

# Consultation on Electricity and Gas Retail Market Competition in Northern Ireland



**23 April 2008**

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## Executive Summary

During the course of 2007, the Northern Ireland electricity and Greater Belfast gas markets were fully liberalised, with all customers able, in theory, to choose their gas and electricity supplier. At the same time, a new all-island electricity wholesale market (the SEM) was established, creating much improved arrangements for the trading of electricity and providing a stronger basis for attracting new entrants into the electricity retail market and for the further development of retail competition.

However, there is little evidence that retail competition is at present becoming established outside the market for supply to industrial electricity customers. In particular, there are no active competitors to the incumbent suppliers – NIE Energy Supply and Phoenix Supply – in the domestic energy markets. As discussed in the report, elements of both our underlying electricity and gas related legislation provide the statutory underpinning to our work to facilitate and deliver effective competition to protect customer interests.

This consultation is a first step to developing a strategy for making further competition a reality in the Northern Ireland energy retail markets, and for ensuring that suppliers can take full advantage of the new arrangements designed to promote competitive markets. Its purpose is to consider whether the competitive benefits deriving from liberalisation and the establishment of the SEM can be delivered more quickly to Northern Ireland energy consumers.

We have begun by trying to identify any barriers to the more rapid development of competition and reviewing potential policy options and solutions to address these, but we do not start from an assumption that further competition is an end in itself. We recognise that competition can be costly and that it might potentially conflict with our other statutory duties. Our aim is to assess the impact of policy options on achievement of all our objectives. Our overall policy stance remains to aim for cost-effective retail competition that delivers overall benefit, within our statutory duties. This implies the need for an explicit examination, at the appropriate stage, of the impact and benefits of selected main policy options.

This consultation sets out the relevant background and reviews the current status of competition in the electricity and gas retail markets in Northern Ireland (**chapters 2 and 3**). In summary, our preliminary conclusions are:

- although we are at very early stages of domestic market opening, there are no active competitors to the incumbent gas and electricity suppliers for these customers and, while some players have indicated a desire to enter the domestic retail markets in the longer-term, there is no clear evidence of significant activity in the immediate future;
- although market structures and regulatory regimes have undergone significant changes in the recent past which all provide an improved platform for the development of retail competition - such as full energy market opening and the establishment of the SEM in electricity - effective and embedded retail competition is yet to be realised in most market sectors; and
- several groups of industrial and commercial customers are unable to obtain alternative offers from suppliers at present.

However, we believe that there are some encouraging signs:

- there are several active players in the industrial electricity market;
- while few customers have switched in gas, a number of gas supply companies are active in the industrial gas market, albeit in a very small way;
- the recent takeover of Airtricity by Scottish and Southern Energy (SSE), introduces a new player with a vast experience of operating in competitive domestic energy markets.

We then examine (**chapter 4**) where we feel potential barriers to further retail competition may lie. Our preliminary conclusions are that there are a number of contributory factors that, in combination, are potentially preventing competitive pressure delivering benefits to customers in terms of lower prices and increased choice of products and services. Several of these revolve around the asymmetric position between incumbent suppliers and the new entrants in terms of scale and scope of operation.

In general, the assessment suggests that there are several generic sets of barriers that apply to both the electricity and gas markets, the implication of which is that potential suppliers at worst may not even contemplate entry into segments of the markets. These barriers result in new entrants facing asymmetrically high risks and costs that potentially remove the scope for them to profitably and sustainably compete with the incumbent even when they may be more efficient, innovative and flexible in their strategies. They are:

- Overall gas and electricity market size;
- Scale and diversity of incumbent supply position;
- Lack of fuller contract market liquidity;
- Issues around the retail price-controls, including allowed retail margins;
- Quality, transparency and availability of data;
- Operational rules and governance.

We then consider (**chapter 5**) options for dealing with some of these barriers. We examine eight in particular:

- (1) Incentivising natural gas connections and further roll-out (Gas)
- (2) Synchronisation of retail market processes and systems with other markets
- (3) Removal of “K-factors” (Electricity only at this stage)
- (4) Scope, structure and transparency of price controls
- (5) Shallow Supply model
- (6) Divestment of the incumbent and/or restrictions on bidding or customer acquisition
- (7) Improving contract market liquidity (Electricity only)
- (8) Data availability and transparency

We assess each in terms of their impact on competition, consumers and sustainable development. The impact is considered relative to a do nothing position that assumes there is no change to the current market and regulatory arrangements and measured in terms of the following five ranks:

Large benefit	✓✓
Small benefit	✓
Neutral	-
Small cost	✕
Large cost	✕✕

We do recognise the difficulty in estimating such effects without a full impact assessment and therefore we accept there will be a subjective nature to the results, however we believe this initial assessment will provide a starting point for a further more detailed analysis. The results are:

<b>Barrier</b>	<b>Option</b>	<b>Impact on Competition</b>	<b>Impact on consumers</b>	<b>Sustainable development</b>
<b>Scale of market</b>	Gas Connection	✓ Main benefit on domestic market, but scale is still a concern	✕✕ to ✓ dependent on relative cost of facilitating systems and level of new entry	✓/✓✓ dependent on number of new connections
	Market synchronisation	✓	✕/✓ dependent on costs of implementation	✕/✓ dependent on costs of implementation
<b>Price control</b>	K-factor removal	✓✓ major short-term improvement in the non-domestic market	✓✓ (non-domestic) ✕/✓ (domestic)	✕/✓
	Scope of Control	✓	✓	-
<b>Market Structure</b>	Shallow supply model	✓	✓ (on cost) ✕ /- (on product choice and innovation)	✓
	Divestment	✓	✕✕ (loss of economies of scale in short-run)	-
	Contract market liquidity	✓✓	✓	✓
<b>Operational rules</b>	Data availability	✓✓	✓	-

We then consider (**chapter 6**) several “scenarios” under which competition might develop in NI in the short and longer terms and seek to engender a discussion around how chosen policy options might interplay with these scenarios. Taking account of possible future developments, there are several actions that we would propose to consider in more detail based on our initial assessment above.

## Electricity market proposals

In the short-term, we would propose to:

- actively seek to address concerns regarding data availability or transparency;
- first re-consider, and then where appropriate support, activities to further develop contract market liquidity;

- progress our work in conjunction with the CER/SEM to agree and implement a programme of retail market synchronisation.

In the medium-term, we will:

- develop criteria for assessing whether the scope of the NIEE price-control can be reduced;
- review inclusion of the K-factor in NIEE supply price-control;
- review price control transparency issues and future work requirements in terms of the level of allowed regulated margins. Both areas are already recognised within the Utility Regulator and their assessments will be built into future price control work and methodologies.
- consider potential for shallow supply model.

## **Gas market proposals**

In the short-term, we would propose to:

- examine options, alongside DETI and Government as necessary, to re-invigorate economic and co-ordinated gas roll-out, both to new areas and within existing distribution/supply areas;
- actively seek to address concerns regarding data availability or transparency;
- review through GMOG the key operational and technical issues raised;
- progress our work in conjunction with the CER/SEM to agree and implement a programme of retail market synchronisation;

In the medium-term, we will:

- consider the need if any to impose more structure or transparency on the Phoenix tariffs through the price-controls;
- review price control transparency issues and future work requirements in terms of the level of allowed regulated margins. Both areas are already recognised within the Utility Regulator and their assessments will be built into future price control work and methodologies;
- consider potential for shallow supply model.

## ***Main Questions***

Lastly, questions regarding several areas where we are seeking views from interested parties are raised throughout the consultation. These are summarised below.

**Q1: (Ch 3) Do respondents agree with our overall summary of NI energy retail market competitiveness and do you feel we have missed anything of significance that should have been noted at this stage?**

**Q2: (Ch 3) Are there additional indicators of the current state of competition in the retail markets that we should be considering?**

**Q3: (ch 4) Do respondents agree that the analysis has identified the major potential barriers to competition in the domestic and non-domestic electricity**

**markets or are there additional barriers that you feel we should take into consideration?**

**Q4: (ch4) Do respondents agree that the analysis has identified the major potential barriers to competition in the domestic and non-domestic gas markets or are there additional barriers that you feel we should take into consideration?**

**Q5: (ch 5) Have we missed anything important in relation to potential actions - are there additional regulatory actions that the Utility Regulator should consider beyond those described above?**

**Q6: (ch 5) Do you agree with the initial assessment of the impact of the proposed regulatory actions on the electricity and gas retail markets? Do you think we have materially mis-estimated potential impacts?**

**Q7: (ch 6) Do respondents agree with our analysis above in relation to scenarios and their interplay with options, and with our proposed actions?**

Responses to the questions and issues raised in this paper should be sent to the Utility Regulator by **Wednesday 16<sup>th</sup> July 2008 (responses by 12:00 noon please)**.

Although the 16<sup>th</sup> of July is the deadline for responses, should respondents wish to, we would welcome responses earlier than that date. This would allow us more time to engage directly with respondents on their comments during the remainder of the time up to 16<sup>th</sup> July, and where necessary meet directly with respondents to discuss key comments made.

Responses should be sent to:

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# Chapter 1 – Introduction

During the course of 2007, the Northern Ireland electricity and Greater Belfast gas markets were fully liberalised, with all customers able, in theory, to choose their gas and electricity supplier.

Though not directly connected, this coincided with the creation of the wholesale Single Electricity Market (SEM) across Northern Ireland and the Republic of Ireland. While the SEM was primarily focused on increasing competition in generation, it also had the effect of providing a much improved platform for retail market competition. In particular, by means of the all-island pool through which electricity is traded under the SEM, smaller suppliers have access to a guaranteed market for wholesale electricity, are better able to manage imbalance risks, and have much greater transparency of wholesale pricing than is available with bi-lateral contracts.

Nonetheless, though the energy retail markets are theoretically open to competition, and in spite of the attractions of the SEM for new entrants in the electricity market, there is currently little evidence from standard indicators that competition is becoming established outside of the market for industrial electricity customers. In particular, many non-domestic gas consumers are unable to obtain offers from new suppliers and there are no active competitors to the incumbent suppliers – NIE’s supply arm and Phoenix Supply – in the domestic markets. (We are aware that competition remains slow also to emerge in these sectors in the RoI, despite markets there also being open to competition and despite all necessary switching systems etc. already in place).

The Utility Regulator has a statutory duty in electricity to protect customers ‘where appropriate by promoting effective competition’. As an overarching principle, effective energy retail competition has the potential to deliver significant benefits to consumers and the Northern Ireland economy through more efficient operation, greater choice and stronger incentives for innovation. For example, we note the work done by the National Audit Office several years ago in assessing the positive impacts of electricity retail competition in the GB market (Summary available at [http://www.nao.org.uk/publications/nao\\_reports/00-01/000185es.pdf](http://www.nao.org.uk/publications/nao_reports/00-01/000185es.pdf))

To date, the emphasis of much of the work between the Utility Regulator and industry participants (in both gas and electricity) on delivering retail competition has been on ensuring that systems and processes are in place to facilitate the mechanics of competition and customer switching. Forums such as the GMOG in gas, and the IME/FEMO/SIG groups in electricity have been useful vehicles for progressing these issues. However, we also recognise that systems, while a necessary step, are not sufficient in themselves to ensure the benefits of retail competition are realised by consumers. We recognise the need to consider and consult more widely on a wider spectrum of issues affecting energy retail competition.

This consultation is a first step to developing a strategy for making competition a reality in all of the Northern Ireland energy retail markets. We have begun by trying to identify barriers to the more rapid development of competition and reviewing potential policy options and solutions to address these – that is the essence of this first consultation paper.



But we do not start from an assumption that competition is an end in itself. We recognise that competition can be costly - competition can be expensive to implement and therefore any decisions on significant future changes to the electricity or gas markets will need to be assessed with regard to the cost impact on customers (and perhaps also as to the benefits competition can deliver for different classes of customers). We also appreciate that competition might potentially conflict with our other statutory duties - a consideration of the extent to which competition complements (e.g., competition leading to lower bills helps fuel poverty), or conflicts with, these other policy objectives is fundamental, as is a transparent framework for determining the relative priority across these objectives. This implies the need for an explicit examination at the appropriate future point of the impact and benefits of selected main policy options (though that is not within the scope of this current paper).

As part of the introduction, it is also worth noting the changing industry background in which we are trying to define best-policy-approaches going forward. This can be difficult but, for example, we are aware that as we move forward some consideration will have to be given to supply competition in a world where we are likely to have future significant developments in related areas such as smart metering and supply companies more focused on the supply of energy services and energy efficiency/CO<sub>2</sub> reduction. We discuss some of these scenario-type issues and the possible implications for our approaches to retail competition more fully in chapter 6 below. These wider issues will also be considered in the development of the first 5-year NIAUR Corporate Strategy which is planned for consultation release in early summer 2008.

Bearing all the above in mind, the consultation focuses on high level issues of what we can practically consider to do and which options might prove to be most beneficial and are worthy of further consideration. The intention is to elicit views on the current state of competition in supply, the main barriers to that competition and possible regulatory actions that would improve the functioning of the retail market. To be clear, although we have begun this work by identifying barriers and reviewing potential policy options and solutions, we do not start from an assumption that all barriers are soluble; nor that any or all solutions are desirable regardless of the cost. Our overall policy stance remains to aim for cost-effective retail competition that delivers overall benefit, within our statutory duties.

This high level focus on the issues affecting the Northern Ireland energy markets means that at this stage there will be only limited consideration of the impacts on consumers of the proposed options. As we move forward on policy selection and operationalisation through our gas and electricity teams, we will consult on the detailed implementation of measures, including if necessary impact analysis, to ensure any preferred option delivers optimum benefit for consumers.

The Utility Regulator wish to thank **Pöyry Energy Consulting** for their substantial assistance in drawing this Consultation Paper together. We also wish to thank the various industry players who assisted Pöyry and the Utility Regulator with the development of this paper and engaged with Pöyry in discussions and data sharing.

Responses to the questions and issues raised in this paper should be sent to the Utility Regulator by **Wednesday 16<sup>th</sup> July 2008 (responses by 12:00 noon please)**.

Although the 16<sup>th</sup> of July is the deadline for responses, should respondents wish to, we would welcome responses earlier than that date. This would allow us time to engage directly with respondents on their comments during the remainder of the time

up to 16<sup>th</sup> July, and where necessary meet directly with respondents to discuss key comments made.

The remaining structure of the document is as follows:

- Chapter 2 describes the relevant legislative and policy background;
- Chapter 3 provides an overview of the current market structure and performance;
- Chapter 4 presents the main analysis of barriers to entry;
- Chapter 5 proposes several potential policy responses and assesses their likely impact; and
- Chapter 6 sets the selected options in the context of potential future market scenarios and identified recommendations.
- Chapter 7 outlines the way forward on the consultation.

## Chapter 2 – Regulatory and Policy Background

By way of relevant background, this chapter briefly notes the current relevant statutory duties of the Utility Regulator and most recent policy developments that are likely to impact upon the Northern Ireland energy markets.

### ***Statutory duties of the regulator***

The Northern Ireland Authority for Utility Regulation (the Utility Regulator) was established under Article 3 Part II of the Energy (Northern Ireland) Order 2003 as amended by Article 3 of the Water and Sewerage Services (Northern Ireland) Order 2006. Most of the Functions of the Directors General of Electricity Supply and Gas for Northern Ireland were transferred to the Authority on 1 April 2003. The water and sewerage functions were transferred to the Authority on 1 April 2007.

Under these Orders, the Utility Regulator has to carry out a range of functions and in so doing must adhere to prescribed sets of primary duties regarding the electricity, gas and water industries. (In water, the Utility Regulator has a duty to protect the interests of water and sewerage consumers with regard to price and quality of service by promoting effective competition in the supply of water and the provision of sewerage services).

In terms of both electricity and gas, but especially electricity, protecting customer interests through promoting effective competition are given strong prominence.

With regard to electricity, promoting effective competition is part of the Authority's principal objective:

*The principal objective of the Authority in carrying out electricity functions is to protect the interests of consumers of electricity supplied by authorised suppliers, **wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the generation, transmission or supply of electricity.***

Given the more immature nature of the gas sector in NI and a government policy desire dating back to the early/mid-nineties to stimulate and foster the development of a natural gas supply industry in Northern Ireland, the principal objective relates to industry promotion:

*The principal objective of the Authority in carrying out gas functions is to promote the development and maintenance of an efficient, economic and co-ordinated gas industry in Northern Ireland.*

However, facilitating (not promoting) competition remains a goal within the gas legislation also, and the Order goes on to say that:

*The Authority must carry out [its] respective gas functions in the manner which it considers is best calculated.....**to facilitate competition between persons whose activities consist of or include storing, supplying or participating in the conveyance of gas.***

Most recently, much work has been carried forward in moving to deliver competitive all-island electricity arrangements at the wholesale market level. The Electricity (Single Wholesale Market) Order 2007, which lays the legislative base for the SEM and the work of the SEM Committee, also places an emphasis on the promotion of competition. The Principal objective and duties of Department, the Authority and SEM Committee in relation to SEM matters is set out as:

***to protect the interests of consumers of electricity in Northern Ireland and Ireland supplied by authorised persons, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the sale or purchase of electricity through the SEM.***

### **Key regulatory legislation relevant to competition development**

In Northern Ireland, retail market opening has been implemented largely through Ministerial Orders. Some of the most important include:

- Electricity (Northern Ireland) Order 1992 and amendment regulation;
- The Gas (Northern Ireland) Order 1996 and amendment order;
- Gas (Designation of Pipelines) Order 2007; and
- The Energy Order 2003.

Secondary legislation to bring these orders in line with European Directives was implemented through:

- Electricity Regulations (Northern Ireland) 2007;
- Statutory Rule (SR) 2005/335; and
- SI 2005/355.

In addition, the Utility Regulator has powers to bring about changes to address competition law infringements and market investigations through powers extant under

- the Competition Act 1998;
- Article 81 of the EC Treaty (relating to anti-competitive agreements) and Article 82 of the EC Treaty (relating to abuse of a dominant position) (together, “Articles 81 and 82 EC”); and
- the Enterprise Act 2002

### **Policy developments**

The most relevant policy developments affecting the current and future environment within which the Northern Ireland energy retail markets will operate, relate to the All Island energy market work and the European Commission “third package” of reforms aimed at accelerating and completing energy market liberalisation across the Community.

## All-island market

The gas and electricity “All Island Projects” include workstreams aimed at examining the potential for retail market synchronisation in both electricity and gas markets North and South. This will be actioned by the Governments and Regulators over the next 1-3 years.

The new wholesale electricity “pool” market is known as the Single Electricity Market (SEM). The SEM began operation on 1 November 2007. The rules for the SEM are embodied in the Trading and Settlement Code (TSC). The current version of the TSC is available on the ‘All Island Market for Electricity’ website. The TSC sets out the rules for the trading and settlement of wholesale electricity, in line with the overall objectives set by the two jurisdictions.

The SEM Committee is established in Ireland and Northern Ireland by virtue of section 8A of the Electricity Regulation Act 1999 as inserted by section 4 of the Electricity Regulation (Amendment) Act 2007, and Article 6(1) of the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007 respectively. The SEM Committee is a Committee of both CER and the Utility Regulator (together the Regulatory Authorities) that, on behalf of the Regulatory Authorities, takes any decision as to the exercise of a relevant function of CER or the Utility Regulator in relation to a matter which will, or is likely to, have a material effect on the SEM. The Committee includes an independent and Deputy Independent Member.

At the present time, CER and the Utility Regulator have agreed on a number of issues regarding retail markets that need to be addressed within an all-island context. For the current year, the All Island Project retail regulation working group has set out the following tasks:

- reviewing the k – factors / margins for 2008/09 to adopt any short term changes,
- a complete review of retail markets (customer switching processes, codes of practice),
- a tariff structure review in both retail markets (north and south) with the aim of highlighting anomalies that can be improved over time,
- a review of existing demand side management schemes.

All these tasks aim at synchronising the Republic and Northern Ireland retail markets to ensure the removal of barriers to competition, and to deliver an environment conducive to higher levels of retail competition in the various market sectors.

The “Common Arrangements for Gas” (CAG) programme intends to develop a set of arrangements whereby all stakeholders can buy, sell, ship, operate, develop and plan the natural gas market north and south of the border effectively on an all-island basis. This will ensure that variations in price and conditions will be determined by market conditions and economics, not by regulatory arrangements.

At present harmonisation of the transmission tariff methodologies in the Republic of Ireland and Northern Ireland is taking priority. It is expected that further changes will need to be brought about before full wholesale market harmonisation; these include

- a single operational regime (including harmonised rules for gas quality and emergencies);
- a single transmission planning regime;
- harmonised connection policies; and/or

- single approach to security of supply.

Although current priorities relate to the harmonisation of the wholesale gas market, it is these changes that will allow the development of harmonised retail markets in coming years.

## **EU “Third package”**

On 19 September 2007 the European Commission proposed its third regulatory package for the Internal energy market.<sup>1</sup> The proposed measures are wide ranging and are broadly aimed at delivering fuller and more effective energy market liberalisation. Inter alia, the package covers five relevant main areas.

### ***Unbundling***

The European Commission proposed the adoption of ownership unbundling between network and competitive activities. As a consequence the owner of a network which is still active in production or supply will have to legally and functionally unbundle the part of the company which owns the network.

### ***Regulatory authorities***

National regulators are required to be truly independent for their day-to-day operations from stakeholders and governments. They will gain powers to issue binding decisions on companies and impose penalties for any form of non compliance. Increased cooperation between European regulators is also acknowledged with the establishment of a European Agency for the cooperation and co-ordination of Energy Regulators.

### ***Cooperation between Transmission System Operators (TSO)***

Increased cooperation between TSOs is formalised through the establishment of a ‘European Network for Transmission System Operator’. Its main responsibilities will be the harmonisation of national operational procedures and access regimes to the networks, coordination for network operation and the coordination of planning and monitoring of network investments in transmission capacities

### ***A European retail market (with increased customer protection)***

Achieving a truly competitive European retail market is expected through “effective and properly regulated competition”. The EU third package puts emphasis on adequate customer information on their energy consumption and costs and customer protection as a way to deliver an effective retail market. Therefore roles and responsibilities of market actors will need to be clearly defined for customers to gain confidence in competition.

### ***Transparency***

The EU third package does not amend the existing Directive 2004/67/EC related to security of gas supplies. Proposals are made to increase transparency obligations for commercial issues on gas storage (e.g. demand and supply forecasts) and more solidarity between Member States when it comes to security of supply.

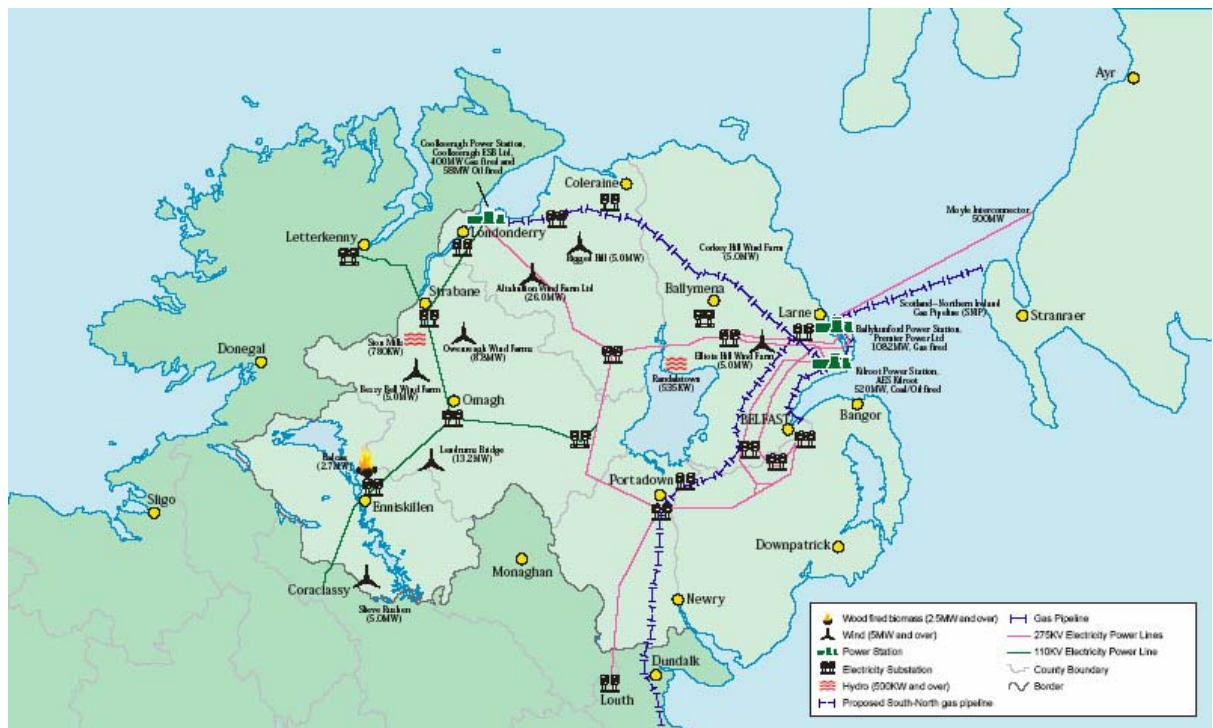
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<sup>1</sup> See [http://ec.europa.eu/energy/electricity/package\\_2007/index\\_en.html](http://ec.europa.eu/energy/electricity/package_2007/index_en.html)

## Chapter 3 – Overview of Current Market Structure

This chapter provides a fairly high-level overview of the current relevant industry structures in electricity and gas. It describes the current demand for gas and electricity and the development and state of competition in these markets. Although this consultation paper is concerned about the development of supply competition, frequent reference is made to the relevant production, transmission and distribution assets. For ease of reference, the following map shows the location of the principal electricity production facilities and gas pipelines.

**Figure 1: Location of the principal Electricity production facilities and Gas pipelines**



Source: DETI web site

### ***The Electricity Market***

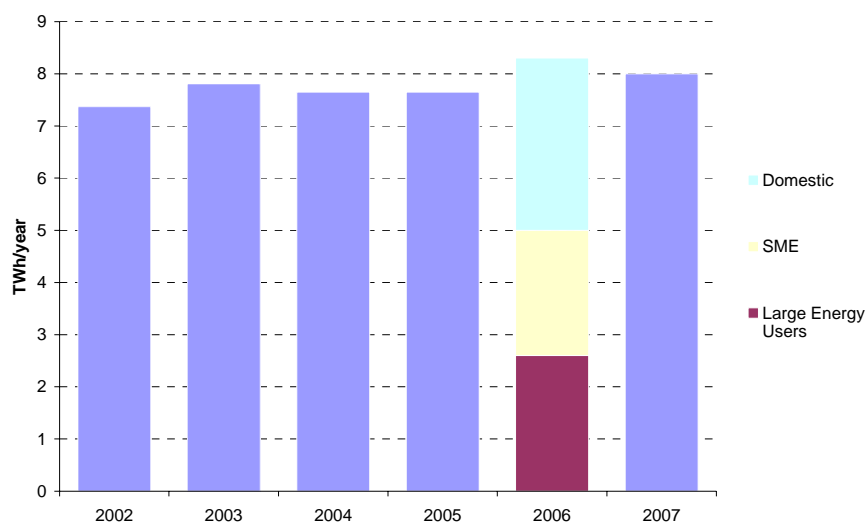
#### **Electricity demand in Northern Ireland**

The annual electricity consumption in Northern Ireland is in the region of 8 TWh and the peak demand in 2007 was 1,669 MW.

There were 790,500 electricity customers in 2007 of which 726,200 (92%) were domestic customers. Small and medium enterprises (SME) accounted for a further 6% of customers and larger industrial and commercial (I&C) consumers the remaining 2%. Despite the substantial proportion of domestic consumers the volume of electricity consumed by each sector is reasonably similar, albeit domestic consumption now accounts for almost 40% of the total. Over the past 5 years

electricity consumption has increased on average by around 2% per annum although the demand for electricity in 2007 showed a decline on that recorded in 2006.

**Figure 2: Northern Ireland electricity demand by year and sector**



Source: The Utility Regulator

## Market structure

Electricity production is predominantly from three major generating plants, namely a new 408MW gas fired plant at Coolkeeragh owned by ESB International (ESBI); the 976MW mixed fuel plant at Ballylumford owned by Premier Power, and the 520MW coal plant at Kilroot owned by AES. The remaining generation, around 79MW<sup>2</sup>, is largely small scale renewable plant.

The Moyle Interconnector provides a 500 MW high voltage DC interconnection with Scotland. Following the implementation of the Single Electricity Market (SEM) on 1<sup>st</sup> November 2007 the 500 MW interconnection between Northern Ireland and the Republic of Ireland has become part of an integrated all island transmission system.

The Trading and Settlement Code for the SEM sets mandatory participation for Generators with a Maximum Export Capacity of 10MW or greater. Any generator(s) with a capacity greater than or equal to the de-minimis threshold and which is covered by a single connection agreement is obliged to participate in the pool. Generators with capacities less than the threshold are not obliged and may choose whether or not to participate as Generator Units under the TSC, and may instead participate within a Supplier Unit as negative demand. There is no threshold for mandatory participation by Demand Side Units.

Supply businesses must procure their electricity supplies in each half hour from the Pool at the system marginal price (SMP). They are also liable to further wholesale electricity costs that result from participation in the SEM. These are capacity payments, imperfection charges that arise from transmission constraints, and market operator costs. In addition a supplier must pay for the use of the transmission and distribution systems to the extent of the supplies that are provided to their customers.

<sup>2</sup> Only includes plants with a capacity greater than 5MW



In order to reduce the risk associated with the uncertainty of future pool price movements some suppliers have entered into contracts for difference (CfD) with generators that effectively swap the pool price for a pre-determined contract price. Other suppliers that also own generation have relied to varying degrees on the output from their generation to create a hedge against the movement in pool prices.

The Regulatory Authorities (RAs) have directed generators that have the ability to exercise market power to enter into Directed Contracts (DC) for a proportion of their anticipated output. The extent of the DC obligation is set so as to reduce the HHI for the market as a whole below 1150. So far this requirement has only applied to ESB Power Generation which was obliged to offer base load, mid-merit and peaking CfDs on a quarterly basis for the period 1<sup>st</sup> November 2007 to 30<sup>th</sup> September 2008 at prices determined by the RAs. Supply businesses were provided with an allocation of these contracts with any contract quantities that were not taken up being re-allocated to other suppliers.

Subsequent to the election for DCs the major generators offered further CfDs through a series of auctions. These are known as Non Directed Contracts (NDC) and also cover the period from the start of the SEM until end September 2008. The shape of cover provided by these contracts is similar to the DC offering but now includes a second variant of the mid-merit contract cover shape. The Utility Regulator is aware of no subsequent contract auctions, and only very limited secondary trading of the cover that was put in place prior to the start of the SEM. As a consequence there will inevitably be a residual exposure to pool price that is seen by suppliers in servicing the demands of their customers.

## **Electricity Market Liberalisation**

Liberalisation of the retail markets in Northern Ireland commenced on a phased basis from 1999. NIEE, the former public electricity supplier, remains the largest supplier in the Northern Ireland electricity market. Other suppliers operating in the Northern Ireland market must obtain a licence from the Utility Regulator.

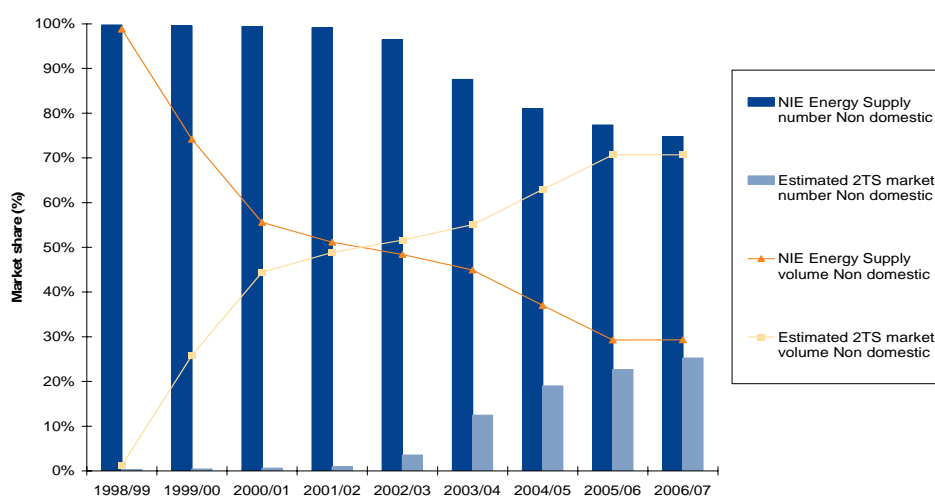
The Utility Regulator has granted 16 electricity supply licences. Supply licence holders are: NIEE, Airtricity Energy Supply Ltd, Bord Gais Eireann, ESB Independent Energy, Viridian Energy Supply Ltd (Energia), Nigen Supply Ltd, Npower Ltd, Power and Gas Venture (PGV) Ltd, Powergen (E.ON UK plc), Premier Power, Quinn Energy Supply Ltd, Regent Electricity (NI) Ltd, SSE Energy Supply Ltd, Scottish Power Energy Retail Ltd, Trade Link Solutions and Lowlands Health & Energy Ltd.

However, many of these licence holders are currently dormant and some, notably Powergen and Npower, have exited the market. Licence holders who remain active in the market in addition to NIEE plc (which holds a combined licence for transmission and distribution) are NIEE Energy (NIEE), Airtricity, ESB Independent Energy, Bord Gais Eireann, and Energia.

## **Competition in Supply**

The liberalisation process in Northern Ireland has followed implementation of the European Electricity Directives 96/92 EC and 2003/54 EC. Since the supply market was progressively opened to competition from 1999 the bulk of supplies to non domestic customers have transferred to independent suppliers. Over 70% of non-domestic consumption is now supplied by non-NIEE suppliers, although the majority of customers, particularly those in the SME sector continue to be supplied by NIEE.

**Figure 3: NIEE and independent electricity supplies**



Source: NIEE/Pöyry

In the I&C sector of the market NIEE lost relatively few sites between 1998 and 2000. However, these sites accounted for a substantial share of the market volume. The intense competition that followed the introduction of supply competition now seems to have slackened. The NIEE market share in terms of customer numbers has stabilised at around 70% but these customers account for less than 30% of the I&C volume. It appears that NIEE has largely retained customers with low annual consumptions and load factors.

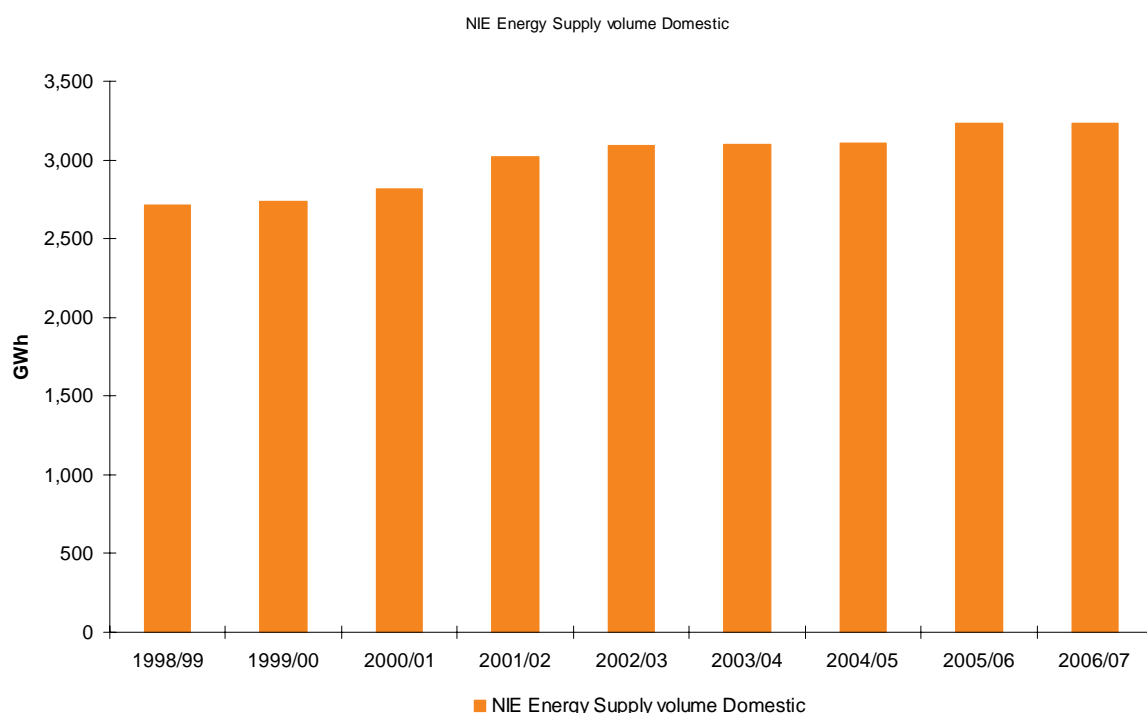
Energia, an affiliate of the incumbent NIEE, has been the most successful of the new suppliers having secured around 30% of the non-domestic market in terms of volume. Energia's share of Large Energy Users has remained stable at around 50% in volume and around 53% of sites (400 out of 750). Energia has 50% of the SME market in sales in 2006 but less than 10% in terms of sites. Energia has been able to secure the more attractive and profitable SME customers.

Airtricity has achieved a 6% share of the non-domestic sector, and claims to now have some 8000 SME customers which correspond to approximately 13% of the SME sector.

There is some tentative evidence, from meter point data provided by NIE T&D to Pöyry, that customers are continuing to switch supplier, which could be a sign that competitive pressure in the non-domestic market is present despite supplier market shares appearing to have stabilised.

By contrast there has been no erosion of NIEE's position in its supply of the domestic market despite significant growth in this sector both in terms of numbers and overall consumption. The trend depicted below includes a re-classification of combined premises as domestic households from 2002. All domestic customers remain supplied by the incumbent.

**Figure 4: Domestic NIEE electricity customer volume**



Source: NIEE

### **NIEE Supply price control**

Although there is now significant competition in the supply market, NIEE's dominance of the domestic and smaller end of the SME sectors has up to now led the Utility Regulator to the view that the regulation of NIEE's prices is still necessary for the protection of customers. In December 2007 the Utility Regulator published its decision regarding the price control that will run from 1<sup>st</sup> April 2007 through to 31<sup>st</sup> March 2009. This control spans the implementation of the SEM and full retail market opening in the island of Ireland. As with previous price controls the approach embodies the use of an RPI-X efficiency measure although for this price control period X is set to zero.

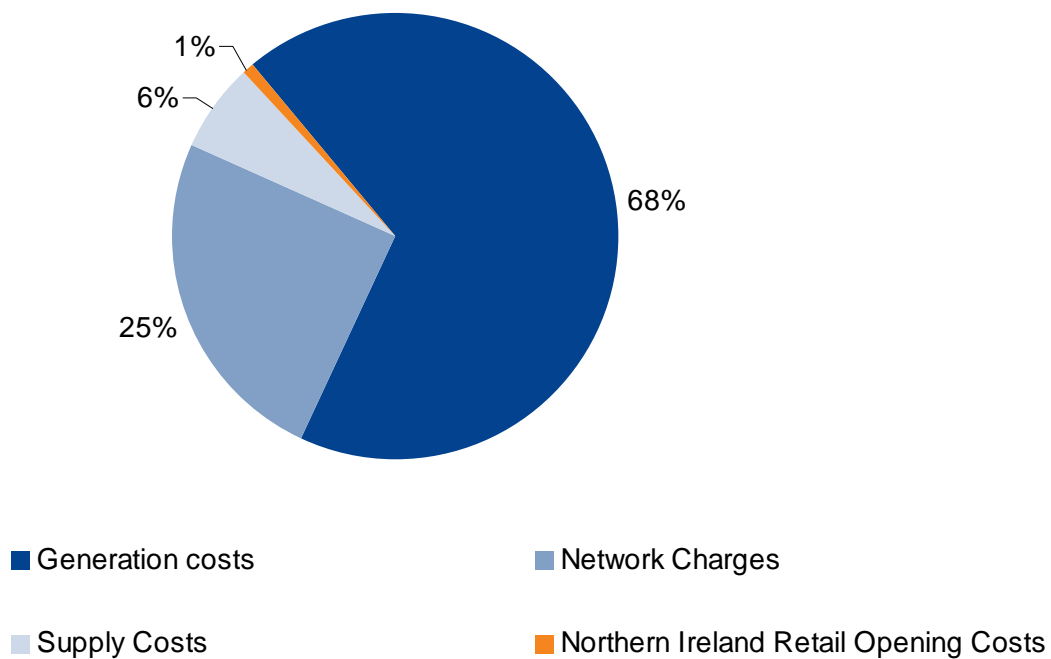
Most of NIEE costs can be passed through since these are subject to other price controls or regulations. For example generation costs are treated as an input to the price control having been subject to an Economic Purchase Obligation. They are based on forecast Pool prices plus the costs of hedging. Use of System Charges may also be passed through since these are regulated by separate transmission and distribution price controls. A supply margin of 1.8% is permitted.

The retail price control deals only with the revenue NIEE is permitted to collect from customers in order to recover its own supply costs. This amount should be sufficient to finance an efficient business and comprises recovery of its operating costs, capital expenditure, depreciation and a profit margin commensurate with the risks incurred by the business. Since responsibility for meter reading has been transferred to the Transmission and Distribution business to facilitate full market opening NIEE has relatively few fixed assets.

NIEE is also permitted to apply a k-factor to adjust future revenues for any shortfall or over-recovery of cost in a previous period. This mitigates the business risks NIEE would otherwise bear, but it is also a potential source of distortion to competition in the market (we return to this in subsequent chapters).

Figure 5 illustrates the cost elements within the price-control. As can be seen, only 6% of the costs are direct supply costs, 68% are associated with wholesale costs and 25% are network charges. NIEE publishes a tariff charging methodology statement that outlines the manner in which these costs will be allocated to different customer segments and the structure of the tariffs that customers will face.

**Figure 5: Average NIEE cost components**



Source: The Utility Regulator

## The Gas Market

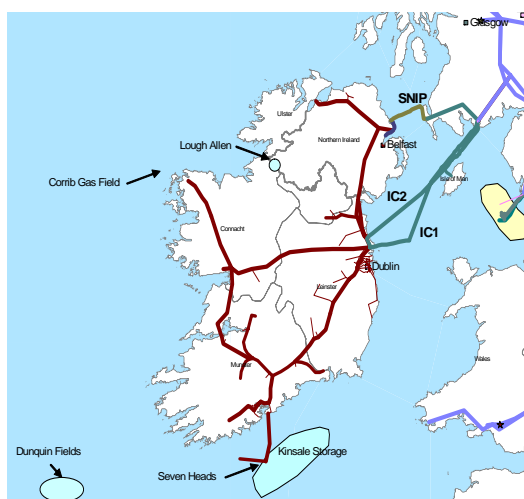
### Pipeline developments

Natural gas was first introduced into Northern Ireland in late 1996 following the conversion of Ballylumford power station to natural gas. Phoenix Natural Gas (PNG) was then granted a distribution and supply licence to develop the gas distribution network around Greater Belfast before the area was gradually opened to I&C competition around 2000 and fully opened to supply competition in January 2007.

In late 2004 BGE (NI) commissioned a 112 km pipeline from Belfast to Derry, the north-west pipeline, which connected the Coolkeeragh power station enabling a second phase in the development of a natural gas distribution network to be initiated. This will provide supplies to premises in five towns adjacent to the route of the pipeline. In October 2006 BGE (NI) commissioned a second 156 km South-North pipeline connecting for the first time the gas grids of the Republic of Ireland and Northern Ireland. This pipeline will facilitate the connection of premises in five further towns adjacent to the pipeline. The development in the 10 towns is being undertaken by firmus Energy Supply Ltd, a wholly owned subsidiary of Bord Gais.

The south-north interconnector has created the possibility of an All-Island gas transmission network. Prior to this the only possible supply into Northern Ireland was through the Scotland to Northern Ireland Pipeline (SNIP) which connects Ballylumford to Twynholm in Scotland. The SNIP transports gas to Ballylumford Power Station, which in turn generates over half of Northern Ireland's electricity needs. It also feeds the Phoenix Natural Gas distribution system in the Greater Belfast area and indeed currently all gas into Northern Ireland, although the SouthNorth will be used once demand exceeds SNIP capacity (see figure 6 below).

**Figure 6: Map showing existing gas transmission infrastructure**



Source: Pöyry Energy Consulting

## **Industry structure**

The Northern Ireland I&C and Domestic gas market is contested by three companies, namely Phoenix Supply Ltd (the incumbent supplier in Greater Belfast), firmus Energy (a subsidiary of Bord Gáis) and Energia (part of the Viridian group). The Greater Belfast area is now open to competition in supply, but despite this Phoenix currently retains all domestic customers and all but a handful of the non-domestic customers, who are supplied by firmus Energy Supply Ltd or by Energia.

Phoenix was established in 1996 to bring gas to industrial, commercial and domestic customers in the Greater Belfast Area. In January 2007 Phoenix was split into Phoenix Natural Gas Ltd (PNG) and Phoenix Supply Ltd (PSL). The division was undertaken in order to comply with the legal obligations arising from EU Directive 2003/55. This requires gas companies to separate business functions when a company has over 100,000 customers. The Phoenix transmission business was sold to Northern Ireland Energy Holdings (NIEH) in March 2008 and has been renamed Belfast Gas Transmission Ltd. Phoenix Distribution Ltd. currently own and operate the distribution network in the Greater Belfast Area.”

PSL lost the final stage of its monopoly over gas supply in the Greater Belfast Area in January 2007 but competition has been slow to develop. The core responsibility of PSL is to supply natural gas to customers, this involves the purchasing of gas, customer service provision, customer billing, customer contact centre and credit control operations.

firmus Energy is a subsidiary of Bord Gáis and holds the gas conveyance and supply licences to supply the five towns of Londonderry, Limavady, Coleraine, Ballymoney and Ballymena along the routes of the North-West pipeline, and the five towns of Antrim, Craigavon, Armagh, Banbridge and Newry along the route of the South-North pipeline. In the areas being developed by firmus, a derogation from the EU Directives is in place that prevents competition in supply. firmus enjoys exclusive rights to supply customers over 25,000 therms per annum for five years, and loads below 25,000 therms per annum, including domestic premises for eight years.

Energia is a subsidiary of the Viridian group and operates in both the non-domestic gas and electricity markets across the Republic and Northern Ireland. It owns and supplies the gas-fired, Huntstown power station in the RoI which is capable of supplying 20 per cent of total demand in the SEM. Within Northern Ireland Energia is the largest independent supply company and is licensed to supply both gas and electricity.

## **Gas Market development**

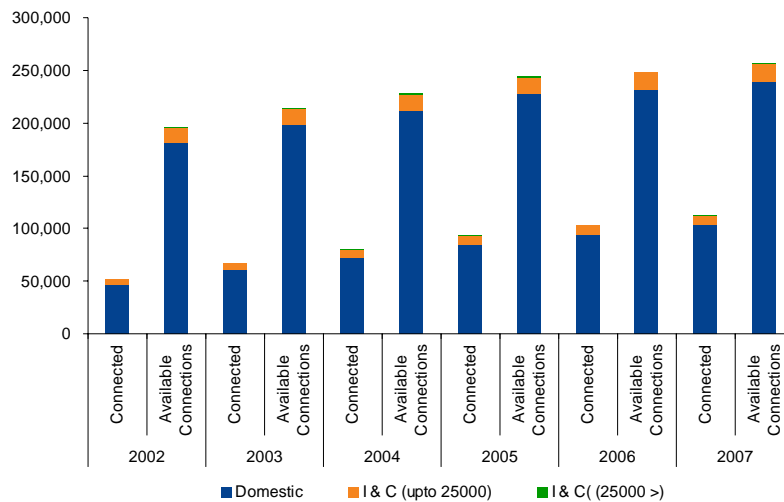
The gas market in Northern Ireland has evolved in two main phases. First, the development of the Phoenix distribution area around Greater Belfast and subsequently the development of the firmus distribution area in the 10 towns adjacent to the two pipelines constructed by BGE (NI). In both areas it has been necessary to apply derogations to the EU directives so as to restrict competition in order to protect the developer from stranded construction costs and to allow market development. The derogation granted in respect of the Phoenix distribution area came to an end at the beginning of 2007. The derogations relating to the firmus distribution area only started in 2006. Competitive supply in this area cannot occur until 2011 for non-domestic customers and 2014 for domestic customers.

## Gas demand

Overall total (non-power station) gas demand in Northern Ireland remains low due to the limited availability of connections and the low take-up of domestic gas connections where they are available. The potential market is approximately half the size of that in the Republic of Ireland.

Data relating to Phoenix Supply Ltd shows that gas is available to around 256,000 residential and commercial properties in Northern Ireland although only 112,000 (44%) of premises that could connect have done so. All but one of the largest Industrial and commercial businesses that have access to gas have connected, although many retain a dual fuel option. By contrast in the domestic market around 43% of properties that could connect have done so.

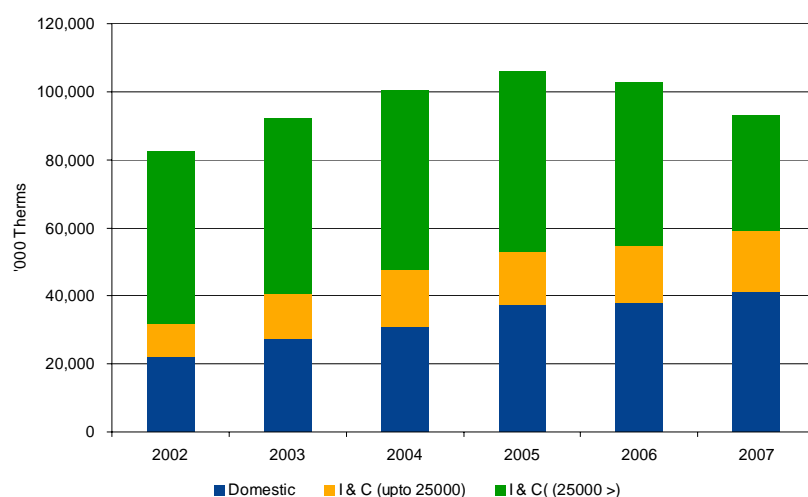
**Figure 7: Gas connections made and available.**



Source: Phoenix Supply Ltd estimates

Whilst gas connections continue to rise at a modest rate the sharp increase in wholesale gas prices has significantly reduced the overall volume demand for gas from 2005. The continuing growth in domestic demand has been swamped by a sharp reduction in I&C use. This perhaps resulted from I&C customers reverting to the use of fuel oil having retained a dual-fuel capability following their gas connection. Between 2006 and 2007 the overall consumption by customers consuming more than 75,000 therms per annum shrank by 27%.

**Figure 8: Consumption by size of customer**



Source: Phoenix Supply Ltd estimates

## Phoenix Supply Price Control

2007 was the first year that Phoenix Supply Ltd (PSL) has been subject to an operating expenditure review, which forms an essential control of Phoenix's tariff prices. It is proposed that PSL under the control is permitted to charge customers up to a maximum average pence per therm. However, it is required to consult the Utility Regulator and the Consumer Council before implementing any new tariff. If the maximum average pence per therm is charged this will be subject to the pass through of wholesale gas costs, an efficiency factor, and a fixed supply margin.

The issue highlighted in relation to the impact of the "k-factor" upon the electricity market are also relevant to the gas market, as the price control for Phoenix Supply Ltd will include a gas cost pass through system that will take into consideration gas costs and volumes. The actual gas purchase costs incurred by Phoenix will be recoverable within its supply tariffs. In addition, the Utility Regulator plans to implement a trigger mechanism to mitigate the risks to Phoenix Supply of a significant divergence between the forecast gas costs and the actual wholesale prices of gas.

## GMOG and future work on removing any technical barriers to competition

The market opening process in Northern Ireland's gas sector has been aided by the Gas Market Opening Group (GMOG) which is an informal forum where market participants can meet with the regulator to progress various aspects of market opening. The GMOG has made significant progress in a number of key operational areas. In particular it has

- ensured the necessary processes were put in place to facilitate full gas market opening in the Greater Belfast area from 1st January 2007



- enabled non-domestic customers to switch supplier during 2007
- Aided the functional, legal and managerial separation of Phoenix with a new supply licence being granted to Phoenix Supply Ltd in December 2006

In the future, the GMOG meetings will take the form of workshops to discuss detailed operational level issues and any barriers to furthering competition in the gas market in Northern Ireland etc. This will give the players in the gas industry an opportunity to put forward their detailed views and possible solutions to address any remaining barriers or obstacles. Where possible code modifications can be made to address technical issues that act as barriers to competition. We view this as a useful and sensible way forward. It is intended that the GMOG will complement this strategy consultation paper and will be a very useful addition at a detailed level to the identification of any operational issues that need to be addressed to further promote competition in NI gas supply (we discuss this additional work more in the relevant gas section of chapter 4 below).

### ***Overview of NI retail energy market competitiveness***

The overview above of the electricity and gas markets has brought to light several points that indicate energy retail competition is far from established. Crucially:

- although we are at very early stages of domestic market opening, there are no active competitors to the incumbent gas and electricity suppliers for these customers and while some players have indicated a desire to enter the retail market in the longer-term, there is no evidence of any significant activity in the immediate future;
- although market structures and regulatory regimes have undergone significant changes in the recent past which all provide an improved platform for the development of retail competition - notably, the implementation of the 2003 EU Directives, the establishment of the SEM and the licence separation of Phoenix - effective and embedded retail competition is yet to be realised in most market sectors; and
- several groups of industrial and commercial customers are unable to obtain alternative offers from suppliers at present.

However, there are some encouraging signs:

- there are several active players in the industrial electricity market. While it may be debated whether one is truly independent of NIEE, given the same overall parent ownership, the market is sustaining at least 3 independent businesses;
- while few customers have switched in gas, a number of gas supply companies are active in the market, albeit in a very small way, and some anecdotal evidence was gathered by Pöyry that competitive pressures have led Phoenix to consider the level of its I&C tariffs and the flexibility of products for I&C customers;

- the recent takeover of Airtricity by Scottish and Southern Energy (SSE), introduces a new player with a vast experience of operating in competitive domestic energy markets.

**Q1: Do respondents agree with our overall summary of NI energy retail market competitiveness and do you feel we have missed anything of significance that should have been noted at this stage?**

**Q2: Are there additional indicators of the current state of competition that we should be considering?**

## **Chapter 4 – Barriers to the Development of Retail Competition**

The overview of the current market structure in Chapter 3 illustrated the limited scope of retail market competition in Northern Ireland to date. There are no active competitors to the incumbent suppliers in either domestic market and in the non-domestic market, while there is evidence of competition for major industrial consumers in electricity, the small commercial electricity market and the non-domestic gas market have minimal activity.

In this chapter we attempt to assess existing barriers to development of competition in the electricity and gas markets. The identification of market distortions and barriers will help to focus discussion of potential regulatory responses and actions to promote further competition in the future.

The assessment has benefited from open and constructive discussions between Pöyry Consulting and the main market participants, for which the Utility Regulator wish to record their thanks.

### ***Barriers to Entry in Retail Markets***

As a general principle, new suppliers will only consider entering markets if they perceive them to be sufficiently attractive and profitable. Anything that reduces this attractiveness and profit incentive can be considered a potential barrier to entry.

However, in considering barriers it is important to account for the complexity of their impact. For example, they may limit some types of entrant rather than preventing entry in total (e.g. requiring a minimum scale of operation or some degree of vertical integration), and they may differ in their materiality on different segments of the market, making some uneconomic and costly to overcome.

In both the electricity and gas retail markets, the main financial incentive for new suppliers to enter is the headroom that exists between their potential cost of supply and the tariff offered by the incumbent supplier (as discussed in Chapter 3, given the relative immaturity of retail competition in Northern Ireland, this is generally the former monopoly supplier - i.e. NIEE and Phoenix Supply in the electricity and gas markets respectively – though in the larger industrial electricity market, there are several established suppliers).

This headroom arises from the ability of the new entrants, through greater efficiency, flexibility and innovation, to reduce their costs of supply. The cost elements where there is scope for differential costs between new entrants and incumbent suppliers are:

- wholesale purchase costs of electricity or gas; and
- supply business costs (including billing, metering, customer service, customer acquisition and the supply margin).

Additionally, the supply business faces network (i.e. transmission and distribution) charges. These are applied on a non-discriminatory basis through a regulated third party access regime and as such the costs to suppliers should be comparable.

However, where views have been expressed that there may be an effect as a consequence of the current transmission and distribution charging regimes, it is highlighted in the analysis below.

The assessment of the barriers in each market centres on understanding why new suppliers may not be able to achieve sufficient headroom. In this initial consultation we have considered the costs and risks faced by existing and potential suppliers in the market and have identified barriers arising in relation to the following four areas:

- **market structure** – including the overall size of the market, the current shares of players, vertical interactions and the functioning of the contract market for the hedging of wholesale price risks;
- **price-control regime** – any distortions arising from the application of price-controls on the incumbent suppliers and network businesses;
- **operational rules and processes** – aspects of the detailed underlying business rules and industry codes that can increase costs or introduce distortions; and
- **customer (demand) issues** – factors that limit access to customers or increase the costs of acquiring customers.

We have not attempted in this paper to quantify the materiality of any of the barriers (individually or in combination) only to explain the nature of the problems they raise for new entrants in effectively competing in the energy markets in general, or for specific customer groups.

With the help of Pöyry Consulting, our initial views on the specific impacts in each of the two markets, electricity and gas, are discussed below. **We recognise that these issues can be complex and of course very much welcome feedback from respondents on the issues noted below.**

## ***Electricity***

### **Risk and cost in *wholesale* purchasing**

Wholesale costs of electricity purchases can account for well over half of the total cost base for a supply business and therefore represent a key determinant of the competitiveness of new entrants.

All suppliers now procure electricity through three routes:

- Directed and non-directed contracts;
- the SEM; and
- own generation.

### ***Lack of fuller contract market liquidity***

Independent suppliers are therefore reliant on the SEM and the Directed/Non-Directed Contracts avenues. Other vertically integrated players probably rely on their own generation for the majority of contract cover, but still rely on the SEM for residual top-up and spill requirements.

The SEM has a number of advantages for smaller suppliers and new entrants when compared with the alternative of bi-lateral arrangements. In particular it gives them access to a guaranteed market for wholesale electricity (i.e. where they are not

dependent on having established relationships with generators), makes them better able to manage imbalance risks, and provides much greater transparency of wholesale pricing.

However, the SEM price, the SMP, is volatile, necessarily reflecting the peaky nature of electricity demand. It is desirable that it should be supported by a healthy and liquid contract market – i.e. arrangements which exist in parallel to the wholesale pool and consist of a varied range of purchasing options and financial hedging instruments – under which suppliers more effectively hedge their contract commitments in the supply market and reduce their exposure to peak prices.

The SEM having only been introduced in November 2007, a full set of contractual and hedging instruments has yet to be developed to enable suppliers to limit their exposure to pool price movements and exploit the most efficient and innovative contracting strategies. For example, in the course of discussions during the formulation of this paper, several players have stated that they have found it hard to obtain peak (price) contract cover and have therefore been unable to offer supply contracts to some potential customers, while others have indicated that finding contracts to match the appropriate shape of their customer portfolio has been difficult.

The use of these instruments in the form of Directed Contracts (DCs) and Non-Directed Contracts, which has been established by the Regulatory Authorities in support of the SEM, is part of the solution. But it may be the case that reliance on annual auctions of DCs increases uncertainty for suppliers as there is very little forward knowledge of the volume of contracts that will be offered, with no secondary trading or intermediate offers.

This situation has two potential implications. First, it may limit the extent to which retail competition can benefit consumers, by preventing the most efficient level of the costs of wholesale procurement being achieved, and may also preclude suppliers from offering more diverse and tailored products. Second, it is likely to exacerbate the potential asymmetries between the incumbent and potential entrants in the cost and risk of wholesale electricity procurement. These asymmetries, which could represent a barrier to new entrants, may emerge as a consequence of the K-factor in the price-control formula for NIEE (in essence operating as a de facto hedging mechanism) and the diversity of the incumbent's supply portfolio.

#### ***Price-control K-factor***

The K-factor is a mechanism in the supply price control through which under- or over-recovery of revenues as a result of unexpected cost shocks in one tariff year can be recovered the following year. Effectively, it acts as a hedge for NIEE through which any variances in its wholesale energy cost out-turns relative to forecasts can be offset. This can affect the market in two ways:

- it reduces the wholesale purchasing risk for NIEE relative to that of other suppliers – the K-factor can be seen as an incremental hedge for the incumbent that spreads the risk and cost variances into subsequent years; and
- it could potentially result in NIEE's tariffs not being cost-reflective in a given tariff period – for example, in a rising wholesale electricity market, tariffs may be kept artificially low for the duration of the tariff year without affecting NIEE's profitability in the longer-term. Since competition in the non-domestic market is generally relative to NIEE's tariff (i.e. the firms offer a discount

relative to NIEE) under such a scenario of rising wholesale prices, competing suppliers would face the option of holding their tariffs in line with NIEE's and absorbing the higher wholesale costs or passing through the cost increases and risk losing the customer. Both options would increase the risk (or cost) of operating in the market.

If suppliers were to maintain their strategies of pricing at a discount to NIEE then their profits would be more volatile, raising the risk for investors, and requiring a higher margin. Furthermore, if prices were to continue to rise, then this position would be perpetuated, and against a background where supply companies are often cash negative in early years as they incur set-up costs, this may restrict entry to companies with large financial backing.

Alternatively, if the new supplier were to raise their tariff and pass through the cost, it is possible that they would lose customers, which means they would need to incur customer acquisition costs again to re-establish their portfolio.

The Utility Regulator and NIEE have recognised this problem and have taken recent steps to ameliorate the issue during 2008/09. NIEE has voluntarily agreed to reduce the coverage of those customer categories covered by a K factor hedge. From April 2008 all HV customers tariff will be 100% pool pass through. The MV customer category will split into two with those customers with average consumption above 150MWh now subject to 100% pool pass through while remaining MV customers tariffs subject to 50% pool pass through. This means that the majority of customers who remain subject to a k factor tariff adjustment are the domestic and small I&C customers. Clearly future consideration of the impact of k factors on these remaining customer groups will need to be considered as part of the overall policy options for delivery of full competition to all electricity customers.

During the course of Poyry's consultations with market participants, while most new suppliers identify the K-factor as one of the most influential artificial barriers to entry, there are additional market barriers that increase the cost of electricity procurement for new entrants.

#### ***Quality and availability of data***

During the preparation of this report, several suppliers mentioned the quality of, and access to, customer data, as an area of potential concern. The point was made that if a new supplier is to compete effectively, then good quality data regarding potential customers is important, and experience in the Republic of Ireland was highlighted to our consultants as an example where information on customers, including annual consumption patterns, was made available uniformly to all suppliers. Lack of data, incorrect data, or restriction in access to such data, can increase wholesale costs as suppliers will want to go long (i.e. over-contract) in the wholesale market to mitigate the risk of being short at peak times.

Arguably, this data problem is potentially less of an issue for the previous monopoly supplier for two reasons. First, since the incumbent is, at least in the early stages, not trying to acquire customers, access to good quality data is less important as they already serve the customer. Second, the overall size and diversity of the incumbent's customer base means that individual issues with specific customer demand profiles are more likely to be smoothed or offset by the variety and volume of customers whom the supplier is contracting for.

#### ***Credit cover***

The advantage provided to the incumbent in relation to this specific informational inadequacy of the market is one example of the cost savings the scale and diversity of the former monopoly portfolio affords. Another area where this arises is in relation to credit cover.

For both energy charges under the SEM and the network charges payable to the transmission and distribution business, credit cover or collateral is required. Some market participants expressed a concern that the level of credit cover required is not necessarily proportionate to size, and that the cost of providing credit cover falls more onerously on smaller players.

Credit cover does have the potential to act as a barrier to entry. While the result of consultations on this issue during the development of the SEM led us to the conclusion that the credit cover arrangements as currently provided for would not in fact be a material barrier to entry, it is important that we should review this to make sure that this remains the case.

### ***Impact of barriers***

One of the messages emerging from the above discussion is that, while the SEM functions as a significant and pro-competitive improvement in wholesale trading arrangements, its full benefits for retail competition cannot be expected to materialise immediately, and it is appropriate to consider whether further improvements can be made. These improvements may include, in particular, the further development of the market in some of the instruments which allow suppliers to hedge their risks in relation to wholesale price – in particular the development of greater liquidity in the contract market.

One possible implication of the above analysis is that unless liquidity in the contract market improves, vertical integration may be the main way to hedge efficiently (physically and financially) wholesale costs. Since this will not be possible for all current or potential market participants, greater liquidity in the contract market may be necessary to ensure that the full benefits of the SEM can be realised.

### **Risks and costs in *supply business activities***

Supply business costs are taken to include the main costs associated with providing a retail supply service including meter reading<sup>3</sup>, call centres, customer service, billing and collection, bad debts, marketing and advertising and so on. They also include the supply margin – the allowed profit from the supply activity.

### ***Set-up costs and economies of scale***

One obvious barrier to entry is that a new supplier will incur a variety of set-up costs in establishing their business presence – costs that they will have to recover through their customer base over the following years. The extent to which this is a barrier depends on the scale of the set-up costs, the time period over which the costs are expected to be recovered and the likely growth in customer numbers and volume. If initial set-up costs are low, the company has long-term financial backing and anticipated customer growth is high, then this is unlikely to be a major concern. Conversely, if these conditions do not hold, the set-up costs (that the incumbent has

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<sup>3</sup> Meter Reading has already been removed from electricity supply and placed within the T&D business of NIE.

already sunk and likely recovered from its existing customer base) may be a significant barrier.

The major set-up costs include the cost of market research, licence acquisition/approvals, the establishment of IT, billing and settlement systems, and any initial marketing. These have not been particularly identified as a major concern in the non-domestic market, which may suggest set-up costs are a relatively minor barrier. However, it may also be due to the characteristics of the suppliers who have entered – the four main non-domestic competitors all have parent companies engaged in energy supply in another (or, in the case of Energia, in the same) market or are part of a larger organisation which would be able and willing to finance the initial set-up – and the fact that volume growth can be achieved relatively quickly in the non-domestic sector.

In the domestic market, the lack of entry may signify that these costs, or the speed with which they can be recouped, are adversely affecting entry decisions. One specific feature of the domestic electricity market is the high proportion of pre-payment, or pay as you go, customers. Since these customers represent a large part of the potential market, any new entrant may need to incur additional set-up costs to establish an account with a payment system operator in order to provide services to pre-payment meter (or PAYG) customers. These costs alone have been estimated at around £100,000.

This may not appear to be a large cost in a market with 250,000 potential PAYG customers (and another 500,000 who may share the cost), but when it is considered that the incumbent has also incurred the same cost but already has the customer base, and customer switching is often a slow and costly process, then there is an obvious economy of scale.

A potential related issue would be that a large volume of pre-payment meters is symptomatic of the scale of bad debt in the market. There would then be an obvious economy of scale for a company looking to cover bad debt. We do not believe this to be a significant factor in our market, but would welcome feedback on this point.

The existence of substantive set-up costs may restrict entry to companies that already have strong financial backing (and can afford to underwrite a long-term market strategy where the supplier is likely to be cash negative for the first few years as they grow their portfolio) or can utilise existing systems employed in other markets.

### ***Customer acquisition costs***

A further cost to consider is the cost of customer acquisition.

Large industrial consumers are relatively price sensitive and costs of acquisition are normally relatively low. However, two potential impacts on acquisition costs have been raised during the course of Poyry's work:

- customer data inadequacy - the problems of customer data inadequacy mentioned previously may increase cost of customer acquisition as the potential supplier must incur costs to identify potential targets and understand the customer's requirements and characteristics; and
- some lack of transparency and predictability within regulatory decisions – in the context of presenting offers to customers, and in considering likely tariff changes in the future, there have been some concerns voiced by suppliers



over a lack of transparency in the Utility Regulator's tariff approval process and the underlying methodologies on cost approvals and allocations to customer groups. In particular, a lack of discussion regarding the allocation of PSO costs across customer groups has been cited as adding to uncertainty and regulatory risk for market participants and affecting credibility with acquired and potential customers.

However, in the smaller commercial and domestic sectors, the acquisition costs are higher. Suppliers must overcome the inertia in these customer groups building up reputation and brand awareness (that the incumbent supplier already has) and actively marketing to lower the search and switching costs that these customers have. In the GB market, customer acquisition costs have been estimated at between £20 and £50 per customer (see Littlechild (2005)), and some anecdotal estimates in the small commercial market in Northern Ireland suggest costs in the order of £100 are necessary to acquire those customers - which if true may help to explain the lack of activity in this part of the market.

### ***Price-control impacts***

Another possible explanation for limited competitive development lies in the structure of the tariffs that NIE Energy offers. NIEE is subject to a retail price-control that determines the revenues that the company can earn from its supply activities. However, the detailed structure of tariffs for different customer groups is at the discretion of the company itself, and is determined according to the published tariff charging methodology. Some suppliers commented that they do not feel the actual tariff setting process is sufficiently transparent and are therefore uncertain whether tariffs are truly cost reflective (e.g. the cost reflectivity of the 4% direct debit discount offered by NIEE has been questioned by some). In addition, the high volume of market levies added to tariffs makes key costs hard to identify.

Some suppliers and potential entrants have also implied that it is hard to ascertain whether they have scope to undercut NIE Supply in retail activities. The retail margin allowed for NIE Supply is 1.8% across its whole business. This level has been compared with previous regulated margins in other jurisdictions, but two further aspects need to be considered:

- while this may be appropriate for a regulated market with a K-factor adjustment, it is arguably relatively low for a fully competitive market and even if entry occurs, the retail margin in itself may not support a sustainable business strategy for shareholders; and
- the risk for a new entrant may be higher than that for NIEE and therefore a higher margin would be required (though this should not lead to higher long-term prices should this extra be competed away).

### ***Market size***

The existence of economies of scale is normally accepted in the market, but it is not necessarily the case that these economies of scale continue above certain levels of operation. However, if there is no realistic opportunity to achieve that minimum efficient scale of operation, then suppliers will not enter. Hence, one potential barrier is the limited size of the market.

While some suppliers may compete against an incumbent by targeting specific groups where they can identify market potential (e.g. offering renewable energy supply to businesses facing the Climate Change Levy), chances of developing a sustainable business proposition generally improve with the size of the market. In

the context of Northern Ireland, there are potentially two main barriers to further large-scale competitive development (in particular of the domestic market):

- inadequate switching systems – the current switching systems are not capable of allowing even 20% of the total market to switch supplier, and therefore, even if there were few limitations on the sustainable business size in retail supply, it would be of little use. Thus, any development of effective retail competition on a large scale in the domestic sector will have to be dovetailed with work on developing the appropriate strategy on the installation of new electronic switching systems; and
- limited dual-fuel capability - as retail competition in the GB market has shown, the ability of suppliers to propose dual-fuel offers is a key driver of competition for domestic customers. However, the differing evolution of the electricity and gas markets in Northern Ireland, present particular challenges for the effective development of a dual fuel market. With the limited extent of gas roll out at present, there is limited overlap between domestic gas and electricity markets and this reduces the opportunity for a supplier to leverage dual fuel offers in order to spread costs and achieve growth targets.

### Summary of Electricity market barriers

Table 4 below summarises the key barriers that have been discussed. The table is broken down in two ways:

- where in the supply chain the barrier arises (i.e., at the wholesale purchase, network or retail supply); and
- the nature of the barrier (i.e., whether it is due to current market structure, regulatory regime, operational factors or customer (demand-side) issues).

The initial soundings and work of our consultants would indicate that the likely main constraints on electricity retail competition appear to be:

- the lack of fuller liquidity in the contract market;
- the position of the incumbent supplier in a relatively small market;
- lack of uniform data transparently available to all suppliers;
- the K-factor and allowed margin in the price-control; and
- the high customer acquisition costs in the domestic and small commercial market.

**Table 4: Summary of Barriers in Electricity**

	<b>Market Structure</b>	<b>Regulatory Regime</b>	<b>Operational Issues</b>	<b>Customer (demand) Issues</b>
Wholesale Generation Costs	Immature and relatively illiquid contract market limits ability to hedge pool price risk	K factor for NIE Energy reduces wholesale price risk relative to that of other suppliers	Lack of transparency on volume of future Directed Contract auctions  Credit cover	Lack of hedging options limits degree of tariff innovation

			costs for small players	
Network		Perceived lack of transparency on charging arrangements increases risk of contract offers	Speed of access to relevant customer data prevents efficient targeting of customers and raises risk of marketing to some customer groups  Credit cover costs for network charges are high for small players	
Retail Supply	Limited scope to benefit from dual-fuel market options in domestic and small commercial segments  Large volume of prepayment customers increases entry cost  Incumbent benefits from economies of scale in supply business costs	Allowed margins are low for the risk faced by a new entrant  K – factor distorts tariff movements  Perceived lack of transparency on NIE Energy tariff charging methodology	Inadequate systems to facilitate switching	High customer acquisition costs  Credibility and reputation risk due to lack of transparency in tariff arrangements  Cost of developing brand awareness

**Q3: Do respondents agree that the analysis above has identified the major potential barriers to competition in the domestic and non-domestic electricity markets or are there additional barriers that you feel we should take into consideration?**

## **Gas**

The natural gas market is at a much earlier stage of development than the electricity market and has a substantially smaller customer base. As such, many of the risks and costs faced by new suppliers in the electricity market are not only present, but amplified, in the gas market. Furthermore, part of the natural gas market will be supplied with gas exclusively by one company (firmus) for several years yet. The period of exclusivity within firmus' licence is for 8 years for those premises reasonably expected not to exceed 732,500 kilowatt hours in any period of 12 months and 5 years for those premises where consumption of gas is reasonably expected to exceed 732,500 kilowatt hours in any period of 12 months. The purpose of providing exclusivity is to incentivise the roll-out of natural gas to more of Northern Ireland. Thus, the discussion of barriers relates largely to the operation of the Greater Belfast market.

As highlighted in chapter 3, in the future, the GMOG meetings will take the form of a workshop to discuss detailed operational level issues and any barriers to furthering competition in the gas market in Northern Ireland etc. Where necessary, code modifications can be made to address issues identified by the GMOG as barriers to competition. It is intended that the GMOG will complement this strategy paper by identifying at a detailed level operational issues that need to be addressed to further promote competition in NI gas supply.

Issues to be addressed will include, but not be limited to, the following:

- Customer switching rules,
- Exit point tolerances,
- Processes by which Phoenix Natural Gas (PNG) (Distribution) suggest a supplier following a new connection,
- Customer acquisition.

Whilst the paper below does note some of the detailed technical and operational issues raised during the consultations between Pöyry and gas industry participants as they are relevant to this overall strategy paper, we consider that the full detail and possible solutions will be explored in the forthcoming GMOG work rather than at this stage.

### **Risk and cost in wholesale purchasing**

In a similar manner to electricity, suppliers must purchase their gas through a wholesale market. However, all gas suppliers will source their gas from the GB wholesale market, which is a more mature market with greater liquidity in the associated market for a range of risk management products. Since all suppliers have access to this market, the problems faced by suppliers of being unable to obtain adequate contract cover are not present - the basic cost of gas should be relatively similar, differing only largely as a result of alternative procurement and hedging strategies.

However, while the wholesale market itself does not represent a barrier, there are several other barriers that may affect competition.

### ***Scale of operation***

A new independent supply business looking to enter the market may be at a significant disadvantage to the incumbent because they lack the scale of operation, diversity of customers or gas trading knowledge that would enable them to secure favourable contract terms for wholesale gas. This suggests that, unless new entrants have connections with a larger energy trading business, where they can benefit from lower average credit, hedging and trading costs of a larger, more diversified, portfolio, then they may be at a disadvantage in procurement terms.

Such a situation may be more pronounced at this stage in the development of competition in Northern Ireland since the process has commenced during a period of relatively high and volatile gas prices in Great Britain.

### ***Cost pass through and reconciliations for PSL in their price control***

As noted in the previous chapter, 2007 was the first year that Phoenix Supply Ltd (PSL) has been subject to an operating expenditure review. The price control determination has just been released by the NIAUR for consultation. Under the control is permitted to charge customers up to a maximum average pence per therm. However, it is required to consult the Utility Regulator and the General Consumer Council before implementing any new tariff. If the maximum average pence per therm is charged this will be subject to the pass through of wholesale gas costs, an efficiency factor, and a fixed supply margin.

The issue highlighted in relation to the impact of the “k-factor” upon the electricity market are also likely to be relevant in the future to the gas market, as the price control for Phoenix Supply Ltd. will include a gas cost pass through system that will take into consideration gas costs and volumes. The actual gas purchase costs incurred by Phoenix will be recoverable within its supply tariffs. In addition, there will be a trigger mechanism to mitigate the risks to Phoenix Supply of a significant divergence between the forecast gas costs and the actual wholesale prices of gas. In addition, any allowed expenditure not incurred or exceeded because of mis-forecasts of volume etc. will be addressed at the end of the calendar year through a correction mechanism. For those costs over which Phoenix Supply has limited control there will be a retrospective mechanism. The retrospective mechanism will adjust forecast costs for actual costs when the audited accounts are received.

The Utility Regulator will continue to monitor the development of the gas market to assess if price regulation is necessary and that its scope is appropriate. Given the lack of any competitive pressures in the smaller end of the market to date, implementation of a price control and associated mechanisms has proved necessary at this time – this will of course be kept under review and the relationship with unfolding competition in the particular market segments closely considered.

### ***Quality and availability of customer data***

In discussions with Pöyry, some comments came up regarding some information transparency issues, for example that, although some very limited information on the top 100 I&C users has been released, it is difficult to get reliable, accurate, information on customers' historic annual quantity (AQ) consumed. At present, there is no central registry holding information on the AQt for gas consumers, and this is compounded by uncertainty over who should have responsibility for collating and distributing the data – the distribution business or the supply business.

Common sense indicates that incomplete or imperfect information on potential customers has several implications for new entrants:

- it makes it more difficult to formulate appropriate tariff offers to customers as knowledge of their consumption patterns is incomplete, thereby preventing some more efficient contract options from being exploited;
- similar to the above, it makes suppliers less willing to tender for new customers. Anecdotal evidence suggests that several industrial customers have gone out to tender and have requested tailored, or indexed products, that show knowledge of the market and their specific consumption patterns. Without reliable data against which to assess the risk associated with the contract some suppliers either will not tender or will impose risk premia that may overstate the actual impact of the customer on the supplier's portfolio;
- wholesale costs will generally rise as suppliers over hedge their positions.

Reliable information available on a timely basis to all suppliers would lower the transactions costs of acquiring customers and increase benefits to consumers.

### ***Issues with the customer transfer process***

A further issue highlighted in discussions with suppliers with regard to the costs/risks of gas purchasing for new suppliers relates to concerns with the customer transfer process that increase the risk to them of bidding for customers. The concerns were reportedly two-fold:

- uncertainty over timings within the agreed transfer process –this issue of clarity may be readily resolvable and is not unexpected for the first few times the process is executed, though it would be an unnecessary additional risk of customer switching if it remained;
- the operation of the 90-day rule – Phoenix Supply contracts have a 90-day notice period and a process where objections can be made during this period (up until 8 days before the customer switch occurs). The length of time between acquiring a customer and commencing supply creates a risk to the new entrant, especially when it is not fully transparent precisely when during the 90 day period the customer transfer has been approved and hence the supplier can reasonably expect to go to the market to cover his contractual obligations. (This may be particularly relevant in current market conditions where there is a great deal of uncertainty over future prices).

## **Risks in network costs**

### ***Imbalance tolerances***

One of the fundamental issues in introducing competition to a regulated market is that there is an incumbent supplier who is able to gain some commercial advantage from the size of its existing portfolio (economies of scale) and the diversity of its customer base (customers with different demand patterns may offset each other's variability, thereby providing a natural hedge).

The lack of economies of scope may be one of the main reasons that new suppliers have been seemingly unwilling to offer contracts to some groups of customers who are looking for alternative suppliers. This is because, with a small customer base, the addition of another customer can increase the cost of serving the overall portfolio if this new customer has a demand profile that adds to the risk facing the new supplier.

Potential suppliers have highlighted several aspects of this increased risk; one example given is the increased exposure on imbalances. The tolerance bands, set by PTL, are 10% for industrial and 20% for domestic customers. Given the mix of customers that Phoenix Supply has, it is able to operate under a higher average tolerance than the new entrants operating solely in the industrial segment. What is unclear is whether the real problem is Phoenix's portfolio or the levels at which tolerances have been set, both in absolute terms and in the relativities between the customer load types – this issue will be examined further in the future GMOG work.

## **Risks and costs in supply business activities**

Once again, some of the generic barriers that were identified in the retail electricity market are present:

- new entrants face potentially high set-up costs;
- the market size is very restricted; and
- customer acquisitions costs are high.

Rather than repeat the same arguments we focus here on some specific aspects that suppliers have identified as important from their perspective.

### ***Set-up costs and economies of scale***

Even if suppliers are more efficient than the incumbent, they may be at a disadvantage because of their smaller scale of operation since there are fixed costs of retail supply and these will be spread over a smaller customer base.

One particular issue where it is suggested the incumbent has a commercial advantage is in the provision of meter reading services. With larger scale of operation, Phoenix Supply is able to benefit from economies of scale in meter reading. New competitors, on the other hand, will need to contract for smaller scale services (at least over the initial period), which may put them at a disadvantage, potentially increasing their cost of supply relative to the incumbent.

Some suppliers have suggested that there may be a case for an independent meter reading service to be provided to all participants on a non-discriminatory basis, thus removing any asymmetry in cost between the incumbent and the competing suppliers. Such a business model would be appropriate for services where economies of scale may be significant. Metering is one potential service of this kind; others may include billing or call centre services.

### ***Market size***

The importance of economies of scale as a barrier to entry is likely to be greater in the gas market than the electricity market because of the smaller size of the market at present. Contributory factors here include:

- low take-up rate in connections – in Greater Belfast, natural gas covers 250,000 customers, but current connections amount to just over 100,000. The responsibility for, and incentive to, connect is on Phoenix Distribution, but there also exist barriers to connection, notably
  - (a) strong competition from the heating fuel market – the linkage between oil and gas prices at a wholesale level and the high costs of conversion from oil to gas-based heating systems (estimated at

between £2000 and £3000), create a high barrier to overcome to even get people consuming gas, let alone considering different suppliers; (b) a (false) perception that, compared to the heating oil market where there are numerous distributors, the gas market is a monopoly where the incumbent is able to exploit customers once connected, offering lower tariffs to induce connection then raising prices once the customer is committed.

- lack of scope for dual-fuel offers – as mentioned in the electricity discussion, dual-fuel enables suppliers to offer a wider range of services, exploit further economies of scope and build up volume and turnover more quickly; **we would be interested in particular in NIE, PNG and firmus views on the obstacles to the development of dual fuel offers, and on their future intent re dual fuel in response to this consultation.**
- lack of synchronisation with retail timetables and processes in other markets that would reduce potential costs of expanding activities into those regions – planned work between the Utility Regulator and CER on all-island gas arrangements will help to deal with this in the gas context.

### ***Impact of price-control***

One of the main barriers to any competitive market is a lack of transparency and information. In relation to gas price controls for Phoenix, this is being addressed, with separate price-controls now in force for both Phoenix Distribution and Supply. These should improve the transparency of the costs of the incumbent in the future and allow for easier transparency of distribution charges and their application to suppliers and to different types of customer classes.

A relevant element of the price control is the allowed margin set for Phoenix, which is currently proposed to be 1.5% for 2008. Work to date by our consultants indicates that two aspects may need to be considered further in future controls:

- while this margin level may be appropriate for a regulated market, it could be argued to be relatively low for a fully competitive market; and
- the risk for a new entrant may be higher than that for Phoenix Supply due to lack of economies of scale and scope.

The point was made that with higher costs and potentially greater risk for new entrants, the available margin may not justify entry. Though enhanced margins themselves would need to be justified and based on the knowledge that costs would fall as a result of competition to offset the higher margins.

### **Summary of barriers**

Table 5 below summarises the key barriers that have been identified in the gas market in the same way as those for electricity. The initial soundings and work of our consultants would indicate that the likely main constraints on gas retail competition appear to be:

- the incumbent position of Phoenix Supply, leading to asymmetries in cost and risk with new entrants;
- the small size of the market;
- quality and availability of data; and
- specific operational issues (e.g. the imbalance tolerance levels).



**Table 5: Summary of barriers in the gas market**

	Market structure	Regulatory regime	Operational issues	Customer issues
Wholesale purchase	<p>Lack of scope to differentiate product due to homogeneous source of supply</p> <p>Incumbent economies of scale and scope lower its procurement cost and risk</p>	<p>Cost pass through and reconciliation mechanisms under PSL price control</p>	<p>Issues such as “90 day” rule may introduce additional risks for entrants in securing contract cover</p>	
Network		<p>Lack of access to information (e.g. AQ data) increases risk for suppliers in contract offer. Some uncertainty on application of distribution charges to different customer groups.</p>	<p>relevant GMOG issues (e.g. tolerance regime)</p>	
Retail Supply	<p>Small market naturally limits number of players who can achieve a minimum efficient scale of operation</p> <p>Lack of maturity in market</p> <p>High cost of providing some supply services (e.g. metering) due to lack of economies of scale</p>	<p>Future consideration of allowed margins for PSL</p>	<p>Customer transfer system is slow and manual</p>	<p>Customer inertia</p> <p>Lack of brand awareness</p> <p>Strong competition from heating oil restricts connections and limits market size</p>

**Q4: Do respondents agree that the analysis has identified the major potential barriers to competition in the domestic and non-domestic gas market or are there additional barriers that you feel we should take into consideration?**

## ***Summary***

At present, there are a number of contributory factors that, in combination, are potentially preventing competitive pressure delivering benefits to customers in terms of lower prices and increased choice of products and services. These revolve around the asymmetric position between the incumbent supplier and the new entrants in terms of scale and scope of operation.

In general, the above assessment suggests that there are several generic sets of barriers that apply to both the electricity and gas markets, the implication of which is that potential suppliers at worst may not even contemplate entry into segments of the market. These barriers are:

- Overall market size;
- Scale and diversity of incumbent supply position;
- Lack of fuller contract market liquidity;
- The structure of the retail price-controls; including allowed retail margins;
- Quality and availability of data;
- Operational rules and governance.

Broadly speaking, these barriers result in new entrants facing asymmetrically high risks and costs that remove the scope for them to profitably and sustainably compete with the incumbent even when they may be more efficient, innovative and flexible in their strategies. In the following chapter we consider at a high level the impacts of these barriers and options that may address some of these barriers.

## Chapter 5 – Potential Policy Options

In Chapter 4 we highlighted a number of barriers that are currently impacting on the level of competition in the gas and electricity retail markets.

This Chapter discusses potential responses to these barriers to competition and provides a qualitative assessment of the impact of each option. Since there are several possible responses in relation to each barrier, and scope for substantial differences in the form of implementation, we deliberately present these at a high-level.

To reiterate from the Introduction chapter: the consultation focuses on high level issues of what we can practically consider to do and which options might prove to be most beneficial and are worthy of further consideration. The intention is to elicit views on the current state of competition, the main barriers to competition and possible regulatory actions that would improve the functioning of the market. *To be clear, although we have begun this work by identifying barriers and reviewing potential policy options and solutions, we do not start from an assumption that all barriers are soluble; nor that any or all solutions are desirable regardless of the cost. Our overall policy stance remains to aim for cost-effective competition that delivers overall benefit, within our statutory duties.*

There are three groups of options – generic, electricity specific and gas specific – allowing us to address common themes in the Northern Ireland market in a consistent manner, but also to tackle some of the sector specific barriers that have been identified. The options are listed below, with the barrier they are intended to mitigate in brackets.

### Generic options

- Synchronisation of retail market processes and systems with other markets (market size)
- Scope, transparency and structure of price controls (price-control distortions)
- Shallow supply model (market structure)
- Divestment/market share reductions (market structure)
- Data availability and transparency (operational rules and governance)

### Electricity options

- Removal of K-factor (price-control distortions)
- Further improving contract market liquidity (market structure)

### Gas Options

- Further Incentivising gas network connections and roll out (market size)

In addition, we acknowledge the points raised during the work on developing this paper in relation to price control transparencies and future work requirements in terms of reconsideration of the level of allowed regulated margins. Both areas are already recognised within the Utility Regulator and their assessments will be built into future price control work and methodologies. This is reflected in the policy options outlined in Chapter 6 below.

Each of the policy options discussed is aimed at removing, or reducing the impact of, the main barriers to the development of a competitive market. Whether there is merit in pursuing any of these options depends on the balance between the costs of the implementation compared to the potential benefits from competition and efficiency savings it brings to the market and the Northern Ireland economy.

**Q5: Have we missed anything important in relation to potential actions - are there additional regulatory actions that the Utility Regulator should consider beyond those described above?**

For the purposes of this consultation we have worked with Pöyry Consulting to undertake a high level qualitative assessment that represents our initial thoughts about the impact of each policy option. The assessment criteria reflect our statutory duties and the specific aim of the policy in developing energy market retail competition. These are described below.

- *Impact on competition* – the extent to which the policy alters the ability of existing and potential suppliers to compete (i.e. absolute and relative costs of entry and exit); the incentive to compete (i.e. any impact on switching costs of customers); the range of potential suppliers; and indirect effects on related markets (e.g. generation, meter reading, etc).
- *Impact on consumers*- considering the overall price of the service, effect on quality of supply and the likely degree of product innovation, in both the short and long term.
- *Sustainable development* –the implications for fuel poverty and debt/disconnection, energy efficiency, carbon emissions and security/reliability of supply.
- *Risks and unintended consequences* – an assessment of the uncertainty in the policy options, robustness to external shocks and the likelihood of adverse outcomes.

The impact will be considered relative to a do nothing position that assumes there is no change to the current market and regulatory arrangements as described in Chapter 2 and will be measured in terms of the following five ranks

Large benefit	✓✓
Small benefit	✓
Neutral	-
Small cost	✗
Large cost	✗✗

We do recognise the difficulty in estimating such effects without a full impact assessment and therefore we accept there will be a subjective nature to the results, however we believe this initial assessment will provide a starting point for a further more detailed analysis. We admit also at this stage that it is also difficult to fully take account of the potential dynamic benefits from the introduction of new products, services or technologies.

In the following part of this chapter we will lay out each option and the assessment of the option against the criteria above.

## Assessment of Options

### *Scale of the market*

The Northern Ireland energy retail markets are relatively small with around 760,000 electricity customers and 110,000 gas customers. This limitation on potential market size may impose a natural constraint on the number of supply companies the market can support without increasing costs to consumers and therefore affect the strength of competition. Policy options that increase customer numbers and volumes in the market may therefore help to promote competition.

Two potential options that would directly or indirectly increase market size are considered below:

- incentivising natural gas connections and further roll-out; and
- synchronisation of retail market processes and systems with other markets.

#### *(1) Incentivising natural gas connections and further roll-out (Gas)*

In the Greater Belfast area, natural gas connections are around 40% of total potential connections given the coverage of the network. In addition, gas is not yet available to many areas within N.Ireland. Not only does this reduce the total size of the natural gas market, it also limits the scope for potential suppliers in the domestic market to exploit economies of scale and scope through pursuing dual fuel offers. Connection incentives rest with Phoenix Distribution in Greater Belfast and firmus in its licence area, and potential schemes may revolve around revising the incentive on the distribution company to improve connection rates or offering direct subsidies to customers connecting to gas to overcome the conversion costs. There may also be the need for a re-examination with DETI of the gas industry roll-out and coverage and how this might be economically and efficiently expanded.

**Table 6: Summary of Assessment criteria for gas connections/roll-out**

<i>Impact on competition</i>	<i>Ranking</i>
<ul style="list-style-type: none"> <li>• Larger potential market will enable more companies to overcome barriers due to economies of scale</li> <li>• Greater opportunities for dual-fuel supply will increase the potential return for new entrants considering competing in the domestic (and commercial) gas and electricity markets</li> <li>• Greater perception of effective competition lowers costs of attracting customers to switch to gas</li> </ul>	<p>✓ Main benefit on domestic market, but scale is still a concern</p>
<i>Impact on consumers</i>	
<ul style="list-style-type: none"> <li>• Scope for dual-fuel offers would reduce costs to consumers through utilising joint billing, marketing and meter reading services</li> <li>• Improved competitive pressure may introduce greater cost efficiencies</li> <li>• Any beneficial impact on contract market liquidity would lower wholesale market risk</li> <li>• With enhanced switching volumes, additional up-front costs would need to be borne to extend customer transfer systems in electricity</li> </ul>	<p>xx to ✓ dependent on relative cost of facilitating systems and level of new entry</p>

<ul style="list-style-type: none"> <li>and switch from a manual to electronic process in gas</li> <li>Longer-term benefits from switching to a lower carbon content fuel</li> </ul>	
<i>Sustainable development</i>	
<ul style="list-style-type: none"> <li>Costs savings from dual-fuel and greater competitive pressure would assist fuel poverty targets</li> <li>Reduction in carbon emissions from a switch away from heating oil and coal</li> </ul>	✓/✓✓ dependent on number of new connections
<i>Risks and unintended consequences</i>	
<ul style="list-style-type: none"> <li>Minimum efficient scale of operation is still too large to incentivise new entry, due to size of fixed costs of operation</li> <li>Growth in connections is slow therefore potential benefits would only be achieved in the longer-term, whereas costs would be incurred up front</li> <li>Up-front costs need to be incurred, but benefits of competition slower to emerge.</li> </ul>	

*(2) Synchronisation of retail market processes and systems with those in other European markets*

This does not automatically increase the scale of the market but may be part of a longer-term solution to high set-up costs. Essentially, if systems and processes were coordinated with other markets, this may lower the cost for new entrants of supplying in the Northern Ireland market for two reasons:

- they would be able to transfer existing systems and processes they already operate in other markets; and/or
- any start-up investment for entering the Northern Ireland market also represents an option to enter other markets in the future.

Some aspects of retail market synchronisation with the Republic of Ireland are already in train, as highlighted in Chapter 2, but compatibility with systems in other markets (most notably GB and NW Europe) may also be long-term options. It should be noted that this is likely to encourage more entry from those markets as well as enabling current NI market participants to develop strategies accounting for larger market coverage in the future.

**Table 7: Summary of Assessment criteria for the synchronisation processes**

<i>Impact on competition</i>	<i>Ranking</i>
<ul style="list-style-type: none"> <li>Lower supply business costs for players already operating in other markets increases incentive for existing energy market players to consider entry</li> </ul>	✓
<i>Impact on consumers</i>	
<ul style="list-style-type: none"> <li>High initial outlay by supply and distribution companies to develop appropriate systems</li> <li>Lower entry barriers increase pressure from potential</li> </ul>	✗/✓ dependent on costs of implementation

<ul style="list-style-type: none"> <li>competition on incumbent suppliers</li> <li>New entry by players operating in other markets may introduce new and innovative product offerings</li> <li>Lower supply business costs should result in lower cost to consumers</li> </ul>	
<i>Sustainable development</i>	
<ul style="list-style-type: none"> <li>Reduction in fuel poverty if implementation costs are not significant</li> <li>Potential benefit to “security of supply” if retail market synchronisation is matched by increased interconnection</li> </ul>	✘/✓ dependent on costs of implementation
<i>Risks and unintended consequences</i>	
<ul style="list-style-type: none"> <li>Wholesale entry costs may still be high in electricity if there is no improvement in contract market liquidity, continuing to limit entry to players with a degree of vertical integration</li> <li>Other markets may change their systems over time, so investment is stranded</li> <li>Need for strong regulatory coordination, control and management</li> <li>Timing of programme of synchronisation will affect when benefits arise and entry barriers are removed</li> </ul>	

### ***Price control***

Several aspects of the current price-controls have been highlighted as contributing to barriers to entry. These include:

- transparency in approach and derivation of tariffs and network charges;
- the structure of the control – specifically raised by market participants as an issue in terms of the “K-factor” in electricity;
- the scope of the control – the ability for costs to be spread across different customer groups where competition is at different stages of development, raising potential for cross-subsidies and lack of cost-reflectivity in customer tariffs; and
- the allowed margin on currently regulated supply businesses.

There are obviously a wide range of adjustments that could be made to the price-controls in electricity and gas. **We acknowledge the points raised during the work on developing this paper in relation to price control transparencies and future work requirements in terms of reconsideration of the level of allowed regulated margins. Both areas are already recognised within the Utility Regulator and their assessments will be built into future price control work and methodologies. This is reflected in the policy options discussion in Chapter 6 below.**

Here we focus on two specific aspects:

- removal of the K-factor from the electricity supply price-control; and

- a change in the structure or scope of the price-controls in gas and electricity supply.

*(3) Removal of K-factor (Electricity only at this stage)*

One of the primary barrier arising from discussions on the electricity supply price control was reported to be the “K-factor” that, in conjunction with the lack of fuller contract market liquidity (see policy option (7) below), potentially conferred a commercial benefit to NIE Supply in dealing with wholesale price exposure. Whilst work is underway with NIEE to reduce the scope of the K factor in the coming tariff year, the complete removal of the K-factor across all customer groups would address the asymmetry that exists between NIE Supply and new entrants in wholesale risk and would also place more emphasis on the operation of the economic purchasing obligation on the regulated business.

**Table 8: Summary of Assessment criteria for K-factor removal**

<i>Impact on competition</i>	<i>Ranking</i>
<ul style="list-style-type: none"> <li>• Removal of asymmetry in risk between NIE Supply and competing supplier</li> <li>• Increased competition improves contract liquidity through increased demand for hedging instruments from large players</li> <li>• Greater efficiency in market signals as tariff costs would not be distorted</li> <li>• If risk increases with no concomitant change in contract market liquidity, independent suppliers may be squeezed relative to vertically integrated entrants</li> </ul>	✓✓ major short-term improvement in the non-domestic market
<i>Impact on consumers</i>	
<ul style="list-style-type: none"> <li>• Potential increase in NIE Supply cost in the short-run, due to higher wholesale price risk and need for higher margin</li> <li>• Potential for Long-term cost reductions from increased competition feeding from higher efficiencies, purchasing strategies and lower margins</li> </ul>	x/✓ (dependent on balance between short run cost and long run gain)
<i>Sustainable development</i>	
<ul style="list-style-type: none"> <li>• Reduction in fuel poverty if long-term prices fall</li> </ul>	x/✓
<i>Risks and unintended consequences</i>	
<ul style="list-style-type: none"> <li>• Risk of increase in fuel poverty if major improvements occur in the non-domestic market and domestic customers carry the residual costs</li> <li>• Competition continues as discounts on NIE Supply price and therefore all that is seen is an increase in tariffs and higher margins</li> <li>• Removal of K-factor with no contract market liquidity increases the incentive to opt for vertical integration</li> </ul>	



#### *(4) Scope and structure of price controls*

In general, entrants have raised concerns that in addition to lacking transparency in some areas, the structure of price-controls may provide the incumbents with additional benefits, implicitly cross-subsidising between customer groups.

Alteration to the scope of control refers to the removal of some customer segments and costs from the price-control (at this stage it is anticipated this would apply only to the large industrial customers in electricity); thereby making it more transparent what costs are associated with the competitive and non-competitive segments.

Where removing a price-control has no justification, an alternative variant may be to disaggregate treatment of costs and tariffs within the structure of control so that tariffs for different customer groups are determined separately, with greater emphasis on cost allocation (this would be most applicable in electricity).

**Table 9: Summary of Assessment criteria for the structure of the Price Control**

<i>Impact on competition</i>	<i>Ranking</i>
<ul style="list-style-type: none"><li>• Better transparency of pricing and costs associated with serving different customer groups enables new entrants to target customers with new products</li><li>• Increased credibility and openness of regulatory regime reduces uncertainty for new entrants in both markets</li></ul>	✓
<i>Impact on consumers</i>	
<ul style="list-style-type: none"><li>• Removal of industrial price-control in electricity may enable greater flexibility in pricing and tariff offers</li><li>• Industrial prices may rise if higher margins are required</li><li>• Any implicit cross-subsidies that exist in tariffs between customer groups will disappear, potentially increasing costs to some consumers in the short-run</li><li>• Long-term benefits to all from greater competition</li></ul>	✓
<i>Sustainable development</i>	
<ul style="list-style-type: none"><li>• Minor impacts on fuel poverty</li></ul>	-
<i>Risks and unintended consequences</i>	
<ul style="list-style-type: none"><li>• Lack of information means cross-subsidies in cost allocation remain</li><li>• Increase in burden of costs on domestic customers</li></ul>	

#### ***Market structure***

A main factor in the analysis of barriers was the commercial advantage the incumbent enjoyed through economies of scale and scope. These emerged both in the context of the fixed costs of entering markets and in the asymmetric risk exposure of operating with a small, less diversified portfolio. To the extent that this asymmetry is creating a significant hurdle, we consider a number of options that could mitigate this incumbent advantage and help promote competition. Below are two possible options to delivering a fundamental restructuring:

- the promotion of a shallow supply model that remove the obligation for providing many of the supply activities that incur set-up costs for new entrants from the supplier and put them on an independent entity;
- mechanisms for divesting market share or targeting market share loss of the incumbent in certain market segments to overcome initial portfolio asymmetries.

Whereas the former is intended to alter the cost structures of supply companies and then rely on commercial decisions to change market structure, the latter mandates a change in structure over a set period.

In addition, we consider means of increasing contract market liquidity in the SEM as an electricity specific option that would alter the available products for risk management.

#### *(5) Shallow Supply model*

One of the problems in a small market may be that economies of scale in retail activities are so large that they are a complete barrier to entry for independent suppliers, thereby restricting the market to either the incumbent or a small number of integrated, established market players. If it is possible to restrict the role of a supply company so that it does not have to develop or procure some of these high fixed cost elements independently (e.g. meter reading services have already been removed as a supply activity in electricity), then suppliers may focus on competing around energy costs – enabling greater focus on product innovation whilst maintaining economies of scale in the other activities.

**Table 10: Summary of Assessment criteria for the shallow supply model**

<i>Impact on competition</i>	<i>Ranking</i>
<ul style="list-style-type: none"> <li>• Removes barriers to small independent suppliers entering the market</li> <li>• Focuses competition around efficient and innovative procurement strategies</li> <li>• Increased pressure for new wholesale trading products to enable supply differentiation</li> <li>• Reduction in competition for core supply activities (competition is 'for' the market, not 'in' the market)</li> </ul>	✓
<i>Impact on consumers</i>	
<ul style="list-style-type: none"> <li>• Reduction in barriers should enable niche suppliers and smaller entrants to operate sustainable businesses providing greater choice in the market</li> <li>• No adverse impact on economies of scale in short-term</li> <li>• Potential lack of innovation in core services in longer-term due to lack of pressure for innovation and lack of scope for differentiation amongst suppliers in these areas</li> <li>• Better basis for rolling out new innovations and systems through placing obligation on a single entity</li> </ul>	✓ (on cost) ✗ /- (on product choice and innovation)
<i>Sustainable development</i>	
<ul style="list-style-type: none"> <li>• Investment and development in smart meters may be facilitated</li> </ul>	✓

with further benefits for energy efficiency and control of bad debt	
<i>Risks and unintended consequences</i>	
<ul style="list-style-type: none"> <li>Competitive tender process for services would need to be effective and flexible enough to allow for innovation</li> <li>Restricts innovation to contracting strategies which may benefit non-domestic customers more than domestic</li> <li>Relies on contract market liquidity in electricity</li> </ul>	

*(6) Divestment of the incumbent and/or restrictions on bidding*

The shallow supply model could potentially address some of the problems related to economies of scale and set-up costs. A more radical option would be to pursue a policy that aims at a fundamental restructuring of the supply market. This may involve some or all of the following:

- forced divestment of part of the existing customer portfolios of the incumbents;
- agreement on market share reduction targets with the incumbents; or
- restrictions on competition by the incumbents – this may be in the form limitations on the response to competing tariff offers by the incumbent (e.g. restricting the incumbent to fixed regulated tariffs rather than offering them the flexibility to alter tariff offers) or preventing the incumbent from re-signing a customer for a set period after they first lose the contract.

We would expect this option to help new suppliers achieve a larger market share over a shorter period of time.

**Table 11: Summary of Assessment criteria for divestment/restriction on the incumbent**

<i>Impact on competition</i>	<i>Ranking</i>
<ul style="list-style-type: none"> <li>Removes asymmetry in risk and cost resulting from incumbent historic advantage</li> <li>Restrictions on re-bidding by the incumbent restrict customer choice (particularly in the gas market where there are only three suppliers)</li> <li>Divestment creates several smaller companies but with potentially similar characteristics, restricting scope for differentiation</li> </ul>	✓
<i>Impact on consumers</i>	
<ul style="list-style-type: none"> <li>Reduction in economies of scale will lead to increased costs in the short-term</li> <li>Choice of supplier may be limited if there is no re-bidding</li> </ul>	×× (loss of economies of scale in short-run)
<i>Sustainable development</i>	
	-
<i>Risks and unintended consequences</i>	
<ul style="list-style-type: none"> <li>Gas market is too small to make this option viable</li> <li>Limited interest and little diversity in bidders results in recreating</li> </ul>	

<p>other structures where there still is no incentive for effective competition</p> <ul style="list-style-type: none"> <li>• May increase burden on regulator if it requires additional price-controls in the short-run</li> </ul>	
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*(7) Improving contract market liquidity (Electricity only)*

The ability of new suppliers to secure efficient wholesale purchases is a key determinant of their ability to undercut the incumbents offer. As a consequence, any contract market imperfections are hurdles to further competition (exacerbating the effects of the “k factor” and portfolio effects described above), as has been highlighted in discussion of some of the above options, and the issue was raised at various points in Poyry’s initial discussions with market participants.

A more liquid contract market would allow suppliers to have access to a more varied range of purchasing options as well as financial hedging instruments. This type of fully liquid contract market would allow suppliers to reduce significantly their wholesale procurement risks, and allow a better hedge to peak price exposure. For example, one way of implementing this option would be to develop bulletin boards to enable greater trading of specific products between companies and as liquidity begins to increase it is likely to attract more brokers to the market, which would further increase liquidity and competitive pressures.

**Table 12: Summary of Assessment criteria for improving contract market liquidity**

<i>Impact on competition</i>	<i>Ranking</i>
<ul style="list-style-type: none"> <li>• Increase competition in contract market for financial hedging instruments</li> <li>• Lowers cost of wholesale procurement for new entrants</li> </ul>	✓✓
<i>Impact on consumers</i>	
<ul style="list-style-type: none"> <li>• Reduction in costs to all consumers from lower hedging costs</li> <li>• Greater range of products available enabling more innovative supply offers and making some customer groups viable for new entrants</li> </ul>	✓
<i>Sustainable development</i>	
<ul style="list-style-type: none"> <li>• Cost reductions benefit fuel poverty</li> <li>• More efficient price signals lead to better investment in generation and drive for demand-side reductions and energy efficiency</li> </ul>	✓
<i>Risks and unintended consequences</i>	
<ul style="list-style-type: none"> <li>• Developments are overtaken by events and vertical integration limits the role of contract market and the range of products offered</li> </ul>	

## **Operational rules and governance**

Although we focus on one specific concern below (in relation to data availability) to lay out an example of how the assessment might look for an individual operational issue, there was a general concern noted in regard to several inter-related issues around detailed operational rules in both gas and electricity, the code modification process and the interaction of stakeholders within this process, customer information availability, etc. We recognise the need to try to ensure that where concerns are real and warranted that processes are in place to deal with these. We consider that our Gas and electricity teams/workplans are the ongoing vehicles by which these more detailed issues are probably addressed. We would hope that the operation of the SIG (electricity) and GMOG (gas) groups provide an effective means of dealing with many of these issues.

### *(8) Data availability*

Data availability and transparency is essential for competition to develop in any market. Pöyry's discussions with some industry players generated anecdotal views that information on customers was either not available or took potentially restrictive time periods to get hold of. Ensuring central registries of customer data are maintained and available to all suppliers, probably through an obligation on the Transmission and Distribution companies, is therefore proposed.

**Table 13: Summary of Assessment criteria for data availability**

<i>Impact on competition</i>	<i>Ranking</i>
<ul style="list-style-type: none"> <li>Improved understanding of customer demand position and data reduces uncertainty and risk</li> <li>Reduction in customer acquisition costs as targets can be identified more easily</li> </ul>	✓✓
<i>Impact on consumers</i>	
<ul style="list-style-type: none"> <li>Better product differentiation between customers through a better understanding of individual customer risk</li> <li>Cost of set-up and maintenance of registry will be borne by customers</li> </ul>	✓
<i>Sustainable development</i>	
	-
<i>Risks and unintended consequences</i>	
<ul style="list-style-type: none"> <li>Data quality is poor and takes significant time to clean</li> </ul>	

## Summary of Options

Each option has been considered on its own merits. However, as is evident from the discussion, there are several interactions and complementarities between the individual options. For example, removing the K-factor in electricity may not add any additional benefits to consumers if there is no concurrent increase in contract market liquidity to enable more efficient risk hedging.

Table 14 below summarises the options and the initial impact assessment undertaken.

**Table 14: Summary of the options**

		Impact on Competition	Impact on consumers	Sustainable development
Scale of market	Gas Connection and roll-out	✓ Main benefit on domestic market, but scale is still a concern	✘✘ to ✓ dependent on relative cost of facilitating systems and level of new entry	✓/✓✓ dependent on number of new connections
	Market synchronisation	✓	✘/✓ dependent on costs of implementation	✘/✓ dependent on costs of implementation
Price control	K-factor removal	✓✓ major short-term improvement in the non-domestic market	✓✓ (non-domestic) ✘/✓ (domestic)	✘/✓
	Scope of Control	✓	✓	-
Market Structure	Shallow supply model	✓	✓ (on cost) ✘ /- (on product choice and innovation)	✓
	Divestment	✓	✘✘ (loss of economies of scale in short-run)	-
	Improving Contract market liquidity	✓✓	✓	✓
Operational rules	Data availability	✓✓	✓	-

**Q6: Do you agree with the initial assessment of the impact of the proposed regulatory actions on the electricity and gas markets? Do you think we have materially mis-estimated potential impacts?**

## Chapter 6

### ***Identifying recommendations in light of “Scenarios” for Northern Ireland energy retail markets***

There is no single “correct” model of energy retail market competition or one scenario of the future for NI energy retail markets – in the discussion below we set out our own thoughts on some scenarios that might arguably emerge. In reality, which of the range of potential futures will become more or less likely to emerge, will be influenced by several key drivers.

- *The strength of barriers to entry* - the focus of the consultation up to now has been on identifying what barriers to entry exist and offsetting policy options, rather than on what types of entrant the barriers affect. As discussed in our review above, the scale of the market may place an overall restriction on the number of players that can feasibly enter, but there may also be further restrictions on the type of entrant if the asymmetries in the cost and risk relative to incumbents are less pronounced for some players. For example:
  - lack of adequate financial hedging options means electricity supply companies that have some vertical integration will have an advantage in managing wholesale price risk; and
  - the importance of brand awareness and reputation for domestic customers favours companies with established brands.
- *The relative importance of, and approach to attaining, social and environmental objectives in energy markets* – we stated at the outset of this consultation that competition is not an end in itself, but a means to achieve a variety of economic, social and environmental objectives. The assessment of potential actions in the previous chapter highlighted areas where there may be adverse effects on sustainable development or on aspects of consumer choice. If it is decided that priority should be given to these objectives at the expense of, rather than through, retail competition, then the market will look very different. As a small example, requiring customer bills to exhibit ‘green star’ presentation of carbon impacts would reduce the scope for innovation or competition in the billing arena.
- *The strategic models of competition suppliers in the market pursue* – suppliers may decide to compete across several dimensions:
  - price – undercutting the existing suppliers through greater cost efficiencies (which may entail innovation in metering, billing, etc) and/or accepting lower margins;
  - quality of service – differentiating their product by offering a higher actual (or perceived) standard of service in dealing with customer queries, meter reads, call centre availability ,etc, and developing goodwill and reputation; and
  - range of products – encompassing greater choice of energy tariffs, but also bundling the core product with additional products and services from

dual fuel options, through telecoms and home support services to energy efficiency advice.

These aspects are not mutually exclusive and while energy market competition usually starts with price competition, it may evolve as the scope for efficiencies changes and consumers become more pro-active and discerning in their choice of supplier.

## **Potential future scenarios**

With this wide variety of influences, there are a range of future scenarios of how the Northern Ireland energy market may look in the next five to ten years. Below, we outline several (3) hypothetical scenarios of how a future energy market may develop, reflecting a different balance between the strength of competition, the mix of players and the choice of products and services available to consumers. **These are not exhaustive nor an indication of where we believe the Northern Ireland market will end up**, but they provide a flavour of the variety of market forms that may be available for Northern Ireland consumers under appropriate conditions.

### ***(i) Simple energy competition***

At its most basic, consumers will face a standard competitive model where suppliers offer only standard electricity or gas supply products. The market that results is one where suppliers focus on price as the main incentive to switch based on efficiencies in their energy procurement or retail service activities. Customers will face a wide proliferation of tariffs aimed at segmenting the market and targeting those with specific characteristics.

In such a market, industrial and commercial customers would benefit from greater flexibility in contract terms, but for domestic customers, increasing consumer choice may be accompanied by less transparency (particularly for example for the less IT-literate), making it harder to identify 'good deals'.

If economies of scale are a major barrier to entry, then means of reducing this through, for example, a shallow supply model, would (under this scenario) focus supplier innovation onto wholesale activities, removing the incentive for innovation in the previous supply activities such as metering (in gas) and billing.

Furthermore, in such circumstances, specific 'social tariffs' may not be developed unless there is some form of regulatory intervention to require offerings to these particular groups or to ensure some other form of incentive or cross-subsidy (possibly through network charges) were able to mitigate this risk.

### ***(ii) Bundled product markets***

An alternative model would see suppliers countering the limited size of the Northern Ireland market by expanding the range of products they offered, enabling them to benefit from economies of scope and customers to have the convenience of a single point of contact for several services. The bundling of products may develop from standard dual-fuel offerings (of electricity and gas or oil) through telecommunications services to insurance, home service support, and other consumer products.

In expanding the range of services offered, it is also possible that we would witness an increase in affinity deals with other companies, such as major supermarkets.



These deals serve to add value to the supply proposition of the company and enable them to benefit from the reputation and customer base the affinity company has.

### ***(iii) Enhanced services***

Rather than offer a wider range of products to the customer, suppliers may look to provide higher value-added services. This may just be a reflection of actual, or perceived, standards of customer service, or an alternative set of services, such as would be forthcoming from an energy services company. In these circumstances, the sale of the core energy commodity would be supplemented by energy efficiency advice and investments, smart metering technology, and other services aimed at managing energy use more efficiently and cost-effectively.

Under such a scenario, supply companies concentrate on developing longer-term relationships with their customers and there must be sufficient incentive to develop this approach. This means reducing the risk of stranded costs or investments for suppliers and therefore may require longer-term contracts to be allowed. This may raise barriers to entry, but would potentially be more compatible with the social and environmental duties of the regulator.

## **Potential market structure**

In addition to considering the “form” of competition that may emerge, the structure of the market and the number of players may also vary. Several scenarios of the likely make-up of the energy retail market are suggested below.

### ***Differential competition across customer groups***

The domestic and non-domestic markets have very different characteristics in terms of demand levels and profiles of customers and the incentives to switch which affect entry barriers. Consequently, one possible structure of a simple energy competition future sees three main market segments – non-domestic electricity, non-domestic gas and domestic energy – with different structures and players.

The non-domestic markets may be capable of supporting a number of smaller players due to low operating costs, easy access to price responsive customers, rapid volume growth and the ability to procure supplies and manage wholesale price risk through liquid contract markets.

In contrast, the high marketing, brand development and customer acquisition costs in the domestic market limit the number of players who can realistically enter without substantially raising the cost to consumers through loss of economies of scale. As such, the market is limited by overall size. While no minimum efficient scale has been identified, it is unlikely that the Northern Ireland market could cost-effectively sustain more than two or three players with existing brands and with a dual fuel marketing strategy (i.e. bundled product scenarios are more viable alternatives in the domestic market). In an all-island context this may expand to three or four players.

While the identity of suppliers is not an issue, it should be noted that the high cost of developing reputation and brand may initially limit the realistic competitors to those currently active in the market – ESB, NIE, Bord Gais (firmus), Phoenix and Airtricity (with the backing of SSE) – where existing local branding and loyalty can be exploited.

### ***Strong integrated all-island players***

A variant on the above is a model where the same players are active in the domestic and non-domestic sectors, thereby able to exploit additional economies of scale in operation and leverage reputation and brand already developed in the non-domestic markets through their affiliates. These players would also be able to develop their vertically integrated positions in the gas and electricity markets as a means of mitigating wholesale risk.

### ***Competitive fringe***

Rather than a market structure with a small number of larger players, another possibility would be for there to be a competitive fringe of suppliers who offer innovative, niche products, to the market, as a means of encouraging product differentiation. These may include green tariff offerings, energy service functions or cross-utility offerings (e.g. telecoms services).

To operate effectively, these niche suppliers still require a minimum scale (which may be higher if the range of services is expanded), but can often extract higher premia for the service they provide. In Northern Ireland, market size may be a major restriction on the viability of these services.

### **Current drivers**

Without any further action, we would not expect the structures of either market to change substantively in the short-term as barriers would continue to deter new entrants. This means, over the next few years, the status quo in the Northern Ireland energy market would encompass:

- little, if any, progress in the development of domestic retail competition, contingent on the strategy of Airtricity post-takeover;
- continued activity in the industrial electricity market, but limited expansion in the commercial sector;
- a very restricted form of gas market competition with the possible risk of suppliers exiting the market if identified asymmetries remain.

In the longer-term, the key drivers of the markets (without additional regulatory action) will be:

- the development of the all-island energy market programmes, notably in relation to retail market synchronisation – this continued integration can be expected to reduce the transaction costs of operating across both markets and will be matched by the delivery of all-island strategies by existing players in the North and South;
- the speed of development of financial hedging instruments to mitigate wholesale price risk – if such liquidity does not emerge in the near future, this could promote a move towards greater vertical integration as an optimal strategic response to the lack of liquidity in contract hedging, a position which may then perpetuate the low liquidity as supply companies will only be exposed on a portion of their portfolio limiting demand for such products;
- the opening of the firmus distribution franchise – not only will this expand the potential Northern Ireland gas market, but by exposing firmus's supply base

to competition, it will also serve to shift the focus of firmus onto customer retention and acquisition.

This suggests a 'no change' market scenario would be likely to develop along the strong integrated all-island players scenario. Expanding the other scenarios would require addressing the main barriers to minimum efficient scale – i.e. the size of the market and customer inertia. This may be achievable on a cost effective basis in the non-domestic market, as the initial assessment has shown, but there remains a risk that pursuing costly actions to reduce barriers in the domestic sector may have little short-term benefit and would not alter the longer-term position we anticipate as a result of the all-island initiatives.

### ***Recommendations for further action***

While each option has its merits and costs, and taking account of possible future developments, there are several actions that we would propose to consider in more detail based on our initial assessment above.

### **Electricity market proposals**

In the short-term, we would propose to:

- actively seek to address concerns regarding data availability or transparency;
- first re-consider, and then where appropriate support, activities to further develop contract market liquidity;
- progress our work in conjunction with the CER/SEM to agree and implement a programme of retail market synchronisation.

In the medium-term, we will:

- develop criteria for assessing whether the scope of the NIEE price-control can be reduced;
- review inclusion of the K-factor in NIEE supply price-control;
- review price control transparency issues and future work requirements in terms of the level of allowed regulated margins. Both areas are already recognised within the Utility Regulator and their assessments will be built into future price control work and methodologies.
- consider potential for shallow supply model.

### **Gas market proposals**

In the short-term, we would propose to:

- examine options, alongside DETI and Government as necessary, to re-invigorate economic and co-ordinated gas roll-out, both to new areas and within existing distribution/supply areas;
- actively seek to address concerns regarding data availability or transparency;
- review through GMOG the key operational and technical issues raised;
- progress our work in conjunction with the CER/SEM to agree and implement a programme of retail market synchronisation;

In the medium-term, we will:

- consider the need if any to impose more structure or transparency on the Phoenix tariffs through the price-controls;
- review price control transparency issues and future work requirements in terms of the level of allowed regulated margins. Both areas are already recognised within the Utility Regulator and their assessments will be built into future price control work and methodologies;
- consider potential for shallow supply model.

**Q7: Do respondents agree with our analysis above in relation to scenarios and their interplay with options, and with our proposed actions?**

## Chapter 7 – Responses to this consultation

The next stages in this consultation are:

Responses to the questions and issues raised in this paper should be sent to the Utility Regulator by **Wednesday 16<sup>th</sup> July 2008 (responses by 12:00 noon please)**.

Although the 16<sup>th</sup> of July is the deadline for responses, should respondents wish to, we would welcome responses earlier than that date. This would allow us more time to engage directly with respondents on their comments during the remainder of the time up to 16<sup>th</sup> July, and where necessary meet directly with respondents to discuss key comments made.

Responses should be sent to:

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