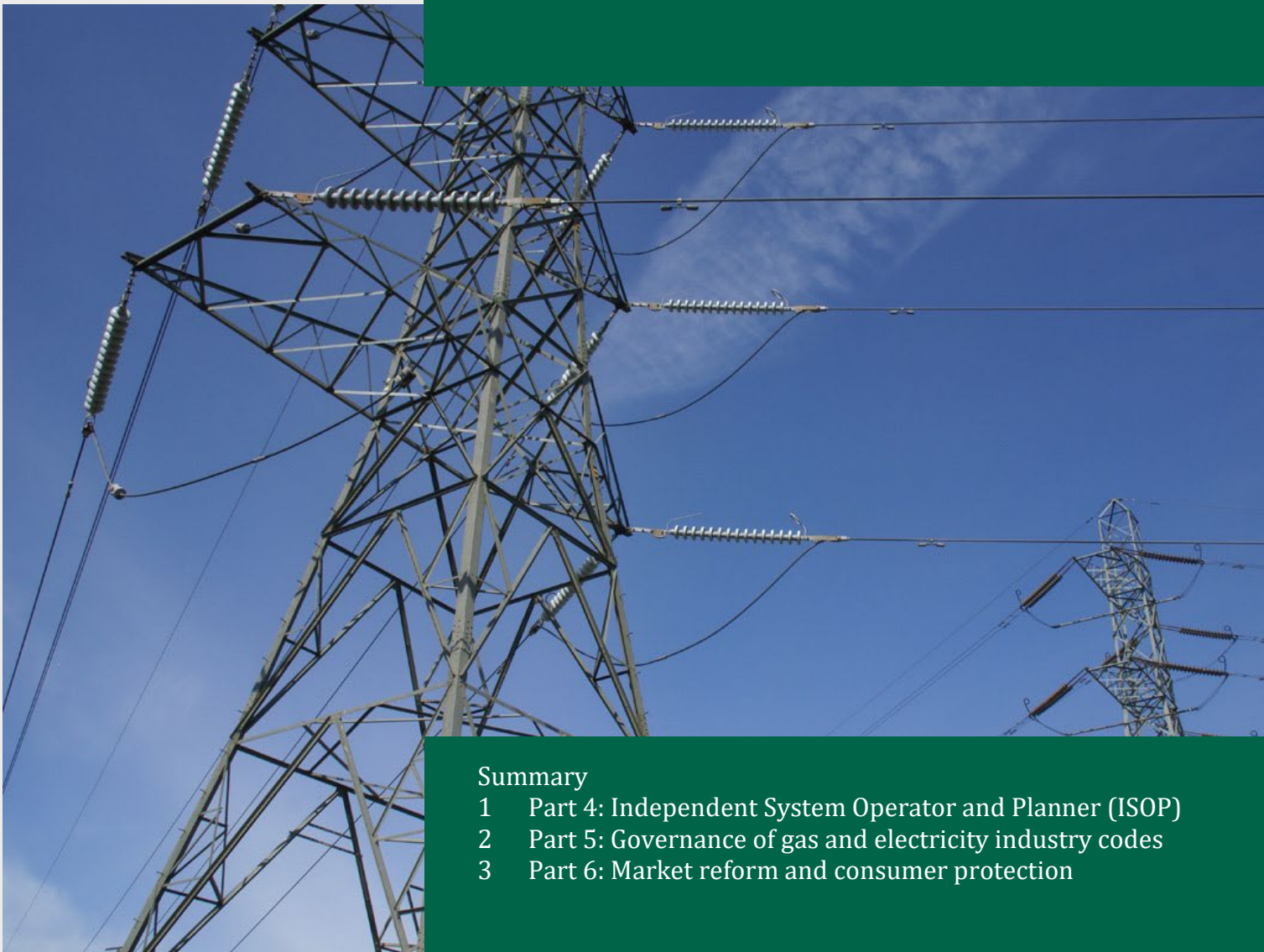


Research Briefing

4 May 2023

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Energy Bill 2022-23, parts 4-6: Electricity and gas markets



Summary

- 1 Part 4: Independent System Operator and Planner (ISOP)
- 2 Part 5: Governance of gas and electricity industry codes
- 3 Part 6: Market reform and consumer protection

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Summary

The Government's [Energy Bill \[HL\] 2022-23](#) was introduced to the House of Commons on 25 April 2023, following its Lords stages. Second reading in the Commons is due to begin on 9 May 2023.

This briefing provides background on parts 4 to 6 of the bill. These parts contribute to the second of the bill's three pillars, on "reforming the UK's energy system and protecting consumers". They cover the following measures, as summarised by the bill's [explanatory notes](#) (PDF):

- Part 4: Independent System Operator and Planner
 - Establishing an Independent System Operator and Planner (hitherto known as the Future System Operator), an independent and first-of-a-kind body acting as a trusted voice at the heart of the energy sector.
- Part 5: Governance of gas and electricity industry codes
 - Reforming the current energy code governance framework including granting Ofgem new functions to provide strategic direction and oversight on codes and creating a new class of more independent code managers to deliver an improved system for consumers and competition.
- Part 6: Market reform and consumer protection
 - Enabling competitive tenders in onshore electricity networks.
 - Enabling the Competition and Markets Authority (CMA) to investigate more effectively the impacts of mergers between energy companies.
 - Introducing a definition of multi-purpose interconnectors from which a new licensing and economic regime can be developed.
 - Clarifying electricity storage as a distinct subset of generation in the 1989 Electricity Act.
 - Removing obligation thresholds under the Energy Company Obligation scheme.
 - Driving the rollout of smart meters across Great Britain.

The following summarises each measure.

Part 4: Independent System Operator and Planner

The electricity and gas grids in Great Britain (GB) transport energy from where it enters the network (for example power stations which generate electricity) to where it is used. They are owned by a series of transmission and distribution network owners and operators. There is also a system operator for each network that is responsible for ensuring the grids are always ‘balanced’ (ie that supply matches demand).

[National Grid plc](#) is a group of businesses which (amongst other roles) act as the transmission owner and the system operator of the electricity transmission network. Previously National Grid plc also held these roles for the gas transmission network, but [in 2022 it sold a 60% equity stake in this business to an investor consortium](#).

In the [December 2020 Energy white paper](#) the Government said it would ensure that arrangements for governing the energy system were “fit for purpose for the long term”, including to deliver the Government’s target to reduce UK emissions to ‘net zero’ by 2050. It said that if the system operator were to take on additional roles, there may need to be “greater independence from the current ownership structure”. In [January 2021 an Ofgem report](#) concluded that “net zero requires a step-change in whole system coordination and planning”. Ofgem recommended the creation of a new independent energy system operator.

Part 4 of the Bill would create this new public body, the Independent System Operator and Planner (ISOP). The ISOP would be regulated by Ofgem and would be responsible for:

- planning how electricity and gas transmission systems are developed,
- the operation of the electricity transmission system,
- promoting three main objectives: net zero, security of supply, and efficiency and economy; and
- additional net zero focused roles, which could potentially include planning for new systems for hydrogen and carbon capture and storage.

Many of the ISOP’s proposed functions are currently carried out by licensed operators owned by National Grid plc. The bill would provide for the transfer of the whole, or parts of, these operators as part of ISOP’s establishment.

During the Lords stages, opposition Members moved amendments seeking to ensure the independence of the ISOP from Government, but all

were withdrawn. At third reading, Labour welcomed the progress that had been made on the ISOP's independence.

Note that while the bill refers to the new body as the ISOP, the Government's earlier publications refer to it as the Future System Operator (FSO). For clarity, the ISOP and the FSO are the same thing.

Part 5: Governance of gas and electricity industry codes

The [industry codes are detailed legal agreements](#) between participants in the gas and electricity sectors. They set the commercial terms and technical standards that underpin how aspects of the energy market work in practice.

The current code governance regime, has been criticised by the Government, the Competition and Markets Authority (CMA), and various industry stakeholders. It is regarded as unsuited to responding to the emerging challenges facing the energy sector.

The reforms in part 5 of the bill intend to address this. The bill would give Ofgem greater influence over how codes are governed and modified. Ofgem would:

- be required to publish an annual 'strategic vision' statement setting out how it expects the industry codes to develop;
- gain powers to directly modify the industry codes in certain circumstances;
- gain powers to regulate the bodies responsible for managing the industry codes by requiring them to hold licences to operate.

[The Government's factsheet on part 5 of the bill](#) says this will make the codes more responsive to policy objectives and changes in the wider energy market.

Part 5 of the bill was not amended during the Lords stages.

Part 6: Market reform and consumer protection

Clause 160: Competitive tendering for onshore electricity networks

The GB electricity grid is owned by a series of transmission and distribution network owners and operators, all monopolies of specific geographic areas. Historically these companies have been subject to [network price controls](#), regulated by Ofgem, which cap the maximum revenue that can be collected from customers.

The bill's [explanatory notes \(PDF\)](#) set out the Government's view that the price control process is no longer sufficient for onshore networks, as it can limit innovation and does not always deliver maximum benefits to consumers. This is a particular concern since GB electricity infrastructure needs to increase to deliver on the Government's 'net zero' target.

In 2009, [the Government introduced legislation that enables Ofgem to hold competitions to identify new licensees](#) for transmission assets that connect offshore generation infrastructure, such as windfarms, to the onshore grid.

The Government has been exploring options to extend competition to onshore networks for the past decade, to deliver the required increase in electricity infrastructure at a lower cost. In December 2020 it [confirmed it would bring forward legislation](#) (PDF) "to enable competitive tendering in the building, ownership and operation of the onshore electricity network". [The Department for Business, Energy and Industrial Strategy consulted on the new proposals in 2021](#), which broadened the range of technological solutions that would be able to apply for competitive tenders. It published its [response](#) in August 2022.

The proposed measure in the Energy Bill would extend the existing competitive regime for offshore electricity transmission networks to onshore networks. A [DESNZ factsheet](#) explains it would "enable competitions to be run for the build, ownership and operation of onshore electricity networks in Great Britain".

At the Lords report stage, a Government amendment was agreed which would require that where the tender regulations would provide for the imposition of financial penalties, they would also provide for the right to appeal against these.

Clause 161: Special merger regime for energy network companies

The CMA is the UK's main competition regulator. It reviews mergers if it believes a merger might lead to "substantial lessening of competition" (SLC) in the market.

The Government's view is that the SLC test to review mergers can be inappropriate for energy network businesses, because (as regional monopolies) there is no direct competition between players. The bill would therefore introduce a "special mergers regime" for energy networks, similar to that already present in the water industry.

The bill would require the CMA to consider, when investigating energy network mergers, whether the merger would substantially prejudice Ofgem's ability to benchmark (make comparisons) between energy network companies through its price control process. This would replace the SLC test.

As the measure is sector-specific and was not consulted on in advance, there has been little press or stakeholder comment. The [Government says that the special regime "could save energy consumers up to £420 million over 10 years"](#), but international law firm Freshfields Bruckhaus Deringer said the [new regime "may make potential investors think twice about potential network mergers"](#).

The Lords made no amendments to the single clause on the special merger regime.

Clauses 162 to 167: Multi-purpose interconnectors

GB's electricity grid interacts with grids on mainland Europe through interconnectors. Conventional 'point to point' interconnectors are undersea cables that link GB's transmission network with that of mainland Europe and the island of Ireland.

In 2022 [the Government set a target to achieve 50 GW of offshore wind generation by 2030](#), including 5 GW of offshore wind. This new generation will also need to be connected to the GB electricity grid through subsea cables, known as offshore electricity transmission networks.

Multi-purpose interconnectors (MPIs) are a new, innovative type of interconnector:

- Like conventional interconnectors, MPIs are subsea electricity cables that can connect the GB electricity grid to the grids of neighbouring countries.
- Unlike conventional interconnectors, MPIs also enable clusters of offshore wind farms to connect to the shore together, rather than each wind farm having to connect to the shore individually.

MPIs are not currently defined in law and the existing regulatory regime treats interconnectors and transmission systems separately. This makes it difficult for the electricity regulator, Ofgem, to license MPIs.

The proposed measure in the bill would introduce MPIs as a new licensable activity under the existing regulatory regime. This would enable MPI developers to obtain MPI-specific licences from Ofgem.

No amendments were made to the two clauses on multi-purpose interconnectors during the Lords stages.

Clause 168: Electricity storage

Electricity storage technologies allow surplus electricity to be stored as another form of energy until it is required, when it can be re-released as electricity.

The [Electricity Act 1989](#) is the main legislation governing electricity in GB, but it contains no specific definition of, or reference to, electricity storage.

Instead, electricity storage is generally treated as a subset of electricity generation in regulation. This means that (unless an exemption applies) storage providers are required to hold a licence to generate electricity, which entails an administrative burden. It also means that other licence-holders, such as energy suppliers and network companies, are restricted from operating electricity storage.

The absence of a regulatory definition for electricity storage has created a barrier to deployment. The measure in the bill would introduce a new legal definition for electricity storage to remedy this.

No amendments were made to the single clause on electricity storage during the Lords stages.

Clause 169: Energy Company Obligation scheme buy-out mechanism

The Energy Company Obligation scheme (ECO) requires energy suppliers that have over 150,000 customer accounts to install energy efficiency and heating measures in GB. It is focused on providing support to low income and vulnerable households. Suppliers meet their obligation either through in-house services or by contracting with a third party. Costs are usually passed onto customer bills.

Smaller energy suppliers are currently exempt from the ECO. The Government wants to remove this “market distortion” whereby smaller suppliers can undercut larger suppliers (who have to pay ECO costs) on prices.

The Energy Bill would enable the removal of this exemption by allowing the Government to introduce a “buy-out mechanism”. Once the ECO

thresholds have been removed the mechanism would allow small suppliers to pay into a buy-out 'pot' to meet their obligation as an alternative to installing measures under ECO.

No amendments were made to the single clause on the ECO buy-out mechanism during the Lords stages.

Clause 170: Smart metering

The Government and energy industry are partway through a major delivery programme, which began in 2011, to replace traditional analogue gas and electricity meters with smart meters in homes and small businesses across GB.

The BEIS Secretary of State has powers to modify energy licence conditions and industry codes to enable the rollout of smart meters. These powers are currently due to expire on 1 November 2023.

Smart meter installation across GB is not yet complete. In June 2021 the Government published a [targets framework](#) which sets an ambition for completion at the end of 2025. The bill provides for these powers to continue for a further five years, until 1 November 2028.

No amendments were made to the single clause on smart metering during the Lords stages.

1 Part 4: Independent System Operator and Planner (ISOP)

Part 4 of the Bill would establish a new public body, the Independent System Operator and Planner (ISOP). Whilst the Bill refers to the new body as the ISOP, the Government's earlier publications refer to it as the Future System Operator (FSO).

For clarity, the ISOP and the FSO are one and the same thing. This briefing uses the term ISOP except where referring to external commentary that uses the term FSO.

1.1 Background

The electricity and gas grids

The electricity and gas grids in Great Britain (GB) transport energy from where it enters the network (for example power stations which generate electricity, or gas terminals which receive gas from the North Sea or tanker ships) to where it is used. Each grid is made up of two types of network:

- **Transmission networks:** these transport electricity at high voltages (or gas at high pressures) across GB, from large power stations (or gas terminals) to substations (or gas offtakes). They are sometimes described as the “motorways” of the grids, transporting electricity/gas over long distances.
- **Distribution networks:** these deliver electricity at lower voltages (or gas at lower pressures) to consumers from the transmission networks. They are sometimes described as the “A and B roads” of the grids, carrying electricity/gas into businesses and homes. For electricity, the distribution networks also integrate smaller power generators (such as solar panels).

There are also interconnectors (subsea electricity cables and gas pipelines) which link the GB electricity and gas grids to the grids on the island of Ireland and mainland Europe. These allow electricity and gas to be traded on continental-scale grids.

Existing ownership and operation arrangements

The GB electricity and gas grids are owned by a series of transmission and distribution network owners and operators, all monopolies of

specific areas. These companies are subject to [network price controls](#), regulated by Ofgem, which cap the maximum revenue that can be collected from customers. For information about Ofgem, see box 2 on page 16.

National Grid plc is a group of businesses which together hold various roles in the GB electricity and gas grids, including as the transmission owner (TO) and system operator (SO) of the electricity transmission network, and as the TO of the gas transmission network. Box 1 (overleaf) provides an overview of National Grid plc's various activities in the GB grids.

A separate company, National Gas, is the SO of the gas transmission network.

The system operators are responsible for ensuring that the grids are 'balanced' at all times (i.e. that supply matches demand). They play an important role in future planning for the energy system. Practical Law summarises their role:

The "system operators" (SOs) for electricity and gas undertake numerous actions that affect consumers' access to secure energy supplies and their energy bills. They have a number of unique functions, including real-time operation of the electricity and gas transmission systems, efficient market facilitation and longer-term development of the gas and electricity systems. The SOs, therefore, use consumers' money to pay generators, or incentivise gas producers, to put the right amount of gas and electricity onto the system and in a way that maintains the stability of the networks. In addition, the SOs play an important role in planning the energy system, including forecasting what the system will look like in decades to come.¹

The Commons Library briefing on [electricity grids](#) (January 2019) provides further background on operation of the electricity grid and the role of different actors in this.

In addition, the following Practical Law practice notes provide detailed background on the electricity and gas sectors, including grids:

- [Downstream gas industry: overview](#) (subscription required)
- [Electricity industry: overview](#) (subscription required)²

¹ Practical Law Competition, [Ofgem publishes report on review of GB energy system operation and recommends creation of new independent system operator](#) (subscription required), undated, accessed 4 April 2023 via [Library subscription](#)

² MPs and their staff have access to Practical Law (a legislative database) through the [Library subscription](#). Please be aware that Practical Law's publications are subject to copyright and should not be shared. Further details on Practical Law's copyright are available through the above link.

Box 1: The role of National Grid in the GB electricity and gas network

[National Grid plc](#) is a group of businesses that provide energy services. In the UK these include:

- [National Grid Electricity Transmission \(NGET\)](#) which is the electricity transmission owner (TO) in England and Wales. It owns and maintains the electricity transmission network.
- [National Grid Electricity Distribution \(NGED\)](#) which owns, maintains and operates the electricity distribution network for the East and West Midlands, South West and Wales.³ It was set up following the acquisition of Western Power Distribution in 2021.
- [National Grid Ventures](#) is a competitive division of National Grid plc which invests in low carbon and renewable energy businesses across the UK, Europe and the US. This includes sub-sea electricity interconnectors, liquefied natural gas, battery storage, wind, and solar power.

Legally separate entities under the National Grid plc umbrella include:

- [National Grid Electricity System Operator \(NGESO\)](#) which manages the GB electricity transmission network to ensure electricity supply and demand are balanced at all times.
- NGESO owns [Elexon](#), an independent subsidiary, which manages the [Balancing and Settlement Code](#). This includes overseeing payments to cover the difference between volumes of electricity that generators and suppliers have contracted to produce (or consume), versus the actual volumes produced (or consumed).

Due to potential conflicts of interest between the electricity transmission network owner and operation roles, National Grid plc was required by Ofgem and the Government to legally separate the electricity system operator role (NGESO) from other parts of the National Grid Group.⁴ The separation came into effect in April 2019.⁵

The Bill's proposals to establish an Independent System Operator and Planner have been developed in part to avoid these potential conflicts of interest. For more information see section 1.2.

³ The distribution networks in other regions are owned by different companies. For information, see the [Energy Networks Association](#).

⁴ Ofgem, [Ofgem confirms plans for greater separation of National Grid's electricity system operator role](#), 3 August 2017

⁵ National Grid, [Separating the Electricity System Operator \(ESO\) from Electricity Transmission \(ET\)](#), undated [accessed 22 November 2022]

Businesses previously owned by National Grid plc

Having [sold a 60% equity stake to a consortium](#) in 2022, National Grid plc no longer owns gas transmission nor operates the gas system, instead:

- [National Gas](#) (formerly known as National Grid Gas) is now the transmission owner (TO) and system operator (SO) for the gas transmission network in Great Britain. As the TO, National Gas owns and maintains the gas transmission network. As the SO, it manages the network to ensure gas supply and demand are balanced.
- National Gas also owns a regulated gas metering business.⁶

More information on National Grid's roles can be found in [its website](#).

Box 2: Ofgem and GEMA

[Ofgem](#) is the GB electricity and gas regulator. It operates in a statutory framework set by Parliament which establishes the regulator's duties and gives them powers to achieve certain objectives including enabling competition, ensuring fairness for customers, and supporting net zero.

Ofgem's governing body is the [Gas and Electricity Markets Authority](#) and is referred to as GEMA, the Authority, or the Ofgem Board. It comprises non-executive and executive members, and a non-executive chair. Members are appointed by the Secretary of State for the Department for Energy Security and Net Zero.

Although GEMA is referred to as the regulator in the legislation, in practice regulatory activities are carried out by Ofgem.

1.2 Policy development

In February 2020 Ofgem launched a [review of GB energy system operation](#) to consider “consider the current and future challenges facing GB System Operation and assess whether we have the right governance

⁶ National Grid Group, [About Us](#), undated; National Grid, [Gas Transmission](#), undated; National Grid, [Electricity Distribution](#), undated; National Grid, [Western Power Distribution and National Grid: your questions answered](#), undated [accessed 22 November 2022]

framework in place to deliver the UK's net zero emissions target at lowest cost to consumers".⁷

In the December 2020 [Energy White Paper](#) the Government committed to ensuring that institutional arrangements governing the energy system were "fit for purpose for the long term", including to deliver net zero. It said that if the system operator were to take additional roles, it was "possible that there [would] need to be greater independence from the current ownership structure".⁸

Ofgem published its [report on the GB energy system operation review](#) in January 2021. It concluded that "net zero requires a step-change in whole system coordination and planning" and the system operators are "uniquely positioned to play a critical role" in delivering the target.⁹ Ofgem recommended to Government that a new independent energy system operator should be created.¹⁰ As part of this it said:

- the system operators should be given additional responsibilities to deliver net zero (these might include coordination, planning and design of network and market developments);
- the system operator for electricity should be made fully independent from the transmission network owner, to avoid potential conflicts of interest;
- there was a "good case" for separating key gas network planning functions from the gas transmission owner and for combining system operation with enhanced planning and coordination functions.¹¹

The Department for Business, Energy and Industrial Strategy (BEIS)¹² and the energy regulator, Ofgem, held a [consultation](#) [PDF] on proposals for a new, independent future system operator (FSO) over July to September 2021. It proposed that:

- For electricity: the FSO would undertake the current roles and functions of National Grid Electricity System Operator (ESO) "due to the synergies between balancing the electricity system and analysing its future needs".
- For gas: the FSO would undertake "strategic network planning, long-term forecasting, and market strategy functions, but not real time system operation and associated activities", which would

⁷ Ofgem, [Ofgem Review of GB System Operation – Terms of Reference](#), 13 February 2020

⁸ BEIS, [Energy white paper: Powering our net zero future](#) [PDF], GOV.UK, 14 December 2020, pp85-86

⁹ Ofgem, [Review of GB energy system operation](#) [PDF], 25 January 2021, pp10-12

¹⁰ Ofgem, [Review of GB energy system operation](#) [PDF], 25 January 2021, p13

¹¹ Ofgem, [Review of GB energy system operation](#) [PDF], 25 January 2021, p14

¹² The Department for Energy Security and Net Zero (DESNZ) now leads on energy policy.

instead continue to be delivered by National Grid Gas (now National Gas).¹³

In April 2022, BEIS and Ofgem published their [consultation response](#) [PDF], announcing that a new publicly-owned, independent body, the FSO, would be created to manage Great Britain's energy system.¹⁴ They said this would require primary legislation, changes to industry codes, and changes to electricity and gas licensing. National Grid plc and the majority owners of the then National Grid Group (a [consortium of investors](#), since renamed National Gas) would be compensated for the transfer of parts of their businesses into public ownership. The consultation response was published in April 2022 alongside a [joint statement from BEIS, Ofgem and National Grid](#) and the [British Energy Security Strategy](#).

In March 2023 the Department for Energy Security and Net Zero (DESNZ, formerly BEIS) confirmed its intention to use the Energy Bill's transfer scheme powers to transfer the ownership of Elexon from National Grid ESO to the 13 energy companies that contribute the most to Elexon's funding.¹⁵ Elexon is currently a wholly-owned but independent subsidiary of National Grid ESO, which oversees the operation and day-to-day management of the [Balancing and Settlement Code](#) (BSC). The BSC is a legal document which defines the rules and governance for the balancing mechanism and imbalance settlement processes of electricity in Great Britain.¹⁶

The Practical Law practice note on [National Grid: splitting system operator and transmission owner roles](#) (subscription required¹⁷) has further details on the development of the FSO/ISOP role, including more recent consultations on activities that the ISOP might undertake.

1.3 Proposed measure

Part 4 of the Bill would create a new Independent System Operator and Planner (ISOP) responsible “for planning the development of the electricity and gas transmission systems and operation of the electricity

¹³ BEIS and Ofgem, [Energy Future System Operator Consultation](#) [PDF], GOV.UK, July 2021, p69

¹⁴ BEIS, Ofgem and the Rt Hon Greg Hands MP, [Government future proofs Britain's energy system with launch of new body to boost energy resilience](#), 6 April 2022

¹⁵ DESNZ/BEIS, [The future ownership of Elexon](#), GOV.UK, 23 March 2023

¹⁶ Elexon compares the electricity volumes which generators and suppliers have contracted to produce or consume, with the volumes which they actually produced or consumed. It then manages payments for any difference (imbalance) between the contracted and actual positions through the 'settlement process'. For more information about the role of Elexon, see its webpages [about Elexon](#) and the [balancing system code](#).

¹⁷ MPs and their staff have access to Practical Law (a legislative database) through the [Library subscription](#). Please be aware that Practical Law's publications are subject to copyright and should not be shared. Further details on Practical Law's copyright are available through the above link.

transmission system”.¹⁸ A DESNZ factsheet says the ISOP could be established by, or in, 2024.¹⁹

The ISOP would also “take on a range of additional net zero focused roles, helping drive a more open, flexible and efficient system, and is expected to result in a net saving on energy bills”.²⁰ These could potentially include planning for new systems for hydrogen and carbon capture and storage (CCS).²¹

The ISOP would be a public sector body, operationally independent of the Government. It would be required to carry out its functions and activities in the way that it considers would best promote three main objectives:

- net zero – supporting the Secretary of State’s statutory duties on net zero (i.e. to meet the Government’s net zero target and to not exceed the carbon budget for any given period). As part of this the ISOP is expected to proactively identify and create opportunities to facilitate the net zero transition;
- security of supply – ensuring the security of supply of electricity and gas to existing and future customers, by meeting demand and maintaining the resilience of the system;
- efficiency and economy – promoting a “coordinated electricity and gas system that operates efficiently and economically”. As part of this the ISOP should seek to reduce costs for energy consumers.²²

In addition to the three objectives, the ISOP will also have goals to “increase competition & innovation, take a combined gas and electricity (‘whole systems’) approach and consider consumer needs”.²³

Many of the ISOP’s proposed functions are currently carried out by licensed operators owned by National Grid plc (see Box 1, page 15). The bill would provide for the transfer of the whole, or parts of, these operators as part of ISOP’s establishment. The ISOP would be regulated by Ofgem.²⁴

The DESNZ factsheet [Energy Security Bill factsheet: Future System Operator](#) provides further background on the measure.

¹⁸ [Explanatory Notes to the Energy Bill \[HL\] 2022-23 \[PDF\]](#), para 24

¹⁹ DESNZ/BEIS, [Energy Security Bill factsheet: Future System Operator](#), GOV.UK, 20 March 2023

²⁰ [Explanatory Notes to the Energy Bill \[HL\] 2022-23 \[PDF\]](#), para 24

²¹ DESNZ/BEIS, [Energy Security Bill factsheet: Future System Operator](#), GOV.UK, 20 March 2023

²² [Explanatory Notes to the Energy Bill \[HL\] 2022-23 \[PDF\]](#), paras 344-349; DESNZ/BEIS, [Energy Security Bill factsheet: Future System Operator](#), GOV.UK, 20 March 2023

²³ DESNZ/BEIS, [Energy Security Bill factsheet: Future System Operator](#), GOV.UK, 20 March 2023

²⁴ [Explanatory Notes to the Energy Bill \[HL\] 2022-23 \[PDF\]](#), paras 25-26

1.4 Impacts

In financial terms, the cost of establishing the Future System Operator (FSO) is expected to amount to between £90 million and £270 million from 2022 to 2032 (in 2020 prices). This is expected to reduce future costs across the energy system by between £80 million and £600 million, due to improved “whole system” decision making.²⁵

The Government expects the costs of establishing the ISOP to relate to: the cost to purchase assets (from the existing owners), the cost of implementation (for example, one-off separation costs, ongoing duplication costs), and the potential loss of synergies between the functions of the gas system operator and gas transmission assets.²⁶

The Government estimates the FSO would deliver benefits worth between £10 million and £2.9 billion (in 2020 prices), largely through future electricity cost savings due to taking a ‘whole system’ approach to energy.²⁷

It expects the benefits to accrue from the enhanced roles and responsibilities of the ISOP and from improved coordination and decision-making as a result of taking a new ‘whole system’ approach to energy operation and planning.²⁸

The potential cost savings across the transmission networks are higher for electricity than natural gas and hydrogen: between £210 million to £2.5 billion for electricity, £50 million to £300 million for natural gas, and £30 million to £300 million for hydrogen (present value, 2020 prices). This is due to the existing electricity network being more expensive and because the electricity network is forecast to increase in size, while the natural gas network is expected to decline.²⁹

1.5 Reaction to the measure

The Government’s April 2022 announcement that it would establish the Future System Operator (FSO – or ISOP) was widely covered in the

²⁵ BEIS, “Annex 2.6: Future system operator impact assessment” in [Energy Bill - Impact Assessments](#) [PDF], July 2022, p215 (p3 of Annex 2.6)

²⁶ DESNZ, [Energy Bill Summary Impact Assessment](#) [PDF], pp16-17

²⁷ BEIS, “Annex 2.6: Future system operator impact assessment” in [Energy Bill - Impact Assessments](#) [PDF], July 2022, p232 (p3 of Annex 2.6)

²⁸ DESNZ, [Energy Bill Summary Impact Assessment](#) [PDF], pp16-17

²⁹ BEIS, “Annex 2.6: Future system operator impact assessment” in [Energy Bill - Impact Assessments](#) [PDF], July 2022, p231 (p3 of Annex 2.6)

media, with a particular focus on the move to “nationalise” part of National Grid.³⁰

Responding to the announcement, the Chief Executive of National Grid plc, John Pettigrew, said establishing the FSO:

enables long-term holistic thinking, drives progress towards net zero, and lays the foundations for the regulatory reform necessary to deliver a clean, fair and affordable energy transition.³¹

Ofgem’s Chief Executive Jonathan Brearley said:

A fully independent system operator will help to transform Great Britain’s energy system and cut customers’ energy bills. Critically, the FSO will ensure that we will build a smart, efficient and flexible system that will mean that Britain moves to a secure low-carbon and low-cost system.³²

Trade bodies also commented on the announcement. The Energy Networks Association (which represents electricity and gas network companies) said that improved coordination across the networks would support effective and efficient decarbonisation.³³ Energy UK (which represents various parts of the energy industry, including generation and supply) welcomed the announcement but called for a focus on local planning:

We are glad to see the Future System Operator (FSO) being developed in order to improve how we plan for, and operate, our increasingly complex energy system, incorporating more low carbon generation, transport and heating at the most efficient cost to consumers. The FSO is the first step toward improving that process but local delivery will prove increasingly important to ensuring we use regional strengths and attributes to deliver the best outcomes for local customers.³⁴

Renewable UK (which represents wind, wave and tidal energy) called on Ofgem to ensure the FSO supports the development of new grid infrastructure:

The Future System Operator must accelerate the rate at which crucial new grid infrastructure is built as a matter of urgency, so that we can make the most of the enormous amounts of clean electricity we’re generating, particularly from onshore and offshore wind. To enable this, Ofgem needs

³⁰ See for example: Financial Times, [UK to renationalise electricity system oversight](#), 6 April 2022; The Guardian, [National Grid to be partly nationalised to help reach net zero targets](#), 6 April 2022; Sky News, [Government to nationalise key part of electricity grid to help meet climate goals](#), 6 April 2022

³¹ The Guardian, [National Grid to be partly nationalised to help reach net zero targets](#), 6 April 2022

³² The Times, [Independent public body to keep the lights on in Britain](#), 6 April 2022

³³ Independent, [Government to buy part of National Grid to help meet climate targets](#), 6 April 2022

³⁴ City A.M. [Energy bodies call for boost in grid infrastructure after Ofgem unveils plans for new system operator](#), 12 July 2022

a new remit which specifically ensures that net zero is a central consideration for every decision it makes.³⁵

The Guardian reported on calls from Prospect Union to ensure the skills and experience of people who work for National Grid Electricity System Operator (NGESO) are retained.³⁶

In September 2022, the [Independent Review of Net Zero](#) reported that:

multiple stakeholders [see] creation of an FSO is an essential building block to support the development of a net zero energy system and taking a strategic approach to planning and development. The Review heard that the Future System Operator should be set up as quickly as possible and that its duty to advise government and Ofgem is used to support decision making on key policies, including how network development across electricity, gas, hydrogen, and CO2 network development can be co-ordinated and accelerated.³⁷

In March 2023 Utility Week reported on comments by National Grid Electricity Distribution (NGED) that the ISOP could be overburdened if it takes on additional responsibilities for coordinating the development of the distribution networks:

Our main concern is about the operational delivery of how we get the National Grid Electricity System Operator (ESO), which is very, very competent at managing the electricity balancing system, and keeping everything in check, to being this FSO. It's a different entity, it's not quite been mobilised and what we don't want to do is burden it with a level and depth of responsibility. So we're very keen to see that the RSP grows in capability.

Clearly, there might be a greater and deeper role for it further down the line. But in the short term, it really needs to focus on that higher level optimisation against gas and electric and transmission and distribution, and not overly replicate the planning functions that are within the remit of the existing network operators.³⁸

The comments were made in response to the launch of an Ofgem [consultation on local energy system operation](#), which proposed the creation of [regional system planners \(RSPs\)](#) to coordinate the development of local energy system plans. Ofgem proposed the role should be performed by a single independent entity, with the ISOP identified as the lead candidate.

³⁵ City A.M. [Energy bodies call for boost in grid infrastructure after Ofgem unveils plans for new system operator](#), 12 July 2022

³⁶ The Guardian, [National Grid to be partly nationalised to help reach net zero targets](#), 6 April 2022

³⁷ Rt Hon Chris Skidmore MP, [MISSION ZERO: Independent Review of Net Zero](#) [PDF], GOV.UK, 26 September 2023, p75

³⁸ Utility Week, [Regional planning role could overwhelm FSO](#), 14 March 2023

1.6

Part 4: clauses 119 to 139 and schedules 7 to 9

The following clauses and schedules comprise the entirety of Part 4 of the Bill.

Clause 119 would introduce the concept of the ISOP and describe its functions. Clause 120 would enable the Secretary of State to designate a person as the ISOP and to revoke this designation.

Clauses 121 to 123 would establish duties for the ISOP. These include:

- its three main objectives (the delivery of which must guide its approach to carrying out its functions);
- that it must consider the need to facilitate competition and innovation, consumer impacts and whole-system impacts in how it carries out its functions, and;
- that it must have regard for the Strategy and Policy Statement designated by the Government under powers in the [Energy Act 2013](#). To achieve this Clause 123 would amend the Energy Act 2013.

Clauses 124 to 128 would amend the Electricity Act 1989 and the Gas Act 1986 to create a new 'electricity system operator licence' and a new 'gas system planner licence'. The clauses would require that the same entity (the ISOP) always holds both licences. They would give powers to the Secretary of State to grant the first licences or convert the current transmission licence into the new FSO electricity licence. They would also give powers to the Secretary of State and Ofgem to make related changes to licences and codes.

Clauses 129 to 131 would impose duties on the ISOP to provide advice, analysis and information as requested by the Government or Ofgem, and to monitor and review developments in the energy sector that may be relevant to its functions. They would also give the ISOP powers to request information from other organisations to help it fulfil its functions.

Clause 132 introduces Schedule 7 which would give the Secretary of State powers to make transfer schemes to create the ISOP.

Clause 133 introduces Schedule 8 which would create powers to make arrangements for pensions connected to the ISOP.

Clause 134 would give the Secretary of State powers to provide financial assistance to the ISOP. Clause 135 would amend the Electricity Act 1989 and the Gas Act 1986 to allow payments raised from consumers in either energy sector to fund work by licence holders in either sector.

Clause 136 would require that when carrying out functions related to the ISOP, the Secretary of State and Ofgem should have regard to the principal objective (to protect the interest of existing and future electricity and gas customers) and general duties (including promoting competition and having regard to security of supply), as defined in the Electricity Act 1989 and the Gas Act 1986.

Clauses 137 to 139 and Schedule 9 would make minor and consequential amendments to the Electricity Act 1989 and the Gas Act 1986, provide definitions for terms used in Part 4, and state that regulations made under powers in Part 4 of the Bill would be subject to the negative procedure.

Part 4 includes a number of delegated powers, which are explained in detail in the [Delegated Powers Memorandum](#) [PDF]. The House of Lords Delegated Powers and Regulatory Reform Committee did not draw attention to any of these powers in its [report on Part 6 of the Bill](#) [PDF].³⁹ A BEIS [policy statement on the Independent System Operator and Planner](#) [PDF] sets out how Government would implement the delegated powers that would be conferred by the Bill's ISOP provisions.

1.7 Lords stages

Introducing the Bill during Second Reading, Lord Callanan said the ISOP would “support system reform and boost energy system resilience” and “ensure efficient energy planning, enhance energy security, minimise cost to consumers and promote innovation”.⁴⁰

Independence of the ISOP

At second reading the Labour Shadow Spokespersons for Energy and Net Zero, Baroness Blake and Lord Lennie, welcomed the proposal to establish the ISOP but emphasised the importance of ensuring it is independent from Government.⁴¹ The Liberal Democrats also raised the issue of the ISOP's independence; Lord Teverson, the Shadow Spokesperson for Energy and Climate Change said “there is nothing in the Bill guaranteeing its independence or how [...] [it] is appointed. I see no reason why it should have any real authority”.⁴²

During a Committee Stage debate on a group of amendments on the designation of the ISOP, Lord Teverson moved amendment 132 to clause 120 (then clause 113), seeking to ensure the ISOP is a public body and that it has no conflicting interests. The majority of the substantive

³⁹ House of Lords Delegated Powers and Regulatory Reform Committee, [Seafarers' Wages Bill](#) [HL]; [Energy Bill](#) [HL]: [Parts 3–6](#) [PDF], 5 October 2022, HL 65

⁴⁰ [HL Deb 19 July 2022 c1885](#)

⁴¹ [HL Deb 19 July 2022 c1889](#) and [HL Deb 19 July 2022 c1930](#)

⁴² [HL Deb 19 July 2022 c1927](#)

discussion was about legislating to ensure the ISOP is independent, with Labour, the Liberal Democrats and Baroness Worthington (crossbench) all proposing amendments to this effect. Baroness Worthington said:

simply calling it independent does not mean that it necessarily will be independent, unless provisions are put into the governance and appointment of the body that make it independent.⁴³

Lord Callanan responded:

the Government agree that it will be important to ensure that the ISOP has operational independence from government. The most effective model for realising our vision for an independent ISOP is to establish it as a public corporation, in the public sector but outside central government, as a limited company with the Secretary of State as the sole shareholder but not the chair or a director and with Ofgem providing transparent and independent regulation.

We will not shy away from allowing the ISOP the freedom it needs to manage and organise itself to deliver its roles and objectives. However [...] we do not think that primary legislation is a suitable vehicle for detailing the arrangement of appointments. Instead, it would be preferable to provide for this in detail through the licence, articles or framework document.

[...] We expect to place a requirement in licence for the ISOP's board to contain a sufficient number of independent directors, which should help to ensure independence.⁴⁴

The amendment was withdrawn.

At report stage the independence of the ISOP was raised again. Lord Teverson moved amendment 59 to clause 120 (then clause 116), which would require the ISOP to be a public body, with no conflicting interests in the energy sector.⁴⁵ Speaking to this and grouped amendments, he said:

It is a big gap in the Bill as written at the moment that the so-called independent systems operator and planner is not actually independent in any way [...]. For the ISOP to be independent, I believe it is fundamental that it needs to have an independent revenue stream.⁴⁶

Labour did not move its amendment on assuring the ISOP's independence, in expectation of the Government confirming its support for this.⁴⁷

⁴³ [HL Deb 14 December 2022 c149GC](#)

⁴⁴ [HL Deb 14 December 2022 c151GC](#)

⁴⁵ [HL Deb 17 April 2023 c468](#)

⁴⁶ [HL Deb 17 April 2023 c468](#)

⁴⁷ [HL Deb 17 April 2023 c468](#)

Responding to Lord Teverson’s amendments, Lord Callanan said “the Government remain resolute that the ISOP shall be an independent public body”,⁴⁸ however,

Legislating for the ISOP to “be independent” does not [...] appear to offer a material benefit beyond the controls already established in Part 4 of the Bill and the framework documents, [and] [...] it risks preventing the intended corporate composition of the ISOP, thereby undermining its effectiveness.⁴⁹

Responding to Labour’s amendment, which would require the ISOP to have an advisory board composed of “qualified independent energy figures”,⁵⁰ he said the Government was:

concerned that inserting in legislation a formal oversight role [...] [would] place decision-making back in the hands of the energy sector [...]. This could make the ISOP risk-averse or unwilling to take action that is potentially challenging to market participants but could be on the side of consumers, even if that action might be beneficial to the system itself.⁵¹

Instead, Lord Callanan said the Government would ensure the ISOP’s independence by requiring “sufficiently independent directors” to sit on the ISOP’s board, and by asking Office of the Commissioner for Public Appointments and the Public Accounts Committee to scrutinise the appointment of the ISOP’s chair.⁵²

Responding to Lord Teverson’s amendment proposing the ISOP be funded by a levy on energy sector licensees,⁵³ Lord Callanan said:

through its price control process, Ofgem will ensure that the [ISOP] is fully resourced to fulfil its objectives and obligations [...]

Levies placed on licensed bodies can be expected to filter through to consumers. However, we are concerned that the requirement to establish an audit board [to oversee the levy] risks duplication with the current well-understood and transparent regulatory model established under Ofgem [...] We also intend the ISOP to sit outside the regime of Cabinet Office controls on spending, which bodies funded by taxes and levies are required to operate under.⁵⁴

The amendment was withdrawn.

At third reading, Labour welcomed the progress that had been made on the independence of ISOP.⁵⁵

⁴⁸ [HL Deb 17 April 2023 c469](#)

⁴⁹ [HL Deb 17 April 2023 c470](#)

⁵⁰ Amendment 60 in [HL Bill 86-II Second marshalled list for Report](#)

⁵¹ [HL Deb 17 April 2023 c469](#)

⁵² [HL Deb 17 April 2023 c469](#)

⁵³ Amendment 61 in [HL Bill 86-II Second marshalled list for Report](#)

⁵⁴ [HL Deb 17 April 2023 cc469-470](#)

⁵⁵ [HL Deb 24 April 2023 c975](#)

1.8 Further reading

In addition to the various [publications providing information on the bill](#) in general, the Government has published the following background documents specific to this measure:

- [Energy Security Bill factsheet: Future System Operator](#)
- [Policy statement: Independent System Operator and Planner](#)

The following documents provide further background on the development of this policy:

- BEIS and Ofgem [consultation on the Energy Future System Operator](#) [PDF] (September 2021) and [consultation response](#) [PDF] (April 2022)
- BEIS, Ofgem, National Grid plc and National Grid ESO [joint statement on the Future System Operator](#) (April 2022)
- BEIS and Ofgem [consultation on the future ownership of Elexon](#) [PDF] (June 2022) and [DESNZ consultation response](#) (March 2023)
- Practical Law practice note on [National Grid: splitting system operator and transmission owner roles](#) (subscription required⁵⁶). This provides detailed background on the role of the system operator and the transmission owner, and the development of the FSO/ISOP role, including recent consultations on activities that the ISOP might undertake.

⁵⁶ MPs and their staff have access to Practical Law (a legislative database) through the [Library subscription](#). Please be aware that Practical Law's publications are subject to copyright and should not be shared. Further details on Practical Law's copyright are available through the above link.

2 Part 5: Governance of gas and electricity industry codes

2.1 Background

There are three main sources of sector-specific rules and regulations governing the energy market:

- Legislation – including the Gas Act 1986 and the Electricity Act 1989.
- Licences – companies require a licence issued by Ofgem, the energy sector regulator, to carry out most energy-related activities. This includes the generation, distribution and supply of electricity and the transportation and supply of gas. Licences contain conditions that licence holders must comply with.
- Industry codes – multilateral codes and legal agreements between energy sector participants.

Part 5 of the Bill would make changes to the industry codes regime. The reforms would give Ofgem greater influence over how codes are governed and modified. The Government says that this will make the codes more responsive to policy objectives and changes in the wider energy market.⁵⁷

For information about Ofgem, see box 2 on page 16.

What are the industry codes?

The industry codes are a collection of detailed legal agreements between participants in the gas and electricity sectors. They set the commercial terms and technical standards that underpin how various aspects of the energy market work in practice. For example:

- The Balancing and Settlement Code governs the market arrangements for balancing the supply of and demand for electricity.
- The Smart Energy Code governs the rights and obligations of energy suppliers, operators, and other parties involved in smart metering.

⁵⁷ DESNZ, [Energy Security Bill factsheet: Code governance](#), 20 March 2023

- The Retail Energy Code covers obligations relating to the supply of energy, such as the processes and procedures that allow customers to switch energy suppliers.

Ofgem's website contains a [list of all industry codes](#).

Licensed companies are required to be party to the codes that are relevant to their activities.

2.2 Code governance

The industry codes provide for the day-to-day functioning of the energy market. They are therefore 'live' documents that change over time in response to high-level Government policy and wider changes in the energy market.⁵⁸

The process of amending codes is largely handled by the industry, with a limited role for Ofgem. Modifications can be proposed by any party to the code and in some cases also by specified external organisations. Each code has a Code Panel – a group made up of members appointed by parties to the code – responsible for considering proposals.

The panel will assess each proposal, consult with the industry, and reach a decision on whether the modification should be accepted or rejected. For minor code modifications, the panel's decision is final. Modifications that make material changes to the code need to be approved by Ofgem.

There is a separate process whereby Ofgem can instigate and develop code modifications itself, called a Significant Code Review.⁵⁹

Each code also has a Code Administrator.⁶⁰ Though their powers vary between codes, the Administrator's role is generally to maintain the code and to advise and support the parties in its implementation. They facilitate the code modification process (for example by helping smaller parties engage) but do not typically take an active role in code development.

Criticism of the industry codes governance regime

The industry codes governance regime was designed for a post-privatisation energy system which had a limited number of participants operating on a similar scale and using similar technologies. The Government argues that the current code governance arrangements

⁵⁸ Ofgem, [Industry codes and standards](#), not dated, accessed 6 April 2023

⁵⁹ Ofgem, [Guidance on the launch and conduct of Significant Code Reviews](#), 2 August 2022

⁶⁰ The administrator for each code is listed on Ofgem's [Industry codes and standards](#) webpage.

were suited to implementing incremental changes in this “more predictable” landscape.

However, the British energy market is now undergoing significant changes resulting from, for example, decarbonisation and digitalisation. The Government and Ofgem consider that the current regime is not suited to responding strategically to emerging challenges in the energy market.⁶¹ That is because they regard it as:

- Slow to take decisions and reactive to existing problems, rather than innovative and forward-looking.
- Overly complex, due to the length of the codes (over 10,000 pages in total) and the incremental way in which they have developed.
- Resource-intensive, meaning that smaller participants struggle to engage with the modification process.
- Fragmented, with each code having its own panels and administrators.
- Lacking in effective means of coordination between different code bodies, which makes it difficult for codes to adapt quickly to changes in other sectors and to deliver system-wide changes.⁶²

Industry commentators and stakeholders have made similar criticisms. See, for example:

- Citizens Advice, [Response to Ofgem’s energy code governance reform call for input](#), February 2023
- Elexon, [Code governance review](#), July 2020
- Energy System Catapult, [Reforming the Energy Industry Codes: consultation response](#), September 2019
- Matthew Lockwood and others, [Innovation and the governance of energy industry codes](#), August 2016

2.3 Consultations on industry codes reform

- The Competition and Markets Authority (CMA) looked into industry codes governance as part of its 2016 review of the energy market. It found that the existing governance arrangements had the effect of “limiting innovation and causing the energy markets to fail to keep

⁶¹ DESNZ, [Energy Security Bill factsheet: Code governance](#), 20 March 2023

⁶² Ofgem and BEIS, [Energy codes review](#), 26 November 2018

pace with regulatory developments and other policy objectives.”⁶³ The CMA concluded that this was because parties to the codes do not necessarily have an incentive to delivery policy changes and Ofgem has limited powers to influence them.⁶⁴

The CMA recommended that Ofgem be given powers to directly modify industry codes and to add code administration to the list of activities that require a licence from Ofgem.⁶⁵

Energy Codes Review

Ofgem and the Government announced a joint review of the energy codes in November 2018. The terms of reference stated that the review would consider options for improving the existing industry codes arrangements, including revisiting the CMA’s recommendations.⁶⁶

An [initial consultation](#) opened in July 2019. The consultation proposed two main areas of reform intended to deliver a more flexible and forward-looking code governance framework:

- Creating a new ‘strategic function’ which would require a designated body to provide strategic direction for the development of codes.
- Making the code management process more independent and accountable by creating “empowered” code managers.⁶⁷

A [second consultation](#), setting out more detailed proposals, followed in July 2021. The Government decided to proceed with its preferred option of designating Ofgem as the ‘strategic body’ with oversight of the codes, alongside licenced code managers.

The Government decided to implement the reforms by expanding Ofgem’s functions.⁶⁸ It said that Ofgem would receive powers and duties to:

- **Provide strategic direction** – Ofgem would be required to publish an annual strategic vision for how codes should develop. In doing so it must take into account the Statement of Strategic Priorities published by DESNZ.
- **Make code changes** – Ofgem would be able to modify code directly. The Government agreed with respondents that this power should

⁶³ CMA, [Energy market investigation: final report](#), 24 June 2016, para 18.271. For an overview of the CMA’s assessment see paras 314-318 of the report’s summary.

⁶⁴ CMA, [Energy market investigation: final report](#), 24 June 2016, para 18.271

⁶⁵ CMA, [Energy market investigation: final report](#), 24 June 2016, Summary, para 334

⁶⁶ Ofgem and BEIS, [Energy codes review](#), 26 November 2018

⁶⁷ Ofgem and BEIS, [Reforming the energy industry codes](#), 22 July 2019, p9

⁶⁸ Ofgem and BEIS, [Government response to the consultation on Energy Code Reform](#), 6 April 2022, p10-11

only be used “under clearly defined exceptional circumstances” and said that these would be set out in legislation.⁶⁹

- **Licence code managers** – Ofgem would have the power to appoint and regulate code managers by issuing licences to operate. Some respondents were concerned that giving broad powers to code managers could result in the industry being “locked out” of the code modification process. In December 2022 Ofgem published a call for input setting out its initial thoughts on what code manager licences would cover.⁷⁰
- **Direct central system delivery bodies** – Central IT systems and processes underpin how the codes are implemented in everyday practice. Ofgem would be able to issue directions to the bodies responsible for these systems to ensure that they are facilitating the efficient operation of the codes.

These proposals are being taken forward in Part 5 of the Energy Bill.

2.4 Proposed measures

The clause numbers below refer to the Bill as amended at Lords Report stage. Part 5 of the Bill was not amended in the Lords.

Clauses 140-142 define key terms. Industry codes are referred to in the Bill as ‘designated documents’.

Powers to designate and licence code managers

Clause 143 would amend the Gas Act 1989 to add “the function of code manager” to the list of activities that require a licence issued by Ofgem.

Clause 144 does the same for the Electricity Act 1989. If a code covers both the gas and electricity industry the code manager must hold a licence under both Acts.

Clauses 145-148 regulate the process for selecting code managers on a competitive or non-competitive basis.

Sub-section (1) of Clause 145 would permit Ofgem to decide whether the manager for a given code should be selected on a non-competitive basis. The Government states that this will “always” be Ofgem’s decision, guided by any conditions and constraints imposed by the Secretary of

⁶⁹ Ofgem and BEIS, [Government response to the consultation on Energy Code Reform](#), 6 April 2022, p23

⁷⁰ Ofgem, [Energy code governance reform: call for input](#), 14 December 2022

State through regulations.⁷¹ Sub-sections (2) and (3) would grant the Secretary of State powers to make those regulations.

Clause 146 enables the Secretary of State to make regulations concerning the selection of code managers on a non-competitive basis. The only requirement placed on the Secretary of State in relation to the content of the regulations is that a person cannot be selected as a code manager unless Ofgem is satisfied that they not have a financial or other interest “likely to prejudice the discharge [...] of the function of code manager.” The Government says that selecting code managers on a non-competitive basis may be preferable in some situations, such as where there is only one viable candidate.

Clause 147 enables Ofgem to make regulations concerning the selection of code managers on a competitive basis. The regulations must be approved by the Secretary of State.

Duty to issue strategic direction

Clause 148 would place a duty on Ofgem to publish an annual document setting out a strategic direction for industry codes. The strategic direction statement must as a minimum contain an assessment of government policies and developments in the energy sector that Ofgem believes may require modifications to codes. The Secretary of State may, by regulations, specify other matters to be included and Ofgem must also have regard to advice given by the Independent System Operator and Planner (ISOP) (see section 1 of this briefing for background on the ISOP). Ofgem must consult on a draft of the strategic direction statement.

Clause 149 would allow the Secretary of State to make regulations transferring the responsibility for publishing the strategic direction statement from Ofgem to the ISOP.

According to the policy statement published alongside the Bill, any potential transfer is unlikely to happen within the first few years of the ISOP’s establishment.⁷² The July 2021 had proposed designating the ISOP as the strategic body, as an alternative to the preferred option of designating Ofgem. Respondents raised various issues, however, including possible conflicts of interests and uncertainty about when the ISOP would have the necessary expertise, focus, and resources to take on the role.⁷³

Regulations under Clause 149 are subject to the affirmative procedure.

⁷¹ BEIS, [Energy Security Bill Policy Statement: Code governance](#), August 2022, p6

⁷² BEIS, [Energy Security Bill Policy Statement: Code governance](#), August 2022, p9-10

⁷³ BEIS and Ofgem, [Energy code reform: governance framework – government response](#), 6 April 2022, p44-45. The ISOP is referred to in the consultation as the Future Systems Operator (FSO).

Powers to modify and direct

Clause 150 would grant Ofgem powers to modify codes if it considers that any of the following apply:

- The code in question needs to be modified urgently, and a delay caused by following the normal modification procedures would adversely affect consumers or parties to the code (other than Ofgem).
- The financial or other interests of the code manager is likely to prejudice the making of the modification.
- The modification is required for the purpose of implementing a strategic direction statement and the nature of the modification is such that it cannot be made in accordance with the normal procedure.
- The modification involves incorporating all or part of a code into another document (including another code). This would enable Ofgem to consolidate codes, for example.
- The modification is required as a consequence of the transitional provisions in Schedule 10 to the Bill.

Sub-section (7) would grant the Secretary of State powers to make regulations concerning Ofgem's use of this power, including by providing further detail on the conditions listed above.⁷⁴

Clause 151 would require Ofgem to consult on any modifications it intends to make.

Clause 152 would grant Ofgem powers to issue a mandatory direction to bodies responsible for 'central systems' for the purpose of ensuring it complies with its code obligations or takes steps necessary to implement the provisions of the code. Clause 149 would require Ofgem to consult before issuing a direction.

A 'central system' is defined in Clause 142 as:

an information technology system which has one or both of the following function

- (a) to support the operation of the provisions of one or more designated documents;
- (b) to process, transmit or store data in connection with the operation of the provisions of one or more designated documents.

⁷⁴ BEIS, [Energy Security Bill Policy Statement: Code governance](#), August 2022, p13

Objectives and duties

Clause 154 would require the Secretary of State and Ofgem to act in accordance with their principal objectives and duties when carrying out their functions under Part 5 of the Bill. Those duties and objectives are contained in the Gas Act 1986 ss4AA-4B and the Electricity Act 1989 ss3A-3D. The principal duty in both Acts is to protect the interests of existing and future consumers.

Clause 155 would require Ofgem's annual report to include an overview of developments relating to industry codes.

Parliamentary procedure

Clause 156 would provide that regulations made under Part 5 would be subject to the negative procedure, apart from those made under Clause 150.

The House of Lords Delegated Powers and Regulatory Reform Committee did not raise any concerns about the powers sought in Part 5 of the Bill.⁷⁵

Provisional information about how the Government expects to use the powers granted to the Secretary of State in this Part of the Bill can be found in the [Energy Security Bill Policy Statement on code governance](#).⁷⁶

Other provisions

Clause 158 introduces Schedules 10 and 11 which contain provisions for transitional and pension arrangements for code managers.

There were no amendments to this part of the Energy Bill in the Lords and it was not debated.

⁷⁵ DPRRC, [10th report of session 2022-23](#), 5 October 2022

⁷⁶ BEIS, [Energy Security Bill Policy Statement: Code governance](#), August 2022

3 Part 6: Market reform and consumer protection

3.1 Competitive tendering for onshore electricity networks

Clause 160 of the Bill would extend the existing competitive regime for offshore electricity transmission networks to onshore networks.

Background

The electricity grid

The GB electricity grid transports electricity from where it is generated to where it is used. It is made up of two types of network:

- **Transmission networks:** these transport electricity at high voltages across Great Britain from large power stations to substations. They are sometimes described as the “motorways” of the grid, transporting electricity over long distances.
- **Distribution networks:** these deliver electricity at lower voltages to consumers from the national transmission network. They also integrate smaller power generators (such as solar panels). They are sometimes described as the “A and B roads” of the grid, carrying electricity into businesses and homes.

Section 1 of the Library briefing on [electricity grids](#) has more detailed information about how the GB electricity grid works.

The Government has said it expects the electricity grid to undergo significant change in the coming years as part of achieving net zero:

In order for the UK to reach net zero by 2050 and achieve independence from imported fossil fuels we need to decarbonise the electricity system by 2035. Alongside this, we also expect a doubling of electricity demand as sectors like transport and heat switch to electricity as a fuel source. To accommodate this, we need to significantly increase the amount of electricity network infrastructure in Great Britain.⁷⁷

⁷⁷ DESNZ/BEIS, [Energy Security Bill factsheet: Competition in onshore electricity networks](#), GOV.UK, 29 December 2022

The proposals for competitive tendering to onshore electricity networks are aimed at helping deliver this change at lower cost.

Existing ownership model for onshore electricity networks

Since privatisation the GB electricity grid has been owned by a series of network companies, all regional monopolies regulated by the energy regulator Ofgem, who build, own and operate the network infrastructure in a specific area. The costs and profits from upgrading, maintaining and operating the network within their areas fall directly to the relevant company. These charges are in turn passed on to network users such as electricity generators (power stations), electricity suppliers and, ultimately, consumers.⁷⁸

Ofgem regulates the network companies “to undertake their network owner role in an efficient way in the interest of consumers.”⁷⁹ Under the [price control model RIIO](#)⁸⁰ it scrutinises their costs, setting funding allowances and allowable revenues from customers’ bills, by benchmarking the network companies against one another. The bill’s [explanatory notes \[PDF\]](#) set out the Government’s view that this process is no longer sufficient:

Ofgem [...] benchmark[s] the network companies against one another to set their allowed revenues. There is an inherent information asymmetry in this process due to the closed nature of the market, and as such regulation may not fully realise benefits to consumers when setting allowed costs. In addition, as only a few network companies have access to and control over the electricity network, innovation can be limited by not allowing third parties to contribute to new ideas and develop them on the network.⁸¹

For more information:

- about network price controls and a further measure proposed in the bill to strengthen these (the Energy Network Special Merger Regime), see section 3.2 of this briefing paper;
- about Ofgem, see box 2 on page 16;
- about the GB electricity network, see the Library briefing on [Electricity grids](#) (January 2019).

⁷⁸ DESNZ/BEIS, [Energy Security Bill factsheet: Competition in onshore electricity networks](#), GOV.UK, 29 December 2022; House of Commons Library Research briefing on [Electricity grids](#) (8 January 2019)

⁷⁹ [Explanatory Notes to the Energy Bill \[HL\] 2022-23](#) [PDF], para 31

⁸⁰ [RIIO](#) stands for Revenue = Incentives + Innovation + Outputs. The first RIIO price control for electricity transmission networks, RIIO-T1, ran from 2013-2021; RIIO-T2 runs from 2021-2026. For electricity distribution networks, RIIO-ED1 runs from 2015-2023; RIIO-ED2 will run from 2023-2028.

⁸¹ [Explanatory Notes to the Energy Bill \[HL\] 2022-23](#) [PDF], para 31

Competition in offshore electricity networks

Competitive tendering is already in place for offshore networks. In 2009 the Government [introduced legislation](#) that enables Ofgem to hold competitions to identify new licensees for transmission assets that connect offshore generation infrastructure, such as windfarms, to the onshore grid. The [factsheet on the proposed measure for onshore networks](#) explains this process:

Under this process, potential operators compete directly with each other for the right to operate the relevant transmission assets by taking part in an auction-like bidding process, with Ofgem selecting the party that puts forward the most competitive bid. The competitive process for identifying offshore transmission operators (OFTOs) has been operating since 2009.⁸²

DESNZ estimates the offshore transmission owner (OFTO) regime has saved consumers over £800 million since its introduction in 2009.⁸³

The National Audit Office conducted an [early review of OFTO](#) in 2012. It found that the model had already delivered benefits, with competition holding down prices, but that it left electricity consumers exposed to “significant risks”, including bearing the cost of inflation.⁸⁴

More recently, there have been calls from the offshore wind industry to reform the OFTO regime because the increased provision of offshore wind farms, now a mature industry, has changed network infrastructure requirements.⁸⁵ BEIS launched a [review of the offshore transmission framework](#) in 2020 “to address the barriers it presents to further significant deployment of offshore wind”. BEIS launched a [review of the offshore transmission framework](#) in 2020 “to address the barriers it presents to further significant deployment of offshore wind”, and published an [update on the review’s progress](#) in July 2022. The Government has said it will conclude the review and publish its recommendations for a future framework for connecting offshore wind in summer 2023.⁸⁶

Policy development

The Government has been exploring options to extend competition to onshore networks for the past decade. Over 2012-2015 Ofgem [consulted on](#), and [eventually recommended](#), proposals to allow for competitive tenders in the build, ownership and operation of onshore transmission network assets only. The Government published [draft legislation](#) [PDF]

⁸² DESNZ/BEIS, [Energy Security Bill factsheet: Competition in onshore electricity networks](#), GOV.UK, 29 December 2022

⁸³ DESNZ/BEIS, [Energy Security Bill factsheet: Competition in onshore electricity networks](#), GOV.UK, 29 December 2022

⁸⁴ National Audit Office, [Offshore electricity transmission: a new model for delivering infrastructure](#), 22 June 2012

⁸⁵ See for example Wind Power Monthly, [Is offshore transmission owner system 'unfit for purpose'?](#), 24 July 2019

⁸⁶ HMG, [Powering up Britain: Energy Security Plan](#) [PDF], GOV.UK, March 2023, p47

for competition in onshore transmission and distribution networks in 2016, and the Energy and Climate Change Committee conducted [pre-legislative scrutiny](#) [PDF], but in 2017 [Ofgem announced](#) that the introduction of the legislation was likely to be deferred due to a lack of parliamentary time.⁸⁷

In December 2020 the Government [confirmed it would bring forward legislation](#) [PDF] “to enable competitive tendering in the building, ownership and operation of the onshore electricity network”.⁸⁸ BEIS [consulted on the new proposals](#) in 2021, which broadened the range of solutions that would be able to apply for competitive tenders, publishing its [response](#) in August 2022.

The timeline below provides further detail on these and other key events in the development of this policy.

- In 2012 Ofgem launched [the Integrated Transmission Planning and Regulation](#) (ITPR) project which looked at arrangements for planning and delivering the onshore, offshore and cross border electricity transmission networks. As part of this, it consulted on Competitively Appointed Transmission Owners (CATOs), to allow for competitive tenders in the build, ownership and operation of some onshore transmission network assets. In 2015 [Ofgem concluded](#) that it was in consumers’ interests to extend competition to “onshore transmission assets that are new, separable and high value”.⁸⁹
- In 2016 the Government published [draft legislation to introduce competition to onshore transmission and distribution networks](#) (PDF, see Part 3). The Energy and Climate Change Committee (ECCC) conducted [pre-legislative scrutiny of the proposals](#) [PDF]. The Committee supported the proposals in principle but raised some concerns, notably:
 - that Scottish transmission operators would be differentially exposed to competition compared with their English and Welsh counterparts, and that this should be addressed to ensure a level playing field;
 - that Ofgem should be required to publish project-specific impact assessments when it decides whether and how to tender an asset;

⁸⁷ Ofgem, open letter on [Update on Extending Competition in Transmission](#) [PDF], 27 June 2017

⁸⁸ BEIS, [Energy White Paper: Powering our Net Zero Future](#), 14 December 2020

⁸⁹ Ofgem, [Integrated Transmission Planning and Regulation \(ITPR\) project: final conclusions](#), 17 March 2015

- that the Government should set out plans to ensure that the planning regime in Scotland did not delay or prevent the development of competitively tendered projects in Scotland.⁹⁰
- The [Government responded to the ECCC report](#) [PDF] in July 2016.
- Over winter 2018-19 [Ofgem consulted](#) on the proposed methodology for the second set of [RIIO network price controls \(RIIO-2\)](#). It sought views on the introduction of early-stage and late-stage competition to electricity and gas networks to drive efficiency and innovation, including the criteria to identify projects for competition.⁹¹ It [published its response](#) in 2019.
- In the 2020 [Energy White Paper](#) the Government committed to legislate “to enable competitive tendering in the building, ownership and operation of the onshore electricity network”.⁹²
- In 2021 BEIS [consulted on the new proposals for competition in onshore electricity networks](#). The proposals had been broadened from the 2016 draft legislation to take account of developments since 2016, notably the net zero target, changes in electricity system governance⁹³ and technological changes.⁹⁴ Key differences in the proposals included:
 - The Secretary of State should be able to appoint a body to run competitive tenders, allowing flexibility for someone other than Ofgem to run the tenders.
 - The competition framework should allow for different types of competition, according to what is most suited to the network constraint being addressed. The new proposals would allow for early stage competition (held before the detailed design, surveying and consenting phases of a project), and late stage competition (held after detailed designs and consenting are complete).
 - Early stage competitions should invite different solutions, including new and innovative smart technologies and flexibility solutions, and licensable and non-licensable activities.⁹⁵
- BEIS published a supporting [impact assessment](#) at the same time. It published its [consultation response](#) [PDF] in August 2022.

⁹⁰ Energy and Climate Committee, [Pre-legislative scrutiny of the Government’s draft legislation on energy](#) [PDF], 26 April 2016, HC 776, p3

⁹¹ Ofgem, [RIIO-2 Sector specific methodology](#) [PDF], 18 December 2018. See chapter 8 and in particular pp75-84 for a discussion of these issues.

⁹² EWP pp76-77

⁹³ For more information on changes to electricity system governance, see section 2 of this briefing, on part 5 of the bill.

⁹⁴ BEIS, [Competition in Onshore Electricity Networks](#) [PDF], GOV.UK, pp9-12

⁹⁵ BEIS, [Competition in Onshore Electricity Networks](#) [PDF], GOV.UK, pp13-18

- In 2021 Ofgem consulted on further [proposals for an early-stage competition for onshore electricity transmission networks](#). It published its [consultation response](#) in March 2022.
- In April 2022 the Government announced in the [British Energy Security Strategy](#) that certain infrastructure projects identified in the [Holistic Network Design](#) (HND, July 2022)⁹⁶ and the [Network Options Assessment \(NOA\) 2021/22 Refresh report \(collectively known as the transitional CSNP\)](#) would be exempt from the introduction of onshore network competition.⁹⁷
- Over August and September 2022 [Ofgem consulted](#) (see section 4 of the consultation) on exempting from competition either all or some of the 26 strategic high-value (>£100 million) onshore electricity transmission projects identified. The projects are a mixture of new electricity transmission routes and reinforcements to existing routes considered necessary to support the Government's offshore wind ambition. Ofgem published its [response](#) in December 2022 (see section 4 of the response).⁹⁸
- In December 2022 BEIS published a [policy statement](#) [PDF] on Competition in onshore electricity networks: Criteria Regulations and Tender Regulations. Alongside this it published two indicative draft statutory instruments: [onshore competition criteria regulations](#) [PDF] and [onshore competition designation regulations](#) [PDF].

Proposed measure

The proposed measure in the Bill would extend the existing OFTO competitive regime to onshore electricity networks as follows:

This measure will enable competitions to be run for the build, ownership and operation of onshore electricity networks in Great Britain, building on the existing competition regime which exists in respect of offshore transmission assets. It will take powers to enable the Secretary of State to appoint a body to run tenders and to set criteria to determine a network project's eligibility to be competed. It will also extend Ofgem's power to

⁹⁶ The [Holistic Network Design](#) (HND) sets out National Grid Electricity System Operator's (ESO)'s recommended offshore and onshore design for a 2030 electricity network to facilitate Government's ambition for 50GW of offshore wind by 2030.

⁹⁷ The Centralised Strategic Network Plan (CSNP) will be a plan for all load related network planning on the electricity transmission network. In November 2022 [Ofgem published its decision](#) that the new Future System Operator (FSO) should deliver the CSNP. Part 4 of the Energy Bill sets out proposals to create the FSO, also known as the Independent System Operator and Planner (ISOP). For more information on the ISOP, see section 1 of this briefing.

⁹⁸ A list of all the projects considered, including Ofgem's decision on each, can be found in appendix 1 of its [decision document](#) [PDF] (p81).

make regulations which will set out the process by which tenders will be run.⁹⁹

The legislation would allow for competition on both transmission and distribution networks. A 2022 [BEIS consultation response](#) [PDF] indicated that the Department is developing policy detail for competition on transmission networks, but that the plans for distribution networks will be developed at a later time.¹⁰⁰

The DESNZ factsheet on [Competition in onshore electricity networks](#) provides background on the measure, including answers to frequently asked questions.

Comparison with existing competition in onshore networks

Competitions are already held for a specific set of onshore network projects, those requiring unlicensed solutions. Examples include [National Grid ESO's Pathfinder projects](#), and the [DNOs' flexibility tenders](#).¹⁰¹

A 2021 [BEIS consultation](#) explained how the new proposals for onshore competition, as set out in the Energy Bill, are different to these existing activities:

network companies already run competitions for significant portions of the work carried out on their network, but that is different because it is competition for carrying out the work that the network company already has the right to do (and thus make profit from via the price control mechanism) rather, than competition for the award of the license/contractual right to build, own and operate a solution.¹⁰²

Impacts

The expected benefits of the measure are that it would support the use of innovative, smart and flexible solutions on onshore networks, to help deliver net zero and to meet the growing demand for electricity across Great Britain. It is also expected to achieve a small saving on consumer's electricity bills.

The [impact assessment](#) and the [explanatory notes](#) [PDF] summarised the benefits:

Introducing a competitive tender process would enable new parties to enter the market, address the information asymmetry that exists between Ofgem and the network companies it regulates and introduce for the first

⁹⁹ DESNZ/BEIS, [Energy Security Bill factsheet: Competition in onshore electricity networks](#), GOV.UK, 29 December 2022

¹⁰⁰ BEIS, [Government Response to Consultation on Competition in Onshore Electricity Networks](#) [PDF], GOV.UK, August 2022

¹⁰¹ BEIS, [Competition in Onshore Electricity Networks](#) [PDF], GOV.UK, p18

¹⁰² BEIS, [Competition in Onshore Electricity Networks](#) [PDF], GOV.UK, p25

time direct, in-the-market competitive pressure on capital and operational expenditure on large onshore electricity network infrastructure.¹⁰³

Creating new competitive markets [...] will provide new opportunities to invest in networks and should improve efficiency in investment, foster innovative solutions to network needs, including increasing the opportunities for smart and flexible solutions, as well as reducing costs to consumers. This is also expected to encourage greater levels of inward investment to help provide sufficient additional electricity network capacity to meet growing demand in Great Britain.”¹⁰⁴

In financial terms, the impact assessment estimated the regime could in a medium scenario, provide overall net estimated savings in the range of £300 million to £500 million in 2020 prices over 32 years or “up to £1 billion” from projects tendered recoverable by 2050.¹⁰⁵ Alternatively, it estimated it could save around £1 for the average dual fuel household per year,¹⁰⁶ and that businesses will also make “some savings [...] although network costs (and therefore estimated savings) make up a smaller proportion of non-domestic consumer’s energy bills”.¹⁰⁷

Reaction to the measure

As noted above, this measure has been subject to several consultations.

There has been little media coverage of the measure in the context of the wider Energy Bill, although some trade bodies have commented:

- The Association for Renewable Energy and Clean Technology (REA) welcomed the “principle of greater competition” for onshore networks. However, it also noted “the deferral of some decisions still outstanding for distribution¹⁰⁸ level connections with more concern, however, as this part of the market is in most need of beneficial change”.¹⁰⁹

¹⁰³ BEIS, “Annex 2.13: Onshore electricity network competition” in [Energy Bill - Impact Assessments](#) [PDF], July 2022, p475 (p1 of Annex 2.13)

¹⁰⁴ [Explanatory Notes to the Energy Bill \[HL\] 2022-23](#) [PDF], para 33

¹⁰⁵ BEIS, “Annex 2.13: Onshore electricity network competition” in [Energy Bill - Impact Assessments](#) [PDF], July 2022, p476 (p2 of Annex 2.13)

¹⁰⁶ BEIS, [Energy Bill Summary Impact Assessment](#) [PDF], p20

¹⁰⁷ BEIS, [Energy Bill Summary Impact Assessment](#) [PDF], p27

¹⁰⁸ The [Energy White Paper](#) (2020) said “competitive tendering could be opened up at the distribution network level, as well as in the transmission network, should evidence suggest that this will secure value for consumers”. BEIS’ set out legislative proposals for distribution level competition in its 2021 [consultation on the introduction of competition to onshore electricity networks](#). The [consultation response](#) [PDF] (August 2022) said the Government would consider these options further once it is “closer to establishing the competition at distribution level”.

¹⁰⁹ Energy Live News, [UK readies competition in onshore electricity networks](#), 9 August 2022; The Association for Renewable Energy & Clean Technology (REA), [REA WELCOMES THE REVIEW OF COMPETITION IN ONSHORE ELECTRICITY NETWORKS](#), 5 August 2022; Utility Week, [Ofgem looks to speed up onshore transmission upgrades](#), 9 August 2022 (subscription required, accessed via [Nexis News](#))

- The Energy Networks Association said it was “important that introducing competition into the networks will benefit customers and not hinder progression” and that “further action” was needed to give “network companies the ability to make early, vital investment in infrastructure”.¹¹⁰

Clause 160 and Schedule 13

Part 6, clause 160 of the Bill introduces schedule 13. The schedule would amend the [Electricity Act 1989](#) so that competitions can be held to build, own and operate certain onshore electricity network projects in Great Britain. To support this, it would also:

- give the Secretary of State powers to 1.) appoint a body to run tenders, and 2.) set eligibility criteria to determine which network projects can be competitively tendered;
- extend Ofgem’s powers, so it can make regulations setting out the process for running these onshore tenders, as well as offshore.

Schedule 13, part 1 would amend the Electricity Act 1989 to allow the Secretary of State to bring in regulations covering a number of areas including tendering criteria, models of competition and designate a delivery body. Further powers allow for regulations to allow Ofgem to facilitate onshore electricity tenders and to modify the licences of incumbent network managers no longer responsible for transmission. See the [Explanatory Notes](#) for full details.

The schedule includes a number of powers, including two powers to make secondary legislation by the negative procedure. These are explained in detail in the [Delegated Powers Memorandum](#) [PDF]. The House of Lords Delegated Powers and Regulatory Reform Committee did not draw attention to any of these powers in its [report on Part 6 of the Bill](#) [PDF].¹¹¹

Lords stages

There was little discussion of this provision during the Lords stages.

Introducing the Bill during second reading, Lord Callanan said it would help to “a more cost-efficient energy system by increasing innovation and competition, for example by introducing competition in onshore electricity networks.”¹¹²

At committee stage, Labour moved amendment 149a, which sought to clarify the Government’s proposal to exempt “upfront certain strategic

¹¹⁰ Utility Week, [Energy Security Bill opens door to price cap extension](#), 10 May 2022 (subscription required, accessed via [Nexis News](#))

¹¹¹ House of Lords Delegated Powers and Regulatory Reform Committee, [Seafarers’ Wages Bill \[HL\]; Energy Bill \[HL\]: Parts 3–6](#) [PDF], 5 October 2022, HL 65

¹¹² [HL Deb 19 July 2022 c1931](#)

transmission network projects” from competition, by proposing a definition for these. The Shadow Spokesperson for Energy and Net Zero, Baroness Blake of Leeds, said clarification was needed for transparency.¹¹³

Lord Callanan said Ofgem had consulted on which projects to exempt, and that it would publish a list of these by the end of 2022 (the [list was published](#) on 15 December 2022). He said the Government’s view was that it would be better to set the criteria for determining the eligibility of projects for competition in regulations, rather than in the bill. This would allow the Government to respond to changes in market conditions, which may over time affect the types of project that are suitable for competition.¹¹⁴

The amendment was withdrawn.

At report stage Lord Callanan moved amendment 64 to Schedule 13, which would require that tender regulations providing for the imposition of a financial penalty must also include provision for a right of appeal. The amendment was agreed.

The measure was not debated at Third Reading.

Further reading

In addition to the various [publications providing information on the bill](#) in general, the Government has published the following background documents specific to this measure:

- [Factsheet: Competition in onshore electricity networks](#)
- [Policy Statement: Competition in onshore electricity networks: Criteria Regulations and Tender Regulations](#) [PDF]
- [Indicative draft statutory instrument - onshore competition criteria regulation](#)
- [Indicative draft statutory instrument - onshore competition designation regulations](#)

The following documents provide further background on the development of this policy:

- BEIS [consultation on Competition in Onshore Electricity Networks](#) [PDF] (August 2021) and [consultation response](#) [PDF] (August 2022)

¹¹³ [HL Deb 14 December 2022 c159GC](#)

¹¹⁴ [HL Deb 14 December 2022 cc161GC-162GC](#)

- Practical Law practice note on [Competitively appointed transmission owner \(CATO\) projects: overview](#) (subscription required¹¹⁵). This gives a detailed history of the Government's various proposals to extend competition in onshore networks.

3.2

Special merger regime for energy network companies

Background

Energy networks

The UK's privatised energy network transports gas and electricity from where it is produced or imported, to the customers that use it.

Electricity is first transported by transmission operators (TOs), and then from the transmission network to the consumer by distribution network operators (DNOs). Three independent groups (such as the National Grid) are licensed to act as TOs, and six act as DNOs, in different parts of Great Britain (GB). Within the areas served by DNOs, fifteen independent distribution network operators (IDNOs) operate smaller distribution networks, largely serving new housing and commercial developments.¹¹⁶

Gas is transported through the national transmission system (operated by the National Grid) and then on to consumers by regional distribution companies (which are currently made up of four independent groups of companies, such as Cadent Gas). Independent gas transporters (IGTs) serve a similar function to IDNOs.¹¹⁷

The companies operating the GB energy network have regional monopolies. Each is granted a licence to exclusively serve a particular part of GB, so there is no direct competition between them.¹¹⁸

For more information about National Grid's roles in the energy sector, see Box 1 on page 15.

The regulators – Ofgem and the CMA

The Offices of Gas and Electricity Markets (Ofgem, a non-ministerial government department) regulates GB energy markets.¹¹⁹ It grants

¹¹⁵ MPs and their staff have access to Practical Law (a legislative database) through the [Library subscription](#). Please be aware that Practical Law's publications are subject to copyright and should not be shared. Further details on Practical Law's copyright are available through the above link.

¹¹⁶ [Impact Assessment to the Energy Bill \[HL\]](#), p5-6

¹¹⁷ [Impact Assessment to the Energy Bill \[HL\]](#), p5-6

¹¹⁸ [Explanatory Notes to the Energy Bill \[HL\]](#), para 34

¹¹⁹ Ofgem, [Our Role and Responsibilities](#) [accessed 7 April 2023]

licences to companies to operate the GB energy network, and then seeks to ensure companies comply with the requirements of their licence.¹²⁰

But because the networks operate as regional monopolies, Ofgem has an important role in controlling prices too. Energy network companies make money by charging suppliers, who in turn pass these costs to consumers. Ofgem limits the amount of money (called ‘allowed revenue’) that network operators can charge suppliers. Ofgem must set these controls at a level that covers the companies’ costs and allows them to earn a reasonable return whilst delivering value for consumers, behaving efficiently and achieving their targets as set by Ofgem.¹²¹

To set prices, Ofgem uses comparative benchmarking. It receives data energy network companies on the outputs, inputs and input prices of each, and uses these to set reasonable and competitive price levels.¹²²

For information about Ofgem’s governance, see box 2 on page 15.

Separately, the Competition and Markets Authority (CMA) (a non-ministerial Government department) is the UK’s main competition regulator, responsible for reviewing mergers. It does so largely independently of the Government (on which, see section 2.1 of the Commons Library briefing [The UK Competition Regime](#)) using powers under the [Enterprise Act 2002](#). It investigates mergers notified to it but can also start reviews on its own initiative.

A decision by the CMA to review a merger is divided into two main phases. In Phase 1, the CMA determines whether it believes that a merger has a realistic prospect of a “substantial lessening of competition” (SLC) in the market. If it does, at Phase 2 a CMA panel conducts an in-depth investigation to assess if a merger is expected to result in an SLC. If so, the CMA decides upon the remedies required, which could include prohibiting the merger completely or requiring the sale of parts of the business being merged.¹²³

Proposed regime

The Government’s view is that the SLC test used by the CMA to review mergers can be inappropriate for energy network businesses, because (as regional monopolies) there is no direct competition between players. In addition, because there are a relatively small number of participants, the merger of two or more of them can impact on Ofgem’s ability to set price controls, because its benchmarking system relies on it receiving and comparing data from all the different independent operators.

¹²⁰ Ofgem, [Industry Licensing](#) [accessed 7 April 2023]

¹²¹ Ofgem, [Prince controls explained](#) (PDF), April 2013

¹²² [Impact Assessment to the Energy Bill \[HL\]](#), p107

¹²³ CMA, [A Quick Guide to UK Merger Assessment](#) (PDF), 18 March 2021

The Bill would therefore introduce a “special mergers regime” for energy networks, similar to that already present in the water industry.¹²⁴ The special regime would require the CMA to:

- consider, when investigating energy network mergers, whether the merger would substantially prejudice Ofgem’s ability to benchmark (make comparisons) between energy network companies through the price control process. This would replace the test used for general mergers of assessing whether there is a “substantial lessening of competition”; and
- take reasonable and practicable actions where it concludes that the merger has or may substantially prejudice Ofgem’s ability to benchmark, up to and including preventing it from taking place.

Secondary legislation would also be amended to allow for fees to be charged where the CMA has conducted an energy network special merger investigation. This replicates the existing policy for general merger and water merger investigations.¹²⁵

The new regime would apply where the energy network business being acquired has a turnover in GB of over £70 million, and is merging with another energy network business that holds the same type of licence. In such cases the CMA must refer the merger to a CMA inquiry group for investigation. The CMA would be able to decide not to refer the merger for investigation if it believes there is a consumer benefit arising from the merger that outweighs this prejudice or if the merger is not sufficiently far advanced or sufficiently likely to proceed to justify the reference.¹²⁶

As with general mergers, if the CMA inquiry group concludes that there has been or may be a prejudicial outcome on Ofgem’s ability to benchmark, the CMA would be able to place restrictions on the merger.¹²⁷

Policy development

The special mergers regime has not been consulted on or previously announced. The Government says this is because of “market sensitivities” – specifically, the need to reduce the likelihood of fast and reactionary mergers between energy network companies completing before the proposed Energy Network Special Merger regime comes into law.¹²⁸

¹²⁴ Government Guidance Factsheet: [Energy Security Bill factsheet: Energy network special merger regime](#), 20 March 2023

¹²⁵ Government Guidance Factsheet: [Energy Security Bill factsheet: Energy network special merger regime](#), 20 March 2023

¹²⁶ [Explanatory Notes to the Energy Bill \[HL\]](#), para 35

¹²⁷ [Explanatory Notes to the Energy Bill \[HL\]](#), para 36

¹²⁸ Government Guidance Factsheet: [Energy Security Bill factsheet: Energy network special merger regime](#), 20 March 2023

However, the Government says it has consulted Ofgem and the CMA, and has considered lessons learnt from the existing water merger regime.¹²⁹

Impact assessment and reaction

The Government's view is that that special regime "could save energy consumers up to £420 million over 10 years".¹³⁰ This is because it would allow any impacts on Ofgem's comparative benchmarking process to be considered before allowing mergers to take place.¹³¹

As a central estimate the Impact Assessment assumes approximately half of the mergers in the electricity and gas distribution sector would be blocked,¹³² which would mean Ofgem could compare the performance and quality of service of a greater number of energy network companies when setting price controls. It says that preventing more mergers would also allow for a greater number of players and therefore a greater diversity of approaches, which could lead to better outcomes for consumers.¹³³

Nonetheless, the Impact Assessment states that it is impossible to say for certain how many energy network companies in the future could seek to merge. But, taking the example of electricity distribution, it notes that there have been eight mergers or takeovers in GB since 1995 and six companies currently own all electricity distribution licences. A further five mergers or takeovers would result in just one company being left in that sector.¹³⁴

International law firm Freshfields Bruckhaus Deringer noted that the new regime "may make potential investors think twice about potential network mergers, given the likelihood of more intense scrutiny going forward". It however noted that reviews under the regime were unlikely to be frequent, noting that "only four water mergers have been reviewed in the 18 years since the special water mergers regime came into effect".¹³⁵

As the measure is sector-specific and was not consulted on in advance, there has been little other press or stakeholder comment.

¹²⁹ Government Guidance Factsheet: [Energy Security Bill factsheet: Energy network special merger regime](#), 20 March 2023

¹³⁰ Government Guidance Factsheet: [Energy Security Bill factsheet: Energy network special merger regime](#), 20 March 2023

¹³¹ [Impact Assessment to the Energy Bill \[HL\]](#), p134

¹³² [Impact Assessment to the Energy Bill \[HL\]](#), p137

¹³³ [Impact Assessment to the Energy Bill \[HL\]](#), p137

¹³⁴ [Impact Assessment to the Energy Bill \[HL\]](#), p114

¹³⁵ Freshfields Bruckhaus Deringer, [The Energy Security Bill – changes for competition and mergers in the energy industry](#), 2 August 2022

Clause 161 and Schedule 14

Clause 161, originally clause 154, on mergers of energy network enterprises, would implement the measures by incorporating Schedule 14. It would also require the Secretary of State to carry out a review to the changes made by Schedule 14 within five years of the measure coming into force, and lay that report before Parliament.

Schedule 14 would amend the Enterprise Act 2002 and make consequential amendments to other legislation to set out the detail of the special merger regime (as outlined above).

Both clause 161 and Schedule 14 would come into force on the day the Act is passed.¹³⁶ They would apply across the UK (in line with the Enterprise Act 2002) but in practice would only apply in England, Wales and Scotland because the only businesses in scope of the regime are those holding certain licences in Great Britain.¹³⁷

The measure would also grant the Government a new Henry VIII power (under the negative parliamentary procedure) to amend the types of energy network enterprise to which the regime applies, for example by adding to the types of licence holders that constitute energy network enterprises and so are in scope. In a policy statement, the Government says it does not plan to use this power at present because the regime is being set up to reflect the energy system as it currently operates. However, there may be future changes in the energy industry that affect the way that certain activities in the sector are licensed and regulated and therefore impact on the types of enterprise that it thinks ought to be within scope of the regime. The Secretary of State would be required to consult Ofgem and the CMA before exercising the power.¹³⁸

Lords stages

The special mergers measure passed all its Lords stages with little comment.

At second reading in the House of Lords, Government Minister Lord Callanan said the regime “will protect consumers from increasing network prices in the event of energy network company mergers”.¹³⁹

At Committee stage a number of “minor and technical amendments” were made by the Government to the special merger regime provisions that were intended to make the regime “function effectively.”¹⁴⁰

¹³⁶ See clause 269 - Commencement

¹³⁷ [Explanatory Notes to the Energy Bill \[HL\]](#), para 744

¹³⁸ BEIS, [Energy Security Bill Policy Statement: Energy Network Special Merger Regime](#) (PDF), December 2022, p5

¹³⁹ [HL Deb 19 July 2022, vol 823](#)

¹⁴⁰ [HL Deb 14 December 2022, vol 826](#)

Further reading

For further information on Clause 161 and Schedule 14 please see:

- [Explanatory Notes](#) to the Bill, paras 34 to 36
- [Impact Assessment](#) to the Bill, Annex 2.1
- Government Factsheet: [Energy Security Bill factsheet: Energy network special merger regime](#)
- [Energy Security Bill Policy Statement: Energy Network Special Merger Regime](#) (PDF)
- Freshfields Bruckhaus Deringer, [The Energy Security Bill – changes for competition and mergers in the energy industry](#)

3.3

Multi-purpose interconnectors

Clauses 162 to 167 would introduce multi-purpose interconnectors as a new licensable activity under the existing regulatory regimes for electricity.

Background

Conventional interconnectors

The Great Britain (GB) electricity grid interacts with grids on mainland Europe through interconnectors. Conventional ‘point to point’ interconnectors are undersea cables that link the transmission network¹⁴¹ of Great Britain with that of mainland Europe and the island of Ireland. There are five interconnectors connecting Great Britain to Europe and [more planned or under construction](#). There are also existing and planned interconnectors between GB and the island of Ireland. Picture 1 overleaf shows existing interconnectors.

Interconnectors help to increase the flexibility of all the participating energy systems and can also help to increase energy security by allowing access to a wider market of more diverse sources of power.¹⁴² To support this, BEIS set an aim in the [Energy White Paper](#) (PDF, December 2020) to

¹⁴¹ The GB electricity grid transports electricity from where it is generated to where it is used. The [transmission network](#) transports electricity at high voltages across Great Britain from large power stations to substations. The [distribution network](#) takes electricity from the transmission network and delivers this at lower voltages to consumers.

¹⁴² Department of Energy and Climate Change, [More interconnection: improving energy security and lowering bills](#), December 2013

realise at least 18 gigawatts (GW) of interconnector capacity by 2030.¹⁴³ This would double GB's current interconnector capacity of 8.4 GW.¹⁴⁴

The Parliamentary Office of Science and Technology (POST) briefing on [Overseas Electricity Interconnection](#) (February 2018) provides general background on interconnectors.

Offshore wind and interconnectors

In the 2022 [British Energy Security Strategy](#) the Government set a target to achieve 50 GW of offshore wind generation by 2030, including 5 GW of offshore wind. This new generation will need to be connected to the GB electricity grid via offshore transmission networks.

A 2021 BEIS consultation, the [Offshore Transmission Network Review](#), explained the weaknesses of the current approach to developing offshore transmission networks:

The current approach [to connecting offshore wind] leaves the design of the offshore transmission infrastructure to each developer for its individual project, which has resulted in transmission being developed as simple point-to-point assets.¹⁴⁵

[This approach] was designed when offshore wind was a nascent sector. Leaving the developers in control of the design and build of the transmission reduced the risks to consumers of underwriting investment to connect new projects, and left developers in control of the delivery. However, the scale of expected [offshore wind] deployment has changed, and constructing individual transmission links will not deliver the best outcome for consumers, the environment, or local communities.¹⁴⁶

It identified similar weaknesses with the current approach to developing interconnectors:

Similarly, cross-border interconnector projects are currently designed by individual developers, resulting in no integration with offshore wind generation. Although it is possible for developers to work together to design shared infrastructure, there are commercial and other barriers that would need to be overcome.¹⁴⁷

Picture 1 UK electricity interconnector map (correct as of June 2022)

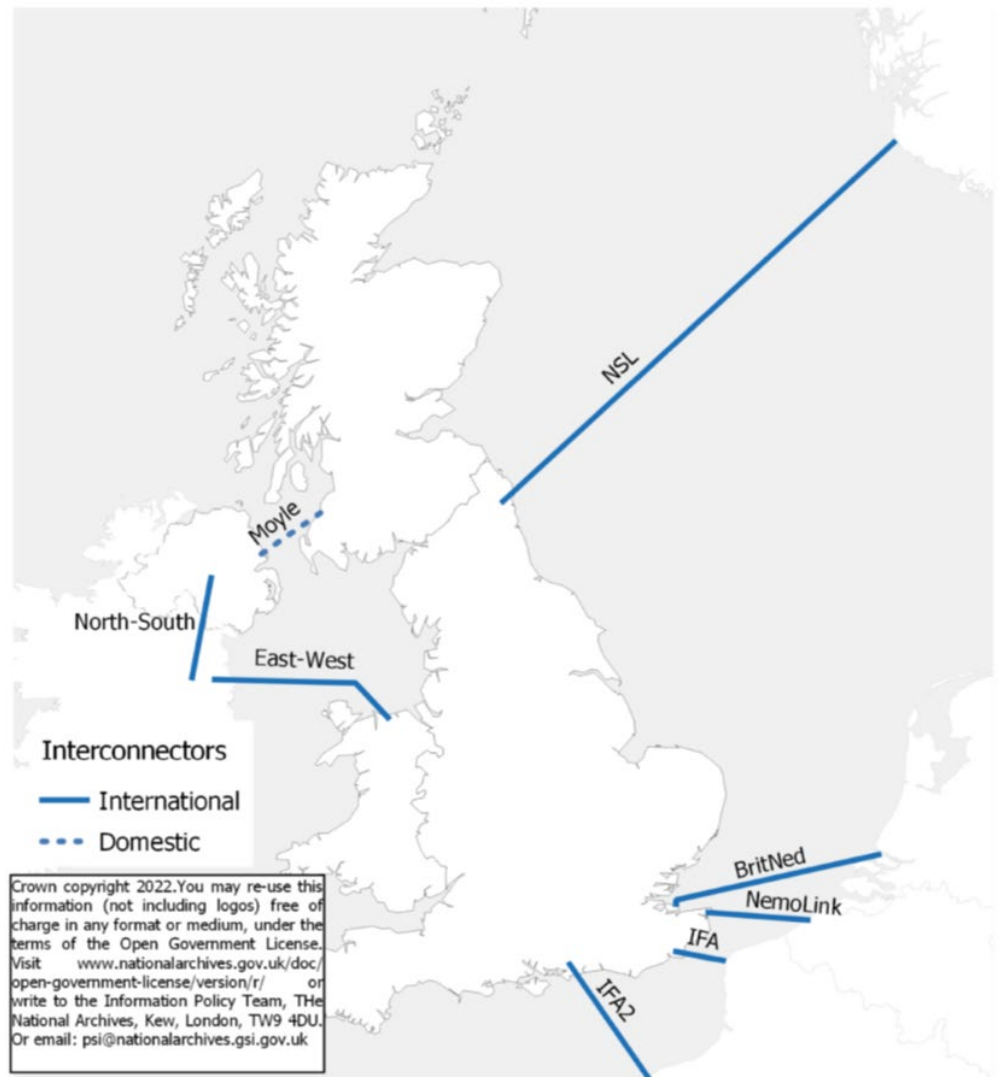
¹⁴³ BEIS, [Energy White Paper: Powering our Net Zero Future \[PDF\]](#), 14 December 2020, p80

¹⁴⁴ DESNZ/BEIS, [Energy Security Bill factsheet: Multi-purpose interconnectors](#), GOV.UK, 20 March 2023

¹⁴⁵ BEIS, [Offshore Transmission Network Review: Enduring Regime and Multi-Purpose Interconnectors \[PDF\]](#), GOV.UK, September 2021, p18

¹⁴⁶ BEIS, [Offshore Transmission Network Review: Enduring Regime and Multi-Purpose Interconnectors \[PDF\]](#), GOV.UK, September 2021, p3

¹⁴⁷ BEIS, [Offshore Transmission Network Review: Enduring Regime and Multi-Purpose Interconnectors \[PDF\]](#), GOV.UK, September 2021, p18



[Note 1] – Interconnectors on this map are a representation only. Cables do not follow these exact paths.

[Note 2] – Moyle is an intra-UK interconnector and trades electricity between the National Grid in Scotland and the Single Electricity Market in Northern Ireland. This article focuses on international trade so excludes internal UK trade over the Moyle interconnector.

[Note 3] – The North-South interconnector is not a traditional interconnector as it is situated within the Single Electricity Market of the island of Ireland, but is treated as an interconnector for this article as it focuses on international trade.

Source: BEIS, [Electricity interconnectors in the UK since 2010](#) [PDF], GOV.UK, 30 June 2022, p7

Multi-purpose interconnectors

Multi-purpose interconnectors (MPIs) are a new, innovative type of interconnector:

- Like conventional interconnectors, MPIs are subsea electricity cables that can connect the GB electricity grid to the grids of neighbouring countries;
- Unlike conventional interconnectors, MPIs also provide transmission infrastructure to enable clusters of offshore wind farms to connect to the shore together, rather than each wind farm having to connect to the shore individually.

DESNZ's [MPI factsheet](#) summarises the expected benefits of MPIs (compared with conventional interconnectors) for coastal communities and project costs:

Multi-purpose interconnector projects reduce disruption to coastal areas by enabling a reduction in coastal 'landing points' - the point at which the offshore infrastructure meets the shore. This is a key feature of the department's Offshore Transmission Network Review, which aims to mitigate damage to coastal areas by taking a holistic approach to how these projects are developed.

By coordinating interconnection and offshore generation, multi-purpose interconnectors can reduce the total number of onshore and offshore substations and length of cabling, thereby reducing operating cost and the total capital cost of installations.¹⁴⁸

Investment in interconnectors is currently supported through Ofgem's [cap and floor regime for interconnectors](#), introduced in 2014. Developers can apply for support under the regime during "application windows". Ofgem has held three application windows to date.

Ofgem held its first [application window for MPI pilot projects](#) in September 2022. In December 2022 [Ofgem announced](#) it had received four MPI pilot project applications, and that it would be taking forward two of these to Initial Project Assessment stage. The two pilot projects being taken forwards are:

- National Grid Venture's (NGV's) [Nautilus project](#), which would connect GB with Belgium (with onshore infrastructure in East Suffolk), and connect British windfarms;
- NGV's [LionLink project](#) (previously known as EuroLink), which would connect GB to the Netherlands, and connect Dutch windfarms and potentially future British windfarms.

Ofgem announced it will not take forward the remaining two applications, for connections to Norway, because the timelines for the MPI Pilot is unlikely to align with Norway's timelines for MPI development.¹⁴⁹

[National Grid Ventures](#) (NGV) has further background on MPIs.

For more information:

- about NGV and its role in National Grid Group, see Box 1 on page 15;
- about Ofgem, see box 2 on page 16.

¹⁴⁸ DESNZ/BEIS, [Energy Security Bill factsheet: Multi-purpose interconnectors](#), GOV.UK, 20 March 2023

¹⁴⁹ Ofgem, [Update: Decision on Multi-Purpose Interconnector Pilot project selection \(Norway\)](#), 14 April 2023

Policy development

BEIS launched its [Offshore Transmission Network Review](#) in August 2020 to address the barriers that the existing transmission network regime presents to “further significant deployment of offshore wind, with a view to achieving net zero ambitions”.¹⁵⁰ In December 2020 [BEIS and Ofgem set out their plans for the review](#) [PDF], including a cross-cutting workstream focussed on MPIs.

In September 2021 [BEIS published a consultation](#) [PDF] on proposals for a new enduring regime for offshore windfarm development and offshore transmission, including a revised regulatory structure for MPIs. This set out proposals for how MPIs could potentially be supported in the near term through incremental changes to the current framework, as well as consideration of whether legislative changes were needed to “better enable MPIs to contribute to delivering the benefits of a coordinated approach to transmission infrastructure”.¹⁵¹

BEIS published its [response to the MPI aspects of the September 2021 consultation](#) in April 2022. It said that 16 of the 21 stakeholder respondents “believed the existing regime does not provide an adequate enduring solution for MPIs”.¹⁵² In addition, “a majority of respondents were broadly supportive” of the proposal to define a separate MPI asset class in UK legislation, although “a few respondents” did not support the introduction of a new asset class, with concerns raised “about the time taken to implement new industry codes and standards and licensing conditions, as well as the time taken to make changes to primary legislation”.¹⁵³ The Government concluded the existing licensing and legal frameworks were “unlikely to be suitable for an enduring regime for MPIs” and that a revised legislative framework would be required to give MPI projects flexibility and to avoid limiting innovation.¹⁵⁴ It said the Government would consider how to introduce a new licensable activity for MPIs into the Energy Act 1989, which has since been set out in the Bill’s proposals.

In the interim, in April 2022, [Ofgem launched a consultation](#) on its “minded-to position” on the development of an interim regime to facilitate and regulate MPIs in the short-term. In December 2022 Ofgem published an [update on the MPI interim framework](#) and announced its plans to consult on the interim MPI regime in the first half of 2023, with a viewing to publishing decisions in late 2023. Ofgem and BEIS published a

¹⁵⁰ BEIS, [Offshore Transmission Network Review terms of reference](#), GOV.UK, 24 August 2020

¹⁵¹ BEIS, [Offshore Transmission Network Review: Enduring Regime and Multi-Purpose Interconnectors](#) [PDF], GOV.UK, September 2021, p31

¹⁵² BEIS, [Offshore Transmission Network Review: Multi-Purpose Interconnectors: Government Response](#) [PDF], GOV.UK, April 2022 p8

¹⁵³ BEIS, [Offshore Transmission Network Review: Multi-Purpose Interconnectors: Government Response](#) [PDF], GOV.UK, April 2022 p10

¹⁵⁴ BEIS, [Offshore Transmission Network Review: Multi-Purpose Interconnectors: Government Response](#) [PDF], GOV.UK, April 2022 p7

[joint letter](#) in January 2023 inviting stakeholder views on what market arrangements should be for trading across MPIs.

Proposed measure

MPIs are not currently defined in law and the existing regulatory regime treats interconnectors and transmission systems separately. This makes it difficult for the electricity regulator, Ofgem, to license MPIs.¹⁵⁵

The proposed measure in the Bill would introduce MPIs as a new licensable activity under the existing regulatory regime. This would enable MPI developers to obtain MPI-specific licences from Ofgem. The DESNZ [factsheet on multi-purpose interconnectors](#) explains how the Bill will achieve this:

This Bill will introduce a new legal definition for multi-purpose interconnectors into the Electricity Act 1989, alongside a new licensable activity of operating a multi-purpose interconnector. The Bill also introduces a power for the Secretary of State to introduce standard conditions for multi-purpose interconnectors.¹⁵⁶

The factsheet gives further background on the measure, including answers to frequently asked questions.

Impacts

The main expected benefit of the measure is providing legal clarity for MPI investors and developers, with the potential to reduce costs. Improving legal clarity will facilitate the coordination of offshore electricity infrastructure, supporting the Government's 2030 targets for interconnectors and offshore wind generation.¹⁵⁷

The [explanatory notes](#) and the [impact assessment](#) set out the expected benefits of MPIs in the context of the Government's wider aims to increase interconnection more broadly:

Increasing the level of interconnection to 18 gigawatts has been shown to facilitate trade with other markets, reduce consumer bills, enhance the flexibility of the energy system and support increased levels of intermittent renewable energy such as offshore wind. The UK Government supports interconnection as a core part of its energy strategy, due to its benefits in helping to provide an electricity supply that progresses towards the Government's net zero decarbonisation goal in a low cost and secure way.

¹⁵⁵ BEIS, "Annex 2.3: Multi-purpose interconnectors impact assessment" in [Energy Bill - Impact Assessments](#) [PDF], July 2022, p182 (p1 of Annex 2.3)

¹⁵⁶ DESNZ/BEIS, [Energy Security Bill factsheet: Multi-purpose interconnectors](#), GOV.UK, 20 March 2023

¹⁵⁷ DESNZ/BEIS, [Energy Security Bill factsheet: Multi-purpose interconnectors](#), GOV.UK, 20 March 2023; BEIS, [Energy Bill Summary Impact Assessment](#) [PDF], p16

In comparison to separate interconnectors and point-to-point offshore wind connections, MPIs offer increased benefits in terms of reduced capital expenditure, wind curtailment, and fewer coastal landing points.¹⁵⁸

Improving legal clarity [by introducing MPIs as a licensable activity] supports investment in MPI projects, contributing to the development of interconnection and, through coordinating offshore transmission infrastructure, supports the deployment of offshore wind to deliver on Government's Net Zero ambitions.¹⁵⁹

In financial terms, the measure is expected to have a total financial impact of less £100,000 on license holders. It is not expected to have monetised benefits.¹⁶⁰

The measure would contribute to the adoption of a more integrated approach to connecting offshore wind. A study by National Grid ESO suggests that this broader approach - including the use of MPIs - could reduce consumer costs by £3-6 billion depending on how soon it can be implemented.¹⁶¹

Clauses 162 to 167 and Schedule 15

Part 6, clause 162 of the Bill would amend the Electricity Act 1989 to define MPIs as a licensable activity, requiring a person who operates a MPI to hold either a licence or an exemption. It sets some requirements for MPI licence holders.

Clause 163 would set out the procedure for the Secretary of State to determine the standard licence conditions for MPIs.

Clauses 164 and 165 would amend the Electricity Act to require MPI licence holders to be certified by Ofgem as independent from generation and supply activities and give the Secretary of State powers to grant MPI licences to existing operators.

Clause 166 would give a Henry VIII power to the Secretary of State to make further consequential amendments, subject to the affirmative procedure. This is explained in detail in the [Delegated Powers Memorandum](#) [PDF]. The House of Lords Delegated Powers and Regulatory Reform Committee did not draw attention to this power in its [report on Part 6 of the Bill](#) [PDF].¹⁶²

¹⁵⁸ [Explanatory Notes to the Energy Bill \[HL\] 2022-23](#) [PDF], paras 39-40

¹⁵⁹ BEIS, "Annex 2.3: Multi-purpose interconnectors impact assessment" in [Energy Bill - Impact Assessments](#) [PDF], July 2022, p182 (p1 of Annex 2.3)

¹⁶⁰ BEIS, "Annex 2.3: Multi-purpose interconnectors impact assessment" in [Energy Bill - Impact Assessments](#) [PDF], July 2022, p183 (p2 of Annex 2.3)

¹⁶¹ BEIS, [Energy Security Bill factsheet: Multi-purpose interconnectors](#), GOV.UK, 20 March 2023

¹⁶² House of Lords Delegated Powers and Regulatory Reform Committee, [Seafarers' Wages Bill \[HL\]; Energy Bill \[HL\]: Parts 3-6](#) [PDF], 5 October 2022, HL 65

Clause 167 introduces Schedule 15, which would make consequential amendments to the Electricity Act 1989 and other primary legislation.

A BEIS [Policy statement on multi-purpose interconnectors](#) [PDF] sets out how Government would implement the delegated powers that would be conferred by the Bill's MPI provisions.

Reaction to the measure

As noted above, this measure has been subject to consultation. However, there appears to have been little wider discussion of the measure.

Regarding multi-purpose interconnectors more generally, statements by energy companies and energy trade bodies indicate they are supportive of the new technology:

- On 24 April 2023 Business Green reported on [industry reaction to plans for the new LionLink MPI](#) between Great Britain and the Netherlands. Project developer National Grid Ventures said:

Connecting wind farms to multiple markets simultaneously is a game changer for energy infrastructure and brings us one step closer to realising the enormous green energy potential of the North Sea [...] "Not only can we deploy every spare electron where it is needed most, we can help to reduce the impact of infrastructure on coastal communities. We now need the right political, legal and regulatory framework to make it happen and establish a mutually beneficial North Sea grid to deliver a cleaner, fairer, more secure and more affordable energy future for British and European consumers.¹⁶³
- Trade body Energy UK said:

The new LionLink interconnector will be a critical step in the journey to Net Zero, by bolstering the UK's energy security and creating key export markets for homegrown energy sources [...]

The UK's re-engagement with European partners on North Sea Energy Cooperation is a welcome development, and opens the door to creating a clean energy future that can benefit countries across the North Sea whilst tackling the shared challenge of climate change.¹⁶⁴

However, Suffolk County Council has voiced concern about local environmental impacts. In March 2022 Suffolk News reported on local concern about the reinforcements to onshore electricity cables that are needed to facilitate MPIs:

[Suffolk County Council] Conservative cabinet member for finance and the environment, Richard Rout, said he welcomed the undergrounding of

¹⁶³ Business Green, '[Largest of its kind': UK and Netherlands approve plans for LionLink interconnector](#), 24 April 2023

¹⁶⁴ Energy UK, [Energy UK responds to the announcement of the new LionLink power line between UK and Netherlands](#), 24 April 2023

cabling in [...] [areas of outstanding natural beauty] but said putting cables underground across the whole route was not viable.

He continued: “The upgrading is recognised as being necessary by this county council to unlock the potential of offshore wind farms located off the coast of Suffolk and proposed multipurpose interconnector with continental Europe.

“In terms of our areas of concern we are disappointed that their preliminary environmental impact report does not include an assessment of the potential impacts of the proposed scheme on tourism and skills given in particular the setting of the scheme, its national and international renown, this is an omission the county council strongly objects to.”¹⁶⁵

Lords stages

Introducing the Bill during Second Reading Lord Callanan said it would support the Government’s aim to install 50 GW of offshore wind by 2030, providing certainty to MPI investors and developers, and “reduce the number of cabling points, landing points and substations” and “the impact on local communities and the environment”.¹⁶⁶

There was little discussion of this provision in the subsequent Lords stages.

Further reading

In addition to the various [publications providing information on the bill](#) in general, the Government has published the following background documents specific to this measure:

- [Factsheet: Multi-purpose interconnectors](#)
- [Policy statement: Multi-purpose interconnectors](#) [PDF]

The following documents provide further background on the development of this policy:

- BEIS [consultation on Offshore Transmission Network Review including proposals multi-purpose interconnectors](#) [PDF] (September 2021) and [consultation response](#) (April 2022)
- Practical Law practice note on [Electricity interconnectors: overview](#) (subscription required¹⁶⁷). This gives a history of the Government’s review of interconnector policy, its proposal to make MPIs a

¹⁶⁵ Suffolk News, [Suffolk County Council reserving judgement on power lines through beauty spots](#), 1 March 2022

¹⁶⁶ [HL Deb 19 July 2022 c1886](#)

¹⁶⁷ MPs and their staff have access to Practical Law (a legislative database) through the [Library subscription](#). Please be aware that Practical Law’s publications are subject to copyright and should not be shared. Further details on Practical Law’s copyright are available through the above link.

licensable activity, the development of MPI pilot projects and international collaboration on MPIs.

3.4 Electricity storage

Clause 168 would introduce a new legal definition for electricity storage.

Background

Electricity storage technologies

Electricity storage technologies allow surplus electricity to be stored as another form of energy until it is required, when it can be re-released as electricity.

Electricity storage can be used with variable renewable generation, such as wind and solar, to help provide a more constant supply. It can also provide flexibility services to help balance the electricity grid, as well as help reduce the power that is needed to be carried on certain parts of the network.¹⁶⁸ This can in turn reduce the need to lay new power lines.

There are multiple electricity storage technologies operating in GB. Pumped hydropower and lithium-ion batteries are the most common (other forms exist but are in earlier stages of development).

The POST briefings on [Energy Storage](#) (April 2015), [Flexible Electricity Systems](#) (September 2018) and [Longer duration energy storage](#) (December 2022) provide further background on electricity storage technologies.

Existing treatment of electricity storage in legislation

The Electricity Act 1989 is the main legislation governing electricity in GB, but it contains no specific definition of, or reference to, electricity storage.

Practical Law summarises the current treatment of electricity storage in regulation:

From a regulatory perspective, electricity storage is already generally treated as a subset of electricity generation, and, in November 2020, Ofgem amended the generation licence conditions accordingly [...] As a result, unless an exemption applies, a storage provider is likely to require a [generation] licence to operate. In addition, other licenced operators (electricity suppliers, DNOs and transmission SOs) are restricted from operating electricity storage.

¹⁶⁸ POST, [Flexible Electricity Systems](#), POSTnote 587

Holding a generation licence puts an administrative burden on an energy storage operator, including compliance with the Grid Code, and delivery of information and accounts to the energy regulator, Ofgem.¹⁶⁹

The [explanatory notes](#) explain the Government's view that the current treatment of electricity storage is no longer adequate:

Technologies such as electricity storage, demand side response and interconnectors can provide flexibility to the system, by shifting when electricity is generated and shifting demand from peak times. Flexibility in the energy system is essential to the integration of high volumes of low carbon power, heat, and transport. Analysis carried out by the Government estimated that flexibility could reduce system costs between £30-70 billion from 2020 to 2050.

[...]

The regulatory framework for electricity was not built with technologies such as electricity storage in mind. This has led to a lack of legal clarity over its treatment, creating a barrier to its deployment. To some degree clarity has been achieved in relation to securing planning consent for electricity storage but further clarity is needed for electricity storage to be developed, providing certainty to developers and investors.¹⁷⁰

The Library briefing on [Planning for solar farms and battery storage solutions](#) (June 2022) explains how electricity storage is treated in planning law.

For more information about Ofgem, see box 2 on page 16.

Policy development

In 2016 Ofgem and BEIS issued a [call for evidence on a smart, flexible energy system](#) (PDF, November 2016), which sought views on options to improve clarity on how electricity storage is treated in legislation.

The Government and Ofgem published a [summary of responses to the call for evidence, together with their joint response](#) in July 2017. This noted that most respondents supported the inclusion of a definition for electricity storage in legislation, although there were mixed views on the specific regulatory approach that should be adopted (for example, whether storage should continue to be licensed as a type of electricity generation, or whether a new storage licence should be created). The Government committed to introducing a definition for electricity storage in primary legislation.¹⁷¹

¹⁶⁹ Practical Law and Bird & Bird, [Energy storage: overview](#) (subscription required), undated, accessed 29 March 2023 via [Library subscription](#)

¹⁷⁰ [Explanatory Notes to the Energy Bill \[HL\] 2022-23](#) [PDF], paras 41-43

¹⁷¹ HM Government and Ofgem, [Upgrading Our Energy System: Smart Systems and Flexibility Plan Call for Evidence Question Summaries and Response from the Government and Ofgem](#) [PDF], GOV.UK, July 2017, p17

In July 2017 the Government and Ofgem published the [first Smart Systems and Flexibility Plan](#). This was replaced by a [second Smart Systems and Flexibility Plan](#) in July 2021. These set out the Government and Ofgem's plans to support the transition to a smarter and more flexible system, including removing barriers to electricity storage. Both the 2017 Plan and the 2021 Plan included a commitment to define electricity storage in primary legislation.

The explanatory notes explain the Government's aims in creating a legal definition of electricity storage:

The intention of formalising storage as a distinct subset of generation within the Electricity Act 1989 is to remove the current ambiguities and provide clarity and certainty over its treatment within the existing frameworks and possible future frameworks. The proposed definition is supported by responses to the Government and Ofgem's Call for Evidence on a smart, flexible energy system. This approach avoids unnecessary duplication of regulations while still allowing specific regulations to be determined for storage assets, in the shortest possible timeframe.¹⁷²

Proposed measure

Electricity storage is not currently defined under the regulatory framework for electricity. This has led to a lack of legal clarity over its treatment, creating a barrier to deployment.¹⁷³ The [DESNZ factsheet on electricity storage](#) explains how the proposed measure in the Bill would address this:

The Bill amends the Electricity Act 1989 to, in effect, clarify that electricity storage is a distinct subset of generation, and defines the storage as energy that was converted from electricity and is stored for the purpose of its future reconversion into electricity.¹⁷⁴

The primary legislation is expected to have only a small direct financial impacts. It is estimated to result in a net loss of no more than £100,000, and to have an equivalent annual net direct cost to business of less than £100,000.¹⁷⁵

The factsheet gives further background on the measure.

Reaction to the measure

As noted above, this measure has been subject to consultation.

¹⁷² [Explanatory Notes to the Energy Bill \[HL\] 2022-23 \[PDF\]](#), para 44

¹⁷³ [Explanatory Notes to the Energy Bill \[HL\] 2022-23 \[PDF\]](#), para 43

¹⁷⁴ DESNZ/BEIS, [Energy Security Bill factsheet: Defining electricity storage](#), GOV.UK, updated 23 March 2023

¹⁷⁵ BEIS, [Energy Bill Summary Impact Assessment \[PDF\]](#), p5

There has been little media coverage of the measure in the context of the wider Energy Bill, although some industry stakeholders have commented:

- Regen, a not-for-profit centre of energy expertise and market insight, [welcomed the Bill's the new definition for electricity storage](#), saying it would increase investor certainty. It called for the Government to further introduce a dedicated licence for electricity storage.
- A [blog by law firm CMS](#) said the new definition was a positive development, but that the focus on electricity storage, rather than energy storage more broadly, could affect the deployment of other technologies:

It is interesting to note that “stored energy” is defined as a subset of electricity generation rather than a separate asset class (as is the case with electricity interconnectors). As has been noted by the industry, this approach, whilst consistent with the GB and EU approach regarding unbundling storage from transmission and distribution, does not include heat or power-to-x technologies and potentially means that some services are harder to value or applications are more difficult to deploy (e.g. TSO/DNO involvement in storage non-wire alternatives).¹⁷⁶

Clause 168

Clause 168 would amend the Electricity Act 1989 to establish a definition of electricity storage and to clarify that electricity storage is a distinct sub-set of electricity generation.

The [explanatory notes \[PDF\]](#) give examples of the technologies that would be covered by the new definition, and those that would not.

Lords stages

Introducing the Bill during second reading, Lord Callanan said it would “facilitate the deployment of electricity storage, such as batteries and pumped hydro storage, and remove obstacles to innovation in this area”.¹⁷⁷

There was little discussion of this provision in the subsequent Lords stages.

Further reading

In addition to the various [publications providing information on the bill](#) in general, the Government has published the following background documents specific to this measure:

¹⁷⁶ CMS Law-Now™, [Energy Bill 2022: New Clarity on the Treatment of Electricity Storage](#), 15 August 2022

¹⁷⁷ [HL Deb 19 July 2022 c1886](#)

- [Energy Security Bill factsheet: Defining electricity storage](#)

The following documents provide further background on the development of this policy:

- BEIS and Ofgem [Call for evidence on a smart, flexible energy system](#) (PDF, November 2016) and [summary of responses, including response from Government and Ofgem](#) (July 2017)
- The first and second smart systems and flexibility plans:
 - [Upgrading our energy system: smart systems and flexibility plan \(2017\)](#)
 - [Transition to a net zero energy system: smart systems and flexibility plan \(2021\)](#)
- Practical Law practice note on [Energy storage: overview](#) (subscription required¹⁷⁸). This provides background on the role of energy storage, energy storage technologies, the current regulatory treatment of regulatory storage and the development of the proposed measure.

3.5

Energy Company Obligation (ECO) buy-out mechanism

Background

Since 2013 ECO has placed an obligation on energy suppliers that have over 150,000 customer accounts to install energy efficiency and heating measures in GB. It is focused on providing support primarily to low income and vulnerable households.¹⁷⁹ Suppliers meet their obligation either through in-house services or by contracting with a third party. Costs are likely to be passed onto customer bills.¹⁸⁰

Smaller energy suppliers are currently exempt from the ECO obligation. The Government wants to remove market distortions whereby smaller suppliers can undercut larger suppliers (who must pay ECO costs) on prices. The Energy Bill would enable the removal of this exemption by allowing the Government to introduce a “buy-out mechanism”. Once ECO thresholds had been removed, this mechanism would allow smaller

¹⁷⁸ MPs and their staff have access to Practical Law (a legislative database) through the [Library subscription](#). Please be aware that Practical Law’s publications are subject to copyright and should not be shared. Further details on Practical Law’s copyright are available through the above link.

¹⁷⁹ BEIS etc, [Energy Security Bill factsheet: Energy Company Obligation buy-out mechanism](#), Updated 9 March 2023

¹⁸⁰ [Energy Bill \[HL\] Explanatory Notes](#), Policy background, para 45 [PDF]

suppliers to pay into a buy-out 'pot' to meet their obligation, at a price that would be on a par with installation costs of larger suppliers.

Consultation and Energy White Paper

In its Energy White Paper (December 2020) the Government committed to:

- extend the Energy Company Obligation from 2022 to 2026; and
- consult on how the energy supplier thresholds of ECO can be removed without incurring disproportionate costs on suppliers, including potentially introducing a buy-out mechanism as part of reforms to the scheme beyond 2022.¹⁸¹

The public consultation on ECO4 in Summer 2021 included initial proposals for a buy-out mechanism and committed to a further consultation on secondary legislation details before its introduction.

The Government's response to this consultation set out the Government's intention to:

- significantly reduce thresholds once a buy-out mechanism is introduced, which will address cost disparities faced by small suppliers;¹⁸²
- reduce the supplier allowance, as a step towards the significant reduction of supplier obligation thresholds;¹⁸³
- reduce the supplier allowance by 50% so obligations will be calculated per unit of supply on volumes in excess of 150GWh/year electricity and 350 GWh/year gas, from phase 1 (commencing at the start of the scheme and running until 31 March 2023);¹⁸⁴
- consult on the exact design of the buy-out mechanism and not reduce supplier thresholds until this process is available, and legislate for the powers to create this new mechanism when Parliamentary time allows;¹⁸⁵
- explore a lower-cost, more flexible delivery option which would involve energy suppliers being able to achieve their home-heating cost reduction obligation by payment to third parties in lieu of delivering measures.¹⁸⁶

¹⁸¹ HM Government, [Powering our Net Zero Future](#), December 2020

¹⁸² BEIS, [Design of the Energy Company Obligation ECO4: 2022-2026](#), April 2022, para 4

¹⁸³ BEIS, [Design of the Energy Company Obligation ECO4: 2022-2026](#), April 2022, para 5

¹⁸⁴ BEIS, [Design of the Energy Company Obligation ECO4: 2022-2026](#), April 2022, para 8

¹⁸⁵ BEIS, [Design of the Energy Company Obligation ECO4: 2022-2026](#), April 2022, para 27

¹⁸⁶ BEIS, [Design of the Energy Company Obligation ECO4: 2022-2026](#), April 2022, para 30

Existing ECO schemes

ECO has operated since 2013 in several iterations.¹⁸⁷ ECO4, the current scheme, covers the period from 1 April 2022 until 31 March 2026.¹⁸⁸

[The Electricity and Gas \(Energy Company Obligation\) Order 2022 \(SI 2022/875\)](#) sets out the supplier thresholds, as well as the customer qualifying criteria and the energy efficiency and heating measures that can be provided.¹⁸⁹

ECO schemes have delivered over 3.6 million energy-efficiency measures in GB up to February 2023. This equates to 137.6 ECO measures per 1,000 households. There are 2.4 million homes in receipt of ECO measures, equating to 89.8 per 1,000 households.

ECO Obligations

The three ECO obligations are: Carbon Savings Obligation or Carbon Emissions Reduction Obligation (CERO), Carbon Savings Community (CSCO) and Affordable Warmth or Home Heating Cost Reduction Obligation (HHCRO).

Out of the total ECO measures, 1.0 million were for CERO (38.5 per 1,000 households), 0.48 million for CSCO (18.0 per 1,000 households) and 2.0 million for HHCRO (75.4 per 1,000 households).

Through ECO, the combination of HHCRO and CSCO had delivered around 2.5 million measures in around 1.6 million low income and vulnerable households, or households in specified areas of low income, by the end of February 2023.

Type of ECO Measure

The table below shows the type of ECO measure (i.e., boiler, loft insulation) installed. Of the ECO measures installed, 29% were cavity wall insulation, 23% boilers and 19% loft insulation.

¹⁸⁷ The Library briefing [Energy Company Obligation \(ECO\)](#) (7 July 2020) provides an overview of the scheme's history and previous iterations, and previous energy efficiency schemes aimed at households.

¹⁸⁸ The [Electricity and Gas \(Energy Company Obligation\) Order 2022](#) commenced on 27 July 2022.

¹⁸⁹ This Order is made primarily in exercise of the powers conferred by sections 33BD of the Gas Act 1986, section 41B of the Electricity Act 1989 and section 103A of the Utilities Act 2000.

ECO measures installed by measure type in Great Britain Total of 2013 to 2022

Measure Types	ECO measures installed	% of measures installed
Cavity Wall Insulation	1,031,198	29.1
Boiler	821,784	23.2
Loft Insulation	680,593	19.2
Other Heating	632,120	17.8
Solid Wall Insulation	212,750	6.0
Other Insulation	151,735	4.3
Windows and Doors	6,447	0.2
Micro-generation	5,163	0.1
Total	3,541,790	100

Notes: Other Heating mainly consists of 'heating controls'

Source: DESNZ, [Household Energy Efficiency Statistics April 2023](#), T3.1, T4.1

Eligible households and measures

The Government webpage [Help from your energy supplier: the Energy Company Obligation](#) sets out which households qualify for support through ECO and the energy efficiency rating that a qualifying property must have. Home owners' properties must have an [energy efficiency rating](#) of D or below and private renters' properties must be E or below to be eligible for support.

Ofgem (the energy regulator) publishes guidance on the households that are eligible for support through ECO and the measures (such as insulation, or replacement heating systems) that can be installed depending on the property type and tenure.¹⁹⁰

For information about Ofgem, see box 2 on page 16.

Obligated suppliers

The size thresholds at which suppliers become obligated to provide support was initially 150,000 customer accounts and supply volumes of 300GWh/year of electricity and 700 GWh/year of gas, until 31 March 2023. Volume thresholds were then lowered to 150GWh/year of electricity and 350GWh/year of gas for the years 2023/24 to 2025/26.¹⁹¹

¹⁹⁰ Ofgem's [Energy Company Obligation \(ECO4\) Guidance: Delivery](#) provides details on eligible property tenures and households, and eligible measures under the scheme (see Table 10). Further details on eligible measures are provided at: [ECO4 Project Forms and Tables | Ofgem](#).

¹⁹¹ Ofgem guidance, [Supplier Obligations: Environmental and social schemes](#)

The Government has indicated that once a buy-out mechanism is introduced, it will “significantly reduce” these thresholds, in order to “address cost disparities faced by small suppliers.”¹⁹²

Rationale for change

As noted above smaller suppliers are not obligated under ECO. They therefore do not incur the delivery costs that larger suppliers do and do not have to pass these costs on to customers. The impact assessment for the Bill sets out that under the previous ECO3 scheme the costs to different sized suppliers were as follows:

suppliers below the scheme threshold face no cost; the smallest twelve obligated suppliers are expected to face around £6-7 per dual fuel customer, while the largest six suppliers face £25-27. This sends a price signal that does not represent the underlying efficiency of the supplier.¹⁹³

The Government has said it is, “legislating to enable the removal of obligation thresholds under the scheme without creating significant financial and administrative burden for small suppliers.”¹⁹⁴ The Bill would enable the removal of this ‘market distortion’ by allowing smaller suppliers a ‘buy-out’ option: in this way they could avoid the disproportionate cost of providing measures under ECO when the thresholds are reduced or removed.

The Government’s [Energy Security Bill factsheet: Energy Company Obligation buy-out mechanism](#), updated on 20 March 2023, states that the aim is to “achieve a more equal and fair energy market for suppliers and spread the cost of ECO amongst a greater number of domestic consumers.”¹⁹⁵

Clause 169: the proposed buy-out mechanism

Clause 169 would grant the Secretary of State the power to introduce a buy-out mechanism under the Energy Company Obligation (ECO) scheme.

The buy-out mechanism would be introduced by secondary legislation, which would allow the Secretary of State to:

- Enable suppliers to make a buy-out payment;

¹⁹² BEIS, [Energy Company Obligation ECO4: 2022 – 2026 Government Response](#), April 2022, p7

¹⁹³ HM Government, [Impact Assessment, ECO4 threshold removal and buy out IA No: BEIS041\(F\)-22-EEL](#) (opens PDF), 6 July 2022, para 10

¹⁹⁴ Department for Business, Energy & Industrial Strategy, Department for Energy Security and Net Zero, [Guidance Energy Security Bill factsheet: Energy Company Obligation buy-out mechanism](#). Updated 20 March 2023

¹⁹⁵ Department for Business, Energy & Industrial Strategy, Department for Energy Security and Net Zero, [Guidance Energy Security Bill factsheet: Energy Company Obligation buy-out mechanism](#). Updated 20 March 2023

- Set the buy-out price;
- Make the criteria for approved third parties and purposes to which a buy-out payment is made;
- Set the procedure to be followed by suppliers to make buy-out payments.

The mechanism will be preceded by a separate consultation.¹⁹⁶

In its impact assessment the Government said that smaller suppliers would be able to choose whether to use the buy-out mechanism or to deliver ECO measures.¹⁹⁷ However, the Government has proposed that as suppliers grow, they would become less able to use the buy-out mechanism:

we are proposing to allow suppliers that are not currently obligated under ECO (those with between 1,001 and 150,000 customer accounts) the option of using buy-out to deliver their entire obligation. To avoid a cliff-edge situation, we are proposing that as the supplier grows, their option to buy-out declines. The main change from our earlier proposals is that suppliers with over 500,000 customer accounts will not be permitted to use the buy-out mechanism. Initial modelling on the potential buy-out spend per year indicated that allowing the largest suppliers to even buy-out 1% of their obligation would divert significant funding away from core ECO delivery.¹⁹⁸

The table below shows the proportion (cap) of a supplier's obligation that could be met through a buy-out mechanism. Those with between 1,001 and 150,000 customer accounts have the option of using buy-out to deliver their entire obligation.

Proportion (cap) of a supplier's obligation that could be met through a buy-out mechanism	
Customer Base	New mechanism cap
1,001 - 150,000	Up to 100%
150,001 - 250,000	Up to 10%
250,001 - 500,000	Up to 2%
500,001 or above	0%

Source: BEIS, [Energy Security Bill Policy Statement Energy Company Obligation Buyout Mechanism](#) [PDF], August 2022, p6

¹⁹⁶ Department for Business, Energy & Industrial Strategy, Department for Energy Security and Net Zero, [Guidance Energy Security Bill factsheet: Energy Company Obligation buy-out mechanism](#). Updated 20 March 2023

¹⁹⁷ HM Government, [Impact Assessment, ECO4 threshold removal and buy out IA No: BEIS041\(F\)-22-EEL](#) (opens PDF), 6 July 2022, p7-8 [PDF]

¹⁹⁸ Department for Business, Energy & Industrial Strategy, [Energy Security Bill Policy Statement Energy Company Obligation Buyout Mechanism](#) [PDF], August 2022, p6

Impact on smaller suppliers

Further consultation on exactly how the scheme will work is expected before the secondary legislation is introduced.¹⁹⁹ The impact assessment noted that the costs and benefits of the buy-out mechanism were “highly uncertain at this stage”. It highlighted that as well as higher delivery costs, newly obligated suppliers may “also face set-up and familiarisation costs associated with ECO4”. It stated that these “have not been quantified in isolation at this stage but will be considered once policy detail is clearer.”²⁰⁰ The impact assessment estimated that around 10 suppliers could be newly obligated under the proposed lower thresholds, but final numbers would depend on any further exits to the energy market.²⁰¹

Reaction to the buy-out mechanism proposal

As noted above the threshold removal and buy-out option proposals were subject to consultation.

In its [Policy Statement](#) the Government reported supportive feedback for its buy-out mechanism proposals.²⁰²

Similarly in the [Consultation Outcome on the Design of the Energy Company Obligation ECO4: 2022-2026](#), published in 2021 and updated in 2022, the Government reported that responses were broadly supportive of its proposals. It noted that some concerns were raised about possible risks to delivery of actual ECO measures should a significant proportion of suppliers choose the buy-out mechanism instead.²⁰³

Ofgem supported the proposals to move supplier thresholds and introduce a buy-out mechanism. It cautioned that the new mechanism would need to be carefully considered and planned, with a clear process in place.²⁰⁴

Citizen’s Advice also welcomed the proposals and noted that improving fairness in the scheme was something it had long supported.²⁰⁵ It was

¹⁹⁹ HM Government, [Impact Assessment, ECO4 threshold removal and buy out IA No: BEIS041\(F\)-22-EEL](#) (opens PDF), 6 July 2022, p7

²⁰⁰ HM Government, [Impact Assessment, ECO4 threshold removal and buy out IA No: BEIS041\(F\)-22-EEL](#) (opens PDF), 6 July 2022, para 44

²⁰¹ HM Government, [Impact Assessment, ECO4 threshold removal and buy out IA No: BEIS041\(F\)-22-EEL](#) (opens PDF), 6 July 2022, para 66

²⁰² BEIS, [Energy Security Bill Policy Statement Energy Company Obligation Buyout Mechanism](#), August 2022, p5 [PDF]

²⁰³ BEIS, [Consultation outcome Design of the Energy Company Obligation ECO4: 2022-2026](#), 20 July 2021, updated 1 April 2022

²⁰⁴ [Ofgem’s response to BEIS Consultation on the Design of the Energy Company Obligation: 2022-2026](#), 5 October 2021

²⁰⁵ [Citizens Advice response to Energy Company Obligation ECO4: 2022 - 2026 - Citizens Advice](#), 6 September 2021

generally supportive of the Energy Bill but made no specific comment on its ECO provisions.²⁰⁶

Clause 169 was not amended in the Lords.

3.6 Smart metering licensing

Background

What is a smart meter?

A smart meter can measure how much gas and electricity a customer uses. It can then send a meter reading via a remote connection direct to the energy supplier. There are two main elements to a smart meter; the meter itself, which uses a secure smart data network to send readings to the energy supplier, and the consumer's in-home digital display that shows the energy consumed and how much it costs.²⁰⁷

The advantage of smart meters is that they provide accurate readings of energy usage. In turn this means bills are more accurate and no longer estimated. The in-home display allows energy consumption and costs to be tracked in real time to allow for more efficient energy management.

Unless there is a good reason not to, suppliers must install a smart meter if they are replacing a meter or installing a meter for the first time, such as in a new property. However, customers may choose not to accept an offer to have a smart meter fitted.²⁰⁸

There is no upfront charge to domestic consumers for having a smart meter installed. Energy suppliers recover their costs from their entire customer base, just as they do with traditional metering. Metering costs represent a small proportion of customers' energy bills.

The Government's [Smart meters: a guide for households](#) provides further information including consumer protection, privacy, health and safety, and where to find help and advice.

Smart meter coverage

More than half (55%) of all meters (56.7 million) in operation were smart or advanced meters in Great Britain at the end of 2022. There were 25.4 million non-smart meters compared to 31.1 million smart and

²⁰⁶ [Energy Security Bill is welcome, but immediate action is needed before winter draws in, says Citizens Advice](#), 6 July 2022

²⁰⁷ Energy Saving Trust, [Guide to smart meters](#) [accessed 29 April 2023]

²⁰⁸ Ofgem, [Get a smart meter](#) [accessed 2 May 2023]

advanced meters²⁰⁹. Of the smart meters, 28.1 million were operating in smart mode.²¹⁰ The majority (94%) of smart meters were in the domestic sector.

Regulatory and targets framework

The Smart Metering Implementation Programme is led by DESNZ (formerly BEIS), regulated by the Office of Gas and Electricity Markets (Ofgem), and delivered by energy suppliers.²¹¹ For information about Ofgem, see box 2 on page 16.

The [Energy Act 2008](#), along with provisions in the [Electricity Act 1989](#) and the [Gas Act 1986](#) provides the Secretary of State with powers to modify gas and electricity licence conditions and industry codes to support delivery of the smart meter rollout.²¹²

The smart meter rollout began in 2011. Since the beginning of the rollout, the Government has used its powers to set various supplier licence conditions to incentivise energy companies to install smart meters. Further information on these conditions can be found in the Commons Library briefing on smart meters.²¹³

The Secretary of State has powers to modify energy licence conditions and industry codes to enable the rollout of smart meters. These powers are currently due to expire on 1 November 2023. However smart meter installation across Great Britain is not yet complete. In June 2021 the Government published a Targets Framework which sets an ambition for completion at the end of 2025. The Bill provides for the Government's powers to continue for a further five years, until 1 November 2028.²¹⁴

The number of annual installations of smart meters peaked at 5.1 million in 2018 and decreased to 3.7 million in 2022. This is shown in the chart below.

²⁰⁹ Advanced domestic meters are electricity/gas meters that, as a minimum, provide measured consumption data for multiple time periods (at least daily), and are able to provide the licensee with remote access to this data. Ofgem, [Supply licence guide: Metering, billing and payments](#), 2019 [PDF]

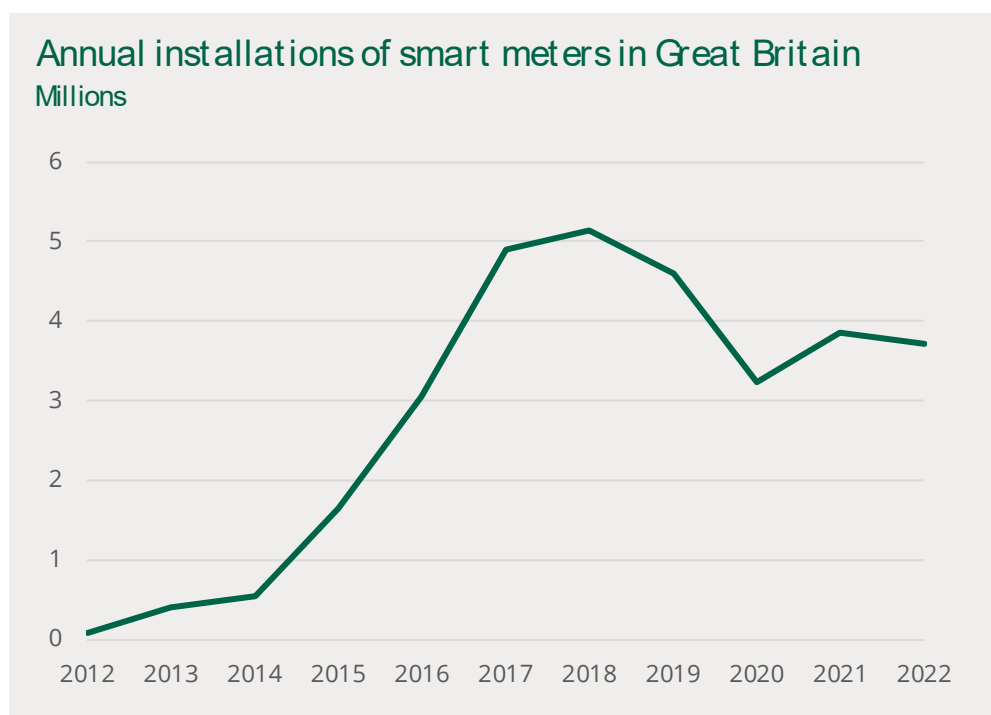
²¹⁰ Official Statistics, [Smart meters in Great Britain, quarterly update December 2022](#), 21 March 2023

²¹¹ BEIS, [Smart Meter Roll-Out Cost-Benefit Analysis \(2019\)](#), Background and Strategic Overview

²¹² BEIS, [Energy Security Bill Policy Statement Smart metering](#), August 2022, p5 [PDF]

²¹³ Commons Library briefing, [Energy Smart Meters](#), 7 October 2019

²¹⁴ BEIS, DESNZ, [Energy Security Bill factsheet: Smart metering](#), updated 20 March 2023



Source: Official Statistics, [Smart meters in Great Britain, quarterly update December 2022](#), 21 March 2023

Delay to the smart meter rollout

Following delays to the rollout, in 2018 the National Audit Office (NAO) reflected widespread concern that by the end of 2020, “the number of smart meters installed [...] will fall materially short of the Department’s original ambitions.” The NAO identified problems such as the move to new smart meters (SMETS1 to SMETS2²¹⁵) and unanticipated technical difficulties as causes of the delay. It also stated that suppliers attributed reduced rollout to limited consumer interest and delays to SMETS2.²¹⁶

In September 2019 the Government published a consultation on [Smart meter policy framework post 2020](#) noting that over the past three months, COVID-19 had “had a significant impact on the way energy suppliers operate.” It stated that in line with Government and Ofgem guidance, energy suppliers were making operational decisions to protect their customers and workforce, and that suppliers had focused on essential and emergency metering work and supporting those in vulnerable circumstances.²¹⁷

The consultation confirmed that the Government would extend an existing obligation on energy suppliers, to take “all reasonable steps”

²¹⁵ For information see [Smart Metering Implementation Government Response to the Consultation on maximising interoperability for first generation \(SMETS1\) smart meters](#), Background to SMETS1 policy [PDF]

²¹⁶ National Audit Office, [Rolling out smart meters](#), 23 November 2018, Key findings [PDF]

²¹⁷ BEIS, [Delivering a Smart System Response to a Consultation on Smart Meter Policy Framework Post-2020](#), June 2020 [PDF]

(ARS) to install smart meters in all homes and small businesses by the end of 2020. The obligation would be extended by six months to 30 June 2021. This would enable energy suppliers to return to installing smart meters at volume as COVID-19 restrictions eased. The Government committed to implement a new four-year Framework (as set out below) to drive progress through the setting of installation targets.

Current framework

The Government introduced a new target framework for smart metering on 1 January 2022, which runs for four years to 31 December 2025. It was introduced to drive progress in smart meter installations, towards a goal of “the highest levels of smart coverage” by the end of 2025, subject to agreed tolerances.²¹⁸ The tolerance levels give suppliers leeway, for example to account for difficulties in installing smart meters.

Under the framework each energy supplier is set an individual, binding, target on a trajectory to 100% coverage, subject to annual tolerance levels that apply across industry as a percentage of their customer base. This creates a minimum installation quantity that an energy supplier must achieve in each year of the new framework.

Failure to achieve the annual installation targets will be a breach of a supplier's licence.²¹⁹ Where a supplier fails to achieve its installation target, Ofgem will consider enforcement action, which will be in accordance with its [enforcement guidelines](#).

Costs of smart meter rollout

Costs of the rollout are largely borne by suppliers and are ultimately paid for through higher bills.

The latest [Government cost benefit analysis](#) of the smart meter rollout programme estimated that total costs (including the meters themselves, installation, in-home display units, data communication, IT systems, marketing etc.) from the start of the programme in 2013 to 2030 at £13.5 billion in 2011 prices, or around £17.2 billion in current prices (adjusted to 2022 values using [March 2023 GDP deflators](#)).

However, the Government expects that the value of the benefits of the programme (in energy saved, reduced costs to suppliers and network operators, shifting patterns of demand, reduced carbon emissions and lower levels of air pollution) will be substantially higher, at £19.5 billion in 2011 prices or £24.8 billion in current prices.²²⁰

²¹⁸ BEIS, DESNZ, [Smart Meter Targets Framework: minimum installation requirements for Year 3 \(2024\) and Year 4 \(2025\)](#), 7 February 2023, p37

²¹⁹ Ofgem, [Letter to suppliers: Smart Meter rollout: Approach to non-compliance with Standard Licence Conditions 39A of the Electricity Supply Licence and 33A of the Gas Supply Licence](#), 6 December 2022

²²⁰ BEIS, [Smart Meter Roll-Out Cost-Benefit Analysis \(2019\)](#) (PDF), September 2019

Rationale for extending the powers

The Government has outlined that it needs to extend its powers so that its installation targets, set out in the Targets Framework, can be met. It also wants to “maximise the enduring benefits to Great Britain of having a market-wide smart metering system after 2025”.²²¹

The Government’s delegated powers memorandum also gave the example that the extended powers could be used if the Government needed to “make changes to regulatory obligations to ensure energy suppliers’ annual smart meter installation targets remain robust and effective in Year 3 (2024) and Year 4 (2025) of the Framework.”²²²

The Impact Assessment for the Bill set out how smart meters make energy systems more efficient and flexible and enable the integration of renewable energy sources. It stated that without the flexibility provided by powers in the Bill, “the costs of delivering net zero by 2050 could be up to £16 billion higher each year.”²²³

Clause 170: extension of time for exercise of powers

Clause 170 of the Bill would amend the [Gas Act 1986](#), the [Electricity Act 1989](#) and the [Energy Act 2008](#) to extend the time limit that the Secretary of State can use existing smart meter licensing powers under these Acts, from 1 November 2023 to 1 November 2028. These powers relate to the smart meter rollout and are to, “make activities relating to smart metering licensable; modify gas and electricity licence conditions and industry codes; and veto any proposal by Ofgem to consent to the transfer of the smart meter communication licences.”²²⁴

The clause was not amended in its Lords stages.

²²¹ BEIS, DESNZ, [Guidance Energy Security Bill factsheet: Smart metering](#) (updated 20 March 2023)

²²² [Delegated Powers Memorandum – Energy Bill \(PDF\)](#), p101

²²³ HM Government, [Smart Metering Rollout IA No: BEIS048\(F\)-22-SMIP Impact Assessment \(IA\) Date: 06/07/2022](#), p1 [PDF]

²²⁴ Energy Bill, [Explanatory Notes, Bill 295–EN](#) (PDF), para 50

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