reports. These reports provide us with information on the factors affecting the connection dates offered to generators. This enables us to assess whether any changes to the existing framework are needed. A non-confidential version of the report is available on NGESO's website.[47]

For the latest period, between April and September 2019, 70% of offers in England and Wales met the customer's requested connection date, albeit some were provided with access restrictions, which facilitated an earlier date than would have otherwise been provided. There was an 18% decrease in the offers made by NGESO from the previous reporting period. In England and Wales there continues to be a significant number of flexible connections looking to connect in shorter timescales.

The equivalent percentage for Scotland was 55%. There was a significant decrease in the offers made by NGESO in Scotland.

All OFTOs own and operate the offshore transmission systems, which are built by offshore generators to connect their generating stations to the NETS (the generator build model). As such, there have been no problems under the offshore transmission regime with the time taken to connect during 2019. OFTOs' licences require them to report offshore transmission system performance every quarter. Where an OFTO exceeds the annual availability target, the OFTO is rewarded up to 5% of annual revenue, and where that performance has fallen below the target of 98% availability, the OFTO is penalised up to 10% of its yearly revenue and up to 50% over five years. Where the OFTO is able to demonstrate that performance has fallen as a result of an "Exceptional Event",[48] this period will not count against its availability target. When reviewing Exceptional Event claims, we look at whether the event was beyond the reasonable control of the OFTO and, if so, whether the OFTO has followed good industry practice to manage the impact of the event on the availability of the services (both in anticipation of the event and after the event has occurred). In 2019, system availability on the offshore transmission system was above 98%.

[47] https://www.nationalgrideso.com/document/156646/download
[48] Please see Page 15 of the Generic Offshore Transmission Owner (OFTO) licence for a definition of an 'Exceptional 'Event'.

Distribution

For distribution network reporting, we consider two elements: "time to quote" and "time to connect". DNOs are incentivised to connect customers in a timely and efficient manner through the Time to Connect Incentive, which sets both targets for these two elements. Time to quote is the difference, in working days, between the date the customer applies for a new connection and the date a quotation is issued to the customer. Time to connect is the difference between the date on which the customer accepts the quote and the final connection date (when the connection has been installed, commissioned and left safe).

Historically, we have monitored the time taken by DNOs to provide connection offers and (since 2010) complete the connection. We have also established guaranteed standards for connections that require the DNOs to make compensation payments to customers if the DNO fails to deliver specified connection services within minimum timescales. These standards cover the provision of quotations, the scheduling of agreed dates for works with customers and the completion of works on the dates agreed with customers. Failure to meet these standards on 90% of occasions in each quarter constitutes a breach of the licence. In 2018-2019, all DNOs performed well under the Connections Guaranteed Standards of Performance. All DNOs met or exceeded their internal targets for 2018-19 and received a green RAG status in Ofgem's annual report.[49]

As part of RIIO-ED1, we have a Time to Connect Incentive as mentioned above, and this rewards DNOs if they are able to issue quotes and complete connections (for smaller connection projects) quicker than the target timescales. The companies have also set their own targets for the time taken to connect which they report on annually. All DNOs met their time to quote targets and all but two DNOs met the targets on time to connect new customers to the network.

We also monitor the time taken to repair faults through the Interruptions Incentive Scheme. The time taken to repair has been incentivised as part of the 'customer minutes lost' element of the Scheme. As noted above, the length of time customers are off supply has fallen by 10% since the start of RIIO-ED1.

[49] https://www.ofgem.gov.uk/publications-and-updates/riio-1-electricity-distribution-annual-report-2018-19

3.1.2.3 Prevention of cross-subsidies

Under Article 37(1)(f) of the Electricity Directive, each NRA is required to ensure that there are no cross-subsidies between transmission, distribution and supply activities.

In GB, licensed electricity distribution, gas distribution and transmission network operators (including OFTOs) are subject to licence conditions prohibiting regulated businesses from giving cross-subsidies to, or receiving cross-subsidies from, related undertakings.

Electricity and gas transmission and distribution licences include a requirement for independent auditors to carry out a range of procedures, agreed with the Authority, to provide assurance that obligations to avoid discrimination and cross-subsidies are being respected. We review the auditors' reports and may raise supplementary questions, as appropriate.

The unbundling requirements as described in Section 3.1.1 also provide for greater structural separation of transmission interests from generation, production, and supply interests in order to promote competition in the market and prevent cross-subsidies.

We continue to monitor the interpretation and application of financial transaction requirements including completion at arm's length and on normal commercial terms. This is especially relevant for the terms of loans made to, or by, licensees. Other key risk areas that we monitor are:

- The basis of recharging for services provided at a group level
- The justification for any management fees charged to the licensee by related parties
- The interest rates charged on intra-group loans affecting the licensee

A requirement for licensed entities to have at least two sufficiently independent directors has been in effect since April 2014.

3.1.3 Network tariffs for connection and access

Under Article 37(1)(a), (3)(c), (d), (6)(a), (8), (10), (12), of the Electricity Directive, NRAs are required to fix or approve transmission or distribution tariffs or their methodologies. In this section, we report on our activities related to the regulation of tariffs and network charges (for transmission and distribution) during the reporting period.

Transmission

In GB, users of the electricity transmission system are subject to three types of transmission charges: Connection charges, Transmission Network Use of System (TNUoS) charges and BSUoS charges. For all three charges, the methodologies must be approved by Ofgem, but we do not set or approve the level of individual charges.

Transmission Connection Charges

For the purpose of the GB domestic regime, connection charges relate to the provision and maintenance of connection assets that are solely required to connect a particular user (ie a generator) to the transmission system. The cost of these assets are recovered directly from the user via connection charges that are imposed by the ESO under its connection charging methodology.

TNUoS Charges

TNUoS charges relate to the cost of installation and maintenance of the GB electricity transmission system. The costs are recovered by the ESO under its TNUoS charging methodology. TNUoS charges are recovered from all users of the GB electricity transmission system (excluding interconnectors). Portions of these charges vary by location, reflecting the costs that users impose on the transmission system. TNUoS charges broadly combine three components: local charges (generators only), wider locational charges and residual charges (generation and demand).

BSUoS Charges

The ESO recovers the costs of balancing the system through BSUoS charges, derived from the BSUoS charging methodology that is set out in section 14 of the Connection and Use of System Code (CUSC).

Distribution

The electricity distribution licence requires DNOs to have in force at all times a Use of System Charging Methodology, and a Connection Charging Methodology (collectively known as "the Charging Methodologies"). Both must be approved by Ofgem.

DNOs have developed common approaches to connections charging and distribution use of system (DUoS) charging as part of the Distribution Connection and Use of System Agreement (DCUSA). These common approaches include:

- The Common Distribution Charging Methodology for all customers connected at the lower voltages
- The Extra High Voltage Distribution Charging Methodology for all demand and generation customers at the higher voltages
- The Common Connections Charging Methodology, incorporated into all DNO connection methodologies

Each DNO's connection charging methodology incorporates a company-specific section as well as the common methodology. The licence requires DNOs to comply with their charging methodologies and to publish 'Charging Statements' prepared in accordance with those methodologies except where explicit consent is given by Ofgem.

Section 23 allows us to determine in relation to a broad range of disputes concerning connections under the statutory scheme. SLC 7.12 of the electricity distribution licence allows us to determine disputes concerning whether a DNO has applied charges in line with its Charging Methodologies.

As part of the electricity distribution price control RIIO-ED1, we also introduced a specific incentive for large connection customers, the "Incentive on Connections Engagement". This aims to drive DNOs to understand and meet the needs of major connection customers (larger metered demand, unmetered demand, distributed generation). If a DNO fails to do this, then it could incur a penalty. As part of the Incentive on Connections Engagement, DNOs must submit two reports to Ofgem, one at the start of the regulatory year (ie the financial year) outlining their commitments to improve services and another at the end of the year reporting back against the commitments made. Throughout the year, we consult with stakeholders to understand their views on the DNOs' work plans and target outputs. The DNOs reported on 2018-19 performance in May 2019. We engaged with stakeholders to formally review DNO performance and ultimately decided not to issue any penalties in 2019.[50]

Code modifications

Parties to the relevant codes (CUSC for transmission and DCUSA for distribution) can propose changes to the codes. Unless the change is subject to self-governance (typically minor, housekeeping changes), Ofgem makes the final decision on whether or not to approve the change. We do so based on the charging objectives in the codes and taking into account our principal objective and wider statutory duties.

[50] https://www.ofgem.gov.uk/publications-and-updates/outcome-our-assessment-under-2019-riio-ed1-incentive-connections-engagement

Stakeholders can provide input to proposed changes to the methodologies or tariffs. This is done either through participation in industry working groups, or through the public consultation process. We take into consideration any input received from stakeholders when reaching our decision on methodologies or tariffs. Appeals can be made either to the Competition and Markets Authority (CMA) or via judicial review. There have been no appeals of any decision during the reporting period.

Reviews of Use of System Charges

We are undertaking a wide-ranging review of the charging arrangements in GB. This review is called our Future Charging and Access (FCA) programme, and aims to design a new charging framework that will drive whole system benefits, promote efficient investment decisions to reduce network and system costs, promote energy efficiency and deliver carbon benefits for GB consumers.

In GB, use of system charges include 'forward-looking' charges, which are designed to incentivise the efficient use of the network, and 'residual' charges, which are top-up charges set to enable total allowed revenues to be recovered. We have launched Significant Code Reviews (SCRs)[51] into both forward-looking and residual charges in recent years, as described below.

In August 2017, we launched a Targeted Charging Review (TCR) SCR into residual electricity network charges and the remaining differences in the non-cost reflective charges faced by smaller and larger generators, known as "embedded benefits". The TCR aims to reduce the harmful distortions caused by the current residual electricity network charging arrangements and ensures these charges are more fairly distributed.

In November 2019, we published our final decision and impact assessment for TCR. The changes are due to be implemented in 2021 and 2022, through modifications to the relevant codes.

In December 2018, we launched a separate SCR into electricity network access arrangements[52] and forward-looking charges.[53] The project aims to ensure that electricity

[51] A SCR is a tool for Ofgem to initiate wide ranging and holistic change and to implement reform to a code-based issue.
[52] The nature of users' access to the electricity networks (for example, when users can import/export electricity and how much) and how these rights are allocated.
[53] The type of ongoing electricity network charges which signal to users how their actions can ether increase or decrease network costs in the future.

networks are used efficiently and flexibly, reflecting users' needs and allowing consumers to benefit from new technologies and services while avoiding unnecessary costs on energy bills in general. The scope of the SCR includes a review of the definition and choice of access rights, a wide-ranging review of distribution network charges and distribution connection charges, and a focused review of TNUoS charges. We are currently working with industry to develop and assess the potential options for change. Following the publication of two working papers in 2019 outlining initial thinking, we plan to consult on our minded-to decision and draft impact assessment in 2020.[54] We currently envisage that any changes will be implemented by 2023.

3.1.4 Cross-border issues

To achieve a fully integrated European energy market, it is vital that NRAs coordinate effectively on cross-border issues and promote efficient cross-border markets. In this section, we provide an update on our interconnector activities, outline current landscape of interconnection between GB and other countries and prospective investment plans, as well as summarise legislative milestones achieved during 2019-20.

3.1.4.1 European Network Codes

Please see the section on the Implementation of Network Codes and Guidelines (Section 3.1.7) where we report on the European Network Codes and Guidelines implementation and describe our cooperation between regional NRAs.

3.1.4.2 Access rules for interconnection

The GB electricity market is interconnected to the Netherlands (BritNed), Belgium (Nemo Link), France (IFA), Northern Ireland (Moyle) and the Republic of Ireland (EWIC). Moreover, there are new interconnection projects in various stages of planning or construction that are discussed later in this section.

[54] https://www.ofgem.gov.uk/electricity/transmission-networks/charging/reform-network-access-and-forward-looking-charges

The rules for granting access to cross-border electricity infrastructure in GB are reflected in the SLCs of the electricity interconnector licence.[55]

These responsibilities can be summarised as follows:

- Licensees are required to submit any new or amended charging methodologies and access rules to Ofgem for approval.
- Both Ofgem and the interconnector licensee must ensure that charging methodologies and access rules, and any modifications to these, are: objective, transparent, non-discriminatory and compliant with the Electricity Regulation and any relevant legally binding decision of the European Commission or the Agency for the Cooperation of Energy Regulators (ACER).
- Interconnector licensees are required to review their access rules at least once each year and consult on any modifications that may be necessary to ensure that the access rules better achieve the relevant objectives. Where modifications are proposed, interconnector licensees must provide Ofgem with a report that sets out how any proposed modifications better achieve the relevant objectives. The report must present details of any responses to the consultation and of any changes to the proposed modifications as a result of those.
- Ofgem has the power to request licensees to review and amend their access rules and charging methodology.

In 2019, three operational GB interconnectors (IFA, BritNed and Nemo Link) submitted proposed modified access rules, while two nearly operational GB interconnectors (ElecLink and IFA2) submitted access rules and charging methodologies for approval for the first time. We approved each of these on the basis that they better achieve the relevant objectives.[56]

[55] See SLCs 10, 11 and 11A: https://epr.ofgem.gov.uk//Content/Documents/Electricity_Interconnector_Standard%20Licence%20Conditions%20Consolidated%20-%20Current%20Version.pdf.

[56] IFA: https://www.ofgem.gov.uk/publications-and-updates/approval-modified-access-rules-and-modified-charging-methodology-ifa-interconnector-0 - amendments introduced in order to support the migration to the Single Allocation Platform (SAP) for long term capacity allocation as per FCA Regulation requirements,
BritNed: https://www.ofgem.gov.uk/publications-and-updates/approval-modified-access-rules-britned-interconnector-0 - amendments introduced in order to support the migration to the Single Allocation Platform (SAP) for long term capacity allocation as per FCA Regulation requirements,
Nemo Link: https://www.ofgem.gov.uk/publications-and-updates/approval-modified-access-rules-nemo-link-interconnector,
ElecLink: https://www.ofgem.gov.uk/publications-and-updates/approval-access-rules-and-charging-methodology-submitted-eleclink-pursuant-standard-license-slc-11a-and-10-electricity-interconnector-license,
IFA2: https://www.ofgem.gov.uk/publications-and-updates/approval-access-rules-and-charging-methodology-ifa2-interconnector.

In 2019-20, Ofgem continued to monitor interconnector statistics, including information on auctions, capacity, nominations and flows.

3.1.4.3 Existing interconnection

Currently, GB has five operational electricity interconnectors, listed below. These interconnectors all allocate capacity through a blend of explicit and implicit allocation. Long-term and intraday capacity is allocated explicitly via auctions, and can be nominated by market participants via nomination gates. The long-term capacity is sold in the form of physical transmission rights in the Channel region, and as financial transmission rights in the IU (Ireland-United Kingdom) region. Day-ahead capacity is allocated implicitly via single day-ahead market coupling. The principles of 'netting'[57] and 'use-it-or-sell-it' are applied to ensure that the maximum possible capacity is made available to market participants.

Interconnexion France-Angleterre (IFA)

IFA is a high voltage direct current line with a capacity of 2GW and began operating (under current capacity) in 1986.

BritNed

The 1GW BritNed high voltage direct current interconnector, between GB and the Netherlands, began operating in 2011. BritNed has a 25-year exemption from rules relating to the use of interconnector revenues and charging methodologies, and certain conditions are not in operation in its licence.[58] However, it must still comply with the interconnector licence condition relating to access rules,[59] introduced as a result of the Regulation (EC) No 714/2009.

Moyle

The Moyle interconnector, which links Scotland to Northern Ireland, began operating in 2001. It has a technical capacity of 0.5GW.

EirGrid East-West Interconnector (EWIC)

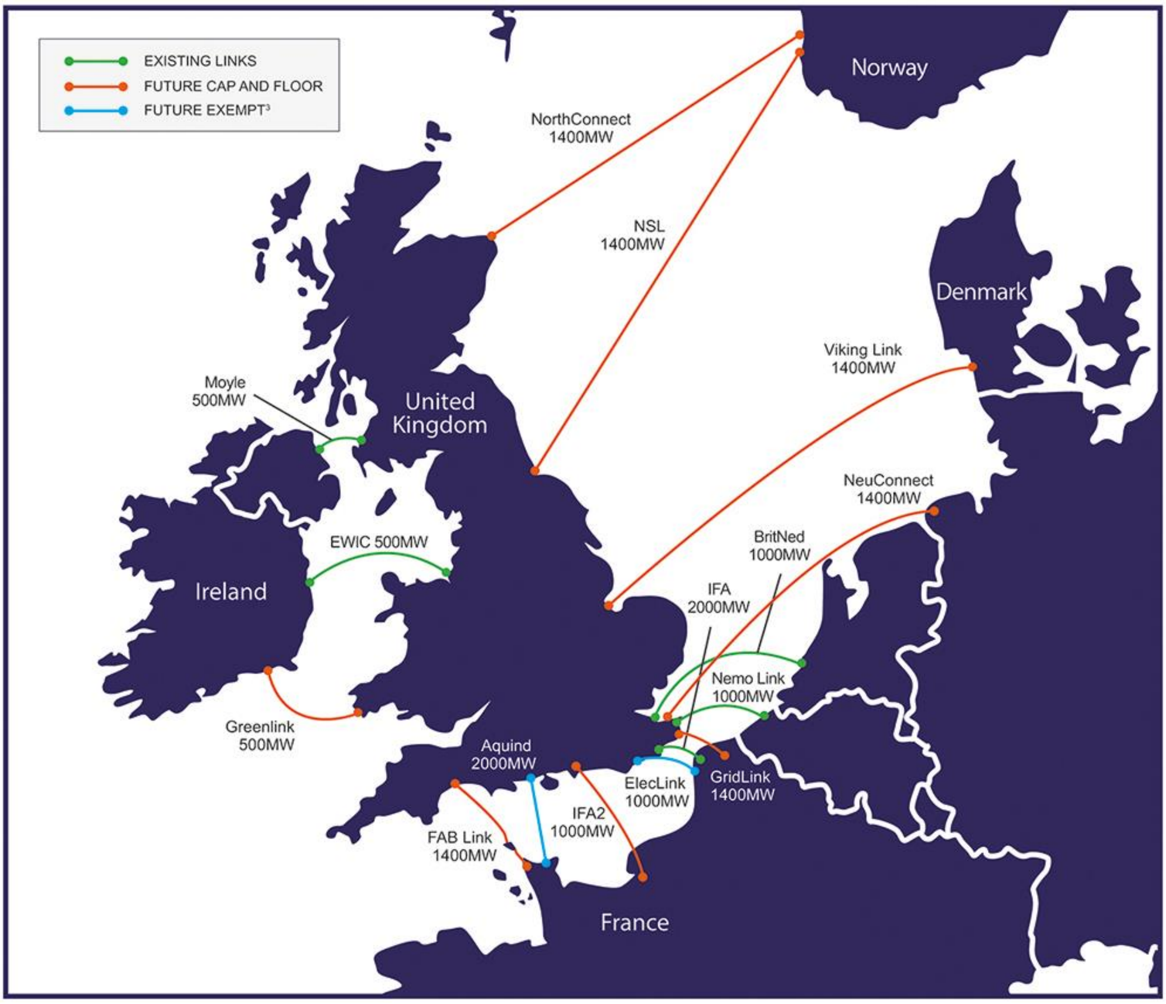
EWIC, which links Wales and Ireland, became operational in 2012. It has a technical capacity of 0.5GW.

[57] Netting means that any capacity sold in one direction is netted off against capacity sold in the other direction.
[58] SLCs 9 and 10 of the electricity interconnector licence, which refer to use of revenue and charging methodology.
[59] SLC 11A of the electricity interconnector licence.

Nemo Link

Nemo Link is a 1GW electricity interconnector to Belgium and is the first interconnector project to be regulated under our cap and floor regime. After successfully clearing the test operation period,[60] Nemo Link entered commercial operation on 31 January 2019. In September 2019, we published our final decision[61] on the Post Construction Review for Nemo Link, setting the cap and floor levels at £77m and £43.9m respectively (in 2013-14 prices).

Figure 1: Existing and future electricity interconnectors



Note: for illustrative purposes only.
Merchant 'exempt' is the alternative route for delivering interconnector investment in GB. Projects are developed without consumer underwriting and request exemptions from certain aspects of EU legislation.

---

[60] This is a requirement of the special licence condition 2 of Nemo Link electricity interconnector licence.
[61] Our 2019 decision: https://www.ofgem.gov.uk/publications-and-updates/post-construction-review-nemo-link-interconnector-belgium

3.1.4.4 New interconnection

The following projects are those that are currently in the construction phase:

ElecLink

ElecLink, a planned 1GW interconnector project between GB and France that passes through the Channel Tunnel, has a partial exemption from certain aspects of EU legislation.[62] The exemption decision, made in 2014, specified that ElecLink must commence construction of the interconnector by 28 July 2016 and be operational by 28 July 2019.

Due to delays in commencing construction ElecLink sought, and was granted, an extension to the specified deadlines. In particular, the European Commission issued a decision,[63] in which it approved the prolongation of the relevant periods. This resulted in new deadlines for commencing construction by 31 July 2017 and the asset being operational by 31 July 2020.

Construction of the interconnector is now substantively complete. However, delays in securing certain health and safety consents have so far prevented ElecLink from completing all construction activities and commencing commercial operations. The Intergovernmental Commission (IGC), which oversees matters in relation to the construction and operation of the Channel Tunnel, is to make a decision on the required consents in due course.

In January and February 2019, CRE and Ofgem[64] respectively certified ElecLink as a TSO in France and the United Kingdom (UK).

NSL

NSL (formerly NSN) is a planned interconnector to Norway. At just over 700km, it will be the longest subsea interconnector in the world. Currently under construction, it is expected to start operating in 2021 and will have a capacity of 1.4GW.

We approved the needs case for the NSL project in 2015.[65] In July 2017, we made our decision on NSL's Final Project Assessment (FPA),[66] setting the provisional cap and floor levels

---

[62] Covering areas such as ownership unbundling, third party access (TPA) and the use of revenues. Decision letter: https://www.ofgem.gov.uk/sites/default/files/docs/2014/09/eleclink_final_decision_cover_letter__0.pdf
[63] European Commission's 2016 decision: https://ec.europa.eu/energy/sites/ener/files/documents/2016_eleclink_decision_en.pdf
[64] Our 2019 certification: http://www.eleclink.co.uk/information/Ofgem_Certification%20Decision.pdf
[65] Our 2015 decision: https://www.ofgem.gov.uk/publications-and-updates/decision-initial-project-assessment-nsn-interconnector-norway
[66] Our 2017 decision: https://www.ofgem.gov.uk/publications-and-updates/decision-final-project-assessment-nsl-

at £89.85m and £50.90m respectively. We will confirm the final cap and floor levels for the project prior to operation at our post-construction review stage.

In July 2018, we also issued a decision by which we amended NSL's interconnector licence to implement the cap and floor regime aspects contained in the FPA decision that applies to NSL.[67] In June 2019, Ofgem certified[68] NGNSL as a TSO.

IFA2

Interconnexion France-Angleterre 2 (IFA2) is a planned 240km interconnector to France, with a capacity of 1GW. In April 2017, contracts were awarded to build the interconnector and construction is now underway, with an anticipated operation date in late 2020.

In July 2015, we approved the needs case for IFA2.[69] We have also published our decision[70] on IFA2's FPA, setting the provisional cap and floor levels at £50.7m and £27.6m respectively (in 2016-17 prices).

In June 2019, Ofgem certified[71] NGIFA2 as a TSO under the ownership unbundling requirements of the Third Package. In December 2019 we consulted on modifying the electricity interconnector licence held by IFA2 in order to implement its cap and floor regime.

Viking

Viking Link is a 767km interconnector to Denmark, with a capacity of 1.4GW. In July 2015, we approved the needs case for Viking Link.[72] Engineering, procurement and construction (EPC) contracts were awarded in July 2019 to build the interconnector and the project moved from development to construction phase, with completion expected by the end of 2023.

Viking Link is currently undergoing the FPA process, where we plan to set provisional cap and floor levels.

---

interconnector-norway
[67] Our 2018 decision: https://www.ofgem.gov.uk/publications-and-updates/decision-changes-electricity-interconnector-licence-held-national-grid-north-sea-link-limited
[68]Our 2019 certification: https://www.ofgem.gov.uk/ofgem-publications/152287
[69] Our 2015 decision:https://www.ofgem.gov.uk/publications-and-updates/decision-initial-project-assessment-fab-link-ifa2-and-viking-link-interconnectors
[70] Our 2018 decision: https://www.ofgem.gov.uk/publications-and-updates/final-project-assessment-ifa2-interconnector-france
[71]Our 2019 certification: https://www.ofgem.gov.uk/ofgem-publications/152287
[72] Our 2015 decision: https://www.ofgem.gov.uk/publications-and-updates/decision-initial-project-assessment-fab-link-ifa2-and-viking-link-interconnectors

3.1.4.5 Ofgem's cap and floor regime

In 2015, we granted a cap and floor regime to five interconnector projects as part of the first application window of cap and floor projects.[73] These projects will connect GB with:

- France (FAB Link – 1.4GW and IFA2 – 1GW)
- Denmark (Viking Link – 1.4GW)
- Norway (NSL – 1.4GW)
- The Republic of Ireland (Greenlink – 0.5GW)

Three of the five projects are now under construction (see above).

Following work throughout 2017, we concluded our second cap and floor application window in January 2018. We granted a cap and floor regime in principle to three new interconnector projects. These projects propose to connect GB with:

- Norway (NorthConnect – 1.4GW)
- France (GridLink – 1.4GW)
- Germany (NeuConnect – 1.4GW)

These projects are now under development.

The GB transmission system currently has 5GW of electricity interconnection. The projects that are currently under construction (mentioned above) are set to increase GB interconnector capacity to 9.8GW. If all other future projects illustrated in Figure 1 are delivered, GB interconnector capacity could increase up to 17.9GW.

Aquind

Aquind is a proposed 2GW high voltage direct current interconnector to France. The developer applied for an exemption in summer 2017. We agreed with the Commission de Régulation de l'Énergie (CRE), the French energy regulator, to refer the Aquind exemption request to ACER because we would be unable to reach a joint agreement on the decision within the six-month timeframe provided by the relevant EU legislation. In June 2018, ACER decided not to grant the exemption, and it confirmed this decision on appeal in October 2018. In December 2018,

[73] Under the cap and floor approach, if an interconnector developer's revenues exceed the cap then revenue above the cap is returned to consumers. Conversely, if its revenues fall below the floor then consumers top up the developer's revenues to the level of the floor. Prior to Window 1, Nemo Link was the pilot project under the cap and floor regime.

Aquind submitted a challenge to this decision to the Court of Justice of the European Union (EU), which has yet to deliberate on it.

Aquind was not included in the fourth Union List of Projects of Common Interest (PCIs), published in the Official Journal of the EU on 11 March 2020. Aquind had previously been pursuing an investment request under Article 12 of the TEN-E Regulation,[74] but is unable to continue to do so without the PCI status. In February 2020, Aquind submitted a challenge to its omission from the fourth PCI list to the Court of Justice of the EU. This awaits deliberation. The fourth PCI list took effect on 31 March 2020.

Table 1 below provides an overview of the current development status of new GB interconnector projects.

[74] Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-Europe energy infrastructure: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex%3A32013R0347

Table 1: New interconnector project progress

Project	Regulatory approval stage		Construction	Estimated operational date
Cap and floor regime (9.9GW)				
	IPA	**FPA**		
NSL	✓	✓	✓	2021
FAB Link	✓			2025
IFA2	✓	✓	✓	2020
Viking Link	✓			2023
Greenlink	✓			2023
GridLink	✓			2024
NeuConnect	✓			2023
NorthConnect	✓			2022/3[75]
Exemption projects (3GW)				
ElecLink	Exemption granted in September 2014		✓	2021
Aquind	Exemption request referred to ACER in December 2017, ACER decided not to grant an exemption in June 2018. Aquind appealed against this decision to ACER's Board of Appeal, but it was rejected. In December 2018, Aquind submitted a further challenge to this decision to the Court of Justice of the EU. These legal proceedings are ongoing.			2022/3

Other significant developments:

- *Network Options Assessment (NOA) for interconnectors*

  In January 2020, National Grid, as the GB ESO, published the latest iteration of the Network Options Assessment (NOA).[76] Included within this is the NOA for Interconnectors, which aims to signal where further GB interconnection may be

[75] The estimated operational date is subject to change as the Ministry of Petroleum and Energy in Norway were unable to come to a decision on NorthConnect's application in March 2020.
[76] Aims to make recommendations to transmission owners in relation to which projects to proceed in order to meet future network requirements.

beneficial (beyond a baseline of those projects already operational, under construction, or planned). The analysis signals that a total interconnection capacity in the range of 18.1 GW and 23.1 GW between GB and European markets by 2032 would provide the maximum benefit for GB consumers. National Grid published the methodology for the latest NOA for interconnectors in May 2020.[77]

- *Project Finance Variations*
  We have approved nine projects under our electricity interconnector cap and floor regime. As part of the regime policy, developers may request changes to how we apply aspects of the default regime that relate to financing of an interconnector asset development and construction, if the changes are in the interest of GB consumers. Two developers of projects approved under the regime have requested changes to some aspects of the default regime to be able to raise required financing and deliver projects on time. We have assessed the requests and issued our final decision in May 2020.[78]

3.1.5 Security and reliability regulation

3.1.5.1 Monitoring investment in generation capacities in relation to Security of Supply

Statutory Security of Supply Report (SSSR)

In December 2019, BEIS published the SSSR.[79] This is part of an obligation on the government and ourselves to report annually to Parliament on the availability of electricity and gas for meeting the reasonable demands of consumers in GB. The report noted that the GB energy system is resilient, secure and drawn from a number of sources.

GB's electricity system has delivered secure supplies to date. The government is committed to moving away from coal and increasing the share of renewables in electricity generation. The gas system has also delivered security of supply to date and is expected to continue to function well.

[77] The Network Options Assessment Report Methodology: https://www.nationalgrideso.com/document/169301/download
[78] Our 2020 decision: https://www.ofgem.gov.uk/system/files/docs/2020/05/regime_variations_decision.pdf
[79] https://www.gov.uk/government/publications/statutory-security-of-supply-report-2019

2019-20 Winter Outlook Report

NGESO published the '2019-20 Winter Outlook Report'[80] in October 2019. It presents its view of gas and electricity security of supply for the 2019-20 winter. NGESO expects the margins on the electricity system are greater than last winter (2018-19) and forecasts are well within the national Reliability Standard set by the government. The gas supply margin is expected to be sufficient in all of its security of supply scenarios. It anticipates no additional adequacy or operability challenges for the 2019-20 winter as a result of the UK's planned exit from the EU.

The report followed the publication of NGESO's Winter Review and Consultation report,[81] published in June 2019, which looks back to winter 2018-19 and compares what happened with its Winter Outlook forecast. The key messages include that electricity supply margins were in line with expectations and there were no significantly difficult days for meeting gas demand. In addition, winter 2018-19 was the lowest carbon intensity winter on record for electricity generation, and levels of carbon intensity have almost halved in the last five years. Furthermore, interactions were prominent as high levels of renewable electricity generation resulted in variable gas demand for power. Despite the mild weather, there were operational challenges that were overcome in relation to both gas and electricity. On the electricity system, unexpected outages and system conditions contributed to low system inertia and a higher risk of Rate of Change of Frequency (RoCoF) events. In the report, the RoCoF limit refers to the size of generation or demand loss that would result in a RoCoF of 0.125HZ/s. The gas system responded to large day-to-day swings in demand and increased supply diversity including higher than expected levels of liquefied natural gas (LNG).

NGESO published its 2020 Winter Review and Consultation[82] report in June 2020 which covers only the electricity perspective. As anticipated in the 2019-20 Winter Outlook Report, no additional adequacy or operability challenges were experienced as a result of the UK entering the transition period, following the UK's exit from the EU. There was sufficient supply available to meet demand at all times during the 2019-20 winter period. The variable weather conditions caused some operational challenges that were overcome on the electricity system. Furthermore, winter 2019-20 was the lowest carbon intensity winter on record for electricity generation (206gCO2e/kWh[83]).

---

[80] https://www.nationalgrideso.com/document/154166/download
[81] https://www.nationalgrideso.com/document/145396/download
[82] https://www.nationalgrideso.com/document/171986/download
[83] Grams of CO2 equivalent per kWh (gCO2e/kWh).

Electricity Capacity Report

NGESO have an obligation to produce an Electricity Capacity Report (ECR) each year. The version of the ECR[84] published in May 2019 summarises the modelling analysis undertaken by NGESO in its role as the Electricity Market Reform (EMR) Delivery Body to support the decision by the government on the amount of capacity to secure through the Capacity Market (CM) auctions for delivery in 2020-21, 2022-23 and 2023-24.

An independent Panel of Technical Experts (PTE)[85] is commissioned by BEIS to scrutinise and quality assure the analysis carried out by NGESO for the purposes of informing the policy decisions for the CM. We work closely with NGESO, BEIS and the PTE in scrutinising and reviewing the analysis as part of our market monitoring role and to inform policy decisions. BEIS decide the level of capacity to procure in each CM auction taking into account NGESO's recommendation and scrutiny provided by the PTE and Ofgem.

3.1.5.2 Measures to cover peak demand or shortfalls of suppliers

Capacity Market

The CM mechanism was introduced to maintain sufficient levels of capacity to ensure security of electricity supply. The CM provides regular revenue in the form of capacity payments to potential capacity providers. In return, these capacity providers commit to delivering electricity at times of system stress, or face penalties if they fail to do so.

Ofgem sets incentives and funding for the EMR Delivery Body, NGESO, and monitors its performance in delivering the CM. Ofgem also enforces the CM Rules and the Electricity Capacity Regulations 2014, the Competition Act 1998, Regulation on Energy Market Integrity and Transparency (REMIT), and monitors NGESO's data compliance.

On 15 November 2018, the General Court of the Court of Justice of the EU ruled in favour of Tempus Energy in Tempus Energy Ltd and Tempus Energy Technology Ltd v European Commission.[86] This judgment effectively annulled the European Commission's State Aid approval for the GB CM scheme and a "standstill" period was introduced by the UK government. During the standstill, the Secretary of State postponed the 2018 T-1 Auction

[84] https://www.emrdeliverybody.com/Capacity%20Markets%20Document%20Library/Electricity%20Capacity%20Report%202019.pdf
[85] https://www.gov.uk/government/groups/electricity-market-reform-panel-of-technical-experts
[86] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62014TA0793&from=EN

for Delivery Year 2019-20, the auction was subsequently held in the summer of 2019, and the 2018 T-4 Auction for Delivery Year 2022-23 was suspended and rearranged as a T-3 Auction in 2020. On 25 January 2019, the Commission appealed the General Court's judgement.

During the standstill period, aid was not granted under the CM and as a result all CM payments were suspended. This meant that capacity providers had to deliver in the absence of revenue.

On 24 October 2019, the European Commission declared the approval of the CM scheme under EU State Aid rules.[87]

On 25 October 2019, the Secretary of State issued a letter to the CM Settlement Body, the Electricity Settlements Company (ESC)[88] and NGESO,[89] confirming the European Commission's decision to reinstate the CM. The Secretary of State instructed ESC to complete the necessary requirements for the restart of the CM. ESC were required to calculate and collect post-standstill payments from suppliers, and in accordance with the Regulations,[90] make capacity payments in respect of the standstill period. In early 2020, capacity providers received full settlement of deferred capacity payments for the standstill period totalling over £1bn.[91]

The T-1 Capacity Auction for delivery in 2020-21 concluded on 7 February 2020, and 1024.409MW capacity was bought at the clearing price of £1.00/kW/year.[92] The T-4 Capacity Auction for delivery in 2020-21 concluded on 8 December 2016 and 52,425.302MW capacity was bought at the clearing price of £22.50/kW/year.[93] Therefore, a total amount of capacity of 53.45GW were bought by the government across both auctions for the delivery year 2020-21.

---

[87] https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6152

[88] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/842240/Trigger_Letter_-_ESC_SIGNED.pdf

[89] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/842238/Trigger_Letter_-_NGESO_SIGNED.pdf

[90] Regulations 4(1) and 5(1)(a) of the Electricity Capacity (No. 1) Regulations 2019 ("the 2019 Regulations"), the Electricity Capacity Regulations 2014, the Electricity Capacity (Supplier Payment etc) Regulations 2014 and the Capacity Market Rules ("the CM legislation")

[91] https://www.lowcarboncontracts.uk/announcement/capacity-providers-paid-over-ps1bn-in-full-settlement-of-cm-standstill-period

[92] https://www.emrdeliverybody.com/Capacity%20Markets%20Document%20Library/Final%20Results%20T-1%20Auction%20DY20-21.pdf

[93] https://www.emrdeliverybody.com/Capacity%20Markets%20Document%20Library/T-4%202019%20DY2023%20Capacity%20Market%20Auction%20Final%20Results%20V1.0.pdf

3.1.6 Monitoring of supply and demand

Under Article 4 of the Electricity Directive, member states have to ensure they monitor security of supply issues.

Responsibility for ensuring security of supply in GB is shared across several entities. BEIS sets overall policy on energy security. Ofgem is responsible for regulating the market. NGESO, as System Operator of the GB electricity system, has responsibility for ensuring that supply meets demand on a minute-by-minute basis each day.

The Third Package puts an obligation on NRAs to monitor investment in generation capacities to secure supply. We therefore review NGESO's annual 'Electricity Ten Year Statement' (ETYS),[94] 'Future Energy Scenarios' (FES),[95] and 'Winter Outlook Report'[96] documents, which outline electricity demand and generation (closure and investment) projections. Moreover, the government's Reliability Standard[97] for electricity security of supply is expressed as a Loss of Load Expectation (LOLE) of three hours per year. LOLE represents the number of hours per year in which supply is expected on average to be lower than demand under normal operation of the system. It is not a measure of the expected number of hours in which customers may be disconnected. In the 2019 SSSR,[98] alongside BEIS, we assessed the availability of electricity and gas for meeting the reasonable demands for energy consumers in GB.

Here we report the main results and insights from our monitoring and these publications on the balance of electricity supply and demand during the reporting period.

Winter 2018-19

There was sufficient capacity with margins of 7.1GW (de-rated) and 11.7%.[99] The 2018-19 winter was on average fairly mild in terms of average temperature, meaning that demand for electricity was suppressed and there was less need for heating. At the same time, there were high levels of wind generation. Coal generation reduced as gas generation became more economic to run, as a consequence of lower gas prices. The cumulative effect of all of these factors was that the average carbon intensity of electricity reduced. Winter 2018-19 was the

[94] https://www.nationalgrideso.com/research-publications/electricity-ten-year-statement-etys
[95] http://fes.nationalgrid.com/media/1409/fes-2019.pdf
[96] https://www.nationalgrideso.com/document/154166/download
[97] The Reliability Standard Methodology published by the UK government: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/223653/emr_consultation_annex_c.pdf
[98] https://www.gov.uk/government/publications/statutory-security-of-supply-report-2019
[99] https://www.nationalgrideso.com/document/127551/download

lowest average carbon intensity winter on record over the past 10 years at 242.8 gCO2e/kWh, and almost 50% lower than five years ago.

Winter 2019-20

In NGESO's Winter Outlook Report for 2019-20, the normalised transmission system demand was expected to peak for winter 2019-20 at 46.4GW, which is lower than last winter. The forecast for total average cold spell (ACS) peak underlying demand (60.4GW) was also slightly less than last winter. Against an increasing total maximum technical capacity from generation of 106.7GW, the de-rated margin for winter 2019-20 was expected to be greater than 2018-19 winter and it forecasts a capacity margin of 7.8 GW, equivalent to 12.9%, with a LOLE of <0.1 hours/year.

In relation to the UK's planned exit from the EU, the report shows margins that are sufficient even in a scenario with no interconnector flows between GB and continental Europe.

3.1.7 Implementation of Network Codes and Guidelines

In this period, we have worked together with the GB industry, as well as our fellow regulatory authorities to implement the relevant provisions of the European Network Codes and Guidelines. This work required Ofgem to make multiple changes to GB industry arrangements and licences as well as take a number of decisions. The following paragraphs summarise a number of the key actions we took in this period.

3.1.7.1 Cross-Border Market Arrangements

In 2019-20, we approved three[100] regional methodologies arising from the FCA Regulation.[101] Due to the increased number of interconnectors on the FR-GB bidding zone

---

[100] Ofgem decision to approve the amended Nomination Rules for PTRs for the Channel CCR: https://www.ofgem.gov.uk/publications-and-updates/decision-approve-amended-nomination-rules-physical-transmission-rights-bidding-zone-borders-channel-capacity-calculation-region
Ofgem decision to approve the IU TSO's proposal for the methodology for splitting long-term cross zonal capacity: https://www.ofgem.gov.uk/publications-and-updates/decision-approve-iu-tso-s-proposal-methodology-splitting-long-term-cross-zonal-capacity
Ofgem decision to approve the IU TSO's proposal for the long-term capacity calculation methodology: https://www.ofgem.gov.uk/publications-and-updates/decision-approve-iu-tsos-proposal-long-term-capacity-calculation-methodology

[101] Commission regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2016.259.01.0042.01.ENG

border, and the legal separation of National Grid's ESO and electricity TO functions,[102] the Channel region TSOs submitted amendments to the Nomination Rules in accordance with Article 36 of the FCA Regulation. The amendments also clarified that calculation of the loss factor on each border would be different. We worked closely with the Channel NRAs, including the French regulator CRE, and the Belgian regulator Commission de Régulation de l'Électricité et du Gaz and the Dutch regulator the Authority for Consumers and Markets, to ensure a transparent and robust methodology was approved.

We also worked closely with our NRA colleagues at the Commission for Regulation of Utilities and the Utility Regulator to make decisions on the Ireland-UK (IU) region methodology for splitting long-term cross-zonal capacity (the splitting rules), Article 16 of FCA, and the long-term capacity calculation methodology (IU LT CCM), Article 10 of FCA. The splitting rules included ranges wide enough to let IU TSOs respond to market needs, while at the same time ensuring that a mix of products are available to market participants. The IU LT CCM required a request for amendment, as the initial submission failed to clearly distinguish between the different potential scenarios for curtailment. Clear and constructive engagement between the NRAs and IU TSOs ensured that the final submission addressed the concerns raised, and resulted in the final submission being approved.

In 2019-2020, we approved two[103] methodologies and made two[104] decisions related to the Capacity Allocation and Congestion Management (CACM) Regulation.[105] We again coordinated with the IU NRAs to approve an amended version of the proposals for the redispatching and countertrading methodology and for the redispatching and countertrading cost sharing methodology. These amendments provided further transparency and removed provisions that allow the system operators to reject or reduce Net Transfer Capacity (NTC) values of interconnectors.

---

[102] Ofgem publication on the future arrangements for the Electricity System Operator: https://www.ofgem.gov.uk/publications-and-updates/future-arrangements-electricity-system-operator-its-role-and-structure
[103] Ofgem decision to approve the amended IU TSO proposals for the redispatching and countertrading methodology and cost-sharing methodology: https://www.ofgem.gov.uk/publications-and-updates/decision-approve-amended-iu-tsos-proposals-redispatching-and-countertrading-methodology-and-redispatching-and-countetrading-cost-sharing-methodology
[104]Ofgem consultation on minded-to position to renew the designation of NEMOs for a time-limited duration: https://www.ofgem.gov.uk/publications-and-updates/consultation-our-minded-position-renew-designation-nominated-electricity-market-operators-great-britain-time-limited-duration
https://www.ofgem.gov.uk/publications-and-updates/decision-renew-designation-nominated-electricity-market-operators-great-britain-period-four-years
[105] Commission regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015R1222

In accordance with Article 7 of CACM, we made the decision to renew the designation of Nominated Electricity Market Operators (NEMOs) operating in GB for a period of four years, upon request. This was following a consultation process where we asked GB stakeholders, industry and interested NRAs to share their views. In forming our decision, we consulted and cooperated with other NRAs to understand the approaches being adopted across member states. We noted that diverse approaches have been adopted, with some electing for an indefinite redesignation whilst others, like ourselves, have chosen to opt for a redesignation limited to three to five years.

Following an application from the European Market Coupling Operator AS (EMCO),[106] we also made the decision to renew its designation as a NEMO in GB for another four-year period. Therefore, we currently have two NEMOs designated in GB, EMCO and EPEX SPOT SE, the latter of which is designated in GB until 30 November 2020.[107]

3.1.7.2 System Operation Code and Guidelines

Our main deliverable this year implementing the System Operation Guidelines (SOGL)[108] was our final decision on 6 August 2019 on synchronous area operational agreements and Load-Frequency Control Load (LFC) Block agreements as required by Article 118 and 119 of the SOGL Regulation.[109] Our review concluded that a number of arrangements already existing in GB were those required by SOGL to be implemented. Moreover, we found that the methodology submitted by the ESO titled 'Intermediate GB Synchronous Area+ LFC Block Operational Methodology Synchronous Area Operational Methodology' on the new requirements from SOGL met the requirements of Articles 118 and 119. We worked alongside other NRAs to understand and make a decision on the proposals for the Regional Operational Security Coordinators for both the Ireland-UK (IU) and Channel capacity calculation regions. We published the decision to approve this in June 2020.[110]

---

[106] On 1 November 2018 NPS completed a reorganisation which comprised the separation its market coupling operations from the power exchange operations into two separate legal entities. This was completed by way of a demerger under the Norwegian Limited Liability Companies Act. The legal entity which was previously called NPS changed its name to European Market Coupling Operator AS (EMCO).
[107] Ofgem decision to designate Epex Spot SE as a NEMO in GB: https://www.ofgem.gov.uk/publications-and-updates/final-decisions-designation-epex-spot-se-nemo-and-revocation-apx-commodities-limited-s-nemo-designation-both-single-day-ahead-and-intraday-coupling-gb
[108] Commission regulation (EU) 2017/1485 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.220.01.0001.01.ENG&toc=OJ:L:2017:220:TOC
[109] Ofgem decision on Synchronous Area operational agreements and LFC Block agreementshttps://www.ofgem.gov.uk/system/files/docs/2019/08/article_118_and_119_final_decision.pdf
[110] Our June 2020 decision: https://www.ofgem.gov.uk/ofgem-publications/164144

We have also continued our work implementing the Emergency and Restoration Code (NCER)[111] in GB. This included issuing a decision that assigned the responsibility to comply with new obligations under the NCER to the GB TSOs that are currently operational in GB pursuant to Article 2(7) of NCER.[112] In GB, our TSOs have different functions, and therefore it was important that we reflected their particular functions to the requirements of the NCER.

We also took the decision to request for amendments to the ESO's proposal. This was for:

- The terms and conditions to act as defence and restoration service providers
- The list of Significant Grid Users (SGUs) responsible for implementing on their installations measures from other EU network codes
- The list of high priority SGUs[113]

In addition, we took decisions to align the GB Grid Code with the European Emergency and Restoration Code, specifically in relation to Black Start[114] testing for interconnectors, as well as requirements on Grid Code parties set out in the GB System Defence Plan and System Restoration Plan.[115]

Throughout the year, most of our activities in this area were centred on the implementation of the Electricity Balancing Guidelines (EBGL).[116] This is due to a number of cross-border decisions that required us to closely cooperate with our fellow NRAs.

We worked collaboratively with all NRAs and also led together with E-control – the Austrian energy regulator - on the development of the All Regulatory Authority decision on the manual Frequency Restoration Reserves Implementation Framework. As required by Article 5(6) of the EBGL Regulation, we consulted and closely cooperated and coordinated with other NRAs in order to reach agreement on proposals from the relevant TSOs in accordance with Articles 20(1), 21(1), 29(3), 30(1), 50(1) and 52(2) of the EBGL Regulation. The given articles require that by one year after entry into force of the EBGL Regulation, all TSOs shall develop

[111] The Emergency and Restoration Code https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.312.01.0054.01.ENG&toc=OJ:L:2017:312:TOC
[112] Ofgem decision to assign the responsibility to comply with new obligations under the NER to GB TSOshttps://www.ofgem.gov.uk/ofgem-publications/152947
[113]Ofgem decision to request for amendments to the Electricity System Operator's proposal for the terms and conditions to act as defence and restoration service providers https://www.ofgem.gov.uk/system/files/docs/2019/06/decision_ncer_proposals_tc_sgu_list_high_priority.pdf
[114] Black start is the procedure used to restore power in the event of a total or partial shutdown of the national electricity transmission system
[115] GB System Defence Plan and System Restoration Plan https://www.ofgem.gov.uk/system/files/docs/2020/02/gc_125_127_128_d.pdf
[116]Electricity Balancing Guidelines https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.312.01.0006.01.ENG&toc=OJ:L:2017:312:TOC

proposals covering the exchange of balancing energy, imbalance adjustment and common settlement rule. These proposals were submitted to us by the relevant TSOs in line with our assignment of obligations.[117] As a result of this work, we requested ACER to adopt a decision on the implementation framework for the exchange of balancing energy from frequency restoration reserves with manual activation (the mFRR IF), and for the exchange of balancing energy from frequency restoration reserves with automatic activation (aFRR IF) as well as the pricing proposal as part of the EBGL. This was alongside our request to the ESO to amend the activation purposes proposal and the proposed Imbalance Settlement Harmonisation. We approved the rules for unintended energy exchanges and requested the relevant TSOs amend the proposed TSO-TSO settlement rules for intended energy exchanges across synchronous areas as part of the EBGL.[118] We published our decision on this new methodology in June 2020.[119]

In GB, we also engaged very closely with GB stakeholders, in particular National Grid and the Balancing Settlement Code Company (BSCCo or Elexon) on the ESO's National Terms and Conditions for balancing required by Article 18 EBGL.[120] Following detailed, and extensive review of the ESO's submission, we have confirmed these terms and conditions. Moreover, a number of industry code modifications aimed at bringing the governance of the GB domestic codes in line with the EBGL either have also been approved or are ongoing.

Finally, we took a number of decisions on the Grid code, Balancing and Settlement Code and CUSC modifications that relate to the national implementation of project TERRE. TERRE is the implementation project of the European platform[121] for the exchange of balancing energy from replacement reserve as required by Article 19 of the EBGL. The goal of the TERRE project is to develop a platform that allows the TSOs performing the replacement reserve process to exchange balancing energy from this type of reserve. We granted the ESO a derogation from the obligation to connect to the TERRE platform until the earliest of the following dates:[122]

---

[117] Ofgem multiple TSO (mTSO) decision letter https://www.ofgem.gov.uk/publications-and-updates/decision-assignment-transmission-system-operator-obligations-under-guideline-electricity-balancing-regulation-within-gb
[118] Ofgem decision to request for amendments 3 proposals and request for the agency to adopt decisions on 3 proposals required by the EBGL Regulation https://www.ofgem.gov.uk/system/files/docs/2019/08/decision_to_request_for_amendments_to_3_proposals_and_request_for_the_agency_to_adopt_decisions_on_3_proposals_required_by_the_ebgl_regulation.pdf
[119] Our June 2020 decision: https://www.ofgem.gov.uk/system/files/docs/2020/05/decision_to_approve_the_common_settlement_rules_for_intended_exchanges_of_energy_between_synchronous_areas.pdf
[120] Ofgem decision on the Transmission System Operators' proposal for the terms and conditions related to Balancing https://www.ofgem.gov.uk/ofgem-publications/156893
[121] This platform will enable the exchange of balancing energy across the different markets that use replacement reserves.
[122] Ofgem decision to grant the Electricity System Operator a derogation from the use of the European platform for the exchange of balancing energy from the replacement

i) 30 June 2020
ii) The date when Réseau de Transport d'Électricité (RTE) begins using the platform
iii) The date when RTE makes its cross-zonal capacity available in line with the decision of the French regulator CRE

3.1.8 Compliance

(Subheadings relate to each of the investigations/compliance cases)

Anti-competitive agreements

We opened an investigation in September 2016 to establish if there had been an infringement of Chapter I of the Competition Act 1998 (CA98). The investigation[123] concerned a suspected anti-competitive agreement between Economy Energy Trading Limited (Economy Energy), E (Gas and Electricity) Ltd (EGEL) and Dyball Associates (Dyball) (the Parties). On 29 May 2018, we issued a statement of objections to the three Parties to the investigation.

We found that Economy Energy, EGEL and Dyball entered into an agreement and/or concerted practice to share markets and/or allocate customers between Economy and EGEL in relation to the supply of gas and electricity to domestic customers in GB. Under the infringement, Economy, EGEL and Dyball agreed that neither Economy and EGEL, nor their sales agents, would actively target customers already supplied with gas and/or electricity by the other, but each other's existing customers would be allowed to switch between the two businesses if they pro-actively sought to do so. The infringement was supported by the Parties sharing commercially sensitive and strategic information in the form of details of their current customers. The object of this agreement and/or concerted practice was the prevention, restriction or distortion of competition.

We found that the Parties committed the infringement intentionally or negligently and have decided to impose financial penalties of £650,000 on EGEL, £200,000 on Economy Energy and £20,000 on Dyball. Economy Energy is now in administration.

---

reserve process
https://www.ofgem.gov.uk/system/files/docs/2019/11/terre_ofgem_decision_to_grant_a_derogation.pdf

[123] https://www.ofgem.gov.uk/publications-and-updates/investigation-whether-economy-energy-e-gas-and-electricity-and-dyball-associates-have-infringed-chapter-i-competition-act-1998-respect-suspected-anti-competitive-agreement

Infringement of Chapter II of the Competition Act 1998 and/or Article 102 Treaty on the Functioning of the EU in respect of wholesale trading activities

We opened an investigation[124] into whether there had been an infringement of Chapter II of the CA98 and/or Article 102 of the Treaty on the Functioning of the EU concerning a potential abuse of a dominant position in relation to wholesale trading activities. Our investigation examined whether EPEX Spot SE, a power exchange operating in GB, had abused or was abusing a dominant position in relation to access to cross-border intraday electricity trading platforms and related services between GB and Ireland. On 18 June 2019, we accepted commitments from EPEX Spot SE and EEX. The formal acceptance of these commitments by us resulted in our investigation being discontinued without any decision being made as to whether or not the CA98 and/or the Treaty on the Functioning of the EU had been infringed.

Price cap overcharging

In December 2019, Utility Warehouse discovered that 3,430 of its customers who received the Warm Home Discount payment, but pay for their energy when they receive a bill, were paying above the correct default tariff cap level between January and November 2019.

Utility Warehouse promptly self-reported this issue to Ofgem and confirmed that an overcharge of £150,000 had occurred. The supplier's systems were swiftly updated to correct the issue. Utility Warehouse refunded and compensated 3,430 Warm Home Discount customers with £450,000 after it overcharged them. An additional £200,000 was paid into Ofgem's Voluntary Redress Fund by Utility Warehouse.

Price cap overcharging

A whistle-blower came forward to us in August 2019 with credible information supporting our monitoring and compliance activities. Ofgem found that iSupply had insufficient governance and processes in place to prevent and swiftly address non-compliance. iSupply did not correct customers' tariffs or issue refunds to those affected in a timely manner. iSupply Energy Ltd also did not self-report to us or act quickly to put things right. Energy Ltd paid £1.5m in a voluntary redress payment after it overcharged around 4,400 of its customers on the default tariff. It has also confirmed that it has improved its governance and processes and will continue to invest in process and systems changes to ensure that these or similar issues do not occur again.

---

[124] https://www.ofgem.gov.uk/publications-and-updates/investigation-whether-epex-spot-se-has-infringed-requirements-chapter-ii-competition-act-1998-andor-article-102-treaty-functioning-european-union-respect-wholesale-trading-activities

Price cap overcharging

Shell Energy Retail[125] overcharged around 12,000 electricity and gas customer accounts above the price cap by a sum of £100,736.63 during the period from January and March 2019.

6,200 Shell Energy Retail customer accounts were on tariffs that were not compliant with the price cap. These customers were paying above than the cap level for their gas and/or electricity. Shell Energy Retail agreed to refund these customers and pay an additional £62,000 in compensation (£10 per fuel).

The remaining 5,600 customer accounts experienced a delay in their energy price being reduced under the price cap after they had requested to change to a cheaper tariff. Therefore, they were paying above the cap level for longer than necessary. Shell Energy Retail agreed to refund these customers and pay £29,000 in compensation (£5 per fuel).

Shell Energy Retail also agreed to pay an additional £200,000 into Ofgem's Voluntary Redress Fund to help support vulnerable customers.

Under delivery of the ECO3 obligation.

Utilita Energy[126] failed to meet its carbon reduction obligations under the Energy Company Obligation (ECO) scheme between 2015 and 2018, the second phase of the scheme. Utilita missed its overall target to reduce carbon emissions from customers' homes (the Carbon Emissions Reduction Obligation) by 2%. It also missed targets for two sub-obligations – to reduce carbon emissions for vulnerable households in rural areas and to insulate homes with solid walls – by 20% and 3% respectively.

Utilita paid £175,000 to the Voluntary Redress Fund. Utilita Energy volunteered to provide more frequent updates for the next phase of the ECO scheme. It has also assured us that it has the processes in place to effectively manage its delivery. We decided not to take formal enforcement action, taking into account the steps Utilita Energy has taken to address its failings and the redress it has agreed to pay.

[125] https://www.ofgem.gov.uk/publications-and-updates/shell-energy-retail-pays-390000-after-overcharging-some-default-tariff-cap-customers
[126] https://www.ofgem.gov.uk/publications-and-updates/utilita-energy-pay-175000-after-failing-meet-carbon-emission-reduction-obligations

Standards of Conduct and information for customers about deemed contracts

In December 2018, we became aware that Green Star Energy[127] was not updating its change of tenancy records in a timely manner and was not sending Welcome Packs to new tenants as required by its licence. The affected customers were all within the private rental market. This failure meant tenants may not have been aware of who was supplying their energy, that they were on a potentially more expensive deemed tariff, that contracts with different terms may be available and — importantly — it prevented tenants from switching to a better deal.

Green Star Energy identified 1,829 customers who had not received Welcome Packs and were on potentially more expensive deemed contracts. It paid compensation of £60 to each affected customer in recognition of the fact that these customers did not receive Welcome Packs and if these customers had tried to contact Green Star Energy, they would not have been able to progress their enquiry due to not being on the supplier's records. Green Star Energy also paid an additional voluntary contribution of £240,260 to the Voluntary Redress Scheme in recognition of its failings. As a result, total redress payments amounted to£350,000.

Power cut on 9 August 2019

We investigated the power outage[128] of Friday 9 August 2019, to establish the circumstances and causes of the outage and identify improvements to bolster the resilience of GB's energy network. The investigation found that the combined loss of two large generators, as well as the smaller loss of generation at a local level, together triggered the subsequent disconnection, loss of power and disruption to more than one million consumers. Two large power stations, Hornsea One Ltd (co-owned by Orsted) and Little Barford (operated by RWE) did not remain connected after a lightning strike. They made a voluntary payment of £4.5m each into the Voluntary Redress Fund.

In addition to this, UK Power Networks began reconnecting customers without being asked to by the ESO, which could have potentially jeopardised recovery of the system. This had no impact on 9 August. UK Power Networks has recognised this technical breach and taken action to prevent any future reoccurrence, as well as agreed to pay £1.5m into the Voluntary Redress Fund.

[127] https://www.ofgem.gov.uk/publications-and-updates/green-star-energy-pay-350000-over-failings-renters
[128] https://www.ofgem.gov.uk/publications-and-updates/investigation-9-august-2019-power-outage

Our investigation into the role of the ESO in the power cut is ongoing and is addressed in the next section.

Charging customers for a paper bill

We received correspondence from a customer who received a bill which included an explicit charge of approximately £4 for paper billing from Shell Energy. We reviewed Shell communications and found this charge quoted on its bills. Suppliers are prohibited from charging customers for paper billing under SLC 21B.8. As a result, Shell Energy promptly took action and removed the charge from its next batch of bills and updated its standard terms and conditions. Shell also agreed to pay £100,000 into the Voluntary Redress Fund in recognition of its failings.

Provision of annual statements to PPM customers

Shell Energy self-reported an error in its IT systems which led to it failing to provide Annual Statements and Statements of Account to its prepayment meter (PPM) customers. In addition to this, Shell also reported that it had failed to allocate payments made by customers to the specific customer accounts to ensure reconciliation with the meter. Shell took the steps to correct these issues with its systems and affected customers were sent an apology and given rebates for any over-payments made on its meters. Shell paid £224,864 in refunds and £116,330 in goodwill payments. In addition to this, Shell paid £100,000 into the Voluntary Redress Fund as well as an additional £98,106 representing payments due to customers who they could no longer trace.

Security deposit payments for former customers of Spark from Supplier of Last Resort (SoLR) process

Following the SoLR process, Ovo Energy was appointed to take over supply for Spark Energy's customer base. We became aware that Ovo Energy had taken security deposit payments from some former Spark customers (those on standard credit, paying in arrears rather than by direct debit). This appears to have led to confusion among these Spark Energy customers, many of whom did not realise that their latest payments were being used for this purpose rather than to pay their energy bill. Ovo Energy refunded £469,081.36 and paid a further £173,310 in compensation to its affected customers.

In addition to this, other compliance engagement resulted in the following. Please note there is a minor variance due to rounding.

Table 2: Compliance engagement arising from SoLR process.

Type of impact	Value
Refunds paid to customers	£101,000
Compensation payments to consumers	£169,000
Redress payments to the Voluntary Redress Fund	£6,000
Total	£275,000

3.1.8.1 Ongoing investigations

Enforcement Section

The following enforcement investigations were also ongoing as of 31 March 2020:

- Investigation into Western Power Distribution plc and its compliance with obligations relating to the Priority Services Register (PSR)
- Investigation into whether NGET plc and SP Transmission plc breached licence conditions and statutory obligations relating to the delivery and operation of the Western High Voltage Direct Current (WHVDC) subsea link between Scotland and Wales
- Investigation into whether there has been an infringement of Chapter II of the CA98 and/or Article 102 of the Treaty on the Functioning of the EU, concerning potential abuse of a dominant position by a company providing services to the energy industry
- Investigation into whether Ovo has complied with its obligations under SLCs 22C, 25C (SLC 0 from 10 October 2017), 26, 27, 28A and 31A of the gas and electricity supply licences in respect of information on bills, statements of account and Annual Statements
- Investigation into NGET and its compliance with its obligations under the SLC 16 of the Transmission Licence
- Investigation into Utility Warehouse's compliance with SLCs 25C/0, 27.5, 27.8, 28B and 32A of the Electricity Supply Licence and the Gas Supply Licence

- Investigation into whether Utilita breached Standard Licence Condition 28A, relating to the price cap for pre-payment meter customers

- Investigation into the ESO's role in the power outage of 9 August 2019

REMIT - Section 3.2.1.1 of this report provides information on our work in this area in respect of monitoring, investigation and improving compliance.

The fact that the investigations have been launched does not imply that any company has breached its obligations.

Provisional Orders

Below are details of the provisional orders (POs) issued in accordance with section 25(2) of the EA89 and confirmed during the reporting period (April 2019 to March 2020). Four POs were issued and six POs concluded during this reporting period (two of which issued in the previous year).

The new POs issued this year are as below.

Failure to make FIT Levelisation Payment - Foxglove Energy Supply Limited

In February 2020, we issued a PO[129] relating to the requirement for Feed-in Tariff (FIT) licensees to make FIT Levelisation Payments on both a quarterly and annual basis. These payments are a requirement under SLC 33 and the FIT Order 2012.

Foxglove Energy Supply Limited (Foxglove) was late making quarterly payments in Q2 and Q3 of FIT Year 9. Upon request for assurance, Foxglove informed the Authority that it would be unable to make its FIT Levelisation Payment for Q3 FIT Year 10 by the deadline of 12 February 2020. The PO required Foxglove to make the payment of its Q3 FIT Year 10 Levelisation Payment, in full, by the deadline.

Failure to make Renewables Obligation (RO) payment – Breeze Energy

On 31 October 2019, we issued a PO[130] to Breeze Energy Supply Ltd (Breeze). Breeze failed to meet its Renewables Obligations (RO), because it did not produce Renewables Obligation

[129] https://www.ofgem.gov.uk/publications-and-updates/foxglove-energy-supply-limited-provisional-order
[130] https://www.ofgem.gov.uk/publications-and-updates/breeze-energy-supply-ltd-provisional-order

Certificates (ROC) to us by 1 September 2019, or make payments as an alternative by 31 August 2019, sufficient to discharge its RO (in accordance with article 7 of the RO Order). Breeze ceased trading on 18 December 2019 and its licences to supply gas and electricity were revoked as of 22 December 2019. As a result, the provisions of the PO, issued to Breeze on 31 October 2019, are no longer in effect.

Failure to make Renewables Obligation payment – Nabuh Energy

We also issued a PO[131] to Nabuh Energy Ltd (Nabuh) on 31 October. Nabuh failed to meet its RO, because it did not produce ROCs to us by 1 September 2019, or make payments as an alternative by 31 August 2019, sufficient to discharge its RO.

In September 2019, Nabuh provided assurance that it could and would be in a position to make the necessary payment, including applicable interest, by the late payment deadline of 31 October 2019. However, on 30 October 2019, Nabuh informed Ofgem that it would not be able to pay its RO in full by 31 October 2019. The PO required Nabuh to make the payment of its RO, in full. Nabuh made the required payment shortly afterwards and as a result the PO was revoked.

Failure to make payments to FIT generators

On 10 May 2019, the Authority issued a PO[132] to Solarplicity. We received communications from several FIT Generators that claimed they had not received the FIT Payments due to them for Q3 of FIT Year 9 (1 October 2018 – 31 December 2018). We subsequently found that many payments due to FIT Generators by 21 February 2019 had not been made. Solarplicity provided a revised date for payment to generators for 5 March 2019, but in most cases this revised payment date was not met.

The PO required that Solarplicity made all outstanding FIT Payments due to be paid to FIT Generators by 16 May 2019, and that it made all future FIT Payments that became due to FIT generators on the due date. We consulted on the PO and received reports provided by Solarplicity that showed that Solarplicity did not make payments to FIT Generators when they were due. In addition to the reporting information, we received three representations from generators advising that they had not received the payment due to them. We were satisfied that Solarplicity was contravening and would be likely to further contravene SLC

131 https://www.ofgem.gov.uk/publications-and-updates/nabuh-energy-ltd-provisional-order
132 https://www.ofgem.gov.uk/publications-and-updates/solarplicity-supply-ltd-provisional-order-failure-make-fit-payments

33.2. We confirmed the PO on 8 August 2019. However, Solarplicity ceased trading and we revoked its licence on 17 August 2019. The PO is no longer in effect.

The six POs that have concluded during this period are detailed below.

Failure to participate in the Active Choice Collective Switch Autumn Trial

In September 2018, a PO[133] was imposed on npower for refusing to comply with a direction from Ofgem requiring its participation in the Active Choice Collective Switch Autumn Trial. These trials were introduced by Ofgem in response to the recommendations made by the CMA following the Energy Market Investigation.

Npower challenged the lawfulness of the PO and requested a judicial review. As npower refused to comply with the PO, we successfully enforced it by obtaining an injunction in the High Court. On 21 December 2018, the High Court issued its decision to dismiss npower's claim for a judicial review on our decision that they should work with us on our ongoing trial of simplified collective switching. In relation to the PO issued to npower, npower has now complied with the direction requiring its participation in the Active Choice Collective Switch Autumn Trial. We revoked the PO on 9 May 2019 as npower demonstrated its compliance with SLC 32A.

Consumer Complaints Handling Standards, debt recovery/ability to pay and treatment of vulnerable consumers

In February 2019, we issued a PO[134] relating to Solarplicity's compliance with SLCs 0, 14, 22, 27 and the Consumer Complaints Handling Standards 2008 (CHSR). We had concerns relating to treating customers fairly, customer service, complaints handling, debt recovery/assessing ability to pay and the treatment of vulnerable consumers. Customers were not able to contact Solarplicity and some of its contact channels were not fit for purpose. On 18 April 2019, we published its notice of proposal to confirm, with modifications to the PO dated 22 February 2019, and asked for representation by 13 May 2019. After carefully considering the four representations, we decided not to confirm the PO issued to Solarplicity Supply Limited. Solarplicity's performance had improved since the issue of the PO and it agreed to a range of ongoing measures which would build on and sustain the improvements shown in respect of the relevant conditions set out in the PO. We were satisfied that Solarplicity was no longer

[133] https://www.ofgem.gov.uk/publications-and-updates/npower-provisional-order
[134] https://www.ofgem.gov.uk/publications-and-updates/solarplicity-supply-ltd-provisional-order

contravening or likely to contravene the licence conditions outlined in the PO. Subsequently Solarplicity ceased trading and we revoked its licence on 17 August 2019.

Failure to make FIT Levelisation Payment

We revoked a PO[135] in accordance with section 25(7)(c) of the EA89 which required Foxglove to make FIT levelisation payments on time. We decided that the terms of the PO were no longer requisite for the purpose of ensuring Foxglove's compliance, as Foxglove paid the outstanding sum on 12 February 2020.

Failure to make FIT Levelisation Payment

On 17 August 2019 the Authority revoked Solarplicity Supply Limited's licences to supply gas and electricity following its announcement that it would cease trading. As a result, the PO issued to Solarplicity Supply Limited on 10 May 2019 is no longer in effect. Solarplicity had not made its FIT payment before they ceased trading. We will look to claim the FITs payment through the administrator.

Failure to make RO payment – Breeze Energy

Breeze Energy Supply Ltd (Breeze) ceased trading on 18 December 2019 and its licences to supply gas and electricity were revoked as of 22 December 2019. As a result, the provisions of the PO, issued to Breeze on 31 October 2019, are no longer in effect.

Failure to make RO payment – Nabuh Energy

On 21 November 2019, we issued a revocation of a PO[136] in accordance with section 25(7)(c) of the EA89. The Authority decided that the terms of the PO were no longer requisite for the purpose of ensuring Nabuh's compliance, as Nabuh paid the outstanding sum on 8 and 15 November 2019.

Final Orders

Below are details of the final orders (FO) made during the year from April 2019 to March 2020.

[135] https://www.ofgem.gov.uk/publications-and-updates/foxglove-energy-supply-limited-provisional-order
[136] https://www.ofgem.gov.uk/publications-and-updates/nabuh-energy-ltd-provisional-order

Failure to become a Data Communications Company (DCC) User by deadline of 25 November 2017

We issued nine FOs for consultation in January 2020 in relation to supplier DCC user non-compliance. After consultation, from the nine, we made FOs to suppliers Symbio,[137] Euston Energy (trading as Northumbria Energy),[138] Entice Energy, and Enstroga.[139] These suppliers had failed to become DCC users by 25 November 2017 and remained non-compliant. SLCs 42.8 of the gas supply licence and 48.8 of the electricity supply licence require licensees to become DCC Users by 25 November 2017. As result of the FOs, these suppliers have made significant progress towards becoming DCC users.

Failure to make Renewables Obligation payment

On 1 October 2019, we published a notice of proposal to issue a FO[140] to Gnergy Ltd (GnERGY). GnERGY had failed to meet its ROs 2018-19, by failing to produce ROCs to us by 1 September 2019, or to make payments as an alternative by 31 August 2019, sufficient to discharge its RO. The FO required GnERGY Ltd to make a payment to the Authority in full settlement of its RO for the obligation period of 1 April 2018 to 31 March 2019, in the sum of £673,876.62, plus accrued interest, by no later than 31 October 2019. GnERGY subsequently failed to pay its RO by the deadline, and has made no further payments since that deadline. We then issued GnERGY with a notice of failure to comply with a FO. The notice explained that if this failure was not rectified to our satisfaction within three months of GnERGY receiving the notice, we may at any time revoke GnERGY's electricity supply licence subject to giving no less than 30 days' notice. Subsequently, GnERGY ceased trading, and Bulb took over its customer base through our SoLR process. We will be taking steps revoke GnERGY's license.

Failure to become a DCC User by deadline of 25 November 2017

We issued a consultation for a FO[141] regarding Avro Energy Limited's (Avro) DCC compliance from the previous reporting period on 8 March 2019. We received two representations from Avro which we considered in our decision to make the FO. We made the FO on 3 April 2019 as Avro had failed to become a DCC user by 25 November 2017 and remained non-compliant. SLCs 42.8 of the gas supply licence and 48.8 of the electricity

[137] https://www.ofgem.gov.uk/publications-and-updates/symbio-energy-limited-final-order
[138] https://www.ofgem.gov.uk/publications-and-updates/euston-energy-ltd-trading-northumbria-energy-final-order
[139] https://www.ofgem.gov.uk/publications-and-updates/enstroga-ltd-final-order
[140] https://www.ofgem.gov.uk/publications-and-updates/gnergy-limited-final-order
[141] https://www.ofgem.gov.uk/publications-and-updates/avro-final-order

supply licence require licensees to become DCC users by 25 November 2017. During June 2019, Avro had completed all the required steps to become a DCC user and had therefore met the requirements set out in the FO. We then published our notice of proposal to revoke the FO. On 2 August, we issued a revocation order; therefore, the FO is no longer in place.

We have also provided details of notices of consultation issued for a FO, which were not made.

Failure to become a DCC user by deadline of 25 November 2017

We decided not to make FOs for Ampower[142] and Green Supplier Ltd[143] as they had become compliant with the DCC User Mandate. We also received a letter dated 27 January 2020 from Better Energy requesting the revocation of its electricity and gas licences. As result of its request to revoke its licenses, we made a decision not to make a FO on Better Energy.

Failure to make Renewables Obligation payment

On 1 October 2019, we published a notice of proposal to issue a FO on Toto Energy.[144] Toto Energy failed to meet its ROs by failing to produce ROCs to the Authority by 1 September 2019, or to make payments as an alternative by 31 August 2019, sufficient to discharge its RO. As TOTO Energy Ltd (TOTO) ceased trading on 23 October 2019, we took the decision not to proceed with issuing a FO. We will continue to engage with TOTO’s administrators and seek to recover as much money as possible through that process.

We also published a notice of proposal to issue a FO on 1 October 2019 on Delta Gas and Power Ltd.[145] Delta Gas and Power Ltd had failed to meet its RO for 2018-19 by failing to produce ROCs to us by 1 September 2019, or to make payments as an alternative by 31 August 2019, sufficient to discharge its RO. Delta Gas and Power Ltd made full payment of its RO for 2018-19, including all applicable interest, thus ensuring compliance with its RO for 2018-19. The FO was not made as they complied with obligations.

Lastly, on the 1 October 2019, we published a notice of proposal to issue a FO on Robin Hood Energy.[146] Robin Hood Energy had failed to meet its RO for 2018-19 by failing to produce ROCs to the us by 1 September 2019, or to make payments as an alternative by

[142] https://www.ofgem.gov.uk/publications-and-updates/ampoweruk-ltd-final-order
[143] https://www.ofgem.gov.uk/publications-and-updates/green-supplier-limited-formerly-known-green-energy-supply-limited-final-order
[144] https://www.ofgem.gov.uk/publications-and-updates/toto-energy-limited-final-order
[145] https://www.ofgem.gov.uk/publications-and-updates/delta-gas-and-power-limited-final-order
[146]https://www.ofgem.gov.uk/publications-and-updates/robin-hood-energy-limited-final-order

31 August 2019, sufficient to discharge its RO. Robin Hood Energy Ltd made full payment of its RO for 2018-19, including all applicable interest, thus ensuring compliance with its RO for 2018-19. On 29 October 2019, we made a decision not to make the FO.

We have also detailed the outcomes of the FOs that have concluded during this year. These FOs were issued during the previous year but concluded within this year.

Failure to make RO payment

On 13 February 2019, we published our notice of proposal to issue a FO on URE Energy.[147] URE failed to meet its RO by failing to produce ROCs to the Authority by 1 September 2018, or to make payments as an alternative sufficient to discharge its RO. We received a representation from SSE which we carefully considered. We made the FO on 8 March 2019 as we had not received payment in full for the sum of £209,013.78 (including interest). URE did not make the outstanding RO payment. We issued a notice of failure to comply with a FO, which gave URE three months to comply. URE did not rectify its failure to comply with the notice within three months. We decided to revoke URE's licence within 30 days' notice. Its licence was revoked on 14 September 2019.

[147] https://www.ofgem.gov.uk/publications-and-updates/ure-final-order

3.2 Competition and market functioning

3.2.1 Wholesale markets

The following section is an overview of our monitoring under Article 37(1)(i), (j), (k), (l), (u) and Article 40(3) of the Electricity Directive, and the main developments in the wholesale electricity market in GB during 2019. Details are summarised below:

- Monthly averaged over-the-counter[148] (OTC) day-ahead baseload and peakload electricity prices for 2019 were down from 2018, decreasing 25% and 24% respectively.
- Price decreases over the past year were mainly driven by an oversupplied global gas market, with consistently high deliveries of LNG pushing down gas prices, which fed through to power prices.
- Annual churn rates for total traded electricity volumes decreased to 3.59 in 2019 compared with 3.68 in 2018 (Figure 3).
- The total traded volume of wholesale electricity decreased in 2019 by 5% to 1,038 TWh.
- Net imports along GB's interconnectors increased by around 10% between 2018 and 2019 to 21.49 TWh.
- EDF again contributed the largest proportion of power generation in GB. Drax, RWE, SSE, and Uniper all produced more than 5% each of total GB generation.

Policy developments in several areas of GB's wholesale electricity market have continued throughout 2019. Some notable areas of our work include:

- Continuing implementation of the system operation guideline, including final decisions on synchronous area operational agreements and LFC Block agreements
- Continuing work on the Electricity Balancing Guideline and the Emergency and Restoration Code
- Aligning the domestic industry codes with the EU framework and in particular in relation to the national implementation of project TERRE
- Continuing the development and implementing the markets guidelines to facilitate an efficient and effective cross-border trade through close coordination with other European NRAs, TSOs, and NEMOs

---

[148] Over The Counter - bilateral trading between two market participants or where an intermediary (the broker) brings together a buyer and seller.

- Delivering further changes to the CM rules and the framework for regulating the Delivery Body, which administers the CM

3.2.1.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

Prices

Wholesale prices are compiled and made available to market participants by a number of independent pricing agencies, energy market brokers, and exchanges.

Argus Media, ICIS Energy and Platts provide pricing based on reported OTC trades, which are made available to the market via subscription services. Data providers produce reference price data for a wide variety of peak and baseload contracts up to several years ahead of delivery. Close to real time, OTC trading data is available via financial data providers.

In addition to a wide range of OTC pricing data, three power exchanges in the GB electricity market[149] all provide pricing data to the market. Imbalance or "cash-out" prices from the balancing market are also provided to the market via the Balancing Mechanism Reporting Service site.[150]

Figure 2 below, shows monthly averaged OTC day-ahead baseload and peak electricity prices in GB since the beginning of 2011. Following high prices leading into Q4 2018 due to the high winter demand over winter 2017-18 and subsequent high demand for gas injections, baseload and peak prices were on a broadly downward trend throughout 2019. In 2019, both baseload and peak annual averages prices fell to £43.73/MWh from £58.26/MWh and £47.41/MWh from £62.29/MWh respectively.

[149] Epex Spot, N2EX (a Nord pool Spot and Nasdaq OMX commodities joint venture) and the Intercontinental Exchange (ICE).
[150] Balancing mechanism reporting service: https://www.bmreports.com/bmrs/?q=help/about-us. Section 4.2 has more details on gas prices.

Figure 2: GB monthly and annual averaged day-ahead baseload and peakload power prices

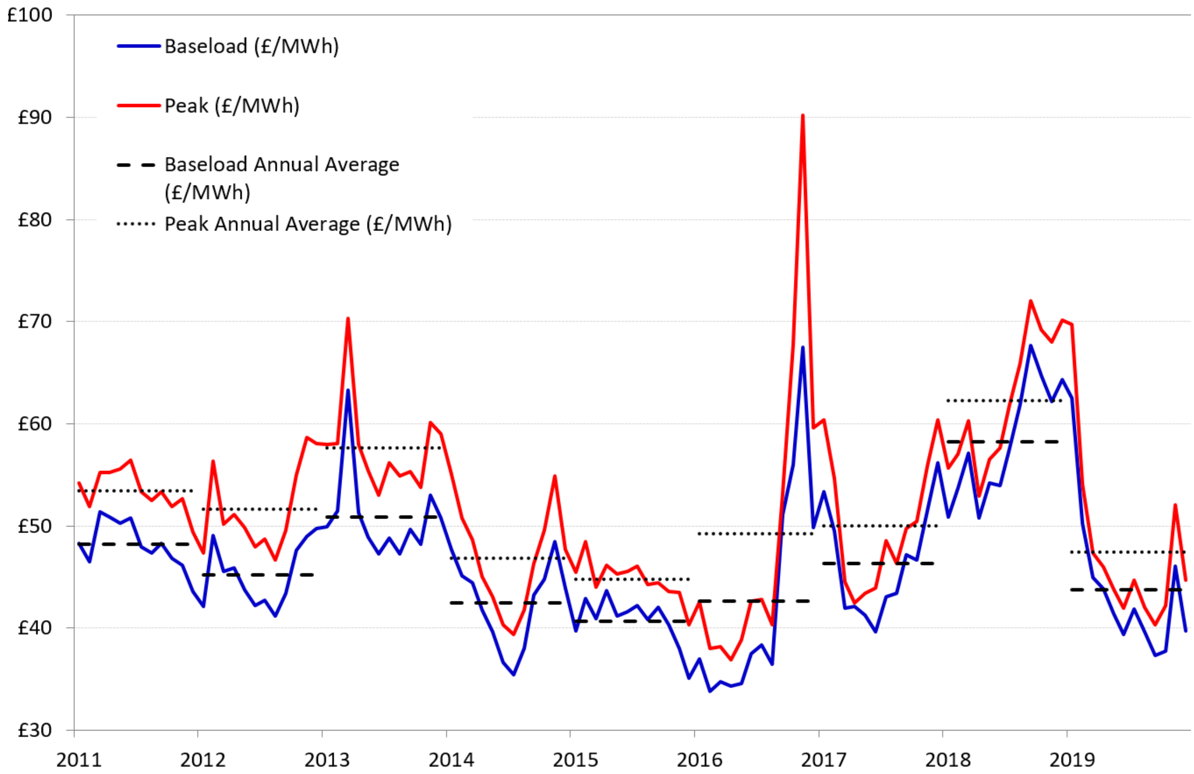


Table 3: Data table for Figure 2

Year	Baseload Average	Peak Average
2011	48.20	53.48
2012	45.20	51.63
2013	50.83	57.68
2014	42.43	46.89
2015	40.71	44.76
2016	42.63	49.26
2017	46.32	50.05
2018	58.26	62.29
2019	43.73	47.41

Source: ICIS Energy

Liquidity

On 31 March 2014, new regulatory requirements to promote liquidity in the wholesale electricity market came into effect.[151] We introduced these reforms, known as "Secure and Promote" (S&P) because we were concerned that low liquidity was a barrier to effective competition. The aim was to help independent suppliers access the wholesale market and ensure that it provides the products and price signals that all companies need to compete

[151] https://www.ofgem.gov.uk/publications-and-updates/wholesale-power-market-liquidity-decision-letter

effectively. S&P was introduced as a special licence condition in the generation licences of the largest six vertically integrated companies and the two largest independent generators.

The licence obligation included three key elements:

1. A market making obligation (MMO) that obliges firms to post prices at which they would be prepared to buy and sell electricity. It creates more transparency in the wholesale market as participants can see prices for delivery of electricity up to two years out. This is important for building trust and confidence.

2. Supplier Market Access rules to improve access to the wholesale market for smaller suppliers. These rules ensure that the largest eight generators cannot treat requests to trade by independents as a low priority. The rules also set deadlines for them to respond to these requests.

3. A reporting requirement of day-ahead trading of the six largest vertically integrated companies and the two largest independent generators.

We have been monitoring liquidity in the market since 2014. Our monitoring suggested mixed results, for example greater traded volumes of forward products, improved reference prices, and lower bid-offer spreads suggesting some improvement in the availability of products that support hedging, but no step change in churn and a concentration of traded volumes within the market making windows.

Figure 3: GB total traded volume, generated volume and churn ratios from 2000 to 2019

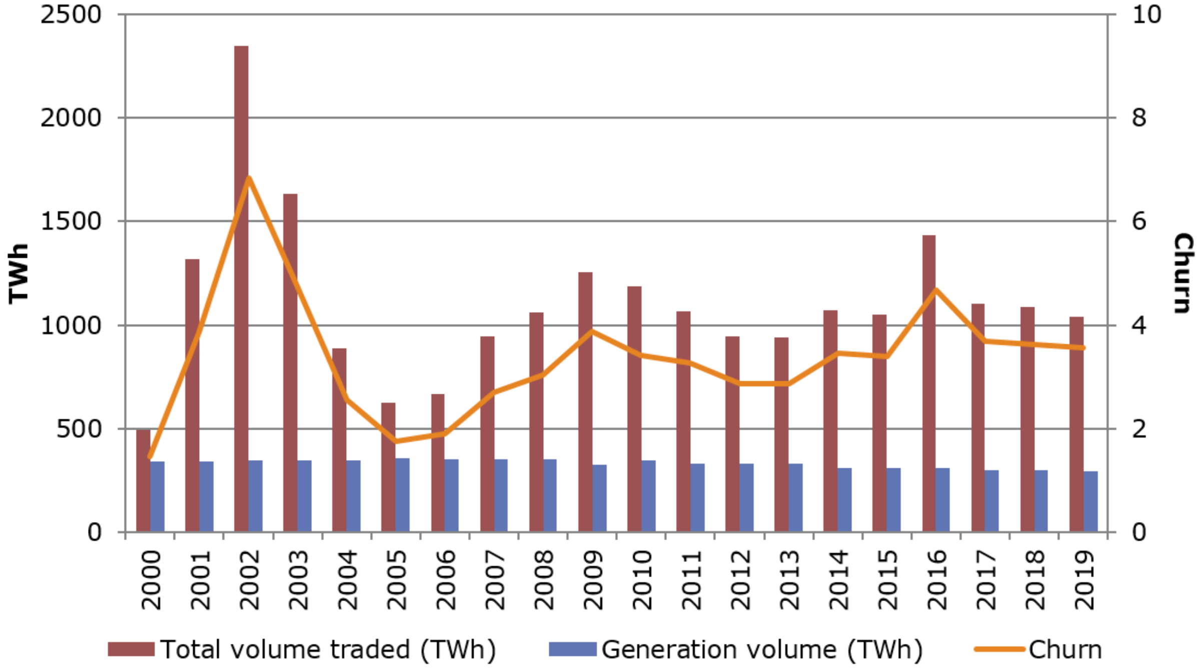


Table 4: Data table for Figure 3

Year	Total volume traded (TWh)	Generation volume (TWh)	Churn
2000	492	340	1.4
2001	1317	343	3.8
2002	2352	344	6.8
2003	1636	347	4.7
2004	889	348	2.6
2005	624	355	1.8
2006	668	353	1.9
2007	946	352	2.7
2008	1061	351	3.0
2009	1256	324	3.9
2010	1185	347	3.4
2011	1066	327	3.25
2012	943	328	2.87
2013	940	328	2.86
2014	1073	311	3.45
2015	1053	310	3.39
2016	1432	307	4.67
2017	1104	300	3.68
2018	1087	299	3.63
2019	1038	291	3.56

Source: ICIS Energy, EPEX Spot, ICE, N2EX, BEIS DUKES.

Suspension of the MMO

Following the MMO's introduction in 2014, a series of market changes led to a steady decline[152] in the number of obligated parties. By 2019, the number of obligated parties reduced to the point where it risked the policy becoming less effective in meeting its objectives and the remaining parties being subject to disproportionate and unfair costs.

On 19 September 2019, Ofgem received a request for release from the MMO from RWE following the sale of its shares in Innogy SE to E.ON. As this would reduce the remaining number of obligated parties to two, Ofgem published on 8 October 2019 an open letter seeking views on a proposal to suspend the MMO in the event RWE were released from the obligation. This proposal reflected concerns that a further reduction in the number of obligated parties would lead to the policy becoming less effective in meeting its objectives and that the remaining obligated parties could be subject to disproportionate and unfair costs. On 30 October 2019, RWE were released from the obligation on account of structural changes to the business.

Following consideration of responses to the open letter, on 18 November 2019 we suspended the MMO.[153] This 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.

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 assessing the impact of suspension on liquidity and the need for further intervention. To provide the market with time to adjust to the suspension of the MMO, we plan to capture a minimum of six months of data before undertaking this assessment.

Transparency

REMIT

REMIT prohibits insider trading and market manipulation, bringing regulation of the wholesale power and gas markets in line with equivalent financial markets.[154] Since 2013, Ofgem has been monitoring and investigating potential breaches of REMIT.[155] Our REMIT work supports effective competition and promotes trust and confidence in the wholesale markets.

[152] 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.
[153] https://www.ofgem.gov.uk/publications-and-updates/decision-suspend-secure-and-promote-market-making-obligation-effect-18-november-2019
[154] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011R1227&from=EN
[155] In 2013 the Electricity and Gas (Market Integrity and Transparency) (Enforcement etc) Regulations 2013 took effect. These gave Ofgem the ability to monitor, investigate and enforce against breaches of REMIT.

We have continued to monitor the wholesale market for suspected breaches of REMIT and conducted all stages of REMIT investigations from identification of issues through to formal investigation. In addition, we have engaged with a number of companies in order to improve compliance processes. As of 2019, we currently have registered approximately 1,400 market participants and continued to support those who still needed to register.

We have been actively providing guidance on REMIT issues through our open letters, and have been working closely with ACER, other NRAs and financial regulators, such as the Financial Conduct Authority, to develop the REMIT framework. This cooperation helps us deal effectively with potential instances of market abuse that have an impact on wholesale energy markets in more than one EU country or where there may be crossovers with financial markets.

During 2019, we have worked with BEIS to ensure that all the legal requirements of REMIT endure once the UK leaves the EU. Ofgem will continue to monitor and enforce GB wholesale energy market integrity and transparency as it does currently. The obligation on market participants to publicly disclose inside information in an effective and timely manner, and the prohibitions on insider trading and market manipulation, will remain. Also, we will continue to monitor, investigate and enforce breaches of integrity and transparency using our powers under Electricity and Gas (Market Integrity and Transparency) (Enforcement etc) Regulations 2013.

2019 saw the publication of Ofgem's first REMIT finding.[156] This case concerned Market Manipulation within the GB's National Balancing Point (NBP) gas market committed by Engie Global Markets and led to the Authority imposing one of the largest fines in the EU.

In April 2020, we published our decision on the investigation under REMIT and the EA89 into recent conduct by InterGen.[157] The investigation commenced in 2016 and at the time of the market abuse, the margins between electricity supply and demand were very tight, signalling a potential shortage. The misleading signals provided by InterGen staff made margins appear even tighter and pushed National Grid into spending money in the balancing mechanism that it did not actually need to. The balancing mechanism is a market used to balance supply and demand on a half-hourly basis. It typically commands much higher prices than forward markets. Ofgem's investigation found that InterGen staff manipulated the market during four

[156] https://www.ofgem.gov.uk/publications-and-updates/ofgem-fines-engie-global-markets-egm-21-million
[157] https://www.ofgem.gov.uk/publications-and-updates/ofgem-requires-intergen-pay-37m-over-energy-market-abuse#:~:text=Ofgem%20has%20imposed%20payments%20amounting,it%20could%20supply%20to%20make

days in winter 2016, when they deliberately sent misleading signals to National Grid by falsely claiming that some of its power stations would not be generating during the critical "darkness peak" evening period when demand is highest. To boost profits even further, the company also deliberately sent misleading signals to National Grid about its power plants' capabilities. At the conclusion of the investigation Ofgem imposed payments amounting to £47.8 million (reduced to payments of £37.2m after settlement discount on the penalty levied) on InterGen after an investigation found that InterGen sent misleading signals to NGESO in winter 2016 about the energy it could supply to make substantial profits. These breaches demonstrated weaknesses in InterGen's procedures, management systems and internal controls with respect to REMIT compliance.

Ofgem continues to work with our European counterparts to enhance and develop our REMIT investigation work across the EU.

The Transparency Regulation

EU Regulation 543/2013 on submission and publication of data in electricity markets (the Transparency Regulation) is a tool for making sure that the data needed for participants to take efficient production, consumption and trading decisions is made available promptly. Primary data owners must publish data about the generation, transportation and consumption of electricity on a central European platform. During the reporting period, there have been no developments in GB with respect to the Transparency Regulation. Ofgem will continue to monitor compliance with the data publication requirements of the Transparency Regulation.

Market opening and competition

Ofgem published its State of the Market report in 2019.[158] This followed our second annual State of the Market report in 2018 and subsequent conclusion of the CMA investigation in 2016.

OTC trading

Total OTC trading in 2019 decreased by 3% (28 TWh) year-on-year to 869 TWh.[159] The proportion of the total electricity volumes OTC-traded was broadly stable year-on-year. Around 84% of all power traded in GB was OTC traded as opposed to exchange traded, down up from 82% in 2018.

[158] https://www.ofgem.gov.uk/publications-and-updates/ofgem-has-published-its-state-market-report-2019
[159] Data from ICIS Heren

Exchange trading

Volumes traded on the exchanges decreased in 2019 by 11% to 169 TWh, down from 190 TWh in 2018. Volumes on the EPEX Spot intraday market increased by 9% to 20.53 TWh (from 18.9 TWh in 2018).[160]

The N2EX exchange, which has a majority of day-ahead trading volumes, saw a decrease in traded volumes. Volumes in its day-ahead auction fell by 22% to 93 TWh, down from 120 TWh in 2018. The EPEX Spot day-ahead auction saw a 6% increase in activity, with traded volumes at 52.8 TWh in 2019, up from 49.8 TWh in 2018.[161]

UK power futures exchange traded contracts are also available on the Intercontinental Exchange (ICE). Traded volumes on the ICE increased in 2019 to 2.7 TWh, from 1.5 TWh in 2018

Market integration

For background information on GB interconnection, interconnection policy and market coupling please see Section 3.1.4 of this report.

The GB market is deeply integrated with neighbouring markets. Prices for capacity and flows along these are established using market-based methods.

The French interconnector had three planned outages over the summer: 1-26 April, 4-6 June and 17-28 June, resulting in a reduction of 1GW. BritNed, Nemo link, EWIC and Moyle also had planned outages over the summer and reduced their capacity to 0GW. The cumulative planned outage period for BritNed and Moyle lasted just over a week. For Nemo link and EWIC this lasted for just over two weeks.

Net imports of power along GB's four interconnectors increased in 2019 to 21.1 TWh (from 19.1 TWh in 2018.[162]) Gross flows (both imports and exports) increased from 24.4 TWh in 2018 to 28.5 TWh in 2019.

Exports from GB to France were around 0.7 TWh in 2019, meaning 94% of the flows along IFA in 2019 were imports from France to GB. Similarly 94% of the flows along BritNed and

[160] Includes both Epex Spot Continuous available from: https://www.epexspot.com/
[161] Includes both Epex Spot Continuous available from: https://www.epexspot.com/
[162] Historical figures have been revised because National Grid have revised its reporting data.

98% of the flows along Nemo link were imports to GB. Flows along the East-West interconnector were imports in the majority from the I-SEM to GB 54% of the time in 2019. Meanwhile, 25% of the Moyle interconnector flows were imports to GB to the I-SEM. All of GB's interconnectors are part of the NWE day-ahead market coupling.

Market concentration

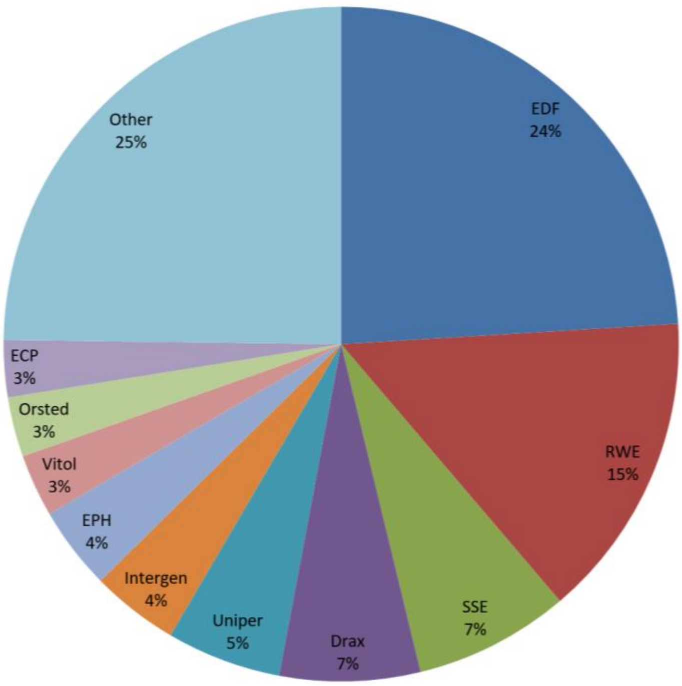
WMI marketshare

Figure 4 below shows that five generation companies had market shares exceeding 5%. Similar to 2018, the largest three companies generated almost half of the electricity supplied to the GB market in 2019.[163]

Between 2018 and 2019, EDF's share decreased by 3%. Metered generation and interconnector volumes in 2018 make EDF the largest contributor to power supply in GB (24%). EDF is also the majority owner of most of GB's nuclear fleet.

SSE's share decreased by 2% in the last year, while RWE's increased by 2%.

Figure 4: Wholesale electricity market share in GB, 2019 metered volume



[163] Based on metered generation volume and interconnector imports. Generation shares are based on proprietary data. Station demand has been excluded.

Table 5: Data table for Figure 4

Rank	Company	Share	HHI
1	EDF	24%	578
2	RWE	15%	217
3	SSE	7%	55
4	Drax	7%	45
5	Uniper	5%	30
6	Intergen	4%	18
7	EPH	4%	16
8	Vitol	3%	9
9	Orsted	3%	8
10	ECP	3%	7
	Other	25%	36

Source: Ofgem calculations using data from Elexon and NETA reports

Table provides the Herfindahl-Hirschman Index[164] (HHI) analysis based on the same data as the market shares.

The HHI is an indicator for the level of competition in a specific market. Though HHIs do not provide conclusive evidence on the level of competition, they point to whether there are potential risks to the market not delivering competitive outcomes.

The largest individual HHI by capacity is EDF (HHI of 578), which is lower than in 2018. The total HHI fell to 1,019 in 2019.

Table 6: HHI based on 2018 metered volumes

Company	HHI
EDF	578
RWE	217
SSE	55
Drax	45
Uniper	30
InterGen	18
EPH	16
Vitol	9
Orsted	8
ECP	7
Other	36

[164] HHI is commonly used to assess market concentration, ranging from 10,000 for a monopoly to just above zero for perfect competition. The CMA in the UK categorise a market as 'concentrated' if its HHI exceeds 1,000 and 'highly concentrated' if its HHI exceeds 2,000.

Market power concerns in the electricity wholesale sector

The Transmission Constraints Licence Condition (TCLC) was introduced in 2012 as a temporary measure and applies to electricity generators during periods when there is insufficient capacity to transmit electricity from where it is generated to where the demand is. In such circumstances, known as transmission constraints, the ESO will need to take actions to ensure that the level of electricity supplied equals the level of electricity demanded. There are often only a limited number of options available to the ESO, which can sometimes lead to higher costs to balance the system. In cases where the generator obtains a financial benefit from the ESO in return for reducing its generation during a period of transmission constraint, the TCLC prohibits generators from obtaining an excessive benefit.

The original TCLC was a temporary licence condition that expired in July 2017. Following industry consultation, Ofgem decided to extend part of TCLC as a permanent SLC 20A, which came into force the day after the original one expired.

Throughout 2019, we continued to monitor the bids submitted and accepted in the balancing mechanism and generators’ compliance with TCLC. We engaged with a number of generators to ensure that they remained in compliance with the licence condition.

3.2.2 Retail markets

Ofgem’s assessment of and engagement with the retail energy market often takes a holistic approach and may not always distinguish between the electricity and gas sectors. This is reflected below in a section on the state of competition and in Section 3.2.3 and 4.2.3, which looks at customer protection and dispute settlement.

Where Ofgem considers or regulates the electricity and gas retail sectors differently, we have grouped the information accordingly, ie this section primarily covers the retail electricity market, while Section 4.2.2 considers the retail gas market. Nevertheless, some sources of evidence, such as customer surveys on switching trends, complaints, and the PPM segment cover the behaviour in relation to both markets.

3.2.2.1 State of competition and main changes since last year[165]

Domestic retail markets

Market concentration continues to fall, although 12 domestic licensed suppliers exited the retail market between January and December 2019, which has reduced the overall number of firms in the market. However, in addition to acquiring customers via competitive switching, medium suppliers have absorbed the majority of the customers from the suppliers that ceased to trade. This has meant that as medium suppliers grow and exert more competitive pressure on the large suppliers the market continues to become less concentrated.

In line with our consumer protection objective, in January 2019 we implemented government legislation[166] to cap the price of default and standard variable tariffs (SVTs). The cap protects around 11 million consumers on these tariffs, many of whom are in vulnerable situations, by setting a maximum price that suppliers can charge them per unit of energy. This is one of the most significant energy market interventions in recent years and should save approximately £1bn per year for up to 11 million customers who remain on their supplier default or standard variable tariffs.

The cap ceases to have effect in 2023, at the latest. We are required under the Tariff Cap Act to determine whether the cap can be lifted earlier on the basis of whether the conditions are in place for effective competition in the domestic retail market. We have published our framework for doing the assessment.[167]

On the demand side, switching rates reached a record high, but concerns remain over the reliability and speed of switching. Domestic switching rates have continued to increase, with overall annual switching rates reaching a record high of 21% in December 2019. However, the switching process is still affected by issues with reliability and speed and average switching times remain around 15 days or more. Our Switching Programme[168] aims to help address these issues.

[165] Our annual reports, State of the Energy Market, provide a comprehensive assessment of the state of energy market in GB. See: https://www.ofgem.gov.uk/electricity/retail-market/retail-market-monitoring
[166] The Domestic Gas and Electricity (Tariff Cap) Act 2018 came into effect on 19 July 2018 and on 1 January 2019, in accordance with this Act, Ofgem implemented a temporary price cap on standard variable and default tariffs in the domestic retail market.
[167] https://www.ofgem.gov.uk/system/files/docs/2019/10/cfec_decision_final_1.pdf
[168] https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/smarter-markets-programme/switching-programme

While the overall customer complaint numbers are relatively stable, there have been increases in the number of Ombudsman cases related to small suppliers. Most consumers remain satisfied with the service they receive, but consumers perceive energy suppliers as performing worse than service providers in most other major sectors. There are also some signs of overall improvement. For instance, customer satisfaction with complaint handling has increased significantly, from 27% in 2018 to 32% in 2019.[169]

Non-domestic retail market

Historically, non-domestic markets have had higher entry and exit rates than domestic markets, resulting in more rival suppliers of comparable size and higher levels of engagement including switching. Although competition is working better in non-domestic markets,[170] small and micro businesses continue to pay much more on average for their energy than larger businesses. Large industrial customers are able to negotiate better deals directly with suppliers as their energy consumption is much higher, and some can also earn revenue by selling flexibility services into the balancing and capacity markets.

Despite the evolution of the regulatory framework in recent years,[171] including the remedies implemented by the CMA in 2017,[172] our evidence base suggests that the market is not working well for some microbusinesses and that they continue to face significant barriers to engage. For example, our annual micro and small business survey identified a significant proportion of microbusinesses that are not engaging with the market and accessing the best deals. The survey found that of those businesses undertaking no switching activity, 43% believe that all suppliers charge the same, and 51% believe the differences between tariffs are marginal.[173] More than a third of the smallest microbusinesses are on expensive default contracts. Microbusiness complaint rates are higher than for domestic customers, and complaints take longer on average to be resolved.

The CMA's price transparency remedy[174] was aimed to reduce microbusinesses' search costs, encourage them to engage in the market, and ultimately pay less for their energy. Our evaluation of the remedy in 2019-20 showed it has improved the level of price information

---

[169] See: https://www.ofgem.gov.uk/publications-and-updates/consumer-engagement-survey-2018
[170] https://www.ofgem.gov.uk/publications-and-updates/state-energy-market-2019
[171] In 2013, we introduced 'Standards of Conduct' for microbusinesses to act as overarching rules for suppliers to follow when engaging with microbusinesses. Remedies from the Competition and Markets Authority (CMA) that applied to microbusinesses took effect in 2017.We also introduced rules to limit back billing in November 2018.
[172] On 26 June 2017, the CMA issued an order to suppliers to stop locking firms into automatic rollover contracts. The CMA also ordered suppliers to help microbusinesses search for the cheapest available deals, by making information clearly available on their websites or via a link to a price comparison website. See https://www.gov.uk/cma-cases/energy-market-investigation
[173] https://www.ofgem.gov.uk/publications-and-updates/micro-and-small-business-engagement-survey-2018
[174] https://www.ofgem.gov.uk/publications-and-updates/evaluation-cma-price-transparency-remedy-final-report

available to microbusinesses, but levels of engagement among this group remain low. Overall, pricing is still not fully transparent and energy suppliers hold significantly more key information than the customers they serve.

The government,[175] consumer groups[176] and industry parties are also increasingly raising concerns with the way the market is operating. Among other issues, a key focus of concern from across the stakeholder community is on the activities of some brokers who play a key role in the microbusiness market.

We want to see a retail energy market that works in the interests of all consumers, including microbusinesses.[177] In our Forward Work Programme 2019-2021,[178] we noted that these businesses face many of the same issues as domestic consumers. We said that we would take steps to better understand the issues faced by microbusinesses so that they are able to access a competitive retail market and secure adequate levels of protection.

As result, in May 2019 we formally launched a Strategic Review of the microbusiness retail market,[179] which aims to identify suitable measures to improve outcomes for microbusinesses.

3.2.2.2 Monitoring the level of prices and the effectiveness of market opening and competition

In this section, we report on the results of our monitoring activities during 2019 with regard to the supply side of the market (ie market structure and prices), the demand side (ie customer switching and customer experience), contractual practices and capability of data exchange processes, disconnections and the PPM segment.

---

[175] https://www.gov.uk/government/speeches/after-the-trilemma-4-principles-for-the-power-sector
[176] https://wearecitizensadvice.org.uk/small-businesses-have-been-let-down-by-the-energy-industry-for-too-long-2e00c10bfbd6
[177] Microbusiness is defined in the gas and electricity supply licence as:
A Non-Domestic Customer:
(a) which is a "relevant consumer" (in respect of premises other than domestic premises) for the purposes in article 2(1) of The Gas and Electricity Regulated Providers (Redress Scheme) Order 2008 (S.I. 2008/2268); or
(b) which has an annual consumption of gas of not more than 293,000 kWh
(c) which has an annual consumption of not more than 100,000 kWh electricity
[178] https://www.ofgem.gov.uk/system/files/docs/2019/03/ofg1132_fwp_2019_21_programme_post_consultation_web.pdf
[179] https://www.ofgem.gov.uk/publications-and-updates/opening-statement-strategic-review-microbusiness-retail-market

The health of our retail market is crucial for delivering benefits to customers. We monitor how well competition is working in the interests of customers, and how far it supports consumer outcomes such as lower bills, better quality of service, benefits for society as a whole and reduced environmental damage.

Ofgem monitors the effectiveness of competition in retail markets, in particular through regularly collecting and analysing market participants' data. We publish our analysis on our website,[180] in market monitoring reports[181] and commission customer research to inform our view of market engagement and the quality of service customers receive.

Domestic retail market

Market structure

As of December 2019, there were 63 active domestic electricity suppliers in the retail electricity market. These consisted of the six largest suppliers and 57 small and medium suppliers,[182] supplying around 28.7 million domestic electricity customers.

There had been a steady increase in the number of domestic electricity suppliers becoming active in the market up to mid-2018. During 2019, the number of active domestic electricity suppliers decreased by four. This was due to 12 suppliers exiting the market and eight supplier entering the market during this period. There were nine exits for which we had to appoint a SoLR to absorb their customers, while of the remaining three suppliers, two were taken over by their rivals and one made a commercial decision to exit the market.

The evolution of market shares is a useful measure of trends in market concentration. They help us understand the impact between market shares and competitive dynamics, both for the six largest suppliers and other suppliers, and which companies are winning or losing customers.

As Figure 5 shows, the combined electricity market share of the six largest suppliers dropped further to 70% in December 2019 (74% in December 2018). On the other hand, over the same period the combined electricity market share held by medium and small suppliers increased to around 30% (26% in December 2018).[183] These suppliers are competing on

[180] https://www.ofgem.gov.uk/data-portal/retail-market-indicators
[181] https://www.ofgem.gov.uk/publications-and-updates/state-energy-market-2018
[182] Throughout this document, the term 'six largest (energy) suppliers' is used for the suppliers that existed before market liberalisation and that still supply most of the energy to domestic customers in the GB market. Small and medium suppliers are independent suppliers that entered the market since market liberalisation and have fewer or more than 250,000 customers respectively.
[183] The figures relating to the national market shares do not reveal regional characteristics of the electricity

price, quality of service and simplicity (eg offering only one or two tariffs), but some are also using product differentiation strategies to enter into 'niche' markets (eg local tariffs, renewable energy or smart technology).

Figure 5: Domestic retail electricity market shares, December 2019

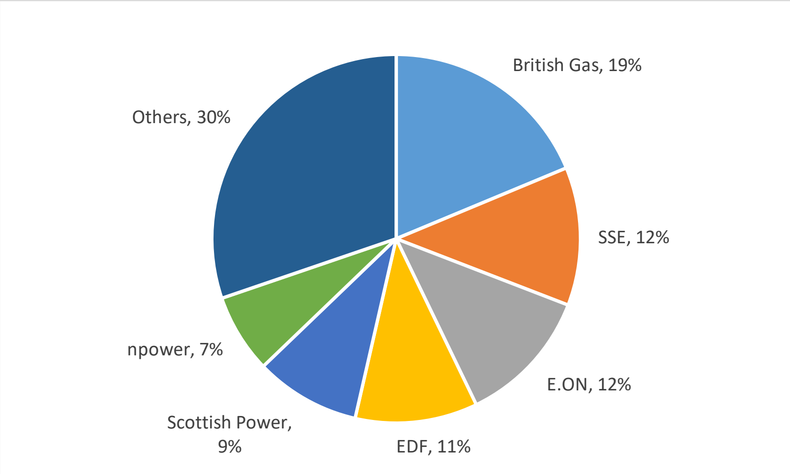


Table 7: Data table for Figure 5

Supplier	Market shares
British Gas	19%
SSE	12%
E.ON	12%
EDF	11%
Scottish Power	9%
npower	7%
Others	30%

Source: Ofgem analysis of DNOs data
Note: SSE plc sold its domestic supply business to OVO Energy on 15 January 2020.

This sustained net entry and expansion of new suppliers over several years led to the lower concentration in the domestic electricity market. In December 2019, the Herfindahl-Hirschman Index (HHI),[184] often used to gauge market concentration, was down to 975 in the domestic electricity market. According to the threshold HHI levels (1,000) used by the CMA,[185] the domestic electricity market is not concentrated.

market, which are a legacy of the regional monopolies that existed in the electricity sector prior to market liberalisation. The former electricity incumbents retain, on average, a market share of 30% in their home regions.
[184] The Herfindahl-Hirschman Index (HHI) measures market concentration by summing the squares of the market share of each player. The higher the number, the greater the concentration. Though HHI is not conclusive evidence of the level of competition, it suggests whether there are potential risks of the market not delivering competitive outcomes.
[185] The CMA in the UK categorise a market as 'concentrated' if its HHI exceeds 1,000 and 'highly concentrated' if its HHI exceeds 2,000.

Prices for domestic customers

At the end of 2019, apart from prices for customers on default tariff cap, introduced on 1 January 2019, and customers with PPMs, retail electricity prices in the GB continued to be determined by market forces. Although the PPM cap exists in parallel to the default tariff cap, customers can only be protected by one of the caps.

In addition, there are elements of the final price offered to customers that are not determined by suppliers because they are attributable to regulated aspects of the market, in particular distribution and transmission charges, which are price controlled.

Ofgem monitors domestic suppliers' electricity prices across GB. We receive price change notifications from an independent data provider and one of the comparison sites accredited by the Confidence Code[186] run by Ofgem. We use this information to calculate the implications for domestic customers' retail bills, based on characteristics such as their consumption level, payment type and region.

Figure 6 below shows electricity price levels, based on tariff offers available in the market. While the average annual SVT offered by the six largest suppliers increased by 1.7% (£10) to £639, their cheapest tariff decreased by 17% (£105) to £512. The cheapest tariff on the market also decreased considerably, by 16% (£84) to £431. As a result, the price differential between the six largest suppliers' average SVT and their cheapest tariffs and the cheapest market tariff increased to £127 and £208 respectively.

The default tariff price cap for electricity is set twice per year at the beginning of April and October. At the end of 2019 the cap was £639 which was 7.4% (£44) higher compared to January 2019 when it was first introduced.

[186] A voluntary code of practice for domestic energy price comparison services, from Consumer Focus. The Code insists that its members follow key principles, providing reassurance to consumers about the independence, transparency, accuracy, and reliability of the service.

Figure 6: Domestic retail electricity prices (£/year nominal terms) over time

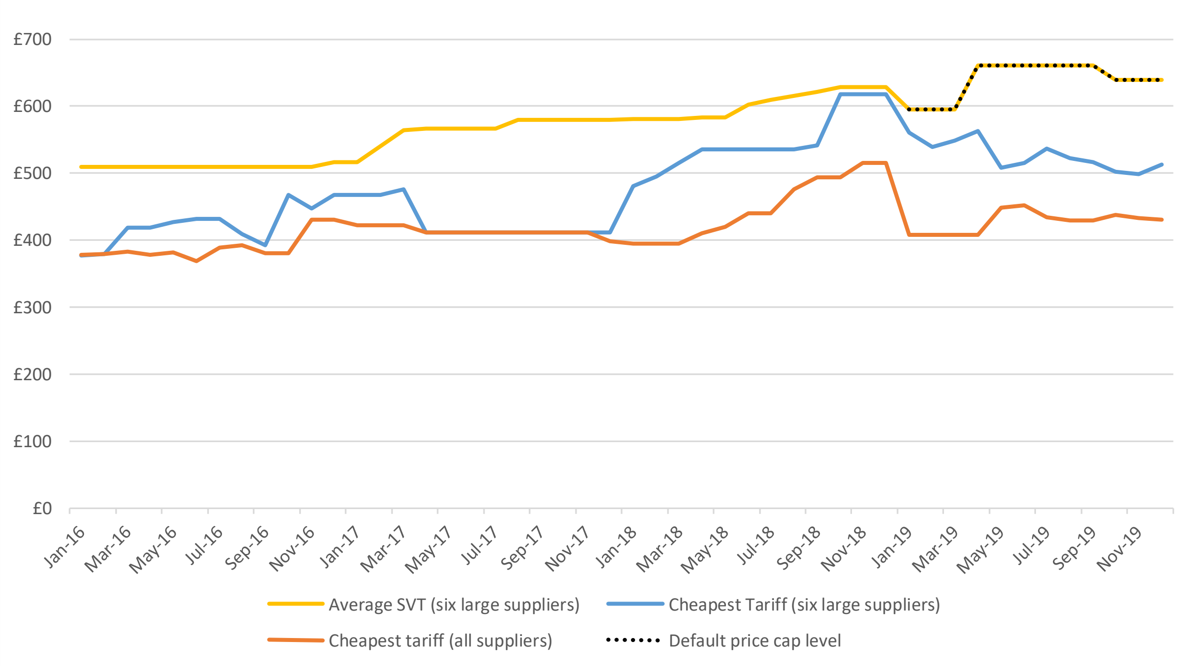


Table 8: Data table for Figure 6

Month	Average SVT (six large suppliers)	Cheapest Tariff (six large suppliers)	Cheapest tariff (all suppliers)	Default price cap level
Jan-16	509.62	377.52	377.52	
Feb-16	509.62	379.24	379.24	
Mar-16	509.62	418.59	382.87	
Apr-16	509.62	418.59	378.34	
May-16	509.62	427.21	381.58	
Jun-16	509.62	432.01	369.14	
Jul-16	509.62	431.62	388.67	
Aug-16	509.62	408.76	392.06	
Sep-16	509.62	392.91	380.05	
Oct-16	509.62	468.05	380.05	
Nov-16	509.62	447.47	430.01	
Dec-16	516.63	468.05	430.01	
Jan-17	516.63	468.05	422.76	
Feb-17	540.09	468.05	422.76	
Mar-17	564.69	475.77	422.76	
Apr-17	566.87	411.08	411.08	
May-17	566.87	411.08	411.08	
Jun-17	566.87	411.08	411.08	
Jul-17	566.87	411.08	411.08	
Aug-17	579.07	411.08	411.08	
Sep-17	579.07	411.08	411.08	
Oct-17	579.07	411.08	411.08	
Nov-17	579.07	411.08	411.08	

Dec-17	579.07	411.08	398.26	
Jan-18	581.34	480.77	394.81	
Feb-18	581.34	495.18	395.21	
Mar-18	581.34	515.24	395.25	
Apr-18	583.01	535.41	409.93	
May-18	583.01	535.41	419.28	
Jun-18	602.44	535.41	440.35	
Jul-18	609.82	535.41	440.35	
Aug-18	615.86	535.44	476.32	
Sep-18	621.93	541.78	493.55	
Oct-18	628.61	617.45	493.55	
Nov-18	628.61	617.45	515.14	
Dec-18	628.61	617.45	515.14	
Jan-19	595.00	560.08	408.26	595.33
Feb-19	595.00	539.42	408.26	595.33
Mar-19	595.00	548.77	408.26	595.33
Apr-19	660.84	562.58	408.26	660.97
May-19	660.84	508.26	447.94	660.97
Jun-19	660.84	514.88	451.60	660.97
Jul-19	660.84	537.11	434.33	660.97
Aug-19	660.84	521.93	428.73	660.97
Sep-19	660.84	516.08	428.83	660.97
Oct-19	639.07	501.81	438.08	639.32
Nov-19	639.07	497.95	433.38	639.32
Dec-19	639.05	512.27	430.71	639.32

Source: Ofgem analysis of Energyhelpline data
Notes: The chart depicts average prices for Direct Debit variable tariffs, as well as the default tariff cap at the end of each month. Throughout the period the Typical Domestic Consumption Value was 3,100 kWh

Figure 7 below illustrates dual fuel price levels, based on tariff offers available in the market. Since December 2018, the average annual dual fuel SVT offered by the six largest suppliers decreased by 3.5% (£43) to £1178, while the cheapest dual fuel tariff on the market and cheapest tariff by six largest suppliers decreased by 8% (£74) to £829 and 13% (£132) to £903 respectively.

Figure 7: Domestic retail dual fuel prices (£/year nominal terms) over time

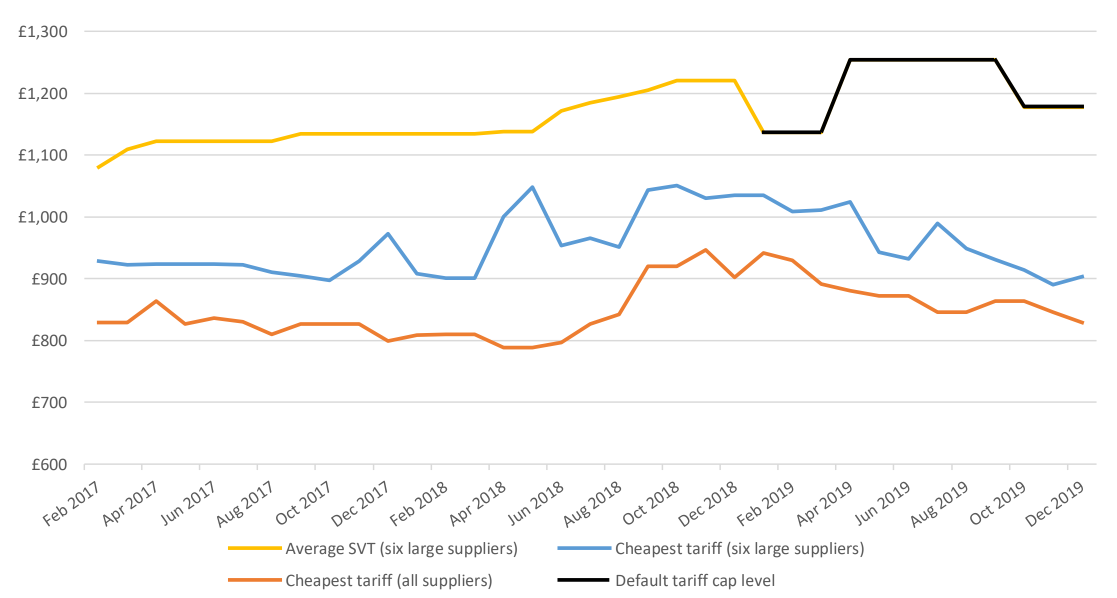


Table 9: Data table for Figure 7

Month	Average SVT (six large suppliers)	Cheapest Tariff (six large suppliers)	Cheapest tariff (all suppliers)	Default price cap level
Feb-17	1,081.27	928.48	829.10	
Mar-17	1,109.48	922.23	829.10	
Apr-17	1,122.28	923.55	863.31	
May-17	1,122.28	923.57	826.52	
Jun-17	1,122.28	923.57	835.76	
Jul-17	1,122.28	922.82	829.91	
Aug-17	1,122.28	910.05	810.11	
Sep-17	1,134.95	904.48	826.73	
Oct-17	1,134.95	897.98	826.73	
Nov-17	1,134.95	928.59	826.73	
Dec-17	1,134.95	973.04	798.72	
Jan-18	1,134.95	907.89	809.32	
Feb-18	1,134.95	900.98	810.06	
Mar-18	1,134.95	900.98	810.11	
Apr-18	1,138.28	1,000.42	788.16	
May-18	1,138.28	1,048.04	788.16	
Jun-18	1,172.20	953.16	796.99	
Jul-18	1,184.79	965.27	826.73	
Aug-18	1,194.00	951.33	842.49	
Sep-18	1,205.62	1,043.21	920.60	
Oct-18	1,220.65	1,051.27	920.60	
Nov-18	1,220.65	1,030.12	946.13	
Dec-18	1,220.65	1,034.69	902.66	
Jan-19	1,136.67	1,035.63	941.26	1,137.47
Feb-19	1,136.67	1,008.69	929.66	1,137.47

Mar-19	1,136.67	1,011.22	891.94	1,137.47
Apr-19	1,253.94	1,024.59	880.20	1,254.00
May-19	1,253.94	943.25	872.57	1,254.00
Jun-19	1,253.94	932.24	872.57	1,254.00
Jul-19	1,253.99	989.24	846.34	1,254.00
Aug-19	1,253.99	949.41	846.34	1,254.00
Sep-19	1253.99	931.39	863.99	1,254.00
Oct-19	1,177.79	914.31	863.99	1,179.00
Nov-19	1,177.79	890.08	846.04	1,179.00
Dec-19	1,177.79	928.48	828.77	1,179.00

Source: Ofgem analysis of Energyhelpline data
Note: The chart depicts average prices for direct debit variable tariffs, as well as the default tariff cap at the end of each month. Throughout the period the Typical Domestic Consumption Value was 3,100 kWh for electricity and 12,000 kWh for gas.

The six largest suppliers typically offered the most expensive deals and small suppliers continued to offer, on average, the cheapest deals in the market. However, all suppliers continued to offer tariff deals which were often priced at a discount relative to SVTs. In December 2019, the price differential between the six largest suppliers' average dual fuel SVT and their cheapest tariffs increased over the year from £186 to £275 (48%) while the differential between the six largest suppliers' average SVT and the cheapest market tariff increased from £318 to £349 (10%).

Upon implementation of the default tariff cap, the most expensive dual fuel SVT tariffs were brought in line with the level of the default tariff cap, while the majority of suppliers that had previously priced their SVTs below the cap kept their prices unchanged. In December 2019, the default tariff cap for dual fuel increased by 3.7% to £1179 (from £1137 in January 2019), against a background of rising and volatile wholesale prices. The default tariff cap has reduced prices overall.

Domestic electricity bill breakdown

As well as monitoring domestic electricity prices and bill levels, we also assess the extent to which particular costs have an impact on these bills. Suppliers face a range of costs that influence how they set retail electricity prices. These costs can vary within and between years, and include wholesale energy costs, the costs of the UK government's environmental and social policies and transmission and distribution costs. Figure 8 shows the breakdown of the annual electricity bill for a domestic customer paying by direct debit, with annual consumption of 3,100 kWh.

Figure 8: Domestic electricity bill breakdown, 2019

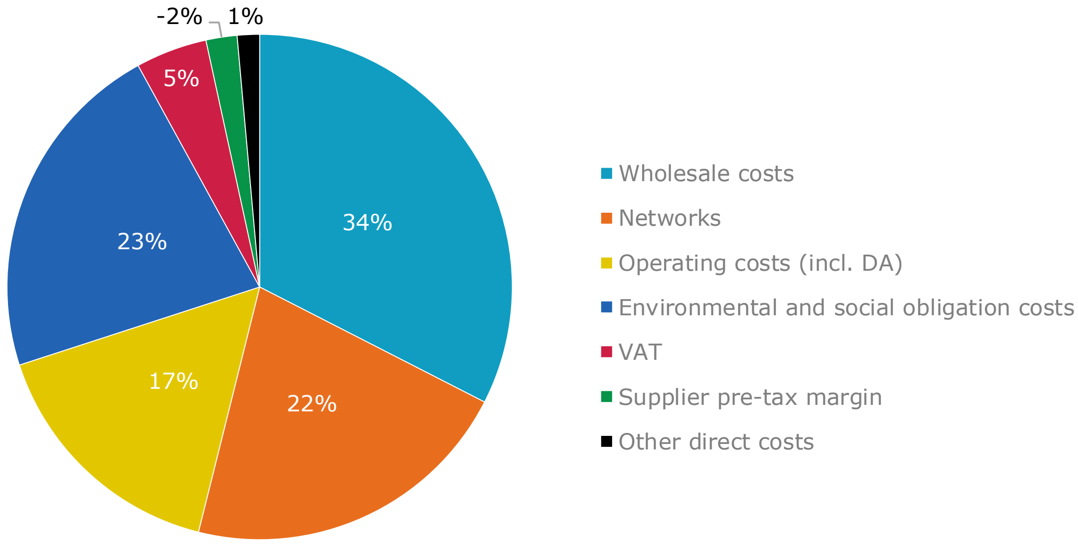


Table 10: Data table for Figure 8

Cost category	%
Wholesale costs	34%
Networks	22%
Operating costs (incl. DA)	17%
Environmental and social obligation costs	23%
VAT	5%
Supplier pre-tax margin	-2%
Other direct costs	1%

Source: Ofgem analysis

Customer engagement

Customers switching suppliers are important in driving rivalry between suppliers for a well-functioning, competitive energy market.

Switching by domestic electricity customers has been on the rise over the last couple of years. In 2019, 5.9m domestic customers switched their electricity supplier, equivalent to an average of approximately 500,000 per month. In December 2019, the rolling annual switching rate reached a record of 20.8%, almost two percentage point higher than in 2018, and the highest since 2014. We also saw a decrease in switching away from the six largest suppliers. In December 2019, the proportion of net gains in switching away from the six largest suppliers made up 14% of total electricity switches, down from 28% in December 2018.

The speed and reliability of switching is also important (see Section 2.1.3 for details of our programme to improve the switching process). In December 2019, the system average time[187] to complete a switch was 16 days, and remained unchanged from the same month in 2018.

Our customer surveys are an additional source of information on the customer switching experience. Our latest domestic customer engagement survey[188] found that customer engagement has increased significantly in 2019. Around half (49%) of consumers claim to have engaged in some way over the previous 12 months, an increase of 12 percentage points in the past five years, and up from 41% in 2018. The increase in engagement, and specifically switching, has come from increased repeat switching over time, suggesting a growing pool of sustained engaged consumers. In 2019, 18% of energy consumers were repeat switchers, compared with 12% in 2018. The proportion of first time switchers has remained broadly unchanged over the same time period.

Saving money (now or in the future) remained the main motivation for engagement, but non-cost priorities have also become more prominent (eg greener tariffs, fixed tariffs). The majority of customers who switched supplier, changed tariff with the same supplier, or compared tariffs in the preceding 12 months, were motivated by the prospect of saving money (84%).

Among all customers, 57% are confident they are on the best energy deal for their household, only one percentage point lower than in 2018 - which was the highest level seen since tracking commenced in 2015.

Customer experience

Ofgem does not directly investigate individual domestic customer complaints. If a complaint is raised, suppliers are required to meet the complaints handling standards set by Ofgem.[189] If a complaint is not resolved to the customer's satisfaction and either eight weeks have passed since the complaint was made or it has reached a point of deadlock (ie where the energy company says it can do no more to resolve the complaint), the supplier must write to

[187] This is the average number of calendar days from the day when the supplier notifies the switching request to the network operator system until the day the switch is executed.
[188] https://www.ofgem.gov.uk/publications-and-updates/consumer-survey-2019
[189] https://www.ofgem.gov.uk/publications-and-updates/decision-changes-gas-and-electricity-consumer-complaints-handling-standards-regulations-2008

the customer to tell them they can seek redress through the alternative dispute resolution body.[190]

Figure 9, below, shows the total number of complaints received quarterly by each energy supplier group per 100,000 customer accounts between Q2 2014 and Q4 2019.[191]

Figure 9: Complaints received by supplier per 100,000 customers

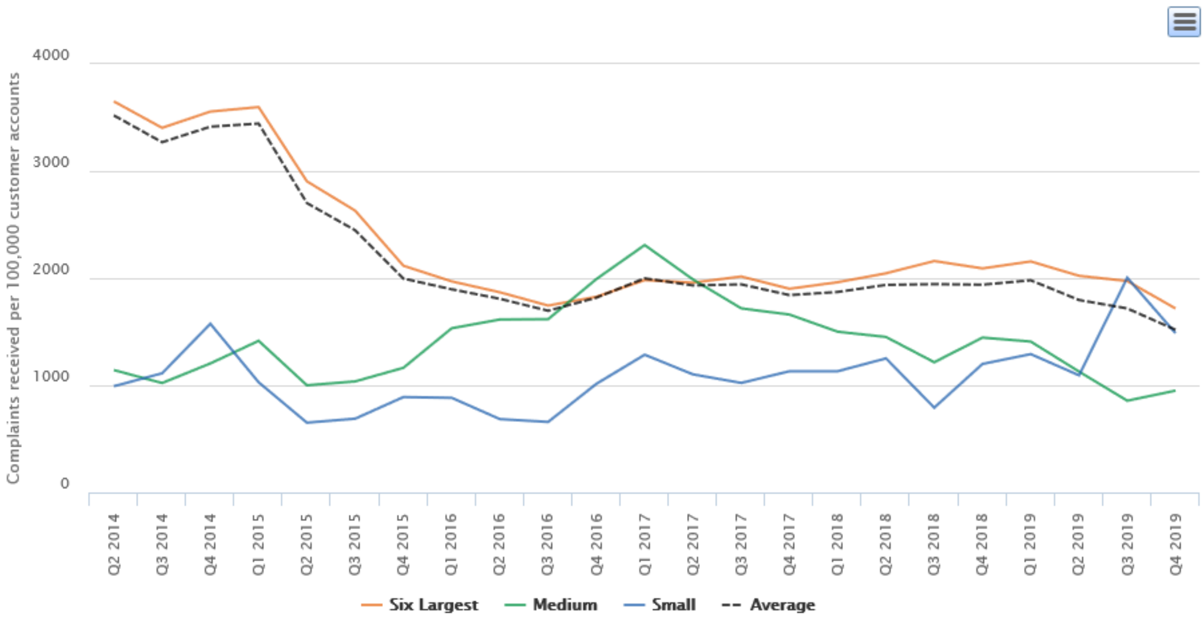


Table 11: Data table for Figure 9

Quarter	Six Largest	Medium	Small	Average
Q2 2014	3,651	1,143	992	3,520
Q3 2014	3,404	1,022	1,113	3,270
Q4 2014	3,556	1,205	1,575	3,415
Q1 2015	3,598	1,416	1,029	3,444
Q2 2015	2,905	1,001	652	2,702
Q3 2015	2,631	1,037	689	2,448
Q4 2015	2,117	1,164	891	1,997
Q1 2016	1,971	1,533	884	1,897
Q2 2016	1,869	1,615	685	1,808
Q3 2016	1,745	1,618	659	1,697
Q4 2016	1,827	1,993	1,015	1,819
Q1 2017	1,983	2,310	1,286	1,999

[190] Ombudsman Services Energy is approved by Ofgem to independently handle disputes between consumers and energy suppliers.
[191] The complaints data is provided by suppliers. As of July 2018, suppliers are required to submit complaints data to us on a monthly and quarterly basis. They also publish domestic complaints data on their websites, including their 'top 5' reasons for complaints and the measures they are taking to improve how they handle customer complaints.

Q2 2017	1,959	1,989	1,103	1,933
Q3 2017	2,016	1,719	1,023	1,943
Q4 2017	1,902	1,661	1,132	1,843
Q1 2018	1,963	1,501	1,132	1,872
Q2 2018	2,046	1,452	1,252	1,938
Q3 2018	2,161	1,216	792	1,945
Q4 2018	2,092	1,446	1,200	1,940
Q1 2019	2,157	1,409	1,292	1,981
Q2 2019	2,023	1,129	1,094	1,797
Q3 2019	1,974	857	2,005	1,718
Q4 2019	1,718	951	1,487	1,519

Source: Ofgem analysis of suppliers' data

We expect energy suppliers to make it easy for customers to contact them when needed, and to provide clear energy bills that customers can easily understand. Figure 10 shows that in Q4 2019 the proportion of customers reporting to be satisfied or very satisfied with their supplier has remained stable at 72% across the whole market compared to the previous quarter, but it is down from 74% in Q4 2018.[192]

[192] The data comes from a survey conducted by Accent Research for Ofgem in conjunction with the Citizens Advice Bureau. This survey started in 2018 and is conducted every quarter. We use feedback from this survey to inform compliance engagement with individual suppliers, where appropriate. We use feedback from this survey to inform compliance engagement with individual suppliers, where appropriate. The question asked in the survey which relates to this chart is: "*Overall, how dissatisfied or satisfied are you with the customer service you have received from [supplier name].*" See: https://www.ofgem.gov.uk/publications-and-updates/consumer-perceptions-energy-market-q4-2019

Figure 10: Customer overall satisfaction with their supplier

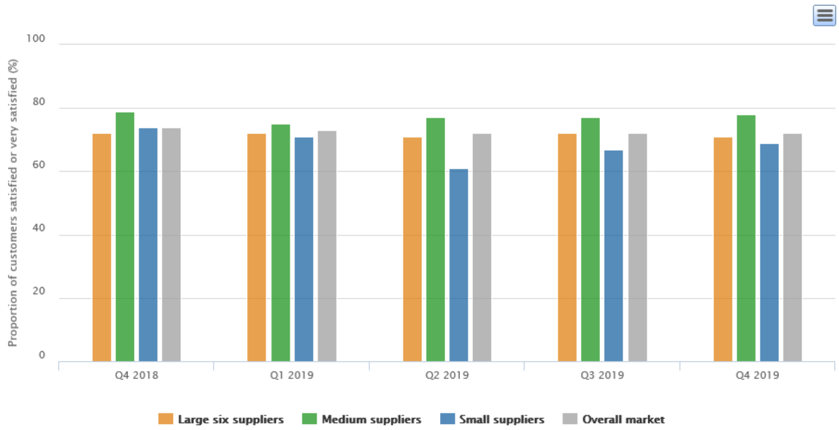


Table 12: Data table for Figure 10

Quarter	Large six suppliers	Medium suppliers	Small suppliers	Overall market
Q4 2018	72	79	74	74
Q1 2019	72	75	71	73
Q2 2019	71	77	61	72
Q3 2019	72	77	67	72
Q4 2019	71	78	69	72
Q1 2020	70	74	73	71

Source: Survey conducted for Ofgem by Accent Research in Q4 2019

In Q4 2019, the proportion of customers reporting to be satisfied or very satisfied with their supplier overall has remained stable at 72% across the whole market compared to the previous quarter, but it is down from 74% in Q4 2018. Overall satisfaction has been relatively stable for large and medium suppliers. For small suppliers, it reached 69% in Q4 2019, up from 67% in Q3 2019. However, this is a significant drop from 74% in Q4 2018.

The survey also showed that 62% of customers found it easy to contact their supplier through their website and social media, while 7% found the supplier’s website difficult and 22% found social media difficult as a means of contacting their supplier. More than seven in ten were satisfied with the ease of understanding their bill (72%) or the accuracy of their bills (74%). Of those who are dissatisfied with the ease of understanding their bill, the main issue is the clarity of how the bill is calculated (78%), followed by difficulty to find key information quickly (42%).

Dynamic price contracts

The number of smart tariffs[193] continues to be relatively small. As of June 2019, there were only 11 smart tariffs, but around six million gas and four million electricity customer accounts on these tariffs, the majority of which were with British Gas. Most smart tariffs on offer tend to be static, typically involving cheaper tariff rates during pre-determined periods of time, although there are exceptions such as Octopus' Agile tariff, which features prices changing every thirty minutes to reflect variable wholesale prices.

The main barriers that suppliers face in offering smart tariffs with dynamic pricing relate to the ongoing rollout of smart meters and to the current settlement rules.[194] Moreover, customer engagement with these tariffs can be challenging, as clauses around price calculation, data protection and contract termination tend to be especially complex.[195]

Disconnections for debt

We require suppliers to tell us about disconnections for debt as part of their Social Obligations Reporting.[196] Disconnecting a customer's energy supply should be a last resort and avoided wherever possible. Suppliers must not disconnect customers in debt unless they have offered a range of repayment options and have exhausted all available means to recover a debt.

As a result, disconnections for debt are now extremely rare in GB, with only five electricity disconnections for debt recorded in 2019.

Monitoring supplier performance in this area allows us to identify issues of concern with suppliers' performance and to take action where necessary.

PPM market segment

As of December 2019 there were 4.4 million electricity and 3.4 million gas customers on PPMs, representing around 15% of all electricity and gas customers in GB. These customers are more likely to be in vulnerable circumstances and face more barriers to engage effectively with the market and access the best market deals.

---

[193] Throughout this document, we refer to smart tariffs as tariffs for which suppliers require the installation of a smart meter.
[194] See https://www.ofgem.gov.uk/electricity/retail-market/market-review-and-reform/smarter-markets-programme/electricity-settlement-reform
[195] See https://www.beuc.eu/publications/beuc-x-2019-016_flexible_electricity_contracts_report.pdf
[196] https://www.ofgem.gov.uk/about-us/how-we-work/working-consumers/supplier-performance-social-obligations

In July 2019, the CMA issued its decision to align the PPM price cap methodology more closely with our default tariff cap methodology from 1 October 2019. The CMA also recommended that Ofgem extend protection for PPM customers beyond the original deadline of December 2020.[197] In its review the CMA decided to align the methodology to determine the PPM cap level with the default tariff cap methodology. The PPM cap will be terminated by the end of 2020 and PPM customers will automatically be protected by the default tariff cap. We are currently developing the best framework to provide this protection.[198]

As a result, there are typically fewer suppliers active in the PPM market segment compared to the overall domestic retail market, and only a few PPM specialists have managed to expand beyond the six largest suppliers.

More than 90% of PPM customers continue to be on SVTs. In addition to having considerably fewer tariffs available to them, the cheapest PPM tariff available has been significantly higher than the cheapest direct debit tariff (even accounting for differentials in the costs to serve). In this context, competition has not worked well for PPM customers.[199]

The PPM price cap led to increased dispersion in PPM prices, but nevertheless, the level of price dispersion under the PPM price cap remains lower than that observed under the default tariff cap for other payment methods.

Engagement among PPM customers is lower than for customers who pay by direct debit, although it is increasing slowly.[200] In 2019 33% of PPM customers switched supplier, tariff or just compared deals in the past 12 months, marginally up from 32% in 2018 and 29% in 2017, but well below the average for all customers (49%). In 2019, fewer PPM customers switched supplier (16%) compared to 2018 (20%), while more compared prices or switched tariff but stayed with their supplier (17%) compared to 2018 (12%).

As with the default tariff cap, suppliers can compete on both price and product differentiation under the PPM price cap. A key product differentiator is online-managed, smart "pay-as-you-go" tariffs, with easier access to top-up and emergency credit.

---

[197] See: https://www.gov.uk/government/news/cma-recommends-protecting-prepayment-energy-customers-beyond-2020
[198] https://www.ofgem.gov.uk/publications-and-updates/policy-consultation-protecting-energy-consumers-prepayment-meters
[199] See: https://www.ofgem.gov.uk/data-portal/cheapest-tariffs-payment-method-typical-domestic-dual-fuel-customer-gb
[200] https://www.ofgem.gov.uk/consumers/consumer-research/research-surveys-household-consumers

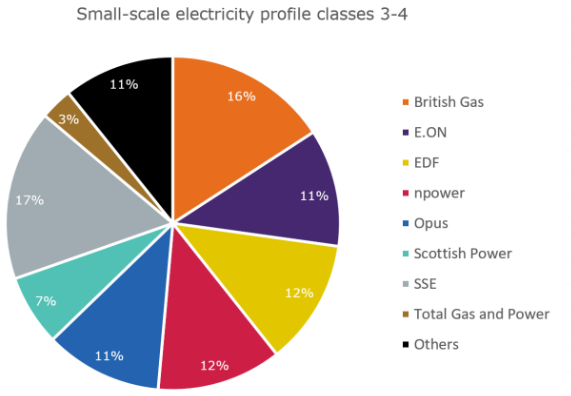
Non-domestic retail electricity market

Market structure

We also regularly monitor the number of suppliers in the non-domestic market and their market shares. As of December 2019, there were 63 active non-domestic electricity suppliers, 57 smaller non-domestic suppliers in addition to the six largest suppliers also present in the domestic market. This is a net decrease of two compared to the previous year, as four non-domestic electricity suppliers have exited the market, while only two have entered the market.

Non-domestic markets liberalised earlier than domestic markets, and have lower concentration and greater presence of suppliers besides the six largest domestic suppliers. In 2019, these suppliers continued to increase their market shares in all segments and especially in the segment of larger businesses, albeit at a lower rate than in previous years.

Figure 11: Market shares in non-domestic retail electricity market, June 2019[201]



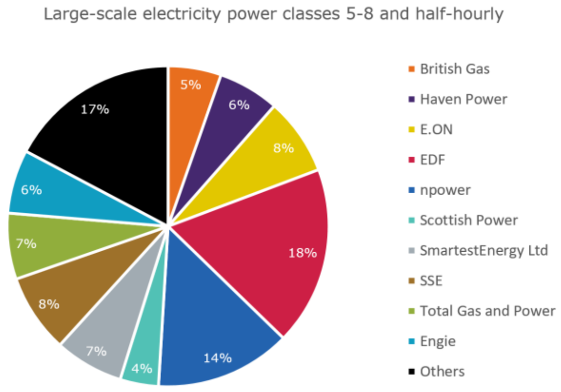


Table 13: Data tables for Figure 11

Small-scale electricity profile classes 3-4		Large-scale electricity profile classes 5-8 and HH	
Supplier	**Market shares**	**Supplier**	**Market shares**
British Gas	16%	British Gas	5%
E.ON	11%	Haven Power	6%
EDF	12%	E.ON	8%
npower	12%	EDF	18%
Opus	11%	npower	14%
Scottish Power	7%	Scottish Power	4%
SSE	17%	SmartestEnergy Ltd	7%
Total Gas and Power	3%	SSE	8%
Others	11%	Total Gas and Power	7%
		Engie	6%
		Others	17%

Source: Ofgem analysis of Elexon data
Note: Electricity profile classes' definitions refer to Elexon Guidance. Profile classes 3 and 4 are typically small businesses, and market shares are measured in terms of meter points, profile classes 5 to 8 and half-hourly (HH) customers are typically larger and market shares are measured in terms of volume.

The non-domestic electricity market profile class (PC) 3 and 4, with HHI of 1,139, is judged to be concentrated according to the CMA's threshold HHI levels,[202] while the non-domestic half-hourly market, with HHI of 877, is below the threshold. By comparison with 2018, the HHIs for both markets have fallen.

[201] The latest publicly available market share data for the non-domestic market: https://www.ofgem.gov.uk/system/files/docs/2019/11/20191030_state_of_energy_market_revised.pdf
[202] The CMA in the UK categorise a market as 'concentrated' if its HHI exceeds 1,000 and 'highly concentrated' if its HHI exceeds 2,000.

Non-domestic electricity prices

Energy contracts for business customers are mostly negotiated and bespoke. As a result, there is generally less public information available about them. Larger industrial customers have an advantage in being able to negotiate better deals than smaller businesses given their stronger bargaining power. In addition, they are metered half-hourly and some have flexibility to 'load shift' from periods of high price to periods of low price.[203]

In Q2 2019, very small businesses paid on average an electricity price that was around 33% higher than the average across all business customer segments.

[203] See: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/633442/upgrading-our-energy-system-july-2017.pdf

Figure 12: Average non-domestic retail electricity prices (pence/kWh nominal terms)

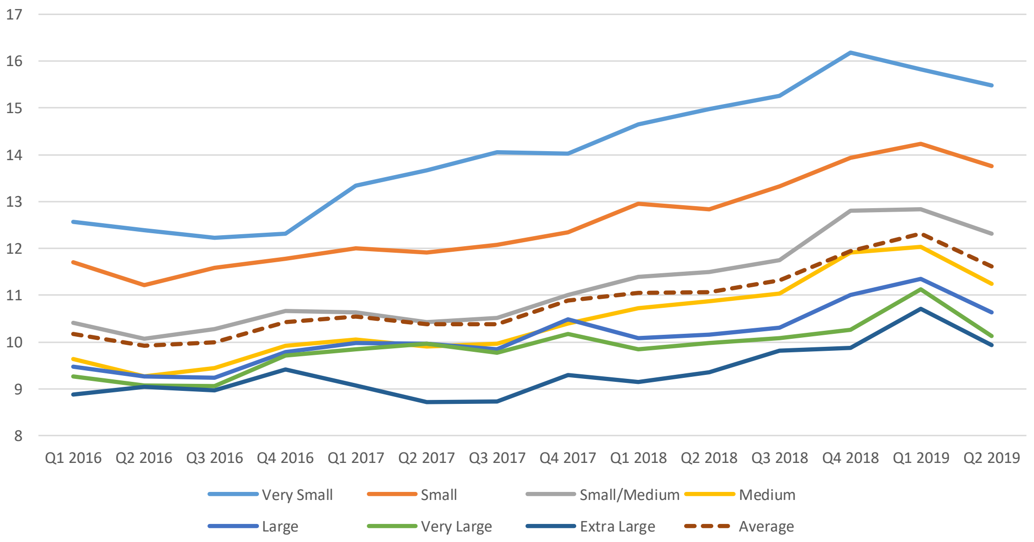


Table 14: Data table for Figure 12

Quarter	Very Small	Small	Small/ Medium	Medium	Large	Very Large	Extra Large	Average
Q1 2016	12.56	11.71	10.41	9.63	9.48	9.27	8.88	10.17
Q2 2016	12.39	11.21	10.07	9.27	9.27	9.07	9.04	9.92
Q3 2016	12.22	11.59	10.27	9.44	9.23	9.06	8.96	9.99
Q4 2016	12.31	11.78	10.66	9.92	9.79	9.71	9.41	10.43
Q1 2017	13.34	12	10.63	10.06	9.98	9.84	9.07	10.55
Q2 2017	13.67	11.91	10.43	9.9	9.96	9.96	8.72	10.38
Q3 2017	14.06	12.07	10.52	9.96	9.84	9.77	8.73	10.38
Q4 2017	14.03	12.35	11.01	10.39	10.49	10.17	9.29	10.89
Q1 2018	14.65	12.95	11.39	10.72	10.09	9.85	9.15	11.05
Q2 2018	14.97	12.83	11.5	10.87	10.16	9.98	9.35	11.07
Q3 2018	15.26	13.32	11.75	11.03	10.3	10.09	9.81	11.32
Q4 2018	16.18	13.93	12.81	11.91	11	10.26	9.87	11.94
Q1 2019	15.82	14.23	12.83	12.04	11.35	11.12	10.71	12.32
Q2 2019	15.49	13.76	12.31	11.25	10.64	10.13	9.94	11.61
Q3 2019	16.12	13.91	12.38	11.46	10.85	9.97	9.92	11.68
Q4 2019	17.04	14.75	13.55	12.75	12.06	11.53	12.39	13.25

Source: BEIS, Gas and electricity prices in the non-domestic sector.
Note: Prices exclude VAT and the Climate Change Levy. BEIS uses the following consumption categories to identified different business customer segments: very small (0-20MWh), small (20-499MWh), small/medium (500-1,999MWh), medium (2,000-19,999MWh), large (20,000-69,999MWh), very large (70,000-150,000MWh) and extra-large customers (>150,000MWh).

Customer engagement[204]

[204] Electricity and gas.

The non-domestic customers' annual electricity switching rate in 2019 was 16%, three percentage points lower than in 2018.

In May 2019 we launched a review of the microbusiness retail market,[205] which aims to identify suitable measures to improve outcomes for microbusinesses. Despite changes to the regulatory framework,[206] including the remedies implemented by the CMA in 2017,[207] there is evidence that the market is still not working well for some microbusinesses and that they continue to face significant barriers to engage.

Our evaluation of the CMA's price transparency remedy found that, although the remedy has improved the level of price information that is available to microbusinesses, engaging with the market remains difficult for microbusinesses due to price complexity, inconsistent implementation of the remedy across suppliers and low awareness, especially among the smallest of the microbusinesses.[208]

Contractual practices

Under Article 37(1) paragraphs (k) and (l) of the Electricity Directive 2009/72/EC and Article 41 (1) paragraphs (k) and (l) of Gas Directive 2009/73/EC, Ofgem is required to monitor restrictive contractual practices and ensure contractual freedom.

We have teams to engage with a variety of stakeholders, ensuring that we are monitoring the market, and that we are open to dealing with any issues that may be brought to our attention. Additionally, the suppliers' licences contain conditions on providing clear contractual information to domestic and small business customers.

Domestic customers are also protected by the general national rules that transpose Directive 2011/83/EU of 25 October 2011 on consumer rights, and Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts. These rules were transposed by the Consumer Contracts (Information, Cancellation and Additional Charges) Regulations 2013 and the Consumer Rights Act 2015. In respect of contracts concluded before October 2015,

[205] See: https://www.ofgem.gov.uk/system/files/docs/2019/05/opening_statement.pdf
[206] In 2013, we introduced 'Standards of Conduct' for microbusinesses to act as overarching rules for suppliers to follow when engaging with microbusinesses. We also introduced rules to limit back billing in November 2018.
[207] On 26 June 2017, the CMA issued an order to suppliers to stop locking firms into automatic rollover contracts. The CMA also ordered suppliers to help microbusinesses search for the cheapest available deals, by making information clearly available on their websites or via a link to a price comparison website. See: https://www.gov.uk/cma-cases/energy-market-investigation
[208] See: https://www.ofgem.gov.uk/system/files/docs/2019/05/evaluation_of_price_transparency_remedy_-_final_report.pdf

transitional provisions exist. Ofgem is one of the public bodies empowered to take action to enforce certain consumer protection legislation.

Compatibility of data exchange processes

Under Article 37(1)(u) of the Electricity Directive 2009/72/EC and article 41 (1) (u) of the Gas Directive 2009/73/EC, Ofgem as a NRA is required to contribute to the compatibility of data exchange for the most important market processes. All licensed suppliers and network operators must comply with industry codes (changes to which must be approved by Ofgem) in order to operate in the gas and electricity markets.

Access to consumption data from smart meters is managed centrally, through the DCC, which is licensed by Ofgem.

Charges for and the execution of maintenance services

The electricity and gas distribution networks must submit regulatory returns to us each year, showing relevant cost, volume and output information, so that we can assess their performance. A component of the DUoS charges that all customers pay as part of their energy bills reflects the costs of maintenance work.

Monitoring transparency

Under Article 37(1)(i) of the Electricity Directive 2009/72/EC and Article 41 (1) (i) of the Gas Directive 2009/73/EC, Ofgem is committed to ensuring the energy market is transparent to the benefit of customers. In this section, we explain the rules about transparency of suppliers' activities and how we monitored compliance in 2019.

Financial transparency

Promoting transparency of energy company profitability is an important aspect of our efforts to rebuild consumer confidence in the energy market.

Over the past few years, we have put in place measures to make suppliers' revenues, costs and profits more transparent. Since 2009, we have required large, vertically integrated suppliers[209] to publish annual Consolidated Segmental Statements (CSS) on their websites. These statements break down suppliers' revenues, costs and profits and are reconcilable to

[209] We are now reviewing this and will be consulting on modifying SLC19A to potentially include more suppliers - as the retail market has seen a lot of new entrants the CSS no longer captures the whole of the market. We want greater transparency.

audited accounts. In previous years, we produced an annual review summarising the large suppliers' CSS, archived on our website.[210] In 2019, we published a summary as part of our annual report on the retail energy markets.[211] This report found that total domestic supply profits aggregated across the six largest firms, measured as earnings before interest and tax (EBIT), decreased by 35% in 2018, compared to the 10% reduction between 2016 and 2017.

We have improved the reporting requirements[212] for the statements. We now require companies to audit their statements, to publish them within four months of their financial year end, to provide a detailed cost breakdown, and insight into their trading activities.

3.2.2.3 Supply prices, investigations and measures to promote effective competition

1. Supply prices

At the end of 2019, apart from prices for customers on the default tariff cap[213] and customers with PPMs, supply prices in the GB retail energy market continued to be determined by market forces. Retail prices are affected by input costs such as: wholesale energy prices, security of supply costs, such as capacity market auctions, costs associated with government environmental schemes, such as the RO,[214] and Warm Home Discount[215] and network transmission and distribution costs.

Please see Section 3.2.3 below for information about ongoing price protection for domestic customers.

The default tariff cap does not apply to customers that are benefitting from the PPM cap as they are already receiving price protection. The PPM cap exists in parallel to the default tariff cap and customers can only be protected by one of the caps.

[210] See: https://www.ofgem.gov.uk/gas/retail-market/retail-market-monitoring/understanding-profits-large-energy-suppliers
[211] https://www.ofgem.gov.uk/system/files/docs/2019/11/20191030_state_of_energy_market_revised.pdf
[212] https://www.ofgem.gov.uk/sites/default/files/docs/2015/05/css_guidelines_jan_2015.pdf
[213] https://www.ofgem.gov.uk/electricity/retail-market/market-review-and-reform/default-tariff-cap-information-suppliers
[214] http://www.ofgem.gov.uk/Sustainability/Environment/RenewablObl/Pages/RenewablObl.aspx.
[215] http://www.ofgem.gov.uk/Sustainability/Environment/WHDS/Pages/WHDS.aspx.

2. **Investigations**

The Authority has concurrent competition and customer protection powers with the CMA. We work with the CMA, including as members of the United Kingdom Competition Network, which aims to promote best practice and coordination between the sectoral regulators in the use of their concurrent competition powers.

Measures to promote effective competition and monitoring distortions or restrictions of competition

Our monitoring activities and actions help us to address issues hindering the promotion of competition and support markets to operate more effectively (ie by ensuring there is greater transparency of information to all parties including customers). In addition, we actively seek to ensure that adequate support is provided for society's most vulnerable customers.

We have implemented the CMA remedies[216] around five objectives: regulation for effective competition, prompting greater customer engagement, protecting and empowering those on non-standard meters, building industry systems and governance for the future, and enhancing our role as a robust and independent regulator.

We believe that these initiatives will stimulate engagement in the market, and help make competition work for all customers, as suppliers compete by driving down the prices and improving services. Subsequently, it should be easier and quicker for customers to get a better deal as we head towards a smarter market.

3.2.3 Consumer protection and dispute settlement for electricity

3.2.3.1 Consumer protection

According to Articles 37(1) (n) of the Electricity Directive 2009/72/EC and 41(1)(o) of the Gas Directive 2009/73/EC, Ofgem must help to ensure that customer protection measures

[216] These remedies included:

- Default price cap and price cap on PPM
- Trialling prompts for the 'stickiest' customers to engage in the market and shop around for cheaper tariffs. We have worked with suppliers to conduct these trials and issued guidance on good trialling
- Removing part of our Retail Market Review reforms so customers can enjoy a wider selection of deals
- Introducing a system of code governance that allows strategic change to be delivered smoothly efficiently, and in customers' interests
- Introducing the new Confidence Code rules for price comparison websites

See: https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/implementation-cma-remedies are effective and enforced, especially when new technology enters the market. Here, we report on the several aspects of current and future customer protection.

Price protection for domestic customers

The retail energy market has worked well for customers who actively choose their supplier, but it has not delivered good outcomes for those who remain on their supplier's default tariff. Ofgem's analysis, and the CMA's investigation of the energy market,[217] has shown there is insufficient competitive constraint on the prices suppliers charge these customers. As a result, millions of customers are paying more than they should be. We are particularly concerned with the impact this has on vulnerable customers. These customers are more likely to find themselves on a default deal, and because of their circumstances, can potentially suffer more harm as a result.

As a result, there has been a significant intervention in the market to protect consumers. The Default Tariff Cap Act 2018 required us to develop and implement a cap on default and standard variable tariffs in order to protect future and existing customers from paying too much for their energy. The default tariff cap entered into effect on 1 January 2019 and exists in parallel to the PPM price cap, introduced by the CMA in April 2017. [218] [219] The PPM cap will expire by the end of 2020 and PPM customers will automatically be protected by the default tariff cap. We consulted on the framework to provide the best protection for these customers in summer 2019 and published our final decision in October 2019.[220]

The default tariff cap is one of the most significant market interventions in recent years. We estimated that it would save around £1bn per year to 11 million customers on default price tariffs in GB.

We have designed the default tariff cap to provide a high level of protection to those who do not to engage in the market, preventing unjustified price increases and ensuring default tariffs reflect more closely the underlying costs of supplying energy. When setting the level of the cap, we have considered improving efficiency, incentives to switch, enabling competition and financing efficient costs.

---

[217] https://www.gov.uk/cma-cases/energy-market-investigation
[218] https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/default-tariff-cap
[219] https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/implementation-cma-remedies/prepayment-meter-price-cap
[220] https://www.ofgem.gov.uk/publications-and-updates/framework-conditions-effective-competition-domestic-supply-contracts

The default tariff cap is a temporary measure, which is intended to protect disengaged customers until the right market framework is in place for competition to be effective. From 2020, we will be carrying out an annual review of the market to assess if the conditions for effective competition are in place for a post-price cap market. This framework will form the basis of our recommendation to the Secretary of State, who will make the decision to extend the cap the following year or not. If it is decided to maintain the default tariff cap in place, we will carry out a further review in the following year. The cap will cease to have effect at the end of 2023 at the latest. The PPM cap will continue to apply alongside the default tariff cap until the end of 2020.

This means that in 2019, approximately 15 million customers had direct price protection, which ensured that these customers were protected from overcharging and that prices they pay more closely reflect the underlying cost of supplying energy.

Updating our Consumer Vulnerability Strategy (CVS)

Supporting and protecting consumers in vulnerable situations is a key priority for Ofgem. We published our first CVS in 2013.[221]

The energy market is at a key juncture. Important developments include expected growth in the use of renewable technologies, smart meters and other data-driven technologies, and electric vehicles. These developments will bring innovative consumer offerings and new business models, and the domestic retail market may look very different in the future.

We want to see an inclusive energy market, where consumers in vulnerable situations are not left behind and are able to take advantage of the opportunities provided by the evolving market. We have therefore updated our CVS, which was published in October 2019.[222] The strategy builds upon the already extensive work delivered under our 2013 CVS and sets out our priorities to help protect gas and electricity consumers in vulnerable situations until 2025.

We identified five key areas where we can drive strong improvements for consumers in vulnerable situations:

- Improving identification of vulnerability and smart use of data
- Supporting those struggling with their bills

[221] https://www.ofgem.gov.uk/about-us/how-we-work/working-consumers/protecting-and-empowering-consumers-vulnerable-situations/consumer-vulnerability-strategy
[222] Ofgem (2019) Final Consumer Vulnerability Strategy 2025

- Driving significant improvements in customer service for vulnerable groups
- Encouraging positive and inclusive innovation
- Working with partners to tackle issues that cut across multiple sectors

Each of the five themes are underpinned by the outcomes we want to see realised during the lifespan of the strategy.

Investigating customers with PPMs who self-disconnect

Self-disconnection occurs when PPM customers experience an interruption to their electricity or gas supply due to a lack of credit on their meter. Closely associated with this is self-rationing. This is when customers deliberately limit their energy use to spend money in other essential areas, or restrict spending in other essential areas in order to keep their meter topped up. Self-rationing affects both PPM and credit meter customers.

We are concerned about the impact of self-disconnection and self-rationing on PPM customers and the level of support provided to these customers. In November 2018, we launched a call for evidence to gather information on the scale of the problem, quality of support and supplier practices in this area.[223] In August 2019, we consulted on our proposals to improve outcomes for these consumers,[224] and in June 2020, we published our statutory consultation.[225] Our final package of proposals includes a requirement for suppliers to take all reasonable steps to identify all PPM customers who are self-disconnecting, a requirement to offer emergency credit to customers, and a proposal to update and incorporate into the supply licence the existing Ability to Pay principles to put further emphasis on current protections.

Protecting customers who have a PPM force-fitted[226]

In January 2018, Ofgem introduced a new licence condition to protect customers when a supplier is considering force fitting a PPM by using a court warrant. We were concerned that previously suppliers were failing to identify vulnerable customers during the warrant process, charging vulnerable customers excessive costs and that there was inconsistency in warrant charges across suppliers. Measures introduced include:

[223] Ofgem (2018) Prepayment self-disconnection and self-rationing - a call for evidence
[224] https://www.ofgem.gov.uk/publications-and-updates/proposals-improve-outcomes-consumers-who-experience-self-disconnection-and-self-rationing
[225] https://www.ofgem.gov.uk/system/files/docs/2020/06/self-disconnection_and_self-rationing_-_statutory_consultation_0.pdf
[226] For more information see Ofgem’s decision to cap prepayment warrant charges for indebted customers.

- A prohibition of the use of warrant on PPM installations for people for whom the experience would be severely traumatic (e.g. due to mental health issues)
- A prohibition on suppliers levying warrant-related charges in certain cases related to customers in vulnerable situations (eg customers in severe financial difficulty)
- A cap on the amount of warrant charges at £150 in all other cases
- A proportionality principle covering costs and actions of suppliers for all customers in the debt recovery process

These measures are designed to protect all customers, including the most vulnerable, from experiencing unnecessary hardship due to having a meter installed under warrant. We have sent a strong message to suppliers that using a warrant to install a PPM is a last resort. They must step in at an early stage to help customers manage debt through repayment plans.

As part of our 2019 Vulnerable Consumer in the Energy Market Report, we are pleased to have seen a decrease in the total number of PPMs force-fitted under warrant to recover debt after we introduced new protections against this in 2018. The total number of PPMs installed under warrant decreased from 70,981 in 2018 to 67,690 in 2019. We are still concerned that some suppliers install a significantly higher number of PPMs under warrant per 1,000 customers with a new debt repayment arrangement than the average. We will continue to engage bilaterally with suppliers and we will take robust action if we encounter non-compliance with the new requirements.[227]

Improved approach for identifying vulnerable customers[228]

In August 2017, Ofgem decided to amend the Standards of Conduct (SoC)[229] for both domestic and non-domestic customers. This is part of Ofgem's wider move to rely more on enforceable principles rather than detailed rules to regulate supply businesses. As part of these reforms, Ofgem introduced a broad vulnerability principle to the domestic SoC. The vulnerability principle signals that suppliers must have special regard to domestic customers in vulnerable situations so they are not at a disadvantage in accessing the benefits of the energy market. Suppliers now need to make an extra effort to identify and respond to the needs of those in vulnerable situations to comply with the SoC and treat all their customers fairly.

---

[227] Ofgem (2019) Vulnerable consumers in the energy market: 2019
[228] For more information, see Ofgem's decision to change the Standards of Conduct.
[229] These are enforceable overarching rules aimed at ensuring licensees, and their representatives in the case of domestic suppliers, treat each domestic and microbusiness customer fairly

We have begun work on the RIIO-ED2 price control for electricity network companies, which will come into effect in 2023. We are currently consulting on the proposed framework for the price control and are seeking views on how to ensure that we continue to protect the interests of consumers in vulnerable situations, particularly in light of the energy system transition.[230]

In our CVS published in October 2019, we proposed a requirement on gas network companies to adhere to a vulnerability principle, similar to the obligation that we have placed on gas and electricity suppliers. We will introduce a new principles-based Licence Obligation for RIIO-GD2, which would require the Gas Distribution Networks (GDNs) to support consumers in vulnerable situations as part of business as usual. We think that a principles-based Licence Obligation will make the network companies more accountable for the minimum service they provide consumers in vulnerable situations, while providing scope for innovation.

Working with other regulators to better identify vulnerable customers and share data[231]

Ofgem has been collaborating with other sectoral regulators in GB to explore how making better use of data can help identify customers in vulnerable situations across the energy and water sectors.

In November 2018, the UK Regulators Network (UKRN) published a follow-up policy report,[232] which reviewed the progress made in the last year by energy and water companies against these expectations. We considered the learnings from a pilot project in which energy and water companies in the North West of England gained explicit consent from customers to share their PSR data and considered the challenges in moving this initiative towards a national roll out in 2020.

The pilot shows that there has been significant progress towards cross-sector data sharing, but continued progress will be needed for a successful rollout in 2020. Key challenges include the requirement for effective training of front line staff, technical issues in matching data sets, and data accuracy. Evidence shows that human interaction is key in gaining customer consent to share data and it will be essential that staff across all companies are given sufficient training to be able to articulate the benefits of data sharing and maintain enthusiasm ahead of national roll out.

[230] Ofgem (2019) Consumer Vulnerability Strategy 2025
[231] For more information, see: UKRN cross-sector project: Making better use of data follow-up report
[232] For more information see: Making better use of data to identify customers in vulnerable situations: A follow-up report.

There is evidence of ongoing collaboration between water and energy companies but there is still considerable scope for companies to go further in working collaboratively and across sectors, including working more with trusted charities and local partners and considering and adopting best practice from other sectors.

The report also set out the next steps that industry needs to take to continue making progress to improve services for their customers in vulnerable situations. Regulators will continue to explore what further help is needed for customers in vulnerable situations and how collaborating on utilising data can support these customers. The aim is to implement sector wide data sharing within the next few years.

Other current cross-regulator work areas include minimum standards for consumers with mental ill health. The regulators, through UKRN, aim to identify where there are benefits to introducing a set of minimum standards and agree principles for improving services for these consumers.[233] We remain committed to feeding into these important work areas.

Reporting on how well suppliers are supporting vulnerable customers

Domestic suppliers continue to submit social obligations data to us, which includes data on debt levels and debt repayments, PPMs, disconnection rates and help for customers in vulnerable situations. This data helps us to:

- Check that suppliers are complying with our rules
- Challenge poor performance
- Encourage and share good practice
- Inform future policy

Every year, Ofgem publishes a report on how well suppliers perform against their social obligations. We do this to make suppliers' performance transparent, encourage improvement and innovation, and build trust in the market. The vulnerability report presents a view on the extent to which vulnerable customers are experiencing positive outcomes in the energy market. It provides information on inclusive services, such as PSR registration[234] and gas safety checks, affordability and debt (such as debt prevention, debt repayment and switching rates), and staying on supply (such as PPM and (self) disconnections). The data is presented

[233] UKRN (2019) Work on vulnerable consumers.
[234] A free service provided by suppliers and network operators to customers that are of pensionable age, are disabled or chronically sick, have a long-term medical condition, have a hearing or visual impairment or additional communication needs snare or are in a vulnerable situation.

alongside good practice case studies from suppliers, customer cases from Citizens Advice,[235] research carried out by customer groups and Ofgem. In 2018 and 2019, we included performance information on how network companies are supporting customers in vulnerable situations. We also shared good practice to enable suppliers and network companies to learn from one another. Our latest quarterly and annual data as well as the 2019 vulnerability report can be found on our website.[236]

As a result of highlighting good practice and poorer performance, we have seen real improvements in suppliers' practices since we started collecting this data via social obligations in 2006.

Disconnections for debt

Social obligation reporting also requires suppliers to provide us with information about debt and disconnections for debt for domestic customers. Monitoring supplier performance in this area allows us to identify issues of concern with supplier performance and take action. Disconnecting a customer's energy supply should be a last resort and avoided wherever possible. Disconnections for debt are now extremely rare in GB, with six disconnections for debt recorded in 2018, 11 less than the previous year. The latest data related to domestic energy debt and disconnection is published on our website.[237]

Introducing a principles-based PSR to better support vulnerable customers[238]

We modified the PSR rules that came into effect on and from 1 January 2017 to require companies to be proactive in identifying customers who would benefit from PSR services, expanded eligibility criteria to include vulnerable customers, and to provide flexibility to offer innovative services. Being on the PSR gives customers access to certain non-financial services free of charge (such as a way to identify representatives, meter readings and sending communications to a nominated person).

- Network operators still have to provide specific services to ensure a minimum level of protection for customers who are at particular risk of detriment in the event of interruption of supply. Suppliers and network operators are free to provide any other

[235] Citizens Advice is a network of 316 independent charities throughout the United Kingdom that give free, confidential information and advice to assist people with money, legal, consumer and other problems.
[236] https://www.ofgem.gov.uk/about-us/how-we-work/working-consumers/protecting-and-empowering-consumers-vulnerable-situations/consumer-vulnerability-strategy/consumer-vulnerability-strategy-social-obligations-reporting-sor
[237] https://www.ofgem.gov.uk/data-portal/customer-service
[238] For more information see Ofgem's decision to modify the Priority Service Register licence conditions.

additional priority services of a similar nature to customers they consider require them.

- Companies must record and share relevant data about their customers with identified vulnerability needs within the parameters of wider data protection and/or privacy laws. Suppliers and network companies must share this data amongst each other.
- Suppliers must take all reasonable steps to promote the PSR so that more customers are aware of the support available. Where possible, companies should collaborate with customer groups and other third parties to develop customer advice and information on priority services in order to improve awareness.

Guaranteed Standards of Performance

Guaranteed Standards of Performance set the levels of service for electricity and gas suppliers to achieve when making and keeping appointments, replacing domestic credit and PPMs (faulty or otherwise) and, where necessary, reconnecting supplies. [239]

Most guaranteed standards apply only to domestic customers. Only the Guaranteed Standard on making and keeping appointments applies to both domestic and microbusiness customers. Every time a supplier fails to meet a Guaranteed Standard, it must pay compensation of £30 to the affected customer within ten working days (or face an additional £30 payment to that customer).

In June 2018, we published a consultation on introducing new Guaranteed Standards that directly compensate customers where they suffer an erroneous transfer or a delay to switching, final billing, or credit repayment on switching. These Guaranteed Standards were implemented in two tranches, coming into force in May 2019 and a further three in May 2020. We believe this will create incentives to ensure suppliers improve their switching performance and make switching more reliable.

Customer insight and engagement

In 2019, Ofgem continued its programme of consumer research. This informs our policy decisions, is used evaluate the impact of our policies and ensures the consumer voice remains at the heart of our regulatory process. The programme included ongoing tracking surveys,

[239] Electricity and Gas (Standards of Performance) (Suppliers) Regulations 2015 were made by the Authority and received Ministerial consent. The new Regulations apply since 1 January 2016 and have been published at: http://www.legislation.gov.uk/uksi/2015/1544/contents/made

our Customer First qualitative listening post as well as bespoke qualitative and quantitative research projects. These include:

- A quarterly quantitative study tracking the quality of service provided by energy suppliers to domestic customers. This forms part of our supplier monitoring and compliance programme and is used to ensure suppliers meet their customer service obligations.[240]
- Our annual Consumer Survey, which measures consumer participation in the energy market and what drives or prevents engaging with energy.[241]
- Our Customer First Panel (of domestic consumers), an ongoing qualitative forum that is used obtain detailed feedback on key policy issues and our Forward Work Programme.[242]

In 2019, Ofgem's Behavioural Insights Unit continued its focus on building the organisation's understanding of customers' behaviour. We completed our programme of randomised control trials, which were designed to increase consumer engagement with energy. Building on the work done in 2018, further variants of communications to encourage consumers to engage were developed using insights from behavioural science. These were tested through a series of randomised control trials, which demonstrated that targeted, personalised and relevant communications can significantly increase engagement in the energy market.

The trials fell into three main categories:

- Communications prompting consumers to switch by signposting them to cheaper tariffs (Cheaper market offers trials)
- Communications prompting consumers to switch by sign posting them to an exclusive tariff. Bespoke on-line or phone support of the switch was provided by a third party switching service. The tariff was offered as a collective switch tariff available exclusively to participants and negotiated via auction by Ofgem (we referred to these processes as "collective switch trials").
- Communications directed to consumers coming to the end of the term of their energy contract, which reminded them they were about to be rolled onto a more expensive default tariff and they could switch supplier or to a cheaper tariff at any time

[240] https://www.ofgem.gov.uk/publications-and-updates/consumer-perceptions-energy-market-q4-2019
[241] https://www.ofgem.gov.uk/publications-and-updates/consumer-survey-2019
[242] https://www.ofgem.gov.uk/publications-and-updates/ofgem-consumer-first-panel-understanding-consumers-views-potential-network-access-scenarios

These trials involved a selection of energy suppliers[243] and were carried out under the gas and electricity SLC 32a. The trial results demonstrated that behaviourally informed interventions can be highly effective at increasing switching amongst disengaged customers.[244]

Future retail regulation

We have committed over time to rely more on general principles rather than detailed prescriptive rules about how companies should run their businesses.

In July 2019, Ofgem and BEIS jointly released a consultation setting out a vision for the future energy retail market, including a number of options on how to regulate in the future.[245]

These options include:

- Expanding Ofgem's licencing powers to other activities connected to the supply of energy such as the activities of third party intermediaries like price comparison websites
- Developing a new regulatory framework to sit alongside our licencing powers, such as a General Authorisation Scheme
  Using a modular approach to regulation, whereby energy retail businesses would be regulated depending on the services they offer

The consultation also set out thoughts on more immediate consumer protection options that can be used after the temporary default tariff price cap is lifted.

These options include:

- The use of a targeted intervention to certain sections of the market, such as a price cap for vulnerable consumers
- Use of enforceable regulatory principles to curtail unfair pricing practices
- Bolder enforcement of current consumer law and sector specific rules and
  The use of smart data, intermediates and collective switching schemes (both opt in and opt out) to move default tariff customers onto better deals

243 https://www.ofgem.gov.uk/system/files/docs/2017/01/decision_selection_criteria_0.pdf
244 https://www.ofgem.gov.uk/publications-and-updates/ofgems-collective-switch-trials
245 https://www.ofgem.gov.uk/publications-and-updates/flexible-and-responsive-energy-retail-markets

Ofgem will continue to work with the government and wider stakeholders to consider the most appropriate consumer protections in the absence of the current default tariff price cap, and what regulatory tools should be used in the future retail market to support competition and good consumer outcomes.

Appointment of SoLR

The SoLR process ensures continuity of supply for customers of a failed energy supplier through the appointment of another supplier (the SoLR) to take on responsibility for supplying those customers. This process also protects the failed supplier's customer credit balances, with the SoLR honouring these balances. Without Ofgem's intervention, customers would need to pursue the failed supplier through the insolvency process for repayment of any credit balance they had built up with the failed supplier and those customers are unlikely to receive all (or possibly any) of this money back from the failed supplier.

In 2019, a number of energy suppliers failed. While some left the market through commercial arrangements agreed with other suppliers, Ofgem appointed SoLRs in respect of nine of those suppliers, which covered approximately 480,000 customers.

Through this process, we were able to effectively protect the customers affected by the insolvency of the energy companies. The speed with which the situations were resolved (often in the course of a matter of days) ensured that the costs to the rest of industry were kept to a minimum and broader confidence in the energy market was maintained.

Smart metering

Smart meters give customers near real time information on energy use – expressed in pounds and pence – which enables customers to better manage their energy use. This can help them make changes to reduce their energy consumption to save money. They will also bring an end to estimated billing, so customers are only billed for the energy they have used.

Smart meters are able to record and export consumption data each half-hour. This will allow customers to be settled using this data, which will open up new sources of flexibility, and new ways in which customers can engage with the market. This could have a number of benefits for customers:

- Make the settlement arrangements more efficient and reduce barriers to entry to the market, for example by reducing credit/collateral requirements
- Facilitate uptake of smart tariffs to incentivise consumers to shift load away from peak periods, reducing consumer bills

- Promote innovation and competition in the energy market by facilitating Demand Side Response,[246] flexibility and innovative business models
- Shift demand away from system peak, helping to alleviate security of supply concerns and reducing the need for network reinforcement, delivering increasing benefits as the share of intermittent, inflexible and distributed generation grows
- Allow suppliers to forecast demand more accurately, supporting competition and reducing costs

At present licence conditions require suppliers to take "all reasonable steps" to roll out smart meters to all their domestic and small non-domestic customers by the end of 2020. Following consultation, in June 2020 BEIS published its decision to extend this obligation for six months (to end-June 2021), and to introduce a new regulatory framework which would apply from 1 July 2021. The new framework will set binding annual installation targets for suppliers and will run until mid-2025.[247] The Government is planning to consult on installation target levels during autumn 2020.

At the end of 2019 there were 16.5 million smart and advanced meters operating across homes and businesses in GB. Eighty-nine per cent (14.7 million) of these were smart meters operating in homes by large energy suppliers.[248]

Ofgem continued throughout the reporting period to provide independent advice and expertise for the government's smart meter implementation programme. We play a key role in monitoring and, where appropriate, enforcing compliance with the regulatory obligations relating to smart meters to ensure that the interests of customers remain protected during the transition period to smart metering.

Regulating the DCC

The DCC provides the centralised smart metering communications infrastructure across GB, which allows energy suppliers, network operators and other authorised users to send and receive information from smart meters.

---

[246] The way in which consumers can engage with the energy system, turning up or down their consumption, in response to signals, such as price. Consumers (the 'demand-side') can sign up to special tariffs and schemes which reward them for changing how and when they use electricity (known as DSR).
[247] See: https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020
[248] Supply either gas or electricity to at least 250,000 domestic or non-domestic metering points. An energy supplier need only supply 250,000 domestic or non-domestic customers a single fuel to be classed as a large energy supplier (e.g. an energy supplier supplying gas to 250,000 domestic customers and no electricity or non-domestic customers is a large energy supplier).

Ofgem monitors the DCC to ensure it abides by its licence conditions. Our monitoring includes annual *ex post* price control arrangements and the approval of DCC's Charging Statements. Our role is to ensure that DCC's costs are incurred economically and efficiently.

The majority of the DCC infrastructure went live on 8 November 2016, and full functionality was available in spring 2017. We implemented an Operational Performance Regime (OPR) for DCC in April 2018 to further incentivise DCC's performance.[249] In March 2020, we published a working paper on the OPR[250] setting out initial proposals to improve the effectiveness of the incentive regime ahead of a formal policy consultation on the issue.

The rollout of smart metering has the potential to make retail energy markets work better for customers. However, this will require reforms to the arrangements that govern how market participants interact with each other and customers. We are continuing to progress work to deliver necessary changes to supplier process, the electricity settlement process and customer empowerment and protection.

Electricity settlement

Reforming the existing electricity settlement process will attribute the costs of supply more accurately across the day, incentivising suppliers to offer new products and services that will help consumers to use electricity at times of day when it is cheaper to generate and transport.

Currently, the majority of customers in GB are settled on a "non-half-hourly" basis using estimates of when electricity is consumed based on a profile of the average customer, because most sites do not have meters that can record consumption every half hour.

To realise the benefits of the smart meter roll-out more fully, we are seeking to introduce market-wide half-hourly settlement (MHHS). Our analysis, carried out before the onset of

[249] As a monopoly, the DCC needs incentives, which mimic competitive pressure, to ensure it efficiently manages its costs whilst delivering an appropriate quality of service. The operational incentive arrangement for DCC is called the Operational Performance Regime.
[250] https://www.ofgem.gov.uk/publications-and-updates/dcc-operational-performance-regime-working-paper

COVID-19 pandemic, indicates that, under our preferred option for implementation, we expect MHHS to deliver £1.61bn to $4.56bn in net benefits to consumers.

Over the past year, we have made policy decisions on access to data for settlement purposes[251] and on supplier agent functions.[252] We then published our draft impact assessment and associated consultation document on 17 June 2020, with a deadline for responses of 14 September.[253] As part of the consultation, we are asking stakeholders to tell us what impact they expect the pandemic to have on project timescales. We will then be making our decision on when and how market-wide settlement reform will be introduced through our Full Business Case (FBC). We expect to publish the FBC in spring 2021.

3.2.3.2 Dispute Settlement

Under Article 37(11) of the Electricity Directive[254] any party that has a complaint against a TSO or DSO in relation to that operator's obligation under the Directive may refer the complaint to the NRA. Each NRA is required to issue a decision within two months following receipt of the complaint. That period may be extended by two months where additional information is sought by the NRA. That extended period may be further extended with the agreement of the complainant. Member states are required to ensure that NRAs have the powers to enable them to make such decisions.

Sections 44B-D of the EA89 set out our determination functions and procedures under Article 37 of the Electricity Directive. These sections were inserted by the Electricity and Gas (Internal Markets) Regulations 2011. Under section 44C, any dispute that is referred to us for determination is determined by us or, if we think fit, by an arbitrator appointed by us. The decision is binding on the parties to the dispute. However, any party can seek a judicial review of our decision. No new Article 37 disputes were raised in 2019.

[251] https://www.ofgem.gov.uk/publications-and-updates/decision-access-half-hourly-electricity-data-settlement-purposes
[252] https://www.ofgem.gov.uk/publications-and-updates/decision-agent-functions-under-market-wide-settlement-reform
[253] https://www.ofgem.gov.uk/publications-and-updates/electricity-retail-market-wide-half-hourly-settlement-draft-impact-assessment-consultation
[254] Article 37(11) of the Electricity Directive 2009/72 is now Article 60(2) of the Electricity Directive 2019/944 EC.

4 The gas market

Chapter Summary

This chapter details developments in Great Britain's gas sector during 2019 and the first half of 2020. This is broken down into sections covering network regulation, promoting competition and security of supply in the wholesale and retail gas markets.

4.1 Network regulation

4.1.1 Unbundling[255]

4.1.1.1 Transmission System Operators (TSOs)

Under Articles 9 and 10 of the Gas Directive, we have an obligation to ensure any undertaking that owns a transmission system is certified as independent from generation and supply interests before it is designated as a TSO.

In 2019 there were no applications by gas TSOs to be certified as unbundled.

We continue to monitor the certification status of existing gas TSOs in Great Britain (GB), including through the review of annual declarations submitted by the relevant entities. We remain satisfied that the grounds for their certifications remain valid.

[255] Articles 9, 10, 11, 26 of the Gas Directive and Article 3 of Regulation (EC) 715/2009 (the Gas Regulation) outline our obligations with regard to the unbundling and certification of TSOs. In this section, we refer to the Electricity and Gas (Internal Markets) Regulations 2011 and the Electricity and Gas (Ownership Unbundling) Regulations 2014 as 'the GB Regulations'. The GB Regulations implement the Third Package into the GB domestic regulatory regime including legislation, licences and industry codes. Ownership unbundling requirements are included alongside Regulations for TSOs, storage and Liquefied Natural Gas (LNG) system operators, and the unbundling requirements for DSOs. The GB Regulations have amended the Gas Act 1986 (the Gas Act) to include the requirement for the holders of gas transporter and gas interconnector licences to be certified as independent from generation and supply interests under one of the grounds for certification in the Gas Act.

4.1.1.2 Distribution System Operators (DSOs)

There were 26 gas DSOs in 2019.

We have eight gas distribution networks owned and operated by five incumbent gas DSOs: Northern Gas Networks Ltd, Scotland Gas Networks plc, Southern Gas Networks plc, Wales & West Utilities Ltd and Cadent Gas Ltd.

There are 21 independent (embedded) gas DSOs that own and operate a number of relatively small networks at various locations. They include 15 Independent Gas Transporters:[256] Energy Assets Pipelines Ltd, ES Pipelines Ltd, ESP Connections Limited, ESP Networks Limited, ESP Pipelines Limited, Fulcrum Pipelines Ltd, GTC Pipelines Limited, Harlaxton Gas Networks Limited, Independent Pipelines Ltd, Indigo Pipelines Limited, Last Mile Gas Limited, Leep Gas Networks Limited, Murphy Gas Networks Ltd, Quadrant Pipelines Limited and Squire Energy Limited.

They also include six site-specific operators: Greenpark Energy Transportation Limited, Humbly Grove Energy Services Limited, INOVYN Enterprise Limited, Saltfleetby Energy Limited, Severn Gas Transportation Limited and SP Gas Transportation Hatfield Limited.

DSOs report on business independence, financial reporting and output performance annually. In that context, we were satisfied that the Gas Directive requirements relating to unbundling were properly observed in 2019.

4.1.1.3 Storage and Liquefied Natural Gas (LNG) System Operators (SOs)

The Second and Third Packages established a number of unbundling requirements for storage operators as part of the mandatory third party access arrangements.

In GB, the default access regime for a gas storage facility is negotiated third party access (nTPA). Under nTPA, storage SOs cannot produce gas, except as an unintended consequence of storage activities. They also cannot supply, ship, or sell gas except for the efficient operation of the storage facility or of another storage facility. Legal and functional separation is required from any parent company or associated undertakings involved in these activities.

---

[256] 'Gas Transporter' is defined within the Gas Act as a holder of a licence to convey gas through pipes in GB.

These provisions, in Articles 15 and 16[257] of the Gas Directive, were transposed in section 8(R) of the Gas Act 1986 (GA86). Ofgem published the latest version of its guidance on compliance with nTPA requirements in September 2015.[258]

In 2019, one storage facility was subject to nTPA in GB. This was Hornsea, owned and operated by SSE Hornsea Limited. Under current legislation, it must operate its storage facility independently of the affiliates carrying out any of the above restricted activities. This includes establishing an independence programme to ensure non-discrimination against other parties, and the appropriate disclosure or use of information. In addition, the storage SO must publish an annual report setting out compliance with the independence programme.

Rough, owned and operated by Centrica Storage Limited (CSL), was previously subject to nTPA. However, in June 2017 CSL announced that it intended to close the Rough storage plant due to its age, physical deterioration and the associated safety risks, as well as economic infeasibility as the primary reasons. This changed the facility from a storage site to a production facility due to the production of remaining cushion gas.

All other storage facilities (six operational) in GB have been granted Minor Facilities Exemptions (MFEs) from nTPA. MFEs are granted on the basis that the facility is not economically and/or technically necessary for providing efficient access to the system for the operation of an efficient gas market. The nTPA unbundling requirements set out above do not apply to facilities with an MFE.

For LNG facilities the default access regime under the Third Package is regulated Third Party Access (rTPA). Under rTPA, LNG SOs must keep their (financial) accounts separate from any other business. These provisions contained in Article 31 of the Gas Directive were transposed in section 19E(2)-(3) of GA86. Ofgem published guidance on rTPA in April 2012.[259] All three LNG facilities in GB[260] have been granted an exemption from rTPA requirements under section 19C of GA86.

[257] A storage system operator shall be independent at least in terms of their legal form, organisation and decision making from other activities not relating to transmission, distribution and storage.
[258] https://www.ofgem.gov.uk/publications-and-updates/guidance-regulatory-regime-gas-storage-facilities-great-britain-version-2
[259] https://www.ofgem.gov.uk/ofgem-publications/40393/guidance-regulated-third-party-access-regime-liquefied-natural-gas-facilities-gb.pdf.
[260] Isle of Grain, South Hook and Dragon LNG.

4.1.2 Technical functioning

The technical functioning of the network is of great importance to ensure safe, secure and reliable gas supply for consumers. In this section we report on our responsibilities and activities for gas balancing services, maintaining security and reliability standards, monitoring time taken to connect and repair, monitoring safeguard measures and reporting on the RES regulatory framework over the course of 2019-20 in the transmission and distribution networks.

We recently published the RIIO Gas Distribution (RIIO-GD1)[261] and RIIO Gas Transmission[262] 2018-19 Annual Reports. These reports review the progress made by the relevant companies during the 2018-19 period of the RIIO price control and provide stakeholders with information on how the companies are performing against their obligations and incentives.

4.1.2.1 Balancing services

Under Article 41(6)(b) of the Gas Directive regulators must fix or approve the methodologies used to calculate or establish the terms and conditions for the provision of balancing services. These balancing services must be economic and incentivise network users to balance their inputs and offtakes.

National Grid (NGG) is the gas transmission SO responsible for balancing the system across GB. In order to do this, NGG buys and sells gas[263] as well as procures associated services. It also provides information to market participants such as demand forecasts. NGG is obliged to perform its balancing roles economically and efficiently.

Balancing arrangements in GB are designed to provide gas shippers with strong commercial incentives to balance their positions. Market-based imbalance charges are the primary tool used by NGG to balance the system. Shippers that are not in balance at the end of a gas day incur imbalance charges known as "cash-out". The cash-out price is set when NGG buys or sells gas in the market. Rather than procure the entire system imbalance NGG trades small volumes to set the cash-out price and incentivise shippers to balance its inputs and offtakes.

[261] https://www.ofgem.gov.uk/publications-and-updates/riio-1-gas-distribution-annual-report-2018-19
[262] https://www.ofgem.gov.uk/publications-and-updates/riio-1-gas-transmission-annual-report-2018-19
[263] NGG are able to buy and sell gas on the On-the-Day Commodity Market (OCM) for balancing purposes.

4.1.2.2 Security and reliability standards, quality of service and supply

Under Article 41(1)(h) of the Gas Directive we are required to monitor the compliance with, and review the past performance of network security and reliability rules for both the transmission and distribution networks. We also have an obligation to set and/or approve standards and requirements for quality of service and supply.

Gas quality is regulated through both the Gas Safety (Management) Regulations 1996 and the Gas (Calculation of Thermal Energy) Regulations 1996. These regulations set rules about the gas composition, calorific value and measurement standards to ensure the safety and quality of the supply.

Transmission

The long-term reliability standards of the National Transmission System (NTS) are provided for by the gas transporter licence which is granted and regulated by Ofgem.

We monitor quality of service by:

- Requiring NGG to comply with standard special condition A9 of the gas transporter licence.
- Monitoring the quality of service and supply to individual users as the standards are set out in the Uniform Network Code (UNC).

Distribution

Standard special licence condition D10 of the gas transporter licence for the distribution networks sets timescales within which Gas Distribution Network companies (GDNs) must provide connection services, attend/respond to gas emergencies and respond to telephone calls to its emergency services and enquiry service obligations telephone line. GDNs must provide services within these timescales at least 90% (or in some cases 97%) of the time (dependent on the obligation) in order to comply with their licence obligations. The guaranteed standards of performance also require GDNs to meet expected levels of service or pay customers compensation if they fail.

We monitor quality of service by:

- Requiring GDNs to comply with and monitor performance against standard special licence condition D10 – quality of service standards of the gas distribution licence.

- Monitoring GDN performance against guaranteed standards of performance in the Gas (Standards of Performance) Regulations 2005, and standard special licence condition D10.

4.1.2.3 Monitoring

Monitoring time taken to connect and repair

Article 41(1)(m) of the Gas Directive requires National Regulatory Authorities (NRAs) to monitor the time taken by TSOs and DSOs transmission and distribution to make connections and repairs. We do this by requiring the GDNs to report on their performance in this regard. In the following paragraphs we report on how we have monitored this for transmission and distribution system operators during 2019.

Transmission

The UNC governs connections to the NTS. Connections to the NTS are infrequent and for major pipeline developments can take many years. The UNC requires NGG to provide quarterly data on connections agreements. NGG has published this data for its 2019 quarterly reporting periods under 'Connection Offer Performance Reports'.[264]

Distribution

We set Guaranteed Standards of Performance, which the eight GDNs must meet. The GDNs must meet the standards at least 90% of the time. The performance of the eight GDNs is summarised in Chapter 2 of our RIIO-GD annual report.[265]

Monitoring access to storage, linepack and other ancillary services

Under Article 41(1)(n) of the Gas Directive, regulators are required to monitor and review the access conditions to storage, linepack (the storage of gas by compression in gas transmission and distribution systems) and other ancillary services. In the GB gas market, the default regime is for all storage facilities to offer nTPA unless the facility has been granted an exemption. Key requirements for storage facilities are:

- To be legally unbundled from related undertakings.
- To offer access to third parties on non-discriminatory terms.

---

[264] https://www.nationalgrid.com/uk/gas-transmission/connections/applying-connection
[265] https://www.ofgem.gov.uk/publications-and-updates/riio-1-gas-distribution-annual-report-2018-19

NGG is required by its licence to procure Operating Margins on an annual basis as an ancillary service. The Operating Margins service is used to maintain system pressures in the period before other system management services become effective (ie national or locational balancing actions). Ofgem continues to monitor this process.

Monitoring correct application of criteria that determine model of access to storage

Under Article 41(1)(s) of the Gas Directive, regulators must monitor the correct application of the criteria that determine whether a storage facility falls under negotiated or regulated access. As noted above, the GB default regime for all storage facilities is to offer nTPA unless the facility has been granted an exemption.

Ofgem grants an MFE where we are satisfied that access to the storage facility by other persons is not technically or economically necessary for the operation of an efficient gas market. The owner of a storage facility may apply to Ofgem for such an exemption, and Ofgem may revoke an exemption if the criteria are no longer met. More details on our approach are set out in an open letter that was published 16 June 2009.[266]

Monitoring safeguard measures

Under Article 41(1)(t) of the Gas Directive we are also required to monitor the implementation of safeguard measures. These are used in the event of a sudden crisis in the energy market as referred to in article 46 of the Gas Directive. Article 46 was taken forward by and further specified in Articles 10(6) - (7) of the EU Gas Security of Supply Regulation (Regulation (EU) No. 994/2010), which was in turn repealed and replaced by Regulation (EU) 2017/1938 concerning measures to safeguard the security of gas supply. As such the competent Authority, the Department for Business, Energy and Industrial Strategy's (BEIS) is required to prepare, in accordance with Article 10 of Regulation 2017/1938, an emergency plan that outlines the action required to be taken in case of emergency.

In 2019, Ofgem continued to contribute to the implementation of Regulation (EU) 2017/1938.

4.1.3 Network and LNG tariffs for connection and access

Under Article 41(1)(a), 41(6)(a), 41(8), 41(10) and 41(12) of the Gas Directive, NRAs are required to fix or approve transmission or distribution tariffs or their methodologies. In this

[266] https://www.ofgem.gov.uk/publications-and-updates/gas-storage-minor-facility-exemptions-open-letter

section, we report on our activities surrounding the regulation of tariffs and network charges (for transmission and distribution) during 2019.

NGG is the sole owner and operator of the GB gas NTS. There are eight GB GDNs. We determine the revenues that both NGG and the GDNs can collect from users of the NTS and GDN via network charges at the price control review. The current gas transmission and distribution price controls are based on the RIIO model (RIIO-T1 and RIIO-GD1)[267] [268] and began on 1 April 2013, running until 31 March 2021.

Following an assessment, we establish cost allowances and performance targets that form the basis of the price control and incentive framework. Incentive that allows allowed revenue to increase in response to user signals for new capacity is also included in these arrangements. Together, these elements determine the total amount of revenue (the 'allowed revenue') that NGG and the GDNs may earn on annual basis. All are required by the regulatory regime to set charges for the use of their networks to comply with the limits on allowed revenue that have been set. Should more or less than the permitted revenue be earned in any formula year, then a compensating adjustment is made in the following year.

Transmission

Users of the gas NTS are subject to three main elements of transmission charges:

- TO entry and TO exit charges: These are for the provision and maintenance of transmission network assets.
- SO charges: These charges are for the day-to-day operation of the NTS.

Under its licence, NGG is obliged to develop and maintain a methodology for determining NTS charges and must comply with objectives below:

- The methodology results in charges reflect the costs incurred by NGG in its transportation business
- It facilitates effective competition between gas shippers
- It takes account of developments in the gas transportation business
- It is compliant with the Gas Regulation and legally binding decisions of the European Commission and/or the Agency

[267] https://www.ofgem.gov.uk/network-regulation-%E2%80%93-riio-model/riio-t1-price-control
[268] https://www.ofgem.gov.uk/network-regulation-%E2%80%93-riio-model/riio-gd1-price-control

NGG's charging methodology is set out in the contractual framework between GB gas network users and operators (UNC). Ofgem must approve all material changes to the UNC.[269]

We do not set or approve the level of individual charges levied only the charging methodology used to determine them. NGG is required to submit a report each year to us, which notes developments in the gas transmission charging methodology in the previous formula year, and outlines the further changes that may be necessary to better comply with objectives.[270]

Connection charges are levied on new connections to the NTS and reflect the costs incurred by NGG in providing any assets required to connect a user to the NTS. These connection costs are not determined by the price control review.

The current charging regime was designed to promote the effective use of the network and facilitate effective competition. Significant and ongoing structural changes to the GB gas market since implementation, and new EU legislation to harmonise transmission charges across member states (TAR NC)[271] mean it is necessary to consider changes to the charging regime in order to further the interests of current and future consumers.

This work is being taken forward through the Joint Office of Transporters[272] which commenced a Gas (Transmission) Charging Review (GTCR), following the publication of an open letter in November 2015[273] confirming Ofgem's policy preferences for the GTCR.

In response to our decision on UNC621[274] NGG raised UNC678 in January 2019. This modification proposed changes to align the charging regime with TAR NC while taking into account our decision on UNC621. A further 10 alternative modifications to UNC678 were subsequently raised by industry parties.[275]

[269] Published on the Joint Office of Gas Transporters website.
[270] http://www2.nationalgrid.com/uk/Industry-information/System-charges/Gas-transmission/Forecasts/
[271] Commission regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (TAR NC): https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0460
[272] The Joint Office of Gas Transporters is the entity that administers the UNC
[273] https://www.ofgem.gov.uk/publications-and-updates/gas-transmission-charging-review-confirmation-policy-view-and-next-steps
[274] There were eleven UNC621 modifications in total. They are available on the Joint Office of Gas Transporters website: https://www.gasgovernance.co.uk/0621. Our decision letter can be found at the link below and on the UNC621 page on the Joint Office of Gas Transporters website.
https://www.ofgem.gov.uk/publications-and-updates/uniform-network-code-unc-621abcdefhjkl-amendments-gas-transmission-charging-regime
[275] UNC678 and the alternative modifications can be found on the Joint Office of Gas Transporters website: https://www.gasgovernance.co.uk/0678

UNC678 and the alternative modifications were developed through the UNC modification process. We received the final modification proposals at the end of May 2019. On 23 December 2019, we published a minded-to decision and accompanying draft impact assessment on the modification options.[276] The publication of our minded-to decision marked the launch of a two-month consultation period, which closed on 24 February 2020. On 28 May 2020, we approved modification proposal UNC678A: 'Amendments to Gas Transmission Charging Regime (Postage Stamp)' to be implemented on 1 October 2020.[277]

Distribution

On the distribution side, the GDNs recover their allowed revenues via a combination of Local Distribution Zones (LDZ) capacity and commodity charges and an LDZ customer charge.

Similarly, with NGG, the GDNs are obliged under the licence to develop and maintain a methodology that sets out how LDZ charges are determined and that complies with the same objectives as the NTS charging methodology objectives mentioned above. The licensee is not allowed to show preference for anyone who operates (or wishes to operate) a pipeline connected to the system under this specific licence. These objectives also apply to the GDNs' connection charging methodology that they are also obliged to maintain under the licence.

Similarly with NGG's NTS charging methodology the GDN charging methodologies are also set out in the UNC. All material changes to the charging methodology must be approved by Ofgem.

LNG facilities

The three[278] LNG facilities currently operating in GB are exempt from third party access. Therefore the provisions of Article 41(10) and (6) of the Gas Directive do not apply to them.

Any exempted LNG facility is required to operate under the terms and conditions of its exemption. Commercial terms and conditions are agreed between the facility operator and its primary capacity holders. However, if we believe terms and conditions published[279] by LNG operators are discriminatory, we are able take actions under the enforcement provisions in the GA86, in particular section 28.

[276] https://www.ofgem.gov.uk/publications-and-updates/amendments-gas-transmission-charging-regime-minded-decision-and-draft-impact-assessment
[277] https://www.ofgem.gov.uk/publications-and-updates/amendments-gas-transmission-charging-regime-decision-and-final-impact-assessment-unc678abcdefghij
[278] Isle of Grain, South Hook and Dragon LNG.
[279] Under section 19D Gas Act.

Prevention of cross-subsidies

Each NRA, under Article 41(1)(f) of the Gas Directive, is required to ensure that there are no cross-subsidies between transmission, distribution, storage, LNG and supply activities.

In GB, licensed gas transmission operators and DNOs are subject to conditions prohibiting regulated businesses from giving cross-subsidies to, or receiving cross-subsidies from, related undertakings. The regular information submissions that licensees are required to make, principally those relating to their price control arrangements, allow us to assess whether any risk or incidence of cross-subsidisation has arisen.[280]

Gas distribution licences contain a requirement for independent auditors to carry out a range of procedures that have to be agreed with us, in order to provide assurance that obligations to avoid discrimination and cross-subsidies are being respected. We review the auditors' reports and raise supplementary questions as appropriate.

One area we will continue to monitor is the interpretation and application of requirements for financial transactions to be completed at arm's length and on normal commercial terms. This is especially relevant for the terms of loans made to or by the relevant licensee. For gas distribution licensees, we also monitor the risk of licensee-owned freehold sites being sold to related parties at insufficient value. This particularly relates to gasholder sites in major cities, where land value for development is especially high at present.

Other key risk areas we take into account are:

- The basis of recharging for services provided at a group level
- The justification for any management fees charged to the licensee by related parties
- The interest rates charged on intra-group loans affecting the licensee

Regulated and negotiated access to storage

Under article 41(1)(s) of the Gas Directive, regulators must monitor the correct application of the criteria that determine whether a storage facility falls under negotiated or regulated access. The default regime is for all storage facilities to offer nTPA unless the facility has been granted an exemption. More information on this can be found in Section 4.1.2.

[280] The prohibition on cross subsidies is prescribed by: the Gas Directive at Article 31(3) and Standard Special Condition A35 of the gas transporter licence (Standard Condition 41 for independent gas transporters).

4.1.4 Cross-border issues

In order to reach a fully integrated European energy market, it is vital that NRAs coordinate effectively on cross-border issues. In this section, we report on our access to cross-border infrastructure, LNG terminals and storage facilities, network investment plans and cooperation with other NRAs during 2019-20.

Access to cross-border infrastructure including allocation and congestion management

Under Article 41(6)(c), 41(8) and 41(9) of the Gas Directive, NRAs are responsible for:

- Fixing or approving methodologies used to calculate or establish the terms and conditions used for access to cross-border infrastructures.
- Ensuring transmission and distribution system operators are granted appropriate incentives.
- Monitoring congestion management of national gas transmission networks including interconnectors.
- The implementation of congestion management rules and capacity allocation mechanisms.

The GB gas system is interconnected with Belgium, the Netherlands, Northern Ireland and the Republic of Ireland. These interconnections play an important role in gas security of supply by allowing gas to flow to where it is valued most and allowing for a more integrated European gas market.

The paragraphs below give an overview of the arrangements on each of the interconnectors. Each interconnector is licensed by Ofgem and must submit its access rules and charging methodologies to us for approval on annual basis.

IUK

The interconnector with Belgium, Interconnector UK Limited (IUK), can physically flow gas in both directions and has an import capacity of 25.5 billion cubic metres (bcm)/year and an export capacity of 20bcm/year.

IUK was commissioned in 1998, with financing supported by 20 year long term (LT) contracts. Up until Oct 2018, capacity was fully booked under LT contracts. But now the LT contracts have expired, IUK is selling capacity products on a more dynamic shorter term basis (e.g. via annual, quarterly, monthly and daily products).

IUK has made post-2018 capacity available:

- Through auctions consistent with the requirements of the network code on Capacity Allocation Mechanisms (CAM NC).[281]
- Through an implicit allocation mechanism. In 2018, we approved[282] modifications to IUK's access rules suspending parts of CAM NC from effect for 50% of IUK's technical capacity. In 2019 we approved an increase to 75%.[283]

BBL

The interconnector with the Netherlands (NL), Balgzand Bacton Line Company (BBL), became operational in 2006. Prior to July 2019, gas could only be physically transported through the pipeline from NL to GB. Technical modifications have been made at the compressor station at Anna Paulowna and the gas terminal at Bacton to facilitate physical reverse flow. BBL has a total import capacity of 18bcm/year (NL to GB) and a potential export capacity of 6bcm/year (GB to NL). On 26 July 2019 we approved a modification to BBL and NGG's interconnection agreement pursuant to Standard Licence Condition (SLC) 3 of the Gas Interconnector Licence to account for this.[284]

On 21 June 2019 we approved[285] modifications to modifications to BBL's access rules suspending parts of CAM NC from effect for 75% of BBLC's technical capacity.
Under Article 2(5) of CAM NC we can suspend Articles 8 to Article 37 from operation.

Moffat

The Moffat interconnector with the Republic of Ireland became operational in 1993 and is a physically uni-directional interconnector. The capacity available to exit the NTS at Moffat is 32.8 mcm/day. In December 2011 a virtual reverse flow service was introduced. This allows shippers to nominate flows from Ireland to GB on an interruptible basis. The maximum entry capacity at Moffat is 31.1 mcm/day.

---

[281] Commission regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0459
[282] https://www.ofgem.gov.uk/system/files/docs/2018/03/180302_authority_decision_to_approve_proposed_modifications_to_iuks_access_rules_and_disapply_certain_articles_of_cam.pdf
[283] https://www.ofgem.gov.uk/system/files/docs/2019/03/iuk_decision_letter_-_access_rules_18032019.pdf
[284] https://www.ofgem.gov.uk/publications-and-updates/approval-amended-bbl-interconnection-agreement-between-bbl-company-and-national-grid-gas-plc-pursuant-standard-licence-condition-3-gas-interconnector-licence
[285] https://www.ofgem.gov.uk/publications-and-updates/decision-proposed-modifications-bbl-companys-access-rules-and-decision-not-apply-certain-articles-cam-relation-implicit-allocation-mechanism

Access to LNG terminals and storage facilities

For the reasons given in Section 4.1.1, LNG and gas storage are not required to provide third party access. Therefore Article 41(10) does not apply to them.[286] However, in each case we monitor access arrangements and have the power to take action should we think any of these arrangements were to become discriminatory.[287]

The Gas Directive gives the right to any party affected to submit a complaint for review by the NRA regarding a decision on methodologies used or concerning the proposed tariffs or methodologies. Changes that were made to the GA86 extend the scope of the dispute resolution mechanism in order to cover disputes arising from complaints to the Authority against owners of gas storage facilities and owners of LNG import or export facilities.[288] We did not receive any complaints in during this reporting period.

Implementation of the Third Package

The Third Package introduced new responsibilities for regulatory authorities regarding the rules for granting access to cross-border gas infrastructures.[289] In GB, changes were made to the standard conditions of the Gas Interconnectors Licence[290] to take full account of these new responsibilities.

On 3 April 2019 and 3 June 2019 we published motivated decisions for IUK and BBL respectively pursuant to Article 27(4) of the EU network code on gas Tariffs (TAR).[291] These decisions reflected our view on IUK and BBL's TAR consultation pursuant to Article 26(1).

Cooperation

Article 41(1)(c) of the Gas Directive requires us to cooperate on cross-border issues with the other NRAs concerned and with Agency for Cooperation of Energy Regulators (ACER). These cross-border issues include the integration of national gas markets, jointly managed cross-

[286] See Article 41(10) of the Gas Directive and https://www.ofgem.gov.uk/gas/wholesale-market/market-efficiency-review-and-reform/third-party-access-exemptions
[287] In the case of LNG we have enforcement provisions in the Gas Act, in particular section 28. For Storage we have enforcement provisions in the Gas Act and certain powers under section 19B (acquisition of rights to use storage facilities).
[288] See sections 27B-27D of the Gas Act.
[289] See Articles 41(6)(c), 41(8), 41(9) and 41(10) of the Gas Directive.
[290] See standard conditions 10, 11 and 11A of the gas interconnector licence.
[291] https://www.ofgem.gov.uk/publications-and-updates/iuk-authority-motivated-decision-pursuant-article-274-eu-network-code-gas-tariffs and https://www.ofgem.gov.uk/publications-and-updates/bbl-authority-motivated-decision-pursuant-article-274-eu-network-code-gas-tariffs

border trade in gas and the allocation of cross-border capacity. We made changes to the GA86 to reflect this.[292]

Examples of cooperation

In 2018, we continued to cooperate with neighbouring NRAs on a number of issues concerning interconnectors and full implementation of the European Network Codes and Guidelines.

In 2019 we continued our engagement at a European level participating in ACER and CEER's relevant working groups and task forces. Following the United Kingdom's (UK) exit from the EU on 31 January 2020, Ofgem is no longer a member of ACER.

Monitoring investment plans and assessment of consistency with Community wide network development plan

We set price controls for NGG and as part of this we review the company's business plans. We explicitly require the business plans to consider the interaction with wider European developments. We also require the company to consider the various uncertainties across the period for which the control is set and beyond.

In practice, major changes to the gas transmission network, including those related to EU-wide network developments, will arise through the commercial incremental entry and exit arrangements that we will be involved in at major stages of development, ie setting revenue drivers to make sure that NGG receives an appropriate revenue adjustment. We will therefore have sufficient information to fulfil our duty under Article 41(1)(g).

We have established a monitoring approach to review ongoing performance against the outputs determined in the price control.

4.1.5 Compliance

4.1.5.1 Update on Ofgem's *compliance cases*

Consumers temporary left without gas

[292] See Regulation 34 of the Electricity and Gas (Internal Market) Regulations 2011, which inserted section 4D into the Gas Act.

Thousands of residents of blocks of flats served by Cadent were left without gas for longer than they could have been, while others did not receive the required compensation.

Cadent acknowledged its responsibility to its customers and will pay a total of £5.9m to the Voluntary Redress Fund, double the statutory compensation payments and at an estimated cost of £6.7m, made to customers who experience an unplanned gas supply interruption for longer than 24 hours over the next two years and pay £4.8m to establish and run a dedicated team to help improve performance in blocks of flats.[293]

Additionally, Cadent will also set up a community fund of £20m to support consumers in vulnerable circumstances. The total amount for Cadent to pay is £37.4m in redress and compensation.

Record Keeping

In addition to the temporary loss of gas supply, Cadent had no records of 775 high rise blocks of flats in its gas network. In accordance with our Enforcement Guidelines, the decision was taken for Cadent to investigate and rectify the issues at a cost of £3.6m, which they covered in full, taking satisfactory improvement actions. Cadent also made an additional payment of £3m into the Voluntary Redress Fund, in recognition of its shortcomings. The total amount for Cadent to pay to address this failing is £6.6m.

Smart metering annual milestones 2018

At present licence conditions require suppliers to take "all reasonable steps" to roll out smart meters to all their domestic and small non-domestic customers by the end of 2020. SSE met its electricity smart metering annual milestone for 2018, but missed its gas annual milestone.[294] It reached its gas annual milestone for 2018 in February 2019, less than two months after the deadline.

SSE agreed to pay £700,000 to Ofgem's Voluntary Redress Fund administered by the Energy Savings Trust (EST). We decided not to take formal enforcement action against the supplier due to these steps it had taken.

[293] https://www.ofgem.gov.uk/publications-and-updates/cadent-pays-24-million-past-failures-and-establishes-20-million-community-fund
[294] https://www.ofgem.gov.uk/publications-and-updates/sse-pays-700000-after-missing-gas-smart-meter-target

4.1.5.2 Final Orders *(FOs)*

Failure to become a Data Communications Company (DCC) user by deadline of 25 November 2017

We issued a FO for consultation in January 2020 on Daligas in relation to DCC user non-compliance.[295] We received written representations from Daligas on 28 January 2020. After careful consideration of the representations, we decided to make the FO on Daligas Ltd. Daligas Ltd had failed to become DCC users by 25 November 2017 and remained non-compliant. SLCs 42.8 of the gas supply licence and 48.8 of the electricity supply licence require licensees to become DCC users by 25 November 2017. As result of the FO, Daligas has made significant progress towards becoming a DCC user.

We also issued a FO for consultation in January 2020 for UK National Gas in relation to its DCC user non-compliance.[296] We decided not to make the FO for UK National Gas as they had become compliant with the DCC User Mandate.

[295] https://www.ofgem.gov.uk/publications-and-updates/daligas-limited-final-order
[296] https://www.ofgem.gov.uk/publications-and-updates/uk-national-gas-ltd-final-order

4.2 Competition and market functioning

In this section, we report on the current state of the wholesale and retail gas markets in GB and the main changes in 2019, as well as our monitoring activities in both the wholesale and retail gas markets during the past year.

4.2.1 Wholesale markets

The following section is an overview of our monitoring under Article 41(1)(i), (j), (k), (l), (u) and Article 44(3) of the Gas Directive, and the main developments in the wholesale gas market in GB during 2019. Detailed information is summarised below:

- No further Gas Deficit Warnings (GDW) have been issued since 1 March 2018.
- Average day-ahead gas prices in 2019 decreased 43% year-on-year. On 17 January 2019, day-ahead prices hit a high of 60.32 p/therm.[297]
- Gas prices for the near term and forward period fell over 2019 amid oversupply of LNG, high gas storage levels, a lower oil price, and a mild winter 2018-19.
- Total traded gas volumes decreased in 2019 to 1349bcm relative to 2018, with annual churn declining from 20 to 17.
- Futures volumes accounted for 63% of total annual traded volume, an increase of 5 percentage points from 2018.
- Imports of LNG continued the trend from 2018 but rose even more substantially in 2019 by 204%. This reflected the tighter premiums between prices for LNG in East Asia and those for delivery in Europe.
- In 2019, the UK imported 54.01bcm of gas and exported 9.05bcm, making it a net importer for 44.96bcm.

4.2.1.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

Prices

Wholesale gas prices in GB are compiled and made available to market participants by a number of independent pricing agencies, energy market brokers and via exchanges. Argus Media, ICIS Heren and Platts provide pricing based on reported over-the-counter (OTC)

[297] P/therm unit indicates energy per 100,000 British thermal units (BTUs).

trades, made available to the market via a subscription service. In addition, financial data providers deliver close to real-time energy broker pricing based on OTC trades.

In addition to a wide range of OTC pricing data, ICE also provides pricing data to the market, both through the 'On-the-day Commodity Market' (OCM) and through the Intercontinental Exchange (ICE) Futures market.

Fundamentals

Since the 1 March 2018 when National Grid issued a Gas Deficit Warning there have been no further alerts of this nature. In contrast to the cold winter of 2017-18, sufficient gas margins have persisted throughout 2019 amid a relatively mild winter 2018-19. GB continued to benefit from a diverse range of gas supplies in 2019.

Total GB gas demand decreased in 2019 by 1.36% compared with 2018. Continuing the trend from 2018, demand fell slightly for gas-for-power generation amid higher levels of renewable generation. Gas-for-power demand decreased to 245.11 TWh in 2019, down from 246.28 TWh in 2018.

Figure 13 shows that total GB storage stocks in 2019 were higher than in 2018, due to the high LNG supply and milder temperatures throughout the winter, limiting storage withdrawals to meet demand. After storage levels of around 50% over the previous winter, storage at the start of winter 2019-20 and half way through the second quarter remained atypically high compared to last year.

Figure 13: Total GB gas in storage during 2019 (red line), compared with 2018 (blue line), 6Y average (dotted) and prior 6-year range (grey bands)

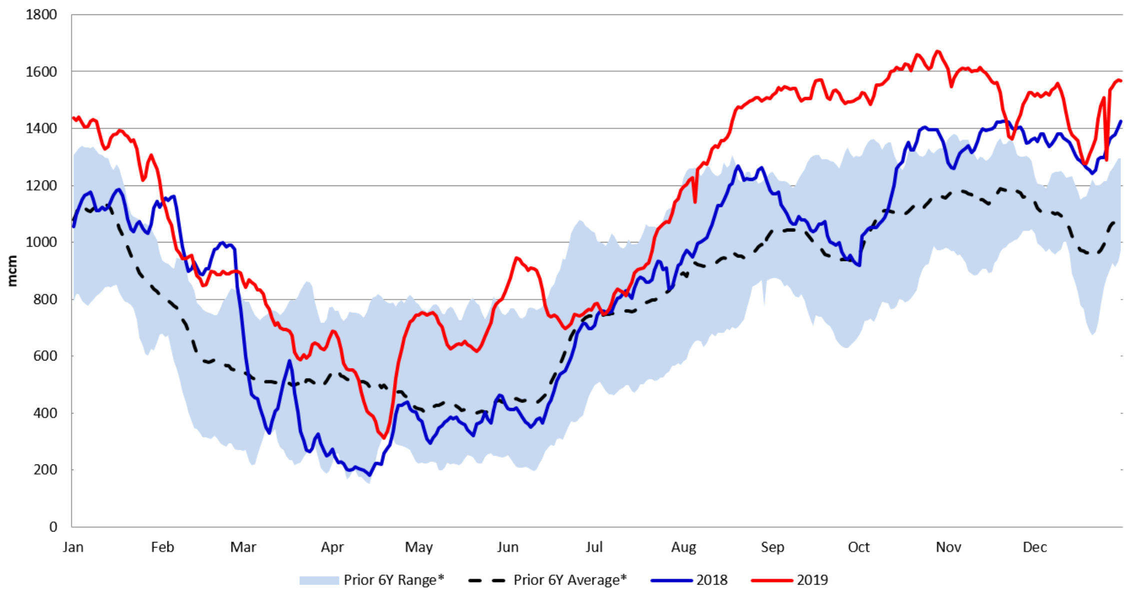


Table 15: Data table for Figure 13

Month	2018 Monthly Average	2019 Monthly Average	6 Year Average
January	1113.06	1353.93	1016.26
February	982.58	936.44	647.34
March	403.57	709.43	510.21
April	278.69	527.34	494.55
May	369.93	697.91	419.65
June	496.51	808.03	549.08
July	836.03	920.45	784.51
August	1130.54	1376.03	945.40
September	1045.91	1523.72	995.36
October	1232.10	1594.58	1100.48
November	1364.28	1537.35	1167.63
December	1334.77	1454.58	1044.72

Source: National Grid/Bloomberg/Ofgem

LNG imports increased sharply in 2019 by 204%, the highest increase since 2018 and the second highest increase since 2014. Q4 in particular also saw the highest quarterly total for LNG imports since 2010. The driver of increased LNG volumes continued to be soft demand in Asian markets and ample global supply, particularly from the US and Russia.

The supply diversification of LNG seen in 2018 continued in 2019 with 43.5% of LNG imports from Qatar, up by 3.5% from 2018. This comes in addition to 15% of arrivals from the US and 16% from Russia compared with 15.8% and 19.1% in 2018 respectively.

Price developments

GB wholesale gas prices both for near-term and forward delivery generally decreased throughout 2019 driven by a combination of over supplied LNG, relatively high levels of gas in storage and mild weather over winter 2018-19. In 2019, the average annual day-ahead gas price was 34.65p/therm compared with 60.34p/therm in 2018 (see Figure 14).[298] This was in stark contrast to the abnormally high prices from March 2018 of 230p/therm following a Gas Deficit Warning.

Figure 14: Monthly average day-ahead NBP price (p/therm, light blue) and yearly average day-ahead prices since 2011

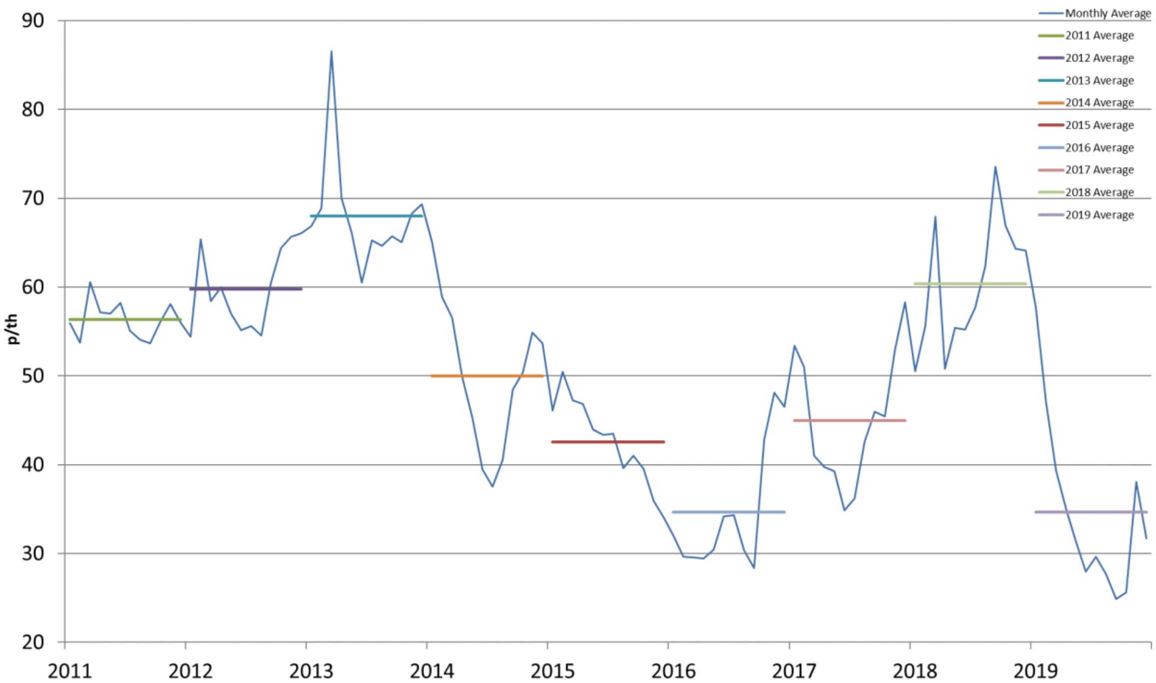


Table 16: Data table for Figure 14

Year	Yearly Average
2011	56.34
2012	59.74
2013	68.00
2014	50.01
2015	42.56
2016	34.64
2017	44.99
2018	60.34
2019	34.65

Source: ICIS Energy, Ofgem

[298] Price data from ICIS Energy.

Liquidity

Traded volumes and churn decreased in 2019 compared with 2018.[299] Traded volumes decrease by 15% year-on-year to 1,349bcm, with annual average churn decreasing from 20 to 17. The share of total exchange traded volume of GB gas futures remained similar to 2018 at 63% in 2018.[300] Liquidity has fallen on the National Balancing Point (NBP) gas hub since 2015 in favour of liquidity on the Dutch TTF hub, which is now the European benchmark.

Figure 15: NBP trading volumes and churn, 2011 to 2019

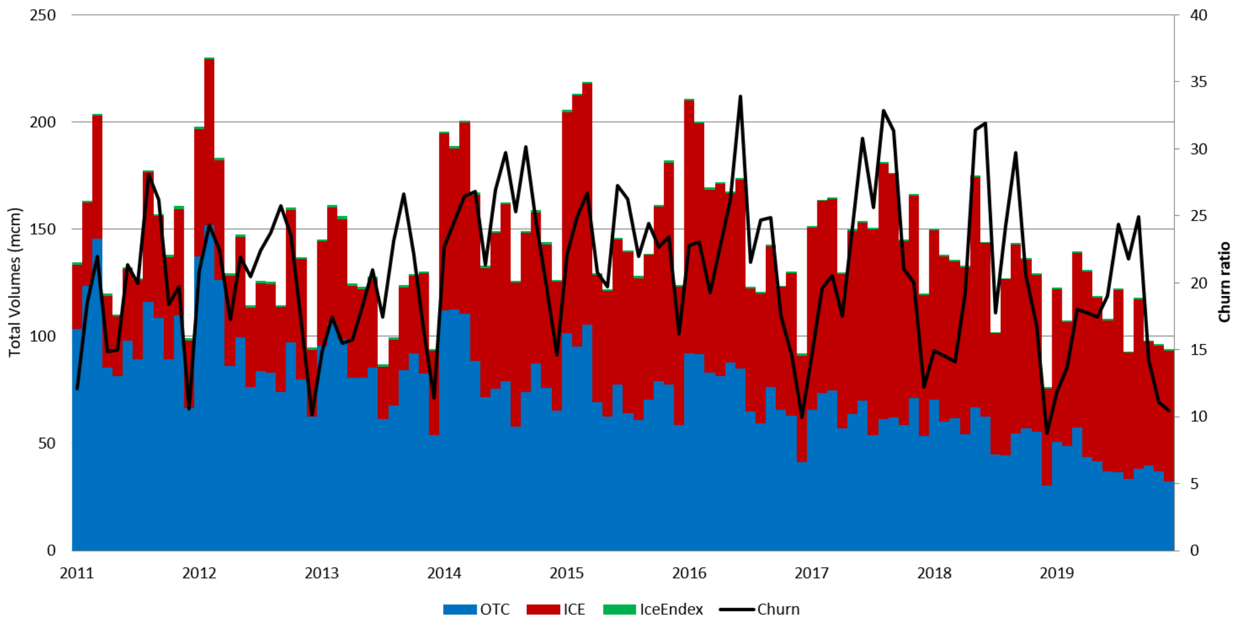


Table 17: Data table for Figure 15

Year	OTC	ICE	IceEndex	Churn
2011	1216544	494226	12782	18.87
2012	1157096	589728	12764	20.82
2013	989223	499347	13539	18.30
2014	1010463	878011	12040	24.42
2015	922191	976204	10062	23.02
2016	891472	924997	9547	21.75
2017	765391	1078765	8644	22.50
2018	376216	722343	4338	21.99
2019	496848	843981	8181	17.04

Source: Combined data from LEBA, ICE, ICE Endex, Bloomberg and National Grid plc

[299] Based on data from London Energy Brokers' Association, ICE and National Grid plc.
[300] Traded on ICE Futures Europe

Transparency

REMIT

REMIT is a key tool in ensuring the transparency of prices within the wholesale energy market. For further information, please refer to Section 3.2.1.

Market opening and competition

Market integration

The GB gas market is well integrated with both European and global gas markets. The IUK interconnector connects GB with Belgium, while the BBL connects GB with the Netherlands. GB has three LNG regasification terminals, the Isle of Grain, South Hook and Dragon.

Since 1 October 2018, there are no long-term capacity contracts on the IUK interconnector. Shippers wanting to use IUK now book capacity on a more dynamic shorter-term basis (e.g. annual, monthly, daily products). On 16 July 2019 Ofgem approved changes to BBL's interconnection agreement with NGG (National Grid Gas) enabling physical reverse flows on the BBL, thereby introducing further competition to IUK. The BBL Company offers 7GWh/h (around 15 million cubic metres/day) of reverse flow capacity from Britain to the Netherlands. Flows based on interruptible capacity were not seen until October 2019 given the absence of favourable spreads until then between GB and the Netherlands.

In 2019 the UK imported 54.01 bcm of gas and exported 9.05bcm, making it a net importer of 44.96bcm. Pipeline imports from the Netherlands and Norway decreased by 47% and 13% respectively year-on-year while LNG imports increased by 204%.[301] Imports from Belgium decreased by 88% year-on-year.

Market concentration

The GB market received its gas supplies from a variety of different sources comprising indigenous supplies from the UK Continental Shelf, imports from Norway (via the Vesterled, Langeled and Tampen Link pipelines), imports from continental Europe (via IUK and BBL) and from the LNG market (via the above terminals). With this diversification of supply also comes a diversity of shippers on the wholesale market.

Most of IUK and BBL's long term contracts have ended and, reflecting a movement towards short term allocation, both interconnectors now sell capacity via implicit allocation for 75%

[301] Source: Department for Business, Energy & Industrial Strategy Energy Trends 2018 Table ET 4.3

of their unsold technical capacity, the remaining capacity being allocated via Capacity allocation mechanism (CAM) auctions.

For LNG, six shippers (BP, Centrica, Total, Uniper, Pavilion Energy and Sonatrach) import gas through the Isle of Grain.[302] The South Hook Terminal is owned by a UK joint venture of Qatar Petroleum (67.5%), ExxonMobil (24.15%) and Total (8.35%). Dragon LNG is owned by two shareholders, Shell and Petronas.

4.2.2 Retail markets

As mentioned in previous Section 3.2.2, a large amount of Ofgem's engagement with the retail energy market does not distinguish between the electricity and gas sectors - it is considered as a whole in that section. Where Ofgem does assess the electricity and gas retail markets separately, the information has been documented in Sections 3.2.2 and 4.2.2 respectively.

4.2.2.1 State of competition and main changes since last year

Ofgem's work on the state of competition in retail markets is cross-cutting and applies to both the electricity and gas markets. Subsequently, it has been covered in more detail in Section 3.2.2.1.

4.2.2.2 Monitoring the level of prices and the effectiveness of market opening and competition

Domestic market

1. Market structure

In December 2019, there were 59 active domestic gas suppliers (ie in addition to the six largest suppliers there were also 53 small and medium sized suppliers), one less compared

[302] Shippers are listed on the Isle of Grain's LNG terminal website (accessed in April 2018): http://grainlng.com/who-are-we/our-customers/

to December 2018. At the same time, there were around 23.7 million domestic gas customers.

Before the full introduction of competition in 1999, British Gas had a monopoly to supply all domestic gas customers in GB. The majority of the domestic gas supply market in 2019 in GB was accounted for by British Gas and the five large vertically integrated gas suppliers. As Figure 16 shows, these suppliers accounted for 69% of gas supply to domestic customers, down from 73% in 2018. The combined market shares of smaller suppliers has increased by 4 percentage points relative to December 2018, to 31%.

Figure 16: Domestic retail gas market shares, December 2019

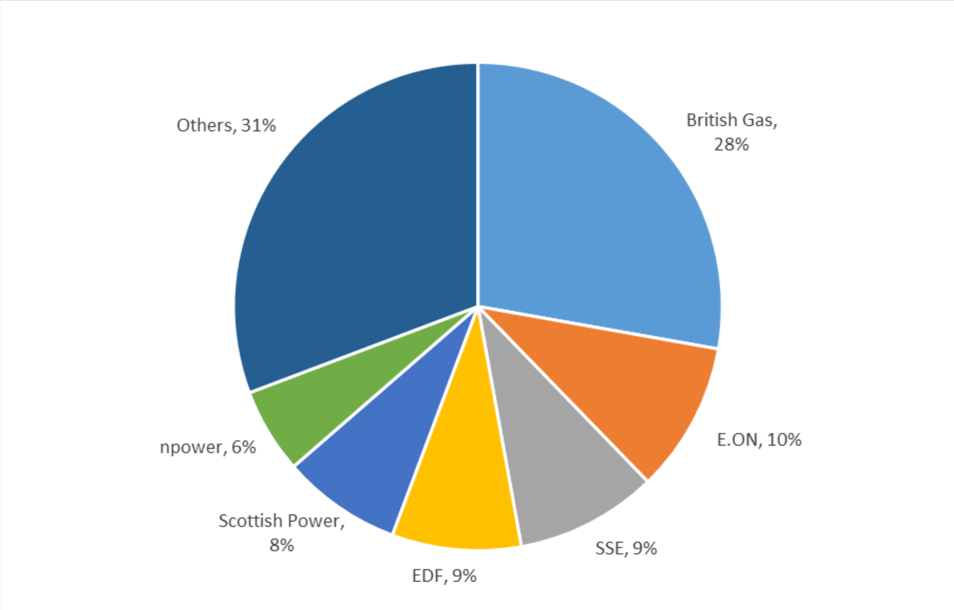


Table 18: Data table for Figure 16

Supplier	Market shares
British Gas	28%
E.ON	10%
SSE	9%
EDF	9%
Scottish Power	8%
npower	6%
Others	31%

Source: Ofgem analysis of Xoserve reports.
Note: SSE plc sold its domestic supply business to OVO Energy on 15 January 2020.

The HHI measure of concentration shows that in 2019,[303] the domestic gas markets were concentrated on the CMA's definition,[304] at 1,215. The HHI fell in 2019 relative to 2018.

2. Prices for domestic customers

At the end of 2019, apart from prices for customers on default tariff cap and customers with prepayment meters (PPMs), retail gas prices in the GB continued to be determined by market forces. Although the PPM cap exists in parallel to the default tariff cap, customers can only be protected by one of the caps.[305]

There are also a number of costs that influence how suppliers set retail gas prices, including wholesale energy costs and the costs of the UK government's environmental and social policies such as the Renewable Obligation, and the Warm Home Discount, which can vary over time. As with electricity, Ofgem monitors domestic suppliers' gas prices across GB.

As in the electricity market, over the year suppliers continue to offer fixed tariffs with most fixed deals being priced at a discount relative to variable tariffs. Again, as with the electricity market, smaller suppliers generally offered the cheapest fixed deals.

Figure 17 shows the change in domestic gas bills based on incumbent standard variable tariff (SVT) and cheapest tariffs across GB's gas market between January 2016 and December 2019. Over the year, the average annual gas SVT bill offered by the six large suppliers decreased by 11% (£67). The cheapest tariff on the market decreased by 17% (£117). The price differential between the largest six suppliers' average SVT and their cheapest tariffs decreased over the year from £7 to £146. The differential between the six largest suppliers' average SVT and the cheapest market tariff increased from £100 to £151.

[303] In December 2019 for domestic market and in June 2019 for non- domestic market.
[304] The CMA typically regards markets with HHI below 1000 as unconcentrated, markets with HHI between 1000 and 2000 as concentrated, and markets with HHI above 2000 as highly concentrated.
[305] See Sections 5.1 and 2.3.1 for details.

Figure 17: Domestic retail gas price, Jan 2016 – Dec 2019

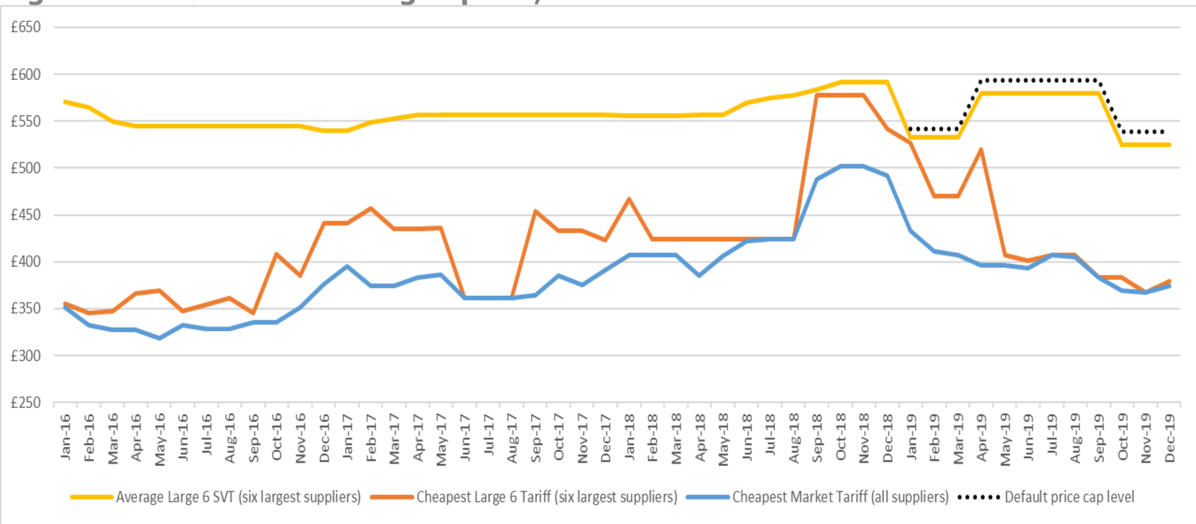


Table 19: Data table for Figure 17

Month	Average SVT (six large suppliers)	Cheapest Tariff (six large suppliers)	Cheapest tariff (all suppliers)	Default price cap level
Jan-16	570.26	355.12	351.49	
Feb-16	565.02	345.69	332.80	
Mar-16	549.91	346.98	327.71	
Apr-16	544.65	365.89	327.71	
May-16	544.65	368.98	319.00	
Jun-16	544.65	347.57	332.80	
Jul-16	544.65	353.95	328.90	
Aug-16	544.65	361.49	328.90	
Sep-16	544.65	345.51	335.70	
Oct-16	544.65	407.90	335.70	
Nov-16	544.65	385.78	351.49	
Dec-16	539.95	441.07	375.98	
Jan-17	539.95	441.07	395.50	
Feb-17	548.77	456.96	374.66	
Mar-17	552.37	435.46	374.66	
Apr-17	557.02	435.29	383.07	
May-17	557.02	436.10	386.49	
Jun-17	557.02	361.80	361.80	
Jul-17	557.02	361.80	361.80	
Aug-17	557.02	361.80	361.80	
Sep-17	557.02	454.02	363.96	
Oct-17	557.02	433.55	385.09	
Nov-17	557.02	433.55	375.60	
Dec-17	557.02	423.08	391.09	
Jan-18	555.36	467.21	407.47	
Feb-18	555.36	424.50	407.47	
Mar-18	555.36	424.50	407.47	
Apr-18	557.02	424.50	385.67	

May-18	557.02	424.50	405.85	
Jun-18	569.75	424.50	422.43	
Jul-18	574.96	424.50	424.50	
Aug-18	578.12	424.51	424.51	
Sep-18	583.67	578.12	488.18	
Oct-18	592.00	578.12	501.47	
Nov-18	592.00	578.12	501.47	
Dec-18	592.00	542.07	491.77	
Jan-19	533.00	526.42	432.94	542.14
Feb-19	533.00	470.45	411.25	542.14
Mar-19	533.00	470.28	407.55	542.14
Apr-19	579.46	519.79	395.94	593.24
May-19	579.46	407.49	396.34	593.24
Jun-19	579.46	401.69	393.48	593.24
Jul-19	579.46	407.49	407.49	593.24
Aug-19	579.46	407.49	405.69	593.24
Sep-19	579.46	383.17	383.17	593.24
Oct-19	525.05	383.17	368.94	539.25
Nov-19	525.05	367.76	367.76	539.25
Dec-19	525.05	379.14	374.48	539.25

Source: Ofgem analysis of Energyhelpline data
Notes: Price level is based on revised consumption level of 12,000 kWh per year

As well as monitoring domestic gas price levels, we also assess the extent to which particular costs have an impact on these bills. Suppliers face a range of costs that influence how they set retail gas prices. These costs can vary within and between years, and include wholesale energy costs, the costs of the UK government environmental and social policies, transmission and distribution costs. Figure 18 shows the breakdown of the annual gas bill for a domestic customer on direct debit, with annual consumption of 12,000 kWh.

Figure 18: Domestic gas bill breakdown, 2019

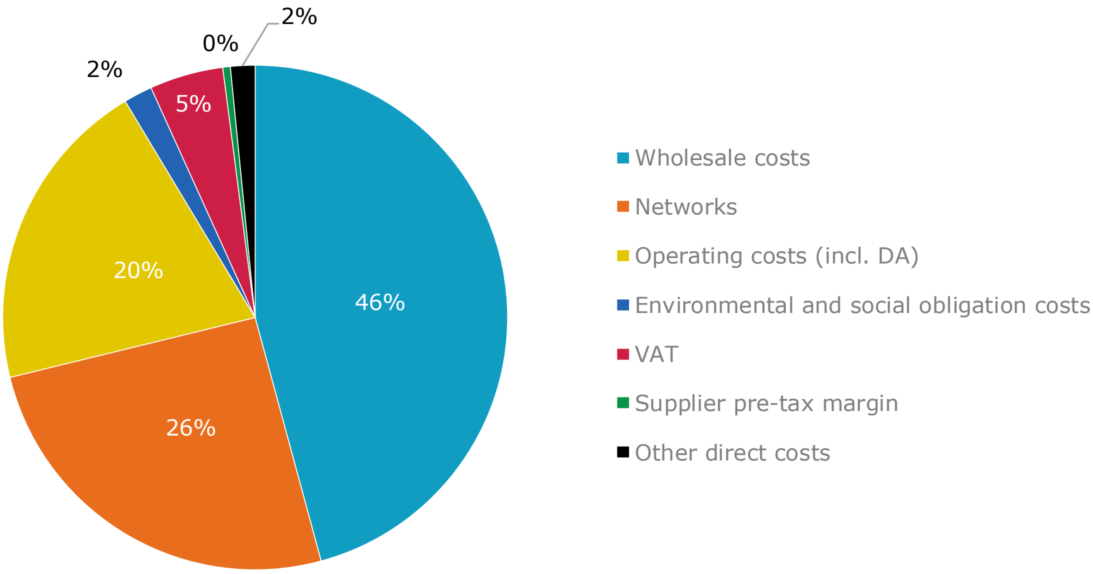


Table 20: Data table for Figure 18

Cost category	%
Wholesale costs	46%
Networks	26%
Operating costs (incl. DA)	20%
Environmental and social obligation costs	2%
VAT	5%
Supplier pre-tax margin	0%
Other direct costs	2%

Source: Ofgem analysis

Customer engagement

Switching by domestic gas customers has been on the rise since 2014. In 2019, approximately 5.95m domestic customers switched their gas supplier, equivalent to 496,000 per month. This represents an annual switching rate of 21%, two percentage points higher than in 2018. This has been the highest annual switching rate since 2008. We also saw an increase in switching away from the six large suppliers. On average, 59% of customers that switched during 2019 moved to small or medium suppliers, a 3% increase relative to 2018.

The speed and reliability of switching is also important. In September 2019, the system average time to complete a switch was approximately 18 days, unchanged from December 2018.

Customer experience

Customer surveys are an additional source of information on the customer switching experience (please refer to Section 3.2.2.1 for details).

Non-domestic gas market

Market structure

Non-domestic markets were liberalised earlier than domestic markets and have seen higher rates of entry and exit, resulting in a large number of suppliers, lower concentration and greater presence of suppliers besides the six large domestic suppliers.

In December 2019, there were 67 non-domestic gas suppliers on the market. In addition to six largest suppliers also present in domestic market, there were also 61 independent suppliers (ie suppliers that entered the market since liberalisation). During 2019, four suppliers entered the non-domestic gas market, while four suppliers exited the market.

During 2019, large suppliers have generally continued to lose ground across all non-domestic customer types, and other suppliers have reinforced their positions, especially in the segment of larger businesses.

Figure 19 shows that in June 2019,[306] in the segment of small business customers (ie these with annual consumption of less than 73,200 kWh), international gas producers had a strong presence in this segment and particularly in the segment of large business customers (ie these with annual consumption of more than 73,200 kWh).

[306] The latest publicly available market share data for the non-domestic market: https://www.ofgem.gov.uk/system/files/docs/2019/11/20191030_state_of_energy_market_revised.pdf

Figure 19: Market shares in non-domestic gas market, June 2019[307]

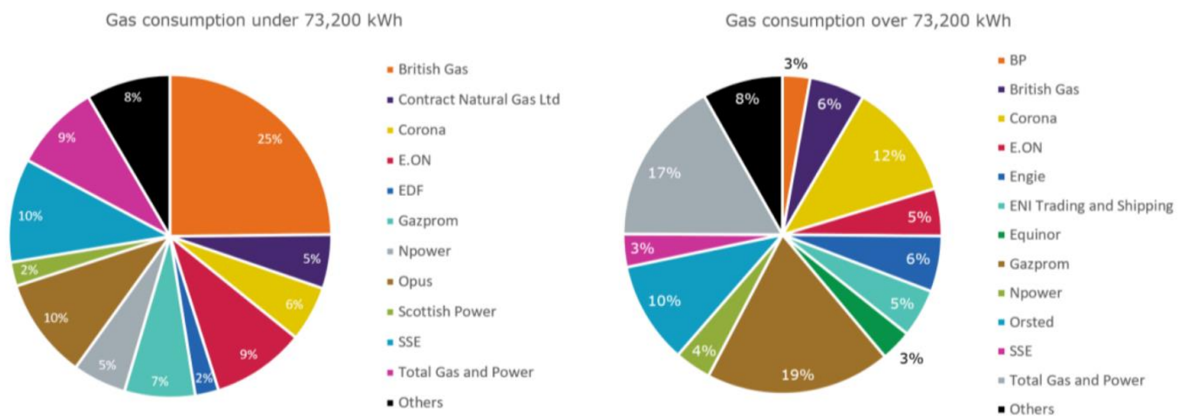


Table 21: Data table for Figure 19

Gas consumption under 73,200 kWh		Gas consumption over 73,200 kWh	
Supplier	**Market shares**	**Supplier**	**Market shares**
British Gas	25%	BP	3%
Contract Natural Gas Ltd	5%	British Gas	6%
Corona	6%	Corona	12%
E.ON	9%	E.ON	5%
EDF	2%	Engie	6%
Gazprom	7%	ENI Trading and Shipping	5%
Npower	5%	Equinor	3%
Opus	10%	Gazprom	19%
Scottish Power	2%	Npower	4%
SSE	10%	Orsted	10%
Total Gas and Power	9%	SSE	3%
Others	8%	Total Gas and Power	17%
		Others	8%

Source: Ofgem analysis of Xoserve meter point data
Note: Market shares are measured in terms of meter points for businesses with gas consumption under 73,200 kWh and in terms of volume for businesses with gas consumption over 73,200 kWh.

The HHI measure of concentration shows that in 2019 the gas market for the small business segment was concentrated on the CMA's definition[308] at 1,148. Whereas, the gas market for

[307] In December 2019 for domestic market and in June 2019 for non- domestic market.
[308] The CMA typically regards markets with HHI below 1000 as unconcentrated, markets with HHI between 1000 and 2000 as concentrated, and markets with HHI above 2000 as highly concentrated.

the large business segment was not concentrated, at 972. The HHI fell in 2019 to 2018 in both market segments.

Non-domestic retail gas prices

Energy contracts for business customers are mostly negotiated and bespoke. As a result, there is generally less public information available about them. Larger industrial customers have an advantage in being able to negotiate better deals than smaller businesses given their stronger bargaining power. In addition, they are metered half-hourly and some have flexibility to "load shift" from periods of high price to periods of low price.[309]

In Q2 2019, very small businesses paid on average a gas price that was around 96% higher than the average across all business customer segments.

[309] See: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/633442/upgrading-our-energy-system-july-2017.pdf

Figure 20: Non-domestic retail gas prices (pence/kWh nominal terms)

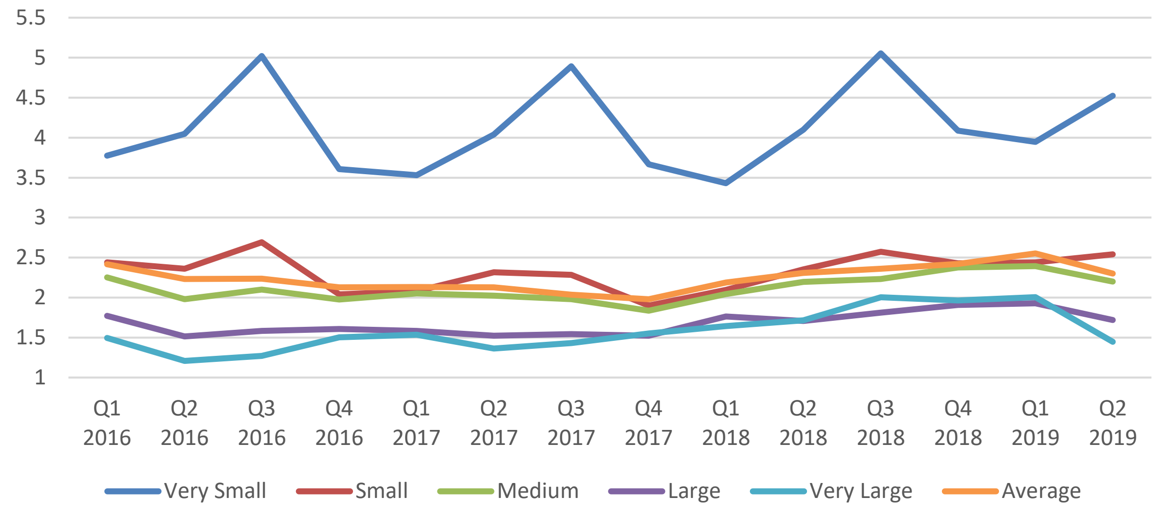


Table 22: Data table for Figure 20

Quarter	Very Small	Small	Medium	Large	Very Large	Average
Q1 2016	3.77	2.44	2.25	1.77	1.50	2.42
Q2 2016	4.05	2.36	1.98	1.51	1.21	2.23
Q3 2016	5.02	2.69	2.10	1.58	1.27	2.24
Q4 2016	3.61	2.04	1.97	1.61	1.50	2.13
Q1 2017	3.53	2.08	2.05	1.58	1.54	2.13
Q2 2017	4.04	2.32	2.02	1.52	1.36	2.13
Q3 2017	4.89	2.29	1.98	1.54	1.43	2.04
Q4 2017	3.67	1.90	1.84	1.52	1.55	1.98
Q1 2018	3.43	2.09	2.04	1.76	1.64	2.19
Q2 2018	4.10	2.35	2.20	1.71	1.72	2.31
Q3 2018	5.05	2.57	2.23	1.81	2.00	2.36
Q4 2018	4.09	2.43	2.38	1.91	1.96	2.42
Q1 2019	3.95	2.44	2.39	1.93	2.01	2.55
Q2 2019	4.52	2.54	2.20	1.72	1.45	2.30
Q3 2019	5.89	2.86	2.20	1.66	1.36	2.25
Q4 2019	4.06	2.40	2.27	1.89	1.62	2.33

Source: BEIS, Gas and electricity prices in the non-domestic sector.
Note: Prices exclude VAT and the Climate Change Levy. BEIS uses the following consumption categories to identified different business customer segments: very small (<278MWh), small (278-2,777MWh), medium (2,778-27,777MWh), large (27,778-277,777MWh) and very large consumers (277,778-1,111,112MWh).

Non-domestic switching rates

The non-domestic annual gas switching rate in 2019 has remained unchanged compared to 2018 at 15%.

4.2.2.3 Supply prices, investigations and measures to promote effective competition

Ofgem's work on recommendations on supply prices, investigations and measures to promote effective competition is cross-cutting and applies to both the electricity and gas markets. Subsequently, it has been covered in more detail in the retail market overview in Section 3.2.2.3.

4.2.3 Consumer protection and dispute settlement

4.2.3.1 Consumer protection

Please see Section 3.2.3.1 for developments in our consumer protection work relating to gas and electricity within the reporting period.

4.2.3.2 Dispute Settlement

Under Article 41(11) of the Gas Directive any party that has a complaint against a transmission, storage, LNG or DSO in relation to that operator's obligation under the Directive may refer the complaint to the NRA. Each NRA is required to issue a decision within two months following receipt of the complaint. That period may be extended by two months where additional information is sought by the NRA. That extended period may be further extended with the agreement of the complainant. Member states are required to ensure that NRAs have the powers to enable them to make such decisions.

Sections 27B-D of GA86 set out our determination functions and procedures under Article 41 of the Gas Directive. These sections were inserted by the Electricity and Gas (Internal Markets) Regulations 2011. Under section 27C, any dispute that is referred to us for determination is determined by us or, if we think fit, by an arbitrator appointed by us. The decision is binding on the parties to the dispute. However, any party can seek a judicial review of our decision. No Article 41 disputes were raised in 2019.

4.2.4 Security of supply

Under Article 5 of the Gas Directive, member states have to ensure the monitoring of security of supply issues.

In GB, no single body is responsible for ensuring security of supply, we rely on the market to do this. However, the government sets overall energy policy on energy security, Ofgem is responsible for regulating the market, and National Grid as operator of the GB gas system has responsibility for ensuring that supply meets demand each day.

In December 2019, we published our joint Statutory Security of Supply Report (SSSR)[310] alongside BEIS. This was part of an obligation[311] on the government to report annually to Parliament on the availability of electricity and gas for meeting the reasonable demands of consumers in GB. The report concluded that GB's gas market has delivered security to date and is expected to continue to function well, with sufficient delivery capacity to meet demand. The report noted that sufficient gas is available from a combination of domestic production, regional and global gas markets and the GB gas system is robust to all but the most extreme and unlikely combinations of infrastructure and supply shocks.

For more information on security of supply issues please see Section 3.1.5 of this report*.*

[310] https://www.gov.uk/government/publications/statutory-security-of-supply-report-2019
[311] Under section 172 of the Energy Act 2004 as amended by section 80 of the Energy Act 2011.

Northern Ireland National Report 2020

About the Utility Regulator

The Utility Regulator is the independent non-ministerial government department responsible for regulating Northern Ireland's electricity, gas, water and sewerage industries, to promote the short and long-term interests of consumers.

We are not a policy-making department of government, but we make sure that the energy and water utility industries in Northern Ireland are regulated and developed within ministerial policy as set out in our statutory duties.

We are governed by a Board of Directors and are accountable to the Northern Ireland Assembly through financial and annual reporting obligations.

We are based at Queens House in the centre of Belfast. The Chief Executive leads a management team of directors representing each of the key functional areas in the organisation: Corporate Affairs, Markets and Networks. The staff team includes economists, engineers, accountants, utility specialists, legal advisors and administration professionals.

Our mission

To protect the short- and long-term interests of consumers of electricity, gas and water.

Our vision

To ensure value and sustainability in energy and water.

Our values

- Be a best practice regulator: transparent, consistent, proportionate, accountable and targeted.
- Be professional – listening, explaining and acting with integrity.
- Be a collaborative, co-operative and learning team.
- Be motivated and empowered to make a difference.

Contents

1 Foreword 1

2 Main developments in the gas and electricity markets 3

2.1 Electricity 3

2.2 Report on the implementation of the Clean Energy Package 4

2.3 Gas 5

3 The electricity market 6

3.1 Network regulation 6

3.1.1 Unbundling 6

3.1.2 Technical functioning 6

3.1.3 Network tariffs for connection and access 9

3.1.4 Cross-border issues 10

3.2 Promoting Competition 11

3.2.1 Wholesale markets 11

3.2.2 Retail market 15

3.3 Security of supply (if and insofar as NRA is competent authority). 20

3.3.1 Monitoring balance of supply and demand 20

3.3.2 Measures to cover peak demand or shortfalls of suppliers 21

4 The gas market 22

4.1 Network regulation 22

4.1.1 Unbundling 22

4.1.2 Technical functioning 22

4.1.3 Network and LNG tariffs for connection and access 23

4.1.4 Cross-border issues 26

4.1.5 Compliance 26

4.2 Promoting Competition 27

4.2.1 Wholesale markets 27

4.2.2 Retail market 27

4.3 Security of supply (Article 5) (if and insofar as NRA is competent authority) 30

4.3.1 Monitoring balance of supply and demand 30

4.3.2 Expected future demand and available supplies as well as envisaged additional capacity 31

4.3.3 Measures to cover peak demand or shortfalls of suppliers 31

5 Consumer protection and dispute settlement in electricity

and gas 34
5.1 Consumer protection.. 34
5.2 Dispute settlement 36

1 Foreword

Our Corporate Strategy 2019-2024 signalled a new ambitious vision for our regulation of energy services in Northern Ireland (NI). The new strategy places consumers at its centre and we are focused on promoting effective competition, informed choice and fair outcomes. By enabling 21st century networks and unlocking the promise of a low carbon future, we will deliver longer-term benefits for consumers. As an organisation, we are alive to the need for fundamental change in our future use of energy and are committed to playing our role to achieve this.

In the first full year of the new Single Electricity Market we saw evidence of effective competition and the impact of renewable generation placing downward pressure on market prices. Our determination to protect vulnerable consumers is evident in our Consumer Protection Programme. We also took further steps to better understand consumer preferences and this led to the development of our first consumer insight tracker. Finally we have actively undertaken enforcement activity to protect consumers during 2019-2020.

We continue to exercise our regulatory oversight to ensure that the bills consumers pay reflect the actual cost of supply. Regulated electricity prices increased in the autumn due to a combination of a number of factors, including an increase in network charges and wholesale costs. However, 2019-2020 saw a series of gas price decreases due to a significant drop in wholesale gas costs.

Our strategy on networks is focused on the future. We advanced work on a price control determination for SONI and commissioned a call for evidence as part of a review of the company’s governance arrangements. Price control reviews were completed for Power NI Power Procurement Business, SSE Airtricity (gas supply) and firmus energy (supply).

Delivering a low carbon future is critical. The Department for the Economy (DfE) has been developing a new energy strategy and we have supported the Department in taking this important work forward. Additionally we have worked with DfE to transpose the Clean Energy Package by the end of 2020 which will put in place the legal framework that will facilitate development of the strategy.

We are working in partnership with others to promote discussion on the energy transition to a low carbon future. We facilitated investment in renewables and during 2019-2020, the proportion of generation from renewables exceeded the NI

Executive's target. While we have a track record of successfully enabling the development of the natural gas network in line with government policy, we recognise that future development needs to reflect the wider strategic context. Our strategic focus also saw us participate in the review of renewables and energy efficiency being led by DfE.

We could not do our job effectively without our stakeholders who work with us and help us deliver on our commitments. We are particularly grateful for the continued support of DfE for energy matters. During the last year our Board also met with a number of regulated utilities and stakeholders as we continued our engagement activities across NI.

The external context has had a significant impact on our work. Brexit has required us to work closely with other government departments and industry to prepare extensively for the UK's departure from the EU. We welcomed the return of the NI Assembly and have been actively providing support to the new administration.

Additionally, towards the end of the business planning year, the Covid-19 pandemic was having an unprecedented impact on our work as we strived to ensure the safety of our employees. Our staff have worked tirelessly to continue delivering our key work while also facilitating the industry in dealing with the impact of the pandemic.

Finally, it is important for me to recognise the commitment and invaluable contributions from my Board colleagues and we welcomed David de Casseres and Claire Williams as new members during the year. As a Board, we would also like to express our appreciation to the entire Utility Regulator team for their dedication, commitment and all that has been achieved this year. I would also like to personally thank Jenny Pyper, as she will be retiring after seven years as CEO, for her transformational leadership, outstanding commitment and unstinting support. We all wish her well for the future.

Bill Emery

Bill Emery
Chairman

2 Main developments in the gas and electricity markets

Placing consumers at the centre, our Corporate Strategy 2019-2024 has the overarching purpose to protect and empower all consumers by:

(1) Promoting markets that deliver effective competition, informed choice and fair outcomes;

(2) Enabling 21st century networks; and,

(3) Enabling security of supply and a low carbon future.

The potential impact of the UK's exit from the EU on our energy markets continues to be a significant focus for our work. The operational arrangements of the Single Electricity Market (SEM) and potential impact on energy markets has required substantial analysis and consideration.

We have supported both the Department for Business, Energy and Industrial Strategy (BEIS) and DfE in the development of contingency energy trading arrangements for a range of different EU exit scenarios. Among these, we were largely responsible for developing the Day One arrangements for trading of power between the SEM and GB which would operate in the absence of a free trading agreement. We also supported BEIS and DfE in developing legislative instruments to implement relevant provisions of the Withdrawal Agreement and Protocol in NI.

2.1 Electricity

Along with the Commission for Regulation of Utilities (CRU) we developed and delivered a new SEM in 2018. This new SEM delivers benefits to consumers, ensures power is efficiently used on the system, supports security of supply and allows for improved and efficient interconnection. The SEM ensures there is greater transparency around the costs of generation ensuring appropriate costs for consumers. Further development of new generation on the island of Ireland has increased investment and competition in the wholesale market.

We continue to work, along with the system operators SONI and EirGrid, to ensure the market is functioning as efficiently and as effectively as designed. As well as progressing the SONI price control review we also advanced a governance review of the company.

The Market Monitoring Unit (MMU), which is based at our offices continues to monitor each of markets on a daily basis. The MMU has engaged with generators, suppliers and operators to ensure compliance with the market rules and encourage a competitive and efficient market.

Power NI is the regulated electricity supplier providing services to around 500,000 customers. In 2019 we reviewed the tariffs of Power NI (the regulated electricity supplier). This resulted in a price increase for domestic electricity customers of 6.1%. However, domestic electricity prices in NI are lower than both Great Britain (GB) and the Republic of Ireland (RoI).

2.2 Report on the implementation of the Clean Energy Package

The UK entered into the transition period after leaving the EU on the 31 January 2020. During this period, the UK continues to be bound by, and obligated to implement, EU law.

Energy policy is a devolved matter and is the responsibility of the Northern Ireland Executive. Primary responsibility for implementing the legislation of the Clean Energy Package (CEP) rests with the Department for the Economy (DfE). We are committed to assisting DfE to implement provisions of the CEP that are in line with its statutory objectives.

We are focusing on the implementation of those elements of CEP that relate to the operation of the internal electricity market. It is also taking into account the ACER Regulation when engaging with ACER and other EU National Regulatory Authorities (NRAs).

We are working with DfE towards the transposition of the Electricity Directive by 31 December 2020 and the implementation of the Electricity Regulation. In line with the Protocol on Ireland/Northern Ireland, the primary focus is on provisions of EU law governing the wholesale electricity market in the form of the Single Electricity Market. Our role is to provide technical expertise to DfE on proposed legislative and regulatory changes and to work with industry to support implementation. This includes drafting necessary licence conditions and monitoring the evolution of subsequent industry codes. DfE is leading on any legislative changes required and the new energy policy framework that would be required to facilitate implementation.

2.3 Gas

We continue to promote the economic development of the natural gas industry in NI and made significant progress on extending the network in the past year.

A new milestone for gas network development was reached with the commissioning of the main transmission and distribution pipelines in the Gas to the West area (serving Dungannon, Enniskillen, Omagh, Magherafelt and Cookstown).

We approved a further extension of the gas network in County Antrim and continue to engage with gas distribution networks on other potential developments.

Around 275,000 customers are now connected to the natural gas network across NI. By 2022 we expect that nearly 60% of NI consumers will have connected to the gas network. Our Corporate Strategy 2019-2024 sets a target of 300,000 connections by March 2024.

A regulated gas supply tariff review for SSE Airtricity in the Greater Belfast area was completed with October 2019 and led to no change. In the Ten Towns gas distribution area, we reviewed firmus energy’s tariffs and approved decreases of 8.8% in October 2019. The NI average standard tariff for domestic gas consumers continues to be lower than comparable tariffs in RoI and GB.

3 The electricity market

3.1 Network regulation

3.1.1 Unbundling

Report on TSO certification, DSO provisions regarding branding and resources and new developments regarding certification revisions

- Articles 10,11 2009/72/EC and Article 3 Regulation (EC) 714/2009
- Article 26

NIE Networks (NIEN, the transmission owner) applied for certification under Directive 2009/72/EC on 30 January 2013 on the grounds of Article 9(9) of the Directive. By the date of application NIEN ownership had been acquired by ESB which had extensive generation and supply interests in the SEM. The SEM Committee, which had determined that TSO certification was a SEM matter, issued its preliminary decision to the EC on 12 February 2013. This recommended certification subject to certain qualification measures including transfer of the transmission planning function from NIEN to System Operator Northern Ireland (SONI). The EC made a decision to approve the certification of SONI subject to the qualification measures in the SEM Committee preliminary decision and to some additional measures. The decision on certification for SONI was taken in June 2014, and the relevant licence changes have now been implemented.

Moyle Interconnector Limited, which owns the electricity interconnector between Northern Ireland and Scotland, applied for certification on the grounds of ownership unbundling on 25 January 2013. The SEM Committee issued a preliminary decision to the EC on 7 May 2013 recommending certification subject to certain qualification measures. The European Commission did not raise any objections to certification of Moyle Interconnector Limited as a fully unbundled TSO. The decision on certification for SONI was taken in June 2014, and the relevant licence changes have now been implemented.

3.1.2 Technical functioning

- Balancing services (Article 37(6)(b), Article 37(8))
- Security and reliability standards, quality of service and supply (Article 37(1)(h),)

Report relevant security and reliability regulation and data

- Monitoring time taken to connect and repair (Article 37(1)(m))

Clarify here at least if there is in your country a definition for "time to *connect" for consumers and for producers*

- Monitoring safeguard measures (Article 37(1)(t))
- RES regulatory framework: Report on connection, access and dispatching regimes for RES-E, in particular on priority issues. Report also on the balancing responsibility for RES-E. (Article 11 Regulation (EC) 713/2009)

The SEM replaced the previous gross mandatory pool with multiple markets or auctions, each spanning different trading time frames, with separate (although related) clearing and settlement mechanisms, covering both energy and non-energy commodities. Balancing services are offered into the Balancing Market (BM) by generators and suppliers. A generator will be paid through the BM for additional energy used to balance the grid. SONI is obliged under its licence to take into account the quantity, nature and cost when purchasing System Support Services.

Monitoring of security and reliability standards, time taken to connect and repair and safeguard measures are currently conducted through licence compliance. Transmission licences are held by NIEN, Moyle and SONI.

The loss of load expectations statistic is used by SONI as a security standard, which is concerned with the likely number of hours of shortage in a year. The security standard for NI is 4.9 hours per annum and if this standard is exceeded it indicates a higher than acceptable level of risk.

The System Operator, SONI, annually publishes the Generation Adequacy Statement which provides its forecast of generation capacity and forecast electricity demand for the upcoming ten-years. This allows for the assessment of capacity margins and identifies areas in which these could be increased, which highlights area of potential future investment. Above all the Generation Capacity Statement provides an estimation of future security standards based on expected generation capacity margins[1].

In 2017 we modified SONI's licence to include a requirement for the company to develop a 10 year network development plan. We published a consultation paper on SONI's draft Transmission Development Plan for NI (TDPNI) 2018-2027 in April 2019. This draft plan sets out proposals for the development of the NI transmission network and interconnection over the ten years from 2018. This plan presents

[1] See https://tinyurl.com/y6dqembk

projects that are expected to be needed for the operation of the electricity transmission network in the short- and medium-term.

During 2019 we also advanced our SONI price control review and published our 'Approach' document for this review. We subsequently reviewed SONI's business plan and this will inform our draft price control proposals that we expect to publish in June 2020.

As a means to explore opportunities to innovate during our price control review, we continue to use the Stakeholder Engagement Challenge Group (SECG) as a form of engagement on the framework for SONI's system operator (TSO) activities. The aim of the group is to engage key stakeholders in a process designed to assist both ourselves and SONI to improve clarity, accountability and transparency.

We commenced a governance review of SONI and issued a call for evidence in July 2019. The focus of this review is to ensure that the company's governance is, and will continue to be, fit for purpose and adequately protect the interests of consumers and other stakeholders in NI. This work will continue into 2020 and will be aligned to the new price control.

In addition to facilitating greater engagement between NIEN and consumers, we have also continued to work with them to ensure adherence with their compliance plan. Compliance plans help everyone involved to ensure that companies are complying with their licence conditions. We also reviewed and approved the annual NIEN tariffs charged to consumers and ensured they were in line with the price control determinations.

Under our direction NIEN continue to manage vacant power station sites which we refer to as land bank.

Throughout the year we have continued to review and, where appropriate, approve network code submissions in line with EU Directives to ensure compliance is maintained. Some of this work, in relation to joint approvals, has been progressed in conjunction with CRU. We publish all our approvals on our website.

3.1.3 Network tariffs for connection and access

- Article 37(1)(a), Article 37(6)(a), Article 37(8), Article 37(10), Article 37(12) , art 37(3)(c) and (d)

Report on relevant new tariff regulation provisions

- Prevention of cross-subsidies (Article 37(1)(f))

Specify the methodology used in tariff regulation (i.e. cost plus vs incentive regulation), the method of checking undertaking's cost data, methodology for allocation of costs to grid users and if benchmarking is used please describe methodology used by NRA

Electricity Suppliers in Northern Ireland pay a number of regulated charges which they pass on to their customers. Regulated charges for the use of the electricity distribution network in Northern Ireland and a levy known as the Public Service Obligation (PSO) are set by NIEN and SONI, and the maximum amount recoverable is approved by the Utility Regulator. The "Regulated Tariffs Values" for the tariff year beginning October 2019 was published by the Utility Regulator in September 2019[2], detailing the use of system tariffs for that year.

NIEN is the transmission network owner and also the distribution system owner and operator. The current five-year price control commenced in 2017. NIEN is allowed revenue and therefore annual Distribution Use of System tariffs (DUoS) are determined by the terms of this price control. It also receives a Use of System allowance (UoS) from the TSO. The allowed capital expenditure (CAPEX) is limited (e.g. replacement of assets.) with exceptional items individually approved by the regulator.

As part of our drive to introduce greater reputational incentives for our network companies to improve service for the consumer, the Consumer Engagement Advisory Panel (CEAP) continues to meet quarterly to monitor NIEN's consumer engagement. This will help inform the incentives set for the next price control period.

The CEAP includes representation from NIEN, CCNI and DfE. Whilst modelled on a similar grouping for water, the CEAP agreed new terms of reference to focus on delivering new 'actionable data' to monitor and inform continued improvement within the company.

[2] https://tinyurl.com/y5yct7n3

We have a statutory duty to promote competition, where appropriate, in the generation, transmission, distribution and supply of electricity. Connections to the electricity grid by renewable developers and micro generators continue to be an area of extensive interest. We facilitated an alternative connection application and offer process which subsequently led to contestable competition for connections.

3.1.4 Cross-border issues

- Access to cross-border infrastructure, including the procedures for the allocation of capacity and congestion management (Article 37(6)(c), Article 37(8), Article 37(9), use of revenues for interconnectors (article 37(3)(f))

Report in particular on cases where specific cross-border cooperation between NRAs happened besides the general activity of the NRA in the frame of ACER/FG

- Monitoring technical co-operation between Community and third-country TSOs (Article 37(1)(s))
- Monitor TSO investment plans in view of TYNDP art 37(1)(g)
- Cooperation (Article 37(1)(c))

Other relevant cooperation agreements/activities of the NRA besides the RI

The Moyle Interconnector between Scotland and Northern Ireland lies within a Member State and has not previously been regarded as an interconnector for the purposes of the Electricity Directive. Nonetheless, Moyle has aimed to comply with the requirements of the directive regarding congestion management.

The interconnector owners are required to prepare relevant access arrangements in respect of the Interconnector. The purpose of these rules is to set out the auction mechanism including how participants can make an offer to acquire capacity units, together with the requirements on the Interconnector owner in terms of accepting an offer for capacity units from a participant. The access rules also address other areas including the curtailment approach should capacity become unavailable due to an outage.

Moyle Interconnector access rules are approved annually by both us and Ofgem with input from the regulator in the Republic of Ireland regarding the East-West Interconnector.

Compliance

- Compliance of regulatory authorities with binding decisions of the Agency and the Commission (Article 37(1)(d)) and with the Guidelines (Article 39))

Which decisions/actions have been taken following binding decisions of the Agency or the Commission.

- Compliance of transmission and distribution companies, system owners and electricity undertakings with relevant Community legislation, including cross-border issues (Article 37(1)(b), Article 37(1)(q), Article 37(3)(a),(b),(e) and Article 37(5) all but (a) and (c) + imposing penalties (Article 37(4)(d))

Report in particular on monitoring systems for TSO certification compliance and in the next future NC compliance. Report on other compliance cases and existing active monitoring methods

Compliance of transmission and distribution companies, system owners is through their licences. There are no issues to report.

3.2 Promoting Competition

3.2.1 Wholesale markets

The all-island SEM is the combination of two separate jurisdictional electricity markets in Ireland and Northern Ireland and is governed by the SEM Committee (SEMC). The SEMC comprises of representatives from: the CRU for Ireland, the Utility Regulator and an independent and deputy independent members.

The new Single Electricity Market (SEM) went live on 1 October 2018 and ensures that the price of electricity charged to consumers reflects the costs of producing the electricity.

The SEM Committee meets monthly to take decisions on SEM matters. It comprises members of our board, the CRU Commissioners and two independent members.
The new SEM (known as I-SEM throughout the project development phase) was brought in to develop a new set of electricity trading arrangements to meet the requirements of the EU Target Model.

The new SEM comprises four ex-ante energy markets (two which are coupled with

GB), a balancing market, two markets for financial instruments, and a market for capacity remuneration. The two ex-ante markets, coupled with GB are the Day-Ahead Market (DAM) and the Intraday 1 Market (IDM1). The DAM closes the day before delivery and the IDM operates in the interval between closure of the DAM and one hour before delivery. The IDM provides traders with the ability to adjust their positions as market conditions fluctuate closer to real time. There are two other Intraday Markets (2 and 3) as well as an Intraday Continuous Market (IDC). The trading day commences at 23:00 GMT and is pan-European for the DAM.

Before and into real time, the TSO calls on balancing services to keep the transmission system balance i.e. energy supply = energy demand. Energy balancing services are offered into the Balancing Market (BM) by generators (energy producers) and suppliers (energy consumers).

We also took steps to promote sustainability. The aim of the ‘Delivering a Secure, Sustainable Electricity System’ (DS3) Programme is to meet the challenges of operating the electricity system in a secure manner while achieving the 40% renewable electricity target by 2020. Levels of non- synchronous generation capacity is increasing i.e. wind and solar, and there is further interconnection to the all-island power system. It is necessary to measure and limit the non-synchronous penetration (SNSP) to ensure safe and prudent system operation.

The successful implementation of the DS3 programme to date has increased the operational limit and increased the levels of renewable generation the system can manage from 50% to 65%. One of the DS3 goals is to move the operational limit to 70% and then to 75%.

To ensure consumers receive value for money from the increased provision of DS3 system services, we continue to work closely with SONI and CRU to develop cost control measures. These arrangements have been designed to facilitate new and existing technologies to provide services to facilitate the maintenance of a resilient power system when up to 75% of demand is met by non-synchronous technologies, such as wind and solar.

We have also continued to monitor and contributed to SONI’s delivery of ROCOF (rate of change of frequency) conversions in NI. The SNSP is currently 65% with SONI moving ahead with the DS3 RoCoF trial plan to increase to 70%. We actively monitor the procurement of system services to ensure they provide best value to consumers and to inform future policy development. In regards to the system service arrangement procurement, there has been growth in both the number of contracts awarded and in the volumes per service procured. Of particular note is the increased interest of service provisions from new non-conventional technologies, including renewables and storage.

3.2.1.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

- Article 37(1)(i),(j) (k), (l) (u) and Article 40 (3)

Report separately the three issues: prices, transparency and effectiveness of competition. In particular regarding prices report on fundamentals, price developments and liquidity. Regarding transparency report on the access to prices and on how robust prices are and if at national level transparency obligations regarding pricing exist.

Price

The new SEM market monitoring unit (MMU), based at our offices, continues to monitor the SEM.

The MMU continues to publish a public report on the SEM for each quarter[3]. These reports provide a particular focus on recent trends in the market in relation to pricing, demand and system events.

MMU quarterly reports - key facts

- The average day-ahead price for the period was £39.07 (€44.15), down 36.84% from the previous year;
- Over 89% of volumes traded in the SEM were traded through the day-ahead market. This confirms that the vast majority of supplier volumes continue to be purchased in the day-ahead market;
- The average forecast wind at the day-ahead stage was 1500MW. Wind is a key driver behind market prices in the SEM. High levels of wind reduce prices in the market as these units tend to bid in zero prices and are price takers;
- Average balancing market price for the period was £37.11 (€41.94). Balancing prices are more volatile than in any other market in the SEM. This is to incentivise suppliers to be balance responsible and to move liquidity into the ex-ante markets.

[3] See MMU report for the quarter ending December 2019 - https://tinyurl.com/y4b8qzdw

The MMU continuously reviews generator participants' behaviour in the market, including investigations into the exercise of market power. It also monitors the compliance of market participants with the bidding code of practice and other market rules. The MMU is also the point of contact for participants who wish to register complaints relating to market behaviour.

The annual Capacity Payment Mechanism (CPM) was replaced by a Capacity Market (CM) in the new SEM. Unlike the CPM, capacity providers will only receive payments is they are successful in a capacity auction. The capacity requirements for a specific capacity year are determined by us alongside the Commission for Regulation of Utilities (CRU) in RoI. The capacity year commences at the start of the trading day on 30 September and ends at the end of the trading day on 30 September the following year.

In the long term, a Capacity Auction will be held four years (T-4) before a Capacity Year with additional Auctions for incremental capacity held closer to the Capacity Year i.e. in the year prior to the Capacity Year start (T-1).

In late 2019, auctions for capacity years 2020/2021 and 2021/2022 were successfully completed and sufficient generation capacity was secured until September 2023. These auctions secured capacity at a significantly lower cost than the previous capacity payment mechanism which ended in September 2018.

The auctions included locational capacity constraints for the NI and Dublin areas to ensure sufficient capacity was secured for both at a competitive price. In comparison to the old arrangements, the outcomes of these auctions ensures that there will be savings of around £50 million per annum for NI electricity consumers with a total of £200 million savings across the island.

Transparency
The Market Operator for the SEM (SEMO) publishes all commercial and technical data relating to bids for any trading day daily.[4]

Market opening
Introducing incentives to help pool generation resources and reduce electricity usage is also an area where there have been developments.

---

[4] http://www.sem-o.com

During 2015-16 we moved forward the licensing arrangements for aggregated generator units (AGUs) and demand side units (DSUs). AGUs and DSUs have a role to play in the electricity market, providing some further flexibility on the system and a means to incentivise and access demand side management.

Effectiveness of competition

The SEM Committee publishes quarterly market monitoring reports which set out recent trends in the market in relation to pricing, demand, scheduling and forward contract prices

A report on generators' financial performance is published annually.

3.2.2 Retail market

Please provide a brief illustration of the state of competition of retail market and the main changes in the recent year

Competition in the retail market was set up in Northern Ireland in a progressive way, starting with the non-domestic sector in 1999, and extending to the domestic market in 2007.

New suppliers entered the electricity market from June 2010 in the electricity market. Since then, more suppliers have been attracted to the Northern Ireland market. At the end of 2019, there were 6 active suppliers in the domestic electricity market and 8 active suppliers in the business electricity market.

To keep the development of the retail energy sector in Northern Ireland under closer review, we regularly gather and analyse market information. Our duty to keep the development of the retail energy market under review was further enhanced by the IME3 directive which requires us to monitor how the market is working. In order to fulfil our statutory duties we also wish to provide consumers with access to clear and easily understood information on suppliers, products and tariff/service choices.

As part of the existing market monitoring we carry out in the gas and electricity retail sectors we publish quarterly reports (QTRs) at the end of February, May, August and November[5]. These reports deliver transparency for stakeholders and consumers and examine in detail essential indicators which are also used by other

[5] See for instance QTR for period to end of 2019 - https://tinyurl.com/y6p8p9gn.

National Regulatory Authorities (NRAs) in Europe when monitoring their retail markets.

Our Retail Energy Market Monitoring (REMM) framework allows us to monitor the supply markets, inform policy and protect consumers. Data collection is progressing on track and we continue to make necessary revisions to how we monitor our energy markets. In 2018 we revised the way in which we monitor supplier statements of compliance to further enhance scrutiny and to make sure plans are implemented to address any compliance issues. We are currently progressing our Consumer Insight and Market Analysis workstream and are reviewing our REMM database to ensure we have an accurate and efficient data collection, data processing and data storage system. This will enhance our reporting on retail market and consumer outcomes.

In both electricity and gas, a large share of domestic customers remain with the previous incumbent supplier. However, as the electricity market matures, the incumbent market share is gradually decreasing. Power NI's share in the electricity domestic market at end of March 2019 was 57%, compared with 58% the previous year.

We published a decision paper setting out measures that will make the small business energy market more transparent. This will make it easier for small business customers to engage in the market and promote competition. One of the specific proposals regarding tariff transparency for small businesses, (similar to that in the CMA report in GB), has been the development of a small business tariff comparison website by the Consumer Council of Northern Ireland (CCNI).

3.2.2.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

- Article 37(1)(i),(j),(k),(l),(u) and Article 40 (3)

Report separately the three issues: prices, transparency and effectiveness of competition. In particular regarding prices report on fundamentals, price developments and liquidity. Regarding transparency report on the access to prices and on how robust prices are and if at national level transparency obligations regarding pricing exist. Please report here separately dual fuel prices

In the monitoring of the energy retail market, the key indicators are: market shares, active suppliers in each market segment, market activity per market segment, rates of switching, domestic prices in Northern Ireland and a price comparison with other EU countries. Future work in terms of collecting and assessing further retail information will be included into this series of reports.

The customer complaints procedure in Northern Ireland is detailed on our website: www.uregni.gov.uk/consumer-information. In the first instance customers are asked to resolve any difficulty with their supplier. All domestic suppliers are required by licence to have a Code of Practice on complaint handling. This details a procedure to facilitate the fair and prompt settlement of complaints and disputes as well as a system for reimbursing or compensating complainants. They are also required under the licence to inform customers of the role and contact details of the Consumer Council Northern Ireland (CCNI)[6] both in contracts and on bills.

If customers are not satisfied with the supplier's handling of, or response to, a complaint, they may ask CCNI to intervene on their behalf. The CCNI has statutory responsibility to assist energy customers with complaints at the second stage (after the supplier process has been exhausted).

We also deal directly with complaints and disputes, with regard to the transmission and distribution operator.

With regard to complaints, IME3 has been implemented and all suppliers are fully compliant with the Code of Practice on Complaints Handling.

During the year we procured an external audit firm to undertake supplier audits (via site visits) on complaints handling. The audit has also reviewed REMM submissions against suppliers' internal records and sought evidence of suppliers' compliance with their Code of Practice on Complaints Handling Procedure.

We are reviewing the audit conclusions and engaging with suppliers on a one-to-one basis.

- Article 37(1)(k)

We hold competition powers concurrently with the CMA. We have published competition guidelines which provide a framework for handling competition related matters and we continue to work closely with the CMA on all competition related matters.

[6] Consumer Council for Northern Ireland http://www.consumercouncil.org.uk/

We published our new approach to enforcement and financial penalties policy following consultation. Our enforcement procedure provides information on what to expect when we initiate an investigation or take enforcement action. The financial penalties policy covers both whether to impose a financial penalty and a process for determining the amount of the penalty.

During the year, we determined on one dispute and took two enforcement actions. We imposed a financial penalty due to a non-compliance with the requirement to make a payment into the NI Renewables Obligation buyout fund. We closed two formal investigations which led to the companies involved donating £450,000 to local charities.

- Article 37(1)(l)

The EU's IME3 directives set out a series of measures to make sure consumers are adequately protected in the energy markets.

We produced minimum standards in relation to four Energy Supplier Codes of Practices, which included:

- Code of Practice on Payment of Bills;
- Code of Practice on Provision of Services for persons who are of Pensionable Age or Disabled or Chronically Sick;
- Code of Practice on Complaints Handling Procedure and;
- Code of Practice on Services for Prepayment Meter Customers.

All electricity and gas suppliers in NI already comply with these minimum standards in their Codes of Practice.

New market entrants to either the electricity supply market or the gas supply market in Northern Ireland must be compliant with these Codes.
We also have in place a mandatory Marketing Code of Practice. Suppliers must also ensure that they have a Code of Practice on the efficient use of gas/electricity which complies with the conditions of their licence.

We worked with other UK economic regulators to ensure our regulatory framework for consumer protection learns from best practice elsewhere. A new Code of Practice relating to energy theft was also introduced. This requires suppliers and network operators to work together on best practice approaches to investigating, handling and dealing with the outcome of energy theft.

The Consumer Protection Strategy (CPS) was our strategy and action plan designed to bring about an enhanced level of domestic consumer protection for electricity, gas and water consumers in NI. The CPS was launched in early 2016 and committed to a formal review following year two of project delivery.

As part of the development of our new Corporate Strategy (2019-2024), CPS review and stakeholder feedback, a new Consumer Protection Programme (CPP) was developed and launched at an event in April 2019.

From April 2019, the new CPP builds on the work of the CPS. It is a prioritised three year programme designed to provide enhanced protection to domestic electricity, gas and water consumers, especially those most vulnerable.

3.2.2.2 Recommendations on supply prices, investigations and measures to promote effective competition

- Article 37(1)(o)

Report on recommendations at national level on supply prices and competition

Describe system of regulated prices (if they exist)

- Article 37(4)(b)

Report on investigations carried out, main results and possible measures adopted

Report on tariff deficit if it exists

Electricity supply licensees require transparency of customers' terms and conditions, including price. There conditions apply to all licensees and are legally binding. Electricity customers are guaranteed the right to be supplier under fair and transparent terms. They cannot be discriminated in terms of price and the regulatory framework includes legally binding supplier of last resort provisions.

We have the powers necessary to investigate and enforce effective competition and the functioning of the retail market. We regularly request information to the network and supply companies, and monitor the received data.

We regulate the end prices of the dominant former incumbent electricity supplier. Power NI is the regulated electricity supplier providing services to just under 500,000 customers. In 2019 we reviewed the tariffs of Power NI, the regulated electricity supplier. This resulted in a price increase for domestic electricity customers of 6.1%. However, domestic electricity prices in NI are lower than both Great Britain (GB) and the Republic of Ireland (RoI).

3.3 Security of supply (if and insofar as NRA is competent authority)

Implementation of safeguard measures Art. 42

The Fuel Security Code is designed as a Northern Ireland response to a Fuel Security Event. The Fuel Security Code currently in force in Northern Ireland under the Electricity (Northern Ireland) Order 1992 as amended (the 1992 Order) was drafted in 1992.

The objectives of the Fuel Security Code are to assist with the effective management of an event where primary fuel supplies for electricity generation are disrupted: a Fuel Security Event.

The Code enables Government to direct the electricity industry to provide information on power supplies and to take specific action to manage such disruption in a way to ensure as far as is reasonably practical.

3.3.1 Monitoring balance of supply and demand

- Article 4

SONI prepare an annual Generation Capacity Statement which covers both demand predictions and the generation margins. The latest statement published by Eirgrid in September 2019 showed:

- Electricity demand in Northern Ireland has been relatively flat in the last number of years.
- There is an expectation that electricity demand will remain fairly stable in the near future.
- In the median demand scenario, Northern Ireland is within the security of supply standard set by the SEM Committee until 2025 when it drops below the standard.
- On completion of the second North South interconnector the all-island system to be capable as operating electrically as one, i.e. with all the generation capacity from both jurisdictions to meet the combined load.

To view this most recent Generation Capacity Statement (2019) see: https://tinyurl.com/y6dqembk.

Monitoring investment in generation capacities in relation to SoS

- Article 37(1)(r)

Operational network security

- Article 7 2005/89/EC

Investment in interconnection capacity for the next 5 yrs or more

- Article 7 2005/89/EC

Expected future demand and envisaged capacity for the next 5 years and 5-15 years

Article 7 2005/89/EC

In addition to the Generation Capacity Statement SONI publish a ten-year Transmission development plan.

3.3.2 Measures to cover peak demand or shortfalls of suppliers

- Article 4

The Generation Capacity Statement analyses the potential for the system to meet peak demand.

4 The gas market

4.1 Network regulation

4.1.1 Unbundling

- Articles 10,11 2009/73/EC Article 3 Regulation (EC) 715/2009
- Article 26

Report on TSO certification, DSO provisions regarding branding and resources and new developments regarding certification revisions. Report also on storage and LNG

NI has three Distribution System Operators (DSOs). Phoenix Natural Gas Limited is solely a Network Operator, with no supply business and firmus energy (Distribution) Limited continues to have an integrated supply business (firmus energy (Supply) Limited). firmus energy (Distribution) Limited however does not have at present , more than 100,000 connected customers, therefore it remains an integrated Distribution and Supply business. SGN is developing the distribution network to the west of NI, and connected its first customers in 2017. Construction began on the transmission pipeline which will underpin the further development of the gas distribution network in the west.

The arrangements for unbundling at the transmission level are being examined as necessary as part of the certification process required under the third energy package.

In relation to GNI (UK)'s application for certification as full ownership unbundled, we notified our Decision to the European Commission on 31st March 2016.

We have also continued to monitor the compliance of PTL and BGTL with their certification as full ownership unbundled and no issues arose.

4.1.2 Technical functioning

- Balancing services (Article 41(6)(b), Article 41(8))
- Security and reliability standards, quality of service and supply (Article 41(1)(h))

Report relevant security and reliability regulation and data

- Monitoring time taken to connect and repair (Article 41(1)(m))

Clarify here at least if there is in your country a definition for "time to connect" for consumers and for producers

- Monitoring access to storage, linepack and other ancillary services (Article 41(1)(n))
- Monitoring correct application of criteria that determine model of access to storage (Article 41(1)(s))
- Monitoring safeguard measures (Article 41(1)(t))

NI currently has no gas storage facilities; however Islandmagee Storage Limited is progressing plans to develop an underground natural gas storage facility in the Larne Lough area of Northern Ireland.

4.1.3 Network and LNG tariffs for connection and access

- Article 41(1)(a), Article 41(6)(a), Article 41(8), Article 41(10) and Article 41(12)

Report on relevant new tariff regulation provisions

- Prevention of cross-subsidies (Article 41(1)(f))

Specify the methodology used in tariff regulation (i.e. cost plus vs incentive regulation), the method of checking undertaking's cost data and if benchmarking is used please describe methodology used by NRA

- Regulated and negotiated access to storage 41(1)(s)

Report on the decisions adopted by MS

Distribution

Information is collected in relation to volumes, revenues and costs, split across relevant customer categories, which are then used to calculate appropriate tariffs. A combination of incentive-based regulation, along with performance-based outputs is implemented for distribution companies. A price control is applied, alongside a performance-based system, which is adjusted, via the "Uncertainty Mechanism" based on actual performance, with incentives included to encourage efficiency and network growth.

The current price control, referred to as GD17, is for a six-year duration, for the period, 1 January 2017 – 31 December 2022. The final determination for the price control for the gas distribution companies – Phoenix Natural Gas (PNGL), firmus energy (fe) and SGN (Scotia Gas Networks) (called GD17) was published in September 2016.

In terms of the regulatory period, the distribution system operators have licences extending 20 to 40 years. In terms of incentives, the network operators are incentivised to lay gas pipe in the most densely populated areas and receive additional allowances to maximise new domestic connections. DSOs provide information on tariffs and connection charges to market participants and other interested parties; this information is available on the website of the individual DSOs.

We have started the next set of price controls for the gas transmission and distribution companies, due to begin in 2022 and 2023. In relation to the distribution price control, referred to as GD23, we are finalising the Approach document which will be consulted on in mid-2020. We have also started considering the future of gas connections incentives.

We are progressing work on the Cost and Performance Report for the gas distribution companies. Our report will review progress against targets that were set for the current price control, GD17. We expect to publish the report later in 2020.

Transmission

At the transmission level, the tariff is set using an entry exit methodology by us and tariff setting is overseen on an annual basis. The transmission tariffs are calculated by collecting forecast volumes, capacity bookings and revenue requirements from the power and distribution sectors at the beginning of the gas year. The individual submissions are then totalled and capacity and commodity tariffs are calculated for all sectors. A reconciliation process is applied at the end of the year when actual volumes, capacity and revenues are known.

The TSOs are also price controlled in NI. The GT17 price control was published in August 2017 covering and covers the period of 2017-2022. We also published GT17, the price control for the four high pressure gas conveyance licence holders in NI for the period 1 October 2017 to 30 September 2022. The four licence holders are: GNI (UK) Limited (GNI (UK)), Premier Transmission Limited (PTL), Belfast Gas Transmission Limited (BGTL) and West Transmission Limited (WTL).

Key areas for the price control are controllable and uncontrollable operating expenditure, expenditure to replace or upgrade existing equipment where necessary as well as, for GNI (UK) and WTL, the rate of return.

The price control also set out an allowance for the single system operator and the

Gas Market Operator Northern Ireland (GMO NI) went live on 1 October 2017.

The regulatory approach to the price control depends upon the financing model under which the TSO operates.

To improve the rate at which certain pipelines are financed, we have employed a mutualised financing model where the normal regulatory control over any allowed operational expenditure accrued by the TSO has been removed. The resulting transfer of risk onto consumers, through potential inefficient operating costs, can be limited through corporate governance licence conditions contained within the conveyance licence held by the TSO. One of which is a condition that, in the form of a shadow price control, allows us to review the level of operating expenditure forecast to be incurred by the TSO.

Where a more standard regulatory model is used, a ‘pain-gain’ mechanism is applied at the transmission level where TSOs can share in any capital expenditure efficiencies gained.

The GMO NI encompasses the four transmission system operators in Northern Ireland as a contractual joint venture. This single system of operation was implemented to deliver cost efficiencies and other benefits to consumers and users including a single network code, IT system and co-ordinated market arrangements. The previous arrangement with multiple system operators was a barrier for the Utility Regulator in minimising system operation costs for consumers.

We have been in consultation with GMO NI as it moves to ensure that the NI gas transmission network complies with the EU Regulation on Gas Balancing of Transmission Networks. Through joint discussions with EU representatives, we have highlighted that due to the small size of the NI gas market, the options for possible compliance are not cost effective. Along with GMO NI, we continue to work with EU representatives to finalise a suitable compliance route.

To ensure ongoing compliance with the EU Regulation on Harmonised Transmission Tariffs for Gas, we issued the second annual consultation on the seasonal multiplier factors and potential discounts in February 2020.

LNG

We have no LNG facilities in NI.

4.1.4 Cross-border issues

- Access to cross-border infrastructure including allocation and congestion management (Article 41(6)(c), Article 41(8), Article 41(9), Article 41(10) and Article 41(12))

Report in particular on cases where specific cross-border cooperation between NRAs happened besides the general activity of the NRA in the frame of ACER/FG. Provide case study/data on standard contracts t.b.d by ACER (i.e. average cost/conditions of importing/exporting 1 MW). Only provide text explanations in the National Report as data are included in the data base.

- Cooperation (Article 41(1)(c))

Other relevant cooperation agreements/activities of the NRA besides the RI

- Monitoring investment plans and assessment of consistency with Community-wide network development plan Article 41(1)(g)

Along with the CRU and Ofgem we worked together to coordinate the joint implementation of the EU network codes on Capacity Allocation Mechanism (CAM), Interoperability, and Balancing at the Moffat entry point. All three NRAs continue to monitor the development of the EU network codes and to assess the potential impact to their networks.

4.1.5 Compliance

- Compliance of regulatory authorities with binding decisions of the Agency and the Commission (Article 41(1)(d)) and with the Guidelines (Article 43))

Which decisions/actions have been taken following binding decisions of the Agency or the Commission

- Compliance of transmission and distribution companies, system owners and natural gas undertakings with relevant Community legislation, including cross-border issues (Article 41(1)(b), Article 41(1)(r), Article 41 (3) and Article 41(5)) + imposing penalties (Article 41(4)(d))

Report in particular on monitoring systems for TSO certification compliance and in the next future NC compliance. Report on other compliance cases and existing active monitoring methods

Compliance of transmission and distribution companies, system owners is through their licences. There are no issues to report.

4.2 Promoting Competition

4.2.1 Wholesale markets

Please provide a brief illustration of the state of competition of wholesale market and the main changes in the recent year

All gas for NI is purchased at the UK NBP.

4.2.1.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

- Article 41(1)(i) , (j), (k) (l) (u) and Article 44(3)

Report separately the three issues: prices, transparency and effectiveness of competition. In particular regarding prices report on fundamentals, price developments and liquidity. Regarding transparency report on the access to prices and on how robust prices are and if at national level transparency obligations regarding pricing exist.

As above all gas for NI is purchased at the UK NBP.

4.2.2 Retail market

Please provide a brief illustration of the state of competition of retail market and the main changes in the recent year

The gas market in the Greater Belfast area has been open to competition to domestic customers since 2007. However, there were no competing suppliers in the domestic market until 2010. In this distribution licensed area there has been six active gas suppliers in the non-domestic sector during 2019: SSE Airtricity Gas Supply (SSE Airtricity), firmus energy, Electric Ireland, Naturgy, Go Power and Flogas Natural Gas. In the Greater Belfast licensed area there has been two active gas suppliers in the domestic sector in 2019. SSE Airtricity is subject to a price control over the domestic and small I&C (industrial and commercial) customers who consume less than 2,500 therms per annum in the Greater Belfast area. A maximum average tariff is employed in these sectors for customers of SSE Airtricity.

Other suppliers are free to compete against this maximum average tariff. In the Greater Belfast area, market shares have remained relatively unchanged. SSE Airtricity's share in the domestic credit market is 82% and 74% for prepayment.

firmus energy remains the only domestic supplier in the Ten Towns area.

The Ten Towns gas area opened to competition for large I&C (industrial and commercial) customers in October 2012. SSE Airtricity entered this market to compete against the incumbent firmus energy from 1 January 2013. The remainder of the market (small I&C customers and domestic customers) opened to competition from April 2015. There are now also 6 active suppliers in the Ten Towns I&C market, Electric Ireland, firmus, Flogas, Go Power, SSE Airtricity and Naturgy.

Firmus energy, the incumbent supplier, is the only domestic supplier in the Ten Towns area. In terms of market share by connections, firmus energy retains the majority of the small I&C market with 67.7% share at the end of Q4 2019. The competing suppliers in the small I&C market, SSE Airtricity, Go Power and Flogas have been growing their market shares since entering the I&C market. At the end of Q4 2019, the collective market share of these three suppliers was 32.2%.

4.2.2.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

- Article 41(1)(i),(j) (k), (l) (u) and Article 44 (3)

Report separately the three issues: prices, transparency and effectiveness of competition. In particular regarding prices report on fundamentals, price developments and liquidity. Regarding transparency report on the access to prices and on how robust prices are and if at national level transparency obligations regarding pricing exist. Make reference to dual fuel if necessary.

SSE Airtricity Gas Supply (Northern Ireland) Limited (SSE Airtricity) has a regulated tariff for domestic and small industrial and commercial customers (using less than 2,500 therms per annum) in the Greater Belfast distribution network area.

Firmus Energy (Supply) Ltd (firmus energy) has a regulated tariff for domestic and small industrial and commercial customers (using less than 25,000 therms per annum) in the Ten Towns distribution network area. In November 2017, following consultation it was decided to reduce the scope of firmus energy’s price control to exclude non-domestic customers using between 2,500 and 25,000 therms, which will be effective from 1 April 2018.

We enter into a formal tariff review process with SSE Airtricity and firmus energy twice per year with a view to tariff changes being effective from 1st April and 1st October each year. We also monitor gas prices on an ongoing basis and an ad-hoc tariff review for SSE Airtricity and firmus energy may be initiated at any stage if the Utility Regulator considers that gas prices have increased or decreased enough to warrant a tariff review. We monitor the SSE Airtricity and firmus energy regulated tariff against the standard tariffs of other supply companies in NI, the UK and ROI. Transparency reports are published by us every quarter which provides comparisons of the gas tariffs in NI, GB and ROI.

During 2019 the SSE Airtricity and firmus energy regulated tariffs for domestic customers were similar or lower than the standard domestic tariff of the incumbent supplier, Bord Gais, in ROI and lower than the average of the big six suppliers in GB (based on their standard domestic tariffs). Supply companies in NI have a licence obligation to inform customers at least 21 days in advance of any change (increase or decrease) in the tariff. Suppliers are also required to provide advanced notification of when customer is coming to the end of a fixed term or discounted tariff period (no less than 28 days but no more than 42 days before).

We review the SSE Airtricity and firmus energy gas purchasing strategies each year and also receives regular gas purchasing reports from SSE Airtricity and firmus energy showing the volumes and cost of gas purchased for the short and long term future.

We also monitor the effectiveness of competition in the retail gas markets in NI. There are two retail markets in NI: the Greater Belfast market and the Ten Towns market. Competition in these markets is monitored by us on a quarterly basis and an analysis of the competition is published in our transparency reports: see for instance https://tinyurl.com/y6p8p9gn

- Article 41(1)(p)

Report on recommendations at national level on supply prices and competition

- Article 41(4)(b)

Report on main investigations, results and possible measures adopted

Report on tariff deficit if it exists

We determined, and published, price controls for SSE Airtricity and firmus energy which set out procedures which SSE Airtricity and firmus energy must comply with in setting tariffs. The price controls also set out a level of operating expenditure for each company for each year of the control which is then used when compiling the supply opex costs for the tariff. At each tariff change we publish a paper which provides detail on the various elements of the tariff, details of any over/under recovery which has been built up or lost in previous tariff periods and therefore incorporated into the new tariff and comparisons with tariffs in GB and ROI.

In November 2019 we published the final determination for SSE Airtricity's supply price control in the Greater Belfast gas supply market. The price control sets the costs which make up the maximum average price per therm that the supplier can charge. The price control came into effect on 1 April 2020 and will run to 31 March 2023.

The final decision for the firmus energy supply price control in the Ten Towns area was published in September 2019. The price control came into effect on 1 January 2020 and will run until 31 December 2022.

4.3 Security of supply (Article 5) (if and insofar as NRA is competent authority)

The Department of Energy and Climate Change (DECC) is the designated Competent Authority with respect to the security of supply for the UK Member State (as notified to the Commission under Regulation 994). As such a number of the requirements of Article 5 of Directive 2009/73/EC are carried out by DECC. However we do contribute to some of the elements identified below.

4.3.1 Monitoring balance of supply and demand

100% of Northern Ireland gas supplies are currently provided from Great Britain via the National Transmission System Exit Point at Moffat. As such the wider monitoring of UK demand and supply is largely carried out by DECC and National Grid. However the Transmission System Operators in Northern Ireland and the Republic of Ireland regularly engage with National Grid on demand and supply issues downstream of Moffat.

There are also a number of government and TSO groups that have been established between the UK and Ireland to facilitate communication on emergencies and security of supply. These groups also co-ordinate the work required under Regulation 994.

4.3.2 Expected future demand and available supplies as well as envisaged additional capacity

Forecast Total Volumes (mscm):-

Year	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Volume	1432	1415	1444	1542	1522	1608	1644	1636	1659	1668

All of NI gas supplies are currently provided from Great Britain via the NTS Exit Point at Moffat. As noted previously there is significant industry interest in developing gas storage facilities in the Larne area of NI which could strengthen security of supply within the region.

TSOs now annually produce a gas capacity statement which examines the ability of the gas network to meet future supply and demand scenarios over a ten year period. This assessment included the Islandmagee storage project and network extension to the West and North West as discussed above.

This approach ensures that any areas requiring investment are identified and addressed so that future demands on the system can be met. The capacity statement is published on the GMO website (see http://gmo-ni.com/).

4.3.3 Measures to cover peak demand or shortfalls of suppliers

- Art 41(1)(t): implementation of safeguard measures

The transmission companies in Northern Ireland have emergency arrangements in place to deal with either a physical disruption to the network or a restriction in gas supplies. The arrangements are a legal requirement and are contained within each TSO's Safety Case. The safety case outlines the emergency stages and the actions that are to be undertaken at each stage.

Additionally power stations are required to hold reserves of alternative fuels to enable fuel switching in the event of a restriction to gas supplies. The emergency measures are tested annually alongside the Republic of Ireland and Great Britain exercises.

Gas Supply licenses in NI also require that suppliers have access to gas supplies to meet peak demand during severe winter conditions.

To allow direct access by NI suppliers to the gas market in GB, a transportation agreement is in place between GNI (UK) Limited and Premier Transmission Limited (PTL). More specifically, it enables PTL to use infrastructure owned by GNI (UK) in Scotland to make capacity available to NI. The transportation agreement is currently set to come to an end in 2021 and we are progressing work on its extension with GNI (UK) and PTL.

The South North Pipeline, which is partially located in the RoI, forms part of the infrastructure that allows for gas to be brought into and conveyed within NI. In the context of a planned offtake from the pipeline in the Dundalk region, we have been working with CRU and the relevant system operators to ensure the interests of NI consumers are protected and the relevant regulatory arrangements are in place.

Working with the transmission system operators, we have reviewed the operation of the above ground installation at Carrickfergus. This facility links the transmission networks operated by Mutual Energy to those operated by GNI (UK), as gas moves from entry on the east of NI to customers beyond the Greater Belfast area. We anticipate that implementation of the outcome of this review will improve gas pressures across the network resulting in few balancing actions without requiring any capital investment. Both GNI (UK) and Mutual Energy are supportive of a move to a new operating protocol and we have requested them to implement the changes to operation at Carrickfergus as soon as possible.

We continue to work with the transmission system operators, gas distribution networks and gas shippers to improve shipper nomination behaviour, improve forecasting data and consider better ways to allocate actual usage.

We have engaged with stakeholders on the regulatory challenges for gas in the context of the energy transition. In particular, we have considered the suitability of the current regulatory framework to facilitate biomethane injection into the gas network. In a number of industry workshops we have explored the changes that may be required and are now developing a multi-year programme of work to address these.

In the event of a gas supplier leaving the market unexpectedly, we have supplier of last resort (SoLR) processes in place which are to be followed by all industry participants. Compliance with these arrangements is made binding for all industry participants through conditions within their supply and conveyance licences.

In collaboration with the network operators and designated SoLR suppliers, we have also developed a plan for testing the gas SoLR arrangements. We intend to complete the first test of these arrangements later in 2020 and on an annual basis thereafter.

5 Consumer protection and dispute settlement in electricity and gas

5.1 Consumer protection

- Compliance with Annex 1 (Article 37(1)(n)) and (Article 41(1)(o))
- Ensuring access to consumption data (Article 37(1)(p)) and (Article 41(1)(q))

Article 11A of the Electricity Order and Article 10A of the Gas Order provides the Authority with powers to impose conditions on licensees to give effect to this obligation. Part VI of the Energy Order provides the Authority with such enforcement powers as are necessary to compel compliance. The conditions which ensure that these consumer protection measures are adhered to are set out in part II of the electricity supply licences, Customer Related Conditions and Part 2 of the Gas Supply licences, Conditions Applicable to the Supply of Gas by the License Holder. The implementation of the third package has seen these conditions further enhanced.

We ensure customer access to consumption data via conditions in the gas and electricity supply licences. Licence Condition 38 and 44 in electricity supply licences and 2.19 and 2.28 in gas supply licences ensures that customers have access to, and are informed of their consumption and that information is provided in such detail and format as is approved by the Utility Regulator and the consumer representative body. Licence conditions were updated as a result of the third package to ensure that consumers are entitled to further detailed information on their electricity and gas consumption.

We have consulted on and implemented licence modifications under the EU Third Internal Energy Package. The licence modifications implemented under the EU Third Internal Energy Package also required Gas and Electricity suppliers to develop and publish Codes of Practice to enhance the consumer protection measures. During 2015, we further extended the consumer protection under the Codes of Practice by developing minimum standards for the Codes of Practice. This strengthened the consumer protection covered by all supplier Codes of Practice. The licence conditions ensure that customers are provided with access to their consumption data and transparent information in relation to tariffs, terms and conditions and complaints handling procedures. It also requires suppliers to offer customers a range of payment methods, to facilitate supplier transfers within

15 working days, and to provide a code of practice on provision of services for vulnerable customers. Licence conditions also set out timeframes for suppliers providing terms and conditions to new customers and for suppliers to give notice to customers at least 21 days prior to any changes to the terms (including price) being made. Suppliers must also inform customers of their right to withdraw prior to when the terms of their contract are changing. Suppliers also have a licence condition requiring final bills to be issued to customers within six weeks from the date the change of supplier takes place.

The Consumer Protection Strategy (CPS) was our strategy and action plan designed to bring about an enhanced level of domestic consumer protection for electricity, gas and water consumers in NI. The CPS was launched in early 2016 and committed to a formal review following year two of project delivery.

As part of the development of our new Corporate Strategy (2019-2024), CPS review and stakeholder feedback, a new Consumer Protection Programme (CPP) was developed and launched at an event in April 2019.

From April 2019, the new CPP builds on the work of the CPS. It is a prioritised three year programme designed to provide enhanced protection to domestic electricity, gas and water consumers, especially those most vulnerable.

In May 2019, we published the results of our first domestic consumer insight tracker survey. This was an important piece of research to help ensure that our regulation reflects consumer views and continues to protect consumers. The results showed that in general, domestic consumers have responded positively to outcomes of our regulation, including the introduction of competition, the extension of the gas network and the provision of consumer support services. Other key results included:

- The majority of consumers spend between £30 and £59 per month for electricity in NI, which is in line with the UK average monthly spend of around £49 per month.
- The majority of respondents who have switched energy supplier have had a positive experience.
- Trust and satisfaction with suppliers are relatively high.
- Doorstep selling remains the most common way to switch, particularly amongst those aged 65+.

We intend to use the results to monitor, and have a better understanding of how domestic energy consumer experiences, attitudes and engagement with the energy markets change over time.

We also sought to increase transparency in the small business energy supply market aimed at promoting competition and making it easier for small business customers to engage in the market. One of the specific proposals - improving tariff transparency for small businesses - was the development of a tariff comparison website by CCNI. This website went live in September 2019.

Our work on backbilling, when a customer has not been correctly charged for the energy they have consumed - resulting in them receiving an additional or updated bill for the additional energy, led to us proposing a 13 month limit on energy backbills. Our decision on this was published in January 2020 and the 13-month limit will come into effect on 1 October 2020. This will apply to both electricity and gas domestic consumers and microbusinesses, across all payment types.

5.2 Dispute settlement

- Article 37(11), 37(5)(c), Article 37(4)(e)
- Article 41(11) and Article 41(4)(e)

Report on cases, in particular on major issues concerning network users (access tariffs, connection disputes/refusals...), including producers and consumers

As a direct result of Directive 2009/72/EC we were given the legal authority to act as a dispute resolution authority for certain matters in relation to electricity.
Prior to the implementation of the Directive into national law, we had been, and still are, able to determine certain complaints or disputes, such as disputes arising between an electricity distributor and any person requiring a connection to that distributor's distribution system.

On the implementation of the Directives, our dispute resolution remit was extended further, as now individuals and companies are able to refer certain disputes or complaints regarding the transmission and distribution of electricity in Northern Ireland to us for resolution.

In June 2011 we published our "Policy on the Resolution of Complaints, Disputes and Appeals". This sets out procedures which the Utility Regulator will generally follow when dealing with a complaint or dispute which it has been requested to determine. This policy was amended in June 2013[7].

Under the Gas (NI) Order 1996 billing disputes must in the first instance be referred to the Consumer Council for Northern Ireland. The Consumer Council has 3 months in which to resolve the matter to the customers' satisfaction or the matter is referred to us. We have had no referrals during this period.

The Gas Market Operating Group (GMOG) was established by us to address any operational barriers to entry into the Greater Belfast gas market. The group was extended several years ago to cover the Greater Belfast gas market and the Ten Towns gas market. During 2015 the group was extended again to cover any retail related issues in relation to the gas market that is being developed for the West area. The group includes active representation from supply and distribution license holders, the DfE in NI, the Consumer Council in NI and the Utility Regulator. The GMOG identifies barriers to entry into the gas market in NI; these issues are then discussed with the group with a view to making a decision on the best way to address each issue.

We also initiated the set-up of a Gas Supplier Forum group. This group identifies any requirements for supplier to supplier agreements in relation to customer switching and overcoming supplier barriers to competition. Agreements are then drawn up to be included in the Supply Meter Point Agreement. This group includes active representation from gas supply licence holders, the Consumer Council NI and us; however the Distribution licence holders also attend to ensure all decisions made for supplier agreements will work in accordance with the distribution market rules.

There has been an increase in supplier licence compliance and investigatory work. We have a quasi-judicial role with regard to the determination of industry complaints and disputes. This year we have completed four of these matters.

[7] http://www.uregni.gov.uk/publications/appeals_complaints_and_disputes_policy_updated_june_2013