
Electricity Regulation in the United Kingdom

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I. The UK Energy Market¹

A. Legislative Framework

The legislative framework for the electricity sector in the United Kingdom is set out in the Electricity Act 1989, Utilities Act 2000, Energy Act 2004 and 2008.

The British Electricity Trading and Transmission Arrangements (BETTA) govern licensing and codes. More importantly, BETTA created a single wholesale market for electricity generation onshore. BETTA is based on bilateral contracts at all levels of the market. BETTA also governs the transmission of electricity, introducing a unified set of arrangements for connecting to and using the UK transmission system.

Under BETTA, the National Grid Electricity Transmission (NGET) was appointed as the system operator for the whole of the UK onshore transmission network. NGET is also the owner of the UK transmission system.

B. Governmental Authority

1. The UK Government

The UK government, through the Department of Energy and Climate Change Levy (DECC), determines energy policy and sets out the legislative framework to implement its policies.

2. Gas and Electricity Markets Authority

The GEMA is an independent entity that determines strategy, sets policy priorities and takes decisions on a variety of matters, but mostly competition and consumer protection. GEMA derives authority from the Competition Act 1998, the Utilities Act 2000, the Electricity Act 1989 and the Gas Act 1986.

GEMA exercises its powers under the Competition Act concurrently with the Office of Fair Trading to investigate and where necessary take enforcement action against anti-competitive activity by licensees. Under the Enterprise Act 2002, GEMA also has power to enforce consumer protection law.

GEMA acts through its executive office, the Office of Gas and Electricity (Ofgem).

3. Office of the Gas and Electricity Markets

¹ This research is generously funded by the Research Grants Council of Hong Kong under a Public Policy Research Grant numbered 7001-PPR-09.

Ofgem regulates the energy markets through the licensing regime (below). The primary goal of Ofgem is to promote competition and regulate monopoly companies who run the electricity networks. Its secondary goal is to curb climate change and promote sustainable development.

C. Market Structure

1. Transmission

Transmission: Onshore transmission is owned by NGET in the UK, Scottish Hydro-Electric Transmission Limited in the north of Scotland, SP Transmission Limited in the South of Scotland. As the Government plans to develop offshore generation, offshore transmission will likely be owned by NGET, but operated by a separate entity.

Generation and supply are separated from transmission and distribution, and each function is licensed separately.

2. Wholesale Market

The wholesale electricity market is dominated by vertically integrated players collectively known as the Big Six (Centrica, E.ON, RWE npower, SSE, Scottish Power and EDF). The Big Six own both generation and supply businesses.

3. Retail Market

According to Ofgem's Energy Supply Probe in 2008, the retail market was in general working well with no evidence of a cartel, and retail price rises were justified by wholesale costs.

II. The Regulatory Regime

A. Licensing

The regulatory system in the UK is administered through a licensing regime, in combination with a comprehensive set of industry codes that set out detailed rules and terms for connection and access to the electricity networks. These multi-lateral industry codes are generally maintained and modified by their signatories, although some codes can only be modified with the consent of Ofgem.

Depending on the type of licensee, i.e. generation license, supply license or distribution license, different combinations of codes have to be entered into as a prerequisite to licensing.

The most significant code is the Balancing and Settlement Code. Every market participant that generates, trades, or supplies electricity, is required to participate in the BSC. Essentially, the BSC is the balancing and settling mechanism in the electricity market. Operated by NGET through an independent subsidiary company Elexon, the BSC settles wholesale electricity balance and imbalance

amounts. It also operates a balancing mechanism, by balancing participants' contractual positions in relation to the generation, purchase and supply of electricity to ensure that consumption matches actual generation.

Other codes include:

- **Connection and Use of System Code**, which regulates *connection to or use of the British transmission system*. This is a license *obligation to offer non-discriminatory terms as soon as practicable* to any generator that applies to be interconnected to the transmission grid.
- **Distribution Code**, which covers the connection to and use of the distribution licensee's distribution network and governs relationships between the distribution licensees and users of the distribution system.
- **Grid Code**, which sets out the operating procedures and principles governing NGET's relationship with all users of the transmission system.
- **Master Registration Agreement**, which is a multi-party agreement between all licensed distribution businesses and suppliers that *facilitates customer switching among different suppliers, thus promoting competition*.
- **Distribution, Connection and Use-of-system Agreement**, which governs the *access to the distribution systems of each distribution network operator* by licensed suppliers and generators, binding them to the Distribution Code.
- **The System Operator-Transmission Owner Code**, which governs the relationship between the three transmission asset owner licensees and the NGET, the system operator. This Code was introduced as part of BETTA and makes arrangements for transmission asset owners to make transmission services available to the GB system operator, and for NGET to issue directions to the transmission owners about the required configuration of the UK transmission system.

Since 2010, Ofgem has been empowered to insert **market power license conditions** in the licenses of generation companies, to prevent companies from exploiting market power. This was in response to concerns regarding the difficulty of making a Competition Act infringement decision against suspected abuses of dominance by several generators in the wholesale electricity market.

B. Authorization

Apart from licensing, a generator may require additional consents to construct, extend or operate an onshore electricity generating station.

Where new power lines have to be built, for example, consent from the secretary of state under the Electricity Act 1989 is required, as well as from the local planning authority. In making an application for consent, developers may need to provide an environmental statement in terms of the Electricity Works Regulations 2000.

C. Price Controls

The UK Government regulates rates and terms for transmission and distribution services, which are provided by monopoly electricity network companies. Transmission rates are regulated through the Connection and Use of System Code, whereas distribution rates are regulated by the Distribution, Connection and Use-of-system Agreement. These rates and terms are regularly reviewed by Ofgem.

Retail rates have been fully open to competition since 1999 and no price controls are maintained over electricity suppliers. However several measures have been adopted to protect vulnerable consumers, including the disabled, pensioners, those on low incomes and those living in rural areas:

- The Common Tariff Obligation, which prohibits suppliers from charging higher rates to residents in remote areas.
- Social Spending Commitments, which require suppliers to offer a social tariff, which must be as good as the lowest tariff, to vulnerable and fuel-poor customers.
- New supply license conditions entered into force in 1 September 2009 prohibit unjustified discrimination between different types of consumers. In particular, suppliers cannot discriminate based on different methods of payment.

Since October 2011, Ofgem has required each energy supplier to publish one single unit charge². This came as a response to opaque and complex tariffs that hinder informed consumer choice. A single unit charge would allow consumers to choose the cheapest standard tariff easily, and promote keener competition among suppliers by enabling consumers to compare and switch suppliers.

To increase pricing transparency, Ofgem has also increased the frequency of its energy price reports comparing wholesale and retail prices to weekly publications.

III. Electricity Market Reform

In July 2011, following a public consultation which ended March 2011, the UK Government issued a White Paper setting out wide ranging proposals³ to transform the UK's electricity market³. The proposals, outlined below, will be put to Parliament in May 2012 and are expected to come into force in 2013. Implementation of the proposals will begin in around 2014⁴.

The aims of the Electricity Market Reform are as follows:

- To address the gap between the imminent decline in electricity supply (due to the closure of old and polluting plants and abandonment of polluting methods of generation) and the likely increase in energy demand, by regulating consumption and promoting renewable energy.

² Ofgem Simple Energy Tariffs Factsheet

<http://www.ofgem.gov.uk/Media/FactSheets/Documents1/Simpler%20energy%20tariffs%20107.pdf>

³ Electricity Market Reform (EMR) White Paper 2011, "Planning our electric future: A white paper for secure, affordable and low-carbon electricity" (hereinafter "**White Paper**"), <http://www.decc.gov.uk/assets/decc/11/policy-legislation/EMR/2175-emr-white-paper-exec-summary.pdf> [Executive Summary];

<http://www.decc.gov.uk/assets/decc/11/policy-legislation/EMR/2210-emr-white-paper-full-version.pdf> [Full Report]

⁴ DECC, Homepage for Electricity Market Reform (EMR) 2011

http://www.decc.gov.uk/en/content/cms/legislation/white_papers/emr_wp_2011/emr_wp_2011.aspx

- To meet the UK’s 15% renewable energy target by 2020 and 80% carbon reduction target by 2050, and contribute to the EU’s targets. In order to do so, institutional and market arrangements need to be put in place to enable the UK to decarbonize power sector emissions by 2030.
- To address the rising demand for electricity, by increasing wholesale market liquidity and spurring investment in a diverse portfolio of low-carbon and renewable generation.
- To address expected increases in electricity prices, and reducing the impact on consumers by making sure investment takes place in the most cost-effective way possible.

A. De-Carbonisation Initiatives

1. Carbon Price Floor⁵

Regulatory Goals	The CPF aims to prop up the price of carbon over and above the market price in the EU Emissions Trading System (EU ETS) , in order to encourage investment in low carbon generation without undermining the competitiveness of the UK industry. The announcement of the CPF in the 2011 Budget served to send an early signal to investors, and will continue to provide a strong incentive to invest in low-carbon generation.
How it Works	<p>The CPF as announced in the budget begins at around £15.70/tCO₂ in 2013 and follows a straight line to £30/tCO₂ in 2020, rising to £70/tCO₂ in 2030 (real 2009 prices).</p> <p>The difference between the market price and the CPF will be taxed in the form of a carbon price support rate which will be adjusted in accordance with the prevailing carbon price. For instance, a sustained increase in carbon price under the EU ETS will reduce the tax rate necessary to meet the CPF. Rates will be set 2 years in advance to allow generators time to plan hedging strategies and avoid damaging liquidity.</p> <p>The CPF alone is insufficient to encourage investment on the desired scale. It is designed to work in tandem with the FiT CfD (below) to encourage long-term, larger-scale investment in low-carbon generation.</p> <p>It is likely that tax reliefs will be granted to CCS and Combined Heat and Power generation. The specifics will be addressed in secondary legislation later in 2012.</p>

2. Feed-in Tariff with Contracts for Difference (FiT CfD)⁶

Regulatory Goals	The FiT CfD aims to encourage investment in low-carbon generation by providing long-term revenue certainty to investors. The FiT CfD is a cost-effective mechanism which aims to stabilize revenues to investors, thereby increasing the rate of investment and lowering the cost of capital of establishing a new low-carbon generation facility, and ultimately reducing costs to consumers.
How it Works	Under the FiT CfD regime, consumers contract to pay a fixed “strike price” for electricity generated by a low-carbon generator. If market prices fall below the strike price, the consumer pays the difference between the strike price and the

⁵ White Paper Chapter 2.2 at p. 33.

⁶ White Paper Chapter 2.3 at p. 37.

market price as financial support for the low-carbon generator. If market prices rise above the strike price, the generator is required to refund the difference to the consumer (the claw-back). This ensures that financial support will not be excessive.

To reflect the structural and commercial differences among different classes of low-carbon generation, the government will tailor to the design of the FiT CfD for different generation types. For instance, adjustments will be made for types of generation that are by nature intermittent in their supply.

In order to foster competition and avoid excessive strike prices, FiT CfD contracts will be awarded through a tender or auction. The tender or auction serves as a price discovery process which ensures that the strike price for each contract is competitive. This will also account for the difference in investment risk between mature / rapidly maturing renewable technologies (wind, solar, biomass) and experimental technologies.

The government recognizes that a liquid wholesale market is essential for supporting the operation of FiT CfDs. Independent generators need to be able to manage their supply by trading energy. Measures will be adopted to remove barriers to entry, and the government will work closely with Ofgem to ensure that the necessary level of liquidity is achieved.

The new FiT CfD seeks to replace the ROC mechanism (below) completely by March 2017. In the meantime, new generation facilities have a one-off choice between submitting to RO or FiT CfD.

Benefits to Investors

The FiT CfD lowers the cost of capital for new low-carbon technology and ensures a certain and predictable stream of revenue, thus taking away the risk of investing in new low-carbon generation technology.

Benefits to Consumers

At the same time, consumers will benefit from lower electricity bills in the long run. It is estimated that by the year 2030, the FiT CfD will be able to mitigate the impact of rising electricity bills by 6% (~£ 40).

3. Emission Performance Standard (EPS)

Regulatory Goals

The new EPS sets an **annual emissions limit (450g CO₂/kWh initially, subject to triennial reviews)** to provide a clear regulatory signal on the amount of carbon new fossil fuel power stations can emit. This serves to promote the development of Carbon Capture and Storage (CCS) technology and at the same time prevent the most carbon intensive power stations from being built.

How it Works

The existing EPS requires coal power stations to include carbon capture and storage (CCS) capacity of up to 300MW. As the new EPS operates on a **non-retrospective** basis, existing coal power stations with CCS projects are exempt. However a high-carbon plant which undergoes a life extension or significant upgrade may be made subject to the new EPS.

In order to provide sufficient certainty for investment in new plants, EPS will be imposed in accordance with a grandfathering principle for the time being. This means that the level of EPS in place at the time of consent will remain constant for the duration of the economic life of a generation plant. This removes the risk that a

generation plant will be unable to cope with the tightening of EPS at a future date. Grandfathering provisions may be removed when CCS technology is fully viable and commercialized, and can be readily deployed to meet EPS.

Further Developments The government has indicated that it may tighten the EPS in the future when CCS is more viable and commercialized, for example to require full CCS on some or all new fossil fuel plants.

4. Renewables Obligation Reform by Ofgem

Regulatory Goal and How it Works Renewables Obligations promote the use of renewable energy by placing an obligation on electricity suppliers to source an increasing portion of the electricity they supply from renewable sources (US equivalent: Renewable Portfolio Standards). Renewables Obligations Certificates (ROCs) serve as evidence of a supplier's fulfillment of its ROs.

Reform On 12 January 2012 the UK Government completed a public consultation on Renewables Obligation Banding Review. The Government plans to publish its response this spring and legislate in the summer. The regulations setting the new bands in law are estimated to take effect on 1 April 2013.

ROCs used to be technology neutral. However since April 2009, ROCs have been banded according to the type of generation technology. This allows Ofgem to encourage investment into and development of certain types of technology by increasing the ratio of ROCs to each MWh of electricity generated. To meet their ROs, suppliers may (1) buy sufficient energy from renewable energy generators to make up the sufficient number of ROCS, (2) make up the difference using a buy-out clause, which requires the supplier to pay Ofgem for each outstanding ROC. In 2010 – 2011, the RO was 11.1 ROCs per 100 MWh of electricity⁷.

5. Distributed Energy

How it Works Distributed generation is electricity generation that is directly connected to a local distribution network, rather than to the wider transmission system. Distributed generation can be used on a small, domestic scale as well as a larger, industrial scale.

Domestic Generation At the domestic scale, distributed energy commonly takes the form of individual building-scale installations such as micro wind and solar photovoltaics, which generate electricity for local consumption. Some installations are also capable of exporting excess electricity to the distribution network, potentially creating revenue for the owner.

Industrial and Commercial Generation Larger installations in commercial and industrial sectors operate in the same way to provide locally consumed energy. In particular, Combined Heat and Power generation generate usable heat that can be consumed locally through district heating schemes or for industrial use.

It should be noted that these options have high upfront capital costs. However

⁷ Ofgem Information Note on Renewables Obligations for 2010 – 2011
<http://www.ofgem.gov.uk/Media/PressRel/Documents1/RO%20Info%20Note%205%20August%202011.pdf>

these costs are acceptable as larger organizations are better placed to take a longer term view of their energy needs, allowing them to consider pay-back periods.

B. Energy Security

6. Capacity Mechanism (CM): Market-Wide Capacity Market

Regulatory Goals

The capacity mechanism (CM) is a market for excess capacity in electricity supply. It is designed to secure adequate electricity supply and address market failures caused by the increase in intermittent and less flexible renewable generation.

The UK will lose approximately a quarter of existing capacity as a result of plant closures due to ageing plants and environmental regulation over the next decade. To support climate change objectives there will also be a significant rise in intermittent and less flexible generation.

How it Works

Under CM, a fixed revenue stream will be available to power producers which provide the needed generation capacity where there is an imbalance in supply and demand (i.e. caused by losses of production capacity) in the wholesale electricity market. The CM is operated through an auction overseen by National Grid, the system operator.

The total volume of reliable capacity that will be supplied and demanded (forecasted a number of years ahead) will be centrally assessed. The total volume of excess capacity required according to central assessment will then be auctioned to **(1) Generators with capacity or peaking plants** that operate only at times of high demand or scarcity; **(2) Providers of non-generation technologies** such as storage or Demand Side Response (DSR).

The required volume of reliable capacity, determined by a central body, will be auctioned off to any provider willing and able to supply it:

- Capacity providers will be invited to offer the particular quantity of capacity that they can provide in any delivery year into an auction
- The central auction system will then allow a review of the relevant capacity offers, to ensure that there will be adequate capacity to meet demand
- Providers will be selected from the auction and contracted to provide a pre-determined level of capacity
- The auction process will be separate from providers continuing to sell capacity into the market as usual

Providers which have successfully bid for capacity contracts will receive **“availability payments” for providing reliable capacity**, whether or not that capacity is actually used. On the flip side, a **penalty will be applied for failure to provide promised capacity**.

The auction process incentivizes providers to make available capacity in times of unstable energy supply, by providing them with a steady stream of revenue in

return.

Benefits

The government envisages a more widespread use of technologies such as DSR, electricity storage, and interconnection.

- Storage technology stores excess capacity and shifts supply from times of excess capacity to times of scarcity.
- DSR controls demand at times of scarcity (at peak hours) by allowing users to adjust their demand when prices are high.
- Interconnection improves the connection of the National Grid to that of neighbouring regions, which allows excess capacity in neighbouring countries to meet the demand in Britain, and vice versa.

Further Development

The UK Department of Energy and Climate Change (DECC) envisages the first auction to begin in 2015. However concerns have arisen that this will lead to an energy shortage during the transitional period between the closure of old and polluting plants under the EU large combustion plant directive and the commencement of the CM.

The DECC is considering bringing forward the date of the first auction following supply security assessments and forecasts.

Delivery model for FiTCfD and Capacity Mechanism

In order to deliver the policies effectively, the government will set up an arm's length organization or organizations to perform delegated functions. While the government will set the overall policy approach and objectives of the new mechanisms, an arm's length organization(s) will be set up to perform the following functions:

- Translating the policy objectives into technical requirements by establishing detailed technical requirements in a transparent delivery plan that is understandable to all market participants.
- Delivering the contracts to market participants and negotiating with them where appropriate.
- Data reconciliation and managing payments. Collecting data, managing complex calculations and large payments in a timely and efficient manner.
- Monitoring compliance and enforcement, ensuring compliance with the required technical standards and the monitoring and governance obligations.

7. Cash Out Reform by Ofgem

Need for reform

In the current market, electricity is traded in half-hour settlement periods. Bilateral trading between generators, suppliers and intermediaries ends one hour before the half-hour period contracted for. **Imbalances occur when generators or suppliers deviate from their declared intention** to generate or supply the required volume of electricity. **The System Operator therefore needs to ensure that the electricity system remains balanced, and it incurs costs on behalf of the industry** for increasing or reducing supply to balance the system.

The imbalance settlement / cash out is the process used to settle the differences between actually supply and demand. Reform is needed because it is thought that, at present, cash out prices do not accurately reflect the costs incurred by the System Operator when balancing the system contracts and the actual metered volumes of electricity supplied or used.

Significant Code Review for the calculation of cash out prices

Ofgem is undergoing a Significant Code Review for cash out prices. The following are proposed changes:

- Changing to a single or fixed spread cash out price. Different prices exist for selling and buying electricity currently. A single price for what is essentially the same product will
- Changing to more marginal pricing. Marginal pricing is more reflective of the costs of system balancing.
- More effective allocation of reserve contract costs. Costs will be calculated to the period in which the reserve is used, in order to more accurately reflect the costs incurred by the System Operator when balancing the system to market participants that are out of balance.
- Putting a price on currently non-costed System Operator actions. Customers will be compensated for involuntary voltage reductions and automatic demand disconnections. Such compensation will be included in the cash out price.

C. Competition

8. Eliminating Barriers to Entry

Barriers to Entry

Under current market arrangements, independent generators and suppliers face difficulties in risk management. Unlike vertically integrated power companies which have a natural hedge between generation and supply activities, independent companies face the following risks:

1. **Offtake** (sale of power from generation) **risks** – Generators must have a viable route to market
2. **Balancing Risks** – the need to buy and sell power in the intra-day market and avoid exposure to the cash out price (above)
3. **Credit** – Collateral and financing risks related to wholesale market trading
4. **Price risks** – Addressed by FiT CfD for low-carbon generation.
5. **Basis risk** – Risk of deviation between the market price and the reference price (i.e. the strike price in FiT CfD contracts)

With Big Six supplying around 99% of the domestic retail market and owning a large proportion of Britain's power stations, independent suppliers have found it difficult to compete to win customers and to buy the wholesale power products that they need in the forward markets.

Liquidity as the Solution

Liquidity in the electricity markets is essential for independent suppliers and generators to buy and sell energy at the volume and in the timescales they need to operate effectively in the energy market, and to provide reliable investment signals. The predominant view is that the Electricity Market Reform will not succeed without improved liquidity.

Three markets are concerned here. The first is the **forward markets**, which refer to long-term buying and selling for the delivery at least a month ahead. The second is **day-ahead markets**, the buying and selling for delivery of electricity on the day after the trading takes place. The third is **intra-day markets**.

The existence of vertically integrated generators harms liquidity because they are less in need of trading. They may simply hedge the risk of electricity price movements internally, between their supply and generation activities.

Liquidity levels the playing field for independent companies and leads to increased competition and transparency on prices:

- **Allowing parties to better manage long-term risk and providing long-term price signals** about future market development which inform investment decisions and promote long-term security of supply
- **Increasing confidence in traded prices** which also inform investment decisions
- **Facilitating new entry in generation and supply** by allowing new entrants to buy and sell electricity to match their output and customer base with confidence.

This may also encourage aggregation services from market participants to act on behalf of generators to sell power and manage risks across a portfolio.

With active direct trading, firms with intermittent renewables will still find opportunities in offering Power Purchase Agreements by managing balancing risks through the electricity market.

Liquidity also complements other reform efforts:

- Ensuring a reliable reference price for FiT CfD
- Reducing the burden on the Capacity Mechanism

Ofgem's Liquidity Reform

On 22 February 2012, Ofgem published a detailed road map to open up the wholesale electricity market for independent suppliers⁸. In its latest proposal, Ofgem sets out **three objectives for the Big Six Suppliers**:

1. **Availability of a range of products which support hedging**, i.e. the ability to buy power over different timescales at different prices to balance risk.
 - Increasing the range of power products available in the market, including those which allow independents to meet their long-term power needs
 - Lots of trading in key products, i.e. baseload, peak and off-peak products
 - Reasonable and transparent terms of trade
2. **Robust reference prices showing how much power would cost in forward markets**
 - Lots of trading in key products, including those which allow independents to meet their long-term needs
 - Narrow gap between prices to buy and sell key products

⁸ Ofgem, Retail Market Review: Intervention to enhance liquidity in the GB power market <http://www.ofgem.gov.uk/Markets/RetMkts/rmr/Documents1/Liquidity%20Feb%20Condoc.pdf>

3. **Effective short/ near term market**, i.e. extra power

- Lots of trading in near-term products, including those which deliver power the next day
- Reasonable and transparent terms of trade
- Independents able to get the products they need to meet changes in demand and supply

Since announcing the reform in March 2011, some Big Six companies have launched initiatives to facilitate access to bilateral trading for independent market participants. However in Ofgem's latest Retail Market Review, liquidity was still found to be substantially lower than Britain's European counterparts.

Mandatory Auctions for the Big Six Suppliers

In order to speed up the reform, Ofgem is proposing **Mandatory Auctions** to drive open the electricity market. This would **require the Big Six to sell a range of different products**, with sufficient volume in each product **amounting to at least 25% of generated output** (equivalent to approx. 40% of household electricity demand). This volume is estimated to be sufficient to act as a "one-stop shop" to support current independents and new entrants.

The required volume has been increased from the initial proposals in March 2011 from 10 – 20%. In comparison, France requires 10% and Texas requires 15% of capacity of the incumbent suppliers to be auctioned out.

This will (1) significantly improve the availability of key products for independent suppliers, (2) stimulate a market on the purchasing side, and (3) provide strong price signals, so that independent suppliers would be able to hedge their positions more effectively on forward markets and compete on a more level playing field.

The auction will be administered by an independent trustee and **buy-side rules** will be put in place to ensure that the Big Six :

1. Cannot buy exactly the amount they sell themselves. I.e. they must buy a minimum of 20% more or less than the volume they are selling, so as to make sure that there are surpluses in the market.
2. Offer to buy and sell at prices that are reflective of market prices.

European Target Model

The European Target Model will be achieved through the creation of a **Great Britain Hub** ("GB Hub"), which will bring together trading in day-ahead products on separate GB markets. The GB Hub will then be coupled with European markets to facilitate cross-border exchange.

9. Market Power License Condition⁹

Regulatory Goal

Two main categories of exploitative behavior are addressed by the new market power license condition:

1. Manipulation of where electricity is generated (locational constraints) in order to achieve excess profit from offers to generate electricity or bids to reduce

⁹ DECC Impact Assessment for the Energy Act 2010

http://www.decc.gov.uk/assets/decc/legislation/energybill/1_20100226093304_e_@@_energybillia.pdf at p.39

electricity under the balancing and settlement mechanism. Where the number of generation plants is limited due to locational constraints, the National Grid may have no choice but to accept an offer or bid from a dominant generator in order to balance demand and supply of electricity.

2. Making exploitative bids to take advantage of market constraints.

How it Works

The market power license condition is an interim solution introduced in 2011 that will protect consumers until the Electricity Market Reform takes effect. The condition will be rendered redundant when constraints that create market power are eliminated, i.e. liquidity and transmission improved under the Electricity Market Reform.

A breach of condition will occur when the following questions are answered in the positive:

1. Whether there is a constraint period for exploitation?
2. Whether offers or bids are uneconomically priced?
3. Whether the pricing can be objectively justified notwithstanding (2)?
4. Whether the generator profited excessively?

A right of appeal lies to the Competition Appeal Tribunal.

The market power license condition is subject to a sunset clause. The condition will only be in place for 5 years, which may be extended by 2 years through secondary legislation. Long term constraints are estimated to be resolved by increased transmission capacity and market liquidity by 2018.

10. Simpler Tariffs and Better Information¹⁰

Regulatory Goal

To increase the transparency and simplicity of energy prices.
To foster competition by enabling consumers to compare prices charged by different suppliers more easily.

How it Works

1. Simpler Tariffs

Electricity suppliers are required to publish a **single standard tariff**:

- Terms and conditions of a supply contract must be communicated to the customer before the contract is entered into.
- Alterations must be notified to consumers at least 30 days before prices rise.
- Each supplier can only have one standard tariff per payment method, per fuel. The payment methods are direct debit, pre-payment meter and standard credit.
- Consumers will get a simple unit price and a fixed standing charge set by Ofgem, enabling them to choose the cheapest standard tariff more easily.
- Standard tariffs will be presented in the same way to enable comparison.

In order to give customers genuine choice, **other tariffs** may still be charged. However they will be subject to the following restrictions:

¹⁰ Ofgem letter of notification on the Transparency requirements on suppliers in respect of domestic customers
http://www.ofgem.gov.uk/Markets/RetMkts/ensuppro/Documents1/Open_letter%20on%20transparency.pdf

- These tariffs must have a specified end date and fixed terms and conditions. Terms and conditions cannot be changed for the duration of the fixed term contract.
- Automatic roll-over at the end of the contract is banned. Customers who do not sign up to a new deal will default to the standard tariff.
- Clear information so that the customer understands the terms.

2. Better Information

In addition to simpler tariffs, Ofgem requires suppliers to:

- Help vulnerable and indebted consumers who are blocked from changing suppliers due to outstanding debts.
- Improve the conduct of sales and marketing activities.
- Help small business consumers by providing them with better information regarding the terms and conditions of their contracts.

11. Removing Unjustified Retail Price Differentials¹¹

Regulatory Goal	To ensure that consumers benefit most from a vibrant competitive market, and to prevent overcharging.
How it Works	In 2009, Ofgem included 2 new license conditions for domestic suppliers of electricity: <ol style="list-style-type: none"> 1. Any difference among suppliers in the terms and conditions offered to consumers in respect of different payment methods must be cost reflective; 2. Undue discrimination in any terms and conditions offered to different groups of consumers is prohibited.

D. Transmission and Distribution

12. Smarter Distribution Network

Regulatory Goal	To address increased demand for electricity, due to the electrification of heat, transport and industrial processes, as well as an expected increase in population. Due to uncertainty over the speed, scale and nature of developments in networks that will be required, uncertainty over the rate of change could lead to insufficient or inappropriate investment, resulting in the network being unable to deal with future challenges.
How it Works	The Government plans to lead work through the Smart Grids Forum with Ofgem, to guide future network investment.

¹¹ Ofgem, Guidelines on Cost Reflectivity between Payment Methods and the Prohibition of Undue Discrimination in Domestic Gas and Electricity Supply Contracts
<http://www.ofgem.gov.uk/Markets/RetMkts/ensuppro/Documents1/Guidelines%20on%20Cost%20Reflectivity%20and%20Undue%20Discrimination%20in%20Supply.pdf>

13. Demand Side Response

Regulatory Goal	<p>Demand Side Response (DSR) aims to balance supply and demand, especially in the context of significant amounts of intermittent and inflexible generation. Smart meters allow consumers to shift their demand away from periods where supply is limited.</p> <p>At present, users of DSR are largely confined to commercial and industrial sectors.</p>
Universal Adoption	<p>The government plans to roll out Smart Meters to all consumers by 2019, which will allow consumers to measure and adjust their consumption at peak hours. This will complement the introduction of Time of Use Tariffs, i.e. higher tariffs at peak hours.</p> <p>This will save costs for consumers as well as assist in balancing supply and demand.</p>

14. Interconnection

Regulatory Goals	<p>Interconnection allows more independent generators to connect to the main electricity grid. This leads to greater security of supply, greater competition, and reduced costs to consumers.</p>
Reform	<p>Up to now, interconnection in the UK has been built on a merchant basis under which investors take on the risk of investment. In many EU markets, however, interconnection is regulated.</p>
Cap and Collar	<p>Ofgem is currently consulting with the Belgian regulator on a proposed regulated interconnector investment regime based on a cap and collar approach. Under this approach, returns above the cap will be redistributed to users, whereas owners will be refunded by investors if returns are below the collar (similar mechanism to the FiT CfD).</p>
Other Interconnection Projects	<p>Domestically, Ofgem and the Government are also considering the need for further interconnections between different generation zones, offshore generation, and with Ireland and the British Islands. .</p>