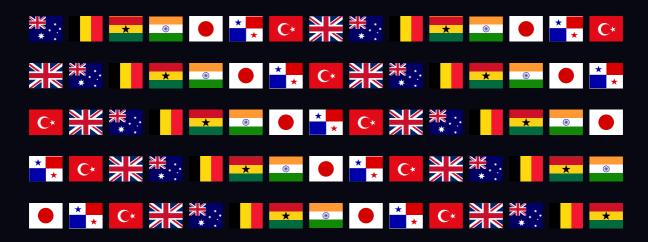
ELECTRICITY REGULATION

United Kingdom





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Quick reference guide enabling side-by-side comparison of insights into the local legal framework; regulation of power generation, grid connection, and alternative energy sources; climate change policy; energy storage; nuclear power; transmission and distribution; sale of power, including retail and wholesale pricing and public service obligations; regulatory authorities; competition regulation including merger control; cross-border considerations including mergers and acquisitions and interconnection regulations; transactions between affiliates; and recent trends.

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LEGAL FRAMEWORK

Policy and law

What is the government policy and legislative framework for the electricity sector?

Legislative framework

Broadly, the following legislation regulates the electricity sector in the United Kingdom:

- the Electricity Act 1989 (as amended by the Electricity and Gas (Internal Markets) Regulations 2017 (SI 2017/493));
- · the Utilities Act 2000;
- · the Energy Act 2004;
- the Energy Act 2008;
- the Energy Act 2010;
- the Energy Act 2011;
- the Energy Act 2013; and
- the Energy Act 2016.

There has been a raft of new legislation in recent years introduced as a result of the UK's withdrawal from the European Union, including:

- the Electricity Trading (Development of Technical Procedures) (Day-Ahead Market Timeframe) Regulations 2021 (SI 2021/651) implementing new cross-border electricity trading arrangements at the day-ahead market time frame;
- the Climate and Energy (Revocation) (EU Exit) Regulations 2021 (SI 2021/519) revoking directly retained EU law relating to reporting obligations under the Paris agreement and Kyoto Protocol and greenhouse gas emissions reduction commitments and reporting obligations that no longer have practical implications in the United Kingdom; and
- the Electricity and Gas (Internal Markets and Network Codes) (Amendment etc) (EU Exit) Regulations 2020 (SI 2020/1006) reflecting the entry into the EU Clean Energy Package.

This legislative activity is expected to continue as various retained EU laws are revoked and replacement legislation is enacted.

Policy

The Department of Energy and Climate Change (DECC), formed in 2008, was the ministerial department responsible for making decisions, setting policy and implementing legislation affecting the electricity sector. The corresponding government ministry in Northern Ireland is the Department of Enterprise, Trade and Investment. Following the EU Referendum held on 23 June 2016, DECC was merged together with the Department for Business and Innovation to create the Department for Business, Energy and Industrial Strategy (BEIS). Since its introduction, it has prioritised:

- · security of supply;
- · cost; and
- · decarbonisation.



It has done so mainly through the enactment of the Electricity Market Reform (introduced by the Energy Act 2013), which has introduced contracts for difference in furtherance of its decarbonisation policy and the capacity market to provide security of supply in times of high demand. On 19 July 2018, the Domestic Gas and Electricity (Tariff Cap) Act 2018 received royal assent. This Act put in place a requirement on the energy regulator, the Office of Gas and Energy Markets (Ofgem), to cap standard variable and default energy tariffs. This is one of the BEIS policy initiatives to regulate the cost of electricity to consumers.

Independent bodies

BEIS works closely with and is supported by other agencies and public bodies, including the following:

Gas and Electricity Markets Authority and Ofgem

The Gas and Electricity Markets Authority (GEMA) has primary responsibility for the regulation of the energy sector. GEMA's powers and duties are largely provided for in statute (such as the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Acts of 2004, 2008, 2010 and 2011). Prior to the UK's exit from the European Union, GEMA also derived powers from EU legislation in respect of energy regulation which had direct effect in the UK. Some of these powers were retained at the end of the transition period under the European Union (Withdrawal Agreement) Act 2020.

Competition and Markets Authority

The Competition and Markets Authority was established in April 2014 under the Enterprise and Regulatory Reform Act 2013. It is an independent non-ministerial department that brought together the existing competition and certain consumer protection functions of the Office of Fair Trading and the responsibilities of the Competition Commission to promote competition for the benefit of consumers within and outside the UK.

The Environment Agency

The Environment Agency is responsible for protecting and improving the environment as well as promoting sustainable development. The role of the Environment Agency regarding electricity is limited to matters related to pollution and, therefore, mainly relates to conventional generation and nuclear energy.

Law stated - 11 August 2022

Organisation of the market

What is the organisational structure for the generation, transmission, distribution and sale of power? How is this reflected in the regulatory structure?

GEMA has primary responsibility for the regulation of the energy sector. GEMA's principal objective is to protect the interests of existing and future consumers in relation to gas conveyed through pipes and electricity conveyed by distribution or transmission systems. The interests of such consumers are their interests taken as a whole, including their interests in the reduction of greenhouse gases in the security of the supply of gas and electricity to them.

GEMA is constituted of individuals who are appointed by the Secretary of State for specified terms of not less than five



years. GEMA is independent and has very limited stakeholder participation (such as the Secretary of State's ability to remove members on the grounds of misbehaviour, determine the remuneration of members and give guidance).

GEMA delegates its functions to Ofgem and provides Ofgem with strategic direction and oversight. Ofgem is also a non-ministerial government department, which states that its principal objective is to protect consumers by working to deliver a greener, fairer energy system.

A licence from GEMA is required before the generation, transmission, distribution or sale of power. This licence is issued by Ofgem following receipt of a written application together with the relevant fee. Ofgem will determine the relevant conditions to the licence and the licence-holder must comply with those conditions as well as with various industry codes and standards, such as the Balancing and Settlement Code, the Grid Code and the Distribution Code

Ofgem E-Serve, which introduces itself as the 'delivery arm of Ofgem', administers environmental schemes and consumer and social programmes on behalf of the government, including schemes related to renewable energy such as the feed-in tariff, Contracts for Difference, Boiler Upgrade Scheme, the Renewables Obligation scheme, the Smart Export Guarantee scheme and the Offtaker of Last Resort scheme.

Law stated - 11 August 2022

REGULATION OF ELECTRICITY UTILITIES - POWER GENERATION

Authorisation to construct and operate generation facilities

What authorisations are required to construct and operate generation facilities?

The authorisations required to construct and operate generation facilities depend on the type and size of the facility to be constructed or operated. By way of example, certain types of energy infrastructure fall within the category of 'nationally significant infrastructure project', and as such require a Development Consent Order (DCO) under the Planning Act 2008. The thresholds for projects falling under this category are more than 50 megawatts onshore, and more than 100 megawatts offshore. Applications for a DCO are made to and publicly examined by the Planning Inspectorate, which then makes a recommendation to the Secretary of State for Energy and Climate Change. Projects with a generating capacity of 50 megawatts or less in England and Wales have consent under the Town and Country Planning Act 1990.

For offshore generating stations with a generating capacity of more than 1 megawatt but less than or equal to 100 megawatts, consent under section 36 of the Electricity Act 1989 is also required.

In Scotland, section 36 of the Electricity Act 1989 applies to all projects above 50 megawatts. Projects that are less must apply for consent to the local planning authority under the Scottish Planning Act. The Scottish Executive is responsible for dealing with applications for consent for generating projects onshore. Marine Scotland, a directorate of the Scottish Executive, is responsible for dealing with applications for consent under section 36 of the Electricity Act 1989 for offshore generating stations in Scottish waters.

Depending on the type of plant, further authorisation such as relating to health and safety, environmental or nuclear specific matters may also be required from the appropriate regulator.

Law stated - 11 August 2022

Grid connection policies

What are the policies with respect to connection of generation to the transmission grid?

Generators applying directly to connect to the transmission system (ie, with a capacity of at least 100 megawatts) need a connection agreement with National Grid Electricity Transmission (NGET) and are required to complete a connection



application form, provide technical data and pay the relevant application fee.

The generator is required to become a party to the Connection and Use of System Code (CUSC) Framework Agreement and comply with the CUSC and the requirements of the Grid Code (which sets out rules related to the planning, operation and use of the electricity transmission network). The Grid Code, the Balancing and Settlement Code and the System Operator Transmission Owner Code are maintained by NGET under its transmission licence to govern the relationship between it and the electricity industry participants.

Small generators wishing to connect to the distribution network, that do not require explicit access rights to the National Electricity Transmission System, make similar agreements with the relevant distribution network operator.

There may be other requirements, such as the provision of financial security by the generator if additional work is required before a connection is available.

Law stated - 11 August 2022

Alternative energy sources

Does government policy or legislation encourage power generation based on alternative energy sources such as renewable energies or combined heat and power?

Ofgem E-Serve administers environmental schemes and consumer and social programmes on behalf of the government, including schemes related to renewable energy, such as:

- Feed-in Tariff (FIT): the scheme is a government programme designed to promote the uptake of renewable and low-carbon electricity generation technologies. Introduced on 1 April 2010, the scheme requires participating licenced electricity suppliers to make payments on both generation and export from eligible installations. The FIT scheme closed to new applicants on 1 April 2019, with some exceptions. Provided eligibility criteria are met, it remains available for people who have installed, or are looking to install, solar photovoltaic, wind, micro combined heat and power, hydro or anaerobic digestion technology types up to a capacity of 5MW, or 2kW for micro combined heat and power.
- Contracts for difference (CfD): the provision of CfDs is one of the key policy measures to incentivise new lowcarbon electricity generation. The provision of CfDs is intended to stabilise revenues for investors in low-carbon electricity generation projects such as renewables, by helping developers secure the large upfront capital costs for low-carbon infrastructure. The CfD is a quasi-power purchase agreement; generators with a CfD will sell their electricity into the market in the normal way, and remain active participants in the wholesale electricity market. The CfD then pays the difference between an estimate of the market price for electricity and an estimate of the long-term price needed to bring forward investment in a given technology (the strike price). This means that when a generator sells its power, if the market price is lower than needed to reward investment, the CfD pays a 'top-up'. However, if the market price is higher than needed to reward investment, the contract obliges the generator to pay back the difference. In this way, CfDs stabilise returns for generators at a fixed level, throughout the contract. This removes the generator's long-term exposure to electricity price volatility, substantially reducing the commercial risks faced by these projects. The Energy Act includes a provision whereby a new UK government-owned company (the Low Carbon Contracts Company (LCCC) will act as the counterparty to eligible generators under the CfD. This mechanism was in direct response to concerns about the 'credit' behind the CfD economics. Although a CfD is a private law contract between a low-carbon electricity generator and the LCCC, the cost of CfDs will ultimately be met by consumers via a levy on electricity suppliers. The first CfD auction result published in February 2015 was a success, with a competitive allocation process, with the cost of £105 million less than the original strike prices published for the same technologies. To date, three Allocation Rounds have been completed (in 2014/15, 2016/17, and 2019) and these have awarded contracts to 50 renewable electricity development

projects in total. The generation capacity awarded in 2019 alone will equate to 5.78GW by 2027, which could power more than seven million UK homes. The latest Allocation Round is currently in progress and open to both established technologies (onshore wind, solar PV, waste to energy with combined heat and power (CHP), hydro, landfill gas and sewage gas) and less established technologies (offshore wind, floating offshore wind, remote island wind, wave, tidal stream, advanced conversion technologies, anaerobic digestion, dedicated biomass with CHP and geothermal).

- The Boiler Upgrade Scheme supports the decarbonisation of heat in buildings by providing upfront capital grants
 to support the installation of heat pumps and biomass boilers in homes and non-domestic buildings in England
 and Wales. Over three years, from 2022 to 2025, £450 million of grant funding will be made available under the
 scheme.
- The Renewables Obligation (RO) scheme is one of the main support mechanisms for large-scale renewable electricity projects in the UK. Smaller-scale generation is mainly supported through the FIT scheme. The RO came into effect in 2002 in England, Wales and Scotland, followed by Northern Ireland in 2005. The scheme places an obligation on UK electricity suppliers to source an increasing proportion of the electricity they supply from renewable sources. The RO scheme closed to all new generating capacity on 31 March 2017.
- The Smart Export Guarantee scheme launched on 1 January 2020 and is a government-backed initiative which requires some electricity suppliers to pay small-scale generators (for low-carbon electricity which they export back to the National Grid (if certain criteria are met). Provided the installations are in Great Britain, up to a capacity of 5MW, or up to 50kW for micro-CHP, the following technology types could be eligible: Solar photovoltaic (solar PV), Wind, Micro combined heat and power (micro-CHP), Hydro and Anaerobic digestion.
- The Offtaker of Last Resort (OLR) scheme: the OLR is a government scheme that aims to promote the availability
 of power purchase agreements (PPAs). It is intended as a last resort to help renewable generators who cannot
 get a PPA through the usual commercial means. The OLR scheme is part of the government's wider programme
 on Electricity Market Reform.

Law stated - 11 August 2022

Climate change

What impact will government policy on climate change have on the types of resources that are used to meet electricity demand and on the cost and amount of power that is consumed?

On 27 June 2019, the UK set a legally binding target to reduce emissions to net zero by 2050. Since then, the government has published a number of plans, such as the Ten Point Plan for an Industrial Revolution and the Energy White Paper: Powering Our Net Zero Future published in Q4 2020; the Smart Systems and Flexibility Plan 2021, a net zero strategy to Build Back Greener by decarbonising the UK power system by 2035, also published in 2021; and, most recently, in April 2022, a British Energy Security Strategy, all of which recognise the importance of a quick rollout of new renewables. The net-zero strategy, for example, envisages that the UK system will consist of 'abundant, cheap British renewables, cutting edge nuclear power stations, and be underpinned by flexibility including storage, gas with CCS [and] hydrogen'.

Law stated - 11 August 2022

Storage

Does the regulatory framework support electricity storage including research and development of storage solutions?

Electricity storage is treated as a form of electricity generation and, as such, the applicable legal framework for



electricity storage is currently the same as that applicable to electricity generation.

In the 12 months to April 2022, the total UK project pipeline for energy storage projects which are operational, under construction, consented or being planned increased from 16.1GW to 32.1GW. These storage projects consist mainly of lithium-ion battery, lead-acid battery, open-loop pumped hydro storage, closed-loop pumped hydro storage and modular compressed storage.

Recent developments include:

- £6.7 million government funding awarded to projects across the UK to support the development of innovative energy storage technologies;
- · work beginning at the UK's biggest battery storage project at Clay Tye; and
- BlackRock has committed to invest up to £200 million in UK battery storage projects.

Energy storage is an integral part of the UK government's plan to achieve net-zero emissions targets, whether as standalone projects or co-location with new or retrofitted generation projects. The Infrastructure Planning (Electricity Storage Facilities) Order 2020 relaxed planning rules so that battery storage projects (except pumped hydro) above 50MW in England, and 350MW in Wales can go ahead without needing approval through the national planning regime. This was achieved by carving them out from the Nationally Significant Infrastructure Projects regime in England and Wales.

Law stated - 11 August 2022

Government policy

Does government policy encourage or discourage development of new nuclear power plants? How?

The Nuclear Energy (Financing) Act 2022 (NEFA 2022) came into force on 31 March 2022 with a view to making private investments in nuclear power stations more attractive. It introduced a Regulated Asset Base (RAB) model as a funding option for nuclear power projects which will allow for the sharing of certain construction and operating risks between investors and consumers to lower the cost of capital. RAB is a tried and tested model which has been used to finance large-scale infrastructure projects – most notably, the construction of Terminal 5 at Heathrow Airport and London's super sewer, the Thames Tideway Tunnel.

Under the RAB model, an economic regulator provides a project company with a licence to charge a regulated price (an Allowed Revenue) in exchange for providing the required infrastructure. In the case of nuclear energy, electricity suppliers will pass the charge onto consumers via their electricity bills.

The model has not previously been used as a means of funding projects in the nuclear sector. Hinkley Point C, the most recent nuclear project in the UK, used a CfD approach under which the developer agreed to pay the entire cost of constructing the plant in return for a fixed price for electricity output once the plant becomes operational. However, until the plant goes online investors will not receive any return from the project and have assumed all construction risks (including delays and overruns). This is problematic for two reasons: (1) there are few non-government institutions which have sufficient capital on their balance sheets to fund projects like this; and (2) the increased risk means the cost of financing is high. These issues ultimately led to the cancellation of potential nuclear projects such as Hitachi's project at Wylfa Newydd in Wales and Toshiba's at Moorside in Cumbria.

From an investor perspective, the RAB model will allow a nuclear company to receive revenue and share the risk with the consumer from the very start of a project. This alleviates the issues with the CfD approach and it is envisaged this will encourage investment. It is also hoped that the RAB model will motivate private sector investors such as pension funds and insurers to back nuclear projects. Such investors have large volumes of deployable capital but are sensitive to risk. The use of the RAB model should remove some of the risk making the financing of nuclear projects more attractive.

Law stated - 11 August 2022

REGULATION OF ELECTRICITY UTILITIES – TRANSMISSION

Authorisations to construct and operate transmission networks

What authorisations are required to construct and operate transmission networks?

The authorisations required to construct transmission or distribution networks are dependent on the type and location of the distribution or transmission assets.

Under section 37 of the Electricity Act 1989, an application to the Secretary of State is necessary to install electric lines above ground (other than in certain circumstances), the application must be in writing and include all necessary information, and depending on the location of the electric lines other consents such as from the highway authority may also be required.

A Development Consent Order (DCO) is required where the project in question is a nationally significant infrastructure project. Overhead electric lines with a nominal voltage of 132 kilovolts or more are considered to be a nationally significant infrastructure project. A DCO will include all necessary consents and ancillary planning permissions.

A transmission licence is required for the operation of a transmission network. The National Grid has the transmission licence for England and Wales and therefore owns and operates the transmission system in England and Wales.

Where territorial waters are concerned, the relevant authorities are the Marine Management Organisation, National Assembly Wales, Marine Scotland and the Department of the Environment for Northern Ireland.

Law stated - 11 August 2022

Eligibility to obtain transmission services

Who is eligible to obtain transmission services and what requirements must be met to obtain access?

The National Grid connects various types of generation technology including onshore and offshore wind farms, tidal power, solar farms, battery storage, nuclear and gas-powered generators. For the purposes of transmission connection, there are two types of generation. These are dependent on size, voltage and the asset being connected:

- Directly Connected >132kV it is likely that offshore, nuclear and interconnectors would all connect directly, as well as smaller generators such as battery storage and solar.
- Embedded Generation <132kV this is for generators that want to connect to the distribution network. There may be instances where the generator has a contract with both the distribution network operator (DNO) and National Grid Electricity Transmission (ET). In England and Wales, if the connection voltage is less than 132kV, it is normally transmitted through the DNO, rather than National Grid Electricity.

Law stated - 11 August 2022

Government transmission policy

Are there any government measures to encourage or otherwise require the expansion of the transmission grid?

The Office of Gas and Energy Markets (Ofgem) published its Upgrading our Energy System, Smart Systems and Flexibility Plan in July 2017. The plan (as later updated) sets out 38 actions to be taken by the government, Ofgem and the industry to:

- · remove barriers to smart technologies (such as storage and demand-side response);
- · enable smart homes and businesses; and
- · improve access to energy markets for new technologies and business models.

These actions are designed to reduce the costs of the energy system and help keep energy bills low for consumers, as well as promote cleaner energy. Changes to the energy system could save the United Kingdom up to £40 billion across the electricity system by 2050. To date, 29 out of the 38 actions have been implemented, with the remaining actions on track to be delivered by the end of this year.

Following the success of the competitive offshore transmission regulatory regime, under which licences to operate offshore transmission infrastructure are granted following a competitive tender process, Ofgem plans to replicate the competitive tender for high-value onshore transmission assets. It is envisaged that this tender process would encourage innovation and reduce costs.

Also, as part of the Revenue = Incentives + Innovation + Outputs (RIIO) price controls, Ofgem introduced the Electricity Network Innovation Competition (NIC).

The Electricity NIC is an annual opportunity for electricity network companies to compete for funding for the development and demonstration of new technologies, operating and commercial arrangements. Funding is provided for the best innovation projects (ie, those that help all network operators understand what they need to do to provide environmental benefits, reduce costs, and maintain security). Up to £70 million per annum is available through the Electricity NIC.

The National Grid continues to invest £1.3 billion each year to adapt and expand the grid transmission network.

Law stated - 11 August 2022

Rates and terms for transmission services

Who determines the rates and terms for the provision of transmission services and what legal standard does that entity apply?

Connection charges, transmission network use of system charges and balancing services use of system charges are currently the three types of charges payable to the National Grid Electricity Transmission (NGET) by transmission systems users.

The charging methodologies are set out in the Connection and Use of System Code, which is prepared by NGET and confirmed by Ofgem. NGET is required under its transmission licence to ensure that the charging methodologies are up to date. The charging methodologies are set primarily to reflect the costs of operating the grid, but also to enhance the stability and predictability of the transmission charges and to encourage competition in the electricity sector.

In 2017, Ofgem embarked on a process of setting up a new price control structure to reform and update the existing



RIIO-Early Decision 1 (ED1) model, and it published its decision concerning the RIIO-2 framework consultation at the end of July 2018. In summary, the consultation separated the framework into five key themes:

- · a stronger voice for consumers;
- · changes in how networks are used;
- · driving innovation and efficiency to benefit consumers;
- simplifying price controls; and
- · ensuring fair returns.

The key outcomes from the consultation were as follows:

- · RIIO-ED1 has worked well, and the incentive-based RIIO framework will be used to set price controls;
- · higher returns are justified where these result from genuine innovation and efficiency;
- the price control mechanism will be tougher for network companies, but those who deliver great customer service at a lower cost will be rewarded; and
- the price control structure will continue to create an attractive environment for investors but returns should reflect the low level of risk of a stable, predictable regulatory framework.

In December 2019, Ofgem confirmed that, from April 2023, it will use RIIO-ED2 to set the next price control for the UK's electricity distribution networks. This will allow these networks to continue to operate safely and efficiently, helping to achieve a net-zero economy.

Towards the end of 2020, Ofgem set out its decision on the methodology it will use to set RIIO-ED2.

Law stated - 11 August 2022

Entities responsible for grid reliability

Which entities are responsible for the reliability of the transmission grid and what are their powers and responsibilities?

Transmission licence holders are under statutory obligation to develop and maintain the transmission grid, as well as facilitate competition in the generation and supply of electricity. Ofgem has the authority to regulate the activities of the transmission licence holders and to set price controls. Both Ofgem and NGET have the authority to grant exemptions from certain obligations under the National Electricity Transmission System Security and Quality of Supply Standards that the transmission licensees must comply with.

Law stated - 11 August 2022

REGULATION OF ELECTRICITY UTILITIES - DISTRIBUTION

Authorisation to construct and operate distribution networks

What authorisations are required to construct and operate distribution networks?

A distribution licence is required for the operation and maintenance of a distribution network.

The authorisations required to construct distribution networks are dependent on the type and location of the distribution or transmission assets.



Under section 37 of the Electricity Act 1989, an application to the Secretary of State is necessary to install electric lines above ground (other than in certain circumstances), the application must be in writing and include all necessary information, and depending on the location of the electric lines other consents such as from the highway authority may also be required.

A Development Consent Order (DCO) is required where the project in question is a nationally significant infrastructure project. Overhead electric lines with a nominal voltage of 132 kilovolts or more are considered to be a nationally significant infrastructure project. A DCO will include all necessary consents and ancillary planning permissions.

Where territorial waters are concerned, the relevant authorities are the Marine Management Organisation, National Assembly Wales, Marine Scotland and the Department of the Environment for Northern Ireland.

Law stated - 11 August 2022

Access to the distribution grid

Who is eligible to obtain access to the distribution network and what requirements must be met to obtain access?

Section 16 of the Electricity Act 1989 states that an electricity distributor must make a connection between the distribution grid and any premises (including providing the electric lines as necessary to enable the connection) when requested by the owner or occupier (or an authorised supplier acting with the consent of the owner or occupier) of such premises.

Both transmission and distribution licences include conditions requiring the licence holders to provide equal access to third parties.

The Electricity (Connection Charges) Regulations 2017 (SI 2017/106), which came into force on 6 April 2017, provide for the costs of electrical connections, where a person (a 'second comer') obtains a connection to premises or a distribution system that makes use of electric lines or an electrical plant previously provided to give a connection to other premises or another distribution system. If other persons have paid for all or part of the cost of the first connection, these regulations require the relevant electricity distributor to recover an amount from the second comer and to apply that amount, less administrative expenses, to reimburse the persons who paid for the first connection.

Law stated - 11 August 2022

Government distribution network policy

Are there any governmental measures to encourage or otherwise require the expansion of the distribution network?

Distribution licence holders are required by statute to develop and maintain an efficient, coordinated and economical system of electricity distribution and to facilitate competition in the supply and generation of electricity. The government policy concerning the transmission network described below applies also to the distribution network.

The Office of Gas and Energy Markets (Ofgem) published its Upgrading our Energy System, Smart Systems and Flexibility Plan in July 2017. The plan initially set out 29 actions (this was updated in 2018 to add a further nine actions), to be taken by the government, Ofgem and the industry to:

- · remove barriers to smart technologies (such as storage and demand-side response);
- · enable smart homes and businesses; and
- · improve access to energy markets for new technologies and business models.



These actions are designed to reduce the costs of the energy system and help keep energy bills low for consumers, as well as promote cleaner energy. Changes to the energy system could save the United Kingdom up to £40 billion across the electricity system by 2050. To date, 29 out of the 38 actions have been implemented, with the remaining actions on track to be delivered by the end of this year.

Following the success of the competitive offshore transmission regulatory regime, under which licences to operate offshore transmission infrastructure are granted following a competitive tender process, Ofgem plans to replicate the competitive tender for high-value onshore transmission assets. It is envisaged that this tender process would encourage innovation and reduce costs.

Law stated - 11 August 2022

Rates and terms for distribution services

Who determines the rates or terms for the provision of distribution services and what legal standard does that entity apply?

The current price control framework for DNOs as set up by the Office of Gas and Energy Markets is the Revenue = Incentives + Innovation + Outputs Early Decision 1 (RIIO-ED1). This is based on the RIIO price control model and limits the revenue DNOs can collect until 31 March 2023. The new RIIO-2 price-control framework, as it applies to electricity distribution networks, will replace the current set of price controls for electricity distribution networks when it expires on 31 March 2023.

Law stated - 11 August 2022

REGULATION OF ELECTRICITY UTILITIES - SALES OF POWER

Approval to sell power

What authorisations are required for the sale of power to customers and which authorities grant such approvals?

The Office of Gas and Energy Markets (Ofgem) is the relevant authority to grant supply licences to electricity suppliers before they may sell power to consumers. As a condition of the supply licence, the electricity suppliers must also act under certain other regulations, such as the Balancing and Settlement Code and the Smart Energy Code.

Law stated - 11 August 2022

Power sales tariffs

Is there any tariff or other regulation regarding power sales?

Electricity suppliers set the electricity prices, but the Secretary of State has the power to impose tariff-related conditions on the electricity suppliers through the supply licences.

Following a referral of the energy market to the Competition and Markets Authority (CMA) by the Gas and Electricity Markets Authority, a detailed review of the retail energy market was undertaken. Among other things, the review found that limitations on suppliers' tariffs were preventing competition and it recommended that such conditions be removed. The CMA also suggested that electricity suppliers should be made to share details of domestic customers who have been on a default tariff for over three years to create an Ofgem-controlled database so that other suppliers would be



able to contact such customers to offer cheaper rates tailored to their individual energy usage. The key area of concern was clearly the apparent overpayment for electricity by the customers on the poorest-value tariffs. On 19 July 2018, the Domestic Gas and Electricity (Tariff Cap) Act 2018 received royal assent and this Act put in place a requirement on the energy regulator, Ofgem, to cap standard variable and default energy tariffs.

Law stated - 11 August 2022

Rates for wholesale of power

Who determines the rates for sales of wholesale power and what standard does that entity apply?

Rates for sales of wholesale power are not determined by an entity but rather by the mechanics of supply and demand within the market.

Law stated - 11 August 2022

Public service obligations

To what extent are electricity utilities that sell power subject to public service obligations?

The Energy Company Obligation (ECO) is a government energy efficiency scheme in the United Kingdom to help reduce carbon emissions and tackle fuel poverty. In brief, under ECO, larger energy suppliers fund the installation of energy efficiency measures in UK households. Each obliged supplier has an overall target based on its share of the domestic energy market in the United Kingdom. The obliged energy suppliers work with installers to introduce certain efficiency measures into homes, such as loft or wall insulation, or heating measures.

The scheme began in April 2013 and has been amended over time. The last scheme, ECO3, commenced on 3 December 2018 and applied to measures completed from 1 October 2018 until 31 March 2022. It has recently been replaced by ECO4, which began on 27 July 2022, and will cover a four-year period until 31 March 2026. The ECO4 Order applies to measures installed from 1 April 2022.

Law stated - 11 August 2022

REGULATORY AUTHORITIES

Policy setting

Which authorities determine regulatory policy with respect to the electricity sector?

The Department for Business, Energy and Industrial Strategy (BEIS) is the ministerial department responsible for making decisions, setting policy and implementing legislation affecting the electricity sector. BEIS works closely with and is supported by other agencies and public bodies, including the Gas and Electricity Markets Authority (GEMA) and the Office of Gas and Energy Markets (Ofgem). Policy is also determined by the Competition and Markets Authority, the Office for Nuclear Regulation and the Environment Agency.

Law stated - 11 August 2022

Scope of authority

What is the scope of each regulator's authority?

GEMA has primary responsibility for the regulation of the energy sector. Its powers and duties are largely provided for



in statute (eg, the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Acts of 2004, 2008, 2010 and 2011).

Law stated - 11 August 2022

Establishment of regulators

How is each regulator established and to what extent is it considered to be independent of the regulated business and of governmental officials?

BEIS works closely with and is supported by other agencies and public bodies, including GEMA and Ofgem.

GEMA delegates its functions to Ofgem and provides Ofgem with strategic direction and oversight. Ofgem is also a non-ministerial government department and an independent National Regulatory Authority recognised by EU directives. Ofgem states that its principal objective is to protect the interests of existing and future electricity and gas consumers.

In addition to those two regulators, the Competition and Markets Authority and the Office for Nuclear Regulation are each independent, non-ministerial entities.

Law stated - 11 August 2022

Challenge and appeal of decisions

To what extent can decisions of the regulator be challenged or appealed, and to whom? What are the grounds and procedures for appeal?

GEMA's decisions may be challenged, in several ways, depending on the nature of the relevant decision. By way of example:

- modification of licence provisions: a licence-holder may apply to the CMA in respect of changes to licence conditions;
- GEMA decisions may be challenged by the licence-holder by application to the High Court where the licence-holder believes that GEMA had no authority to make such decision or that the relevant procedure was not followed; and
- GEMA penalties may be challenged by the licence holder by application to the High Court within the relevant time frames.

Also, the decisions of regulators or local authorities are subject to challenge by way of judicial review.

Law stated - 11 August 2022

ACQUISITION AND MERGER CONTROL - COMPETITION

Responsible bodies

Which bodies have the authority to approve or block mergers or other changes in control over businesses in the sector or acquisition of utility assets?

CMA and Ofgem

In April 2014, the Competition and Markets Authority (CMA) became the United Kingdom's lead competition and



consumer body. The CMA brought together the existing competition and certain consumer protection functions of the Office of Fair Trading and the responsibilities of the Competition Commission (Enterprise and Regulatory Reform Act 2013). The CMA investigates merger cases in the United Kingdom that have no community dimension. If it deems necessary, the CMA has the authority to agree to voluntary measures to mitigate any anticompetitive effects. Under section 54 of the Competition Act 1998 (CA 1998), regulators such as the Office of Gas and Energy Markets (Ofgem) have concurrent powers concerning certain anticompetitive practices.

European Commission

Under Council Regulation (EC) No. 139/2004 on the control of concentrations between undertakings (OJ 2004 L24/1) (Merger Regulation), the European Commission (the Commission) has the authority to review mergers in the electricity sector with a 'community dimension'. A concentration has a community dimension if it meets one of the two sets of thresholds related to the turnover of the undertakings contained in the Merger Regulation. Where there is a community dimension, the Commission has jurisdiction to investigate. This jurisdiction to investigate is no longer exclusive following the end of the withdrawal period, with the CMA having a parallel right to investigate going forwards.

Law stated - 11 August 2022

Review of transfers of control

What criteria and procedures apply with respect to the review of mergers, acquisitions and other transfers of control? How long does it typically take to obtain a decision approving or blocking the transaction?

CMA

There is no obligation to notify the CMA; however, the CMA does have the power to initiate its own review without notification if it deems that there is a 'relevant merger situation'.

If the CMA is notified or decides to initiate its own investigation, it has 40 working days to conduct phase I merger investigations. The 40-working-day period may be extended in certain conditions.

The CMA may commence a further phase II merger investigation if it believes that there is a relevant merger situation that has resulted in or may be expected to result in a substantial lessening of competition within any UK market. Such investigation usually takes up to 24 weeks and may be extended by up to eight weeks in certain cases. If the CMA decides that the proposed merger would lead to a substantial lessening of competition, it may impose remedies that must be implemented within 12 weeks. The deadline for implementation of remedies may be extended once by up to six weeks if there are special reasons.

The CMA's role and the merger control process continue to develop following the end of the withdrawal period.

European Commission

The Commission has jurisdiction over concentrations with a community dimension: thus, these must be notified to the Commission before their implementation. The Commission has 25 working days from its notification to complete its initial review. If the Commission receives a request from an EU member state for the proposed merger to be referred back to the national competition authority, this period may increase to 35 working days. As a result of this initial investigation, the Commission may:

· find that it does not have jurisdiction, in which case consideration would be given by the relevant parties as to

whether the CMA should be notified:

- · permit the proposed merger, with or without additional conditions; or
- start an in-depth investigation if it considers that the proposed merger raises serious doubts as to its compatibility with the internal market (phase II investigation).

If the Commission begins a phase II investigation, it must decide within 90 working days of the date on which such investigations started. The period is automatically increased to 105 working days if the undertakings concerned offer commitments to ensure that the merger will not obstruct competition unless the parties offer such commitments within 55 working days from the start of the phase II investigation. As a result of the investigation, the Commission may permit the merger (with or without additional conditions) or state that it is not compatible.

Law stated - 11 August 2022

Prevention and prosecution of anticompetitive practices

Which authorities have the power to prevent or prosecute anticompetitive or manipulative practices in the electricity sector?

The CMA, deriving its power from the CA 1998, has the power to investigate and prosecute anticompetitive behaviour.

The Energy Act 2010 also authorises the Secretary of State to modify licence conditions to limit or eliminate circumstances in which a licence holder may gain excessive benefit from electricity generation.

Law stated - 11 August 2022

Determination of anticompetitive conduct

What substantive standards are applied to determine whether conduct is anticompetitive or manipulative?

Although the EU withdrawal period has ended, UK companies are not free to ignore EU competition legislation as UK companies operating in the European Union will be subject to both UK and EU competition legislation.

The relevant EU legislation is set out in articles 101 and 102 of the Treaty on the Functioning of the European Union (TFEU), and the CA 1998 sets out the applicable prohibitions in UK legislation. The provisions of the CA 1998 closely follow those of the TFEU. The relevant provisions of the CA 1998 include:

- a prohibition on agreements between entities that are intended to or that have the effect of preventing, restricting
 or distorting competition within the United Kingdom (Chapter I Prohibition) and may affect trade within the United
 Kingdom. There are limited exemptions, for example, if the agreements provide benefits such as improving
 production or distribution or promoting technical or economic progress, but even where the agreements fulfil
 such criteria there are additional applicable conditions for the exemption to apply;
- a recognition of article 101 of the TFEU by stating that where an agreement is exempt under that article then it will also be exempt from the Chapter I Prohibition; and
- a prohibition on conduct that results in an abuse of a dominant position in a market if it may affect trade within the United Kingdom (Chapter II Prohibition).

Similarly to the Chapter II Prohibition, article 102 of the TFEU prohibits the abuse of a dominant position, but in this



case, it is as applied to trade between EU member states.

There is a presumption of dominant position if an undertaking has over 50 per cent of the market share; however, this is a simplification and to determine whether an undertaking has the dominant position, the geographical market, the product and other factors are taken into consideration, so it is possible that an undertaking with a market share falling under 50 per cent could be found to be dominant.

Law stated - 11 August 2022

Preclusion and remedy of anticompetitive practices

What authority does the regulator (or regulators) have to preclude or remedy anticompetitive or manipulative practices?

Under UK law, the CMA can apply to a court to have a director of a company that is in breach of UK or EU competition law disqualified for up to 15 years. The Enterprise Act 2002 provides that persons involved in cartels may face criminal liability.

Under EU legislation, the Commission may act if there is a breach of competition rules. This can be by way of fines (eg, up to 10 per cent of the entity's worldwide group turnover), by the ordering of cessation or modification of the operation of the relevant anticompetitive practice or other remedies appropriate to the breach in question.

Law stated - 11 August 2022

INTERNATIONAL

Acquisitions by foreign companies

Are there any special requirements or limitations on acquisitions of interests in the electricity sector by foreign companies?

There are no particular restrictions on foreign investment into UK energy projects. However, the introduction of the National Security and Investment Act 2021 (NSI 2021), which came into force on 4 January 2022, has established a statutory framework which allows for government scrutiny (and potentially intervention) in certain acquisitions and investments for the purpose of protecting national security. This might impact an investor if:

- it plans to invest in an entity which will hold a transmission licence, distribution licence or interconnector licence (or would require one were it not for an exemption); or
- it intends to invest in a large generation project (with a total installed capacity of 100MW or greater); or
- the investor (or its group) hold a portfolio of generating assets which together have an aggregate capacity of 1GW or more within Great Britain or a Renewable Energy Zone.

The purpose of the NSI 2021 is to protect the UK's national security interests and it is not intended as a means for the government to arbitrarily interfere with investment, however, it has created a procedural hurdle for energy transactions.

Separately, Ofgem also undertakes an assessment as to whether the foreign ownership or control of a renewable power project poses a security of supply risk (Electricity and Gas (Internal Markets) Regulations 2011).

Law stated - 11 August 2022



Authorisation to construct and operate interconnectors

What authorisations are required to construct and operate interconnectors?

Construction

The authorisations required for the construction of interconnectors vary depending on whether the relevant works are onshore or offshore. For onshore works, planning permission under the Town and Country Planning Act 1990 is required. The process for offshore developments is a little more complex – a licence must be obtained from the Marine Management Organisation, and where relevant, harbour authority consents and consents for other submarine infrastructure must also be obtained.

Operation

A licence from the Gas and Electricity Markets Authority is required before operating interconnectors.

Where major infrastructure projects involving the cooperation of at least two EU states are concerned, Regulation (EU) No. 347/2013 (Trans-European Energy Networks) sets out guidelines for the coordinated granting of the required approvals.

Law stated - 11 August 2022

Interconnector access and cross-border electricity supply

What rules apply to access to interconnectors and to cross-border electricity supply, especially interconnection issues?

All interconnection capacity is allocated to the market based on auctions and the trading arrangements on electricity interconnectors are governed by Access Rules and Charging Methodologies as noted in each interconnector's licence.

Following the agreement of the UK-EU Trade and Cooperation agreement new trading arrangements are presently being developed and are expected to be in place in the near future.

Law stated - 11 August 2022

TRANSACTIONS BETWEEN AFFILIATES

Restrictions

What restrictions exist on transactions between electricity utilities and their affiliates?

The Electricity Act 1989 prohibits a licensed entity and those entities with which it is in common ownership from carrying out other licensed activities, and this in effect sets out a separation of activities.

Also, the relevant licences may impose conditions on the individual licensees.

Law stated - 11 August 2022

Enforcement and sanctions



Who enforces the restrictions on utilities dealing with affiliates and what are the sanctions for non-compliance?

The Gas and Electricity Markets Authority (GEMA), as the regulator, has the authority to impose sanctions for non-compliance. In this instance, GEMA derives its authority from the Electricity Act 1989 to impose penalties of up to 10 per cent of the licensee's annual turnover.

Law stated - 11 August 2022

UPDATE AND TRENDS

Key developments of the past year

Are there any emerging trends or hot topics in electricity regulation in your jurisdiction?

At present, global energy markets are in turmoil. In 2021, internationally traded gas prices more than quadrupled, which has had a knock-on effect on the price of renewables. This is because, in wholesale electricity markets, it is the most expensive generator that sets the price. In the UK, 31 energy companies have ceased trading since the beginning of 2021 and the potential for further price increases could make lenders nervous about their exposure to the sector. Meanwhile, the lasting impact of the covid-19 pandemic continues to affect construction-stage projects due to ongoing supply chain disruptions, with potential delays to the start of commercial operations. Lenders will continue to closely monitor the impact of delays on their financings, and it is unclear how the pandemic will affect the development of new renewable projects and long-term developments.

At the height of the covid-19 pandemic, lockdowns precipitated a unique and sustained drop in energy demand (including electricity). As people worked from home, it manifested in many different ways including by reducing the demand for power across the transport sector. Changes in work- and home-life patterns resulted in variations of peak usage times and both residential and commercial demand curves. The International Energy Agency estimated that weekly electricity demand decreased 10–35 per cent across affected regions. However, this has changed markedly since restrictions have been lifted, and demand has skyrocketed. This increase, coupled with the war in Ukraine, has contributed to a surge in global energy prices as concerns mount about supply. Consequently, governments around the globe, including the UK government, have their attention firmly on the security of energy supply, and renewables are considered integral to achieving this. It is, therefore, anticipated that over the coming months and years UK government policy will centre around facilitating renewable power generation.

Since 2021, inflation has risen globally. In July 2022, the inflation rate in the UK hit a new 40-year high of 10.1 per cent. As a result, the UK is currently experiencing what has been termed the 'cost of living crisis', which refers to the fall in real disposable incomes (adjusted for inflation and after taxes and benefits). To ease this crisis, the government has implemented the Energy Profits Levy, an additional 25 per cent tax on North Sea oil and gas operators alongside the current 40 per cent special corporation tax rate, due to the exceptionally high profits being gained by fossil fuel traders amid soaring oil and gas prices. The purpose of this tax is so that the windfall can be used to help ease household bills, with the three-year levy partially funding a £15 billion support package for energy users. However, there are growing expectations this could be extended to energy generators and renewable projects, to garner more money from the energy sector and help alleviate the cost of living crisis. Some commentators have expressed concern that such a tax might discourage investment in renewable power generation

Law stated - 11 August 2022



Jurisdictions

Australia	King & Wood Mallesons
Belgium	Linklaters LLP
* Ghana	Kimathi & Partners Corporate Attorneys
India	Trilegal
Japan	Nishimura & Asahi
* Panama	Anzola Robles & Asociados
C* Turkey	Boden Law
United Kingdom	Milbank LLP