



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**REGULATOR'S 2012 NATIONAL REPORT TO THE EUROPEAN  
COMMISSION**

**COMMISSION FOR ENERGY REGULATION (CER) - IRELAND**

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## 1. Foreword from CER Commissioners



*Chairperson Dermot Nolan*



*Commissioner Garrett Blaney*

### Introduction

The Commission for Energy Regulation (CER) is the national energy regulatory authority for Ireland. We are both Ireland's economic energy regulator, with our objective being to protect energy customers, and we are the country's safety energy regulator, where our core focus is on protecting lives and having a world class energy safety record.

These different objectives continued to shape the work of the CER in 2011 in both our economic and safety roles. Developments during the year included the CER's decision to de-regulate electricity prices, measures taken to enhance customer protection, the publication of the CER's smart metering trial results and progress in relation to the wholesale Single Electricity Market (SEM). In safety regulation the CER continued to implement its "downstream" safety functions in electricity and gas, while also developing its new role as regulator of Ireland's petroleum extraction and exploration activities.

The CER's economic role and associated energy policy developments in 2011, including those related to Europe, are detailed in this annual report for the European Commission, with a summary provided below. Where key policy developments continued into the first half of 2012, they are also referenced in this report for completeness.

### Retail Price De-regulation

Following from the CER's "Roadmap" on the criteria for electricity retail (supply) price de-regulation, in March 2011 the CER decided to de-regulate prices for Ireland's domestic (residential) electricity customers. This followed a similar decision to de-regulate the business markets the previous year. This meant that, from 4<sup>th</sup> April 2011, Electric Ireland, the new rebranded name for ESB Customer Supply, has been able to set its own electricity prices for all its customers without prior CER approval.

This milestone CER decision was made because the Roadmap criteria had been met, given that the retail electricity market had become sufficiently competitive. In fact between early 2009 and late 2011 there were over 1.2 million supplier switches by Irish electricity customers, over 40%

of the market, one of the highest supplier switching rates in Europe. This success story has been facilitated by the CER approving a free and simple supplier switching process that –has given Irish customers choice and price discounts. This in turn has put downward pressure on prices, which is of particular value in the present difficult economic climate. In the long run, the CER believes that price de-regulation will continue to drive further choice and competitive prices for customers.

Competition took off a little later in the gas market than in electricity, but is catching up quickly, with circa 29% of customers switching supplier over the two years to end 2011. As a result, in June 2011 the CER published a Roadmap on the criteria for de-regulating Bord Gáis Energy's gas prices (similar to the electricity Roadmap). In October the CER de-regulated the business gas markets as the Roadmap criteria had been already met, given that Bord Gáis had a business market share of less than 50%. Bord Gáis Energy can now set its own tariffs for business gas customers, which should further help competition. The domestic sector is currently under review.

### **Customer Protection Measures**

The CER's customer survey in 2011 found that almost all customers had a positive experience in switching energy supplier. To help ensure that customers continue to benefit from competition and to implement European legislation, in 2011 the CER embarked on new customer protection measures. This included a requirement for suppliers to provide detailed consumption information on bills, a CER framework for accrediting energy price comparison websites and extra protection for vulnerable customers. Already the CER has accredited an energy comparison website as it met the standards set in the CER's framework, and this should assist customers in getting the best tariff deal. The CER intends to develop further customer protection measures in 2012.

The rate of energy disconnections stabilised in 2011 at about 0.8% of all customers (this includes vacant premises), having risen in 2010 due primarily to the economic recession. This followed the CER's requirement that suppliers must give customers in arrears the opportunity to enter a payment plan or to avail of a free "pay as you go" meter before any disconnection moves can be made. These meters help customers to manage their payments better and avoid building-up arrears. The CER urges customers struggling to manage their household energy bills to contact their supplier and see if they can avail of a free "pay as you go" meter.

In 2011 the CER decided on the related issue of "debt hopping", to reduce the situation where some customers were changing supplier in order to avoid paying arrears, exacerbating bad debt levels in the industry and raising costs for all customers. The CER decided on a "bad debt flag" solution in which a supplier would be informed if a potential new customer has a large amount of debt so it could then decide if it will accept that customer.

The CER is monitoring all of these evolving customer issues. The CER's Energy Customers Team also continues to provide a free dispute resolution service for issues that customers may have with their energy supplier – please see [www.energycustomers.ie](http://www.energycustomers.ie) for further information.

### **Energy Prices**

The price of electricity and gas to customers is heavily influenced by global wholesale gas prices which are outside of Ireland's control. These international gas prices fell significantly in

late 2008 and into 2009 due to the global economic downturn which, combined with retail competition, led to lower electricity and gas prices for Irish customers. However, rising international wholesale gas prices since then have put upward pressure on energy prices in 2011 in many countries, including the UK and Ireland. In this environment, Bord Gáis Energy applied to the CER for a 28% rise in its domestic gas tariffs from October 2011. Following a review and a public consultation, the CER decided to disallow certain costs and approve an overall gas price rise of circa 22%. As discussed earlier, electricity prices have been fully de-regulated, though it is noted that there have been some electricity supplier price increases in 2011 due to the higher wholesale gas costs.

The CER appreciates that energy price rises are difficult for customers. We encourage customers to “shop around” among suppliers to get the best possible deal. Furthermore, customers who have difficulty in meeting energy payments are advised to engage early with their energy supplier.

### **Wholesale Electricity Market**

The cost of generating electricity typically accounts for over half of a customer’s electricity bill. The CER has a key role in ensuring that electricity generation costs are at competitive levels by regulating the wholesale all-island Single Electricity Market (SEM). The SEM is governed by the SEM Committee (the CER, the Utility Regulator in Belfast and an independent member) and is designed to run the cheapest generators to meet customer demand on the island, while maximising the sustainability and reliability of electricity.

Assisted by clear market rules and regulation, since it started in November 2007, the SEM has encouraged more renewable generation and modern efficient gas plants into the island. This has helped to keep prices competitive, ensure continued security of electricity supply and provide environmental benefits.

Policy developments in SEM in 2011 included proposed changes to the Capacity Payment Mechanism. The “market power and liquidity” project was mostly completed too, with a November 2011 proposal to allow ESB to horizontally integrate its generation business. The “DS3” programme also commenced, as referred to in the renewables section, next.

The biggest area of work ahead, however, relates to the integration of SEM into Europe in the coming years, as physical interconnection increases with the UK and the EU moves toward a single internal “target model” electricity market. Given that the SEM design is different from that of most EU countries, the SEM Committee has been given an extra two years - until 2016 - to achieve compliance with this target model. In 2011 the SEM Committee established a project team to explore options for adapting SEM design to achieve compliance, followed by a number of stakeholder workshops. The SEM Committee published a major consultation paper on the matter in January 2012 and a decision on the next steps to achieve compliance will be made later in 2012. It is envisaged that this workstreams will be a key area of work for the CER over the next few years.

### **Renewable Generation**

2011 saw further wind farms connect to the electricity network, providing some hedge against rising international gas costs. Already about 20% of Ireland’s electricity consumption comes from renewable generation - mostly wind farms - one of the highest levels in the EU. The CER is

working to increase this further in order to meet the Government's 40% renewables target for 2020. This is facilitated by the CER's "Gate 3" connection regime, with the final of the 4,000 MW of Gate 3 renewable connection offers issuing last August. With the completion of these offers, the CER's Gate 3 Liaison Group meetings with industry are now focusing on post connection issues.

Another focus in relation to the 40% 2020 target is the "DS3" programme being pursued by the Transmission System Operators on the island, overseen by the CER and Utility Regulator. It consists of 11 workstreams, including a review of the ancillary services regime and other aspects of system operation, which are needed to safely and efficiently manage the system with more wind in the years ahead. This will involve public consultations during 2012, with any policy changes to be approved by the Regulatory Authorities.

## **Energy Networks**

The new 500 MW EirGrid East-West electricity interconnector to the UK, which has been overseen by the CER, is within budget and on target for commercial operation before the end of 2012. This has been a major project in recent years and its completion will facilitate more wind on the system and promote more cross-border trade in the SEM, to the benefit of customers. At the same time investment in the on-shore electricity network remains a priority, in order to provide for a high quality energy supply and to facilitate the connection of more wind farms.

In gas networks, 2011 saw the commencement of the CER's review of the allowed revenue and tariffs for the monopoly Bord Gáis Networks transmission and distribution systems, covering the 5 years to 2017. The key objective of this exercise is providing "value for money" to customers and setting appropriate revenues to adequately maintain and develop the gas network.

During 2011 and 2012 the CER also consulted extensively on the regulatory treatment of the Bord Gáis gas interconnectors. In June 2012 the CER published its decision on this matter. The decision sets out a forward looking Long Run Marginal Cost (LRMC) tariff methodology for dealing with all entry points (existing and new) to the Irish transmission system. The decision allows for a reward for efficient new sources of gas while at the same time containing upward pressure on tariffs and recognising the crucial role the interconnectors play in securing Ireland's long term energy supply requirements.

## **Smart Meters**

In November 2011 the CER published a consultation paper proposing to roll-out electricity and gas "smart meters" to all homes and many businesses across Ireland in the coming years. This followed the completion of electricity and gas pilot trials during which approximately 12,000 smart meters were rolled-out in 2009 to 2010. The trials showed that, taking account of the costs involved, smart meters could provide a net benefit to customers and the country of more than €220 million over 20 years.

This benefit is provided because smart meters can record customers' use of energy over short intervals, for example every 30 minutes. Thus they facilitate the provision of more consumption information to customers and they allow suppliers to charge more varying electricity prices to reflect the different cost of electricity at different times, reducing overall and especially peak energy consumption. Smart meters therefore help reduce energy bills, improve energy efficiency and lower Ireland's CO<sub>2</sub> emissions, which is good for the environment.

The final decision to move to Phase 2 of the project which will see the development of the high level design for the rollout was published in July 2012.

### **Next Steps**

Key areas of work in 2012 include developing our new role as a petroleum safety regulator, deciding on how SEM will integrate into the European electricity markets, finalising our 5-year review of the allowed revenue for the gas networks and deciding on a national roll-out programme for smart meters.

Beyond this, the CER looks forward to becoming Ireland's economic regulator for public water supplies, following the Government's recent announcement on this matter. It is expected that this area will feature heavily in our work programme next year.

The CER will remain focused on providing an efficient regulatory service to all our customers and meeting our expanding statutory duties. For further information on all aspects of the CER's work, please see the CER's website at [www.cer.ie](http://www.cer.ie).



Dermot Nolan  
Chairperson



Garrett Blaney  
Commissioner

## **2. Overview of the CER**

### **2.1 Introduction**

The Commission for Energy Regulation (CER) is the independent body responsible for regulating the natural gas and electricity markets in Ireland, and is the safety regulator of electricity, natural gas and petroleum exploration. As an economic and safety energy regulator, our mission is as follows:

*In a world where energy supply and prices are highly volatile, the mission of the CER, acting in the interests of consumers is to ensure that:*

- *the lights stay on,*
- *the gas continues to flow,*
- *the prices charged are fair and reasonable,*
- *the environment is protected, and,*
- *energy is supplied safely.*

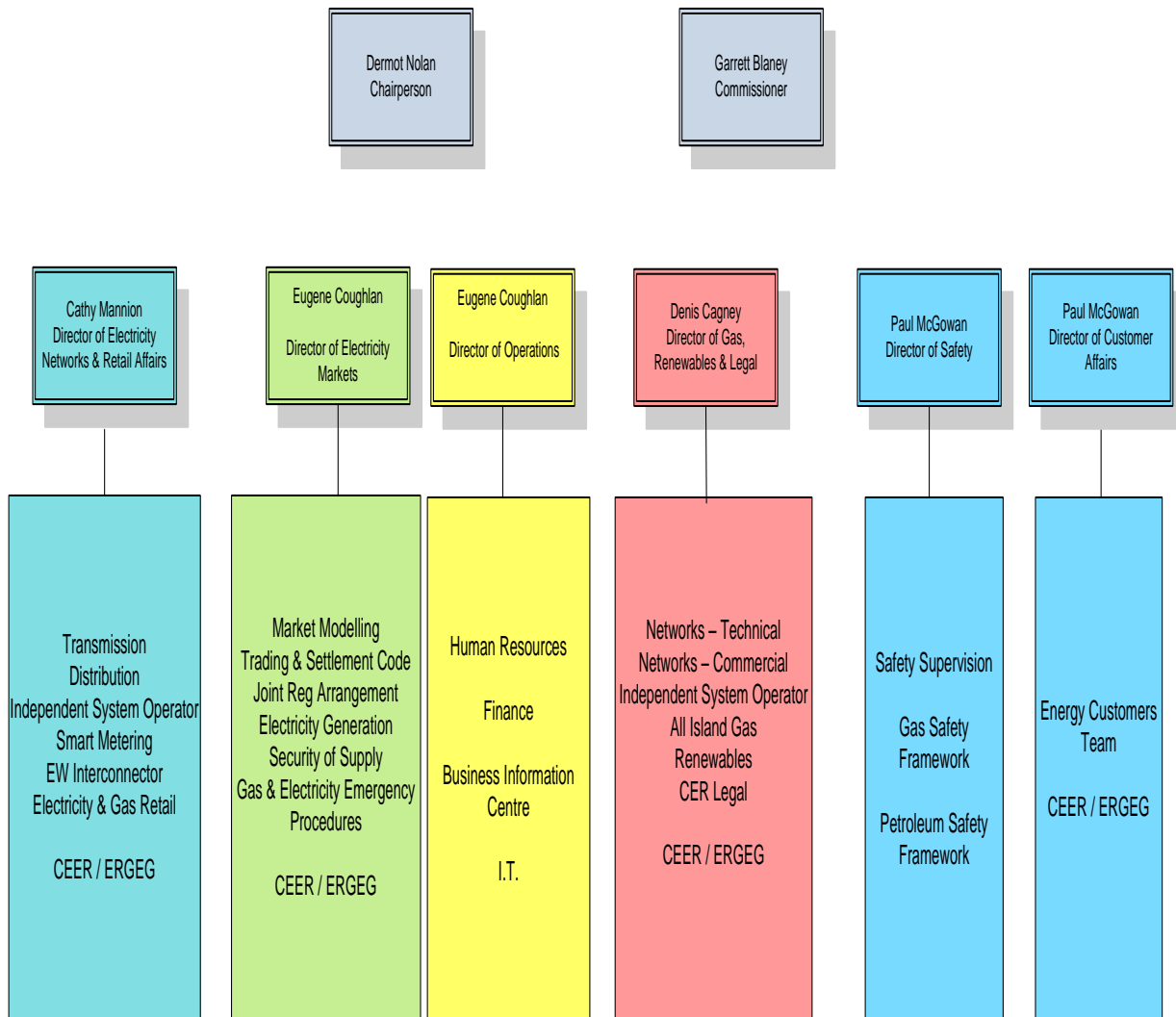
For detailed information on our work please see our website at [www.cer.ie](http://www.cer.ie) .

The CER's economic role and related developments in energy in 2011, including those related to Europe, are detailed in this annual report for the European Commission.

### **2.2 Organisation**

The CER is headed by up to three Commissioners at any one time. Currently the Commissioners are Dermot Nolan, Chairperson, and Garrett Blaney. The Commissioners are assisted in their duties by a staff of about 70, including 4 directors. The chart below summarises the current organisational structure.





An overview of the CER divisions is provided below.

The **Electricity Markets Division** is responsible for overseeing the electricity generation sector in Ireland and the joint regulation of the all-island Single Electricity Market (SEM) along with the Northern Ireland regulator, the Utility Regulator (UR). The division also monitors security of supply in Ireland, licensing and monitoring of new and existing generation companies, including setting the terms of licences and enforcing those terms.

The **Electricity Networks and Retail Division** oversees the regulation of Ireland's electricity transmission and distribution systems as well as the competitive gas and electricity retail markets. They are also responsible for overseeing the development of the East-West Interconnector project and the rollout of smart metering.

The **Gas, Legal and Environment Division** is responsible for the regulation of natural gas networks. This includes overseeing and leading the All Island Gas project – Common Arrangements for Gas (CAG) and is currently working with UR in this area. This division also includes the Renewables Team which regulates 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 CER's Project Office also forms part of the Gas division. The role of the project office is to lead and support the successful implementation of major projects in the CER.

The **Safety Division** 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. The CER was given new functions in 2010 with respect to the safety regulation of petroleum exploration and extraction activities.

The **Customer Affairs Division** has responsibility for developing and reviewing Consumer Protection Codes of Practice and Customer Charters for gas and electricity suppliers. In addition, the Division also provides an independent complaints resolution service for natural gas and electricity customers. Through complaints received, the Division monitors service in the industry and highlights areas which require further improvement at an individual supplier level or which requires industry policy to be developed.

The **Operations Division** includes the CER's operation teams including Human Resources, the Business Information Centre, Facilities, and the Finance Department. Together these areas are involved in driving efficiency gains throughout the organisation.

## 2.3 CER Functions

The functions of the CER have been built up over time, following the enactment of various pieces of legislation. Initially the CER was responsible for regulation and reform of the electricity market only, including the licensing of new entrant generators and suppliers. In 2002, the CER was also given statutory responsibility for regulation of the natural gas market, while various pieces of legislation have increased and augmented 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. Section 9 detailed the functions of the CER with respect to its role in the Irish electricity sector. This Act came into operation and the CER was established in July 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 Commission for Electricity Regulation 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, has been enacted since 1999, which has further added to these functions. Following the introduction in 2003 of the Internal Market in Electricity Directive (Directive 2003/54/EC) and the Internal Market in Gas Directive (Directive 2003/55/EC), various pieces of legislation were enacted to transpose these Directives, including, 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 760 of 2005 (European Communities (Internal Market in Natural Gas) (BGÉ) Regulations 2005). Further implementing legislation can be found on [www.irishstatutebook.ie](http://www.irishstatutebook.ie).

The Energy (Miscellaneous Provisions) Act 2006 added to the role and functions of the CER, including providing for additional responsibilities in natural gas and electrical safety.

In 2007, the Electricity Regulation (Amendment) (Single Electricity Market) Act 2007 was enacted and subsequently commenced. The Act provided for the establishment of a single competitive wholesale electricity market on the Island of Ireland and its Islands and allocates certain functions to the CER to establish and facilitate the operation of the Single Electricity Market (SEM) in the State. Statutory Instrument Number 406 of 2007 (Electricity Regulation Act 1999 (Single Electricity Market) Regulations 2007) established the trading arrangements and other related matters considered necessary to establish and facilitate the operation of the SEM. The SEM is governed through the SEM Committee consisting of the CER, the Utility Regulator in Belfast and an Independent Member.

Most recently the Electricity Regulation (Amendment) (EirGrid), Act 2008 was enacted to allow for the construction, by EirGrid, of the East West Interconnector between Ireland and Wales.

In 2010 the CER's statutory safety responsibilities expanded significantly with the enactment of the Petroleum (Exploration & Extraction) Safety Act, 2010. Further legislation has seen the Registered Gas Installer scheme expand to include Liquefied Petroleum Gas (LPG) installers and legislation is planned to expand the CER's LPG safety functions to include piped LPG distribution systems, LPG incident reporting & investigations and LPG promotion and public awareness.

The functions of the CER as of 2012 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 disadvantaged, the elderly and those residing in rural areas;
- Promoting competition in the supply of electricity and natural gas and in 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;
- Monitoring security of electricity and gas supplies and taking appropriate action to ensure satisfactory margins between supply and demand;

- 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 renewable, sustainable forms of energy and taking account of the protection of the environment;
- 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 of natural gas & LPG installers with respect to safety;
- Promoting the safety of natural gas customers and the public generally as regards the supply storage, transmission, distribution and use of natural gas;
- Establishing and implementing a natural gas safety framework;
- Establishing and implementing a risk-based petroleum safety framework.

## 2.4 Main Enforcement Powers

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

- Licences: Anyone seeking to construct a generating station, generate electricity or supply gas or electricity in Ireland must be licensed by CER and apply to the CER for a licence. The Transmission System Operator (TSO), Distribution System Asset Owner (DAO) and the Distribution System Operator (DSO) for electricity and gas are also licensed by the CER. The electricity Transmission System Owner is also licensed;
- Directions: Under sections 23 and 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 25 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 a direction given under sections 23 or 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;
- Licence Revocation: In certain circumstances set out in the licence, the CER may revoke a licence.

- The CER has powers under Statutory Instrument 463 of 2011 with respect to complaint and dispute resolution between customers and their supplier or network operator. A decision issued under these Instruments is binding on the supplier or network operator and may include proportionate compensation to the customer;
- Criminal Prosecutions: The CER, further to the provisions of the Energy (Miscellaneous) Provisions Act, 2006 can prosecute any unregistered party from carrying out certain gas work. The CER may also summarily prosecute unlicensed generation of supply of electricity or gas or the unlicensed carrying out of the DSO, DAO or TSO functions in relation to electricity or gas, under Statutory Instrument No. 445 of 2000 (Internal Market In Electricity) Regulations 2000 and section 2 of the Gas (Interim) (Regulation) Act 2002, respectively.

## 2.5 Interagency Agreements

The CER interacts with a number of other governmental bodies including the Irish Competition Authority, Sustainable Energy Authority of 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's 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.

The Sustainable Energy Authority of 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 CER and the HSA signed a Memorandum of Understanding (MoU) in June 2008. The objective of this MoU between the HSA and the CER 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. This is 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 of Communications, Energy and Natural Resources, which is the Government Department with responsibility for the development of energy policy in Ireland. This department is also responsible for licensing all offshore oil and gas

developments and pipelines (the CER is responsible for the licensing of all onshore gas pipelines). The Irish Government is the main shareholder in the incumbent gas and electricity companies, Bord Gáis Éireann (BGE) and the Electricity Supply Board (ESB).

Pursuant to the CER new petroleum safety functions under the Petroleum (Exploration and Extraction) Safety Act 2010, the CER is required to consult and cooperate with a number of statutory agencies and Ministers including the Environmental Protection Agency, National Standards Authority of Ireland, Irish Aviation Authority, Minister for the Environment, Heritage and Local Government and the Department of Transport (now Department of Transport, Tourism and Sport).

## **2.6 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 parliamentary committees related to energy.

The CER's main source of income is through a levy on the relevant market participants. Initially the proposed principles for administration of the levies for the relevant calendar year and subsequent years were communicated to all market participants through a consultation process. On agreement with all industry participants the principles for administration of the levy were implemented. In the discharge of the CER's functions the CER must identify separately in regard to the gas, electricity and petroleum safety sectors all elements of cost and revenue. Separate levies are issued to the relevant electricity and gas industry participants.

### **3. Main Developments in the Gas and Electricity Markets**

This section provides a summary of the key developments in the Irish electricity and natural gas sectors during 2011. It covers most of the key issues requested in the CEER's paper detailing the structure of this report, though account is taken for the specific structure of the Irish energy sector and market.

#### **3.1 Wholesale Electricity Market Developments**

##### **3.1.1 SEM - Overview**

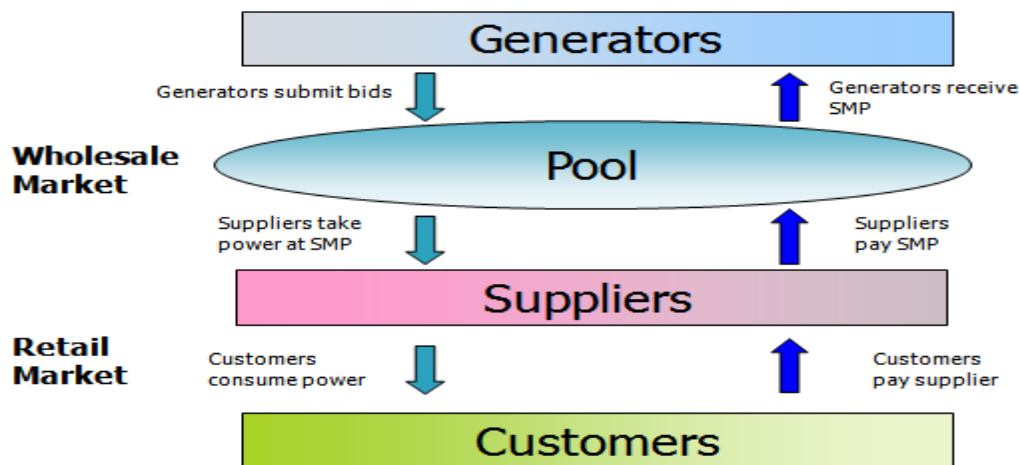
The Single Electricity Market (SEM) is the wholesale electricity market for the island of Ireland, regulated jointly by the CER and its counterpart in Belfast, the Northern Ireland Authority for Utility Regulation (Utility Regulator), and together referred to as the Regulatory Authorities or RAs. By combining what were two separate jurisdictional electricity markets, the SEM became one of the first of its kind in Europe when it went live on 1<sup>st</sup> November 2007. The SEM is designed to provide for the least-cost source of electricity generation to meet customer demand at any one time across the island, while also maximising long-term sustainability and reliability.

The decision-making body which governs the market is the SEM Committee, consisting of the CER, the Utility Regulator as well as an Independent Member (who also has a deputy), with each entity having one vote.

The SEM includes a centralised all-island gross mandatory pool (or spot) market. In this pool electricity is bought and sold through a market clearing mechanism, whereby generators bid in their marginal cost and receive the System Marginal Price (SMP) for each trading period for their scheduled dispatch quantities, with the cheapest possible generators run to meet demand across the island. Generators also receive separate payments for the provision of available generation capacity through a capacity payment mechanism, and constraint payments for differences between the market schedule and the system dispatch.

Suppliers (to electricity customers) that purchase energy from the pool, pay the SMP for each trading period along with capacity costs and system charges.

The SEM pool is illustrated below, while the SEM rules are set out in detail in the Trading and Settlement Code.



Overall, the SEM facilitates the running of the cheapest possible generators, determined by the stack of generation bids, to meet customer demand across the island.

During 2011 the Regulatory Authorities continued to monitor and oversee the SEM and the suite of regulatory rules governing it. From the setting of directed contracts to the monitoring of generators' compliance with the bidding principles to oversight of the market rules, the Regulatory Authorities have been actively supervising the SEM and representing the interests of all-island consumers.

The Regulatory Authorities are of the view that the SEM in the main is continuing to work well, in accordance with its objectives, and is delivering fair and cost-reflective prices. Assisted by clear market rules and transparency, the SEM has encouraged new efficient generators into the market (in both Ireland and Northern Ireland), helping to put downward pressure on customer prices and providing security of supply and environmental benefits.

In 2011 the Regulatory Authorities continued with a series of development initiatives to meet the challenges facing the market, such as increasing levels of intermittent generation and the need to facilitate new interconnection with neighbouring market.

The key areas of SEM work in 2011 and other related work issues are shown below. Further details are also available in the SEM Annual Report.

### 3.1.2 European Market Integration

In 2011 the SEM Committee continued to progress work related to increasing electricity market integration with neighbouring jurisdictions, and across Europe. This work is being achieved through the France, UK and Ireland (FUI) electricity regional initiative and through the Agency for the Cooperation of Energy Regulators (ACER).



## **FUI**

One of the key work items completed by the FUI regional group of Regulators during 2011 was the approval of coordinated interconnector access rules across the region. The access rules for FUI interconnectors were coordinated as extensively as possible given differing trading systems in SEM / BETTA and in the French market. Coordination of access rules for Interconnectors is required by European congestion management rules and is a necessary to reduce barriers to cross-border trade and increase the efficiency of interconnector flows, to the benefit of customers. Following consideration the final access rules for Moyle and East West interconnectors (from Northern Ireland and Ireland to the UK respectively) were approved by the SEM Committee and Ofgem in October 2011.

## **ACER Framework Guidelines**

ACER was established as part of the Third Energy Package in 2009, which is the set of EU legislative measures that aims at creating a single competitive European energy market. One of ACER's key tasks is to further the development of the single European electricity market (which all Member States have committed to) through the development of Framework Guidelines in key work areas. These Framework Guidelines will form the basis of Network Codes that will be developed by the European Network of Transmission System Operators (ENTSOE) and will become legally binding through the European's Council's comitology process, which involves the European Commission and Member State representatives agreeing final legislative texts before they pass into law.

The SEM Committee is represented at various ACER Working Groups and Task Forces through the membership of CER and Ofgem. In 2011 four ACER Framework Guidelines relating to policies on Grid Connections, System operation, Capacity and Congestion Management and Balancing were progressed as shown below. SEM Committee views on these issues were shared with ACER colleagues by the RAs.

- The Framework Guidelines on Grid Connections seek to set minimum standards for network connections in order to maintain system security, availability and the proper functioning of the electricity market from a technical point of view. The final Framework Guideline on Grid Connection published by ACER in July 2011.
- The Framework Guidelines on System Operation aim at setting out clear and objective principles for the development of a network code(s) on system operation covering the complete area of activities for operating an electric power network, including security, control and quality in terms of fixed technical standards, principles and procedures, but also the synchronous operation of interconnected power systems. The final Framework Guidelines on System Operation was published by ACER in December 2011.
- The Framework Guidelines on Capacity and Congestion Management seek to establish a competitive Internal Energy Market in the EU by ensuring non-discriminatory access to the networks and cross-border trade over interconnections between control areas. The final Framework Guidelines on Capacity and Congestion Management were published by ACER in July 2011. The implications of this for SEM are discussed in more detail in the next section below.

- The Framework Guidelines on Electricity Balancing aim to integrate balancing markets in order to contribute to system security and increase market efficiency at EU level. The scoping phase for the Framework Guidelines on Balancing was completed during 2011 and a full public consultation on the Framework Guideline took place from 24<sup>th</sup> April to 25<sup>th</sup> June 2012.

In addition the European Commission is developing Guidelines on Governance of Day Ahead and Intra Day Market Coupling Arrangements between Member States and on Market Transparency. The SEM Committee comments on these guidelines through ACER participation

For information on “REMIT” as well as gas-related Framework Guidelines, please see key task 8.

### ***SEM Market Integration Project***

Fully integrating the SEM in its current form into the emerging EU internal electricity market will pose a significant challenge, in particular for the day-ahead and intra-day target models set out in the *ACER Framework Guidelines for Capacity Allocation and Congestion Management (CACM)*.

Since the CACM consultation concluded in June 2011 and following the SEM Committee response to this, the RAs worked with ACER to acknowledge the difficulty associated with reaching the target models considering the present SEM design. This was achieved through the insertion of drafting which would allow for SEM to transition to the target model by 2016, which allows the SEM Committee and Member States to implement the Target Model in a planned and efficient manner. This facilitation of additional time for SEM to meet the target model is accommodated in the final CACM which was adopted by ACER on 29<sup>th</sup> July 2011.

At their July 2011 meeting the SEM Committee asked that the RAs lead a project team involving the TSOs and the SEM Market Operator (SEMO) with the initial objective of providing a report to the RAs and the SEM Committee by December 2011 on the identification of feasible options for SEM to give effect to compliance with the target models for the internal electricity market by 2016.

A project initiation document related to this work was published by the SEM Committee on the 8th August 2011. To date, this project has involved significant engagement with relevant European stakeholders, particularly regulators, TSOs and Power Exchanges in the FUI region and elsewhere. Furthermore given the importance of this project for future SEM design, regular briefings have been given to the respective Member States and a number of workshops have been held for market participants and interested stakeholders.

The SEM Committee’s consultation paper “Proposals for Implementation of the European Target Model for the Single Electricity Market” was published on 24th January 2012. The Consultation Paper sets out a description of the SEM, the European context and Target Model Proposed, evolutionary and revolutionary options for Target Model Implementation and related legal and governance issues. The Consultation closed on 20<sup>th</sup> April and 22 responses were received. By the end of 2012 a decision on next steps in the project is due to be published and a roadmap setting out key milestones to implementing the Target Model is due to be submitted to ACER.

### 3.1.3 SEM Market Power and Liquidity

In 2010 the Regulatory Authorities, on behalf of the SEM Committee, commenced a review of market power and contract liquidity in the SEM. The overall aim of this project was to identify practical ways in which the RAs can further promote competition in the SEM by reducing/mitigating market power and/or improving contract liquidity over the course of the next 10 years. In this context the project also examined the various components of ESB's proposed re-integration of its businesses.

The RAs appointed consultants, CEPA, to undertake an independent review of market power and liquidity in the SEM, including ESB's integration proposals. CEPA's report, along with an RA cover paper, was published for public consultation from 16<sup>th</sup> December 2010 through to 22<sup>nd</sup> March 2011. The SEM Committee then considered the CEPA paper and the public responses to it. It also considered ESB's new "partial vertical integration proposal" received in June 2011 and CEPA's subsequent report on that proposal.

Following from this, and taking on board consultation responses, in November 2011 the SEM Committee published a draft decision paper for final consultation. This paper proposed to:

- Maintain the Bidding Code of Practice, Market Monitoring Unit and Directed Contracts (BCoP, MMU and DCs) as SEM market power mitigation measures for the foreseeable future. This is because the SEM spot market is quite highly concentrated and CEPA's spot market modelling analysis for 2015/'20 indicated that, while ESB's market power would not be at levels of concern *on average*, there would still be certain hours/scenarios when the RSI is below 1.2, the threshold that typically suggests market power potential. If the spot market becomes significantly less concentrated in the future, the Committee would then review these market power mitigation measures.
- Not allow ESB vertical (generation-supply) integration for now, but allow the horizontal integration of ESB generation units from October 2012, given the low market power risks involved.
- Continue with the current 1,150 HHI level for the determination of DC volumes; DC volumes from the horizontal integration of ESB (referred to above) are expected to increase significantly from 2010/11 levels. That said, the SEM Committee will continue to monitor the market and if there is any evidence of market power being exercised and liquidity levels significantly falling, the Committee reserves the right to take further action, including the lowering of the HHI threshold.
- In relation to contract liquidity, not establish a market maker or to mandate contracts from generators at this time as liquidity is generally best developing "organically" through industry/market initiatives, such as the new "Over the Counter" (OTC) facility for NDCs. However, there may be a case for proceeding with such an approach in the future, in the context of the integration of SEM into European markets. The Regulatory Authorities' Market Integration Project Team will lead this work and any initiatives in this area will be fully consulted on by the Regulatory Authorities at the appropriate time.

Generally there was a favourable market participant response to the draft decision's proposals. A final decision on this matter was made by the SEM Committee in February 2012, with no

substantial policy change from the draft decision. This brought the workstream to a close from a policy perspective.

#### **3.1.4 Dispatch and Scheduling**

In 2008 the SEM Committee published a discussion paper setting out key issues arising from increasing levels of wind generation on the island of Ireland and potential solutions to those issues in the context of the SEM. Following receipt of comments, a paper was published in Autumn of that year setting out initial responses to those comments and next steps.

One area of further work identified here was the need to further consult on relevant scheduling and dispatch matters. This was progressed with the publication of a consultation paper in July of 2009 regarding principles of dispatch and the design of the market schedule under the Trading and Settlement Code, which was followed by a proposed decision paper in 2010. A decision paper was then published in August 2011 setting out the SEM Committee's decisions on the matters examined by the consultation, including the principles underlying the dispatch of priority dispatch price-taking generation in the SEM.

A consultation paper regarding the dispatch of such generators in "tie break" situations and associated matters under the Trading and Settlement Code was also published at that time. A decision on tie breaks was published in December 2011. However it should be noted that section 3.5 (only) of that decision was subsequently withdrawn by the SEM Committee in 2012 and a further consultation on the matter of the treatment of curtailment in tie-break situations was published in April 2011. All other decisions made by the SEM Committee in that decision remain in place. This includes the decision in relation to the treatment of constraints in tie-break situations. This involves the identification by the Transmission System Operators (TSOs) of constraint groups and the treatment of constraints on a grandfathered basis with reference to level of firmness, within these groups.

Further work arising from the dispatch and scheduling decision regarding treatment of hybrid generators in dispatch, pricing of system operator trades to facilitate priority dispatch and monitoring of "material harm" in the SEM is ongoing.

#### **3.1.5 Capacity Payment Review**

In April 2009 the SEM Committee published a consultation paper documenting the scope of work that the Committee proposed to carry out in relation to a medium term review of the Capacity Payment Mechanism (CPM). The main purpose of this review was to examine if the current design of the CPM could be further improved to optimally meet its objectives. In November 2009 the SEM Committee published an information paper which set out the various work streams that form part of this medium term review.

During 2011 work continued on this area. Further to the two Discussion papers published in 2010, a final discussion paper on Work Package 6 onwards and a Draft Decision Paper were published in 2011.

Key highlight points from the CPM Medium Term Review Draft Decision Paper were:

- The current CPM is generally working well and that there is no compelling need to make major changes to the current design and methodology;
- The SEM Committee do not believe that the design of the distribution allocation should be changed;
- The SEM Committee believes that the current 30%, 40% and 30% ratio of respectively the Fixed Ex-ante, Variable Ex-Ante and Variable Ex-Post weighting components gives the appropriate balance between a short term signal to provide the required capacity during periods of tight capacity margin, and the longer term certainty over capacity revenues for generators;
- The Forced Outage Probability % in the Capacity Requirement calculation should be increased to 5.91%;
- Infra Marginal Rent will be deducted from the BNE Cost of the Annual Capacity Payment Sum (ACPS) on an annual basis;
- In the BNE calculation Methodology Option 5 will be introduced to calculate the BNE in 2013 and keep the BNE Peaker Cost (€/kW/yr) in place for a 3 year period, with a level of indexing in 2014 and 2015. The Capacity Requirement will be recalculated annually; and,
- SEM Committee were recommending increasing the Flattening Power Factor to 0.5%.

Views were invited regarding all aspects of the proposals put forward in the draft decision paper. The comments received regarding the main elements for these proposed decisions and a final SEM Committee Decision paper was published on the 6<sup>th</sup> March 2012. There were no changes from the proposals contained in the draft decision. The SEM Committee decided that the proposals put forward in the Draft Decision paper will be fully implemented in the 2013 determination of the Best New Entrant Fixed Cost and the ACPS.

### **3.1.6 Fuel Mix Disclosure**

Article 3(9) of Directive 2009/72/EC requires that Member States ensure that the contribution of each energy source to the overall fuel-mix of electricity suppliers over the preceding year and related environmental information are provided in or with bills sent by suppliers to final customers. This is referred to as “fuel mix disclosure”. The transposing legislation in Ireland requires the CER to ensure suppliers provide reliable fuel mix information on all bills and promotional materials issued to customers. Further to transposing legislation in 2006 placing a duty on the CER to ensure that suppliers provide reliable information to electricity customers in this regard, the CER consulted upon and determined a methodology for the calculation of fuel mix.

Following the advent of the SEM in 2007, new arrangements had to be introduced to provide for calculation of fuel mix information on an all-island basis. Further changes were required in relation to the methodology for fuel mix information determination post the introduction of Guarantees of Origin in Ireland. This is because Statutory Instrument No. 147 of 2011 which transposes Article 15 of Directive 2009/28/EC, required the CER to establish a Supervisory Framework for “Guarantees of Origin” for the purposes of fuel mix disclosure.

The sole purpose of Guarantee of Origin is to prove to a final customer that a given share or quantity of energy was produced from renewable sources. To this end the SEM Committee consulted upon a revised method for the calculation of fuel mix disclosure in the SEM in July

2011 and issued a decision on this matter in November 2011. This decision and fuel mix disclosure information for previous years to 2010 can be found on the SEM and CER websites.

### **3.1.7 Market Modelling Group**

Among other things, the RAs' Market Modelling Group (MMG) is responsible for developing and monitoring various Contracts for Differences (CfDs) for participants in the SEM. Specifically, the MMG sets the price, quantity and supplier eligibility of Directed Contracts (DCs).

The majority of the MMG's forecasting SEM outcomes is over the short term (1 to 2 years), which is used to quantify/price DCs and forecast generator profits, although some medium and long-term forecasting is also carried out to inform the RAs' policy decisions.

#### ***SEM Directed Contracts***

As part of the SEM Market Power Mitigation Strategy, the RAs' MMG implements a suite of DCs on behalf of the SEM Committee. Market Power is defined as the ability of a market participant acting independently, to raise (or reduce) market prices consistently and profitably above (or below) competitive levels for a sustained period of time. DCs are designed to significantly reduce the incentive on the incumbent generators to submit bids in the SEM above competitive levels or withhold capacity in order to influence SEM spot prices or future contract prices.

During 2011 the MMG's work included:

- In-house Validation of the forecasting model (PLEXOS) and the dataset for SEM covering 2011 and 2012;
- Quantification and Pricing of DCs, for eligible suppliers, imposed on the incumbent generators (ESB Power Generation & NIE Energy Power Procurement Business) in the SEM as part of the Market Power Mitigation Strategy, covering the next contract year, i.e. from 1<sup>st</sup> October 2011 to 30<sup>th</sup> September 2012;
- Setting of auction reserve prices for Public Service Obligation (PSO) related CfDs;
- Monitoring the volume and prices of Non-Directed Contracts, which are typically offered by the incumbent generators (ESB Power Generation & NIE Energy Power Procurement Business) over and above the mandatory Directed Contracts; and,
- Modelling support to the RAs to help inform their policy on the SEM;

#### ***Quantities of Directed Contracts***

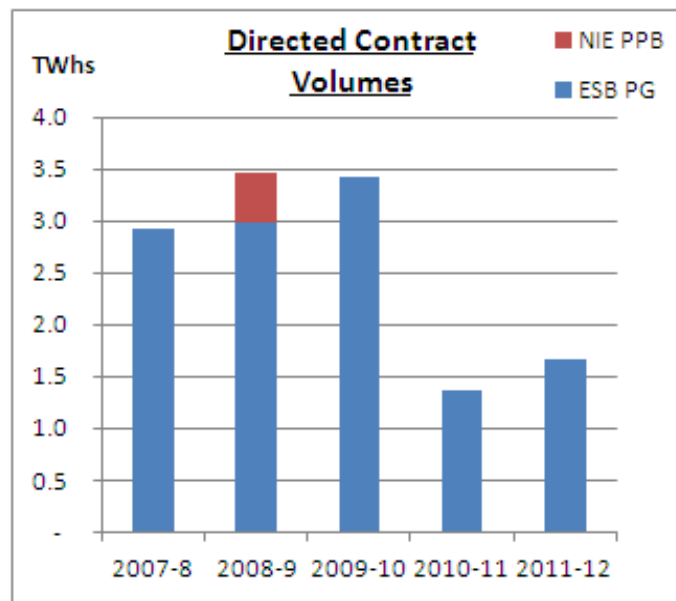
The quantities of DCs imposed on the incumbent generators are set to achieve a desired concentration level in the SEM as measured by the Herfindahl-Hirschman Index (HHI). A HHI threshold of 1,150 was chosen by the RAs and, at this HHI level, only ESB Power Generation (ESB PG) were required to sell DCs for the 2011/12 tariff year which runs from October 2011 to September 2012. Three DC products were required by the RAs to be offered by ESB PG – baseload, mid-merit and peak – in order to reduce market concentration in each segment for

each quarter to a HHI of 1,150. No baseload contracts and no peak contracts were required in Q3 2012 and Q1 2012 respectively as the HHI in these segments for these quarters was already below 1,150.

The quantities of DCs which ESB PG were required by the RAs to offer to eligible suppliers to meet this HHI threshold are shown in the table below.

ESB PG Directed Contract Quantities (MW)			
Quarter	Baseload	Mid Merit	Peak
Q4 2011	209	104	36
Q1 2012	154	73	0
Q2 2012	119	99	n/a
Q3 2012	0	154	n/a

The contracts were sold to eligible suppliers in two separate subscription processes by ESB PG. The table below shows the volume of DCs that ESB PG and NIE PPB were required to offer from the beginning of the SEM, related to their predicted generation output. The chart shows an increase in the total volume of contracts in the second and third years, then a significant reduction in the fourth year, followed by an increase last year.



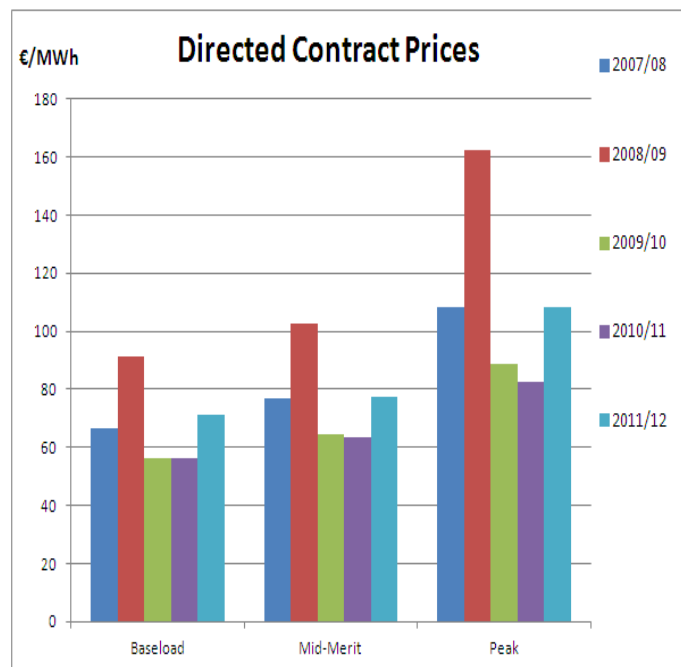
### **Pricing of Directed Contracts**

The prices of the DCs were determined each day during the subscription period using forward fuel and carbon prices and regression formulas determined by the RAs through econometric analysis. These formulas were designed to mimic the results of the validated SEM PLEXOS model.

Using this methodology, the average prices for all DC products are shown in Euros and Sterling below.

Product	€/MWh	£/MWh
Baseload	70.38	62.90
Mid Merit	77.36	69.13
Peak	104.03	92.97

As shown the figure below the average price of DCs sold for the 2011/12 tariff year was higher than the previous year but significantly lower than the peak 2008/09 period, in line with the movements in international fuel markets.





### ***PSO-related Contracts***

In addition to the above contracts, ESB PG also offered generation associated with the Irish Public Service Obligation (PSO). The RAs determine the reserve prices (using the Validated PLEXOS model and up-to-date forward fuel prices) that these products are offered to the market at and they are auctioned off to suppliers. For the 2011/12 contract year the PSO-Related CfDs are being offered on a quarterly basis, with auctions occurring about a month ahead of the quarter in question. Contracts are being offered at monthly granularity with a mix of products between baseload, mid-merit 1 and mid-merit 2. This provides market participants with a good choice and mix of offerings/products.

### ***Non-Directed Contracts***

While the RAs legal remit on behalf of the SEMC largely extends to DCs, licensed generators can also offer Non-Directed Contracts (NDCs) to the market. The RAs do not set the price or quantity of NDCs as they are agreed on a bilateral basis between market participants. They do however take an active role in the monitoring and development of the NDC market by assessing the reasonableness of prices during the ESB PG and NIE PPB auction processes. The RAs have also worked with participants on the development of a multi-lateral trading facility which went live in April 2009. In addition a new “Over the Counter” (OTC) trading facility commenced in 2011. This should help to assist liquidity, by allowing for suppliers and generators to interact more with respect to NDC price and quantities, assisting in price discovery.

### ***Generator Financial Reporting***

During 2011 the MMG assessed key generator financial performance in the SEM, both historical performance using generator financial accounts and forecasts based on SEM modelling. This information was provided to the SEM Committee to inform them on the financial performance of generators in the SEM.

In addition, in December 2011 the Regulatory Authorities published a Consultation Paper setting out proposals for the collection and publication of information on generators' financial performance. This paper set out a proposed financial reporting template to be completed by generator companies with a combined capacity greater than or equal to 20 MW. The paper also set out timelines for the annual publication by the RAs of a report covering profit levels of generators operating in the SEM.

The consultation closed in early February 2012 and the RAs received a total of 13 consultation responses. Following on from this, a decision document was published by the RAs in May 2012, taking account of comments received to the public consultation. The key change from the consultation was that the reporting threshold for generator companies was increased to 25 MW and the RAs committed to only publishing financial information in banded format (rather than by individual generator) in order to preserve commercially sensitive data .

### **3.1.8 Market Monitoring Unit**

The RAs' Market Monitoring Unit (MMU) forms part of the SEM market power mitigation strategy, with the behaviour in the market is reviewed by the MMU on an ex-post basis. This includes investigating the exercise of market power in the spot market, monitoring the

compliance of market participants with the spot market Bidding Code of Practice (BCoP) and other market rules and reviewing prices reported in the market.

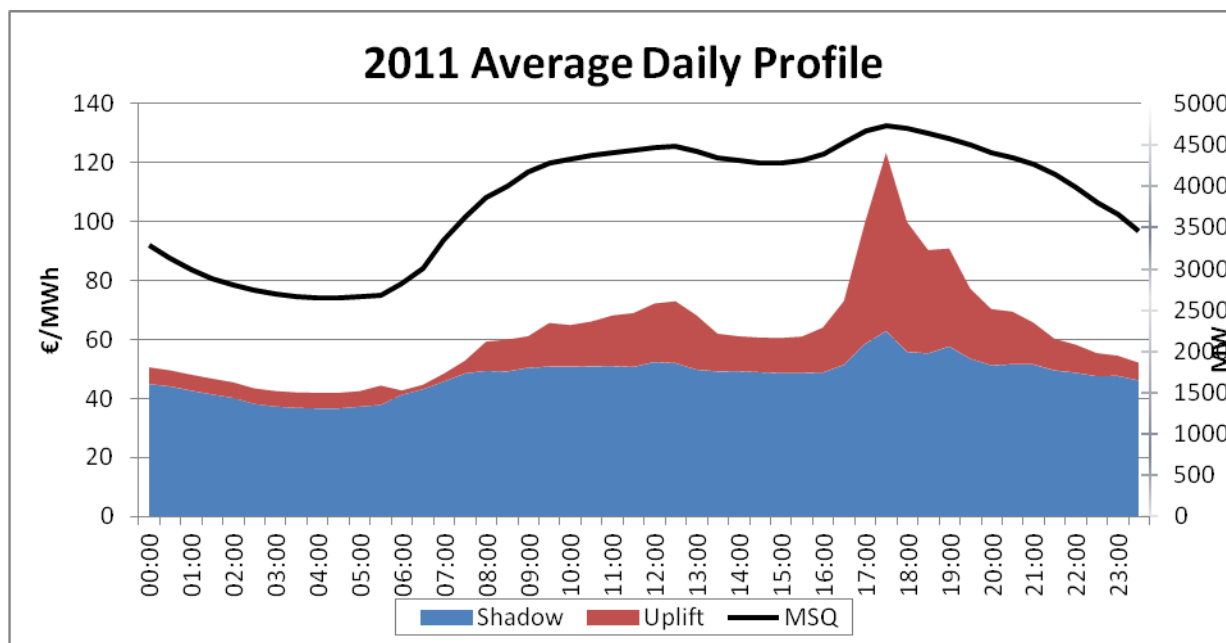
The MMU continuously reviews generator participants' behaviour in the market including investigations into the exercise of market power, monitoring the compliance of market participants with the bidding code of practice and other market rules.

### Price Trends

There are several elements to prices in the SEM that are reviewed and monitored by the MMU:

- **System Marginal Price (SMP):** the price at which each MWh of electricity is sold under the Trading and Settlement Code in any given Trading Period. It is calculated on a half-hourly basis and is measured in Euros per Megawatt-hour (€/MWh). The SMP is made up of the sum of the shadow price and uplift;
- **Shadow Price:** a component of the SMP for each Trading Period which reflects the short run marginal cost (SRMC) of the marginal generating unit.
- **Uplift:** a component of the SMP for each Trading Period which is calculated to reflect the Start-Up and No Load Cost element of Schedule Production Cost for relevant Generator Units.

In 2011 the SMP rose 15% on average against the 2010 SMP. This rise is mainly due to the increase in the gas price for the same period. Market Scheduled Quantity (MSQ) fell 5% on average in 2011 compared with 2010, reflecting lower system demand. The graph shows the average daily profile for 2011, showing the SMP divided between the shadow price and uplift, as well as MSQ.

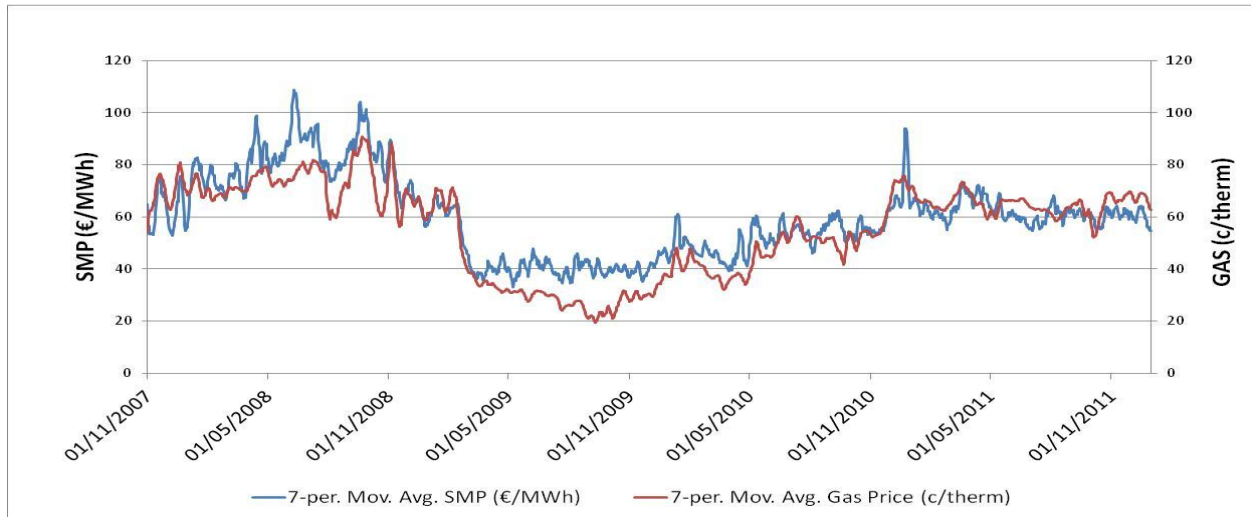


The long term trend of SMP has largely followed trends in fuel and carbon prices, especially gas prices given that gas is the key fuel for electricity generation across the island. It is also

impacted on by the margin between demand and available generation capacity - hence typically SMP is higher over the winter months when electricity demand is high and fuel is usually more expensive.

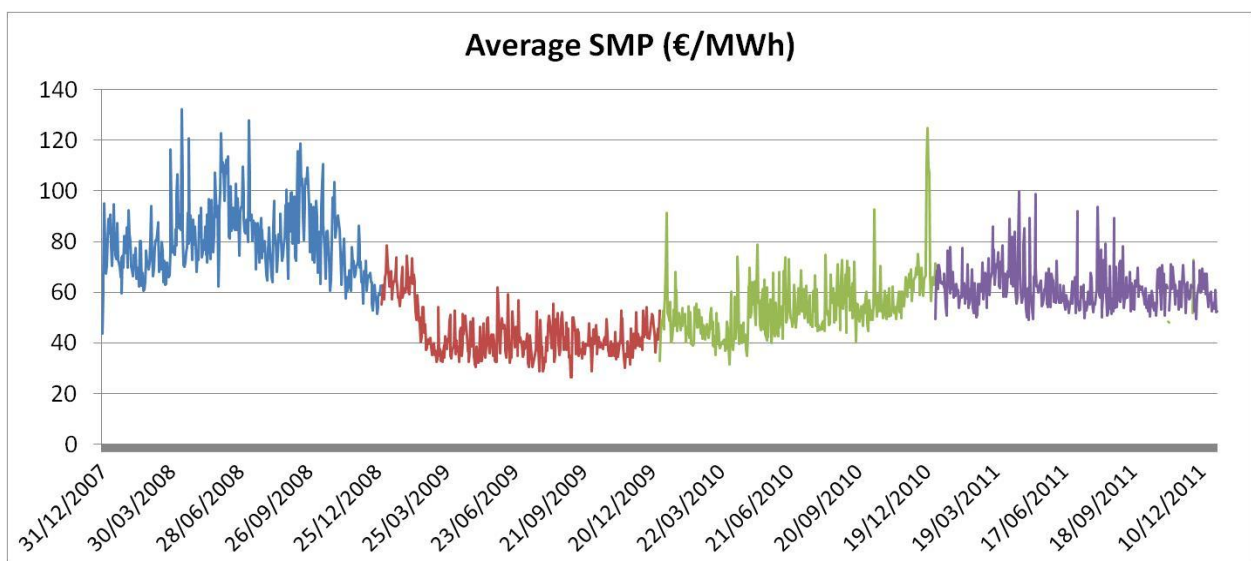
The relationship between the gas price and the SMP is shown below, where it can be seen that SMP closely follows the gas price, as you would expect from an efficiently functioning market on the island given that gas generation is so important to the island's fuel mix.

*SMP and Gas Price since the start of SEM*

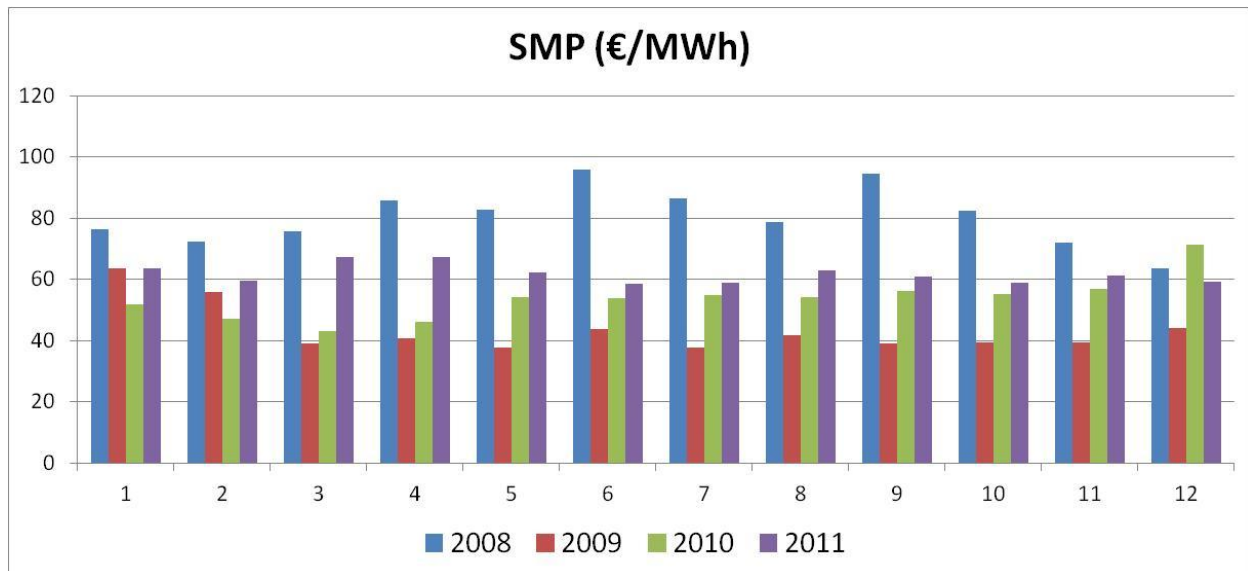


In line with gas price changes in recent years, the average SMP fell from over €80/MWh in October 2008 to under €40/MWh for most of 2009, and then increased to over €50/MWh in 2010 and €62/MWh in 2011. This trend is shown in the graphs below.

*Daily Average SMP since the start of the SEM*



## Monthly Average SMP History in the SEM



### 3.1.9 SEM Locational Signals

#### **Generator TUoS**

On 29<sup>th</sup> September 2011, the SEM Committee published its decision paper on the review of Generator Transmission Use of System Charging (G-TUoS) and the accompanying all-island G-TUoS tariffs for 2011/12. This workstream involved putting in place a harmonised methodology on the island for the calculation of TUoS tariffs which are charged to generators as users of the transmission system. The workstream was part of the Locational Signals project which had been ongoing since 2009 and sought to put in place appropriate signals in G-TUoS tariffs to promote optimum location of generation plants. This decision paper followed a decision by the SEM Committee in late 2010 in relation to the G-TUoS arrangements and methodology for the calculation of tariffs and further consultations in 2011 on some of the details of the methodology.

The SEM Committee's decision involved the development and implementation of a "dynamic" forward looking locational signal model of tariffing for Generators. The methodology involves both a locational element and a "postage stamp" element.

In making its decision on G-TUoS tariffs for 2011/12, the SEM Committee also requested that the TSOs would carry out further analysis and produce a report for the SEM Committee in 2012 with regard to possible changes to the approved G-TUoS model.

#### **TLAFs**

In February 2011 the SEM Committee published its Terms of Reference for an impact assessment on the proposed "splitting" of the treatment of losses in the market schedule from that in the dispatch schedule. Following on from this, the RAs' Market Monitoring Unit carried

out the TLAF modelling analysis in line with the requirements of the Terms of Reference. The results of the modelling were presented to the SEM Committee in July 2011, when the SEM Committee requested that a full and detailed consultation on the TLAF “splitting” analysis and modelling results be carried out in advance of it moving to a decision on this workstream.

In November 2011 the SEM Committee published a paper on the Treatment of Losses in the SEM. The consultation period ended on 27<sup>th</sup> January 2012. The SEM Committee also encouraged market participants to carry out their own TLAF modelling and to include full details of their modelling in their submissions on this consultation.

### **3.1.10 SEM Ancillary Services**

Ancillary Services refers to services provided generally by generators to the system other than energy and capacity. In the SEM they are operating reserve, reactive power and black start. The SEM Committee put in place Harmonised Ancillary Services Arrangements across the island in 2010. In 2011, the SEM Committee reviewed the operation of these arrangements on the island and approved revised rates for the various services.

### **3.1.11 DS3 Programme**

Following on from the TSOs’ Facilitation Of Renewables studies (FORS) published in 2010, the Regulatory Authorities requested that the TSOs carry out further analysis and put in place a programme of actions in order to address the system operation challenges identified, bearing in mind renewable commitments - 40% of consumption targets by 2020 - and the requirements of Directive 2009/29/EC.

The TSOs have now, in conjunction with the Regulatory Authorities put in place a programme of work to resolve the challenges and concerns identified in the FORS studies and the Sustainable Power Systems report (published in 2011). This programme is called the “DS3 Programme – Delivering a Secure, Sustainable Electricity System”. The review of system services (ancillary services) will be one of the key workstreams in the DS3 project. It involves the TSOs undertaking a detailed analysis of the requirements of the electricity system on the island of Ireland for system services to support the secure and reliable operation of the system as levels of non-synchronous wind penetration increase.

The RA’s role in this workstream is to review and consider the options and proposals put forward by the TSOs (and also by the industry) and to make a decision through the SEM Committee on the outcome of the DS3 System Services review. The SEMC is also involved in monitoring progress throughout the programme and ensuring that the interests of the all-island customer are protected.

The overall programme contains 11 separate workstreams including system services (Ancillary Services), Grid Code and frequency control workstreams. Delivery and implementation of the DS3 programme is the responsibility of the TSOs. The Regulatory Authorities’ role is to act in an oversight manner and to make decisions in key areas of relevance to the regulatory framework on the island.

The first consultation (lead by the TSOs) on the DS3 system services review commenced in December 2011. This was a high level consultation seeking views from interested parties on a range of questions related to the provision of system services. The second consultation is being developed by the TSOs and will be presented in the Q2 2012 to the SEM Committee for publication. This consultation will provide information on the new services which the TSOs believe will be required for the system in 2020.

## **3.2 Wholesale Gas Market Developments**

### **3.2.1 CAG Project**

#### ***Introduction***

The Common Arrangements for Gas (CAG) is a cross-border project, which is being led by the CER and the Utility Regulator (referred to jointly as the Regulatory Authorities or RAs). Its aims are to create fair and transparent arrangements across the island of Ireland, 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.

The CER and Utility Regulator signed a Memorandum of Understanding (MoU) on 14<sup>th</sup> February 2008 in relation to CAG under the All-Island Energy Market Development Framework. Under the MoU, the Regulators decided to develop plans to operate the gas transmission systems in Ireland and Northern Ireland on a single, all-island network basis. Work commenced on the project in 2008 and considerable background work has been achieved between the RAs and the Transmission System Operators (TSOs).

#### ***Recent Developments***

However, the project, which was delayed pending certainty around legislative requirements, recommenced in 2011 with the publication of a CAG work plan and key work streams. These included legislation and licensing, CAG System Operator establishment and implementation, All-Island Transmission and Distribution Code of Operations, Transmission Tariffs, Common Retail Market Arrangements. The following were the agreed high-level timelines for CAG implementation:

- By October 2012 - an All-Island Unified Transmission & Distribution (T&D) Code with opt-outs for Northern Ireland Distributors. The code will facilitate common emergency procedures.
- By October 2014 - an All-Island T&D Code with no opt-outs and common retail arrangements, including a single change of supplier process.

The RAs followed this up with a series of intensive consultation exercises and workshops with stakeholders. These included workshops and formal consultations on the CAG Code high-level principles, Harmonisation of the Moffat Entry Tariff, Transmission Network Tariff for Gas Storage, and also a number of CAG Code business rules consultations relating to capacity, nomination and allocation, balancing and shrinkage, financial security, payment and invoicing.

The RAs have worked closely with each other, with the Departments and with the industry in seeking to progress the CAG project; however, in April 2011 it was acknowledged that there were still substantive outstanding issues awaiting resolution. In particular system modelling highlighted physical capacity limitations of the respective networks that would inhibit the operation of a single physical balancing regime on the island. In addition, the CER considers there is a need to keep the original Cost Benefit Analysis for CAG under review to ensure that it will provide benefits to gas customers in Ireland.

Accordingly, the CER has embarked on two studies in relation to CAG. The first, which was commissioned jointly with the Utility Regulator, will examine the issue of single balancing zone within CAG and assess the costs, benefits, risks, opportunities and timelines associated with the single balancing point (both virtual and physical). The CER is also carrying out its own more general Cost Benefit Analysis update study on CAG to ensure that the underlying goal of delivering mutual benefits to Irish customers is likely to be met. Both studies are expected to be concluded later in the Summer of 2012 and will feed into the implementation of the CAG project.

Given this delay in the CAG project, it has become necessary to focus on meeting compliance with EU requirements relating to the South-North gas pipeline - a gas transmission pipeline that spans both the Irish and Northern Irish jurisdictions - as early as possible. Achieving compliance with EU Regulation 1775/2005 in practice involves putting arrangements in place so that market participants can have third party access to the pipeline. The CER is working with the TSO to put these arrangements in place as a matter of priority.

### **3.2.2 Interconnection Points and Reverse Flow 2011**

The CER continues to work with OFGEM and Utility Regulator in relation to issues of significance which could impact on the Moffat interconnector point. These include the changes to National Grid's method of setting charges for capacity on the Great Britain side of the Moffat interconnection point, as well as capacity booking reforms and the potential for the substitution of transmission capacity away from Moffat. As well as these operational issues, this forum, which involves formal meetings with the TSOs, is used to progress the implementation of EU regulatory requirements.

This co-operation has resulted in making available virtual reverse flow capacity at Moffat in December 2011 and the completion of the market test on physical reverse flow as required under Regulation EU 994/2010. Following on from this the regulators intend to work together to progress the arrangements at Moffat which will be required under the Third Package.

### **3.2.3 Regulation EU 994/2010**

In Q4 2011, as part of its compliance with Regulation 994/2010, the CER, as the designated Competent Authority for Ireland, submitted its Risk Assessment to the European Commission. The results of the Risk Assessment confirmed Ireland's current inability to meet the N-1 Infrastructure Standard, which has resulted in Department of Energy & Climate Change (UK Competent Authority) agreeing to adopt a regional approach to N-1 Infrastructure Standard.

Accordingly, the CER is working with DECC, the Department of Enterprise Trade and Investment (Government Department in Northern Ireland), the Department of Communication Energy and Natural Resources (Government Department in Ireland), the Regulatory Authorities and the gas Transmission System Operators in aligning national Preventive Action Plans and Emergency Plans, as required under Regulation 994/2010.

Consequently, in June 2012, the CER submitted its draft Preventive Action Plan and National Emergency Plan to the European Commission, whilst also exchanging the documents with



DECC. Following further consultation with DECC, and responses from stakeholders to CER's consultation on Ireland's Preventive Action Plan and National Emergency Plan, the CER will submit its finalised Preventive Action Plan and Emergency Plan to the EU Commission in December 2012.

### **3.3 Retail Market Developments & Consumer Protection**

#### **3.3.1 Introduction**

In newly liberalised markets, tariff regulation serves as a proxy for competition, with the aim of encouraging new entrants to the market and protecting consumers. However, the presence of regulated tariffs can ultimately become a constraint to the development of full competition. Its timely removal, once competition is sufficiently developed, can further drive competition to the benefit of the consumer.

In 2010 the CER reviewed the regulatory frameworks for the retail markets, which resulted in the publication of Roadmaps for the deregulation of the electricity and gas markets. The Roadmaps set out the pathway for deregulation, detailing the market criteria for the cessation of tariff regulation.

In addition, the Third Package of European energy legislation placed new duties and responsibilities on National Regulatory Authorities (NRAs), including the CER, with respect to the retail market and customer protection, including an increased role in market monitoring. The first phase of transposition of the Third Package was implemented through the enactment of S.I. No. 450 of 2010 which required the CER to monitor the level and effectiveness of market opening and the development of competition in the supply of electricity to final customers. SI No. 463 of 2011 transposed the broader customer protection aspects of the Third package and SI No. 630 of 2011 completed the transposition, extending the monitoring obligations to the gas market and including additional requirements for both electricity and gas.

The legislation requires that monitoring shall include, but is not limited to, monitoring:

- (i) final tariffs charged to domestic customers including those on prepayment systems;
- (ii) rates of customer switching between licensed electricity and gas suppliers;
- (iii) disconnection and de-energisation rates;
- (iv) charges for and the execution of maintenance services;
- (v) complaints by domestic customers;
- (vi) any distortion or restriction of competition in the supply of electricity and gas to final customers.
- (vii) whether the development and operation of competition in the supply of electricity and gas is benefitting final customers, and,
- (viii) the level of market opening and of competition on natural gas exchanges,

#### ***Electricity***

- The key CER objective is to monitor the progress of competition in the retail electricity market, implementing the decisions set out in the Roadmap as milestones are achieved.
- The CER is also consulting on the supplementary measures that are required to ensure that customers are both protected, and can fully benefit from competition in the deregulated market.
- Implementation of measures as set out in legislation transposing the Third Package.

**Gas**

- The key CER objective in this task is to set out the milestones for when regulatory practices and end-price regulation will change in line with developing competition in relevant sectors of the gas market. The Roadmap will also set out additional regulatory remedies that would apply, as well as the transitional arrangements and provisions for ongoing regulatory monitoring.

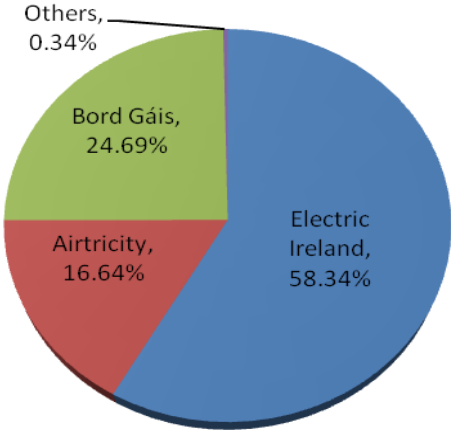
**3.3.2 Price Deregulation**

***Electricity Market***

In 2010 the CER published the Roadmap for the deregulation of the electricity retail (supply) market. This was published in light of the strong competition that developed in the electricity retail market, giving Irish customers choice and price discounts. The Roadmap identified the key competitive milestones that would mark the way to full deregulation in all sectors of the business and domestic markets. Following the Roadmap decision paper, the CER conducted quarterly analysis of the electricity markets, so called competition reviews, to determine eligibility for deregulation based on the Roadmap criteria. Having met the criteria for deregulation, as detailed in the Roadmap, the business markets were deregulated on 1<sup>st</sup> October 2010.

For the domestic (residential) market, the Roadmap provided for price deregulation if certain criteria were achieved, such as ESB having a domestic market share of 60% or less and ESB committing to rebrand its supply businesses. On 4<sup>th</sup> March 2011, in its competition review for Q4 2010, the CER confirmed that the domestic electricity retail market had met the Roadmap’s criteria for deregulation, with the market share of the different suppliers at the time shown below - this included the launch of the new ESB supply brand, Electric Ireland. As such, the remaining restrictions on price regulation were lifted on 4<sup>th</sup> April 2011, a significant decision ending 10 years of price regulation in the Irish electricity market. This meant that Electric Ireland can set its own electricity prices for all its customers without prior CER approval. In the long run, this should help drive further choice and competitive prices for customers.

*Domestic Market Share, % Consumption, End March 2011*



### ***Electricity Retail Market Harmonisation***

The electricity retail markets in Northern Ireland and Ireland are separately governed under jurisdictional-specific statute and regulatory regimes. However, as part of the broad strategic goal to promote electricity retail competition, and following support during discussions with suppliers in senior stakeholder groups, the Regulatory Authorities agreed to undertake a project to scope and deliver alignment, where possible, in supply market systems and messaging. The intention in doing so would be to make it easier / more cost effective for suppliers to operate in both jurisdictions in an optimal manner, to the benefit of consumers. This project, called the harmonisation project, is jointly governed by the two Regulatory Authorities and the harmonised messages and market systems are to go-live across both jurisdictions in 2012.

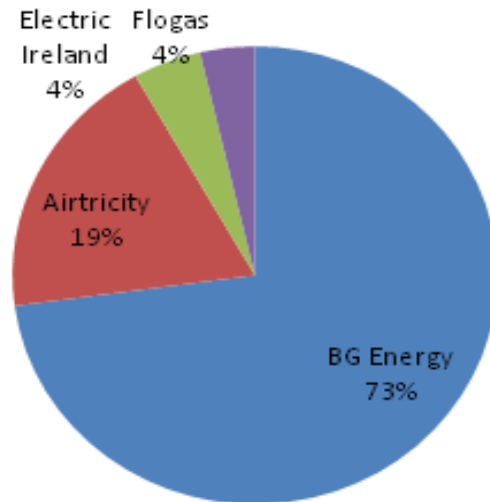
### ***Gas Market***

Significant competition has also been seen in the gas retail markets, particularly with the entry of Airtricity and Electric Ireland into the domestic market - there are now several options of competing tariffs on offer for all customers. With this emergence of competition in all sectors of the gas market, the CER published a Roadmap for the deregulation of Bord Gáis Energy's prices (similar to the electricity roadmap) in June 2011.

Since the publication of the Roadmap the CER has conducted quarterly competition reviews to ascertain whether these criteria have been met and deregulation should occur. The first competition review concluded that the two relevant business markets had met the criteria for deregulation. Therefore the business market sectors were deregulated on 1st October 2011 and since that time Bord Gáis Energy has been able to set its own tariffs for business customers. The Q4 Competition review in 2011 (which will be updated throughout 2012) concluded that the residential sector is still some way from reaching the required criteria and will be kept under review:

- Bord Gáis Energy Supply's market share in the domestic market was 72.9%
- Only one independent supplier had a market share higher than 10%
- Annual switching rate was approximately 17%

*Domestic Market Share, % Customer Numbers, End 2011*



The CER is monitoring this situation against the Roadmap criteria on a quarterly basis.

### 3.3.3 Review of Customer Protection Provisions

With the increase in competition and progressive deregulation of the retail markets, 2011 saw the introduction of a number of customer protection initiatives. These initiatives were guided by customer experience, best practice and relevant legislation. In terms of legislation, particular consideration was given to the Third Package, which places specific customer protection duties and responsibilities on NRAs, including the CER.

#### ***Consumer Survey***

To help inform policy in the area of customer protection the CER conducts annual surveys of domestic customers' attitudes and experiences of the retail market. The consumer survey for 2011, published in April, highlighted that:

- About a third of customers were interested in prepayment of their electricity usage.
- For 94% of customers who had switched, saving money was an important factor in the decision.
- Almost all customers had had a positive experience of the supplier switching process.
- 75% customers could easily understand their electricity bill. However 63% of customers would find the addition of a comparison with their previous months' electricity usage on their bill useful and a similar percentage would find monthly cost comparison figures useful.

#### ***New Customer Protection Initiatives***

Guided by the results from the consumer survey, as well as European best practice proposals, experience from other jurisdictions and relevant legislation, the CER reviewed its customer

protection provisions. The review led to the introduction of new customer protection measures, including:

- A requirement on sales personnel calling to homes to provide a doorstep checklist.
- The adoption of universal design in all supplier customer communications and front line services.
- Protection for vulnerable customers to ensure that they are on an appropriate tariff.
- A requirement for suppliers to provide detailed consumption information on customers' bills.
- A framework for accrediting customer tariff comparison facilities/websites.

The framework for accrediting customer tariff comparison facilities/websites is an example of the increased emphasis of providing customers with additional, reliable information to further inform their choices and seek out the best deals.

### ***Price Comparison Accreditation***

Price comparison websites are a useful tool to help customers find the most competitive products and nearly half of those questioned in the 2011 CER consumer survey agreed that a web based price comparison services would be beneficial when making a switching decision. Under the accreditation framework, a website providing an energy price comparison service is only accredited by the CER if it meets defined standards for accuracy, transparency, and reliability. Accredited sites will be audited at least annually to ensure a high standard of service. The price comparison [www.Bonkers.ie](http://www.Bonkers.ie) became Ireland's first accredited energy price comparison website in March 2012.

In 2011 the CER consulted on the addition of these new customer protection measures, as well as further measures, into the Codes of Practice guidelines for suppliers. The Codes of Practice guidelines require suppliers to put in place measures to ensure that customers are protected in key market areas, such as marketing, billing, disconnection, complaints handling and Pay As You Go metering. During November and December the CER carried out an audit to assess if suppliers were in compliance with the Code of Practice for disconnection. The audit examined suppliers' Codes of Practice on Disconnection and established that all suppliers have implemented the published guidelines and are meeting the requirements set out by the CER. The CER noted in its report that in case of all domestic customer accounts audited, suppliers had exceeded the CER's minimum contact requirements prior to moving to disconnect the customer.

### ***Supply Licence Review***

To ensure that the CER's customer protection measures were appropriately underpinned, the CER published a consultation in October 2011 proposing modifications to the electricity and gas supply licences introducing new conditions where appropriate. The proposal also considered current legislative provisions and regulatory frameworks and market developments in general. As to customer protection, a new licence condition was introduced in the electricity supply licence to formally bind suppliers to the CER's Code of Practice Guidelines. After consultation the modified supply licences came into force on 26<sup>th</sup> March 2012.

### ***Debt Flagging***

In June 2011 the CER issued a decision to allow the incorporation of a debt flagging facility into the change of supplier/shipper processes for Non Daily Metered (NDM) customers in the gas market and all customers with the exception of Large Energy Users (LEUs) in the electricity market. Debt flagging sees a debt flag raised where a customer with arrears above specific thresholds seeks to switch supplier. Once raised, it is up to the supplier, to whom the customer wishes to switch to, whether or not to proceed with the switch.

The CER approved the introduction of this measure in light of ongoing concerns from energy suppliers and consumer organisations that, in the current economic climate, customer and industry debt levels are being exacerbated by some customers changing supplier in order to avoid paying their arrears or, to avoid disconnection. This practice of “debt hopping” is considered to raise costs for energy suppliers, and consequently for all consumers, and further compounds an individual’s debt situation making it more difficult to manage in the long run.

### ***Market Monitoring***

With the transition to full deregulation and the provisions of the Third Package (which were transposed into national law, as referred to earlier) the CER reviewed its current retail market monitoring framework in 2011 and published a consultation on an enhanced framework. The review has been based on best practice. It proposes looking at a broad range of indicators which consider market structures, retail market outcomes and customer satisfaction (including in relation to the prices and choices that the market produces such as diversity of tariffs and contracts, end user prices and the price spread for comparable products).

While the consultation on the new monitoring framework, published in December 2011, is ongoing, the CER continues under the existing framework, which monitors key market indicators such as market share, switching rates, complaints and disconnections), suppliers’ compliance with Codes of Practices and supply licences, and direct customer experiences (via annual survey and complaints). These market monitoring activities in conjunction with the general customer protection measures will ensure that consumers benefit through the efficient functioning of the retail markets and in doing such, fulfil the key retail aims of the Third Package.

#### **3.3.4 Energy Customers Team**

The CER has a statutory responsibility to provide a complaints resolution service to customers with an unresolved complaint with their supplier or network operator. The CER’s Energy Customers Team (ECT) fulfils this role for domestic and small business customers through a dedicated complaints resolution service.

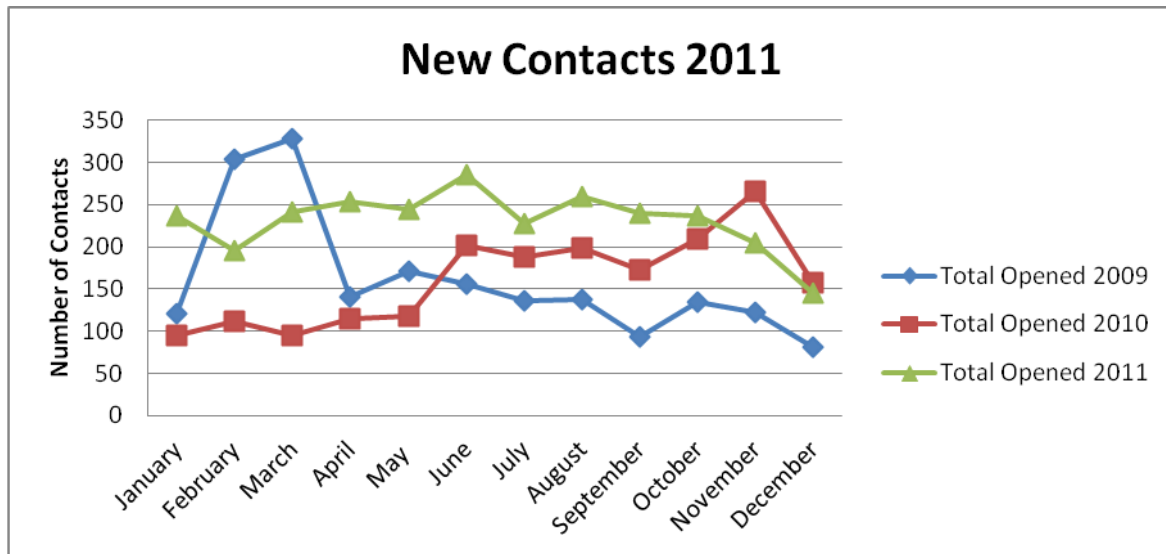
Additionally, the Team provides a customer awareness and information service via its [www.energycustomers.ie](http://www.energycustomers.ie) brand and website. The website, [www.energycustomers.ie](http://www.energycustomers.ie), aims to provide clear information, to empower customers to make informed choices as competition develops in the energy industry. This includes information on their rights, energy suppliers’ Codes of Practice and also explains what to do if they experience problems with their bills, their connection to the electricity or natural gas network or other energy supply related issues. The

[www.energycustomers.ie](http://www.energycustomers.ie) website also provides guidance and assistance to customers wishing to access the CER's transparent, free and easy to use complaint resolution service for domestic and small business customers with unresolved complaints.

The Energy Customers Team saw a significant increase in the level of customer contact in 2011. While contact levels in 2009 and 2010 were similar at around 1930 per year, 2011 saw a 43% increase, with 2,770 customers needing to use the service.

There was no one identifiable trigger issue for customers. However the increase was more likely due to wider recognition of the functions of the CER and customers becoming more aware of energy issues. Due to the increase in contact with customers, the ECT focused its actions on maintaining the operational service in 2011.

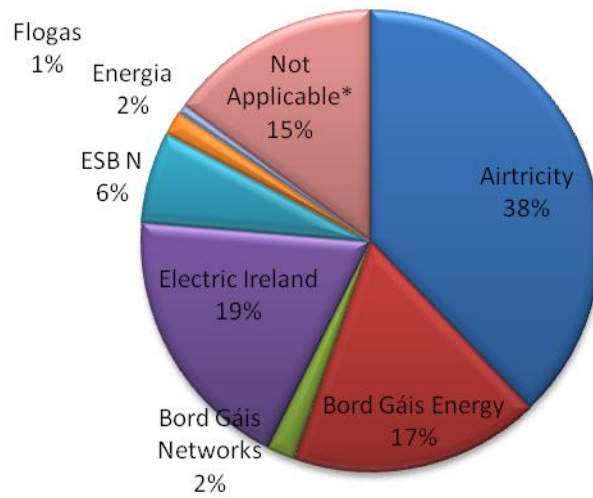
*Year on Year Customer Contacts With Energy Customers Team*



As can be seen from the graph above, with the exception of November and December, customer contact with the CER increased when compared to 2010 data. When the level of contact is broken down between suppliers, it can be seen that the highest level of contact in 2011 was with Airtricity customers at 38% of all contact, double the contact level of the next highest supplier Electric Ireland. This should be seen in the context of supplier market shares discussed earlier.



## Customer Contact by Supplier 2011



*Customers may not have stated their supplier or network operator or may have contacted the ECT with a general query not related to any specific supplier or network operator.*

More information on the work of the CER's Energy Customers Team will be published in the Energy Customers Team Annual Report 2011.

### **3.4. Public Service Obligations**

This section outlines the legislative framework for the implementation of PSOs and the specific policies that have been implemented with respect to PSOs in Ireland.

#### ***PSO Legislation***

Under Section 39 of the Electricity Regulation Act 1999 (as amended) the Minister is empowered to, by order, direct the CER to impose certain public service obligations on the ESB, electricity suppliers and the TSO.

Statutory Instrument No. 217 of 2002 (Electricity Act 1999 (Public Service Obligations) Order 2002) (S.I. 217 of 2002) was the order made by then Minister for Public Enterprise under Section 39 of the Electricity Regulation Act 1999. SI 217 of 2002 sets out more detail in relation to the duties of certain parties, including the CER, in respect of the PSO. The PSO Order specifies the role of the CER and the collection and other duties of suppliers, the DSO (distribution system operator) and the TSO (transmission system operator). S.I. No. 217 of 2002 provides, inter alia, for the imposition on ESB of public service obligations which will require ESB to purchase the output of certain peat and renewable, sustainable or alternative electricity generating stations, in the interests of security of supply and environmental protection respectively. The order provides for the calculation of the PSO levy by the CER to provide for the recovery of costs by all relevant parties in accordance with the notifications to the EU Commission regarding the various mechanisms supported by the PSO.

The original PSO Notification of November 2000 (“the Notification”) to the European Commission sets out the broad areas that may be covered by the PSO (as listed in Section 39 of the Electricity Regulation Act 1999), namely security of supply, use of indigenous fuel sources and environmental protection. It refers specifically to the schemes envisaged to be covered by the PSO at that juncture, i.e. the imposition on ESB of a requirement to have available to it the output of electricity generating stations using peat and stations using renewable, sustainable or alternative forms of energy.

Subsequent to the Notification, new schemes have been notified to the EU Commission in accordance with Article 88(3) of the Treaty and Directive 2003/54/EC and have received state aid clearance. S.I. No. 217 has been amended by a number of subsequent orders to provide for the recovery of costs under the PSO for such schemes. These included the recovery of costs associated with peaking plant and plant that entered the market under a competition held by the CER due to security of supply concerns. A Renewable Energy Feed-In Tariff (REFIT) was notified to the EU in 2006 and received state aid clearance in 2007. Two further REFITs have since been notified to the EU and received state aid clearance. REFIT 2 and REFIT 3 opened in March and February of 2012 respectively. S.I. No. 217 of 2002 (as amended by the subsequent orders) also takes account of suppliers receiving support under the PSO in relation to the above REFITs.

The CER is obliged to approve the costs associated with the above under Article 9 of S.I. No. 217 of 2002.

## **PSOs - Environmental Protection & Security of Supply**

In Ireland, the objectives of the PSO are to ensure reasonable self-sufficiency in electricity generation capacity by utilising peat as a primary fuel source, to ensure a secure and reliable electricity supply, and to promote renewable energy sources to help protect the environment and contribute to Ireland's security of supply.

The PSO is imposed by the Department of Communications, Energy and Natural Resources on Electric Ireland and ESB Power Generation.

Electric Ireland is obliged under the PSO as wholesale purchaser of energy from renewable and a peat-generating source. Electric Ireland purchases electricity from a peat generating station through a Power Purchase Agreement (PPA) under the terms of the Notification referred to previously. ESB Power Generation receives support under the PSO in relation to the energy it is obliged to produce from its two peat generation plants.

Electric Ireland purchases energy from renewable sources under the Alternative Energy Requirement (AER) scheme, as notified to the EU.

The REFIT scheme (as notified to the EU) was introduced in 2006 and guarantees all suppliers participating in the scheme a minimum price in return for the purchase of renewable generation through PPAs. The price is appropriate to the category of generation supported. Monies accruing to suppliers participating in REFIT scheme are paid out under the PSO mechanism in accordance with governing legislation and the terms and conditions of the REFIT schemes as published.

Electric Ireland is also engaged in a Capacity and Differences Agreement (CADA) with two generators. The CADA scheme was notified to the EU Commission in October 2003 in order to secure additional capacity to meet an anticipated generation capacity shortfall in 2005, and were cleared by the EU Commission at the end of 2003.

The PSO is funded by a levy which is imposed on all electricity customers. The implementation of the PSO levy commenced on the 1<sup>st</sup> January 2003. The costs of purchasing the relevant energy (subject to the terms and conditions of the scheme/support involved) – above-and-beyond a modelled, estimated, time weighted *ex ante* value of anticipated market revenues – are levied on all customers via their supplier. The *ex ante* PSO levy figures are corrected *ex post* once actual market revenues, costs, inflation and plant output are verified and notified to the CER. Costs relating to the administration of the scheme are also included in the levy. At present, all suppliers, the DSO, Electric Ireland and EirGrid as TSO are notified of the final determination of the above levy no later than two months in advance of the commencement of the levy period in a decision paper published on the CER's website.

Based on modelled market conditions and estimates of costs, plant output and inflation for the period 1<sup>st</sup> October 2011 to 30<sup>th</sup> September 2012, the CER determined the PSO levy for that period to be €92.12 million. The breakdown of this is shown below.

**PSO Levy 2011/12**

Customer category	Annual levy amount	Monthly Levy amount
Domestic customers	€19.33 per customer	€1.61 per customer
Small commercial (maximum import capacity of less than 30kVA)	€57.22 per customer	€4.77 per customer
Medium and large customers (maximum import capacity equal to or greater than 30kVA)	€8.58/kVA	€0.71/kVA

## **3.5 Network Regulation and Infrastructure**

### **3.5.1 Tariffs**

#### ***Background in Electricity***

The CER's responsibilities involve regulating the level of revenue which the monopoly electricity network operators and owners can recover from customers to cover their costs. ESB Networks owns the entire network; it also operates the lower voltage distribution network, while EirGrid operates the higher voltage transmission network. If unregulated, these monopolies could be inefficient and impose prices that were too high so, as set out in legislation, the CER regulates the network utilities' activities and income. This is in order to protect the interest of electricity consumers, while ensuring that they can fulfil their obligations and deliver secure electricity supplies.

The nature of such regulation is that every five years the CER sets the amount of money that the utilities can collect from electricity customers for the following five years. The revenue is set at a level that would allow a well-run business to fund its activities. It is set through a combination of examining the specific underlying costs of the relevant utility and benchmarking against best international companies in this field. Through this review the utilities are incentivised to operate efficiently, to make cost reductions, and to provide high levels of customer service. The allowed revenue is collected from suppliers via Transmission and Distribution Use of System charges - TUoS and DUoS - which are then recovered from final customers. These form approximately 7% and 25% of the final electricity bill respectively.

This five year approach is best international practice, and is used by nearly all other energy regulators (such as Ofgem in Great Britain) as well as in a number of other regulated sectors. It ensures that consumers are protected, while offering the regulated businesses a clear and stable environment. This allows the network utilities to make the necessary investments to ensure modern and efficient transmission and distribution systems and high levels of customer service.

In November 2010, the CER completed its review of the revenue that the electricity transmission and distribution network utilities can recover from their customers over the 2011 to 2015 period. The review involved an assessment of the utilities' investment plans and operational costs for that period, and an assessment of their performance over the previous five years. Please see last year's report to the European Commission for further information.

#### ***Background in Gas***

Similar to electricity, the CER undertakes a five-yearly review of the gas network utility, Bord Gáis Networks (BGN), and sets the amount of revenue that it can recover from its customers. The next 5-year revenue period, currently under review, is from October 2012 to September 2017. The review involves an assessment of the utility's investment plans and operational costs for that period, and an assessment of its performance over the previous five years.

The CER's responsibilities involve regulating the level of revenue which the monopoly gas network operator and owner can recover from customers to cover their costs. Bord Gáis

Networks owns the entire network. Gaslink currently operates the system, but since it is anticipated that Gaslink's role will revert to Bord Gáis Networks in the near future, only Bord Gáis Networks is referred to below.

If unregulated, monopolies could be inefficient and impose prices that were too high so, as set out in legislation, the CER regulates the network utility's activities and income. This is in order to protect the interest of gas consumers, while ensuring that the utility can fulfil its obligations and deliver secure gas supplies.

Every five years the CER sets the amount of money that the utility can collect from gas customers for the following five years. The revenue is set at a level that would allow a well-run business to fund its activities. It is set through a combination of examining the specific underlying costs of the relevant utility and benchmarking against best international companies in this field. Through this review the utility is incentivised to operate efficiently and to make cost reductions while providing appropriate levels of customer service. The allowed revenue is collected from suppliers via transmission and distribution network tariffs which are then recovered from final customers. These form approximately 12% and 29% of the current final domestic gas bill respectively.

This five year approach is in line with best international practice, and is used by other energy regulators as well as in a number of other regulated sectors. It ensures that consumers are protected, while offering the regulated businesses a clear and stable environment. This allows the network utility to make the necessary investments to ensure modern and efficient transmission and distribution systems and appropriate levels of customer service.

### ***Network Tariffs - Gas***

For the gas year 2011/12, transmissions tariffs decreased by 4.5% for typical shippers at the Moffat Entry Point and by 5.2% for typical shippers at the Inch Entry Point. The tariff setting process is underway for the forthcoming gas year 2012/13. It is anticipated that the transmission tariffs will rise by approximately 20% and the distribution tariffs will rise by approximately 4%. These increases are driven in large part by an increase in the cost of capital allowed to BGN, the regulated entity.

### ***Network Tariffs - Electricity***

In 2010 the CER outlined its distribution and transmission level decisions on the new electricity price control, known as PR3. The period covered in this control is 2011 to 2015. During the PR3 period yearly updates are completed. The first yearly update (revenue year 2012) for distribution and transmission was published in 2011.

For distribution it was decided that €721.6 million would be allowed, which compares to €675.7 million for the 2011 calendar year. The Average Unit Price (AUP) for Distribution Use of System charges for the 1<sup>st</sup> October 2011 to 30<sup>th</sup> September 2012 period is 3.05c/kWh. This is a 5.3% increase relative to the AUP of 2.90c/kWh for the 1<sup>st</sup> October 2010 to 30<sup>th</sup> September 2011 tariff period.

The equivalent revenue allowance for transmission was €260.01 million. This was an increase of 1% relative to the transmission revenue approved for the 2011 calendar year (€257.36

million). The AUP for Transmission Use of System charges for the 1<sup>st</sup> October 2011 to 30<sup>th</sup> September 2012 period is 0.98c/kWh. This is a 4.3% increase relative to the AUP of 0.94c/kWh for the 1 October 2010 to 30 September 2011 tariff period.

### 3.5.2 Infrastructure Network Developments

#### *East-West Interconnector*

The CER is actively involved in promoting the development of the East West Interconnector (EWIC) between Ireland and Great Britain. EWIC is a 500 MW HVDC Interconnector which will have both importing and exporting capacity and be able to transmit Direct Current between the two converter stations, proposed for Woodland, in Ireland and Deeside in Wales. It is 256 km in length – 185 km of marine (under sea) cable and 71 km of terrestrial cable (above sea). The converter stations will convert the current to the usual form of Alternating Current for onward transmission on the transmission network in the UK and Ireland. The features of EWIC are provided below.

#### East-West Interconnector Features

East-West Interconnector Feature	Detail
Capacity	500 MW
Ownership	EirGrid
Delivery date	2012
Connection Point on Irish System	Woodlands sub-station, south Meath.

The advancement of this project continues to remain a key priority for the CER, with significant progress being made to date. The CER and EirGrid, the Transmission System Operator, are working closely together to ensure the completion of this project on schedule. The EWIC has received the necessary interconnector operator licences from both CER and Ofgem. The CER will continue to work with Ofgem to regulate EWIC for common conditions of the Interconnector licences.

In 2011, the construction of EWIC continued to progress within the targeted time lines and approved budget. As of July 2012, the marine cable has been laid, and progress is being made to complete construction of the project in both Ireland and Great Britain before the end of 2012.

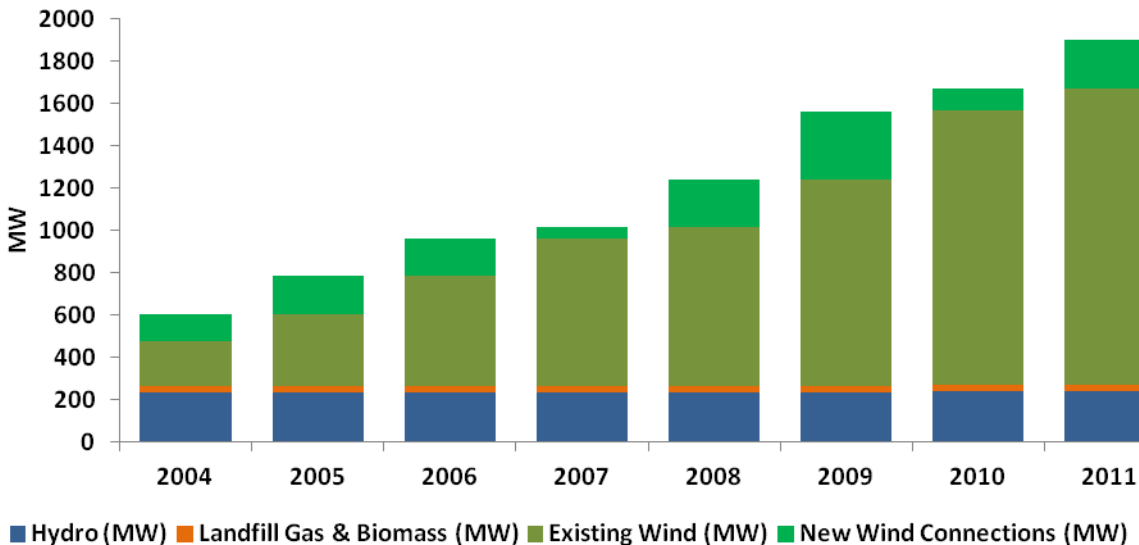
The project is due to come into commercial operation before the end of 2012.

#### *Connection Offers to Renewable Generators*

The increased connection of renewable generators of recent years, especially wind farms, means that about 20% of Ireland's electricity consumption now comes from renewable sources.

The increase in renewable connections to the electricity network is shown below - the extra wind farms help provide some hedge to Ireland against the higher wholesale fuel costs, given that their energy is almost free when the wind blows.

*Renewable Connection, Ireland, 2004 to 2011*



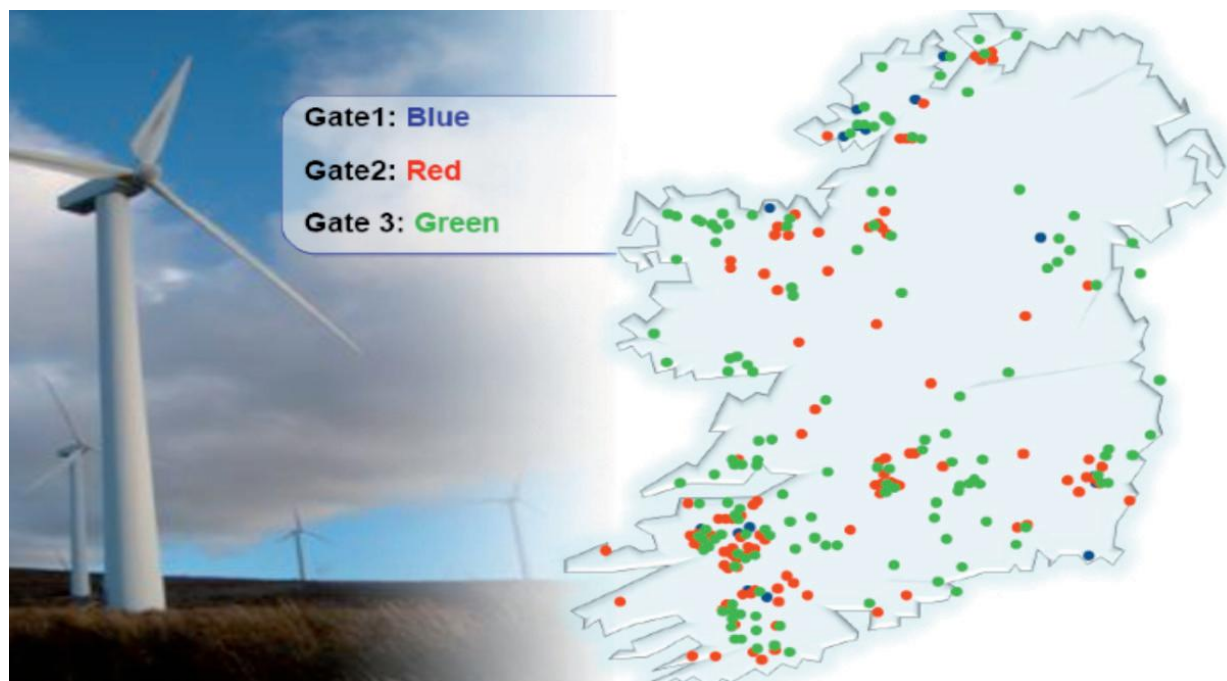
The Government has set a national target for Ireland to achieve 40% of electricity consumption from renewable sources by 2020. The CER is responsible for developing generator connection policy in Ireland. On foot of the Government's targets and following public consultation, the CER published its decision on Gate 3 renewable generator connections in December 2008. Gate 3 is essentially the third round of connection offers for renewable generators such as wind-farms, processed under a system known as the Group Processing Approach. The Gate 3 renewables direction allowed for the issuance of connection offers by the System Operators to over 150 new renewable projects, with a combined capacity of about 4,000 MW. In addition to new renewable connections, the CER also published a direction to the System Operators on new non-renewable (conventional) generators offers which will be processed as part of Gate 3. This direction was published in December 2010.

Since then, the CER has been working with the electricity industry and the System Operators to ensure that Gate 3 offers roll out in accordance with the agreed offer issuance schedule and that Gate 3 parties remain fully up to date with the Gate 3 programme. The underlying aim of the CER's efforts in this area remains the achievement of Ireland's renewable targets by 2020 in the most efficient and cost effective manner possible. Gate 3 involves the connection of an unprecedented level of renewable generation in Ireland. The programme involves the issuance of around 3,200 MW of capacity to on-shore wind projects, with a further almost 800 MW of capacity to off-shore wind projects.

If all of these Gate 3 projects develop through to connection to the electricity system, on top of Gate 1 and 2 renewable generators, Ireland will have approx. 6,000 MW of renewable power



connected. By any standards, this will be a significant level of mainly intermittent wind power. The location of the Gate 3 renewable projects is shown below, along with Gate 1 and 2.



To allow for the connection of all of these new renewable projects, the CER has sanctioned more than a billion euro investment in the electricity transmission system over the years 2011 to 2015. This includes the construction of new transmission capacity as well as the upgrading of existing capacity to allow these renewable projects to export their power. Delivery of this new infrastructure by the System Operators will be a key component of the success of Gate 3 and achievement of Ireland's renewable targets.

As referred to above, already about 20% of our electricity consumption comes from renewable sources - mostly wind farms - one of the highest levels in the EU, and this has been facilitated by the connection of Gate 1 and Gate 2 renewable generators in recent years. The CER continued to monitor the roll-out of Gate 3 connection offers by the System Operators in 2011, in line with the agreed offer issuance programme. All offers were issued to Gate 3 parties by 12<sup>th</sup> August 2011. Generators have already begun accepting their offers with just over 1,200 MW accepted as of Quarter 1 2012.

It is expected the majority of generators will start to accept offers in 2013 post completion of the SEM Committee review of Tie Breaks in Dispatch and the issuance of EirGrid's constraints reports. For information on scheduling and dispatch and the related issue of the treatment of "tie-breaks" in dispatch, please see key task 4 on the SEM earlier in this report. The CER is also overseeing the "DS3" programme of work by the TSOs to help meet the 40% renewable target, as detailed in key task.

To ensure all Gate 3 generators remain fully up to date with the roll-out of Gate 3 the CER facilitates the Gate 3 Liaison Group. The Liaison Group continues to deal with a large volume of Gate 3 issues and is working effectively as a communications forum and information exchange between the CER, the System Operators and the electricity industry. The Liaison Group, with the completion of the offer programme, has also started to focus on post offer issuance matters. This will become more significant in 2012 as more Gate 3 generators accept their offers and move their projects forward towards construction. As the take-up of Gate 3 becomes clearer the CER will initiate considerations of the appropriate next steps in connection policy.

In May 2011 the CER published a decision paper - Connection Offer Policy & Process (COPP) – the paper details the procedures and process the system operators undergo when processing offers (and offer modification requests) for generator connections to the electricity network. The decision intended to offer further clarity, transparency and flexibility to the current system for processing offers – among other topics discussed are the issues of temporary connections, installed capacity and reductions in maximum export capacity (MEC).

Also in May 2011 the CER published a decision on “First Stage Payments” on acceptance of a connection offer to the electricity networks. Developers are required to pay a project specific “First Stage Payment” when they accept their offer, broadly to cover the pre-construction costs incurred by the System Operator in developing the connection. The CER’s decision paper introduced a “sliding scale” mechanism for first stage payments to take account of concerns of developers who may not be connecting for a number of years.

Later in October 2011 the CER published a decision paper on Financing of the System Operator preferred connection method in contestable builds. This paper outlined a mechanism by which contestable developers who are required to “over-build” their connection for future system needs, can receive a set of stage payments from the System Operators as the connection is built out.

## **Smart Metering**

### *Introduction*

Smart meters are the next generation of meters, which can replace existing electro-mechanical and diaphragm meters. They offer a range of benefits for both the individual electricity and gas customer and for the electricity and gas systems in general. A smart meter is an electronic device that can measure the consumption of energy more regularly than conventional meters, providing more up-to-date information to the customer and facilitating more “time of use” tariffs. A key feature of a smart meter is the ability to provide bi-directional communication between the customer and supplier/network operator. Smart metering can:

- (i) facilitate improving energy efficiency by empowering consumers with more detailed, accurate, and timely information regarding their energy consumption and costs; and
- (ii) reduce overall energy consumption;
- (iii) reduce overall energy bills by helping to shift any discretionary electricity usage away from peak consumption times through “time of use” tariffs.

The benefits of smart metering are recognised internationally and there are a number of key EU legislative instruments promoting smart metering to ensure that consumers are properly informed of actual energy consumption and costs frequently enough to enable them to better regulate their energy consumption.

The CER, working closely with the Department of Communications, Energy and Natural Resources (DCENR), established the Smart Metering Programme Phase 1 in late 2007 with the objective of setting up and running smart metering trials and assessing the costs and benefits of a national smart metering rollout. This was in order to inform decisions relating to the full rollout of an optimally designed universal National Smart Metering Programme.

Smart Metering Programme governance structures have been in place since early 2008, including a Smart Metering Steering Group and a Working Group, established and chaired by the CER. These groups are designed to draw on the valuable experience and expertise of the electricity and gas industries and thus consist of representatives from the DCENR, the Sustainable Energy Authority of Ireland (SEAI), ESB Networks, Bord Gáis Networks and Irish gas & electricity suppliers. In addition, the Economic and Social Research Institute (ESRI) was engaged by the CER to partner delivery of the cost-benefit analyses.

Various smart metering electricity and gas trials for residential and small-to-medium (SME) business consumers were planned and designed during 2008/09 and began in 2009/10, with completion in 2011. Associated cost-benefit analyses for the national rollout of electricity and gas smart metering were also completed in 2011 using the findings of the various trials.

The year 2011 represented a particularly successful year for key achievements on the Smart Metering Programme, with the culmination of the work on the various smart metering trials and cost-benefit analyses which were completed during the year. The CER published the findings reports relating to the electricity trials and CBA in May 2011, followed by the equivalent gas reports in October 2011. This comprehensive information set was then used by the CER to inform its proposals relating to the national rollout of electricity and gas smart metering which were consulted on in November/December 2011. A Decision Paper was published by the CER in July 2012.

The following is a summary of key achievements during 2011:

- Completed consultation process for developing smart metering full rollout assumptions to be used in the cost-benefit analysis in January 2011;
- Completed electricity customer behaviour trials and published report in May 2011;
- Completed electricity technology trials and published report in May 2011;
- Completed cost-benefit analysis for electricity smart metering and published report in May 2011;
- Completed gas customer behaviour trials and published report in October 2011;
- Completed dual-fuel technology trials and published report in October 2011;
- Completed gas smart metering cost-benefit analysis published report in October 2011;
- Published consultation paper in November 2011 outlining proposal for a national smart metering rollout. Consultation responses were published in January 2012.

Further details on the smart metering customer behaviour trial results and the national rollout consultation are provided below.

### *Summary of Key Findings*

The key deliverables of Phase 1 of the National Smart Metering Programme, namely the electricity and gas smart metering trials findings reports and cost-benefit analyses reports (as depicted below), have been published by the CER during 2011, as follows.

#### *Smart Metering Programme Phase 1 – Key Findings Reports*

<b>Customer Behaviour Trials Findings Reports</b> Electricity: CER/11/080a Gas: CER/11/180a	<b>Technology Trials Findings Reports</b> Electricity: CER/11/080b Dual Fuel : CER/11/180b	<b>Cost-Benefit Analyses Reports</b> Electricity: CER/11/080c Gas : CER/11/180c
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This combined suite of electricity and gas smart metering findings reports is intended to provide a robust, fact-based information set that can inform CER, DCENR, and stakeholders of the possible merits of providing smart electricity and gas meters to residential and SME (small-to-medium enterprise) consumers in Ireland. In addition, the cost-benefit analyses help cast light on the relative attractiveness of various design options for implementation of smart metering and the main sources of risk associated with a national smart metering rollout. At a high level the findings from these detailed reports indicate that:

- A national rollout of electricity and gas smart metering and associated initiatives should assist customers in being more efficient in their use of electricity and gas, and as a result reduce their electricity and gas costs and their carbon emissions. These trials showed that, combined with In-home Displays and “time of use” tariffs in electricity (see images), a national rollout of smart meters could lead to a 2.9% reduction in overall gas consumption, a 2.5% reduction in overall electricity consumption and an 8.8% reduction in peak-time electricity consumption.

*In-home Display (IHD) used in Electricity Trials*

Shows how you are doing against your daily budget



Indicates the current cost of electricity per hour (does not include standing charge and VAT)

Indicates price at peak (red), day (orange) and night (green) rates

Indicates how much your electricity has cost this month (does not include standing charge and VAT)

*Time-of-Use (ToU) Tariff Bands used in Electricity Trials*



- There is quantifiable net benefit to Ireland, often substantially so, arising from the different national electricity and gas smart metering rollout options analysed. With the optimal combination of electricity and gas national smart metering rollout options being selected the net present value (NPV) benefit to be achieved would be circa €229 million over a period of 20 years. On other words the benefits arising from smart metering - mainly from energy network operator-related efficiencies, customer energy usage efficiencies and electricity generation-related efficiencies achieved by lower energy consumption (especially at peak times) - more than outweigh the costs of rolling out smart metering nationally by circa €229 million.
- There are a number of potential costs and benefits from a national rollout of smart metering that are very difficult to put a robust quantifiable estimate on and therefore were excluded from the quantifiable cost-benefit analysis, such as facilitation of and/or synergies with a “smart grid” implementation, micro generation and development of electric vehicles. Generally, these exclusions reflect the conservative approach taken to the quantifiable cost-benefit analysis, which tends towards a likely underestimation of the potential benefits from a national electricity smart metering rollout.

The rollout of smart metering would represent a major national infrastructure project, potentially requiring an investment of up to €1 billion. As mentioned above, the cost-benefit analysis shows that the long-term benefits should clearly exceed these investment costs and that there are likely to be further non-quantifiable benefits also. Taking all this together, the case for proceeding with the full-scale rollout of smart meters seems very clear, and this is strengthened further when EU legislative requirements are considered.

### *National Rollout Consultation*

Following the positive findings from the trials and cost-benefit analyses, the CER issued a consultation paper in November 2011 outlining that it is minded to proceed with a national rollout of electricity and gas smart metering in Ireland. This consultation paper also outlined proposals, drawing from European and national legislative requirements as relevant, regarding the high level objectives, data requirements, design, functionality, implementation approach and timelines for the national smart metering end-to-end solution.

The consultation period closed in December 2011 and 35 responses were received. After considering the responses received, the CER published its final Decision Paper on the move to Phase 2 of the national smart metering rollout in July 2012.

This Decision Paper will enable the CER to move the National Smart Metering Programme into Phase 2, where the high level design and requirements will be elaborated upon with the involvement of all relevant stakeholders under an appropriate governance structure.

### **Corrib**

The Corrib Gas field is located off the west coast of Ireland. Tunnelling is underway in order to complete the final section of offshore pipeline. It is currently expected that the Corrib gas field will come on line in late 2014.

### **Regulatory Treatment of BGE Interconnectors**

Separate from the 5-year revenue review, but related to the general gas networks charging regime, in 2011 the CER initiated a consultation process for dealing with the Regulatory Treatment of the two BGE Interconnectors with Great Britain (“the ICs”). The underlying policy issues have been known for some time and reflect very much the particular features of the Irish gas wholesale market.

Imports of gas across the ICs account for over 90% of Irish gas supplies. Ireland is effectively a gas price taker with the wholesale market clearing price being set by the GB national balancing point price plus the cost of transporting that gas across the ICs (i.e. the IC tariff). The IC tariff will likely continue to set for the foreseeable future the marginal price of gas in Ireland. However, new sources of gas coming on stream would result in a decrease of flows across the ICs. Assuming the current tariff regime remains unchanged this, in turn, would force up the cost of importing gas from the UK through higher IC tariffs. This increase in tariffs would give an incentive to owners of new sources to increase their gas prices to just under the IC price, which would lead to an overall increase in the price of gas for customers.

In June 2012 the CER published its decision on this matter. The decision sets out a forward looking Long Run Marginal Cost (LRMC) tariff methodology for dealing with all entry points (existing and new) to the Irish transmission system. The decision allows for a reward for efficient new sources of gas while at the same time containing upward pressure on tariffs and recognising the crucial role the interconnectors play in securing Ireland’s long term energy supply requirements.

## **3.6 Security of Supply**

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

### **3.6.1 Electricity**

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. 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 is also discussed.

#### ***CER & TSO's Role***

The CER has a role in monitoring security of supply/generation adequacy and, together with the 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.

The CER's legal functions and duties in relation to security of supply are contained primarily in Directive 2003/54/EC and Directive 2005/89/EC. The Directives have been transposed into Irish law by SI 60 of 2005. Directive 2003/54/EC has since been replaced by Directive 2009/72/EC. However the reporting requirements as contained in Section 4 remain the same as Directive 2003/54/EC.

The continued monitoring of security of supply remains a key priority for the CER. As part of monitoring arrangements, 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 most recent Security of Supply Report was submitted in July 2012. 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 can decide on any necessary actions, as 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 EU Commission on Security of Electricity Supply***

Under European Directives 2009/72/EC and 2005/89/EC, which have been transposed into Irish Law by Statutory Instrument No. 60 of 2005, the CER is required to prepare and submit a report to the European Commission every two years. The fourth such report is due in July 2012.

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

- (a) The CER's Monitoring Activities;
- (b) Fuel and Other Power Sources;
- (c) The Balance Between Supply and Demand;
- (d) Supply and Demand-Side Measures;
- (e) Transmission Networks; and,
- (f) Issues Identified and Measures Undertaken.

Some of the key points from that 2012 report are summarised below:

- In 2011 70% of electricity generation came from imported fuels of which 55% was natural gas, 15% was coal and 0.29% was oil. Peat as an indigenous source of fuel provided 8% of generation requirements;
- Ireland imports more than 95% of gas requirements and 100% of oil and coal requirements. The connection of Ireland to Britain via the East West Interconnector will help to diversify and fortify security of supplies.;
- Based on the TSO's assessment of supply and demand of electricity there is expected to be an increase in surplus capacity in the coming years, peaking in 2015. This is due to a median growth demand of 0.9% as well as continuing conventional and renewable connections onto the system.
- Technical and infrastructure projects such as the DS3 Programme and Grid 25 are assisting security of supply by ensuring that non-synchronous connections i.e. wind are being safely facilitated. CER monitors these projects and receives periodic updates on their progress.

The 2012 Security of Supply Report is available on the CER website.

As stated above, the Security of Supply Report indicates a reliance on fossil fuels for electricity generation, primarily natural gas, and coal. The continued supply of natural gas is an important consideration for the CER given that natural gas accounted for over 55% of Ireland's generation fuel mix in 2011.

Due to the importance of this fuel CER obligates gas generators to be able to run on a secondary fuel for a specified number of days. For gas fuelled generators secondary fuel is held as distillate oil. To date the majority of generators are in compliance. In May 2012 EirGrid (TSO) carried out a Capacity Report to assess the possibility of plants increasing their fuel reserves. The Report concluded that an option for key generation plants to increase their secondary fuel reserves was a possibility.

## Secondary Fuel Requirements

Primary Fuel Type of the Generating Unit	Requirement to be capable of running on a secondary fuel	Requirement to hold stocks of that fuel	Number of Days Storage Required (Continuous running at primary fuel rated capacity)	
Gas units and CHP units of more than 10MW	Yes (At 90% of units capacity)	Requirement to hold secondary fuel	Higher Merit	5
			Lower Merit	3
			CHP>10MW	1
Non-gas units such as oil and coal (excluding renewable and peat units)	No requirement	Requirement to hold primary fuel	Higher Merit	5
			Lower Merit	3
Renewable <sup>1</sup> units	No requirement	No requirement	N/A	
CHP units of 10MW and less	No requirement	No requirement	N/A	
Peat units	No requirement	No requirement	N/A	

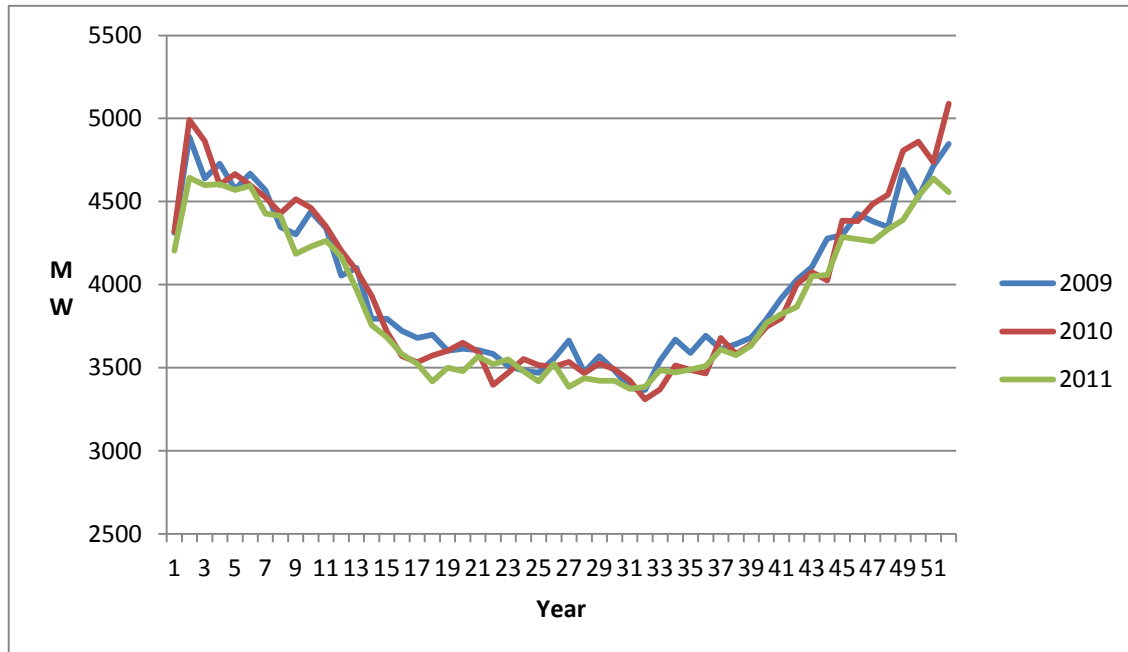
## Security of Supply Indicators

Due to a weak economic climate electricity demand has cumulatively fallen by 8% over the last three years. In 2010 there was an increase in demand of 0.9% due to inclement weather. This was followed by a decrease in demand again of 3% in 2011.

Peak demand in Ireland reduced significantly from 2008 to 2009. However due to colder weather conditions at the beginning and towards the end of 2010 peak demand was actually higher than 2008. The graph below shows the weekly peak demand for the years 2009, 2010 and 2011.

<sup>1</sup> Renewables is as defined in the Electricity Regulation Act, 1999

## Peak Electricity Demand 2009, 2010 and 2011

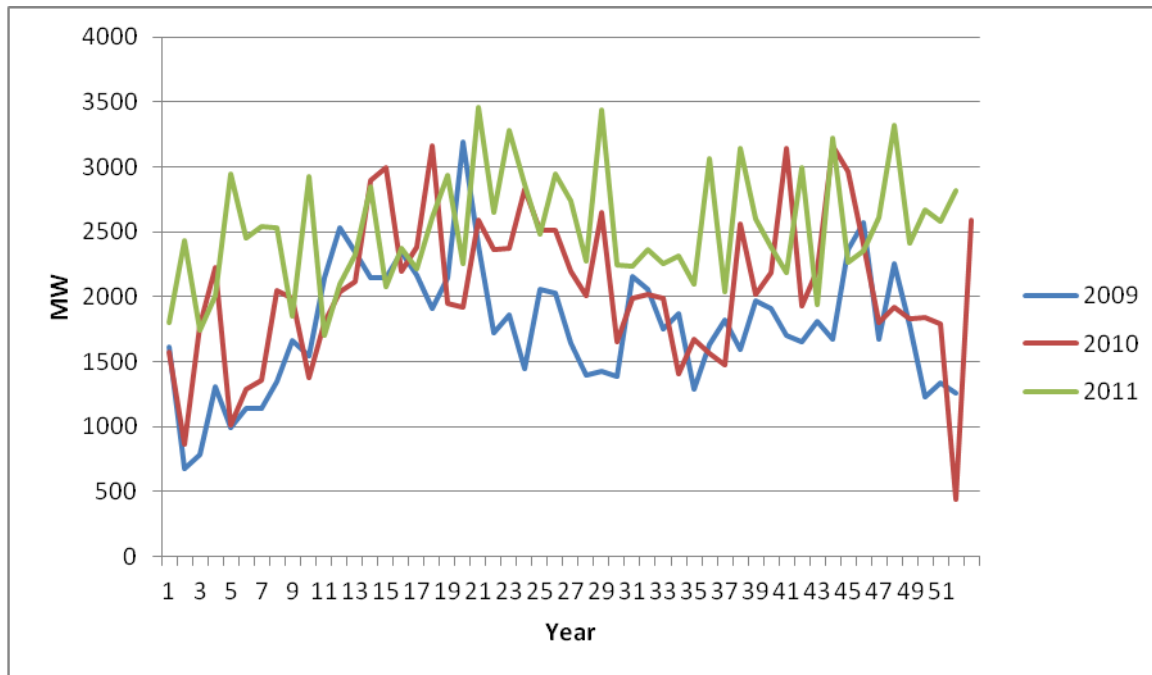


Some statistics are as follows:

- The system peak demand for 2011 was 4,644 MW on 5<sup>th</sup> January 2011, a decrease on the 2010 peak demand which was 5,090 MW;
- The total available plant at the peak demand was 6,246 MW for the 2011 peak demand. This compares to 5,219 MW in 2010;
- Wind at the 2010 peak was 46 MW whilst wind at the peak for 2011 was 143 MW;
- Flows from South to North reported at peak demand for 2011 were 56 MW - a decrease on the 2010 peak demand flow of 270 MW;
- The margin at the 2011 peak was 1,801 MW whilst the margin at the 2010 record peak was 444 MW.

Overall the decrease in total demand in 2009 and 2011, along with new generation entry, both renewable and conventional, has helped result in an increased weekly margin of available plant at the peak. The figures below demonstrate this clearly. The margins at peak (i.e. the difference between the sum of plant availability, wind and interconnector flows; and peak demand) remained high throughout 2011 - and was generally higher than 2009 and 2010. This is shown below.

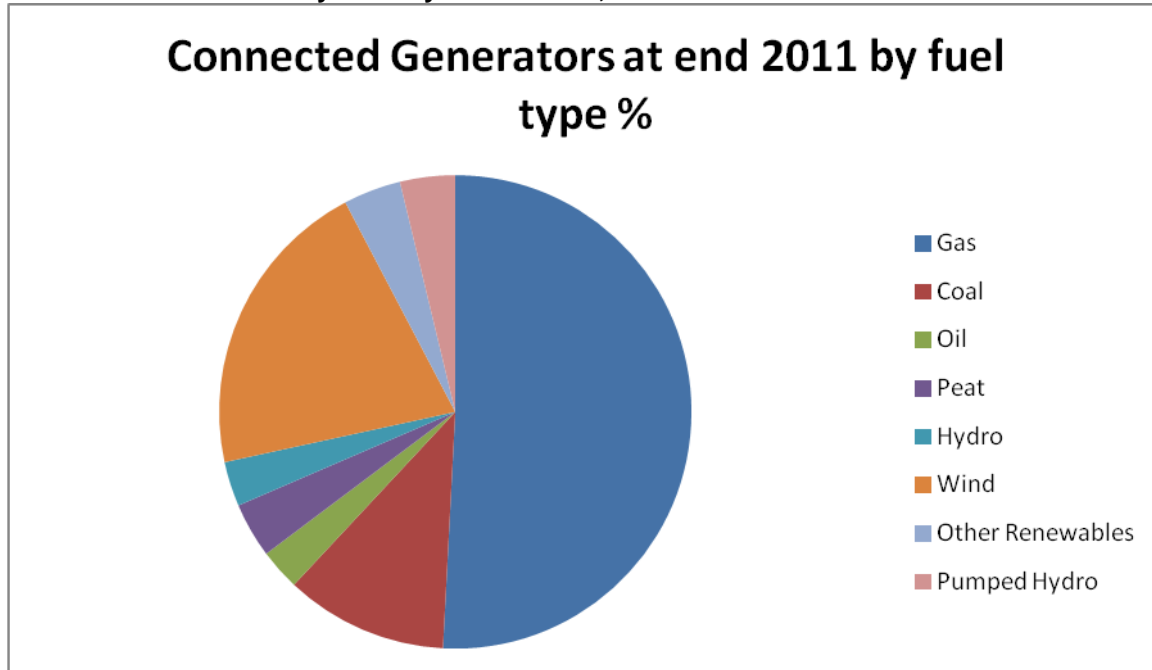
### Electricity Margin at Peak 2009, 2010 & 2011



In 2011 construction began on a 459 MW CCGT plant at Great Island. This will replace 212 MW of oil distillate at the same site. This plant is due to be completed in 2014. Additionally repair work has been completed on Turlough Hill (pumped storage hydro) with 292 MW of phased capacity being added to the system up to July 2012. There are also a number of projects that are currently considering their connection offers. Combined, these projects constitute an additional 411 MW of capacity on the generation system. The total anticipated conventional connections over the coming years equates to 870 MW which will sufficiently offset the projected closure of 820 MW.

The graph below shows the approximate installed generation capacity by fuel type in Ireland at the end of 2011.

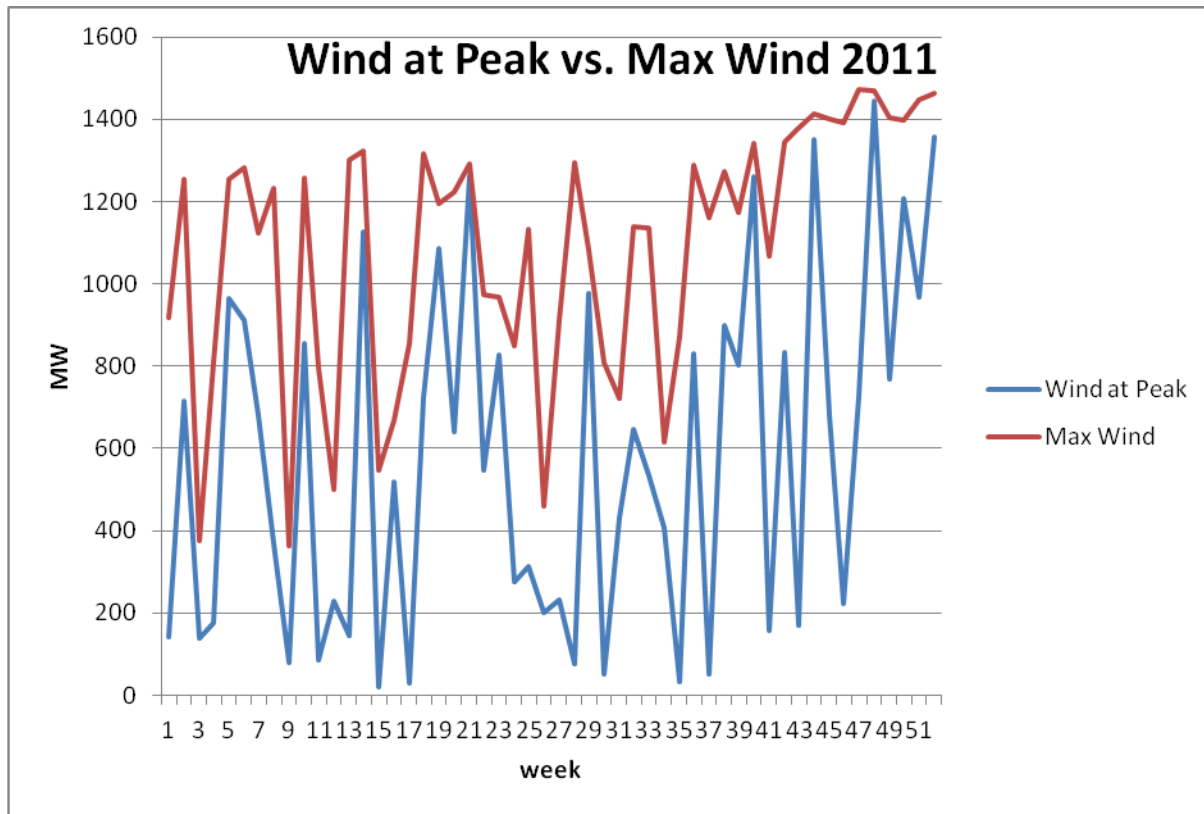
Connected Generators by Primary Fuel Source, December 2011



2011 saw the total electricity generated from renewables rise to circa 20% of total generated electricity. Wind contributed 17% of this with the remaining being generated by hydro and LFG. On the 26<sup>th</sup> November 2011 a peak of 1.474MW was recorded. This surpasses the previous 2010 peak record of 1,228MW. This is partially due to the ongoing wind connections joining the system.

The graph below shows peak wind during 2011 and also the level of wind at the peak each week.

## Maximum Wind vs. Wind at Peak 2011



### ***Plant Licensing***

The CER has statutory powers to issue Generation Licences and Authorisations to Construct as per Section 14 to 16 inclusive of the Electricity Regulation Act, 1999.

### ***Authorisations to construct***

Although no “conventional” (i.e. non-renewable) authorisations to construct were issued in 2011 there were numerous licences and authorisations granted for renewable and CHP generators. As previously mentioned, work is advancing on a 459 MW CCGT plant at Great Island which is due for completion in 2014. Periodic monitoring of construction projects is undertaken to ensure compliance with licence conditions.

A summary of the Authorisations and Licences granted in 2011 is set out below.

	<b>Number of Stations</b>	<b>Total Installed Capacity (MW)</b>
<b>Authorisations Granted (9)</b>		
Of which wind	<b>8</b>	<b>171.5</b>
Of which CHP	<b>1</b>	<b>2.0</b>
<b>Total authorisations</b>	<b>9</b>	<b>173.5</b>
<b>Licences Granted (17)</b>		
of which wind	<b>13</b>	<b>206.2</b>
Of which CHP	<b>1</b>	<b>2.0</b>
of which biomass	<b>1</b>	<b>17.0</b>
of which diesel	<b>2</b>	<b>17.6</b>
<b>Total Licences</b>	<b>17</b>	<b>242.5</b>

### ***Authorisations & Licences – Role of CER***

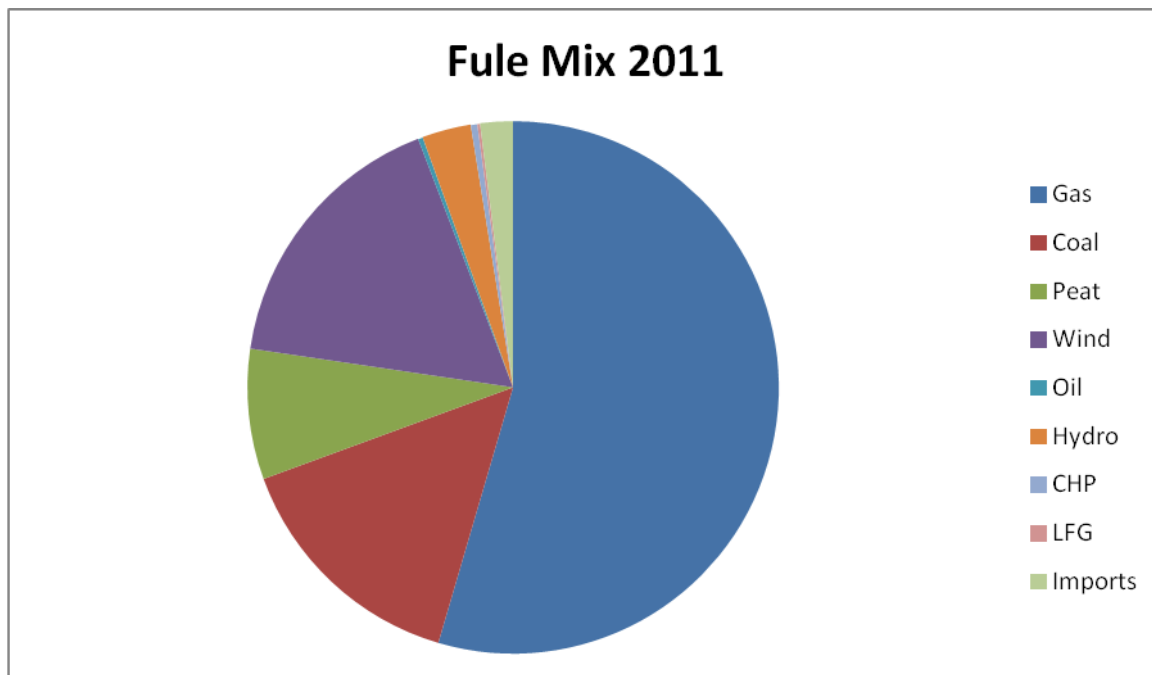
Under the relevant legislation, generation plants are required to obtain an Authorisation to Construct or Reconstruct Generation Plant and a Licence to Generate. These contain a number of conditions relating to the construction and operation of the plant, and the applicant's business.

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, Integrated Pollution Prevention Control Licence, etc);
- Project business plan (project financing, business plan, off-take arrangements, accounts projections, etc.).

## 2011 Fuel Mix

A noticeable feature of the Irish fuel mix is the significant reliance on imported fossil fuels. However it should be noted that renewable sources of energy are playing an increasingly important part in the generation portfolio with a particular emphasis on wind generation. In 2010 13% of electricity consumption came from renewables, with 10% coming from wind powered generation. In 2011 this renewable generation figure increased to 20% with 17% of this figure arising from wind, 3 % from hydro and 0.2% from LFG. The significant increase in electricity produced from wind has resulted in a corresponding fossil fuel dependency reduction. Coal produced 15% of total requirements and peat; an indigenous fuel source produced 8% of generation. The reliance on oil as a generation fuel fell to 0.3%. Overall the reliance on imported fossil fuels fell from 77% in 2010 to 70% in 2011. The 2011 fuel mix is set out below.



### 3.7.2 Gas Security of Supply

In 2011 the CER and UR co-operated in the production of the third Joint Gas Capacity Statement (JGCS) for Ireland and Northern Ireland. The 2011 JGCS presents an assessment of the ability of the all-island transmission network to meet forecast gas demand and potential supply scenarios over the next ten years (2010/11 to 2019/20). The study provides the best estimate of the adequacy of the transmission system on the island to meet demand growth in the two jurisdictions.

The 2011 JGCS differs from that produced last year by extending the scope of the analysis to ten years. The scope of the analysis was extended in 2010 to cover 10 years in order to align the analysis of Ireland and Northern Ireland with that of the European 10-Year Network Development Plan produced by the European Network of Transmission System Operators for Gas every two years under EC Regulation N° 715 of 2009.

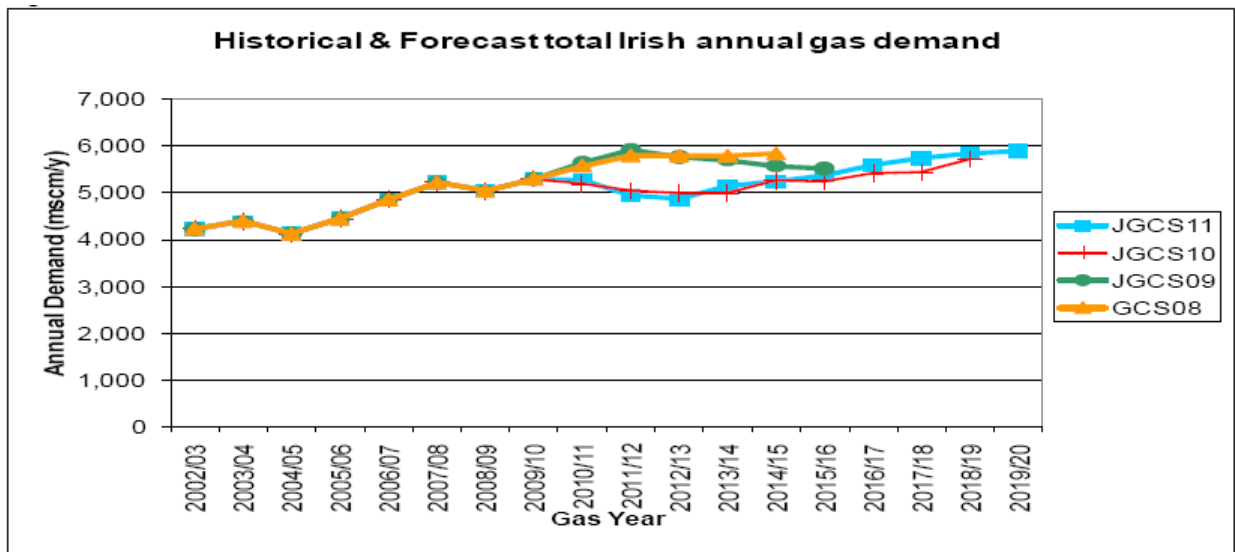


The results of the TSO's modelling showed that there may be the potential for limited flexibility in terms of system operation in the onshore Scotland network in the short to medium term in the event that certain primary supply and demand assumptions were not to hold true. The CER has since examined this issue in detail as part of the third networks' price control of the gas transmission and distribution system and set out appropriate next steps on the basis of this follow-up analysis.

The report also shows Irish annual gas demand grew by circa 7% in 2009/10 largely on account of increased power sector gas demand which was driven by favourable gas prices, generally low levels of low wind powered generation and the extended periods of exceptional cold weather. The outlook for future gas demand is again less certain compared to previous years due to the economic recession. Forecast annual demand is shown as decreasing in the short-term. Peak day gas demand is not forecast to increase considerably until the latter half of the forecast period. Overall, natural gas continues to be an important fuel for power generation, and remains the fuel of choice for new thermal power station projects.

The historical and forecast total Irish Annual Gas demand for the period is shown below.

### Irish Gas Demand



## **3.9 “Third Package” Developments**

### **3.9.1 Introduction**

In order to facilitate the creation of an internal European energy market, the European Commission’s “Third Package” (which refers to a package of EU legislation on European electricity and gas markets that entered into force on the 3<sup>rd</sup> September 2009), imposed obligations on Member States with respect to “network unbundling”, and developing harmonised network codes. Consequently, a key focus for the CER during 2011 was to provide input into EU Framework Guidelines, which feed through to EU-wide Network Codes, and ensure compliance with Third Package” requirements.

In relation to energy networks, the third package outlines requirements in relation to the independence and “unbundling” of transmission system operators (TSOs). Unbundling is understood to refer to the level of separation of the TSO from interests relating to the generation and/ or supply activities. This means that ownership or control over the activities of the TSO must be independent from ownership or control over generation or supply companies operating in that Member State and using the transmission system. TSOs have an important role to play in the electricity sector as the networks which they operate are monopoly functions.

The “Third Package” requires that the national regulatory authority in each member state certifies their TSO as being in compliance with the unbundling requirements of the Directive - the CER will carry out this certification requirement in 2012.

2011 was a year of transition for the European energy regulators in cooperation with the newly established ACER, the Association for the Cooperation of European Energy Regulators. In building up ACER, the European energy regulators will continue their voluntary cooperation on energy issues through the Council of European Energy Regulators (CEER) and will provide input to the European Commission and ACER, not only on institutional, practical and organisational challenges but also on the further work on framework guidelines. The Framework Guidelines set the scope for EU-wide Network Codes in 12 different areas. The CER is active in this European network and has played its role in advancing Ireland’s interests in the preparation of framework guidelines in electricity so far. These framework guidelines, published throughout 2011, provide the basis on which the European Transmission System Operators body (ENTSO-E) are now required to prepare the detailed network codes. The CER will continue to actively engage with ACER, ENTSO-E and the European Commission as the drafting of the Network Codes progresses.

### **3.9.2 Unbundling and Certification for Third Package**

#### **Gas**

In 2010 the Department for Communications, Energy and Natural Resources advised the CER that BGE would adopt the “Independent Transmission Operator (ITO) model” for network unbundling to ensure compliance with the Third Package. Essentially, the ITO model will amalgamate Gaslink and Bord Gais Networks, to form a new independent subsidiary of BGE, which will have its own Board and Supervisory Body. A key function of the CER is to review BGE’s application regarding the establishment of the ITO, to ensure that BGE’s application for ITO certification is in compliance with the Third Package. Following a review of BGE’s

application, and the receipt of opinions from the European Commission, the CER will be required to certify whether BGE is ITO compliant.

In order to progress the implementation of the ITO model, the CER had significant interaction with BGE, in terms of reviewing their proposals to enable BGE's compliance with the relevant articles under Directive 2009/73/EC. Specifically, during 2011 the CER reviewed BGE's proposals in terms of:

- the separation of assets, equipment and staff;
- brand development;
- ensuring the independence of staff within the proposed ITO;
- establishment of a Supervisory Body;
- appointment of a Compliance Officer;
- development of a Compliance Programme; and
- development of a Ten Year Network Development Plan.

While awaiting BGE's formal application for ITO certification, the CER also commenced work on reviewing the TSO and Transmission Asset Owner (TAO) licences for gas, to ensure that the licences, when finalised, are consistent with the requirements of SI 630 – European Communities (Internal Market in Natural Gas & Electricity) Regulations 2011.

Whilst significant work has been undertaken during 2011 in terms of progressing the ITO model for gas, the CER is aware that the potential sale of BGE's assets (excluding gas transmission and distribution pipelines), could result in a change from an ITO Model of Unbundling to a Full Ownership Unbundling Model for BGE. The CER will continue to monitor this development closely in 2012, given the potential impact that it may have on the timelines for compliance with the Third Package.

### ***Electricity***

In late 2011 the Department of Communications, Energy and Natural Resources published Statutory Instrument 570 of 2011, requiring the relevant electricity transmission licence to apply to the CER for certification of the Transmission System Operator (TSO) as required under Directive 2009/72/EC. Following the Government's decision in mid 2011 to maintain the electricity transmission assets within ESB Group, it is expected that ESB will make an application for certification of the Irish split-model transmission arrangements under Article 9,9 of the Directive.

Subsequent to the publication of SI 570 of 2011, the SEM Committee (see key task 4) decided that TSO Certification in Ireland was a SEM matter. This follows an earlier decision by the SEM Committee that certification in Northern Ireland is a SEM matter. This means that the SEM Committee will consider applications for TSO Certification received by CER or Utility Regulator. The Guidelines for TSO Certification in Ireland will be published in 2012.

### **3.9.3 Framework Guidelines & Network Codes in Gas**

The EU's Third Package contains provisions regarding the establishment of harmonised access conditions to natural gas transmission systems to ensure the proper functioning of the internal

market in gas. Central to these provisions is the development of EU-wide Network Codes in 12 topic areas which will apply to gas interconnection points throughout Europe. These topic areas include harmonised principles for tariffs, capacity allocation, congestion management, transparency requirements and balancing.

These EU-wide Network Codes for gas will be drafted by the European Networks of Transmission System Operators for Gas (ENTSOG) in line with the Framework Guidelines set out by ACER. ACER also has a role in reviewing the draft Network Codes, including their compliance with the Framework Guidelines.

In 2011 the European Regulators progressed the development of the Framework Guidelines for Capacity Allocation Mechanism (CAM) and Balancing and also the Congestion Management Procedures, each of which will present significant change to the Irish gas market. The CER provided important input into the development of the Framework Guidelines, and subsequent CAM Network Code which involved assessing the implications to the Irish market. The CER and Gaslink, the Irish TSO, also provided regulator updates on these European developments to industry through industry fora, and closely worked with the Department of Communications, Energy and Natural Resources.

The next Network Codes to be developed in 2012 relate to Balancing, Tariffs, Interoperability and the CER, in conjunction with Gaslink, will contribute to the progress of these Codes and represent the needs of the Irish gas market at a European level.

For information on Framework Guidelines in electricity, please see section 3.1.

CEER work on assessment on the Inter-TSO compensation mechanism for cross border trades in electricity did not commence in 2011 but is expected to start later in 2012.

### **3.9.4 REMIT**

REMIT, the new EU “Regulation on Energy Market Integrity and Transparency”, entered EU law on 28<sup>th</sup> December 2011 and introduces new EU-wide market rules and market monitoring in energy. REMIT’s scope includes wholesale electricity and natural gas contracts for production, trade, transportation, and supply/distribution to customers with a consumption of 600 GWh per annum or higher.

REMIT provides for market abuse prohibition rules across the EU and will also establish a new registration, reporting and monitoring regime for energy transactions, with certain energy transaction data across the EU to be sent to ACER in Ljubljana.

A public workshop on the implications of REMIT was organised by the CER and Utility Regulator in March 2012. The CER will continue to keep market participants updated on this issue and will be expressing its views on the proposed energy transaction registration/reporting system at ACER/CEER meetings. This is to press for a system which captures suspected cases of market abuse but which is also not administratively burdensome or costly for market participants.

For information on consumer-related Third Package developments, please see section 3.3 earlier.

## **4. Regulation and Performance of the Electricity Market**

### **4.1 Introduction to Networks**

Access conditions, connection charges and use of system tariffs imposed by the transmission and distribution operators are regulated. For electricity, this concerns EirGrid as Transmission System Operator (TSO) and ESB Networks Ltd. as the Distribution System Operator (DSO). Further, the CER has introduced a number of ring-fencing requirements between and within the incumbents' regulated businesses to ensure that certain business units/subsidiaries 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 businesses from its generation and supply businesses was completed in late 2005, with subsequent legal unbundling carried out at the start of 2009.

### **4.2 Electricity Network Operators**

There is one TSO, EirGrid, and one DSO, ESB Networks Ltd. ESB Networks (a business unit of ESB Group) is the owner of transmission and distribution system.

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), asset values, business and system performance.

The CER carried out a review of the network operators' revenue during 2009 and 2010 for the period 2011 to 2015. Further details are available in section 3.5 earlier. The CER approves any changes to transmission and distribution 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. 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.

Please see section 3.5 for developments in this area, with unbundling information in section 3.9.

### **4.3 Electricity Network Tariff Structure**

See section 3.5 for details on network revenue/tariffs.

Transmission tariffs consist of postalised demand tariffs and locational generator tariffs, which recoup 75% and 25% of the "wires component" of the allowed transmission revenue (the vast bulk of the revenue) respectively. All allowed "non-wires" costs, such as ancillary services, are recovered through demand tariffs.

The network charge recovered from demand customers is not recovered solely on a capacity basis but is split between energy and capacity. 40% is recovered on an energy basis and 60% is recovered on a capacity basis through the 'Network Capacity Charge'. This is allocated on a

fixed basis through a per MW, Network Capacity Charge. This amounts to approx 45% of wire costs being allocated to the network capacity charge.

The 40% of wire related costs that is allocated on an energy basis is recovered through an MWh Network Transfer Charge, as a result demand users are charged consistent with their associated usage.

There is also a capacity margin charge in place for recovering costs associated with demand side management schemes. This is recovered fully from demand users and does not form part of the TUoS revenue.

The 25% of the total allocation of network related costs that is allocated to generation users is recovered through the Generation Capacity Charge. Generators connected directly to the transmission system or indirectly via the distribution system pay locational use-of-system charges which are capacity based (Reverse MW-mile methodology).

Distribution connected generators with a capacity <10 MW have a locational Network Capacity Charge rate of zero. Generators equal to or greater than 10 MW pay a site specific Generator Network Capacity Charge.

Generators who can be called upon to offset flows and who have the potential to reduce the need for future investments are credited by the TSO. This could result in some of these generators having a negative overall TUoS charge; however a lower bound of zero has been set for generators who do not provide system security from a planning perspective – wind generation and ‘emergency’ generators.

#### 4.4 Network Performance

There is a requirement on the Distribution System Operator (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 table below provides information on the total duration (minutes/yr) of interruption for the average customer for the period 2005 – 2010:

**Duration of interruption for average customer 2005-2009 (minutes/year)**

<b>SAIDI</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Planned interruptions - Min per customer/Yr</b>	375	269	79	61	59.3	64.1
<b>Unplanned interruptions - Min per customer/Yr</b>	154	124	115	94	81.3	82.1
<b>Planned and unplanned interruptions - Min per</b>	529	393	194	155	141	146.1

customer/Yr						
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#### 4.5 Network Performance

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 combined the two previously separate wholesale markets of the Republic of Ireland and Northern Ireland into one cross-border market and was developed with the goal of creating a single market that benefits all consumers through; greater competition, better investment opportunities, enhanced security of supply, and improved efficiencies.

More details of the SEM, including developments in 2011 are shown in Section 3.1 above.

#### 4.6 Electricity and Gas Retail

Please see section 3.3 for electricity and gas retail developments in 2011.



## **5. Regulation and Performance of the Natural Gas Market**

### **5.1 Introduction to Networks**

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 retain responsibility for the licensing and regulation of offshore exploration.

The CER regulates the charges, tariffs and access conditions imposed by BG Energy and conducts five-year reviews of revenue earned by the gas network operators. There are also annual price controls in place 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 BG Networks as owner of the gas transmission and distribution systems and Gaslink as TSO.

Further, the CER has introduced a number of ring-fencing requirements between and within the incumbents' regulated businesses to ensure that certain business units/subsidiaries are autonomous and independent of one another. These requirements are enforced by way of licence conditions and business separation implementation programmes.

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 owner 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.

### **5.2 Gas Network Tariffs**

BG Networks (BGN) proposes network transmission and distribution tariffs to the CER as part of the annual tariff review exercise. 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 BGN costs, including the benchmarking of costs against the same activities in other countries. BGN's allowed costs are decreased as appropriate to reflect efficiencies that should be achieved. See section 3.5 for further information.

### **5.3 Network Performance**

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.

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.

#### Natural Gas Network Interruption Information 2010

Gaslink Performance Report		
	Number of regulated companies	Interruptions
Transmission	1	100% Compliant <sup>2</sup>
Distribution	1	88.5% Compliant <sup>3</sup>

## 5.4 Gas Balancing

Natural gas market balancing arrangements are included in the Irish gas Code of Operations, as approved by the CER. There is a daily balancing regime which is based on the aggregate portfolio of each individual shipper. Tolerance ranges are based on customer category (i.e. smaller customers have larger tolerances). Market participants can trade out their 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:

#### Gas Balancing Mechanism Characteristics

Gas Balancing Mechanism Characteristics	
Definition of balancing charges	Under the Code of Operations, balancing charges are defined as the Daily Imbalance Charge and the System Imbalance Charge.
Definition of penalties	Penalties are charged on imbalances outside the appropriate tolerance range that are not traded out. The regime is market based as the prices are based on the UK NBP price. First tier imbalances (i.e. within the tolerance range) are cashed out at the NBP price and have no additional penalties. Shippers are penalised if

<sup>2</sup> This refers to no Unscheduled Maintenance / Interruptions or Interruptions due to maintenance occurring in 2010.

<sup>3</sup> The target set out in BGN's Customer Charter approved by the CER is to restore gas supply by midnight of the following day in the event of an unplanned interruption. Of the 12,568 no gas incidents, 1,451 were restored outside the 24 hour criteria.

	the imbalance is in excess of the tolerance at the Second tier imbalance price by paying a multiple of the market price.
Existence of tolerance levels	Tolerance levels are set on a customer category basis. Gaslink, calculates the Shipper Portfolio Tolerance in respect of each day for each registered Shipper. The calculation methodology for the Shipper Portfolio Tolerance 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 CAG4
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.

<sup>4</sup> CER and the Northern Ireland regulator (UR) are undertaking a programme of work designed to integrate the Irish and Northern Irish gas markets under the Common Arrangements for Gas (CAG) project.

Imbalance timetable	Settlement	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.
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## 5.5 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.

## 5.6 Unbundling of Gas Networks

Please see section 3.9 for information on this.

## 5.7 Management & Allocation of Interconnection Capacity & Congestion

The Transmission and Distribution systems are operated by an Independent System Operator, Gaslink. The Transmission and Distribution assets remain in the ownership of BGÉ.

Currently 95% of gas is imported through the two interconnectors with the UK (IC1 and IC2). There is sufficient capacity available through the interconnectors at the current time 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. 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.

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 a 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: Shippers can nominate in excess of active capacity which is de-facto an interruptible capacity. A specific interruptible product is in place at the storage entry point at Inch. Principles and business rules have been developed for an enhanced interruptible product at the entry, 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 may be transiting in the future. The specific arrangements have not yet been finalised;
- Assessment of maximum technical capacity: The TSO methodology on the maximum technical capacity is assessed in the *Joint Gas Capacity Statement (JCS)* prepared by the CER and the UR. The JCS estimates the gas capacity of the Ireland and Northern Ireland systems and in addition acts as an independent check on the TSO methodology;
- Publication of capacity availability and capacity bookings: The transporter has developed a transparency website 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 through the transporter's website ([www.gaslink.ie](http://www.gaslink.ie))

## 5.8 Wholesale Gas Market

### ***Common Arrangements for Gas***

The CAG project between the Ireland and Northern Ireland includes the development of a common all-island gas market arrangements going forward. Details of this are provided in section 3.2.

### ***Indigenous Production and Storage***

The Moffat entry point in Scotland connects the Irish natural gas system to that belonging to National Grid in GB, and allows for the importation of GB gas to Ireland and Northern Ireland via two sub-sea interconnectors and an onshore pipeline in Scotland. It is the primary source of gas for the gas markets in Ireland (circa 95%), Northern Ireland and the Isle of Man.

Ireland's only indigenous gas supplies at present are located off the South coast of Ireland at Kinsale and are brought ashore through the Inch entry point. These existing fields are largely depleted and the production accounts for only about 5% of demand.

The main possible source of additional indigenous production in the short term is the proposed Corrib gas field off the West coast of Ireland. The Corrib gas field is estimated to contain circa 23 bcm of gas and would supply circa 53% of the Irish gas demand for 6 years.

The only storage facility currently in Ireland is the depleted South West Kinsale (SWK) gas field has been converted for this purpose. It has a working volume of c. 200mscm (2,093GWh), a maximum withdrawal rate of 2.8 mscm/d (29.3 GWh/d) and a maximum injection rate of 1.8 mscm/d (18.8GWh/d). It mainly operates as a seasonal storage facility but can also accommodate within-day gas withdrawals and injections. There is potential for expansion of the storage facility.

## 5.9 Retail Gas Market

Please see section 3.3 for electricity and gas retail developments in 2011.

### ***Shipper / Supply Licence Provisions***

All shippers and suppliers in the market are required to hold relevant licences from the CER. In 2011, the CER separated the then combined shipping and supply licence into two separate licences to reflect the separate functions of shipping and supply as set out in national legislation.

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:** Licence 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. A specific condition also refers to prohibition of cross-subsidies.

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

The supply licence 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.

In 2011 the CER consulted on a proposal to add, in furtherance of the Energy Services Directive – S.I. No. 542 of 2009, a condition to the supply licence obliging suppliers not to offer tariffs that create incentives that may unnecessarily increase the volume of distributed or transmitted energy.

### ***Gas Supply Tariffs***

With the continued development of competition in the gas retail markets, the CER published in June 2011 a Roadmap on the criteria for de-regulating Bord Gáis Energy's gas prices (similar to the electricity Roadmap). In October the CER de-regulated the business gas markets as the Roadmap criteria had been already met. Bord Gáis Energy can now set its own tariffs for business gas customers, which should further help competition. The domestic sector is currently under review as competition further develops. Details as to the revenue approval process applied during 2011 while markets remained subject to regulation are provided in the following sections.

### ***Domestic and Small Industrial & Commercial***

While the domestic market remains regulated, since 1<sup>st</sup> October 2011 Bord Gáis Energy has been able to set its own tariffs for all business customers, including small industrial & commercial customers. While subject to regulation, Bord Gais Energy's allowed revenues for domestic and small industrial & commercial markets are 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:

**BGE Energy Supply Revenue Control Formula**

<b>BG 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 Bord Gáis Energy'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 23 of the Bord Gáis Energy's supply licence obliges Bord Gáis Energy 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 Bord Gáis Energy to purchase gas more efficiently.
BG Energy's own supply costs	Indexed to growth/decline in numbers of Bord Gáis Energy's customers and in GWh sales.

In addition, new tariff structures for domestic and small and medium sized businesses have been implemented by BG Energy 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.

**Medium Customers (consumption level above 73,000kWh and SPC<sup>5</sup> greater than 3,750kWh)**

Since 1<sup>st</sup> October 2011, Bord Gáis Energy has been able to set its own tariffs for all business customers. Prior to this the revenues associated with medium business customers were set as

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<sup>5</sup> SPC = Supply Point Capacity



per 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; and,
- *Shrinkage Gas Charge (c/kWh)*: reflecting the monthly unit cost of transmission shrinkage gas costs incurred.

**BG Energy Fuel Variation (FVT) Tariff Products**

<b>BG Energy 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 Bord Gáis Energy where no alternative pricing arrangements have been put in place. The gas commodity price is calculated as the average of the last five 'ICE' daily settlement prices for month M during month M-1 as published in the European Spot Gas Markets (ESGM).
Fixed	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.

## **6. Consumer Protection**

### **6.1 Introduction**

Consumer protection measures apply to all parties 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. These, in turn, are based on guidelines developed and published by the CER.

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. 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.

The CER also has a legislative duty to “have regard to” customers located in rural areas. Moreover ESB, which is still designated as the Public Electricity Supplier (PES) has a duty to supply all reasonable requests for supply received from customers.

The legislative frameworks and specific policies/measures that have been put in place with respect to consumer protection are discussed below.

Developments during 2011 in this area are highlighted in section 3.3 above.

### **6.2 Consumer Protection Legislation**

The Electricity Regulation Act, 1999, and the Gas (Interim) Regulation Act, 2002, transposed into Irish legislation the various public service obligations outlined in Internal Market in Electricity and Gas Directives 96/92/EC and 98/30/EC.

Statutory Instrument Number 60 of 2005 (European Communities (Internal Market in Electricity) Regulations 2005) (SI 60 of 2005) transposed the obligations and consumer protection measures included in the Internal Market in Electricity Directive 2003/54/EC. Equivalent measures in gas stemming from the Internal Market in Gas Directive 2003/55/EC were transposed by Statutory Instrument Number 452 of 2004 (European Communities (Internal Market in Gas) (No.2) Regulations 2004) (SI 452 of 2004).

In addition, the Third Package of European energy legislation placed new duties and responsibilities on National Regulatory Authorities (NRAs), including the CER, with respect to the retail market and customer protection, including an increased role in market monitoring. The first phase of transposition of the Third Package was implemented through the enactment of S.I. No. 450 of 2010 which required the CER to monitor the level and effectiveness of market opening and the development of competition in the supply of electricity to final customers. SI No. 463 of 2011 transposed the broader customer protection aspects of the Third package and

SI No. 630 of 2011 completed the transposition, extending the monitoring obligations to the gas market and including additional requirements for both electricity and gas.

### **Electricity**

S.I. 60 of 2005 provides for inter alia, better consumer protection measures and also added Directive 2003/54/EC 'Annex A' consumer protection measures and transposed the universal service obligation. SI 60 of 2005 also provides for the labelling of energy sources on electricity bills and standards of performance of the PES, TSO and DSO in relation to supply.

The further customer protection and market monitoring requirements of the Third Package for the electricity retail markets were transposed into national law via the following statutory instruments: S.I. No. 450 of 2010, S.I. 463 of 2011 and SI No. 630 of 2011

S.I. No. 450 of 2010 also allowed for deregulation of the electricity markets by removing the onus on the CER to examine and approve electricity supply charges levied by the ESB Public Electricity Supplier. However, where monitoring of the market shows that customers are not benefiting for competition or that competition is being distorted or restricted, S.I. No, 450 of 2010 provides for the CER taking measured action, including, if necessary, the re-imposition of tariff regulation.

### **Gas**

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 by S.I. 452 of 2004.

In S.I. No. 452 it is stated in regulation 6 (inserting section 21A into the Gas (Interim) (Regulation) Act 2002) 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; and,
- there are adequate safeguards to protect vulnerable customers (including the elderly and disabled) which shall include measures to help such customers avoid disconnection;

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

The further customer protection and market monitoring requirements of the Third Package for the gas retail markets were transposed into national law via the following statutory instruments: S.I. 463 of 2011 and SI No. 630 of 2011

### **6.3 Consumer Protection Obligations**

This section outlines specific consumer protection measures which have been put in place by the CER for the benefit of consumers. Customer protection obligations are binding on all suppliers. Though broadly similar the requirements vary for domestic and business customer, with greater requirements placed on suppliers of domestic customers – for example they must obtain CER approval of their Terms and Conditions.

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

#### ***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. To facilitate legal unbundling as required by 2003/55/EC the CER granted Transmission and Distribution Operator licences to Gaslink the newly established Independent System Operator in 2008.

#### ***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 protection:

- 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;
- Code of Practice for Budget Controllers/ Prepayment metering – if serving domestic customers; and
- 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. Changes to the Codes of Practice for de-energisation / disconnection were introduced in 2010, which introduced a greater level of assistance to

customers to avoid disconnection in these testing economic times – for example a requirement on suppliers to offer a free “pay as you go” meter prior to moving to disconnection for non payment. In 2011 the CER consulted on the amalgamation of the various Codes of Practice into a single document to be called the Supplier Handbook. At the same time the Codes of Practice were reviewed and changes put forth. A decision on the Supplier Handbook is to be published in 2012.

### ***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. In 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.

### ***Complaints Arbitration - Gas & Electricity***

The CER has 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. Statutory Instrument SI 463 of 2011 (replacing SI 452 of 2004 for Natural Gas and SI 60 of 2005 for Electricity) increases the CER’s responsibility in the area of customer protection to take account of relevant changes in the Third Package and increases the CER’s powers in relation to complaints arbitration, to allow the CER to apply any decision which it considers affects more than one customer to all affected customers.

The CER has established a dedicated Energy Customers Team 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 Energy Customers Team for consideration. The team examines the complaint interacting with suppliers and network operators to determine the root of the problem. Following completion of any necessary investigation the Energy Customers Team 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 Energy Customers Team work in 2011 is discussed in section 3.3 above.

### ***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 (SoLR) 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 BGE as SoLRs for the electricity and gas markets respectively.

The CER consulted on possible changes to SoLR 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 on this matter was issued prior to the commencement of the SEM. In 2011 and the transition to full deregulation of the electricity retail markets (which occurred in April of that year) the CER published a decision paper on how the role of the SoLR would be fulfilled in the deregulated market place. The decision will see the role of the SoLR be offered to the market in a competitive process. The CER is to consult further on the details of this process. In the interim Electric Ireland (formerly ESB Customer Supply) will maintain the role of the Public Electricity Supplier.

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

Under S.I. 60 of 2005 and under its supply licence, ESB PES, as the "default supplier", must meet all reasonable requests for supply (duty to offer supply). The CER determines what constitutes a reasonable request for supply. No such obligation to supply is placed on the BGE 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.

In 2011 and the transition to full deregulation of the electricity retail markets (which occurred in April of that year) the CER published a decision on how the duty to offer supply would be fulfilled in the deregulated marketplace. The decision will see a duty to offer supply for domestic and small business customers placed, through licence condition, on suppliers actively supplying these customer categories. The CER subsequently consulted on modifications to the licence to supply electricity in 2011 to implement this decision. A decision on the licence modifications is to be published in 2012.

### ***Network Access for Rural Customers***

The Electricity Regulation Act, 1999, states that the CER should take into account the needs of rural customers. Condition 2 of the Distribution System Operator's licence (Connection to and

use of the distribution system) stipulates that the 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 BGE in the gas market.

### ***Information on Energy Sources for Electricity***

As required by Directive 2003/54/EC and S.I. No. 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 July 2009 the SEM Committee published a decision on the Interim Arrangements for fuel mix disclosure. These interim arrangements have since been replaced by a new methodology which was required due to the introduction of guarantees of origin for renewables in Ireland. The new methodology is set out in a SEM Committee decision which was published in November 2011.

These interim arrangements will be superseded by the arrangements which will be introduced following the transposition of the new RES directive (2009/28/EC) into Irish and UK law.

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