



**REGULATORS' ANNUAL REPORT TO THE EUROPEAN  
COMMISSION**

**COMMISSION FOR ENERGY REGULATION (IRELAND)**

**SEPTEMBER 2008**

## Foreword

The year 2007 marked a defining moment in the Irish Energy Sector with the establishment of the historic Single Electricity Market (SEM) for Ireland and Northern Ireland on 1 November. The commencement of the SEM represents a significant step towards progressive market reform and the development of greater competition in the electricity and gas sectors.

Much of the CER's focus during the year was on the continued design and development of the SEM. In conjunction with the SEM, the development of greater levels of competition in the electricity generation market remained a key area of focus for the Commission in 2007 and into 2008.

In July 2008 ESB entered into an agreement with Endesa, the Spanish power company with respect to the sale of two power stations, two peaking plants and two "generation-ready" sites. The sale of these generating units represents a significant step towards reducing ESB's share of the power generation market to 40% by 2010. Endesa's entry to the Irish power market is an indication of the rapid impact of the Single Electricity Market (SEM) for the island.

The CER has now turned its focus to the next stage of developing All Island Markets - Common Arrangements for Gas (CAG) with the objective of developing all-island gas market arrangements whereby all stakeholders can buy, sell, transport, operate, develop and plan the natural gas market north and south of the border effectively on an all-island basis.

Late 2007 saw a significant reduction of 10.6% on average in end user natural gas tariffs. This was primarily due to the Commission's five year annual revenue review of Bord Gáis Networks and Bord Gáis Supply businesses, alongside falling international fuel prices. However, following on from this announcement wholesale gas prices have experienced a continued and consistent rise. As a result the Commission recently approved an interim increase of 20% on average, in domestic and SME end user tariffs to apply from 1 September 2008. The current outlook for 2009 indicates further significant increases. The Commission also oversaw a restructuring of BGS tariffs in 2007. The new suite of tariffs introduced in October 2007 provide for increased cost reflectivity and greater customer choice, based on consumption.

Similarly, regulated end user electricity prices saw a much welcomed decrease of 6.1% on average on 1 November 2007, primarily as a result of falling international fuel prices throughout 2007. However the significant upward pressure on wholesale fuel prices has

also resulted in an increase of 17.5% on average being introduced for domestic customers and SME's from 1 August 2008. The Commission intend to carry out a further review of the situation in November 2008.

Some of the key highlights and milestones since mid 2007 from a regulatory point of view are listed below:

- The Commission published a consultation paper on possible criteria for the inclusion of renewable projects in Gate 3 of the group processing approach to network connection in Dec 2007. This was followed by a proposed direction in July 2008. The Commission is currently considering comments received and expects to publish a final direction on Gate 3 in quarter 4 of 2008. With over 1,300MW of offers in Gate 2 and a potential 3,000MW in Gate 3 the Commission is confident we can meet our renewable energy targets as set out in the Government's White Paper on Energy.
- The East-West Interconnector project has continued to progress well. The Commission approved a route in July 2007 and in conjunction with EirGrid, finalised the design of a competition in December 2007 for the construction of the interconnector. Most recent developments include the signing into law of legislation expanding EirGrid's functions to include the construction, ownership and operation of the interconnector. Delivery of the interconnector is on target for completion by 2012.
- The CER commenced the first phase of a smart metering project in late 2007 which will examine potential applications and the technical and system developments that are optimal in the context of the Irish electricity market. Within this project ESB Networks (ESBN) has commenced the development of a pilot study which will see up to 25,000 smart meters installed in various locations countrywide.
- The CER commenced a Review of its Public Consultation Process in late 2007. The aim of this review was to identify and address any areas of the current process in need of improvement. The new improved process will ensure a more user friendly and efficient consultation process is in place.

At an organisational level, the Commission implemented a restructuring of divisions in November 2007. There are currently four main functional divisions of the CER and an

operations division that provides support services across all teams. These divisions are; Electricity Markets, Electricity Networks and Retail, Gas, and Safety, Environment and Customer Affairs. The Commission continued to operate as a two person body during 2007; however, Mr. Dermot Nolan was appointed as the third Commissioner of the CER and commenced his term with the CER on 1 July 2008.

In conclusion the Commission believes that while the past year has seen substantial progress in market development, a significant body of work remains to be done. Of key importance into 2009 will be the continued development of the SEM, with the objective of realising competitive benefits for customers. We will continue to work with our colleagues in NIAUR and the SEM Committee to achieve this. Also of fundamental importance is the successful development of the Common Arrangements for Gas (CAG). The CER remains committed to working with its industry partners to fully implement the European Directives on electricity and gas and to deliver the benefits of competition for all customers in Ireland.



Tom Reeves

Chairperson



Michael G. Tutty

Commissioner

Dermot Nolan

Commissioner

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## 1.0 Summary / Major Developments since mid-2007

### 1.1 The Commission for Energy Regulation (CER)

The Commission for Energy Regulation is the independent statutory body responsible for regulating and overseeing the liberalisation of the electricity and natural gas sectors in Ireland under the Electricity Regulation Act of 1999 and the Gas (Interim) (Regulation) Act of 2002.

#### Organisational Structure of the CER

There are three members of the Commission for Energy Regulation who are appointed by the Minister for Communications, Energy and Natural Resources. The Commission is collectively responsible for decision making. The members of the Commission are Mr. Tom Reeves (Chairman), Mr. Michael G. Tutty (Commissioner) and Mr. Dermot Nolan (Commissioner). The Commission operated as a two person body during 2007; however, Mr. Nolan was appointed as the third member of the Commission in early 2008 and commenced his term with the CER on 1 July 2008.

The Commission implemented a restructuring of divisions in November 2007. There are currently four main functional divisions, each managed by a divisional director, and an operations division that provides support services across all teams. These divisions are; Operations and Electricity Markets, Electricity Networks and Retail, Gas, and Safety, Environment and Customer Affairs.

The *Operations and Electricity Markets Division* is responsible for overseeing the electricity generation sector in Ireland as well the joint regulation of the Single Electricity Market (SEM) (along with Northern Ireland Authority for Utility Regulation - NIAUR). The Division also monitors security of supply in Ireland, licensing and monitoring of new and existing generation companies, including setting the terms in the licences and enforcing those terms. This division also includes the Commission's operations teams of Human Resources (HR), Finance, IT, Facilities and the Business Information Centre (BIC).

The *Electricity Networks and Retail Division* oversee the regulation of Ireland's electricity transmission and distribution systems as well as the competitive retail electricity market. The Electricity Networks and Retail Division are also responsible for overseeing the development of the East-West Interconnector project.

The *Safety, Environment and Customer Affairs Division* is made of three distinct teams. The environment and renewables team regulates all aspects of the CER's work on the



use of renewable and sustainable forms of energy, including promoting research and development as well as the implementation of national policy on renewables.

The gas and electricity safety team has responsibility for the implementation of the Safety provisions of the Energy (Miscellaneous) Provisions Act 2006, which relates to the regulation of electrical contractors and natural gas installers with respect to safety and the regulation of natural gas undertakings with respect to safety.

Also within this division is the Customer Affairs Team. This team has responsibility for reviewing gas and electricity suppliers' adherence to their Consumer Protection Codes of Practice and Customer Charters. In addition, the team also provides an independent complaints resolution service for natural gas and electricity customers.

The *Gas Division* is responsible for the regulation of natural gas networks and supply. The team is also responsible for overseeing and leading the All Island Gas project – Common Arrangements for Gas (CAG) and is currently working with NIAUR in this area.

The Commission established an official *Project Office* in late 2007. The role of the project office is to lead and support the successful implementation of major projects in the CER through:

- The implementation of governance structures;
- The scoping and development of workplans;
- Updating and reporting against workplans;
- The identification of risks and issues;
- The management of budgets.

At present the project office is involved in the following three projects:

- Common Arrangements for Gas;
- Smart Metering;
- Secretariat to the Single Electricity Market (SEM) Committee.

## **CER Functions**

The functions of the Commission have been built up over time, following the enactment of various pieces of legislation. Initially the Commission was responsible for regulation and reform of the electricity market only, including the licensing of new entrant generators and suppliers. In 2002, the Commission was also given statutory responsibility for regulation of the natural gas market, while various pieces of legislation have increased our functions in the areas of customer protection, licensing and gas and electricity safety.

Section 8 of the Electricity Regulation Act, 1999 established the Commission for Electricity Regulation (CER). Section 9 detailed the functions of the new Commission with respect to its role in the Irish electricity sector. This Act came into effect in September 1999.

Section 5 of the Gas (Interim) (Regulation) Act, 2002 extended this legal role, and the functions of the CER, to the gas sector, thereby renaming the CER as the Commission for Energy Regulation. This Act also extended the functions of the CER in the electricity industry.

Subsequent secondary legislation, or statutory instruments, have been enacted since 1999, which have further added to these functions. Following the introduction in 2003 of electricity Directive 2003/54/EC and gas Directive 2003/55/EC, four pieces of legislation have amended these functions. Two of these concerned the CER's electricity functions and two concerned the gas sector – Statutory Instrument Number 60 of 2005 (European Communities (Internal Market in Electricity) Regulations 2005); Statutory Instrument Number 452 of 2004 (European Communities (Internal Market in Natural Gas) Regulations 2004) (Number 2); Statutory Instrument Number 320 of 2005 (European Communities (Internal Market in Natural Gas) Regulations 2005), and Statutory Instrument Number 406 of 2007 (Single Electricity Market) Regulations 2007.

In late 2006, a further piece of primary legislation was enacted which added significant extra functions to the Commission's remit. The Energy (Miscellaneous Provisions) Act 2006 outlines the functions of the CER regarding the all island energy market and regarding electrical safety, natural gas safety and the regulation of electrical contractors.

A list of the 'Functions of Commission', as contained in the consolidated version of section 9 of the Electricity Regulation Act, is presented in Appendix A of this document.

The functions of the Commission can be summarised as follows:

- Ensuring sufficient capacity in the electricity and gas systems to satisfy reasonable demands for supply of natural gas and electricity;
- Protecting the interests of final customers including the disabled, the elderly and those residing in rural areas;
- Promoting competition in supply of electricity and natural gas and electricity generation;
- Ensuring no unfair discrimination between applicants for or holders of licences, consents and authorisations or between them and State-owned operators;

- Promoting the continuity, security and quality of supplies and encouraging safety and efficiency in undertakings and by end users;
- Ensuring licence and authorisation holders are capable of financing their activities;
- Setting standards, enforcing compliance, settling disputes, controlling and monitoring performance and reporting regularly on these activities;
- Promoting research and the use of sustainable forms of energy that reduce or are free of greenhouse gas emissions as well as adopting measures to protect the natural environment in all the sectors' activities;
- Advising government on the development and regulation of the gas and electricity sectors;
- Regulating the activities of electrical contractors with respect to safety;
- Regulating the activities of natural gas undertakings and natural gas installers with respect to safety;
- Promoting the safety of natural gas customers and the public generally as respects the supply storage, transmission, distribution and use of natural gas;
- Establishing and implementing a natural gas safety framework.

## 1.2 Main Enforcement Powers

The CER has a significant range of enforcement powers. These include:

- Licences: Anyone seeking to construct a power station, generate or supply electricity in Ireland must apply to the CER for a licence. The Transmission System Operator and the Distribution System Operator for electricity and gas are also licensed by the CER. The electricity Transmission System Owner is also licensed.
- Directions: Under section 24 of the Electricity Regulation Act, 1999 the CER can issue a direction to a licensee to comply with its licence or authorisation conditions.
- Determinations: Where the CER decides not to give a direction under section 24 of the Electricity Regulation Act, 1999, it may make a determination that the

holder of a licence or authorisation has committed a specific breach of a condition or requirement.

- **Court Orders:** In order to ensure compliance with section 24, the CER may apply to the Irish High Court requiring the holder of a licence or an authorisation to discontinue or refrain from specific practices.

## Interagency Agreements

The CER interacts with a number of other governmental bodies including the Irish Competition Authority, Sustainable Energy Ireland and the Health and Safety Authority.

The Irish Competition Authority is responsible for implementing Ireland's competition legislation which mirrors EU legislation. This remit includes the energy sectors. This overlaps with the CER's responsibility to facilitate and encourage the development of a competitive energy market and may overlap with the implementation of some of the CER dispute resolution functions. In accordance with the Irish Competition Act, 2002, the CER and the Competition Authority have put in place a co-operation agreement. This agreement governs the relations between the two bodies. The agreement provides for the exchange of information and allows each party to forbear to act where it considers the other is investigating or exercising its powers in a certain matter. To date the Competition Authority has not taken any case in relation to an energy company.

Sustainable Energy Ireland is the government body charged with improving energy efficiency, advancing the development and competitive deployment of renewable sources of energy and combined heat and power, and reducing the environmental impact of energy production and use.

The Health and Safety Authority (HSA) has overall responsibility for the administration and enforcement of health and safety at work in Ireland. It is a state-sponsored body, established under the Safety, Health and Welfare at Work Act and it reports to the Minister for Enterprise, Trade and Employment. The HSA monitors compliance with legislation at the workplace and can take enforcement action (up to and including prosecutions). The Commission and the HSA signed a Memorandum of Understanding (MoU) in June 2008. The objective of this MoU between the HSA and the Commission is to facilitate cooperation between both regulators in discharging their respective statutory responsibilities for the regulation of natural gas undertakings, gas installers and electrical contractors with respect to safety in order to enhance the actions of both regulators and to avoid duplication of effort by both regulators and the imposition of an unnecessary regulatory burden on the regulated entities.

Furthermore, the CER interacts with the Department for Communications, Energy and Natural Resources (DCENR) which is the Government Department with responsibility for the development of energy policy in Ireland. This department is also responsible for licensing all offshore gas developments and pipelines (the CER is responsible for the licensing of all onshore gas pipelines). The department is also the main shareholder in the incumbent gas and electricity companies, Bord Gáis Eireann (BGE) and the Electricity Supply Board (ESB).

### **Independence & Accountability**

The CER is independent of the government and any other state agency in the implementation of its functions. However the CER is required to comply with directions issued by the Minister for Communications, Energy and Natural Resources as regards the performance of its functions. These directions may not be made in respect of specific or individual licensees. The CER submits an annual report for approval by the Minister for Communications, Energy, and Natural Resources and is also accountable to four parliamentary committee(s) on energy;

1. Joint Committee on Climate Change and Energy Security,
2. Joint Committee on Communications, Energy and Natural Resources,
3. Joint Committee on Economic Regulatory Affairs,
4. Joint Committee on Finance and the Public Service.

The CER is funded by a levy on the industry which is collected directly, but must obtain approval of the Minister for Communications, Energy and Natural Resources and the Minister for Finance, for staff numbers and salaries.

### **1.3 Main Developments in the Gas and Electricity Markets since mid 2007**

As part of its overall business planning process the Commission identifies ten key tasks for delivery in each business year. While the main focus of the Commission's work throughout 2007 was on the achievement of these 10 key tasks the Commission also approved 75 related work items for delivery during the year. Details of the Commission's 2007 Work Plan were published in January 2007 (CER/07/021).

Work on these tasks contributed significantly to the CER's overall strategic objectives. The CER aims to provide robust, effective and independent regulation in the Irish energy markets.

Since January 2008 the CER's key focus has been on achieving its Ten Key Tasks for 2008. Many of the work items listed have already commenced or are ongoing items, while some work items will continue no later than the end of 2008. Over 100 additional work items were also identified for 2008. Some of the Commission's tasks are singular in nature while others involve a significant amount of inter-dependent work activities.

Our ten key work items for 2008 are as follows:

1. All Island Gas Project
2. Renewables – Decide on Gate 3 and respond strategically to 2020 All Island Grid Study
3. Smart Metering
4. SEM Continuing Development
5. East-West Interconnector Competition
6. Security of Supply
7. Electricity Tariff Re-structuring
8. Implement the Natural Gas Safety Regulatory Framework and the approach for the Regulation of Electrical Contractors and Gas Installers including Designation of Safety Bodies
9. Complete Implementation of Customer Care Strategy
10. Enhancement of CER Records and Knowledge Management Structures

## Wholesale Market Developments

In November 2004, the Department of Enterprise, Trade and Investment (DETI) and the Department of Communications Marine and Natural Resources<sup>1</sup> together with the NIAUR and the CER published a Development Framework setting out the objectives for an All Island Energy Market.

### **Single Electricity Market (SEM)**

During 2007 CER and NIAUR completed the first phase of the project as set out in the Development Framework Document - the establishment of an all-island wholesale electricity market, known as the Single Electricity Market (SEM). The SEM consists of a gross pool market, into which all electricity generated or imported onto the island of Ireland must be sold, and from which all wholesale electricity for consumption or export from the island of Ireland must be purchased. The SEM has been fully operational since 1 November 2008 replacing the previous bi-lateral contracts market and is the first major step towards All-Island Energy Markets.

**SEM Vision:** *“Wholesale electricity trading arrangements which deliver an **efficient** level of **sustainable** prices to all customers, for a supply that is **reliable** and **secure** in both the short- and long-run on an all-island basis.”*

The CER and NIAUR have now moved towards the continuing governance of the market and ensuring the benefits of the market are fully realised. It is important that the ongoing development of the market is given the priority it deserves. As such, SEM Continuing Development has been identified as one of the Commission's Ten Key Tasks for 2008.

### **Common Arrangements for Gas (CAG)**

In February 2008, the Commission agreed a Memorandum of Understanding with NIAUR to establish All-Island Common Arrangements for Gas (CAG) whereby all stakeholders can buy, sell, transport, operate, develop & plan the natural gas market north & south of the border effectively on an all-island basis. This means that variations in the price and conditions on which gas is bought and sold will be determined by market conditions and economics, not by variations in regulatory arrangements. The CAG, which is under the All-Island Energy Market Development Framework, will deliver the following:

- A Single Transmission Tariff Methodology

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<sup>1</sup> Department of Communications, Energy and Natural Resources since July 2007

- A Single Transmission Operational Regime, which will include a Single Gas Quality Standard & Common Emergency Procedures
- A Single Connection Policy for Transmission
- A Single Transmission Planning Regime
- A Single Approach to Security of Supply incorporating a Single Security Standard, a Joint Capacity Statement & a Single Approach to Storage, LNG and System Entry Points.
- A common framework for regulation of retail markets, including Single Supplier Codes, a Single Change of Supplier Process & Single Retail Processes and Systems.

It is estimated that significant elements of the CAG will be substantially complete by October 2010. The benefits arising from the establishment of CAG will largely be due to the on-going operational efficiencies and cost savings that will evolve when the two systems are operated, balanced and maintained as one system.

## **Retail Market Developments**

The Commission is responsible for reviewing the costs involved in supplying electricity to customers of ESB PES and the electricity prices that ESB PES proposes to charge to cover these costs. In October 2007, the Commission published its proposed direction to ESB PES on electricity prices to apply from November 2007. The requirement for an average price decrease of 6.1%, primarily as a result of falling international fuel prices, was outlined and implemented from 1 November 2007.

However following on from this announcement, international fuel prices which are a key determinant of electricity prices have risen sharply and consistently. As a direct result of this, the Commission revised upwards its decision on ESB PES prices for 2008. A 17.5% average price increase was approved and this was implemented on 1 August 2008. The Commission intends to review the situation in October 2008 and implement another price change, depending on market conditions at that time, from 1 January 2009.

## **Infrastructure Developments**

### **Connection Offers to Renewable Generators**

A Group Processing Approach for connection of renewable applications to the electricity networks was implemented by the Commission in 2005. This approach has proven to be a successful vehicle for ensuring the structured and sustained addition of wind to the



system. 'Gate 2' of this process approved the addition of over 1,300MW of new renewable power to the electricity system, involving approx 120 new renewable projects. To date, 103 connection offers have been issued to Gate 2 projects. The System Operators expect to issue the remaining offers by the end of Quarter 3 2008.

In December 2007 the Commission published a Consultation Paper on possible criteria for the inclusion of renewable projects in Gate 3 of the group processing approach to network connection. A proposed direction on the matter followed in July 2008. The Proposed Direction explains in detail one particular option - the Grid Development Strategy (GDS) approach - for the Gate. Through this approach, it is proposed to process for network connection 3,000MW of renewable generation in Gate 3 along with conventional connection applications. The Commission held a workshop on Gate 3 in late August 2008 and a decision on the matter will follow in due course.

### **New Towns Connected to Gas Network**

In October 2007 an additional six towns were approved for connection to the natural gas network in the coming years. These towns were selected by Bord Gáis Networks (BGN) as part of phase 2 of the New Towns Analysis. Selection followed a detailed economic analysis of the viability of their connection to the gas network based upon the criteria outlined in the CER's Connection Policy of 2006. These six towns follow eleven towns in the West of Ireland which are presently being connected to the natural gas network as part of Phase 1 of the New Towns Analysis

### **Smart Metering**

The Commission is progressing a Smart Metering Pilot Project which is due to run until the end of 2010. Through this project the Commission will analyse the feasibility of implementing smart meters throughout Ireland. In order to draw on the experience and expertise of the electricity and gas market a steering group and a working group was established. Both groups are chaired by the Commission and consist of representatives from the Department of Communications, Energy & Natural Resources (DCENR), Sustainable Energy Ireland (SEI), the Northern Ireland Authority for Utility Regulation (NIAUR) and all Irish Gas & Electricity Industry Distribution System Operators (DSO's) & Suppliers.

Detailed proposals for the Smart Metering technical & customer behavioural electricity trials have been developed & participant recruitment begins in September 2008, with the first smart meters to be installed shortly afterwards. Development of proposals for, Smart Metering Trials for Prepayment, Dual Fuel & Micro-generation are underway. The results of all these trials will provide important information regarding the costs & benefits of a national rollout of smart metering. The Economic & Social Research

Institute (ESRI) have been engaged by the Commission to advise on the development of a Smart Metering Cost Benefit Analysis (CBA).

### **East-West Interconnector**

Increasing levels of interconnection is essential to increase security of supply of electricity on the island of Ireland. As such, the Commission and EirGrid are working closely to ensure the East-West Interconnector project continues to progress well. The Commission approved a route for the Interconnector in July 2007 and in conjunction with EirGrid, finalised the design of a competition in December 2007 for the construction of an East-West Interconnector. Most recent developments include the signing into law of legislation expanding EirGrid's functions to include the construction, ownership and operation of the interconnector. Delivery of the interconnector which will be approx 250km in length and have a capacity of 500 MW and is on target for completion by 2012.

### **Conventional Generation**

## **Regulation/ Unbundling Developments**

### **SEM Regulation**

The SEM high-level design was completed in June 2005 and on foot of this the CER and NIAUR, set to work on the implementation of a whole suite of arrangements necessary for SEM Go Live by 1 November 2007. This involved:

- Working with DETI and DCENR in developing the legislative framework under the aegis of which the SEM operates;
- Developing the market rules in the form of a bespoke SEM Trading and Settlement Code in conjunction with industry participants, the Market Operator and the System Operators;
- Putting in place a suite of harmonised arrangements around networks, metering, renewables and retail market interactions that form an integral part of the SEM;
- Developing a comprehensive market power mitigation strategy;
- Putting in place the necessary contractual and licensing arrangements in each jurisdiction.

In 2007, the Regulatory Authorities, in cooperation with government departments in Ireland and Northern Ireland, finalised drafting on several pieces of legislation required

to underpin the SEM in both jurisdictions - the Electricity Regulation (Amendment) (Single Electricity Market) Act 2007 in Ireland and the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007 in Northern Ireland.

The main SEM legislative provisions are as follows:

- The establishment of the SEM Committee – the decision making authority on all SEM matters;
- Provisions of specific powers for a Single Electricity Market Operator Licence to be issued to a market operator tasked with administering trading and settlement in the pool market;
- Arrangements and agreements relating to connection to and use of the All-Island transmission networks;
- The objectives and functions of the Commission, the SEM Committee and the two governments in relation to the Single Electricity Market including the protection of the interests of consumers of electricity in Ireland and Northern Ireland and the promotion of the use of energy from renewable energy sources;
- Regulations establishing and designating a SEM Trading and Settlement Code setting out the market rules and procedures for the electricity trading and settlement system.

### **Unbundling**

Bord Gáis Networks currently owns the gas networks and continued to operate the transmission and distribution systems during 2007. However, as required under European Communities (Internal Market in Natural Gas) (BGE) Regulations 2005, S.I. No 760 of 2005 Gaslink were established as the independent system operator for the BGE Transportation System to facilitate competition in supply activities.

The Operating Agreement is designed to enable Gaslink discharge the functions of independent transmission and distribution system operators as provided for in Directive 2003/55/EC.

### **Security of Supply Developments**

The CER has a role in monitoring the security of supply/generation adequacy and, together with EirGrid as the TSO and the Minister for Communications, Energy &

Natural Resources, is putting in place appropriate arrangements to ensure that a satisfactory generation capacity margin is maintained and electricity supply is secured.

The growth in the Irish economy over the last ten years has led to substantial increases in both electricity and gas demand. Since the mid 1980s, electricity and gas demand has doubled with the demand on the Irish electricity system continuing to grow. However, the rate of increase in the coming years is not expected to be as high as recently experienced – an annual increase of 2.7% to 3.6% is projected for the period 2008 to 2014.

To meet this increased demand and to meet any shortfall of capacity resulting from the closure of a number of older generating units, further generation capacity is required. Up to the year 2010, this shortfall is due to be met from the commissioning of two new generating units of 430MW and 445MW respectively in the south-west of Ireland. The requirement for 400MW of capacity by 2011 is expected to be met by the construction of the 445MW unit in Co. Louth. In addition over the period 2009 to 2014 a significant number of new flexible plant are planned.

Steps taken since 2006 to address key security of supply issues are outlined below.

<b>Concern over:</b>	<b>Key Issues</b>	<b>Summary of Issue/Opportunity</b>	<b>Steps taken since 2006</b>
<b>Generation</b>	<b>Maintaining System Adequacy to 2009</b>	<p>The balance between supply and demand should be manageable from 2006 up to 2009 (i.e. there is a reasonable expectation that all supply can be met by generation), provided that:</p> <ol style="list-style-type: none"> <li>1) new generation comes on stream as expected;</li> <li>2) plant availability is significantly above the average level of performance achieved over the period 2003 to 2005; and,</li> <li>3) there are no unexpected plant closures from the current portfolio.</li> </ol>	<ol style="list-style-type: none"> <li>1) The Commission carefully examined the quarterly construction reports of a generating unit that become commercially operational on 31<sup>st</sup> October 2007. This was the expected date.</li> <li>2) The Commission believes that the new market is providing the correct signals to generators to maintain a high availability.</li> <li>3) There have been no unexpected closures of generating stations over the period. One unit which has not operated since early 2006 (Poolbeg 3 which has a capacity of 242MW) has been deemed closed since 31<sup>st</sup> December 2007.</li> </ol>
	<b>Capacity Requirement for 2009</b>	The GAR estimates that significant new capacity (~400MW) will be required by 2009	A CCGT's, with a capacity of 430MW, is currently being constructed. This is expected to be fully available to the system from October 2009.

## Safety Developments

Under the Energy (Miscellaneous Provisions) Act 2006, the CER was assigned responsibility for the regulation of gas and electricity safety. In 2007 the CER established a Gas and Electricity Safety team, with responsibility for implementing the CER's safety responsibilities. Since establishment this team has set about scoping the extent of the role and task.

Throughout 2007 and 2008, the Commission has substantially advanced the design and development of the regulatory systems for these areas.

### Natural Gas Safety

The Commission has the responsibility to regulate the activities of natural gas undertakings and natural gas installers with respect to safety. The Commission is discharging this responsibility through its Gas Safety Framework which it published in October 2007.

A key component of the Framework is the implementation of a **Gas Safety Case** regime, which applies a risk and outcomes based approach to the management of gas safety risks for each licensed undertaking. The Commission published Safety Case Guidelines in December 2007 in order to assist gas undertakings in the development of their respective gas safety cases for submission to the Commission. Gas undertakings submitted their respective gas safety cases to the Commission in Quarter 1, 2008.

The Commission published its Vision with respect to discharging its responsibility to regulate the activities of natural gas installers in December 2007. Further to this, the Commission embarked on the formal process to designate a body to act as the Gas Safety Supervisory Body in May 2008. The Commission is engaging in this competitive process in order to designate a party to act on its behalf with respect to the registration and monitoring of all natural gas installers wishing to continue working in the industry after 1 January 2009. The process is being held in two stages:

Stage 1: the Pre-Qualification Questionnaire/Expressions of Interest Stage; and,

Stage 2: the Invitation of Tender Stage.

Stage 1 of the process is now complete and Stage 2 is underway. The Commission envisages having the Gas Safety Supervisory Body in place by November 2008.

Once the register of approved natural gas installers is established it will be illegal for any individual who is not registered to complete gas works.

The Commission has also published its Criteria Document in 2008 specifying the detailed rules, procedures and requirements in relation to fulfilling the obligations and functions of the new system by Registered Gas Installers and the Gas Safety Supervisory Body.

### Electrical Safety

The Commission published its Vision with respect to discharging its responsibility to regulate the activities of electrical contractors in November 2007. The CER is developing a regulatory model that will apply for electrical contractors and embarked upon a formal process to designate a body or bodies to operate the registration scheme for electrical contractors and act as Electrical Safety Supervisory Body in that regard. Similarly to Gas Safety the process is also being held in two stages.

The Designation process was launched in March 2008 and the Commission is currently evaluating Tenders as part of its Stage 2 "Invitation to Tender" stage. The Commission envisages appointing a body / bodies to act as Electrical Safety Supervisory Body in October 2008.

The Commission published its Criteria Document in 2008 specifying the detailed rules, procedures and requirements in relation to fulfilling the obligations and functions of the new system by Registered Electrical Contractors and the Electrical Safety Supervisory Body.

The Commission has also published in 2008, a decision paper on the high level design of its proposed framework for economic regulation within the new gas installer and electrical contracting regulatory systems ("the economic framework").

The aim of these initiatives is to continually improve safety within the gas and electricity installation services industry, promote safety in the installation, maintenance and use of gas and electrical installations and to reduce the safety risks associated with their use, in particular in the home and to members of the public.

## 1.4 Major Issues in Electricity and Gas

The CER has addressed a considerable range of issues since its establishment in late 1999.

### Electricity & Gas Markets

The promotion of Competition remains a key challenge for the CER in both the electricity and gas markets. Historically, both the electricity and gas markets were characterised by vertically integrated, state owned monopolies. The electricity market was first opened to partial competition in 2000 while initial segments of the gas market were opened to competition in 1997.

Since then, the CER has been engaged in the process of developing the structures and processes to ensure that the market functions and allows participants to compete in a manner that is fair and transparent.

The electricity retail market has been fully open to competition since February 2005. Full market opening of the gas retail market took place in July 2007, in line with EU requirements. Retail market opening in both sectors has been supported by the implementation of a range of customer switching business processes which have allowed energy customers to change supplier without delay and without charge. These processes, and the systems required to support them have been developed in consultation with all active independent suppliers and the CER.

At wholesale level, in July 1999, the then Minister for Public Enterprise issued a *policy direction* setting out interim electricity trading arrangements that the CER was required to implement. These arrangements, which are supervised and reviewed by the CER, continued until the commencement of the *Single Electricity Market* in November 2007. The SEM merged the energy markets in the Republic of Ireland and Northern Ireland.

The development of the SEM is one element of a project to establish a single market for electricity and gas across the island of Ireland. While continued monitoring of the SEM remains a key priority for the Commission, the CER has now turned its attention to the development of all island wholesale gas markets and is working closely with its counterpart in Northern Ireland, the Northern Ireland Authority for Utility Regulation (NIAUR).

In the gas wholesale market, transmission capacity is now governed by 'Entry-Exit' arrangements. In early 2004, the CER initially proposed to change to Entry-Exit arrangements from the existing point-to-point system. These changes, which were



introduced in April 2005, have afforded shippers increased flexibility in the transportation of gas.

### **Renewable targets**

The Government's White Paper on Energy outlined Renewable Targets of 15% of consumption from renewable sources by 2010 and 33% by 2020. The Commission is cognisant of the Government and European Commission renewable targets and in this context is currently considering how to treat connections for wind generators and conventional generators. At present the Commission operates a 'gate' approach to the licensing of renewable generators. To date there have been 2 'Gates'. Gate 2 saw connection offers issued to over 1,300 MW of renewable generation, almost all of which is from wind power, with a potential 3,000MW in Gate 3. These significant amounts of new wind powered generation due for connection will require significant network investment in particular in the south west region of Ireland where the construction of two conventional generation plant are underway. Until such time as the required reinforcement of the transmission system is completed, the generation output from this region may have to be constrained.

## **Electricity & Gas Regulation**

The CER also regulates the vertically-integrated incumbents – Electricity Supply Board (herein referred to as 'ESB') in the electricity market and Bord Gáis Eireann (herein referred to as 'BGE') in the gas market.

The CER regulates the charges, tariffs and access conditions imposed by these two entities and conducts five-year reviews of revenue earned by the electricity network operators and the gas network operators. There are also annual price controls in place for the regulated generation and supply business units of the ESB and for the supply arm of BGE. Access conditions, connection charges and use of system tariffs imposed by the transmission and distribution operators are also regulated. In gas, this concerns BGE Networks as owner of the gas transmission and distribution systems and Gaslink as Transmission System Operator (TSO). For electricity, this concerns EirGrid as Transmission System Operator (TSO) and ESB Networks as the Distribution System Operator (DSO) and Transmission System (Asset) Owner (TAO).

Further, the CER has introduced a number of ring-fencing requirements between and within the incumbents' regulated businesses to ensure that certain business units are autonomous and independent of one another. These requirements are enforced by way of licence conditions and business separation implementation programmes. The full business separation of ESB network operators from its generation and supply



businesses was completed in late 2005. An equivalent programme for gas has also been completed.

Wholesale fuel increases continue to impact significantly on end user electricity and gas prices. While significant drops were seen in the early stages of 2007 the consistent and sharp required an interim increase of 17.5% in electricity and 20% in gas tariffs from 1 August and 1 September 2008 respectively. Ireland currently imports over 90% of its natural gas making up over 60% of end user gas prices.

The Commission is mindful that the recent increases in electricity and gas tariffs will impact on the most vulnerable in society in particular and is in discussion with the relevant parties to see how these price increase can be further mitigated.

### **Security of Supply**

The main fuels used to generate electricity are natural gas and coal (accounting for 62% and 19% respectively of the electricity generated in the first 10 months of 2007). There is no security of supply risk identified with the supply of coal. However, Ireland is heavily dependent on imported natural gas. To protect the security of supply of natural gas, the Commission has undertaken a number of measures including:

- The imposition of a licence obligation on generators regarding secondary fuelling;
- The commencement of preparation to introduce a gas market on the island of Ireland (the Common Arrangements for Gas) which is expected to improve our security of supply position; and,
- The continuation of the “Task Force on Emergency Procedures” group, who have developed and established procedures in the event of an emergency to minimise the impact of such an event.

Heavy fuel oil, distillate, peat, hydro power, wind and other renewable generators comprise the remainder of the generation mix.

### **Public Service Obligations & Consumer Protection**

The CER is also responsible for implementing & enforcing public service obligations and calculating and managing the implementation of levies to meet such obligations.

In 2002 the then Minister for Public Enterprise ordered that an environmental and fuel security of supply ‘public service obligation’ be imposed on all final customers. Since this time the CER has been charged with examining additional costs, and approving

charges, relating to supporting ESB PES purchase electricity output from peat and wind generation plant as part of that PSO.

Another public service in place is the entitlement of all electricity and gas customers to minimum quality of supply standards. The CER supervises these via the various network operators' licences and various performance reporting mechanisms.

The CER also has responsibility for the design, implementation and supervision of consumer protection measures outlined in electricity Directive 2003/EC/54 and gas Directive 2003/55/EC, as transposed into Irish legislation under S.I. 60 of 2005 and S.I. 452 of 2004, respectively. Many of these measures are already in place or are being developed in consultation and include:

- minimum standards of practice in respect of disconnection;
- supplier contract transparency;
- protection of domestic customers in the areas of supplier marketing, billing standards, bill payment methods and marketing;
- measures to protect vulnerable customers; and
- an information and complaints service to final customers.

Finally, all electricity customers served by ESB PES are served at fixed regulated supply tariff levels approved on an annual basis by the CER. Lower usage Bord Gáis Energy Supply (BGS) gas customers are also served at fixed tariff levels. Larger BGS customers are charged according to a regulated tariff formula. Gas-fired power producers are not covered by these regulated gas tariffs.

## 2.0 Regulation & Performance of the Irish Electricity Market

This section provides a brief background to the Commission's regulation of the Irish Electricity Market as well as details of regulatory developments over the past 12 months.

### 2.1 General

The CER was established as regulator of the Irish electricity sector in 1999 and has been working towards progressive market reform and the development of greater levels of competition since then. During this time the retail electricity market has seen four phases of market opening with full retail market opening taking place in February 2005.

The various phases are outlined in the table below:

Market Opening Phases						
	2000	2002	2004	2005	2006	2007
% Market Open	28%	40%	56%	100%	100%	100%
Eligible Volume Threshold (GWh)	4GWh	1GWh	0.1GWh	-	-	-
No. of Eligible customers	400	1,600	13,000	1.8m	2.0m	>2.1m

Source: CER

### 2.2 Regulation of Electricity Transmission & Distribution Companies

There is one transmission system operator (TSO), EirGrid, and one distribution system operator (DSO), ESB Networks. ESB Networks is also the Transmission System (Asset) Owner (TAO).

Electricity Network Operators			
	Number of regulated companies	Approx network access charge (€/MWh) <sup>2</sup>	Interruptions (minutes lost per customer per year)

<sup>2</sup> The figures presented refer to the following Eurostat categories:

		<i>Ig</i>	<i>Ib</i>	<i>Dc</i>	
Transmission	1	n/a	n/a	n/a	n/a
Distribution	1	n/a	n/a	n/a	n/a

## Unbundling of Electricity Networks

ESB currently owns the electricity networks (both transmission and distribution) and also operates the electricity distribution system. In 2001, the CER issued a transmission system owner (TAO) and a distribution system operator (DSO) licence to ESB. A transmission system operator (TSO) licence was issued to EirGrid, a newly established state owned company. An *Infrastructure Agreement*, detailing the arrangements between TSO and TAO, was formulated in 2001 and was fully implemented in July 2006.

Business separation arrangements exist between the various ESB divisions. In particular ringfencing arrangements are in place between the networks business of ESB, ESB Networks and the production and supply arms of ESB; ESB Power Generation (ESB PG), ESB Public Electricity Supplier (ESB PES) and ESB Independent Energy (ESBIE).

Details of these networks separation arrangements are presented in the table below and are incorporated in each of the system operator's (or owner's) licence:

### Electricity Unbundling

*'Dc: household customer with annual consumption of 3 500 KWh/ year;*

*Ib: commercial customer with annual consumption of 50 MWh / year, subscribed maximum power 50 KW;*

*Ig: industrial customer with annual consumption of 24 GWh/ year, subscribed maximum power 4000 KW'.*

It should be noted that for *Ib*, the average customer in the small Irish small business category has a higher load factor than the customer type provided by Eurostat. Therefore the average transmission and distribution cost of serving a small business customer is less than that provided in the table.

	Transmission	Distribution
	Yes/No	Yes/No
Separate headquarters	Y	N
Separate corporate presentation	Y	N
Unbundled regulatory accounts with guidelines	Y	Y
Audit of unbundled accounts	Y	Y
Publication of unbundled accounts <sup>3</sup>	Y	Y
Separate board of Directors without Directors from other group companies	Y	N

Source: CER

The relevant unbundling provisions of the TSO, TAO and DSO licences are as follows:

- **Implementation of Legal Unbundling & Network Ownership:** Ownership of the networks is with ESB, an undertaking that is owned by the state (95 percent) and by its own employees (5 percent). Operation of the distribution networks is also to remain with ESB. EirGrid undertakes operation of the transmission system and the wholesale market. EirGrid was legally separated from ESB in July 2006. The Government outlined, in its White Paper on Energy<sup>4</sup>, its intention to transfer ownership of the transmission network from ESB to EirGrid. This would establish EirGrid as the National Transmission Grid Company.
- **Ringfencing Arrangements:** The TSO, EirGrid, is fully independent of ESB. EirGrid is owned by the state (through the Department of Finance and the Department of Communications, Energy and Natural Resources). ESB Networks is a ringfenced business within ESB. As such, ESB Networks as DSO and TAO is separated from the production and supply arms of ESB, ESB PES and ESB PG.

In terms of location, EirGrid has its own separate offices. ESB Networks premises are also separate from other ESB premises.

- **Incumbent's Corporate Image:** In terms of presentation, EirGrid presents itself as EirGrid and the TSO, emphasising its difference and separation from ESB, with its

<sup>3</sup> Unbundled accounts are published in a summarised format.

<sup>4</sup> Delivering a Sustainable Energy Future for Ireland – A Government White Paper: March 2007

own logo and its own website at [www.EirGrid.com](http://www.EirGrid.com). ESB Networks presents itself as the DSO and TAO. ESB Networks does not use a separate logo or corporate website.

- Publication of TSO/TAO/DSO Accounts: There is a requirement on parties to submit audited accounts.
- Regulatory Accounting Guidelines ('RAGs'): In 2002 the CER issued detailed guidelines in the regulatory guidelines. Penalties for non-compliance include revocation of licences.

The CER regulates accounts submissions under Condition 14 ('Separate Accounts for the Separate Businesses') of ESB Networks' Transmission System Owner Licence, Condition 20 of the EirGrid's Transmission System Operator Licence and Condition 19 of the ESB Networks' Distribution System Operator Licence.

These conditions ensure that ESB maintains separate accounting and reporting arrangements, in a form approved by the CER.

- Audit of 'RAGs': These regulatory accounts are subject to a separate audit from an audit team of certified accountants separate from the audit team for ESB accounts and for EirGrid.
- Role of Compliance Officer(s): The sole role of the compliance officer(s) is to facilitate compliance by the licensee's obligations and duties under the licence and any other legislative obligation or duty notified to the licensee by the CER. In particular, the duties and tasks assigned to the compliance officer(s) include recommending and establishing practices, procedures and systems to ensure the licensee's compliance with the relevant duties and monitoring the effectiveness of the practices, procedures and systems adopted by the licensee to ensure its compliance with the relevant duties.
- Shared Costs: Costs of transmission are applied separately and paid for by Use of System charges and other payments from users of the system. Costs of the DSO are shared in some areas and are apportioned by the DSO's regulatory accounts.
- Other Regulatory Sanctions: As outlined above the requirement for separate financial accounts in respect of each separate business is included under both the distribution and transmission licences issued to ESB Networks and EirGrid. Failure to adequately implement the procedures would mean that the licensees would not be in compliance with their licence obligations.

Section 24 of the Electricity Regulation Act, 1999 states that where the CER is of the opinion that the holder of a licence may be contravening or may be likely to contravene a condition or requirement it may issue a notice to the holder of the licence.

Following consideration of any representations or objections in relation to this the CER may make a direction to the holder of the licence to take sure measures as are necessary to cease the contravention or to prevent a future contravention. Alternatively as outlined under Section 25 where the CER decides not to issue a direction under Section 24 it may make a determination that the holder of the licence has committed a specified breach of a condition or requirement. In order to ensure compliance with a direction given under Section 24 the CER may apply to the Irish High Court for an order requiring the holder of the licence to discontinue or refrain from specified practices (Section 26).

### **Electricity Network Tariffs**

The CER collects an array of information from the network operators for the purposes of calculating allowed revenues and network tariffs. This includes collecting information on the existing *Regulated Asset Base* (RAB), operating costs (OPEX), capital expenditure costs (CAPEX) and asset values.

This process commences with the system operators submitting their proposed revenue requirements to the CER. The CER then reviews the information provided and decides on the allowed revenues for the operators based on a number of criteria, namely based on benchmarking data.

The benchmark data used consists of the following:

- 'OPEX': operational costs including payroll;
- 'CAPEX': network capital expenditure, load (growth) related and non-load (reinforcement) related.

The CER also reviews historical data to evaluate the operators' performance over the previous control periods, and reviews the submissions for expenditure in the coming control period including operational efficiencies, the delivery and requirements for capital investment, and improvements in the network. This review, technical, economic and financial in nature, may include top-down and bottom-up analyses. Price controls are set for a duration of five years.

The Department of Communications, Energy and Natural Resources (DCENR) is informed of the outcomes of these revenue reviews.

The CER approves any changes to tariffs and has quality of service measures as part of its review of the revenue submissions, including benchmarking, efficiency targets and quality of service reports.

There is a requirement on the DSO to submit an annual report to the CER detailing quality of service targets met, reasons for not meeting targets (if appropriate) and recommendations for improving the targets for the future. The CER reviews these reports and decides on appropriate action and also on what targets are required to be met for the next submission.

The DSO and TSO release to market participants a *Statement of Charges* and a *Tariff Schedule*, detailing the prevailing tariff terms and conditions for the following year.

## Electricity System Information

The Single Electricity Market Operator (a contractual joint venture between EirGrid and SONI) publishes a range of wholesale market information pertaining to the Single Electricity Market concerning generators, system marginal prices (SMP) and trading and settlement data.

Central to the design of the SEM is the principle of transparency, through the publication of as much market related data as legally permissible. The SEM Trading and Settlement Code, being the rules and procedures governing the trading and settlement of wholesale electricity in Ireland and Northern Ireland, provides for the publication<sup>5</sup> of a comprehensive level of market data. The following are published by SEMO according to timescales set out in the Trading and Settlement Code:

- Annual Capacity Exchange Rate
- Annual Load Forecast
- Annual Capacity Payment Sum
- Market Price Cap
- Market Price Floor
- Value of Lost Load
- Fixed Market Operator Charge (Supplier Unit)
- Fixed Market Operator Charge (Generator Unit)
- Variable Market Operator Price
- Capacity Period Payment Sum

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<sup>5</sup> This information is published on the SEMO website – [www.sem-o.com](http://www.sem-o.com)



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- Fixed Capacity Payment Proportion
  - Ex-Post Capacity Payment Proportion
  - Engineering Tolerance
  - MW Tolerance
  - System per Unit Regulation parameter
  - Discount for Over Generation
  - Premium for Under Generation
  - Fixed Capacity Payments Weighting Factor for each Trading Period in the relevant Year
  - Terms of Reference for Market Operator Audit
  - Audit Report
  - Transmission Loss Adjustment Factors
  - Imperfections Price
  - Imperfections Charge Factor
  - Testing Tariff
  - Settlement Calendar
  - Schedule of Testing Tariffs
  - Fixed Credit Requirement
  - Historical Assessment Period for the Billing Period
  - Historical Assessment Period for the Capacity Period
  - Analysis Percentile Parameter
  - Credit Cover Adjustment Trigger
  - Maximum level of the Warning Limit
  - Annual Maintenance Schedule - Transmission Line Outages (Appendix F)
  - Annual Maintenance Schedule - Generator Outages Schedule (Appendix F)
  - Flattening Power Factor
  - Monthly Maintenance Schedule – Generator Unit outages
  - Monthly Maintenance Schedule – Transmission System line outages
  - Monthly Load Forecast Margin
  - Loss of Load Probability for each Trading Period in the relevant Month
  - Variable Capacity Payments Weighting Factor for each Trading Period in the relevant Month
  - Available Transfer Capacity (interconnector)

- 
- Four Day Load Forecast
  - Any important updates to Maintenance Schedule Data Transaction
  - Two Day Rolling Wind Power Unit Forecast aggregated by Jurisdiction
  - Forecast of Ex-Post Loss of Load Probability for each Trading Period in the forthcoming 31 Trading Days
  - Ex-Ante Indicative System Marginal Prices
  - Technical Offer Data
  - Commercial Offer Data
  - Demand Control Data Transaction
  - Interconnector Available Transfer Capacities
  - Active Interconnector Unit Export Capacity Holding
  - Active Interconnector Unit Import Capacity Holding
  - Modified Interconnector Unit Nominations
  - Ex-Ante Indicative Market Schedule
  - Ex-Ante Indicative Operations Schedule
  - Generator Unit Technical Characteristics Data Transaction
  - Energy Limited Generator Unit Technical Characteristics Data Transaction
  - Dispatch Instruction and SO Interconnector Trades Data Transaction
  - All Price-affecting Metered Data, excluding Trading Site Supplier Units for Trading Sites with non-firm access for all available Trading Periods
  - Net Inter Jurisdictional Import for all available Trading Periods
  - Indicative Tolerance for Over Generation
  - Indicative Tolerance for Under Generation
  - Initial Tolerance for Over Generation
  - Initial Tolerance for Under Generation
  - Indicative Dispatch Offer Price
  - Initial Dispatch Offer Price
  - Ex-Post Indicative Market Schedule Quantity
  - Ex-Post Initial Market Schedule Quantity
  - Ex-Post Indicative SMPs
  - Initial SMPs <sup>6</sup>
  - Nominal System Frequency

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<sup>6</sup> This is the price used for settlement in the market

- Average System Frequency
- Indicative Energy Payments to Generator Units
- Ex-Post Initial Energy Payments to Generator Units
- Credit Assessment Price for the Undefined Exposure Period for Billing Periods
- Estimated Capacity Price for the Undefined Exposure Period for Capacity Periods
- Metered Generation
- Ex-Post Indicative Capacity Payments to each Generator Unit
- Initial Capacity Payments to each Generator Unit
- Indicative Ex-Post Capacity Payments Weighting Factor
- Ex-Post Indicative values of Eligible Availability
- Ex-Post Initial values of Eligible Availability
- Initial Ex-Post Capacity Payments Weighting Factor
- Initial Ex-Post Margin
- Initial Ex-Post Loss of Load Probability.

## 2.3 Electricity Wholesale Market

This section provides a high level view of the wholesale market in Ireland and describes the new trading arrangements in place since 'Go-Live' of the Single Electricity Market (SEM) on 1 November 2007.

### Introduction

In November 2004, the Department of Enterprise, Trade and Investment (DETI) and the Department of Communications Marine and Natural Resources<sup>7</sup> together with the NIAUR and the CER published a Development Framework for an All Island Energy Market.

In November 2007, CER and NIAUR completed the first phase of the project as set out in the Framework Document - the establishment of an all-island wholesale electricity market, known as the Single Electricity Market (SEM).

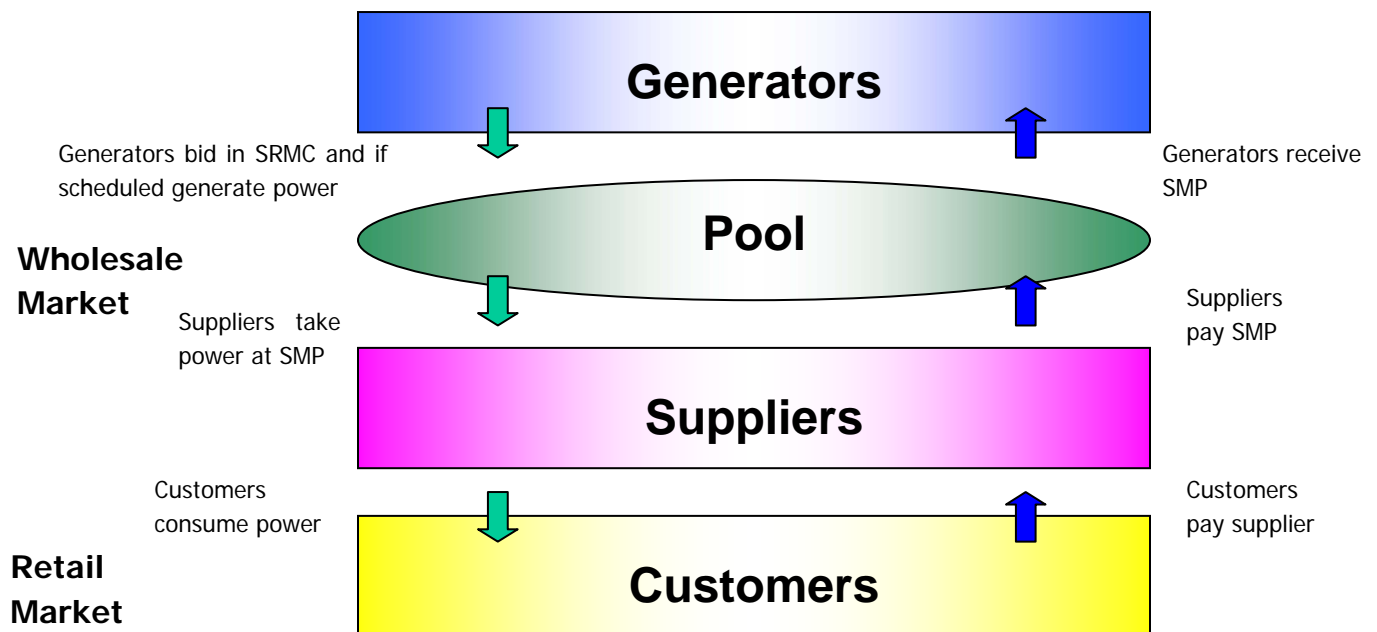
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<sup>7</sup> Department of Communications, Energy and Natural Resources since July 2007

## SEM Background

The SEM consists of a gross pool market, into which all electricity generated or imported onto the island of Ireland must be sold, and from which all wholesale electricity for consumption or export from the island of Ireland must be purchased.

**Figure 1.0 Illustration of SEM Market**



The SEM high-level design was completed in June 2005 and on foot of this the CER and NIAUR (the Regulatory Authorities), set to work on the implementation of a whole suite of arrangements necessary for SEM 'Go Live' by 1 November 2007. This involved:

- Working with DETI and DCENR in developing the legislative framework under the aegis of which the SEM operates;
- Developing the market rules in the form of a bespoke SEM Trading and Settlement Code in conjunction with industry participants, the Market Operator and the System Operators;
- Putting in place a suite of harmonised arrangements around networks, metering, renewables and retail market interactions that form an integral part of the SEM;
- Developing a comprehensive market power mitigation strategy;

- Putting in place the necessary contractual and licensing arrangements in each jurisdiction.

## **Legislative Framework**

In 2007, the Regulatory Authorities, in cooperation with government departments in Ireland and Northern Ireland, finalised drafting on several pieces of legislation required to underpin the SEM in both jurisdictions - the Electricity Regulation (Amendment) (Single Electricity Market) Act 2007 in Ireland and the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007 in Northern Ireland.

The main SEM legislative provisions are as follows:

- The establishment of the SEM Committee – the decision making authority on all SEM matters;
- Provisions of specific powers for a Single Electricity Market Operator Licence to be issued to a market operator tasked with administering trading and settlement in the pool market;
- Arrangements and agreements relating to connection to and use of the All-Island transmission networks;
- The objectives and functions of the Commission, the SEM Committee and the two governments in relation to the Single Electricity Market including the protection of the interests of consumers of electricity in Ireland and Northern Ireland and the promotion of the use of energy from renewable energy sources;
- Regulations establishing and designating a SEM Trading and Settlement Code setting out the market rules and procedures for the electricity trading and settlement system.

## **Market Rules – SEM Trading and Settlement Code**

The SEM Trading and Settlement Code (TSC) sets out the rules and procedures concerning the sale and purchase of wholesale electricity in Ireland and Northern Ireland commencing from the implementation of the SEM.

The TSC was designated by the Regulatory Authorities on 3 July 2007 with most of the provisions coming into effect at SEM 'Go-Live' on 1 November. Suppliers and Generators above 10MW are required by licence to accede to and comply with the TSC, which provides for:

A <b>gross mandatory pool</b> ("the pool"), through which all electricity transmitted or distributed is traded;
A <b>single system marginal price</b> (SMP) that is set for each trading period, based on a market schedule that is unconstrained by transmission limitations;
All suppliers trading in the pool to purchase electricity at the SMP and all generators trading in the pool to be paid the SMP for electricity generation scheduled in the market schedule;
A system of central commitment as provided for in the grid code, with generators dispatched on the basis of offers submitted;
A requirement for generators, with respect to each individual generator unit, to submit offers for each trading day;
The collection and distribution of payments for capacity based on a fixed amount determined annually;
The collection and distribution of payments for the compensation of a generator where one or more of its generator units are subject to a transmission system constraint;
The amending of its own terms through modification proposals and the resolution of disputes between parties to the TSC by a dispute resolution board.

## Capacity Payments

The Capacity Payments Mechanism (CPM) for the SEM attaches a value to the provision of capacity by generators within the market. Taken together, the SMP and the CPM, reward generators for the value of energy and capacity. This Capacity Payment Mechanism ensures the reliability of the system, giving some degree of price and revenue stability and sending efficient signals to the market for long term investment.

Under the Capacity Payments Mechanism, capacity payments are made in respect of generators based on a measure of their availability. These payments depend on a fixed amount of cash – known as the "Annual Pot" - determined by the Regulatory Authorities each year. This is based, in terms of price, upon the fixed costs of a best new entrant peaking plant and, in terms of volume, on the capacity required to meet the (all-island) security standard of the system. Capacity Payments to generators are funded by Capacity Charges, which are levied on Suppliers based upon their electricity purchases.

## Harmonisation

In order to pave the way for an effective transition from the previous bilateral markets in Ireland and Northern Ireland to the all-island SEM, substantial work was carried out by the Regulatory Authorities across a wide range of work streams dealing with:

- the harmonisation of transmission issues;
- updating and bringing licensing arrangements into line with the SEM market rules, and
- harmonising metering and renewable issues.

In the area of transmission networks, work included:

- the development of all-island transmission loss adjustment factors,
- substantial progress towards harmonised Grid Codes, and
- progress towards a harmonised transmission use of system (TUoS) charging policy.

Furthermore, the SEM Implementation of Metered Data Reading, Aggregation, Communication and Storage (SIMDRACS) project has ensured that the relevant wholesale metered data communications are in place to facilitate settlement of the SEM.

### **SEMO Establishment, Revenue and Tariffs**

The SEM design also required that a Single Electricity Market Operator (SEMO) be put in place to schedule the market, settle energy payments and administer other market related cash-flows. Accordingly SEMO, a contractual joint venture between the System Operator of Northern Ireland (SONI) and EirGrid, was established prior to the commencement of market trials in July 2007 and in advance of SEM 'Go-Live' on 1 November 2007.

The establishment of the SEMO was carried out under the supervision of the Regulatory Authorities, and an important part of the Regulatory Authorities' role in this regard was the setting of a SEMO revenue control. This allowed the SEMO to recover both its own administrative costs and other market related costs as required under the SEM Trading and Settlement Code. These costs include those associated with settlement systems and the dispatching of generators away from their scheduled output, known as constraints costs.

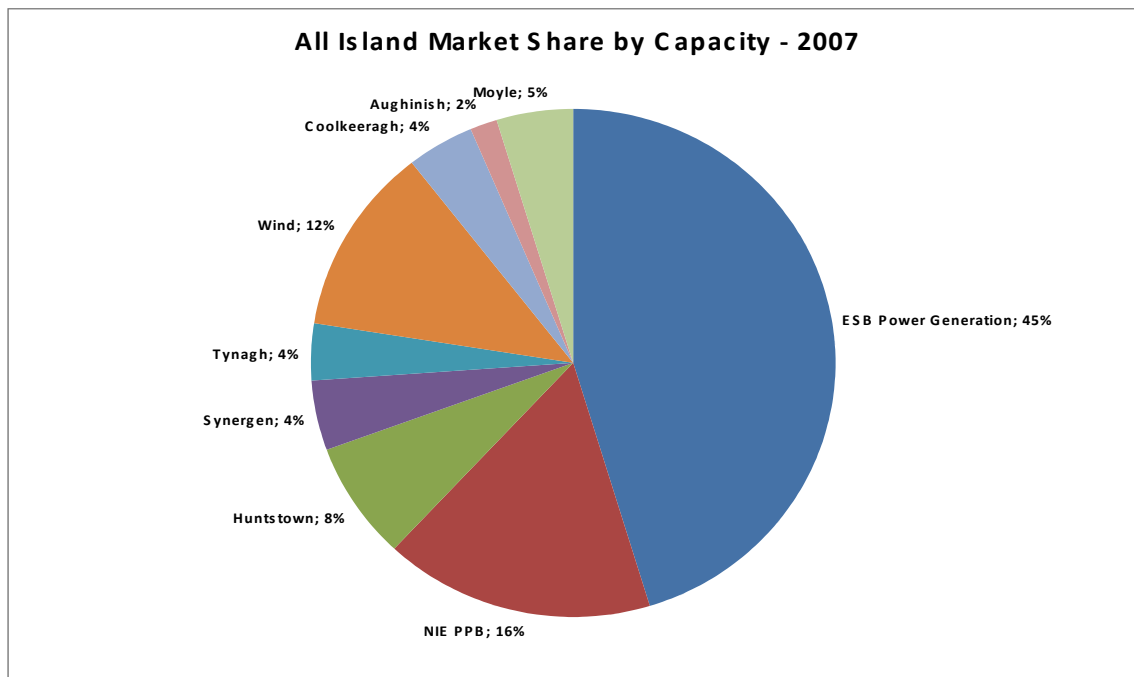
### **Market Power Mitigation**

### **Market Power Definition**

The ability of a market participant, acting independently, to raise market prices consistently and profitably above competitive levels for a sustained period of time.

As part of the development of the SEM the Regulatory Authorities developed a robust market power mitigation strategy to prevent market power being abused or distorting the SEM. The major focus of this strategy comprised the imposition of Directed Contracts on generators with significant market power, the imposition on generators of licence conditions to adhere to a Bidding Code of Practice and the setting up of a bespoke Market Monitoring Unit to monitor participants bidding behaviour. For the first year of operation, only ESB Power Generation was required to offer Directed Contracts.

**Figure 4.0** Market share by installed capacity in the SEM as at end 2007.



### **Directed Contracts**

Directed Contracts form a cornerstone of the market power mitigation strategy in the SEM. These contracts (to be in the form of Contracts for Difference at a regulated price based on the Regulatory Authorities' forecast of spot market prices in a market absent any market power) mitigate market power by reducing the incentives for the market participants to submit bids above competitive levels, or otherwise withhold capacity, in



order to influence current spot prices or future contract prices. The Regulatory Authorities direct generators with market power to offer a portion of their output as Directed Contracts to all suppliers who wish to avail of it.

Analysis carried out by the Regulatory Authorities concluded that ESB Power Generation (ESB PG) were required to offer a suite of directed contracts to all eligible suppliers in the market for the first tariff year. The prices of these contracts were determined largely by forward fuel prices and a pricing formula established by the Regulatory Authorities. Suppliers were then able to bid the volume of MWs they required during the directed contracts auctions held in June and July 2007. The entire volumes of directed contracts were sold during the auctions and therefore fulfilling this element of the market power mitigation strategy.

### **Bidding Principles**

As another key element of the market power mitigation strategy, the Regulatory Authorities drew up and consulted on a set of Bidding Principles and a Bidding Code of Practice for generators bidding into the SEM. As part of this, market participants must adhere to principles that price bids be submitted to the Single Market Operator (SEMO) at Short Run Marginal Cost (SRMC). This requirement to bid SRMC is reflected in a condition in all electricity licences in both Northern Ireland and Ireland.

## **SEM Committee and Joint Regulatory Arrangements**

Key to the operation and decision making of the SEM are the Joint Regulatory Arrangements between CER and NIAUR that have been enshrined in legislation in both jurisdictions. Prior to SEM Go-Live, the SEM Committee Members were appointed by the CER, NIAUR and both governments as appropriate. On the introduction of the SEM, the SEM Committee was established as a Committee of both CER and NIAUR (together the Regulatory Authorities) tasked with taking decisions on SEM matters on behalf of the Regulatory Authorities. The SEM Committee has three voting parties consisting of the following:

- Up to 3 CER SEM Committee members – current members are Tom Reeves, Michael G. Tutty, and Dermot Nolan,
- Up to 3 NIAUR SEM Committee voting members – current members are Iain Osborne, Dermot MacCann and Alan Rainey,

- An Independent SEM Committee Member; Ignacio Perez Arriaga, supported by a Deputy Independent SEM Committee Member, Jose Sierra.

Operating under the SEM Committee itself is the SEM Oversight Committee which has delegated authority for decisions of the SEM Committee on non-policy matters. This Committee is tasked with the Oversight and the implementation of SEM Committee policy decisions as well as supervising management of all SEM Committee operational matters by the Joint Management Units.

There are four Joint Management Units responsible for the Trading and Settlement Code, Market Monitoring Unit, the Market Modelling Group and Market Operator Regulation and they report into the Oversight and SEM Committees, implement their respective decisions and are charged with the day to day supervision of the Single Electricity Market.

### **Functions of the Joint Management Units**

#### **1. *Trading and Settlement Code Management***

Since the Trading and Settlement Code (TSC) (and its Agreed Procedures) was designated by the Regulatory Authorities on 3 July 2007, it can now only be amended through the modification processes as set out in the TSC. The Regulatory Authorities play a key role in the supervision and as the ultimate arbiter over modifications to the SEM market rules.

The Trading and Settlement Code Unit in the Regulatory Authorities has, since 1 November been operating under the auspices of the SEM Committee. This Unit has delegated authority from the SEM Committee to make final decisions on the approval, amending or rejection of non-policy changing modifications to the TSC (policy changing modifications are determined by the SEM Committee) as proposed by the SEM TSC Modifications Committee. The Unit also supervises the development of the TSC from a Regulatory perspective and represents the SEM Committee on the Modifications Committee. The TSC Unit focuses on the following areas:

- Review of TSC Mod recommendation & approval/ rejection;
- Oversight of TSC ongoing development;
- Policy formulation in respect of TSC deficiencies;
- Annual approval of TSC Parameters;
- Oversight of Market Audit;
- Setting of Regulatory TSC parameters such as the Market Price Cap and Floor, and

the annual Capacity Payments "Pot".

## **2. Market Modelling Group**

As part of the introduction of the new all-island market, a new unit dedicated to modelling the wholesale market was established within the Regulatory Authorities (RAs). This unit is based in the offices of the CER and provides forecasts of wholesale prices and other data to support the work of both Regulatory Authorities. The work of the Market Modelling Group (MMG) includes;

- implementing the Directed Contracts process;
- providing pool price estimates needed in determining the Public Service Obligation (PSO) levy;
- setting the reserve price in the PSO auctions;
- assisting the retail division of the CER when analysing the tariffs of ESB

Customer Supply;

- modelling for the capacity payment mechanism.

In addition to the above work streams the MMG provides modelling support to the Market Monitoring Unit (MMU), based in NIAUR, and any other modelling requirements that the RAs may have when formulating policy.

### **3. Market Monitoring Unit**

The Market Monitoring Unit (MMU) is one of the four SEM Joint Management Units (JMU) and is key to SEM market power strategy. The group is based in NIAUR with its work focused on spot market operation, including:

- monitoring the SEM on an ongoing basis, determining how prices are being set and whether at a level expected in an effectively competitive market;
- conducting investigations as appropriate into behaviour or events initiated by itself or by complaints from market participants;
- ensuring that all participants comply with published Bidding Code of Practice (AIP/SEM/07/430);
- publishing quarterly market assessments;
- making recommendations to SEM Committee and Oversight Committee.

### **4. Market Operator (and System Operator) Regulation**

This Unit, run out of NIAUR offices, deals with Market Operator tariff setting and revenue review, Market Operator licence compliance, Modifications Committee issues relating to Market Operator costs and the systems development of the Market Operator. The Regulatory Authorities are responsible for the regulation of their respective jurisdictional System Operator.

## **SEM Continuing Development**

The CER and NIAUR have now moved towards the continuing governance of the SEM and ensuring the benefits of the market are fully realised. It is important that the ongoing development of the market is given the priority it deserves. As such, SEM Continuing Development has been identified as one of the Commissions Ten Key Tasks for 2008. (cer/08/020)

## **Further Interconnection and Market Developments**

Ireland is connected to Northern Ireland via a 600 MW AC 'North-South' interconnector. Since the advent of the SEM this interconnector is now considered a part of the all island market. In turn the SEM is directly connected to Scotland via a 400MW DC interconnector between Northern Ireland and Scotland at Moyle. Each year auctions are held to allocate capacity across this interconnector.

### **'East-West' Interconnector**

The Commission has been actively promoting the development of an electricity Interconnector between Ireland and Britain for a number of years. In 2006 the Government confirmed its support for this project and requested that the Commission arrange the design of a competition to secure the construction of a 500MW undersea interconnector to be in operation at the earliest date prior to 2012.

The Commission are working closely with EirGrid to ensure the completion of this project. The main work items of the past year were as follows:

- An integrated route report evaluated possible interconnector routes and the preferred route (Woodland, Ireland to Deeside, UK) was approved by the Commission in July 2007;
- EirGrid acquired connection offers for connection to the British transmission system;
- The Commission reserved capacity for connection to the Irish system;
- The competition design was finalised and in December 2007 an Invitation to Negotiate document was released by EirGrid to a panel of preferred tenderers, identified as part of the competition design phase of the project;
- A geotechnical and geophysical marine survey of the Irish Sea commenced in December 2007;
- Preparatory planning work has been carried out to secure the over-land section of the interconnector route,
- Signing into law of legislation expanding EirGrid's functions to include the construction, ownership and operation of the interconnector in August 2008.

<b>East-West Interconnector Feature</b>	<b>Detail</b>
Capacity	500 MW

Ownership	EirGrid plc
Delivery date	End 2011
Connection Point on Irish System	Woodlands sub-station, south Meath.
Next Step	Competition for design and construction of an interconnector

The advancement of this project remains a key priority for the Commission in 2008 and into 2009 where a candidate will be secured for the construction of the interconnector at the earliest possible date prior to 2012.

In addition to the East-West interconnector, the Commission is aware of plans by Imera Power to develop interconnection between Ireland and Britain and will monitor this project as it develops and deal with applications for authorisations and exemptions as appropriate.

### Mergers and Acquisitions

Scottish and Southern Energy plc (“SSE”) entered into an agreement to acquire Airtricity Holdings Limited (“Airtricity”) from its current shareholders in January 2008. The agreement was subject to clearance by the Irish Competition Authority and by the Irish and Northern Ireland energy regulators (CER & NIAUR). The acquisition has now been completed and SSE has indicated their intention to target Irish domestic and business customers.

Endesa, the Spanish power company and ESB confirmed on 31<sup>st</sup> July 2008 that an agreement was entered into by both parties in respect of the sale of two power stations, two peaking plant and two sites. Endesa has agreed to purchase the following ESB Power Generation plant, with a total export capacity of just over 1,000 MW (plus key “generation-ready” sites):

Plant	Export Capacity	Location	Fuel
Great Island	216MW	Wexford	Heavy Fuel Oil
Tarbert	590MW	Kerry	Heavy Fuel Oil
Peaking Plant	4* 50MW	Various	Distillate Oil

<i>Sites at:</i>	
Lanesboro	Longford
Shannonbridge	Offaly

The sale of these generating units represents a key step in achieving the aim of reducing ESB's share of the power generation market to 40% by 2010. Furthermore it indicates a long term commitment by Endesa, which is one of the largest utility firms in Europe, to developing a strategic presence in the Irish energy sector. It is anticipated that the sales process will be concluded by year end.

## 2.4 Electricity Retail Market

This section discusses the concentration of suppliers in the retail electricity market over the years 2000 – 2007. The market share position of suppliers is also described, including a comparison of market share held by independent suppliers vis-à-vis the position of the ESB, the incumbent supply company. Finally, this section shows the evolution of regulated ESB PES tariffs since market opening took place in 2000.

### Retail Market concentration

There are currently 9 undertakings active in the Irish retail market. Of these, 7 are independent suppliers which are not affiliated in any way with the incumbent, ESB.

The largest supplier undertaking, ESB, also has a 'universal service', or default, supplier arm known as ESB PES. Two out of the next three largest suppliers serve mostly medium and large industrial and commercial customers. The fourth largest supplier focuses on small and medium-sized commercial customers. This firm is also involved in the domestic market. Overall there are 4 suppliers (3 where ESB PES and ESBIE are combined) in the largest and medium-sized retail segment, 3 (2) suppliers in the small business sector and 2 (2) in the domestic market.

### Supplier characteristics

Nationality: All but one of these firms is based in Ireland. The exception is the supplier Energia, a subsidiary of Viridian (Northern Ireland Electricity).

Of the 4 largest suppliers, only one is not vertically integrated with a generation business.

As mentioned above, the incumbent ESB also owns and operates the Irish distribution system, of which there is only one in Ireland. ESB also currently owns the transmission system. However, the operation of the transmission system is undertaken by the independent TSO, Eirgrid. The operation and ownership of the networks is separated from the supply businesses via management separation. However, all of these business units share selected common services within ESB's corporate structure.

### Retail Market Customer Switching

Overall, a considerable proportion of industrial customers have switched supplier since market opening commenced in 2000. A smaller, yet significant, number of commercial customers have changed since this date, while the extent of domestic switching has been negligible.



In regard to customer switching processes, there are no charges for changing supplier. The maximum delay for changing supplier is 20 days. Finally, there is no process-restriction on customers in debt from changing supplier.

In September 2006, the Commission decided that levels of competition amongst suppliers in the 'large energy users' sector of the market had developed to a sufficient level to end tariff regulation in this sector of the market. This effectively prevented ESB PES from competing for customers in this market sector. ESB PES is still active in this sector of the market, supplying customers that could not obtain another supplier.

### **Regulated Supply Tariffs**

The CER approves the tariffs of the default supplier, ESB PES. All other suppliers set prices below the ESB PES level. From 2002, these tariffs – which typically apply from January to December in each year – have been approved on an annual basis. In certain cases wholesale market conditions have necessitated mid-year tariff reviews.

ESB PES customers are divided into the following categories:

1. Domestic Urban (residential customers served by three-phase low voltage network);
2. Domestic Rural (residential customers served by single-phase low voltage network);
3. Residential Business (connections where a customer is both residential and commercial);
4. Small (a) Commercial & (b) Industrial (General Purpose: customers with a maximum import capacity of less than 50kVA);
5. (a) Commercial & (b) Industrial Low Voltage Max Demand (customers with a maximum import capacity of 50kVA or above);

As applied to Eurostat customer categories, tariffs 1-3 charged in Ireland roughly correspond to domestic categories Da to De. Tariff categories 4-5, above, relate to Eurostat Ia to li industrial and commercial customer categories. However, the key difference between these two classification systems is that the majority of Irish tariffs are charged to customers based on their network characteristics, while Eurostat categories are based on customer usage. Therefore, in Ireland, the default supplier's average cost of serving customers in any given category may be considerably higher than the costs to an independent supplier of serving customers in the same category.

## Market Power Mitigation Electricity Retail Market

The CER monitors the conduct and behaviour of ESB suppliers by employing a number of measures. ESB's activities, as the Public Electricity Supplier, are regulated in the areas of final customer tariffs and supply terms & conditions. Supply terms and conditions include conditions concerning consumer codes of practice, non-discrimination and duty-to-supply clauses, performance reporting, and supplier of last resort obligations.

These PES and PG licences include ringfencing arrangements which cover the disclosure of information between the two businesses, between the two businesses and the regulated network businesses and between the two businesses and the board of ESB.

ESB's independent supply business, ESB Independent Energy, is licensed as a 'brown', a renewable and a CHP, independent supplier. As well as being subject to generic licence conditions, ESBIE's licences contain conditions limiting its marketing activities. The present ESBIE licences also contain a market dominance condition. This condition also allows the CER to specify what constitutes the relevant market for the purpose of monitoring market dominance.

### (1). Tariff Approval & Publication

ESB PES, as the default supplier, must publish its tariffs, as approved by the CER. ESB PES offers these tariffs on the principle of non-discrimination. Changes to approved tariffs may be undertaken on an annual basis. Independent suppliers, on the other hand, are not required to publish their respective tariffs.

### (2). Supply Obligation

Under regulation 18 of S.I. 60 of 2005, ESB PES has a duty to supply all customers who make reasonable requests for supply. Independent suppliers are not subject to this regulation.

### (3). Business Separation

ESB PES is functionally separated from ESB Networks as DSO and TAO and from Eirgrid as TSO. In 2001, the CER licensed ESB as transmission owner and distribution operator. Under these licences, ESB is required to separate these network businesses from its affiliated supply and generation businesses. This 'business separation' process was commenced in late 2001 and will be fully complete by the end of 2005 (the Transmission System Operator, Eirgrid, which was established in 2001, was fully separated from ESB in June 2006.)

## 3.0 Regulation & Performance of the Irish Natural Gas Market

Under the Gas (Interim Regulation) Act, 2002 the CER is responsible for the regulation of the Irish gas network and the supply or retail market. While the Minister for Communications, Energy and Natural Resources retains responsibility for the licensing and regulation of offshore exploration.

### 3.1 Regulation of Gas Transmission and Distribution Companies

BGE owns the gas networks in Ireland which are now operated by Gaslink, a legally separate subsidiary of BGE. The relationship between Gaslink as the system operator and BGE as asset owners is managed through the Operating Agreement approved by the CER. These arrangements are in accordance with Irish legislation SI 760 of 2005, which was introduced to give legal effect to Directive 2003/55/EC.

#### Gas Network Tariffs

BGE proposes network transmission and distribution tariffs to the CER as part of the annual tariff review exercise<sup>8</sup>. The CER reviews the assumptions underlying these submissions and the impact these will have on system-users. The CER then carries out a public consultation on the proposed tariffs in advance of issuing a determination.

A 'revenue review' is undertaken every five years for both transmission and distribution costs, during which the CER makes an in-depth examination of BGE's costs, including the benchmarking of costs against the same activities in other countries. BGE's allowed costs are decreased as appropriate to reflect efficiencies that should be achieved. The most recent revenue reviews for transmission and distribution run from 2007/08 to 2011/12.

The performance of the networks is evaluated in the context of tariff reviews and in the wider context of public safety – for example; the CER has approved expenditure to replace cast iron pipes with PE pipes for safety reasons.

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<sup>8</sup> Gas tariffs and revenues are approved for the 'gas year' which begins in October and continues until the end of the following September. The CER published the proposed transmission and distribution tariffs for 2008/09 in June 2008 (CER/08/112 and CER/08/114)

Regarding quality of supply, there is a low risk of interruption on the Irish natural gas system; as such continuity of supply is not an issue in this market.

<b>Natural Gas Network Operators 2006</b>					
	Number regulated companies	of Approx network access charge (€/Cubic Metre)			Interruptions (minutes lost per customer per year)
		I4	I1	D3	
Transmission	1	n/a	n/a	n/a	Negligible
Distribution	1	n/a	n/a	n/a	Negligible

Source: CER

## Gas Balancing

Natural gas market balancing arrangements are included in the Irish gas *Code of Operations*, as approved by the CER. The needs of small market participants and new entrants are taken into account in the tolerance ranges, which are based on customer category (i.e. smaller customers have larger tolerances). Daily entry-exit balancing is on an aggregate basis across the entire portfolio of individual shippers and market participants can trade out any imbalance ex-post with another shipper (which has an opposing *Daily Imbalance Quantity* for the same day).

The table below describes the Irish balancing mechanism in greater detail:

<b>Gas Balancing Mechanism Characteristics</b>	
Definition of balancing charges	Under the <i>Code of Operations</i> , balancing charges are defined as the <i>Daily Imbalance Charge</i> and the <i>System Imbalance Charge</i> .
Definition of penalties	Penalties are charged on imbalances outside the appropriate tolerance range that are not traded out. <i>First tier imbalances</i> (i.e. within the tolerance range) are cashed out at a neutral price, which is not punitive. In excess of the tolerance market participants are penalised

	at the <i>Second tier imbalance price</i> .
Existence of tolerance levels	Tolerance levels are set on a customer category basis. Gaslink, calculates the <i>Shipper Portfolio Tolerance</i> in respect of each day for each registered Shipper. The calculation methodology for the <i>Shipper Portfolio Tolerance</i> is outlined in Part E, Section 1.7 of the Code of Operations.
TSO/DSO energy procurement	Gaslink procures energy through an annual tender for balancing and shrinkage.
System Requirements	Gaslink publishes a report outlining its balancing requirements on an ex-post basis. Estimates are published to shippers and to tendering parties ex ante.
Balancing incentives	System users have an incentive to balance within the set tolerance levels so that they are not faced with the punitive second tier imbalance price.
Balancing interval	Entry/exit balancing is on a daily basis.
Balancing areas	In Ireland, there is a single transmission/ distribution system, which corresponds with the single balancing area.
Interaction between areas	It is anticipated that a single balancing area will be created for the island of Ireland (Republic of Ireland and Northern Ireland) following the full implementation of CAG <sup>9</sup>

<sup>9</sup> CER and the Northern Ireland regulator (NIAUR) are undertaking a programme of work designed to integrate the Irish and Northern Irish gas markets under the Common Arrangements for Gas (CAG) project.

Grouping of Imbalances	The entry-exit balancing regime operates on an aggregate basis across the entire portfolio of the individual shipper. System users can trade out any imbalance on an ex-post basis.
Imbalance timetable	Shippers are notified of the initial imbalance at 17.00 on the day following the trade. They have from this time to 17.00 seven days after the end of the month to trade out the imbalance with other shippers. Shippers are notified of the final imbalance position at 17.30 seven days after the end of the month.

### Information provided to Participants by TSO

In 2004, the CER published a decision outlining what information the TSO must provide to market participants regarding balancing. In particular, the following information is provided:

#### (1). Balancing Actions

Gaslink publishes in a generalised format the criteria used to determine when an action is necessary. Gaslink will also publish (possibly in arrears to allow for validation) the location, date, and volume (buy/sell) for balancing actions taken. Gaslink will be obliged to keep a record of the reasons why certain balancing actions are taken. This information will not be published but will be available to the CER to review.

#### (2). Imbalance Prices

Gaslink publishes all possible charges that Shippers and potential Shippers will face, in table format showing all charges, explaining how/why these apply, stating what the charge actually is (or has been, where appropriate), and referring to the relevant sections of the *Code of Operations* or web addresses, for example, where background of the charges may be found.

### Unbundling of Gas Networks

In 2004, the CER issued transmission, distribution and supply licences to BGE. New legislation, SI 760 of 2005, was introduced in late 2005 which gave further legal effect to

Directive 2003/55/EC by providing for the legal unbundling of the transmission and distribution systems operations of BG. This was effected on 4<sup>th</sup> July 2008 with the establishment of Gaslink as the legally unbundled Independent System Operator. To facilitate the legal unbundling as required by 2003/55/EC the CER granted Transmission and Distribution operator licences to Gaslink and Transmission and Distribution Owner licences to BGE and revoked the original licences.

The business separation arrangements exist between BGE Networks and BGS are presented in the table below:

<b>Gas Unbundling (From BGS)</b>		
	Transmission (Yes/No)	Distribution (Yes/No)
Separate headquarters	Y	N
Separate corporate presentation	N	N
Unbundled regulatory accounts with guidelines	Y	Y
Audit of unbundled accounts	Y	Y
Publication of unbundled accounts	N	N
Separate board of Directors without Directors from other group companies	N	N

Source: CER

The relevant provisions of these licences are as follows:

- **Implementation of Legal Unbundling:** The Minister for Communications Marine & Natural Resources signed a statutory instrument in late 2005 (SI 760 of 2005) which provides for the legal unbundling of the distribution and transmission operation activities of the incumbent BGÉ. This was effected on 4<sup>th</sup> July 2008 with the establishment of Gaslink.
- **Network Ownership:** BGE owns the gas transmission and distribution networks in Ireland and is wholly-owned by the Irish Government. The relationship between BGE as asset owner and Gaslink as system operator is set out in the Operating Agreement approved by the Commission.

- Ringfencing Arrangements: There are ringfencing arrangements in place between BGE Networks and BGS. However, these businesses are not as yet physically separated. BGÉ also has one 'shared services' division.
- Incumbent's Corporate Image: The network operator is branded as BGÉ Networks, while the supply arm is presented to customers as Bord Gáis Energy Supply. However, BGE's website and logo are common use. Moreover, BGÉ publishes one annual report for its businesses. The system operator Gaslink, is an independent subsidiary of BGÉ. They do not operate under the parent company umbrella and have their own brand and website.
- Publication of TSO/DSO Accounts: The 2005 BGÉ Financial Accounts include segmental analysis by business segment (i.e. Transmission Operations, Distribution Operations, Energy Supply – Total, Energy Supply External Turnover and Ancillary Businesses). The Natural Gas Transmission and Distribution Licences granted to BGÉ include detailed requirements in relation to the preparation of separate financial accounts for each separate Business. The requirements in relation to these are outlined further below.
- Regulatory Accounting Guidelines ('RAGs'): The CER regulates BGÉ accounts submissions under condition 26 of the gas transmission Licence and under condition 25 of the gas distribution licence.

These conditions ensure that BGÉ maintains separate accounting and reporting arrangements, in a form approved by the CER.

- Audit of 'RAGs': Under condition 25 of the distribution licence and condition 26 of the transmission licence, the licensee shall in relation to each separate business procure in respect of the accounting statements prepared in accordance with this condition for the financial year, a report by the auditors addressed to the CER stating whether in their opinion these statements have been properly prepared in accordance with this condition and give a true and fair view of the revenues, costs, assets, liabilities, reserves and provision of, or reasonable attributable to the separate business to which the statements relate.
- Role of Compliance Officer: The sole role of the compliance officer (as outlined under condition 22 of the distribution licence and condition 23 of the transmission licence) is to facilitate compliance with the licensee's obligations and duties under the licence and any other legislative obligation or duty notified to the licensee by the CER. In particular, the duties and tasks assigned to the compliance officer include recommending and establishing practices, procedures and systems to ensure the



licensee's compliance with the relevant duties and monitoring the effectiveness of the practices, procedures and systems adopted by the licensee to ensure its compliance with the relevant duties.

- **Other Regulatory Sanctions:** As outlined above the requirement for separate financial accounts in respect of each Separate Business is included under both the Distribution and Transmission Licences issued to BGÉ. Failure to adequately implement the procedures would mean that the Licensees would not be in compliance with their licence obligations.

## **Management & Allocation of Interconnection Capacity & Congestion Mechanisms**

As mentioned above, the Transmission and Distribution systems are operated by the newly established Independent System Operator, Gaslink<sup>10</sup>. The Transmission and Distribution assets remain in the ownership of Bord Gáis Éireann (BGÉ).

### **Gas Congestion Management**

Currently 95% of gas is imported through the two interconnectors with the UK (IC1 and IC2). There is ample capacity available through the interconnectors now and for the foreseeable future and therefore there is no congestion. Neither is there any congestion on the on-shore system as the system is centrally planned. Investments are approved by the CER and included in the regulated asset base with revenues recovered through the tariffs.

While there is no congestion in the Irish system in practice, rules have been developed to deal with congestion should the situation arise. These rules for congestion management are in line with Directive 2003/55/EC, and are outlined in the Irish gas *Code of Operations*.

As there is currently adequate capacity available on the Irish gas transmission system capacity is allocated on a first-come first-served basis. A 'use-it or lose-it' provision provides for the withdrawal of capacity that has not been used in a year. While the CER is keeping these rules under review as the market develops, it is thought that the cost of capacity (and particularly interconnector capacity) acts as a disincentive for market participants to hoard capacity.

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<sup>10</sup> Gaslink came into operation on 4<sup>th</sup> July 2008.

Other features of congestion management measures include:

- Short-term capacity products: Three short-term firm capacity products were introduced during the 2007/08 gas year; monthly, weekly and within-day products are now available for shippers to plan and adjust their capacity bookings as appropriate throughout the gas year.
- Secondary market for capacity: The secondary market for capacity operates on an over-the-counter bilateral basis. While the Transporter, Gaslink, is not a party to these capacity trades, it does recognise and facilitate these trades on its systems;
- Interruptible Capacity: Interruptible capacity is not currently made available throughout the Irish system, due to the minimal risk of interruption. An interruptible product does exist at the storage entry point at Inch. Principles and business rules have been developed for an interruptible product for the remainder of the Irish system, these will be developed further and implemented as part of the CAG project;
- Cross-border link swaps: Since cross-border links are not congested no swaps are in place;
- Transit Contracts (Article 3(1) of Directive 91/296): No transit contracts exist at present. The South/North pipeline will be transiting from 2006 onwards. The transit arrangements have not yet been finalised;
- Assessment of maximum technical capacity: The TSO methodology on the maximum technical capacity is assessed in the annual *Gas Capacity Statement* (GCS) prepared by the CER. The GCS estimates the gas capacity of the system and in addition acts as an independent check on the TSO methodology;
- Publication of capacity availability and capacity bookings: The transporter has developed a template for the publication of information regarding the level of capacity booked and the level of capacity available at certain relevant points on the system. This information is available publicly on the transporter's website ([www.gaslink.ie](http://www.gaslink.ie))

## 3.2 Wholesale Gas Market

### Common Arrangements for Gas

The *All-Island Project* (AIP) between the Ireland and Northern Ireland includes the development of an all-island gas market going forward. The objective of this project, the Common Arrangements for Gas project, is to establish all-island gas market

arrangements whereby all stakeholders can buy, sell, transport, operate, develop and plan the natural gas market north and south of the border effectively on an all-island basis. It is currently anticipated that the first-phase of the all-island market for gas will be implemented in October 2010. This phase will involve the harmonisation of gas transportation arrangements, including day-to-day operations, security of supply and emergency arrangements and system planning and development. The second phase of the project is expected to involve the harmonisation of distribution and retail arrangements. This phase is anticipated to begin following the October 2010 implementation date for phase one.

### 3.3 Retail Gas Market

#### Shipper/ Supply Licence Provisions

All shippers/suppliers in the market require a Shipper/Supply Licence<sup>11</sup> from the CER. These licences include the following conditions:

- Provision of Information to CER: The general conditions of the licence include the requirement for the provision of information to the CER. The licensee must provide to the CER in such form and at such times as the CER may require such information and reports as the CER may consider necessary or relevant or it may require in the performance of its duties or functions under legislation. In addition, the licensee shall publish information (save for confidential or commercially sensitive information) in such form and manner and at such times as the CER may require.
- Market Surveillance: Condition 8 of the general conditions prohibits anti-competitive behaviour stating that the licensee shall not prevent, restrict or distort competition to any appreciable extent in any market relating to the supply, distribution, transmission or storage of natural gas. The licensee is also prohibited from abusing any dominant position it may have. The CER shall determine whether the licensee holds a dominant position.
- Competition Policy actions: Specific conditions relating to economic regulation applicable only where the licensee is BGE include the ring-fencing of the supply business and restriction on use of certain information (Condition 14). Condition 16 refers to prohibition of cross-subsidies.

Condition 18 prohibits discrimination in supplying or offering terms for the supply of natural gas. In particular, the licensee shall not show undue preference to any person

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<sup>11</sup> Natural Gas customers in Ireland may be supplied by a shipper or a supplier.

(or class of persons) and shall not exercise undue discrimination between any persons (or classes of persons).

Condition 19 lays down the duty to offer supply whereby the licensee shall upon receipt of a request from a person who the licensee is authorised to supply by this License and who is a final customer as soon as practicable a) offer to enter into a supply contract to supply natural gas to the premises in respect of which the supply is requested; and b) where the terms offered are accepted by the customer, give a supply of natural gas to those premises in accordance with the terms offered.

## Gas Supply Tariffs

BGS' allowed revenue – relating to the Domestic and Industrial & Commercial markets – is calculated by the application of a revenue control formula. The overall level of gas procurement and operating costs and a suitable margin on costs is approved through this revenue control formula by the CER.

The table below outlines the separate components of the revenue control formula:

<b>BGE Energy Supply Revenue Control Formula</b>	
<i>Component</i>	<i>Basis</i>
Transmission & Distribution costs (pass-through)	These figures are calculated by the multiplication of estimated capacity and commodity figures of BGS's customers by the transmission and distribution tariffs. The CER examines these forecasted figures and reconciled at the end of the year once an outturn value is known.
Gas procurement costs (pass-through)	Condition 17 of the BGS Gas Supply Licence obliges BGS to procure gas at the best effective and most obtainable price. In its latest decision regarding the revenue control period 2007/08 – 2011/12, the CER added financial incentives to the revenue control formula to incentivise BGS to purchase gas more efficiently.
BGS's own supply costs	Indexed to growth/decline in numbers of BGS's customers and in GWh sales.

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The CER also carried out a revenue review project in relation to Bord Gáis Energy Supply (BGS) during 2007. A decision on the allowed revenues for BGS for the control period of 2007/08 – 2011/12 as well as targets and incentives for the business to achieve was published by the CER in October 2007 (CER/07/158). The revenue control formula in this decision paper reduces the full pass-through on year-on-year correction factors that arise from the setting of ex-ante tariffs. The CER is committed to a further review to reduce these correction factors further in the coming year.

In addition, new tariff structures for domestic and small and medium sized businesses have been implemented by BGS since October 2007. This follows a review of tariff structures carried out by the CER during 2007. These new tariff structures have been designed to ensure greater levels of cost reflectivity as well as improving levels of choice for natural gas customers. They also provide a more transparent tariff against which other suppliers may wish to compete. In addition the new tariffs have been designed to encourage improved efficiency. Levels of fixed or standing charges in the tariff have been reduced significantly which means that the final level of a customer's bill is more closely linked to unit charges and actual usage than in the past.

### **Large Customers (consumption level between 5.3 GWh/annum & 264 GWh/annum)**

The *Regulated Tariff Formula* (RTF) applies to this customer category. However gas customers within this consumption level that utilise the gas to produce electricity, including combined heat and power have the choice between a RTF tariff and an 'unregulated' tariff.

<b>BGS RTF Products</b>	
<i>Product</i>	<i>Description</i>
Fixed RTF	This product is offered for terms of 3, 6, 9 and 12 months. The gas commodities are fixed for each month when the RTF offer is accepted. It is stated in CER/04/306 of the 30 <sup>th</sup> September 2004 that 'BGS must use the International Petroleum Exchange (IPE) futures settlement prices for each month of the RTF contract period as quoted on the IPE on the first business day immediately proceeding the date on which the customer is quoted'.

Variable RTF	This product does not last for a limited time period. This product continues until either a switch in supplier occurs or a fixed term RTF is accepted. The average of the relevant International Petroleum Exchange (IPE) prices for a month is utilised to determine the price a customer is charged in the subsequent month. It is stated in CER/04/306 of the 30 <sup>th</sup> September 2004 that “the IPE index term is calculated as the average of the IPE settlement prices for month M for each business day up to and including the second last business day of month M-1”.
Default RTF	This is put in force when a customer isn't supplied by an independent supplier and has not indicated in writing its acceptance of either of the other two RTF products.  This product is the same as the variable RTF product except that the price the customer is charged in the first month is set as the market price. It is stated in CER/04/306 of the 30 <sup>th</sup> September 2004 that ‘the IPE index for the first month of the period will be set at the IPE price on the last business day of the previous month’.

BGS is required to submit the standard RTF supply contract for approval by the CER. The RTF is based on the following formula:

$$P = [(IPE\ Index + Tgb + Psw) * EUR/GBP] + Tti + Tdi + Si + Fixed\ Charges$$

P	the price of gas for the customer
IPE Index	the monthly International Petroleum Exchange price index at the national balancing point in Great Britain (GB)
Tgb	GB transportation charges
Psw	Swing Premium

EUR/GBP	the Euro Sterling exchange rate
Tti	Transportation charges for the Irish Interconnectors and on-shore Ireland Transmission System
Tdi	Transportation charges for the Irish Distribution System
Si	Shrinkage charges on the Irish System
Fixed Charges	Fixed charge to cover BGS operating costs and margin

The CER is currently reviewing the RTF methodology and the development of competition in the gas market since its establishment. This review will entail a decision with regards to the future of regulation in the RTF customer sector.

**Medium Customers (consumption level above 73,000kWh and SPC greater than 3,750kWh)**

The Fuel Variation Tariff (FVT) is a new price regulation regime which came into effect as of 1 October 2007. Similar to that of the RTF, the FVT is based on a formula, approved by the CER, which reflects the cost to serve of each customer. It consists of four components;

*Gas Commodity Charge (c/kWh)*: reflecting the monthly unit cost of wholesale gas purchased

*Fixed Rate Charge (c/kWh)*: incorporating transmission commodity tariffs, distribution commodity tariffs, swing, flexibility and an approved margin on costs (2.75%)

*Site Charge (€ per month)*: incorporating transmission capacity tariffs, distribution capacity tariffs, administration costs

*Shrinkage Gas Charge (c/kWh)*: reflecting the monthly unit cost of transmission shrinkage gas costs incurred with respect to FVT volumes. This charge is common to all customers

<b>BGS FVT Products</b>	
<i>Product</i>	<i>Description</i>
Monthly Floating Price	This is the default pricing option which applies to all FVT customers of BGS where no alternative pricing arrangements have been put in place. The gas commodity price is calculated as the average of the

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	last five 'ICE' daily settlement prices for month M during month M-1 as published in the European Spot Gas Markets (ESGM).
Fixed RTF	This product is offered for terms of 3, 6, 9 and 12 months. The gas commodities charge for each month in the contract period is calculated as the published 'ICE' settlement price for the day immediately prior to the booking window.



## 4.0 Security of Supply

This section provides information on the current Security of Supply situation in Ireland with regard to electricity and gas supplies.

### 4.1 Electricity SoS

This section details the CER's role and that of Eirgrid as TSO with respect to security of electricity supply. It then examines growth in demand and the forecast situation for security of supply and provides an examination of the various measures being undertaken by the CER to address security of supply issues. There is then a discussion on the CER's role with respect to the authorisation of new plant, details of upcoming new infrastructural developments, the current and forecast generation mix, together with a brief description of the various incentives currently in place in the Irish market to encourage new generation capacity. The section concludes with an overview of upcoming networks developments intended to assist security of supply through further interconnection.

#### CER & TSO's Role

The CER has a role in monitoring security of supply/generation adequacy and, together with the TSO (Eirgrid) and the Department of Communications, Energy & Natural Resources (DCENR), putting in place appropriate arrangements to ensure that a satisfactory generation capacity margin is maintained and electricity supply is secured.

To this end, the CER reviews the generation adequacy of the Irish system on a weekly basis and publishes a weekly report on its website. This report also contains quarterly comparisons and useful data on generation adequacy including wind generation statistics and demand levels. The CER also produces a bi-annual report on security of supply for the European Commission while an annual update is provided in the CER Annual Report. The TSO produces an annual forecast statement (covering the forthcoming seven year period) which is also approved by the CER.

In consultation with the DCENR and other relevant parties, the CER decides on any necessary actions where deemed appropriate to protect or enhance security of supply. In addition to putting in place such measures as deemed appropriate, the CER has established a regulatory regime in the authorising and licensing of generation and regulation of the various networks codes to assist in the enforcement of security of supply.

The TSO, in addition to the preparation of its annual forecast statement, is responsible for the day-to-day monitoring of generation capacity and system management (management of nominations, dispatch, ancillary services and system emergency management (system alerts, load shedding, etc.).

## CER Report to European Commission on Security of Electricity Supply

Under European directives 2003/54/EC and 2005/89/EC, which have been transposed into Irish Law by Statutory Instrument No. 60 of 2005 legislation, the Commission is required to prepare and submit a report to the European Commission every two years by the 31<sup>st</sup> of July. The latest of these reports fell due on 31 July 2008.

The report describes the security of supply situation in Ireland with reference to the following key areas:

- The Commission's Monitoring Activities;
- Fuel and Other Power Sources;
- The Balance Between Supply and Demand;
- Supply and Demand-Side Measures;
- Transmission Networks;
- Issues Identified and Measures Undertaken.

This section outlines some of the key conclusions and observations of this report.

Section 7.0 of the Report outlines a number of issues impacting on security of electricity supply in Ireland over the next number of years. These are as follows:

- Security of Supply of Key Fuels used to Generate Electricity and Diversity of Fuel Supplies
- Measures to Meet Security of Supply 2008-2010
- Measures to Meet Security of Supply from 2011 onwards
- Notification of Plant Closure
- Planning for increased Wind Generation
- Opportunities with respect to End Users

The table below outlines a summary of the Commission's objective in relation to each of these issues and the key area or challenge which must be addressed.

Objective	Detail of Issue
Sustain adequate gas supplies to meet demand	Ireland is becoming more reliant on gas as a source of electricity generation.
Maintain system adequacy to 2010	The balance between supply and demand should be manageable for the three years from 2008 to 2010 (i.e. there is a reasonable expectation that all supply can be met by generation).

Maintaining system Adequacy in 2011	The GAR <sup>12</sup> estimates that significant new capacity will be required by 2011.
Capacity Requirement beyond 2011	There is an additional capacity requirement beyond 2011. The level of this requirement is dependent on a number of factors.
Adequate Closure Notice	Units that are reaching their expected life expectancy should give adequate notice to the TSO before closure. The Grid Code requires only 24 months notice for closure/ de-rating of plant.
Meet the Government's Renewable Targets of 15% of consumption from renewable sources by 2010 and 33% by 2020.	The Commission is cognisant of the Government and European Commission renewable targets and in this context is currently considering how to treat connections for wind generators and conventional generators.
Developing a more flexible plant mix	There is a need to encourage the building of additional flexible plant or greater flexibility within the current portfolio.
Demand-Side Management	DSM initiatives aimed at reducing overall demand and influencing demand profile.

The Commission has taken actions in a number of areas since the publication of its initial Security of Supply report in 2006. The following section provides a detailed outline of the actions taken by the Commission to enhance and ensure security of supplies since 2006.

Concern over:	Key Issues	Summary of Issue/Opportunity	Steps taken since 2006
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<sup>12</sup> Generation Adequacy Report 2008 – 2014: Published by EirGrid, the Irish Transmission System Operator.

Generation	Maintaining System Adequacy to 2009	<p>The balance between supply and demand should be manageable from 2006 up to 2009 (i.e. there is a reasonable expectation that all supply can be met by generation), provided that:</p> <p>new generation comes on stream as expected;</p> <p>plant availability is significantly above the average level of performance achieved over the period 2003 to 2005; and,</p> <p>there are no unexpected plant closures from the current portfolio.</p>	<p>1) The Commission carefully examined the quarterly construction reports of a generating unit that become commercially operational on 31<sup>st</sup> October 2007. This was the expected date.</p> <p>2) The Commission believes that the new market is providing the correct signals to generators to maintain a high availability.</p> <p>3) There have been no unexpected closures of generating stations over the period. One unit which has not operated since early 2006 (Poolbeg 3 which has a capacity of 242MW) has been deemed closed since 31<sup>st</sup> December 2007.</p>
	Capacity Requirement for 2009	The GAR estimates that significant new capacity (~400MW) will be required by 2009	A CCGT's, with a capacity of 430MW, is currently being constructed. This is expected to be fully available to the system from October 2009.
	Capacity Requirement beyond 2009	With the expectation that a further 590MW capacity will no longer be in operation beyond 2010, there will be an additional capacity requirement beyond that identified in the GAR.	The Commission now expects that this 590MW of capacity (which refers to the generating units at Tarbert) will still be operational in 2010 and beyond. These units are being sold as part of the ESB-CER Asset Strategy Agreement and it is expected that they will be operated by the new owners.

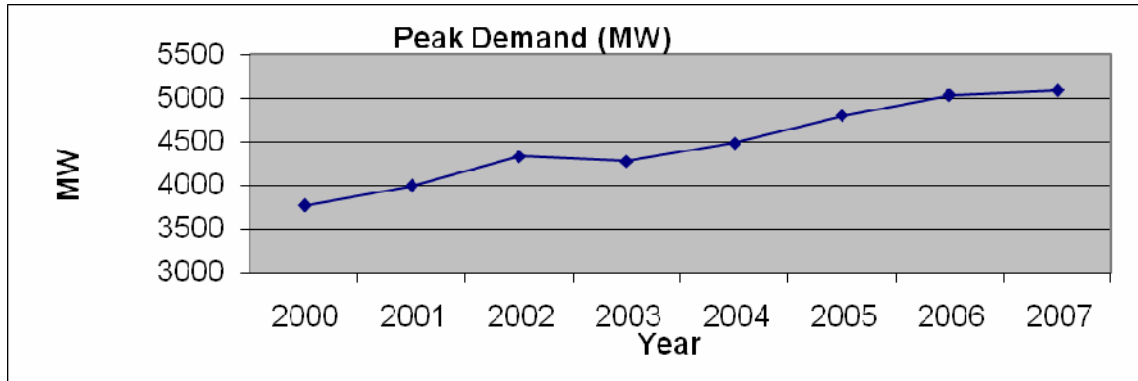
	Attracting Capacity (long-term strategy)	The existing market has not attracted required capacity to date.	On 1 <sup>st</sup> November 2007, a new electricity market, the SEM, went live. The Commission believes this market is providing the appropriate signals for timely market entry. This is evidenced by the number of applicants who which for a connection offer from the TSO. In particular, the capacity payments mechanism provides certainty to generators entering into the market.
	Low Plant Availability	Low plant availability on the system has resulted in significant system issues/ security of supply concerns.	The capacity payments mechanism incentivises plant to be available. To encourage availability close to real-time, 40% of the total money available (or capacity pot) is a fixed quantity, a further 30% is variable and the final 30% is allocated ex-post based on availability.
	Condition of Plant	<p>The age and condition of certain plant on the system is impacting on availability.</p> <p>Inevitable plant closures over coming years will impact on security of supply.</p>	As part of the CER-ESB Asset Strategy Agreement, 488MW of plant are due to close by 2010. At present 242MW of which has closed already. These plant have low availability and have reached the end of their useful life.
	Notification of Plant Closures	Grid Code requires only 24 months notice for closure/de-rating of plant	The Commission is working with EirGrid to increase the notification period for the closure of plant. A consultation paper will be published on this issue.

	Developing Appropriate Plant Mix	GAR identifies need to encourage the building of additional flexible plant or greater flexibility within the current portfolio.	The design of the new market contains incentives for generators to build more flexible generation. The majority of the develops seeking to construct new generating wish to build an Open Cycle Gas Turbine, which is generally considered to be a flexible unit.
	System Operation Challenges as a result of increasing wind	In addition to addressing the need for additional flexible plant in response to wind, the volume of wind currently wishing to be connected to the Grid will pose system operation challenges.	The following steps have been taken:  A wind Grid Code has now been approved and a number of technical discussion papers are available that deal with the technical requirements of the new Grid Code.  A discussion paper has been published by the Regulatory Authorities on wind in the SEM.
End Users	Demand-Side Management	Demand-Side Management initiatives aimed at reducing overall demand and influencing demand profile.	In March 2007, a consultation paper on Demand-Side Management and Smart Metering was published. A smart metering pilot project is due to commence shortly.

## 4.2 Security of Supply Indicators

### Growth in Electricity Demand

Electricity demand in Ireland has experienced substantial growth over recent years. In 1996 total system demand was just over 15,000GWh. By 2007 this figure had reached almost 26,000GWh. To date, the record peak demand, which occurred in December 2007, was 5,085 MW. This represents an increase of 1% on 2006 figures however the peak demand had been consistently growing at a rate of 4 – 5% each year over the previous 5 years. Currently available generation capacity: 7,577 (1,132 MW partially or non-dispatchable);



By end 2008, EirGrid has forecast that the available generation capacity will have increased to 7,706 MW (3% increase in the year 2008). This will be made up of 6,240 MW of fully dispatchable plant with the remainder being made up of partially or non dispatchable generation. EirGrid has estimated that the peak demand on the system will increase to approximately 5,125 MW (exported) over the winter of 2008/09.

### **TSO Annual Reviews of Generation Adequacy (7 Year Forecast Statement)**

The TSO produces an annual forecast statement of generation adequacy covering the subsequent seven-year period. In 2004, the TSO commented that the central issue to security of supply has become plant availability, particularly availability of the incumbent generation company's plant.

Although plant availability has improved since then, the volatility of generator availability over recent years remains the dominant factor affecting system adequacy, and outweighs other factors such as variations in demand.

There appears to be a slight increase in the 52-week rolling average availability in late 2007/early 2008. This may or may not be due to the SEM providing the correct signals for generators to be available.

The CER's role is focussed on short-term and medium term measures:

#### **Short-Term Measures**

With respect to the immediate issue of low availability and short-term capacity deficits, the CER is actively monitoring the plant availability of the incumbent generation company, ESB PG.

In addition to monitoring and approving plant overhauls, the CER has put in place financial incentives and penalty mechanisms to encourage improvement in plant performance.

Furthermore, the CER has overseen the contracting of additional capacity in the form of emergency generation (additional peaking capacity plants) and a guaranteed contract from a generator in Northern Ireland (of 167 MW).

### **Medium-Term Measures**

Studies conducted in 2002 and 2003 had predicted that unless action was taken, there would be significant shortfalls in electricity generation for the winter period from 2005 onwards.

The CER determined that measures were to be put in place to provide for the delivery of additional generation capacity. In light of this, and in addition to making arrangements for short-term peaking generation to be put in place, the CER arranged a competition whereby successful bidders would be awarded a power purchase contract with the incumbent supplier, ESB PES. The intention of this process was to encourage the entry of new capacity into the market to provide for generation adequacy, with such capacity to be provided by independent power providers.

Arising out of this competitive process, two new point plants were announced:

- Tynagh Energy, located in the mid-west of Ireland, a 400 MW CCGT power plant (delivery January 2006); and,
- Aughinish Energy, located in the south-west of Ireland, a 150 MW CHP plant (delivery November 2005).

Furthermore, another Combined Cycle Gas Turbine plant, of approximately 400 MW capacity, is being constructed outside Dublin. This is expected to be commissioned in late 2007/early 2008.

In March 2007, the Commission authorised the construction of a further gas fired CCGT (430 MW). This plant is to be constructed in the Cork region by ESB as part of the CER-ESB Asset Strategy agreement. It is expected that this new plant will be on the system in 2010.

In addition in August 2007, Bord Gáis Eireann has received an authorisation to construct a 445MW power station in Co. Cork, while the Commission is also working with a number of other companies at the early stages of developing plans for power stations.



### 4.3 Progress on Major Infrastructure Projects

#### CER's Role with respect to Authorisation of Generation

Under the relevant legislation, generation plant is required to obtain an Authorisation to Construct or Reconstruct Generation Plant and a Licence to Generate. These contain a number of conditions relating to the construction and operation of the plant, and the applicant's business.

These are both issued by the CER which assesses the suitability of applications in accordance with the following criteria:

- Suitability of the Applicant (correctly constituted body, managerial competency, solvency, etc.);
- Suitability of Project – technical assessment (generation plant and technology proposed, construction and commissioning programme, plant engineers, network connection agreements, etc.);
- Compliance with relevant legislation (environmental regulations, planning permissions, other permits (Water Extraction Licence, Thermal Emissions Regulations, etc);
- Project business plan (project financing, business plan, off-take arrangements, accounts projections, etc.);

#### Current Generation Fuel Mix

The actual breakdown of Ireland's generation by fuel source, from 2000 to 2005 is shown below.

System Energy Sources %								
	Coal	HFO	LFO	Gas	Peat	Hydro	Wind & SSG*	Total
2005	26	11	0.2	44.7	4.8	2.5	4.5	94
2004	25.7	12.2	0.2	44.8	4.8	2.5	3.4	94
2003	25.4	9.7	0.3	50.7	8.2	2.3	2.7	100
2002	27.9	15.0	0.2	42.3	8.4	3.6	2.6	100
2001	28.7	20.9	0.3	36.8	8.9	2.3	2.2	100
2000	30.0	18.9	0.3	37.6	7.5	3.5	2.1	100

Source: Eirgrid

\*SSG – Small Scale Generation

#### Implicit and Explicit Incentives to Build Capacity

There are a number of aspects of the Irish market with relate to incentives to build capacity:

*Capacity Margin payments*, a payment based on contribution by generation plant to the capacity margin, based on spare capacity provided at the daily peak demand;

A *capacity-related spill price* which is an extra amount, per MWh, paid for all spilled energy as a form of capacity payment;

A *spill floor price* which provides for a guaranteed minimum price, below which the price cannot fall (offering a degree of revenue certainty for generators);

*Power Purchase Agreement* schemes (particularly to support renewable generation projects) whereby projects are guaranteed off-take contracts with the incumbent generation company, incumbent supply company, for fixed periods of time (in the past, such schemes have been implemented by both the CER and the Ministerial Department with responsibility for energy).

### **Network/Interconnection Projects**

As described in section **Error! Reference source not found.** the Republic of Ireland is connected to Northern Ireland via a 600 MW AC 'North-South' interconnector. In turn Ireland is indirectly connected to Scotland via a DC interconnector between Northern Ireland and Scotland at Moyle. Each year auctions are held to allocate capacity across both interconnectors.

#### **'North-South' Interconnection**

The North-South interconnector between Northern Ireland and the Republic of Ireland currently has a *Net Transfer Capacity* (NTC) of 330MW in a north-south direction.

In March 2005 Eirgrid submitted to the CER a proposal for further additional interconnection with Northern Ireland. In April 2005, the CER approved Eirgrid to proceed to carry out the work necessary to obtain planning permission for this interconnection.

As stated earlier, the interconnector with Northern Ireland will become an integral part of an all island transmission system with the commencement of the SEM in 2007.

#### **'East-West' Interconnector**

In December 2003 the CER decided that it would actively promote the development of 'East-West' electricity interconnection between Ireland and Britain. This decision followed the completion of a cost-benefit study which assessed the overall economic merits of East-West interconnection. The CER advised the then Minister for Communications, Marine and Natural Resources to this effect.

In February 2004 the Minister announced that the government favoured the development of two 500 MW 'East-West' interconnectors to be developed on a merchant basis. The Minister requested the CER to investigate the degree of potential commercial interest in developing this project on a merchant basis. In August the Minister restated his intention to press ahead with the construction of two 500 MW electricity East-West interconnectors and requested the CER to develop a competitive process to deliver the interconnection.

In early 2005, the Commission, with the assistance of independent consultants, began assessing processes for the delivery of 'East-West' Interconnection. A report was presented to the Minister in February 2006.

In July of 2006, the Government indicated its support for the development of 'East-West' Interconnection and this was further outlined in the Government's White Paper on Energy. It has been decided that a 500 MW interconnector between Britain and Ireland will be developed, which will be owned and operated by EirGrid. The Commission are now involved in the development of a competition for the construction of this interconnector.

In addition in July 2007, the Commission approved the route of the interconnector while it has also directed EirGrid to reserve capacity on the electricity system for the connection of the interconnector in 2011.

## 4.4 Natural Gas SoS

This section details the current gas security of supply situation in Ireland. In doing so it examines growth in demand and the forecast situation for security of supply. There is then a description of upcoming new infrastructural developments, as well as new networks developments.

### Security of Supply Indicators

Total gas demand in Ireland for 2006 was 4.6 bcm, up from 2.9 bcm in 1996. Projected growth rates over the next three years are outlined in the *2007 Gas Capacity Statement* prepared by the CER in consultation with BGE.

### Production and Import Capacity

#### Currently Available

Indigenous gas fields supplied over 80 percent of the market in 1996 (i.e. 2.42 bcm out of a total of 2.93 bcm in that year). By 2006, this position had been reversed with more than 90 percent of the gas supply in Ireland being met by imports via the interconnectors from Scotland.

Since the 1970s Ireland has been supplied from the Kinsale and Ballycotton fields delivering to the Inch terminal off the south coast of Ireland. These fields are now in decline. The addition of gas production from the Seven Heads field (also off the south coast) from December 2003 has contributed to an increased level of indigenous supply, albeit at lower rates than originally projected.

The two Scotland-Ireland interconnectors (IC1 and IC2) currently provide over 90 percent of Ireland's gas supply and are supported by compressor stations onshore in Scotland. The maximum daily import capacity for the interconnectors is imposed by the capability of the compressor stations to deliver high-pressure flows into the pipelines.

#### Forthcoming (Next three years)

The Corrib gas field, which has a peak supply capability of approximately 10 mscmd, is currently being developed off the west coast of Ireland. There have been some difficulties with progressing the on-shore element of this work due to local opposition to the project.

**Network/Interconnection Projects**

In 2002, BGE (Northern Ireland) was granted a gas transmission licence by the Northern Ireland Authority for Energy Regulation (NIAER) to build, own and operate two transmission pipelines in Northern Ireland in two phases over a five-year period.

Following the completion of a pipeline from Belfast to Derry in October 2004, the CER, on behalf of the DCMNR and in association with NIAER and the Northern Irish Department of Enterprise, Trade and Investment, commissioned a feasibility study to evaluate the various route options for a pipeline linking the Belfast-Derry pipeline to Letterkenny in the Republic of Ireland. This study has been completed and is currently being reviewed by the CER and NIAUR.

## 5.0 Public Service Obligations and Consumer Protection

In line with European legislation, public service obligations in Ireland cover the following areas in electricity and gas:

- Quality of Supply;
- Consumer Protection;
- Supplier of Last Resort.

Quality of supply obligations and performance targets cover selected service obligations such as supply continuity and safety issues. These obligations and targets are placed on the network operators and owners – Eirgrid and ESB in electricity and BGE in the gas market.

Consumer protection measures apply to all suppliers active in the Irish retail energy markets. These cover supplier conduct over a range of areas such as marketing, billing, complaints handling, customer debt, treatment of vulnerable customers and disconnection. These obligations are broadly equivalent for suppliers in the electricity and gas markets and are specified by codes of practice submitted by suppliers and approved by the CER. Supplier-customer contract conditions are also covered in the form of a 'supplier charter'.

Customers are also protected when their supplier abruptly exits the market. In the event of such an exit, the CER obliges a supplier, or a number of suppliers, to act as a Supplier of Last Resort (SoLR).

Several PSOs also apply exclusively to the electricity sector covering the following areas:

- Environmental Protection/Security of Supply;
- Network Access;
- ESB PES Universal Service/Duty to Supply.

In Ireland, the term – 'Public Service Obligation' – generally refers to the obligations placed on suppliers in the areas of environmental protection and security of supply. The objectives of the 'PSO' are to ensure reasonable self-sufficiency in electricity generation capacity by utilising peat as a primary fuel source and to promote renewable energy sources to help protect the environment. The cost of meeting these environmental and security of supply PSOs is met by all customers based on charges set by the CER.

The CER also has a legislative duty to 'have regard to' customers located in rural areas. Moreover ESB PES has a duty to supply all reasonable requests for supply received from customers.

Finally, the CER sets regulated tariffs for end-customers served by ESB PES in the electricity market and BGE Energy Supply in the gas market.

This section considers each of these in turn, starting with electricity & gas PSOs. Electricity-specific PSOs are dealt with separately. Finally, the methods used to calculate the regulated supply tariffs are outlined.

## 5.1 Irish Legislative Framework

The Electricity Regulation Act, 1999, and the Gas (Interim) Regulation Act, 2002, transposed into Irish legislation the various public service obligations outlined in European electricity and gas Directives 96/92/EC, and 98/30/EC. Electricity S.I. 60 of 2005 subsequently adopted obligations and consumer protection measures included in electricity Directive 2003/54/EC. Equivalent measures in gas resulting from Directive 2003/55/EC were introduced by S.I. 452 of 2004.

### Electricity PSO Legislation & Licensing

In accordance with Section 9 of the Electricity Regulation Act, 1999, the CER is obliged to:

- to secure that all reasonable demands by final customers of electricity are satisfied;
- to promote the continuity, security and quality of supplies of electricity;
- to promote the use of renewable, sustainable or alternative forms of energy;
- to take account of the protection of the environment;
- to carry out its duties and functions in a manner that it considers protects the interest of final customers.

The Act does not create a hierarchy of functions and duties for the CER. Therefore, under this Act the CER must balance its duties regarding environmental protection, security of supply, treatment of final customers, network access and security of supply. This Act places particular emphasis on the protection of elderly and rural customers.

Regulation 31 of S.I. 445 of 2005 conferred on the CER the duty of approving electricity supply charges levied by ESB PES. Regulation 19 of S.I. 60 of 2005 reaffirms this duty.

S.I. 60 of 2005 also added Directive 2003/54/EC 'Annex A' consumer protection measures and a universal service obligation to this list. This S.I. also provides for the labelling of energy sources on electricity bills.

## **Natural Gas PSOs Legislation & Licensing**

The Gas (Interim) (Regulation) Act of 2002 extended the existing electricity customer protection functions of the CER to the gas market.

In addition, the public service and consumer protection requirements placed on market participants as outlined in Directive 2003/55/EC have been transposed into S.I. 452 of 2004.

In S.I. No. 452 it is stated in regulation 21A that the function of the CER with respect to consumer protection is to ensure:

- there is a high standard of protection for all final customers in their dealings with natural gas suppliers;
- all final customers are supplied with natural gas of specified quality at reasonable prices;
- there are dispute resolution mechanisms in place for users of the natural gas system and their final customers;
- there are adequate safeguards to protect vulnerable customers (including the elderly and disabled) which shall include measures to help such customers avoid disconnection;

The CER is entitled to give directions, as it deems necessary, in order to carry out the above functions. A supplier or shipper in breach of such a direction is guilty of an offence and is liable on summary conviction to a fine not exceeding €3,000.

These duties were included in generic and BGS licences issued in April 2004.

## **5.2 Electricity & Gas PSOs**



## Quality of Supply

In electricity, under condition 13 of the ESB Distribution System Operator's licence, in 2001 the ESB submitted to the CER a report setting out the criteria against which the performance of the Distribution Business would be measured. These criteria included data on the number of disconnections, the number of customer minutes lost etc.

Every year since 2001, the DSO has submitted an annual performance report outlining performance against these criteria. This report is published by the CER in September of every year. The CER can amend these performance criteria from time to time. Condition 11 of the Transmission System Owner's licence and condition 16 of the Transmission System Operator's licence include equivalent conditions. The TSO does not submit an annual performance report. However, transmission performance indicators are provided for in the regulated accounts.

In 2004, the CER issued gas transmission and distribution system operator licences to BGE Networks (at that time known as BGE Transportation). Conditions 14 and 18 of the distribution licence and conditions 15 and 19 of the transmission licence refer to quality and safety obligations placed on BGE.

## 5.2 Consumer Protection Measures

Customer protection obligations are binding on all suppliers serving residential customers. The application of these measures to business customers is at the discretion of the CER.

Customer protection measures take the form of supplier codes of conduct and supplier charters (contracts). These measures are broadly equivalent for electricity and gas.

### 5.2.1 Supplier Codes of Conduct & Customer Charters – Gas & Electricity

Suppliers are currently required to produce the following Codes of Practice in order to provide their customers with a level of customer protections:

Code of Practice for Marketing

Code of Practice for Billing, Payment and de-energisation/disconnection

Code of Practice on Complaints Handling

Code of Practice for Vulnerable Customers – if serving domestic customers

Customer Charter – if serving domestic customers

The CER issued guidelines in relation to all of these Codes of Practice and the Customer Charter to ensure consistency in their production. The early 2007 the first version of these codes were published by suppliers and they have been operating for the duration of this report.

#### 5.2.1.1 Contract Transparency – Gas & Electricity

Under condition 12 of the natural gas supply/shipping licence BGS is required to publish the terms on which it supplies natural gas to eligible customers. An addition, condition 23 of the gas supply/shipping licence states that all suppliers of domestic customers must supply the CER with all relevant contracts or arrangements set out in a standard form, which shall be approved by the CER.

Condition 7 of the electricity supply licence underlines that detailed terms 'as are appropriate for the purpose of the agreement' are to be set out by the licensee in making an offer to enter into an agreement for the provision of relevant metering equipment. Also condition 19 of the electricity supply licence states that all suppliers of customers, 'whose consumption of electricity at any single premises in any 12 month period is estimated and calculated to be or likely to be less than 10,000 kWh or such other figure as the CER may substitute must supply the CER', must supply the CER with all relevant contracts or arrangements set out in a standard form, which shall be approved by the CER.

5.2.1.2 Complaints Arbitration –Gas & Electricity Statutory Instrument SI 452 of 2004 for Natural Gas and SI 60 of 2005 for Electricity increased the Commission's responsibility in the area of customer protection. In particular both SI 452 and SI 60 provide the Commission with the legal remit to independently resolve disputes between customers and licensed suppliers, the distribution system operator in electricity and, in the case of natural gas, natural gas licence holders.

The CER has established a dedicated Customer Affairs Team (CAT) which provides this independent complaints resolution service for small business and domestic customers. If a customer cannot resolve their complaint with their supplier or network operator following completion of their complaints handling process, they may refer their complaint to the CAT for consideration. The CAT examines the complaint interacting with suppliers and network operators to determine the root of the problem. Following completion of any necessary investigation the CAT issues a decision in relation to the matter on behalf of the CER. Where appropriate the CER may direct a supplier or network operator to undertake an action or compensate a customer in relation to their complaint.

The CAT received 159 new complex customer complaints which required investigation from mid 2007 to mid 2008. Awards totalling over €34,000 were made to customers following determinations made by the Commission.

The single biggest area of complaint remains the matter of estimated meter readings in the electricity sector. While ESB Networks aim to take four official meter readings per year, a number of customers will receive less than four readings due to various reasons, including no access to the premises.

### **Supplier of Last Resort for Electricity & Gas**

Further to S.I. 60 of 2005, the CER may appoint and direct an electricity Supplier to Last Resort to serve customers where either a supplier has exited the market or where specific exceptional circumstances (i.e. safety concerns) warrant such a direction. It is anticipated that similar conditions will be legislated for in the gas market.

In April 2005, the CER published a paper of SoLR options for both the electricity and gas markets including proposed rules for the allocation and duration of the role, as well as principles governing the recovery of extraordinary costs by the SoLR(s). In addition this paper specified the circumstances that would trigger such this process. The CER considered that 'triggers' such as abrupt supplier exit, supplier bankruptcy and supply licence revocation would be considered here.

A decision on this matter was issued in April 2006 which appointed ESB PES and BGS as SoLRs for the electricity and gas markets respectively.

In July 2007, the CER published a consultation on possible changes to Supplier of Last Resort rules and policy in the electricity sector to take account of changing market rules and conditions arising from the commencement of the SEM in November 2007. A decision will be made on this issue prior to the commencement of the SEM.

## **5.3 Electricity-Specific PSOs**

### **'Universal Service'/ Supply Obligation**

Under S.I. 60 and under its supply licence, ESB PES, as the 'default supplier', must meet all reasonable requests for supply. The CER determines what constitutes a reasonable request for supply. No such obligation to supply is placed on the BGS in the gas market. As noted above the ESB PES must serve customers according to standard terms and conditions and shall charge tariffs approved by the CER.

## Network Access for Rural Customers

The Electricity Regulation Act, 1999, states that the CER should have regard to customers located in rural areas. Condition 2 of the ESB Distribution System Operator's licence (Connection to and use of the distribution system) stipulates that the ESB DSO shall publish, and make available on their website, a statement of charges for connection to the distribution system. These charges include standardised connection charges for domestic rural customers and are approved by the CER.

Again, no such obligation to supply is placed on the BGS in the gas market.

## Environmental Protection/Fuel & Generation Security of Supply

In Ireland, the term – 'Public Service Obligation' – refers to the obligations placed on suppliers in the areas of environmental protection and security of supply.

The objectives of the 'PSO' are to:

- ensure reasonable self-sufficiency in electricity generation capacity by utilising peat as a primary fuel source;
- promote renewable energy sources to help protect the environment.

This 'PSO' is imposed by the Department of Communications, Energy and Natural Resources (DCENR) on the ESB PES as wholesale purchaser of energy from renewable, peat-generated energy and emergency generation. The CER is obliged to approve these costs under section 9(2) and (3) of the Electricity Regulation Act 1999, as amended by S.I. 217 of 2002. The implementation of the PSO levy commenced on the 1<sup>st</sup> January 2003 and will terminate no later than the 31<sup>st</sup> December 2021.

The costs of purchasing this energy – above-and-beyond a regulated *ex ante* 'Best New Entrant' market price – are levied on all customers via their supplier. Costs relating to the administration of the scheme are also included in this levy. All suppliers, the ESB DSO, ESB PES and Eirgrid as TSO are notified of the final determination of the above data no later than the August 1<sup>st</sup> in the year immediately preceding the levy period.

For 2007, the CER has calculated the PSO levy to be €0.

### Information on Energy Sources for Electricity

As required by Directive 2003/54/EC and S.I. 60 of 2005 all suppliers must provide reliable information on all bills/ promotional material sent to customers regarding the contribution of each energy source to the overall fuel mix of the supplier concerned over the preceding year. In June 2006 the CER published a decision on how suppliers must publish this information. This decision stated that the following categories of energy source must be used for the purposes of fuel mix disclosure; Coal, Gas, Peat, Pumped Storage, Renewables, CHP, Heavy Fuel Oil, Distillate Oil and Other.

When this requirement is implemented this measure will help customers to make informed decisions regarding the electricity supplied to them, particularly in relation to electricity supplied from green or sustainable sources.

## 5.4 Regulated Supply Tariffs

Another form of customer protection imposed is placed on ESB PES and BGS as incumbent suppliers in the electricity and gas markets respectively. Tariffs for all customer categories, except power producers purchasing gas, are proposed on an annual basis by both suppliers and are subsequently approved by the CER.

### Electricity Supply Tariffs

Regulation of end-user tariffs in the electricity market is the responsibility of the CER under S.I. 445 of 2000 and S.I. 60 of 2005. This responsibility concerns the setting of the revenue of ESB PES.

End-user tariffs are charged to the following customer categories;

1. Domestic Urban (residential customers served by three-phase low voltage network);
2. Domestic Rural (residential customers served by single-phase low voltage network);
3. Residential Business (connections where a customer is both residential and commercial);
4. Small (a) Commercial & (b) Industrial (General Purpose: customers with a maximum import capacity of less than 50kVA);

5. (a) Commercial & (b) Industrial Low Voltage Max Demand (customers with a maximum import capacity of 50kVA or above);

All ESB PES customers pay bundled tariffs based on pass-through generation, transmission, supply, and public service obligation costs approved annually by the CER for each of the regulated businesses. Customers connected to the distribution system also pay distribution charges.

The majority of regulated ESB PES supply tariffs are formulated based on the characteristics of customers connected to a given network voltage level. Therefore, for the most part, tariff categorisation is not based on energy usage. The main exception to this is the division between domestic customers, small businesses and medium sized businesses all of whom are connected to the low voltage network. Small business customers are commercial customers with a connection capacity of less than 50kVA. Medium-sized business customers are those commercial customers with a kVA of 50 or above<sup>13</sup>.

Each tariff structure comprises a two-month standing charge and variable kWh charge. Larger customers also pay capacity charges and maximum demand charges. These tariffs are based on legacy tariff structures – changes in costs result in ‘top-down’ adjustment of supply tariff components.

These ESB PES supply tariffs are calculated annually based on demand and customer forecasts and are published at the beginning of September for application from January 1<sup>st</sup> of the following year. Any deviation in these demand and customer figures is included in subsequent tariff reviews.

These tariffs are set for all categories of customer. As such, all customers making reasonable requests for supply are entitled to be charged by ESB PES according to these regulated tariffs.

### **Natural Gas Supply Tariffs**

Regulation of charges in the natural gas market is the responsibility of the CER for Energy regulation under the Gas (Interim) (Regulation) Act, 2002. This responsibility concerns the setting of BGS revenue and charges.

The Irish gas market consists of the following major categories;

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<sup>13</sup> It should be noted that this differentiation between small and medium-sized businesses is purely illustrative and does not supersede the definition of these customers as defined in electricity Directive 2003/54/EC.

- Large end user market (over 264 GWh pa);
- Gas Fired Generation Market;
- The Regulated tariff formula market (5.3GWh – 264GWh);
- The market for customers paying industrial and commercial tariffs (up to 5.3 GWh).
- Domestic customers.

BGS gas supply tariffs to final customers are segregated into two categories:

- Customers with a consumption level of less than 5.3 GWh per annum:
  - the *revenue control formula* is applied to this sector;
- Customers with a consumption level of between 5.3 GWh and 264 GWh per annum at a single supply point:
  - the *regulated tariff formula* is applied to this sector;
- However gas customers within this consumption level that utilise the gas to produce electricity, including combined heat and power, have the choice between a RTF tariff and an 'unregulated' tariff.

#### 6.4.1.1 Small Customers (consumption level < 5.3 GWh/annum)

BGS' allowed revenue – relating to the Domestic and Industrial & Commercial markets – is calculated by the application of a revenue control formula. The overall level of gas procurement and operating costs and a suitable margin on costs is approved through this revenue control formula by the CER.

The table below outlines the separate components of the revenue control formula:

<b>BGE Energy Supply Revenue Control Formula</b>	
<i>Component</i>	<i>Basis</i>
Transmission & Distribution costs (pass-through)	These figures are calculated by the multiplication of estimated capacity and commodity figures of BGS's customers by the transmission and distribution tariffs. The CER examines these forecasted figures and

	reconciled at the end of the year once an outturn value is known.
Gas procurement costs (pass-through)	BGS must procure gas economically, in line with condition 17 of the BGS Gas Supply Licence.
BGS's own supply costs	Indexed to growth/decline in numbers of BGS's customers and in GWh sales.

The CER also carried out a revenue review project in relation to Bord Gáis Energy Supply (BGS) during 2007. A decision on the allowed revenues for BGS for the control period of 2007/08 – 2011/12 as well as targets and incentives for the business to achieve will be published by the CER in September 2007.

In addition, new tariff structures for domestic and small and medium sized businesses will be implemented by BGS on 1 October 2007. This follows a review of tariff structures carried out by the CER during 2007. These new tariff structures have been designed to ensure greater levels of cost reflectivity as well as improving levels of choice for natural gas customers. They also provide a more transparent tariff against which other suppliers may wish to compete. In addition the new tariffs have been designed to encourage improved efficiency. Levels of fixed or standing charges in the tariff have been reduced significantly which means that the final level of a customer's bill is more closely linked to unit charges than in the past.

#### 6.4.1.2 Large Customers (consumption level between 5.3 GWh/annum & 264 GWh/annum)

The *Regulated Tariff Formula* (RTF) applies to this customer category. However gas customers within this consumption level that utilise the gas to produce electricity, including combined heat and power have the choice between a RTF tariff and an 'unregulated' tariff.



<b>BGE RTF Products</b>	
<i>Product</i>	<i>Description</i>
Fixed RTF	This product is offered for terms of 3, 6, 9 and 12 months. The gas commodities are fixed for each month when the RTF offer is accepted. It is stated in CER/04/306 of the 30 <sup>th</sup> September 2004 that 'BGS must use the International Petroleum Exchange (IPE) futures settlement prices for each month of the RTF contract period as quoted on the IPE on the first business day immediately proceeding the date on which the customer is quoted'.
Variable RTF	This product does not last for a limited time period. This product continues until either a switch in supplier occurs or a fixed term RTF is accepted. The average of the relevant International Petroleum Exchange (IPE) prices for a month is utilised to determine the price a customer is charged in the subsequent month. It is stated in CER/04/306 of the 30 <sup>th</sup> September 2004 that "the IPE index term is calculated as the average of the IPE settlement prices for month M for each business day up to and including the second last business day of month M-1".
Default RTF	<p>This is put in force when a customer isn't supplied by an independent supplier and has not indicated in writing its acceptance of either of the other two RTF products.</p> <p>This product is the same as the variable RTF product except that the price the customer is charged in the first month is set as the market price. It is stated in CER/04/306 of the 30<sup>th</sup> September 2004 that 'the IPE index for the first month of the period will be set at the IPE price on the last business day of the previous month'.</p>

BGS is required to submit the standard RTF supply contract for approval by the CER. The RTF is based on the following formula:

$$P = [(IPE\ Index + Tgb + Psw) * EUR/GBP] + Tti + Tdi + Si + Fixed\ Charges$$

P	the price of gas for the customer
IPE Index	the monthly International Petroleum Exchange price index at the national balancing point in Great Britain (GB)
Tgb	GB transportation charges
Psw	Swing Premium
EUR/GBP	the Euro Sterling exchange rate
Tti	Transportation charges for the Irish Interconnectors and on-shore Ireland Transmission System
Tdi	Transportation charges for the Irish Distribution System
Si	Shrinkage charges on the Irish System
Fixed Charges	Fixed charge to cover BGS operating costs and margin

## Appendix A: Functions of the Commission for Energy Regulation

Section 8 of the Electricity Regulation Act, 1999 established the Commission for Electricity Regulation (CER). Section 9 detailed the functions of the new Commission with respect to its role in the Irish electricity sector. This Act came into practical effect in September 1999.

Section 5 of the Gas (Interim) (Regulation) Act, 2002 extended this legal role and the functions of the CER to the gas sector, thereby renaming the CER as the Commission for Energy Regulation. This Act also extended the functions of the CER in the electricity industry.

Subsequent pieces of secondary legislation, or statutory instruments, have been enacted since 1999, which have further added to these functions. Following the introduction in 2003 of electricity Directive 2003/54/EC and gas Directive 2003/55/EC, three pieces of legislation amended these functions. One of these concerned the CER's electricity functions and two concerned the gas sector – Statutory Instrument Number 60 of 2005 (European Communities (Internal Market in Electricity) Regulations 2005); Statutory Instrument Number 452 of 2004 (European Communities (Internal Market in Natural Gas) Regulations 2004) (Number 2), and Statutory Instrument Number 320 of 2005 (European Communities (Internal Market in Natural Gas) Regulations 2005).

In addition, the enactment of the Energy (Miscellaneous Provisions) Act 2006 has expanded the functions of the Commission to include the development and regulation of an all island energy market and the regulation of natural gas and electricity with respect to safety.

As such, the consolidated legal 'Functions of Commission', as contained in section 9 of the Electricity Regulation Act, are as follows:

“9.—(1) The Commission shall have the following functions, namely—

(a) to publish, pursuant to a policy direction or directions of the Minister, which shall be made publicly available when given to the Commission, proposals for a system of contracts and other arrangements, including appropriate rights and obligations, for trading in electricity,

(b) It shall be, and be deemed always to have been, a function of the Commission to participate in the development of an all-island energy market, including the preparation of proposals and the provision of advice to the Minister in regard to any part or aspect of the establishment, management and operation of such a market,<sup>14</sup>

(c) It shall be a function of the Commission to regulate the activities of electrical contractors with respect to safety.

(d) The Commission may appoint a person or persons to be a designated body for the purposes of this section and such body may be referred to as an Electrical Safety Supervisory Body,

Details of function 9 (c) above are contained in the Energy (Miscellaneous Provisions) Bill 2006, Section 4, 9D (1) – (28),

(e) to engage in a public consultation process on the Procedures to be adopted by the Commission to implement the proposals drawn up under paragraph a),

(f) to regulate the activities of natural gas installers undertakings and natural gas installers, with respect to safety,<sup>15</sup>

(g) to advise the Minister on the impact of electricity Generation in relation to sustainability, and international agreements on the environment to which the State is or becomes a party,

(h) following the public consultation process referred to in Paragraph (b) and taking account of matters raised in the public consultation process, to make regulations, subject to the consent of the Minister, establishing a system of trading in electricity, including the supervision and review of such a system by the Commission, and

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<sup>14</sup> Details of this function are outlined in the Energy (Miscellaneous Provisions) Act 2006, Part 2, Section 3, 9B (2) – (6).

<sup>15</sup> Details of this function are outlined in the Energy (Miscellaneous Provisions) Act 2006, Part 3, Sections 12 & 13.

(ha) to facilitate arrangements, to apply until 19 February 2005, approved of by the Commission, which have the effect of securing that the public electricity supplier is able to satisfy demand for electricity from final customers, who are not supplied in accordance with a licence issued under paragraphs (b), (c) or (d) of *section 14(1)*, in the first instance from generation stations currently owned by the Board,

(hb) to examine charges, and the costs underlying such charges, or any proposals to alter such charges, for electricity supplied by the public electricity supplier in accordance with paragraph (da) to final customers who are not being supplied in accordance with a licence issued under paragraphs (b), (c) or (d) of *section 14(1)*,

(hc) following an examination pursuant to paragraph (db) and where the Commission considers it necessary, to issue directions or approvals to the public electricity supplier in relation to either or both the nature and the amount of any charge or proposed charge referred to in paragraph (db),

(hd) to facilitate arrangements on an economic basis after 19 February 2005, approved by the Commission, which have the effect of securing that the public electricity supplier is able to satisfy demand for electricity from final customers, who are not supplied in accordance with a licence issued under paragraphs (b), (c) or (d) of *section 14(1)*,

(he) to examine charges, and the costs underlying such charges, or any proposal to alter such charges, for electricity supplied by the public electricity supplier to final customers who are not supplied in accordance with a licence issued under paragraphs (b), (c) or (d) of *section 14(1)*,

(hf) following an examination pursuant to paragraph (de) and where the Commission considers it necessary, to issue directions or approvals to the public electricity supplier in relation to either or both the nature and the amount of any charge or proposed charge referred to in paragraph (de),

(hg) to ensure such arrangements are in place, as the Commission deems appropriate, which have the effect of securing the extent to which each generating station, group of generating stations or all generating stations, owned by the Board, supplies electricity to or is supplied with electricity by, either or both, the public electricity supplier, suppliers and generators licensed under *section 14(1)*,

(hh) to examine charges, and the costs underlying such charges, or any proposal to alter such charges, as the Commission deems appropriate, for electricity supplied from each generating station, group of generating stations or all generating stations, owned by the Board, to the public electricity supplier, suppliers and generators licensed under *section 14(1)*,

(hi) following an examination pursuant to paragraph (hh) and where the Commission considers it necessary, to issue directions or approvals to the Board in relation to either or both the nature and the amount of any charge or proposed charge referred to in paragraph (hh),

(i) to advise the Minister on the development of the electricity and gas industries, as appropriate, and on the exercise of the functions of the Minister under this Act.”,

(j) to contribute towards the development of the internal market by co-operating with other national regulatory authorities and with the European Commission,

(k) to grant, monitor the performance of, modify, revoke and enforce licences and authorisations pursuant to this Act,

(l) to publish information and advice and settle disputes in accordance with the provisions of this Act,

(m) to carry out the role assigned to it by *section 39*, and

(n) to ensure that there is, in accordance with Article 3.5 of the Directive, a high standard of protection for final customers in their dealings with licensed suppliers,

(1A) For the purposes of this Act, the functions of the Commission under the European Communities (Internal Market in Electricity) Regulations 2000 and 2005 shall be deemed to be functions of the Commission under this Act.

(1B) The Commission shall be responsible for ensuring non-discrimination, effective competition and the efficient functioning of the natural gas market, by monitoring in particular –

(a) the rules on the management and allocation of interconnection capacity, in conjunction with the regulatory authority or authorities of those Member States with which the interconnection exists;

(b) any mechanisms to deal with congested capacity within the natural gas system;

(c) the time taken by transmission and distribution system operators to make connections and repairs;

- (d) the publication of appropriate information by transmission and distribution system operators concerning interconnectors, grid usage and capacity allocation to interested parties, taking into account the need to treat non-aggregated information as commercially confidential;
- (e) the effective unbundling of accounts to ensure that there are no cross subsidies between transmission, distribution, storage, LNG and supply activities;
- (f) the access conditions to storage, linepack and to other ancillary services;
- (g) the extent to which transmission and distribution system operators fulfil their functions;
- (h) the level of transparency and competition.

(1BA)

(a) Any dispute between a transmission, distribution or LNG system operator and a person as respects—

- (i) the matters specified in section 9(1B),
- (ii) the terms and conditions for the provision of balancing services or the methodologies used to calculate such terms and conditions, or
- (iii) the terms and conditions, including tariffs or the methodologies used to calculate or establish such terms and conditions for connection and access to the national networks

shall, upon the application of such person, be determined by the Commission, and the Commission shall issue a direction regarding its determination and the system operator shall comply with and be bound by any such determination.

(b) The Commission shall issue the determination referred to in paragraph (a) within 2 months from the date of the receipt of the complaint. This 2 month period may be extended by 2 months where the Commission seeks additional information in the matter, and such further extension as may be consented to by the applicant.

(c) This section does not apply to a dispute between a final customer and a system operator where the dispute concerns a refusal to offer to enter into a third party access agreement within the meaning of section 10A or 10B of the Gas Act 1976.

(1C) The Commission shall in its annual report under paragraph 25(c) of the Schedule, include details on the outcome of their monitoring activities of the natural gas market referred to in subsection (1B).

(1D) The Commission shall in relation to electricity monitor:

(a) the rules on the management and allocation of interconnection capacity, in conjunction with the regulatory authority or authorities of those Member States with which interconnection exists,

(b) any mechanisms to deal with congested capacity within the national electricity system,

(c) the time taken by the transmission system operator and the distribution system operator to make connections and repairs,

(d) the publication of appropriate information by the transmission system operator and the distribution system operator concerning interconnectors, grid usage and capacity allocation to interested parties, taking into account the need to treat non-aggregated information as commercially confidential,

(e) the effective unbundling of accounts to ensure that there are no cross-subsidies between generation, transmission, distribution and supply activities,

(f) the terms, conditions and tariffs for connecting new producers of electricity to guarantee that these are objective, transparent and non-discriminatory, in particular taking full account of the costs and benefits of the various renewable energy sources technologies, distributed generation and combined heat and power,

(g) the extent to which the transmission system operator and the distribution system operator fulfil their functions in accordance with statutory requirements, and

(h) the level of transparency and competition.



(1E) The Commission shall in its annual report under paragraph 25(c) of the Schedule, include details on the outcome of its monitoring activities referred to in subsection (1D).

(1F) It shall be a function of the Commission to ensure that there are adequate safeguards to protect vulnerable customers (including the elderly and disabled) which shall include measures to help such customers avoid disconnection and the Commission may give, to the holder of a licence issued under *section 14*, such directions as it considers necessary to carry out its functions under this subsection.

(2) Notwithstanding the generality of *subsection (1)(a)*, a policy direction of the Minister shall include a direction that procedures of the Commission enable the implementation of orders made by the Minister under *sections 39 and 40*.

(3) It shall be the duty of the Minister and the Commission to carry out their functions and exercise the powers conferred on them under this Act in a manner which—

(a) in relation to electricity, does not discriminate unfairly between holders of licences, authorisations and the Board or between applicants for authorisations or licences,

(b) in relation to gas, does not discriminate unfairly between holders of licences, consents and Bord Gáis Eireann or between applicants for consents or licences, and

(c) the Minister or the Commission, as the case may be, considers protects the interests of final customers of electricity or gas or both, as the case may be.

(4) In carrying out the duty imposed by subsection (3), the Minister and the Commission shall have regard to the need:

(a) to promote competition in the generation and supply of electricity and in the supply of natural gas in accordance with this Act;”,

(b) to secure that all reasonable demands by final customers of electricity for electricity are satisfied;

- (c) to secure that licence holders are capable of financing the undertaking of the activities which they are licensed to undertake;
  - (d) to promote safety and efficiency on the part of electricity and natural gas undertakings;
  - (e) to promote the continuity, security and quality of supplies of electricity;
  - (f) to promote the use of renewable, sustainable or alternative forms of energy;
  - (g) to secure that there is sufficient capacity in the natural gas system to enable reasonable expectations of demand to be met; and
  - (h) to secure the continuity, security and quality of supplies of natural gas.
- (5) Without prejudice to subsections (3) and (4), it shall be the duty of the Commission:
- (a) to take account of the protection of the environment;
  - (b) to encourage the efficient use and production of electricity;
  - (c) to take account of the needs of rural customers, the disadvantaged and the elderly;
  - (d) to encourage research and development into—
    - (i) methods of generating electricity using renewable, sustainable and alternative forms of energy and combined heat and power, and
    - (ii) methods of increasing efficiency in the use and production of electricity;
  - (e) to require that the system operator gives priority to generating stations using renewable, sustainable or alternative energy sources when selecting generating stations, and
  - (f) to take account of the rights of customers, particularly household customers and small enterprises, to be supplied with electricity of a quality specified by the Commission pursuant to Regulation 26 of the European Communities (Internal Market in Electricity) Regulations 2005 at reasonable, easily and clearly comparable and transparent prices.,

- (6) In carrying out its functions pursuant to this Act, the Commission shall:
- (a) act in as consistent a manner as practicable, and
  - (b) unless it considers it impractical to do so, give in writing its decisions together with the reasons for reaching such decisions.”