



Department of

**Enterprise, Trade  
and Investment**

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**Consultation  
Strategy  
Progress**

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# Energy

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**A strategic framework for Northern Ireland  
June 2004**

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Stimulating  
**innovation**  
**enterprise** and  
**competitiveness**

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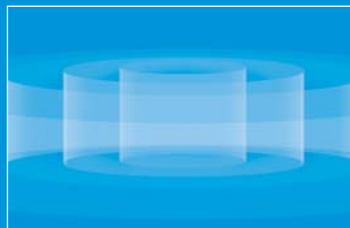
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### **The Future**

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Our vision is for a competitive, sustainable, reliable energy market  
at the minimum cost necessary





**Barry Gardiner MP,**  
Minister with responsibility for  
Enterprise, Trade and Investment  
June 2004

Energy issues affect us all. As individuals we rely on energy in our home, work and social environments. At a wider level, energy costs and reliability are central to Northern Ireland's business and industrial competitiveness and to stimulating enterprise in our region.

This document sets out Government's energy vision for the coming decade. I am grateful to the many individuals, the energy industry and the business and voluntary representative organisations, as well as the Northern Ireland Authority for Energy Regulation (NIAER) and the Energy Strategy Steering Group, that have helped to shape the document by contributing to the consultation process.

The approach we have pursued is to provide an overarching framework within which individual energy issues and priorities can be addressed, acknowledging that some of these are a progression of ongoing issues. The focus is on setting the agenda, key priorities and principles within which we can plan and progress towards the effective and flexible energy sector we desire.

Against a historical background of small isolated energy markets, the absence of exploited

indigenous energy and a limited choice of fuels, the last ten years have seen many changes, and many achievements in the Northern Ireland energy scene.

Our electricity and gas markets are no longer isolated but are interconnected into national and European Union (EU) networks. The introduction of natural gas to the Greater Belfast area and, shortly, to the North West and South of Northern Ireland represents a significant contribution to improving the energy infrastructure here and will widen fuel options for domestic and industrial users and further reduce the level of CO<sub>2</sub> emissions from electricity generation, the intensity of which is already 15% less than in 1990. We have made an encouraging start in exploiting Northern Ireland's renewable energy potential and industrial and commercial customers now have the option of choosing a supplier of 'green' electricity. We have sharpened the focus on improving energy efficiency and are exploring possible gains from addressing energy issues on an 'all-island' basis. We now have competition in electricity supply to larger industrial consumers, a fully open market in renewables for all non-domestic consumers, and rigorous regulation of supplies for all consumers.

## Energy consumers expect a reliable, efficient and high quality service at a reasonable price.

Despite these major advances, there are a number of ongoing and new challenges still facing the energy sector in Northern Ireland and it is important to build on the achievements of the past decade.

Reconciling the challenges, whilst accepting that driving down costs must be at the heart of all the policy decisions within this strategic context, means that taking forward any and all of the actions within it must be considered and balanced against the wider cost implications for Northern Ireland as a whole.

Energy consumers expect a reliable, efficient and high quality service at a reasonable price. While overall electricity prices have been reduced in real terms, there is still a comparatively high differential between those in Northern Ireland and in other United Kingdom (UK) regions. This is a serious concern. This differential is due to the generation contracts that have, over time, proved to be expensive relative to contracts in other markets; a lack of competition in generation and supply; and the presence of inefficient generation plant that is now being retired.

High costs have direct implications for both our business competitiveness and for the 203,000 households in Northern Ireland for which fuel poverty is an issue. The issue of costs cannot be looked at in isolation, but is a central thread running through this document, since there will be tensions between pursuing certain objectives and accommodating their price implications.

Environmental issues, particularly the significant reduction of greenhouse gases, are increasingly a major driver behind EU energy policy and will have implications for Northern Ireland as we manage the environmental consequences of fossil fuel electricity generation. The use of cost effective renewable energy in heat and power generation has much to offer in this regard but most is to be gained from reducing the overall demand for energy. Pursuing significant improvements in energy efficiency has never been more important as a means of both reducing energy costs to the end consumer and enhancing the sustainability of our energy system and is a priority of both this Framework and the Department for Regional Development's forthcoming Sustainable Development Strategy for Northern Ireland.

The coming decade will see the expansion of the gas network beyond the Greater Belfast area. Increasing reliance on natural gas for power generation, whilst helpful in our effort to reduce CO<sub>2</sub> emissions and in offering customers an alternative fuel choice, also raises important issues about security and diversity of supply which must be considered fully.

Looking beyond the limited Northern Ireland market, it will be essential to make the most of the opportunities offered by further increasing co-operation on energy issues with the Republic of Ireland (RoI) and the rest of the UK in a European context. Cross border trading and harmonisation

with the Republic is not as developed as it could be - due to transmission constraints and other wider trading issues.

Access to reliable and economic energy supplies is a priority for the economies of both Northern Ireland and RoI. The all-island energy market Joint Steering Group, established last July, has worked hard to move the agenda forward and excellent working relationships based on common economic interests have been established. The potential economic benefits of cross-border co-operation on energy within a larger market place are considerable and both governments are committed to the development of the all-island energy market and the delivery of lasting economic and social benefits for businesses and households, north and south. But of course the terms must be right.

The energy agenda continues to develop dynamically and the coming decade will bring at least as many changes as the last. Northern Ireland must be able to not only react flexibly to external changes, but to press ahead with tackling the inherent challenges it faces, whilst reaching out to grasp opportunities to optimise its competitive position within the wider all-island, UK and EU energy markets.

This Framework therefore seeks to make a realistic assessment of the energy challenges we face, to prioritise our goals and to establish a basis for collaborative action by key stakeholders.

In order for the Framework to be successful, active participation from all the stakeholders - government, industry, consumers, NIAER and the General Consumer Council for Northern Ireland (GCCNI) - will be required and I am confident that we will secure the co-ordinated effort needed to tackle the challenges identified and achieve the goals.

A handwritten signature in black ink, reading "Barry Gardiner". The signature is written in a cursive style with a long horizontal line extending from the end.

BARRY GARDINER MP  
Minister with responsibility for  
Enterprise, Trade and Investment  
June 2004



Meeting Northern Ireland's  
energy challenges through a  
partnership approach

# Executive Summary

## Background

The approach taken in this document has been informed primarily by responses to Department of Enterprise, Trade and Investment (DETI) consultation exercises, including input from NIAER and GCCNI, and the Northern Ireland Assembly's Enterprise, Trade and Investment Committee's extensive "Inquiry into Energy" report published on 5 March 2002. The Department also acknowledges the significant input by the Energy Strategy Steering Group to the development process. The Framework also reflects the key issues highlighted in the UK White Paper "Our energy future - creating a low carbon economy" published in February 2003.

Relevant information and supporting material is available on the DETI website at [www.energy.detini.gov.uk](http://www.energy.detini.gov.uk)

## Challenges

Despite the advances made in the past decade there are a number of ongoing challenges for the energy sector in Northern Ireland. Often actions to

help meet one of these challenges will impact on progress towards one or more of the others. Many of the elements of this Framework are complementary, but others are not, so a balance needs to be struck.

The main challenges are:

- narrowing the differential between electricity prices in Northern Ireland and other regions of the UK and the EU, particularly the RoI;
- opening the markets in both electricity and gas which brings both competition and choice;
- developing an all-island energy market by pursuing greater harmonisation of energy systems with the RoI, aimed at providing substantial economic and social benefits, notably in areas of investment planning, pricing and reliability of supply;
- ensuring a proper balance of fuel diversity, cost and security of supply for power generation;
- reducing emissions by securing the most efficiency from power generation and reducing demand for energy by enhancing energy efficiency in homes and businesses;

- efficiently expanding the gas network beyond the Greater Belfast area;
- increasing the use of renewable energy for heat and power generation; and
- tackling fuel poverty.

### **Objective**

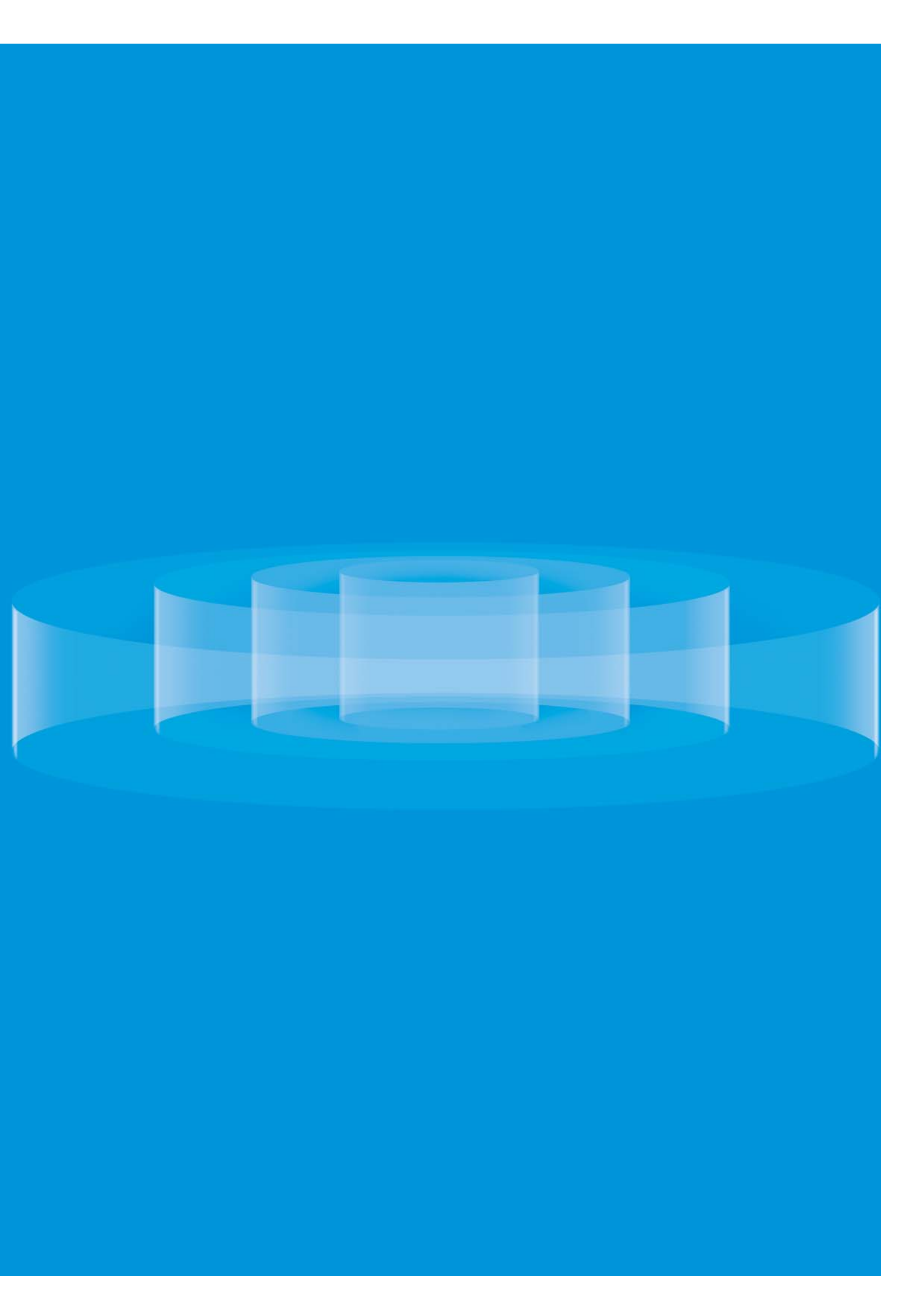
The primary objective is: **to achieve a competitive, sustainable, reliable energy market at the minimum cost necessary in an all-island, UK and European context.**

### **Goals**

To help achieve this objective four goals have been set. They are to:

- reduce energy costs relative to other UK/EU regions;
- build competitive energy markets;
- protect our future by enhancing the sustainability of our energy supply and consumption; and
- maintain the reliability of energy supplies.

**The aim is to reconcile and meet the challenges through these four goals.**



The background is a solid blue color. On the left side, there are several overlapping, semi-transparent, light blue curved shapes that resemble stylized letters or abstract forms. These shapes are layered, creating a sense of depth and movement. The text is positioned in the lower-left quadrant of the image.

Striking a balance between  
competing objectives

# Overview

# 1

This Framework focuses on electricity, gas and renewable energy sources. The structure of the energy industry in Northern Ireland in relation to all these sources is very different now from that which existed 10 years ago.

Northern Ireland's fuel requirements will, for the immediate future, continue to be met mainly by a combination of natural gas, oil and coal. Over the longer term however, the use of natural gas and renewables for power generation and for domestic heating is likely to reduce the demand for the other fuels, with oil likely to remain the primary fuel for home heating in most of Northern Ireland and coal likely to see the largest reduction in market share. The fuels other than gas that are used in providing primary energy to Northern Ireland - oil, coal and liquefied petroleum gas - operate in established markets and will continue to have an important role to play in providing Northern Ireland customers with fuel diversity and choice. The protection of the commercial volumes of indigenous lignite as a resource may be important, however, to allow both short and long term consideration of its use.

Security of supply, and the related issue of fuel diversity, are strategic factors in energy supply in Northern Ireland. As we become more dependent on natural gas as a feedstock for electricity generation, we will increasingly look to interconnection and renewables to provide fuel diversity. Ongoing monitoring and dialogue with all the key players will be essential to determine and manage the appropriate balance of generating technologies and fuel sources. Robust emergency planning procedures will be needed to establish options and contingency plans in relation to both preventative measures and ensuring appropriate responses in the event of an emergency.

An increasing number of the challenges to be tackled in the energy market here over the next decade will involve consideration of wider UK, RoI and EU policies and must be handled in this context. As Northern Ireland is now interconnected to the electricity and gas networks in Great Britain (GB), RoI and on to the rest of Europe, our policies will need to take account of those being developed in other regions in order to prevent market participants from exploiting policy differences. This is especially the case with EU policies which require certain actions to be taken in energy markets within set timescales.

## Minimising cost increases for consumers will be the touchstone for progressing this Framework.

The biggest single challenge will be to implement policies in a way which does not add significantly to the cost of energy in Northern Ireland. While the increased cost implications of addressing the growing emphasis on environmental issues is well known and accepted, it is generally assumed that liberalisation and increasing competition, major EU drivers for both electricity and gas, will result in improved services, innovation and reduced costs for consumers. In practice however, liberalisation does not act as a panacea to the issue of driving down costs as it does not make the underlying cost base disappear.

Achieving a balance between responding to the many and varied energy challenges ahead and minimising cost increases for consumers will therefore be the touchstone for progressing this agenda over the coming years.

### **ELECTRICITY**

Northern Ireland cannot stand alone when it comes to securing reliable and economic power supplies. For the foreseeable future we will be dependent on external sources of gas, oil and coal so monitoring availability and prices of fossil fuels is a continuing part of the Department's remit. Monitoring and ensuring security of electricity supply is also a high priority and one which the Department shares with NIAER. In a market as small as Northern Ireland's, generation security and diversity cannot be left to the marketplace. Improved procedures and greater transparency in relation to "who does what" are

necessary, particularly as we look beyond the advent of the first new merchant plant in Northern Ireland, which is being constructed at Coolkeeragh and is due to be commissioned in July 2005, and seek to match supply with the demand for electricity which, if left unchecked, is expected to continue to grow by as much as 2% per annum.

On the generation side, Northern Ireland has a requirement for three major power stations plus good interconnection and this is unlikely to change for some time. There is, at present, no major source of generation within Northern Ireland that is not contracted to Northern Ireland Electricity's (NIE's) Power Procurement Business (PPB), although this will change in 2005 when the new Coolkeeragh plant becomes operational.

Suppliers in Northern Ireland currently have to purchase their power either from the PPB, from Scotland (over the Moyle interconnector) or from dispersed sources of generation such as renewables or Combined Heat and Power (CHP) plants. While there are eleven licensed suppliers in Northern Ireland, there are effectively only three actively competing in the eligible customer market at present.

Proactive discussions are therefore ongoing about scope for improving integration and interconnection with RoI, which are aimed at developing a mutually beneficial all-island energy market. This has the potential to significantly

improve competition and security of supply in both jurisdictions.

Further work is also continuing to develop and grow the market for renewables which from the outset was fully liberalised for all non-domestic customers. Three suppliers are active in this market and by the end of 2003 many small and medium size enterprises (SMEs) and all schools and hospitals in Northern Ireland had switched to electricity generated from renewable sources. Domestic customers can now, at no extra cost, elect to consume renewably generated electricity through NIE's eco tariff and 11,000 have already done so.

Whilst the biggest single energy issue remains the high price of electricity here, especially compared to GB, the pursuit of cleaner generation adds to the challenge. Although the CO<sub>2</sub> intensity of generation in Northern Ireland has reduced by 15% from 1990 levels, the introduction of the EU Emissions Trading Scheme and the implementation of the Large Combustion Plant Directive could impact further on price and affect fuel mix decisions.

As of May 2004, electricity prices for industrial customers were on average some 35-60% higher than in GB and 5-15% higher than in Rol. For domestic customers Northern Ireland tariffs are estimated to be on average 23% higher than in GB and broadly similar to Rol. The higher prices in Northern Ireland are due largely to the legacy generation costs from privatisation which,

without government intervention, could continue until 2024, although they will diminish rapidly after 2010.

Challenges are also posed by increasing competition in supply, which should maximise choice and, in time, minimise costs. Indeed the electricity industry faces its greatest challenge since privatisation in 1992, over the next 3 years, in opening the market fully to competition in both generation and supply. The electricity market is currently 36% open to competition, which translates into the largest 1000 customers in Northern Ireland being eligible to shop around for their electricity. EU Electricity Directive 2003/54/EC requires the electricity market to be opened to all non-domestic customers in 2004 and full customer choice to be implemented by 2007.

By December 2004 the market in Northern Ireland should be 60% open i.e. all non-domestic customers will have a choice of electricity supplier. The development in 2003/04 of revised levies and the move to a lower cost and more transparent Bulk Supply Tariff (BST) created the scope for competitive customer switching and allowed for further liberalisation to meet the 2007 requirement for full choice for all customers. In the absence of these changes to the levy structure, liberalisation would have the effect of leaving an increasing burden of the cost base with the franchise sector (mainly domestic) and reducing the options available to customers.

Government and further regulatory intervention will help minimise cost increases as we move to the next stage of market opening. It will have a significant effect in reducing the cost base of the industrial and commercial sectors and serve to reinforce the move towards more competitive wholesale and supply markets.

The objective of the Government proposal announced in September 2003, was to bring about a decrease in electricity prices across the business sector.

This significant financial intervention, intended to be ongoing during the life of this Framework, is aimed at removing some of the excess costs inherited from privatisation by means of a reduction in the public service obligation component of the electricity tariff.

## **GAS**

The gas industry in Northern Ireland has undergone considerable transformation in the past 10 years. Unlike the rest of the UK, Northern Ireland, because of unfavourable economics, did not have access to supplies of natural gas until the 1990's. In 1992 the economics changed with the purchase by the then British Gas, of Ballylumford Power Station. Premier Transmission Ltd (then known as Premier Transco) constructed an undersea gas pipeline between Scotland and Northern Ireland (SNIP) and gas arrived in Islandmagee in September 1996.

In September 1996 a licence was granted to Phoenix Natural Gas Ltd for the staged (12 year) development of the industrial, commercial and domestic gas markets in the Greater Belfast and Larne areas. More recently, the Northern Ireland Executive announced its support for the development of a multi million pound gas project. The support is in the form of a grant package up to £38m, including an Irish Government contribution of £8m. The project involves the construction by Bord Gais Eireann Northern Ireland (BGENI) of a gas pipeline from Dublin to Antrim (known as the South - North pipeline) which will link with a pipeline from near Carrickfergus to Londonderry (the North West pipeline).

The company intends to complete the pipeline to the North West by the end of 2004 and the South-North pipeline by 2006. The Department and NIAER are currently in discussions with BGENI in order to bring gas to a number of towns along the route of the pipeline. Throughout the life of this Framework the Department will continue to promote the economic, efficient and co-ordinated development of the natural gas industry in Northern Ireland.

This development will begin in the next few years through the roll out of gas to towns along the path of the new transmission network. The Department will support such expansion where it is economic to do so and provides opportunities to increase fuel diversity and counteract fuel poverty. Allied to the expansion of

## Pursuing sustainability in energy offers opportunities to enhance security of energy supply.

the network will be the introduction of competition in the appropriate sectors in line with EU Directives.

There are also other opportunities for the development of the gas industry in Northern Ireland. With the completion of the South North pipeline in 2006, Northern Ireland will have access to the gas market in the RoI, a market that has its own access to the GB market but also has its own, potentially expanding, domestic supplies. These developments create the possibility of a market for gas with a measure of independence from GB, a market which in itself is changing with further interconnection with Europe and increasing imports of energy.

With this in mind, we must focus as much on the reliability of supply as on market development. We must ensure that there is open access to our networks in line with European Directives and our markets are compatible with neighbouring areas to counteract our peripherality and lack of indigenous sources of gas.

### **SUSTAINABLE ENERGY ISSUES**

Protection of the environment is one of the most rapidly developing areas of European legislation and enhancing sustainability in the Northern Ireland energy system in a cost effective manner is a key challenge over the next decade. This is consistent with the Northern Ireland Regional Development Strategy which also highlights the need to promote a wider choice of energy supply, including the use

of renewable energy sources, in the interests of regional competitiveness and sustainability.

The agenda for developing renewable energy solutions and securing real reductions in energy consumption is driven by environmental policy, aimed principally at reducing harmful emissions. However, pursuing sustainability in energy also offers opportunities to enhance security of energy supply by introducing alternative generation sources, which are not subject to the volatility of fossil fuel prices. Diversification within the agricultural and rural communities into energy generation offers the opportunity for alternative sources of income. It will encourage a change in the use of land previously given over to agriculture and offer positive responses to potentially difficult propositions on disposal of animal wastes and residues, municipal waste management and protection of our inland waterways.

Government is seeking to promote the development of indigenous renewable energy generation to the extent that it will be capable of providing 12% of electricity consumed by 2012 and requiring that from 2007 overall consumption of electricity within Northern Ireland is reduced by 1% per annum until 2012.

Achieving these ambitious targets will require an adequately incentivised market for renewables, greater emphasis on community level embedded generation with an electricity system adapted to

# An open and competitive energy market is one of the cornerstones for a strong, vibrant Northern Ireland economy.

cope, commitment from energy suppliers to pursue more sustainable consumption patterns from their customer base and higher levels of energy efficiency built in to the design and construction of buildings in Northern Ireland.

## **ALL-ISLAND ENERGY MARKET**

An open and competitive energy market in electricity and natural gas is one of the cornerstones for a strong, vibrant Northern Ireland economy. Creating and maintaining such a market is dependent on securing reliable, efficient and sustainable energy supplies at the least cost. The prospect for securing such supplies is likely to be enhanced by taking measures on a mutually agreed, all-island basis, consistent with the EU objectives for internal markets in electricity and gas. The active co-operation of government, regulatory authorities and industry, north and south, is required in order to deliver practical and long lasting benefits to industry, business and domestic customers in both jurisdictions.

NI/RoI Ministers have agreed to the production of an All-island Development Framework for energy that will set out a joint understanding of what constitutes an all-island energy market. This will provide a structure for further collaborative action by all of the key stakeholders in working towards that goal.

Some of the expected benefits arising from that collaboration are:

- meeting EU Directives on common rules for internal electricity and gas markets in areas such as market opening, security of supply, management of demand and sustainable energy;
- maximising conditions for investment and competitiveness in a larger stable marketplace;
- increased business and domestic customer confidence in energy supplies that are reliable and provided at least cost, with competitive choices that promote economic growth and help alleviate fuel poverty; and
- optimising research and innovation opportunities.

Ministers have established a Joint Steering Group (JSG) of senior government officials and the regulatory authorities from Northern Ireland and RoI to oversee development of an all-island energy market in order to deliver those benefits. Action is being driven forward across six areas: cross-border trading in electricity; electricity system interaction and integration; all-island gas network; co-ordination of regulatory activities; climate change and emissions; and renewable energy and energy efficiency policies.

The issues are, by their nature, complex and interrelated. Early work is addressing all-island implications of issues such as the RoI's new market arrangements for electricity and its impact on cross-border trade, interconnection constraints, National Allocation Plans for carbon emissions, renewable energy targets and integration of

intermittent wind energy, management of demand through energy efficiency measures, and harmonisation of wholesale gas transmission tariff principles. Future work will include developing the relationship between an all-island energy market and the energy market in GB.

The Department will actively pursue delivery of the agenda set out in the All-island Development Framework for energy, working closely with stakeholders to maximise the benefits arising from collaboration.

The policy goals are:

- reducing energy costs
- building competitive markets
- enhancing sustainability in energy
- reliable energy supplies

# Policy Goals

## 2

### **POLICY GOAL (i): REDUCING ENERGY COSTS**

#### **Context**

Our objective is to achieve economically and socially acceptable energy costs in Northern Ireland.

Actions will be taken to reduce the impact of high energy prices, particularly where it is not possible to achieve a significant reduction by improving energy efficiency.

Our focus will be on the creation of competitive electricity and gas markets whilst taking into account the early stage of development of the gas industry. However, DETI will also monitor other fuel markets and seek to ensure Northern Ireland prices are kept broadly in line with those in other EU countries.

#### **Drivers**

EU/UK/All-island

- The cost of electricity is significantly higher in Northern Ireland than elsewhere in the EU generally and in particular GB and RoI.

Northern Ireland

- Impact of high energy costs on business competitiveness and their contribution to fuel poverty which affects a third of households in Northern Ireland, a larger proportion than any other region in the UK.

#### **Challenges**

- Achieving an early decrease in electricity costs to business users that will contribute to reducing the energy cost differential between Northern Ireland and other UK regions.
- Identifying and, working with key energy stakeholders and the wider business community, implementing additional actions to reduce the high cost of electricity in Northern Ireland over the period to 2010.
- Effectively managing the internalisation of emissions and other environmental costs.
- Reducing the cost of energy to consumers by encouraging sustainable consumption and greater energy efficiency.
- Bringing gas prices more into line with those in comparable GB and EU markets/regions.

## **Actions**

Work with NIAER and key stakeholders to:

- implement the proposal aimed at offsetting Public Service Obligation charges (including appropriate monitoring and audit procedures) in order to bring about a decrease in electricity costs to business users of at least 10% below the levels they would otherwise have been, commencing 2004/05;
- reassess and implement alternative cost reduction options for long term generation contracts;
- promote the development of an efficient gas network in Northern Ireland that is compatible with those in neighbouring markets and consistent with EU Directives;
- where appropriate, develop competition in electricity and gas supply in line with EU Directives;
- seek to ensure that the appropriate regulatory provisions are in place to allow the efficient recovery of investments in network infrastructure;
- monitor the relative prices of energy commodities to maintain similar pricing structures to those in the UK, RoI and EU;
- empower and require those involved in the energy sector to focus on the provision of energy services and energy efficiency as a means of reducing overall end user costs of consumption;
- maintain downward pressure on energy costs in order to contribute to the implementation of the Department for Social Development's Fuel Poverty Strategy; and
- ensure that the optimum allocation of emissions credits is awarded to the Northern Ireland electricity supply industry and that this is managed to the maximum benefit of Northern Ireland consumers.

## **POLICY GOAL (ii):**

### **BUILDING COMPETITIVE MARKETS**

#### **Context**

Northern Ireland needs an energy market that is competitive and robust in the delivery of an efficient, high quality service to households and business and which will contribute to the competitiveness of the Northern Ireland economy and the quality of life of its people.

Opening of the electricity and gas markets to competition is required by EU Directives, but the challenge is to do this in a way which does not add costs to the supply systems. The market for 'green' electricity (electricity from renewable sources) in Northern Ireland is fully open to competition and will increasingly enhance competition in electricity supply.

Effective consumer protection has an important part to play in ensuring that energy markets are competitive. In recognition of this, new arrangements giving responsibility to GCCNI for all energy consumer issues and strengthening GCCNI's powers were put in place by the Energy (Northern Ireland) Order 2003. These changes also strengthened the relationship and sharing of information between GCCNI and NIAER. They will help to ensure that, as energy markets open to competition, customers are empowered to take advantage of the greater choice afforded by these developments.

# Promoting a gas market that facilitates competition and is compatible with neighbouring markets.

## Drivers

### EU

- Creation of competitive, single, internal EU markets in electricity and gas that are non-discriminatory, transparent and fairly priced.

### UK

- Impact of the British Electricity Trading and Transmission Arrangements (BETTA) and GB-NI/Rol-GB interconnectors.

### All-island

- Creation of an all-island energy market that is mutually beneficial to Northern Ireland and Rol.
- Impact of the Rol's new market arrangements on all-island electricity trade.

## Challenges

- Ensuring that there is no slippage in the timetable to fully open the electricity market to supply competition for all consumers by July 2007.
- Promoting a gas market that facilitates competition and is compatible with neighbouring markets, whilst taking account of the relatively early stage of development of the Northern Ireland gas industry.
- Encouraging full and effective consumer protection and representation on energy matters through the implementation and review of the new consumer arrangements under the Energy (Northern Ireland) Order 2003.
- Developing a competitive all-island energy market to benefit NI consumers within EU timescales for the removal of all unnecessary

constraints or market arrangements that impede cross-border trade, distort competition and restrict customer choice.

- Integrating an all-island energy market with the GB market, leading to progressive integration of EU regional energy markets.
- Ensuring the continued development and maturity of the market for green electricity.

## Actions

Work with NIAER and key stakeholders to:

- fully implement Electricity Directive 2003/54/EC and Gas Directive 2003/55/EC, including full market opening, by July 2007;
- ensure 60% electricity market opening, including separate licensing of the System Operator Northern Ireland, by December 2004;
- seek to incentivise the growth in the green electricity market as a means of underpinning competitiveness; and
- enhance the consumer representation arrangements provided for in the Energy (Northern Ireland) Order 2003 and monitor the closer relationship between GCCNI and NIAER.

Work with NIAER and Rol authorities to:

- develop common regulatory measures during the period 2004-2006 that facilitate all-island trade and promote competition in electricity and gas markets;
- address implications for cross border trade arising from Rol's new market arrangements in electricity (due for implementation by February 2006);

## Further work is continuing to develop and grow the market for renewables.

- improve electricity systems interaction and integration during period 2004-2006, with particular regard to:
  - early alignment of planning and control standards and methodologies; and
  - addressing interconnection constraints and requirements in light of the findings of NIE/ESB interconnection studies and proposed east-west (RoI-GB) interconnector.
- promote gas systems interaction and interoperability, including harmonisation of gas tariff principles; and
- establish measures to facilitate progressive harmonisation of all-island and GB energy markets during the period 2005-2010, in line with EU-wide integration of regional markets.

### **POLICY GOAL (iii): ENHANCING SUSTAINABILITY IN ENERGY**

#### **Context**

A sustainable energy system should robustly, efficiently and equitably satisfy present and future economic and social needs while minimising environmentally damaging activities. This fundamental aim will be a feature of the forthcoming Sustainable Development Strategy for Northern Ireland. However, this presents a range of challenges and opportunities – particularly in times of economic growth. The economic benefits of reduced energy consumption combined with improved energy efficiency need to be more widely promoted. This should be coupled with a range of incentives which encourage a genuine change in consumers' behaviour towards better managed consumption and which gives priority to the development of renewable sources of energy and efficient CHP.

A key determinant of our priorities in this area is the range of environmental strategies which aim to increase the amount of energy obtained from renewable sources and also apply significant downward pressure on energy usage. Although national targets on emissions reductions have not been disaggregated to Northern Ireland, this approach is entirely consistent with Northern Ireland making a commensurate contribution to the national drive to reduce carbon levels by 60% by 2050. Additional emphasis is now being given to incrementally penalising the consumption of fossil

fuels through policies which have at their core “the polluter pays principle” to ensure that those who cause or threaten environmental damage bear the full costs of the necessary control measures.

### **Drivers**

#### EU/UK

- EU Directives on Emissions Trading and Renewable Energy and proposals for further Directives on energy efficiency and CHP.
- European and national environmental strategies will incrementally penalise the consumption of fossil fuels and increase regulation in waste disposal.

#### All-island

- National (UK and RoI) greenhouse gas emissions targets and their impact on cross-border trade.
- Impact of national targets for renewable energy and energy efficiency on all-island electricity generation mix and demand.
- Need for greater all-island co-operation on energy efficiency promotional activities with DETI co-ordinating Northern Ireland cross-departmental/agencies activities.

#### Northern Ireland

- Potential for renewable forms of energy to enhance security and diversity of supply and to minimise the environmental implications of electricity generation.

### **Challenges**

- Mainstreaming the use of a broad portfolio of renewable energy sources in the generation of electricity and heat at an acceptable cost.
- Achieving the rational and intelligent use of energy and effective demand side management to the extent that consumption is sustainable.
- Managing demand by setting energy efficiency targets and promoting energy efficiency services.

### **Actions**

Work with NIAER and other key stakeholders to:

- require that by 2012 at least 12% of all electricity consumed in Northern Ireland is obtained from indigenous renewable energy sources - at least 15% of which must be generated by non-wind technologies;
- implement a Renewables Obligation in Northern Ireland from April 2005 (rising to 6.3% of consumption by 2012) with the Renewable Obligation Certificates being mutually recognised and traded freely throughout the UK;
- in collaboration with the Department of Agriculture and Rural Development, promote centralised and embedded generation which is fully integrated into the rural economy offering enhanced opportunities for diversification and wealth creation;
- ensure the electricity transmission and distribution system is sufficiently robust and flexible to effectively manage an increasing contribution from renewable energy;
- continue to support research into the capacity of renewable energy as a fuel for electricity

generation in Northern Ireland and the effective demonstration of commercially viable options;

- provide effective educational and information programmes on the benefits of renewable energy and CHP;
- develop support mechanisms to encourage enhanced programmes of renewable energy, CHP and energy efficiency and build installer capacity to increase consumer choice, competition and quality in the provision of renewable energy and CHP technologies;
- without compromising economic growth potential, take action to reduce the upward trend in electricity demand to the extent that from 2007 consumption of electricity in Northern Ireland is reduced by 1% annually until 2012;
- develop an effective framework with agreed strategic objectives for energy efficiency in Northern Ireland and co-ordinate promotional, educational and financial support activities aimed at enhancing energy efficiency in collaboration with other Departments with statutory responsibility for energy efficiency and on an all-island basis; and
- work with the Department of Finance and Personnel to secure significant improvement in the energy efficiency standards of new and modernised buildings in Northern Ireland and develop a framework for encouraging and facilitating the integration of renewable energy technologies into the design and construction of buildings.

## **POLICY GOAL (iv): RELIABLE ENERGY SUPPLIES**

### **Context**

Northern Ireland needs energy that is reliable in terms of security, diversity and continuity of supply and provided at the minimum cost necessary.

This goal relates to securing reliable, long-term energy supplies, including the shared implications of all-island co-operation. Northern Ireland no longer has an isolated energy system but it still needs to address a number of key issues relating to the reliability of its energy supply. These include electricity generation margins, interconnection, primary fuel mix (including renewables) and the availability of, and access to, adequate storage facilities for oil and gas. The choices and solutions available to provide a suitable mix will be greater within the context of an all-island energy market.

The island of Ireland is totally dependent on oil imports from GB and Europe. Uncertainty of supply in times of national and international crisis has led DETI and RoI's Department of Communications, Marine and Natural Resources to explore options to improve resilience.

Oil is imported by a range of local, national and international companies for retail sale by over 300 distributors. The resulting price competition is such that regulation of charging is not considered necessary at present.

# Securing reliable, long-term energy supplies, including the shared implications of all-island co-operation.

DETI and NIAER consider that the market is primarily responsible for providing reliable energy supplies. Direct intervention should only be considered in circumstances of clear market failure. Government should however take responsibility for ensuring that well developed and integrated emergency plans are in place, involving all of the key stakeholders, and that these plans are reviewed and updated regularly.

## Drivers

### EU

- Draft Directive on security of supply and infrastructure investment issues, including targets on interconnection, is aimed at facilitating the free flow of electricity and gas and improving reliability of supply within the internal markets.

### UK

- Maintaining the reliability of energy supply is a policy goal and objective of the UK Energy White Paper.

### All-island

- Shortage of electricity generating capacity in RoI.
- Lack of storage for gas.
- Need for enhanced all-island security and continuity of supply.

### Northern Ireland

- Vulnerability of a small system, at the perimeter of EU supply chains, which is dependent on a small number of large single electricity generating units.

- Limited fuel storage facilities.
- Availability of indigenous fossil fuels (lignite) with the potential for development in the longer term.

## Challenges

- Ensuring that there is adequate access to generation and sufficient fuel diversity for the long-term security of the Northern Ireland electricity market, given that there are a range of options available, and having regard to cost implications.
- Creating a reliable all-island energy system that will improve security, diversity and continuity of electricity supply in Northern Ireland and RoI through adequate generation and interconnection capacity and management of demand.
- Taking account of the likely future all-island energy demand on security of supply and energy costs.
- Further developing the natural gas industry in Northern Ireland including interconnection and interoperability with neighbouring markets.
- Maximising the potential of indigenous renewable energy sources.
- Protecting existing fossil fuel (lignite) reserves for possible future energy related exploitation.

## Actions

Working with NIAER and key stakeholders to:

- monitor the reliability and adequacy of electricity supply;
- complete a revision of the Fuel Security Code by March 2005;
- undertake a review of the risks to security and

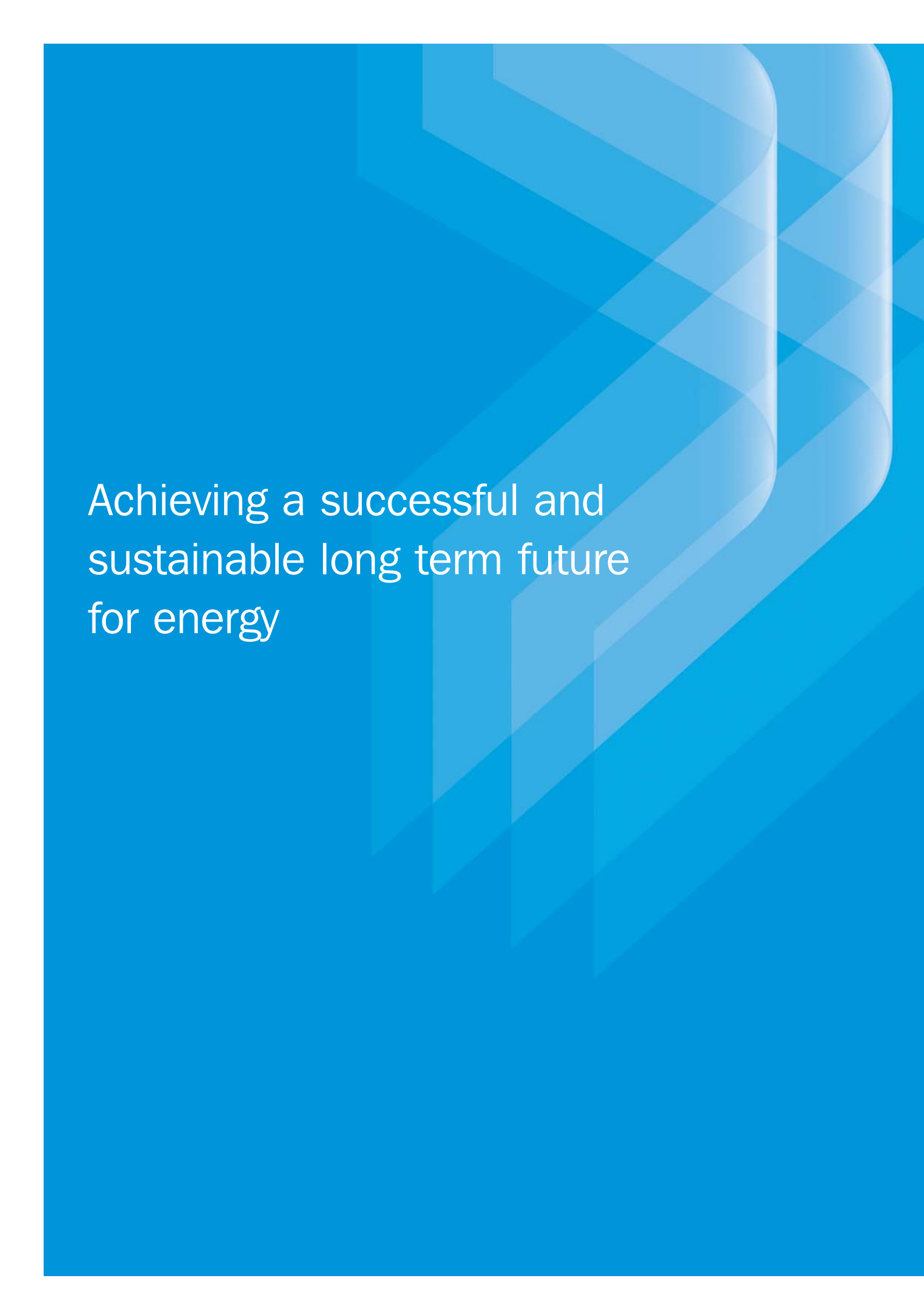
continuity of supply in Northern Ireland by December 2004;

- consider the case for energy legislation to intervene if, despite the financial incentives of either the Power Purchase Agreements or the market, the power stations fail to provide an adequate and reliable electricity supply;
  - agree and publish generation adequacy margins by March 2005;
  - ensure that new electricity generation decisions take full account of fuel diversity as well as cost and environmental considerations;
  - review emergency plans for oil, electricity and gas interruptions on a biennial basis to ensure they are adequate to deal with all reasonable eventualities;
  - continue to progress discussions with key stakeholders aimed at taking forward an awareness initiative that aims to highlight oil installation safety and quality issues and will also encourage the industry to introduce a voluntary registration scheme for installers; and
  - support research and development activity aimed at securing a diverse and viable long-term energy supply including that which will assist in maximising energy efficiency and economy.
- energy and EU Directives to safeguard security of electricity and gas supplies;
  - ensure a consistent approach, where possible, to the implementation of Directives 2003/54/EC and 2003/55/EC on electricity and gas; and
  - implement new security of electricity supply Directive by January 2006 (currently in draft form but likely to be adopted before end 2004).

Working with NIAER and RoI authorities to:

- develop an all-island approach to reliability of energy supplies e.g. common market mechanisms and a consistent approach to issues such as generation adequacy and infrastructure, in line with the timeframes set by the All-island Development Framework for



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Achieving a successful and  
sustainable long term future  
for energy

# The Future

## 3

The past 10 years have seen Northern Ireland move forward from privatisation of the electricity industry, dependence on coal and oil for generation and limited choice for consumers. The coming decade offers us the opportunity to progress further and shape Northern Ireland's energy agenda for the benefit of all energy consumers and the local economy in the light of new competition and environmental drivers.

Delivering the following vision for energy in Northern Ireland post 2010 will be the ultimate measure of our success in achieving the goals and objectives set out in this Framework.

Liberalisation of Northern Ireland's energy markets will have moved ahead in line with European timeframes in a way that empowers Northern Ireland consumers by increasing choice and incentivising our energy producers and suppliers to achieve improved efficiencies and competitive costs.

We will have reduced the cost base in the energy sector as far as possible and the cost of energy to the consumer will reflect this through a reduced differential with our neighbours in the rest of the UK and RoI. This will improve business competitiveness and alleviate the blight of fuel poverty.

Northern Ireland energy consumers will be confident that their energy supply is secure and reliable. They will contribute to the effective management of demand for energy by actively pursuing energy efficiency measures.

We will have diversity in our fuel sources for electricity generation, with an increased emphasis on clean, efficient plant. We will be maximising the potential of sustainable sources of energy and, in line with the increasing importance of the environmental agenda, we will have met our objectives and obligations for reducing CO<sub>2</sub> and other harmful emissions.

## Northern Ireland's energy sector will be a strong player within the wider UK and European markets.

The energy sector within Northern Ireland will be characterised by a collaborative partnership approach involving all the Government Departments with energy interests, NIAER, GCCNI and especially the various energy industry organisations.

At the broader level, Northern Ireland's energy sector will be a strong player within the wider UK and European energy markets and will be well placed to move forward in an increasingly integrated European energy system. As part of this, we will have developed a robust and mutually beneficial all-island energy market.

The overall indicator of the success of this Strategic Energy Framework must be how far we have progressed towards achieving a successful and sustainable longer term future for energy in Northern Ireland. A measure of this will be our ability to contribute to, and develop alongside, the changes which will undoubtedly take place over the coming years which we cannot at this stage predict. This includes seizing opportunities offered by emerging innovative technologies which may open other avenues by which we can pursue our objectives.

As we seek the right balance for the goals set out in this Framework, collaboration with our key stakeholders will be a recurring theme if we are to achieve the potential of Northern Ireland's energy future.

Further information is available on the DETI website at [www.energy.detini.gov.uk](http://www.energy.detini.gov.uk) including:

- the consultation paper “Towards a New Energy Strategy for Northern Ireland” (April 2003);
- Energy Strategy Steering Group membership;
- Key facts and figures; and
- Links to other key sites including NIAER, GCCNI and other Northern Ireland Departments as well as Her Majesty’s Stationery Office for access to relevant legislation.



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