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Chapter 10

Market Overview

Introduction

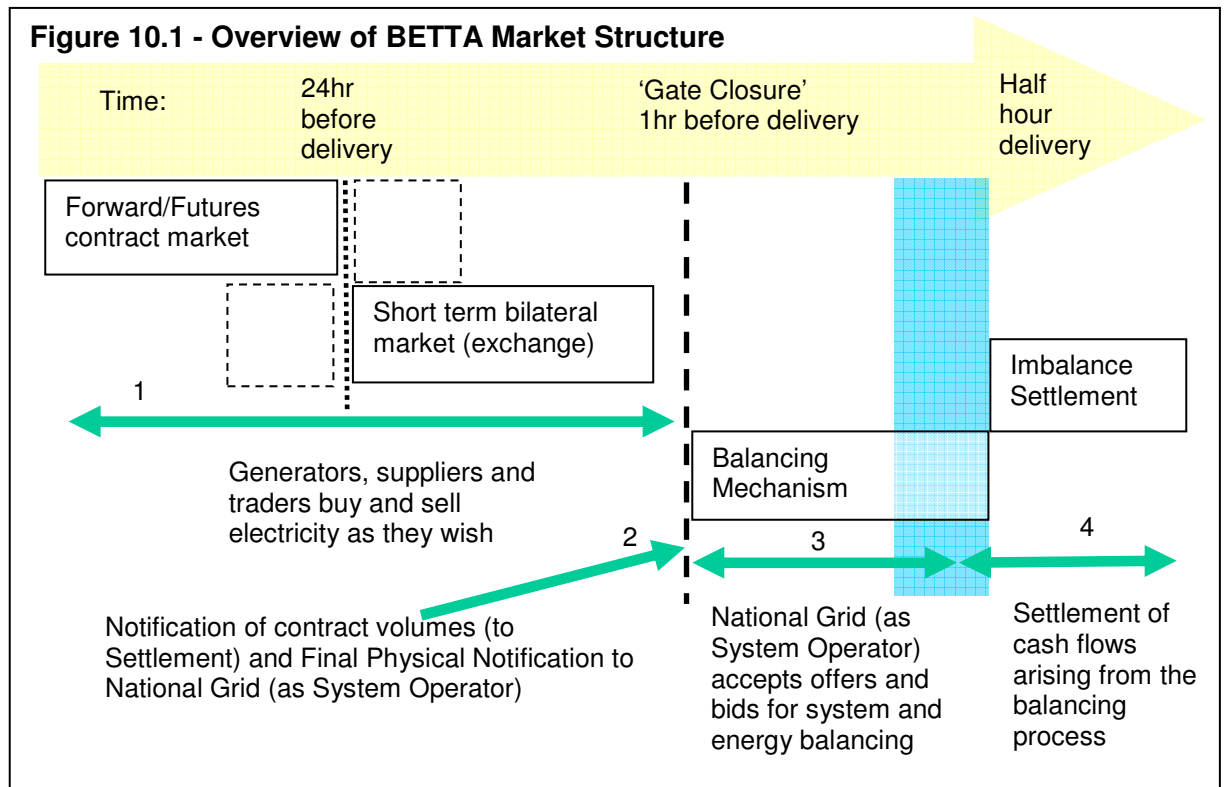
The Energy Act (2004) received Royal Assent in July 2004. Under powers granted by this legislation the Secretary of State directed changes to licences and designated changes to codes that together provided for the introduction of the British Electricity Trading and Transmission Arrangements (BETTA), which were subsequently introduced on 1 April 2005. They replaced the previous New Electricity Trading Arrangements (NETA) in England and Wales, and the separate arrangements that existed in Scotland and the British Grid System Agreement (BGSAs). This chapter provides an overview of BETTA and reports on related issues such as governance, institutional and contractual arrangements, and also provides a link to the Offshore Development Information Statement (ODIS) which gives information on the development of offshore generation.

The chapter concludes with a generalised summary of some of the main requirements placed upon users in relation to their obligations to become party to the various codes and charges under BETTA.

British Electricity Trading and Transmission Arrangements

The Market Structure

The arrangements under BETTA are based on bilateral trading between generators, suppliers, traders and customers across a series of markets operating on a rolling half-hourly basis. Under these arrangements generators self despatch their plant rather than being centrally despatched by the System Operator. There are three stages to the new wholesale market, plus a post-event new settlement process. These are illustrated in Figure 10.1.



Participation in the bilateral markets (i.e. the Forward/Futures contract market and the Short-term bilateral markets) and the Balancing Mechanism (i.e. offer/bid submission) is optional. Participation in Settlements is mandatory. In addition, certain categories of generator are required to provide Physical Notifications. The Balancing and Settlement Code (BSC) provides the framework within which participants comply with the Balancing Mechanism and Settlement Process. The BSC is administered by a non-profit making entity called Elexon. Information on Elexon is available from its website: www.elexon.co.uk.

The BSC also specifies the process for modifying the BSC itself. All modifications to the BSC are approved by the Authority (Ofgem) and must, in order to be approved, better facilitate achieving the applicable BSC objectives.

Gate Closure is the point in time when market participants notify the System Operator of their intended final physical position and is set at one hour ahead of real time. In addition, no further contract notification can be made to the central settlement systems.

Forwards and Futures Contract Market

The bilateral contracts markets for firm delivery of electricity operate from a year or more ahead of real time (i.e. the actual point in time at which electricity is generated and consumed) and typically up to 24 hours ahead of real time. The markets provide the opportunity for a seller (generator) and buyer (supplier) to enter into contracts to deliver/take delivery, on a specified date, of a given quantity of electricity at an agreed price.

The markets are optional with participants having complete freedom to agree contracts of any form. Formal disclosure of price is not required.

The Forwards and Futures Contract Market is intended to reflect electricity trading over extended periods and represents the majority of trading volumes. Although the market operates typically up to a year ahead of real time, trading is possible up to Gate Closure.

Short-term Bilateral Markets (Power Exchanges)

Power Exchanges operate over similar timescales, although trading tends to be concentrated in the last 24 hours.

The markets are in the form of screen-based exchanges where participants trade a series of standardised blocks of electricity (e.g. the delivery of xMWh over a specified period of the next day). Power Exchanges enable sellers (generators) and buyers (suppliers) to fine-tune their rolling half hour trade contract positions as their own demand and supply forecasts become more accurate as real time is approached. The markets are firm bilateral markets and participation is optional. One or more published reference prices are available to reflect trading in the Power Exchanges.

Balancing Mechanism

The Balancing Mechanism operates from Gate Closure through to real time and is managed by National Grid in its role as National Electricity Transmission System Operator (NETSO). It exists to ensure that supply and demand can be continuously matched or balanced in real time. The mechanism is operated with the System Operator acting as the sole counter party to all transactions.

Participation in the Balancing Mechanism, which is optional, involves submitting 'offers' (proposed trades to increase generation or decrease demand) and/or 'bids' (proposed trades to decrease generation or increase demand). The mechanism operates on a 'pay as bid' basis.

It is shown (under "Balancing Services") that we purchase offers, bids and other services to match supply and demand, resolve transmission constraints and thereby balance the system. As part of this process we are also required to ensure that the system is run within operational standards and limits (see entry on Licence Standard in References).

Generators and suppliers registered within the Balancing and Settlement Code are bound by the relevant requirements of the Grid Code which includes the arrangements for System Operator to accept Balancing Mechanism bids and offers, for calling off Balancing Services and for dealing with emergencies.

We have a general duty to operate the transmission system in an efficient, economic and co-ordinated manner through the procurement and utilisation of Balancing Services including Balancing Mechanism bids and offers. Our NETSO Incentive Scheme normally covers this duty.

As the market moves towards the Balancing stage, we need to be able to assess the physical position of market participants to ensure security of supply is maintained effectively and efficiently. To this end, all market participants are required to inform us of their planned net physical flows onto and/or from the system. Initial Physical Notifications (IPNs) are submitted at 11.00a.m. at the day ahead stage. These are continually updated until Gate Closure when they become the Final Physical Notifications (FPNs).

Imbalances and Settlements

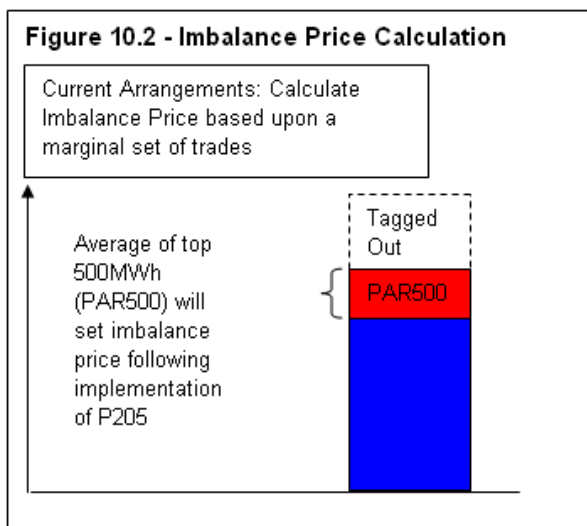
Power flows are metered in real time to determine the actual quantities of electricity produced and consumed at each location. The magnitude of any imbalance between participants’ contractual positions (as notified at Gate Closure) including accepted offers and bids, and the actual physical flow is then determined. Imbalance volumes are settled at one of the dual imbalance prices; System Buy Price (SBP) and System Sell Price (SSP).

Imbalance Pricing Arrangements

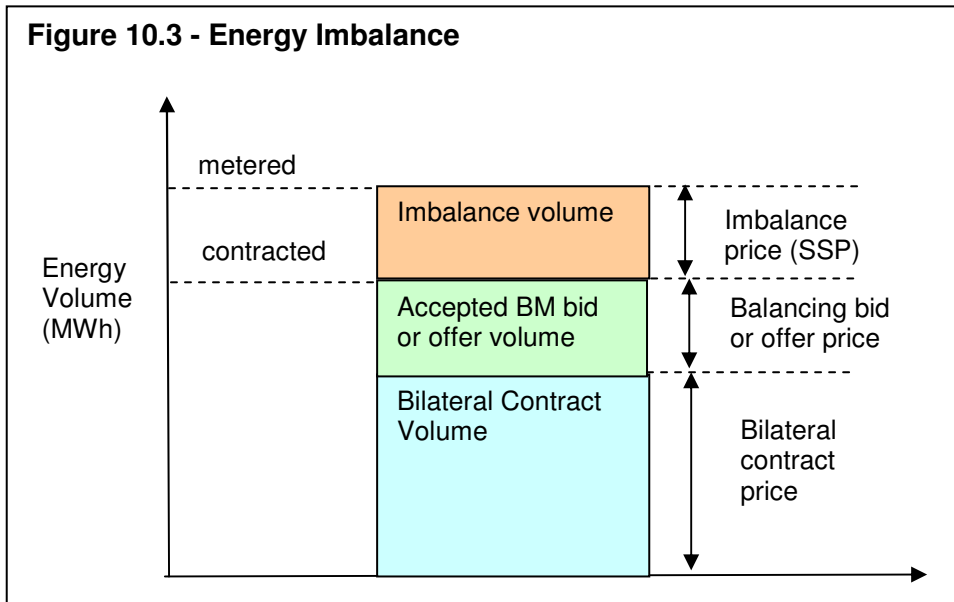
From 5th November 2009, we as NETSO ‘flag’ when we believe a bid-offer acceptance may resolve a transmission constraint. We also flag forward trade actions and certain System Operator to System Operator actions over interconnectors which we believe may resolve a transmission constraint, or which are used to avoid other adverse effects on the systems joined by the interconnection. This flagging is undertaken to enable high priced constraint actions to be removed from the imbalance price calculations.

Flagged actions are assessed against unflagged actions to determine whether they were more expensive than the unflagged actions. If they were, then the price associated with the flagged action is removed. If they weren’t, then the flagged action retains its price.

Where prices are removed, a ‘replacement price’ is calculated from a volume-weighted average of the most expensively priced 100 MWh of priced actions. If there are less than 100 MWh of priced actions, all the priced volume is used to calculate the replacement price.



Imbalance prices are intended to serve as an appropriate incentive for market participants to efficiently manage their contractual energy position ahead of gate closure. There is therefore a link between imbalance prices and plant margin in that the incentive on a participant to balance determines the level and value of contracting in the forward markets. This price signals drives plant availability, and in the longer term should sustain investment in new capacity. It is therefore essential that imbalance prices are set to provide the appropriate incentives in this respect. Figure 10.3 provides a simplified example where the metered energy output of a generator exceeds the contracted position.



There is a positive imbalance volume for which the generator would only be paid at SSP. Under normal circumstances SBP exceeds SSP. Had there been a negative imbalance volume, the system would have bought at SBP to compensate and so the generator would be charged at SBP. The use of dual imbalance prices is intended to provide an incentive for participants to balance their own position as accurately as possible.

Finally, in addition to energy imbalance charges there is also provision in the market rules for an information imbalance charge. Information imbalance corresponds to the difference between the expected delivery (as indicated by FPNs plus accepted BM bids and offers), on the one hand and metered output/consumption on the other. This charge is currently set at zero.

Balancing Mechanism Reporting Service (BMRS)

As part of the BETTA arrangements, market participants have access to information to enable them to trade to balance their positions and self despatch their plant. The Balancing Mechanism Reporting Service (BMRS) is the service for reporting the necessary information that includes:

- Demand forecasts from National Grid
- Generation availabilities and margins
- Imbalance forecasts based on participants' Physical Notifications
- Submitted BM offer and bid volumes and prices
- Accepted BM trades and imbalance prices
- A variety of other information related to market operation

Forecast information is primarily made available for the day ahead and on the day. Submitted BM data is made available shortly after Gate Closure. Accepted bids and offers and initial imbalance prices are published shortly after real time. LogicaCMG operates the systems for this process under contract to Elexon, and administers a dedicated web-site providing near real-time information available at <http://www.bmreports.com/>.

Market Governance

The Balancing and Settlement Code (BSC)

The BSC sets out the rules governing the operation of the Balancing Mechanism (BM) and the Imbalance Settlement process. It also sets out the relationships and responsibilities of all market participants.

All Licence holders (i.e. transmission, generation, supply and distribution) are required to be registered within the BSC. Parties registered within the BSC may or may not choose to participate in the Balancing Mechanism (BM). Participation is defined as submitting an “offer” or a “bid” and is not dependent on its acceptance.

Parties exempt from holding a Licence may nevertheless choose to sign the framework agreement by which the BSC is made contractually binding. They may then also choose to participate in the BM. However, those parties who sign the BSC, whether licensed or licence exempt, are also likely to be required to sign on to the Connection and Use of System Code (CUSC).

A copy of the code may be obtained from <http://www.elexon.co.uk>, which also has links to all BSC change process documentation including modifications to the code itself.

The Grid Code (GC)

National Grid has a Licence Obligation in consultation with the other participants, to prepare and at all times to have in force and to implement, comply with, and review regularly, a Grid Code which would set down the operating procedures and principles governing our relationship with all users of the transmission system, be they generating companies, suppliers or suppliers' customers, Externally Interconnected Parties or users with systems directly connected to the transmission system.

The Grid Code is designed to permit the development, maintenance and operation of an efficient, co-ordinated and economical system for the transmission of electricity, to facilitate competition in the generation and supply of electricity and to promote the security and efficiency of the power system as a whole.

The Grid Code covers all material and technical aspects relating to connections and to the operation and use of the transmission system or, in as far as relevant to the operation and use of the transmission system, the operation of the electric lines and electrical plant connected to it or to a distribution system. It also specifies data which system users are obliged to provide to us for use in the planning and operation of the transmission system, including demand forecasts, availability of generating sets and intended dates of overhaul of large generating sets.

All parties connected to, or involved in the use of, the transmission system, including National Grid, are subject to the Grid Code. Please note that amongst other things, the Grid Code requires that participants embedded within another party's system (e.g. distribution system) must ensure that their physical notifications (see Balancing Mechanism Reporting Service (BMRS)), bids and offers are feasible with respect to their host network. Users' Licences and the Connection and Use of System Code (CUSC) give legal force to the Grid Code. Any changes to the Grid Code are subject to the approval of the Authority (Ofgem).

The Grid Code, along with associated information on its structure is available at

<http://www.nationalgrid.com/uk/Electricity/Codes/>

The Connection and Use of System Code (CUSC)

National Grid is required under the Transmission Licence to be a party to the CUSC Framework Agreement and comply with the CUSC. It is also a requirement for holders of a generation, distribution or supply licence to be a party to the CUSC Framework Agreement and comply with the CUSC. In addition to licensees, the following parties need to be a party to the CUSC Framework Agreement and comply with the CUSC. Users who are:

- Required to sign an agreement pursuant to the Balancing and Settlement Code; or
- Not licensed nor subject to the Balancing and Settlement Code but who are directly connected to the National Grid Transmission System; or
- Who are Embedded and required pursuant to Paragraph 6.5 of the CUSC to have an agreement with National Grid.

The CUSC is a licence-based code setting out within it the principal rights and obligations in relation to connection to and/or use of the NETS and also relating to the provision of certain Balancing Services. The CUSC was developed as a replacement to the previous Master Connection and Use of System Agreement (MCUSA), which had been used since Vesting. All persons who were party to the MCUSA as at the CUSC Implementation Date continued as Original Parties to the CUSC Framework Agreement. Other Parties who have since acceded to the CUSC are additional parties.

The CUSC contains obligations for CUSC signatories to comply with the relevant provisions of the Grid Code, and obligations to pay charges in accordance with the Charging Statements.

The System Operator – Transmission Owner Code (STC)

The STC is the legal document, which forms the high level contractual framework for the interactions between NETSO all Transmission Licensees (National Grid Electricity Transmission plc, Scottish Power Transmission Ltd, Scottish Hydro Electric Transmission Ltd and all offshore Transmission Licensees) and makes provision for certain interactions between these parties. These interactions include:

- The Transmission Owners providing Transmission Services to the NETSO
- Directions from the NETSO to configure the NETS
- Transmission Outage Planning
- Joint Transmission Investment Planning
- Governance of the STC and amendments to it
- Dispute resolution

The STC is supported by a number of procedures (STC Procedures or STCPs) that set out in greater detail the roles, responsibilities, obligations and rights etc of the NETSO and the TOs.

National Grid's Role and Obligations

Licence Obligations

Section C of the Transmission Licence (System Operator Standard Conditions) places a number of obligations upon National Grid in relation to, amongst other things, the Balancing and Settlement Code (BSC) and these include:

- National Grid shall at all times have in force and comply with, a Balancing and Settlement Code
- National Grid shall operate the transmission system in an efficient, economic and co-ordinated manner
- Having taken into account the relevant price and technical differences, National Grid shall not discriminate between any persons or classes of persons in its procurement of Balancing Services.

Under the arrangements of BETTA, NGET, SPT and SHETL each have Transmission Licences that stipulate certain obligations. However, in its role as the NETSO, National Grid has extra responsibilities as indicated above. The SO-TO code (STC) sets out the arrangements for the interface between the NETSO and the Scottish Transmission Operators.

http://www.nationalgrid.com/uk/indinfo/stc/mn_stc.html

Balancing Services

The services that we procure, as NETSO, in order to operate the transmission system constitute Balancing Services.

Balancing Services include:

- Ancillary Services
- Offers and bids made in the Balancing Mechanism
- Other services available to National Grid which serve to assist us in operating the transmission system in accordance with the Electricity Act 1989 or the Conditions in an efficient and economic manner

Ancillary Services, under the Grid Code, can be Part 1 System Ancillary Services, Part 2 System Ancillary Services or Commercial Ancillary Services. Part 1 System Ancillary Services are those which Users are required to have available in accordance with the Grid Code. Part 2 System Ancillary Services are those optional services (e.g. black start capability) set out in the Grid Code, which the User has agreed to have available. Commercial Ancillary Services are other optional services (e.g. hot standby) described in the Grid Code, which the User has agreed to have available.

Balancing Mechanism offers and bids are commercial services offered by generators and suppliers and procured through arrangements set out in the BSC. They represent the willingness to increase or decrease the energy output from BM Participants in exchange for payment.

Other Services refers to commercial services that can be entered into with any party, which are classified neither as Ancillary Services nor BM offers or bids. These services can be provided by parties who are not authorised electricity operators. This category would include any service provided by parties that are not signatories to the BSC and may also include the procurement of energy ahead of BM timescales.

For further information on Balancing Services, please see the following website:-

<http://www.nationalgrid.com/uk/indinfo/balancing>

Information Provision

There are five documents which we produce pursuant to Condition C16 of the Transmission Licence which have particular relevance in this area, namely the:

- Procurement Guidelines
- Balancing Principles Statement
- Balancing Services Adjustment Data (BSAD) Methodology Statement
- Applicable Balancing Services Volume Data (ABSVD) Methodology Statement
- System Management Actions Flagging (SMAF) Methodology Statement

The Procurement Guidelines set out the kinds of Balancing Services which we may be interested in purchasing, together with the mechanisms by which we envisage purchasing such services. The Procurement Guidelines are not prescriptive of every possible situation that we are likely to encounter, but rather represent a generic statement of the procurement principles we expect to follow.

The Balancing Principles Statement defines the broad principles and criteria (the Balancing Principles) by which we determine, at different times and in different circumstances, which Balancing Services we will use to assist in the operation of the transmission system (and/or to assist in doing so efficiently and economically), and when we would resort to measures not involving the use of Balancing Services. The Balancing Principles Statement is designed to indicate the broad framework in which we will make balancing action decisions.

The Balancing Services Adjustment Data (BSAD) Methodology Statement sets out information on relevant Balancing Services that will be taken into account under the BSC for the purpose of determining Imbalance Price(s).

The Applicable Balancing Services Volume Data statement sets out the information on Applicable Balancing Services that will be taken into account under the Balancing and Settlement Code for the purposes of determining imbalance volumes.

The System Management Actions Flagging (SMAF) Methodology Statement sets out the means which we will use to identify balancing services that are for system management reasons for the purpose of determining Imbalance Price(s).

Further information and electronic versions of the above documents are available from:-

<http://www.nationalgrid.com/uk/indinfo/balancing>

The Offshore Development Information Statement

The Offshore Development Information Statement (ODIS) is produced in accordance with Special Condition C4, and is available at the following location.

<https://www.nationalgrid.com/uk/Electricity/ODIS/>

The main purpose of the Statement is to facilitate the achievement of the coordinated development of the offshore and onshore electricity grid in Great Britain. The network solutions identified in this report represent a vision of how the offshore and onshore reinforcements could be developed; it is the responsibility of individual onshore/offshore network owner to develop detailed designs. In developing these detailed designs it is envisaged that this Statement will provide guidance in determining the optimum solutions.

Transmission Pricing

Charging Statements

We produce three Charging Statements in accordance with the requirements of the Transmission Licence. Whereas the contractual obligation to pay charges resides within the Connection and Use of System Code (CUSC), the principles that underpin these charges are contained in the Charging Statements.

The three Charging Statements are; the Statement of Use of System Charges; the Statement of Use of System Charging Methodology; and the Statement of the Connection Charging Methodology.

It is a requirement of our Transmission Licence that we charge in accordance with the above Statements. The Statements contain sufficient detail to enable our customers to make a reasonable estimate of their charges. The documents are kept under continual review and any amendments are approved by Ofgem.

Please refer to Chapter 9 Table 9.1 for the Transmission Use of System Charges table for charges applicable from 1st April 2011.

For a comprehensive description, please refer to the Charging Statements which are available at the following web site: www.nationalgridinfo.co.uk/charging/index.html.

The follow paragraphs provide a brief summary of National Grid's charges.

Connection Charges

All customers who are directly connected to the NETS are subject to Connection Charges.

These charges enable National Grid to recover, with a reasonable rate of return, the costs involved in providing the assets that afford connection to the NETS. The Connection Charges relate to the costs of assets installed solely for and only capable of use by an individual User and take into account the asset value and age. Connection Charges additionally include a maintenance component and an overhead component based on the asset value.

Transmission Network Use of System (TNUoS) Charges

Transmission Network Use of System charges reflect the cost of installing, operating and maintaining the transmission system for the Transmission Owner (TO) activity function of the Transmission Businesses of each Transmission Licensee. These activities are undertaken to the standards prescribed by the Transmission Licenses, to provide the capability to allow the flow of bulk transfers of power between connection sites and to provide transmission system security.

The basis of charging to recover the allowed revenue is the Investment Cost Related Pricing (ICRP) methodology, which was approved for use for GB in March 2005. Charges are based on the customer's location and on their import and export requirements as calculated by a DC Load flow (DCLF) ICRP transport model. The GB charging methodology was implemented in April 2005.

TNUoS tariffs are set to recover 27% of revenue from users that export onto the system (Generators) and 73% of revenue from users that import from it (Suppliers). Tariffs are calculated annually and typically published by 31 January for the charging year commencing on 1 April. However, arrangements exist to allow National Grid to revise tariffs at other times within the year. The CUSC requires a two month notice period for a change in Use of System tariffs.

Generation TNUoS Charges

Generators are charged a zonal charge dependent on which tariff zone their power station is connected, together with a specific local charge dependent on the type of connection. There are currently 20 generation TNUoS tariff zones (see Figure A.1.3 and Chapter 6: "Use of System Tariff Zones"). The charges for these zones display a north to south differential and vary from positive tariffs in the north to negative tariffs in some southern zones. The locational zonal charge reflects whether the generation contributes to or alleviates the need for additional transmission reinforcement/investment on the Main Interconnected Transmission System (MITS). The specific locational charge is dependent on whether the connecting substation has redundancy i.e. is single or double busbar, and the type and length of connecting circuits to that substation. The basis of the generation charge is the highest Transmission Entry Capacity (TEC) applicable over the year for positive tariff zones, or the average of the three highest metered exports over the winter period for negative tariff zones.

The Transmission Entry Capacity (TEC) of a power station is defined as the access capacity that the generator has requested to export power onto the main transmission system. We use this as input into its planning studies to determine the wider system infrastructure requirements and as the basis for TNUoS charges. TEC is the permitted sum of outputs from the Balancing Mechanism units comprising the power station less station demand, expressed in MW averaged over a Settlement Period.

Demand TNUoS Charges

There are 14 demand TNUoS tariff zones (see Figure A.1.4 and "Use of System Tariff Zones" in Chapter 6), these map to the 14 distribution network operator areas. The TNUoS tariffs for demand (paid by suppliers) reverse the north to south trend seen in generation tariffs. Whilst there is a minimum tariff of zero, this collar is not needed due to the revenue that is expected to be recovered from demand (73%) i.e. all tariffs are above zero. Suppliers' charges for half-hourly, metered demand are based on the average of the actual demand supplied during the Triad. The Triad is defined as the three half hour settlement periods of highest transmission system demand during November to February of a Financial Year, separated by 10 clear days. Non half-hourly metered demand charges are on the basis of energy demand over the half hours 16.00 – 19.00 inclusive from 1 April to 31 March.

Balancing Services Use of System (BSUoS) Charges

The Transmission Licence allows us to derive revenue in respect of Balancing Services through the Balancing Services Use of System (BSUoS) charges. We in our role as NETSO, have a responsibility to keep the electricity system in balance (energy balancing) and to maintain quality and security of supply (system balancing). Under the Balancing Services Incentive Scheme we are incentivised on the procurement of services for energy and system balancing and other costs associated with operating the system.

Customers pay for the cost of Balancing Services and any incentivised payments/receipts through BSUoS charges. All users registered within the Balancing and Settlement Code (BSC) are liable to pay BSUoS charges based on their energy taken from or supplied to our transmission system and is calculated every settlement period.

Project TransmiT

Project TransmiT is an 'Ofgem's independent review of the charging arrangements for gas and electricity transmission networks, and the connection arrangements.

Project TransmiT will be delivered in a number of phases – the first looking to collect evidence and determine whether all or part of the transmission charging regime should be modified. It will also aim to identify what changes can be made to facilitate the timely connection of new (including low carbon) generation.

More information on TransmiT and development of changes to the frameworks can found at Ofgem's dedicated webpage:

<http://www.ofgem.gov.uk/Networks/Trans/PT/Pages/ProjectTransmiT.aspx>

As part of the TransmiT project National Grid raised **CMP192 Enduring Arrangements for User Commitment**. This seeks to bring a methodology for setting Generation User Commitment, for pre ad post commissioning generators, under the CUSC arrangements.

As of May 2011 a CUSC working group is underway developing the proposed methodology. This will then go through a full Industry consultation before being submitted to Ofgem for decision in Autumn 2011. During this period National Grid are applying interim arrangements, details of which can be found on the National Grid website at:

<http://www.nationalgrid.com/uk/Electricity/GettingConnected/PoliciesAndGuidance/>

Participants' Requirements

Licence Requirements

Under the provision of the Utilities Act 2000, the Secretary of State's power to grant (and, in the case of supply, extend) electricity licences has been removed. These provisions bring the Electricity Act, 1989 into line with the Gas Act, 1995, where licences may be granted only by the Authority (Ofgem). Accordingly, having determined and published standard conditions to be included in each type of electricity licence, the Secretary of State has no role in the subsequent modification of the standard conditions save only a power to veto modifications proposed by the Authority (Ofgem).

Under the provisions of the Utilities Act 2000, supply and distribution have become separate licensable activities. The previous distinction in legislation between public electricity supplier (PES) and second-tier supply licences have been removed and the supply and distribution businesses of the PES have been put into separate legal entities. There is a bar on the same person holding both an electricity supply and an electricity distribution licence. As a result of this and other changes, the concept of a PES has ceased to exist. However, there is no provision requiring separate supply and distribution companies to be owned separately.

Transmission Licence

Transmission licences are granted under Section 6 (1) (b) of the Electricity Act, 1989. National Grid, SPT and SHETL are currently the holders of the three transmission licences. However, it is possible for further onshore and offshore transmission licences to be granted.

Generation Licences

Generation licences are granted pursuant to Section 6 (1) (a) of the Electricity Act, 1989. In essence, any power station capable of providing 100MW or more to the total system in Great Britain is required to have a Generation Licence. In this context the total system means the NETS and all distribution systems. Furthermore, a distribution system means a system, which consists (wholly or mainly) of low voltage lines and electrical plant and is used for conveying electricity to any premises or to any other distribution system.

Power stations capable of exporting between 50MW and 100MW to the total system that connected after 30 September 2000 may apply to the Department of Energy and Climate Change (DECC) to seek a Licence Exemption (see Chapter 4: "Technical and Data Requirements"). Power Stations that are not capable of exporting 50MW or more to the total system are automatically exempt from the requirement to hold a generation licence.

Supply Licences

Supply Licences are granted pursuant to Section 6 (1) (d) of the Electricity Act, 1989. The concept of geographically mutually exclusive authorised areas, which applied to the previous PES licences does not apply to supply licences. Supply licences may be granted in respect of all customers throughout Great Britain, or may relate to specific geographical areas or customer groups.

As with distribution, some functions necessary to ensure that everyone has reasonable access to electricity, previously carried by the PES in relation to supply, continues and this obligation is imposed through the licences.

Distribution Licences

Distribution licences are granted under Section 6 (1) (c) the Electricity Act, 1989. The concept of geographically mutually exclusive authorised areas for distribution is retained.

Consents Under the Electricity Act 1989

Section 36 Consent (S36)

This refers to Section 36 of the Electricity Act 1989 which specifies that a generating station of over 50MW capacity shall not be constructed, extended or operated except in accordance with a consent granted by the Secretary of State within England and Wales and the Scottish Executive in Scotland. The relevant office takes into account views on particular applications, including views of the local planning authority and, in certain circumstances, may call a public inquiry into a proposal. When granted, consent lasts for five years within which time a project must show signs of construction.

Many of the tables giving information on power stations located in Appendix F (and totalled in Chapter 3) include an indication of whether that plant has obtained S36 and S14 consent or not. For completeness Appendix F.6 lists power stations under construction, for which Section 36 and Section 14 consent has been given, and Appendix F.5 lists power stations, not yet under construction, for which Section 36 and Section 14 consent has been given. The output capacities (MW) given in the tables are intended to reflect the 'transmission contracted' capacities shown elsewhere in this Statement. The information presented in the tables represents our current view obtained through market intelligence and should not be relied upon; better information may be available through other sources.

Section 14 Consent (S14)

This refers to Section 14 of the Energy Act 1976.

Section 14(1) prohibits the establishment or conversion of an electricity generating station fuelled by oil or natural gas unless notice has been given to the Secretary of State. The Secretary of State may direct, having regard to current energy policies, that the proposal be not carried out or be carried out in accordance with specified conditions.

Section 14(2) makes similar provisions in respect of the making or extension of contracts for obtaining of natural gas to such a station. Stations less than 10MW, and contracts of up to a year's duration, are excepted by Orders under the Act.

Section 14(3) allows the Secretary of State to halt any proposals notified to him, if he considers it expedient, having due regard to current energy policy. This clause may be exercised, for instance, to prevent a project being built which has had Section 36 consent for five years but which, in the opinion of the Secretary of State, has shown no evidence of construction.

Section 37 Consent (S37)

This refers to Section 37 of the Electricity Act 1989, which specifies that, subject to certain exemptions, an electric line shall not be installed or kept installed above ground except in accordance with a consent granted by the Secretary of State. Exceptions include:

- Electric lines with a nominal voltage of 20kV or less used to supply a single consumer;
- Electric lines within premises in the occupation or control of the person responsible for its installation; or
- Such other cases as may be prescribed.

Infrastructure Planning Commission

From 1 March 2010, the Infrastructure Planning Commission (IPC) became responsible for processing new planning applications under the Planning Act 2008. Section 36 applications received before 1 March 2010 will remain as part of the previous process as described above with new applications for consents having to go through the IPC for examination and decision.

Compliance with Industry Codes

Table 10.1 at the end of this chapter provides a generalised summary of some of the main requirements placed on generators, suppliers and distributors in relation to their obligations to become party to the various codes and charges discussed earlier in this chapter.

The table is intended only as an initial quick reference guide for readers unfamiliar with the arrangements under BETTA. There may well be variations to the requirements depending on circumstances. The table has been constructed on the basis of the following generalised rules:

- All **directly connected power stations** and directly connected Distribution Systems are required to accede to the **CUSC**.
- All **power stations** (regardless of whether they are directly connected or embedded) capable of exporting 100MW or more to the total system normally require a **Licence**.
- All holders of a **Licence** (regardless of whether they are directly connected or embedded) are required to accede to the **CUSC** and sign the **BSC**
- If **Licence-Exempt**, a User may choose to sign the **BSC** and accede to the **CUSC**;
- If registered within **BSC**, a User may choose to participate in the **BM**;
- **Licence-exempt** embedded generation may nevertheless be required to become party to the **CUSC** or sign an appropriate Bilateral Agreement under the requirements of CUSC Condition 6.5.
- If party to the **CUSC**, a User is bound by and must comply with relevant parts of the **Grid Code**; and
- If party to the **CUSC**, a User has an obligation to pay any relevant charges in accordance with the **Charging Statements**.

Bilateral Agreements

Finally, the section on "Bilateral Agreements" in the online Glossary under the Generation Terminology section describes the three types of Bilateral Agreement, namely: the Bilateral Connection Agreement (BCA); the Bilateral Embedded Generation Agreement (BEGA); and the Bilateral Embedded Licence Exemptible Large Power Station Agreement (BELLA).

The descriptions outline the relationships between the types of agreement, the class of power station, the type of connection to the system, the appropriate terminology for power station output and the appropriate charges. For ease of reference that information has been condensed, tabulated and re-presented here as Table 10.2 at the end of this chapter.

Table 10.1 - Generalised Summary of Main Requirements Placed on Generators, Suppliers and Distributors							
Market Participants	BSC	BM	CUSC	GC	Charges		
					Connection	TNUoS	BSUoS
<u>Licence Holders</u>							
Power Stations	yes	optional	yes	yes	if direct	yes	yes
Suppliers	yes	optional	yes	yes	no	yes	yes
Distributors	yes	no	yes	yes	yes	no	no
<u>Licence Exempt</u>							
Large Embedded Power Stations	Yes (subject to CUSC 6.29)	optional if BSC	yes	yes	no	if BSC (subject to CUSC 6.29)	if BSC (subject to CUSC 6.29)
Medium & Small Embedded Power Stations	optional	optional if BSC	if BSC or if required by CUSC Condition 6.5	if CUSC	no	if BSC	if BSC
Transmission Connected Power Stations	Yes (subject to CUSC 6.29)	optional if BSC	yes	yes	yes	if BSC (subject to CUSC 6.29)	if BSC (subject to CUSC 6.29)

Notes for Table 10.1:

1. BSC=Balancing and Settlement Code
2. BM=Balancing Mechanism
3. CUSC=Connection and Use of System Code
4. GC=Grid Code
5. Connection=Connection Charge
6. TNUoS=Transmission Network Use of System Charge
7. BSUoS=Balancing Services Use of System Charge

Type of Bilateral Agreement	Type of Power Station	Generation Licence	Connection		Power Station Output Terminology			Charges Applicable		
			Embedded	Direct	TEC	CEC	Size of Power Station	Connection	TNUoS	BSUoS
BCA	All	yes		yes	yes	yes		yes	yes	yes
BEGA	All	yes	yes		yes				yes	yes
BELLA	Large	no	yes				yes		if BSC	if BSC

Notes for Table 10.2:

1. BCA=Bilateral Connection Agreement
2. BEGA=Bilateral Embedded Generation Agreement
3. BELLA=Bilateral Embedded Licence Exemptable Large Power Station Agreement
4. A BCA is also for Directly Connected Distribution Systems, Non-Embedded Customer Sites and Interconnector Owners
5. A BEGA is also for Use of System for a Small Power Station Trading Party and a Distribution Interconnector Owner
6. In the case of a BELLA, the relevant Large Power Station must be SMRS registered or CMRS by an appropriate User