



Department of  
**Enterprise, Trade  
and Investment**  
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**Investment  
Strategy**  
Northern Ireland

## Annex B

### Energy Investment Sub-pillar

#### Investment Delivery Plan

##### SECTION 1: VISION / OBJECTIVES

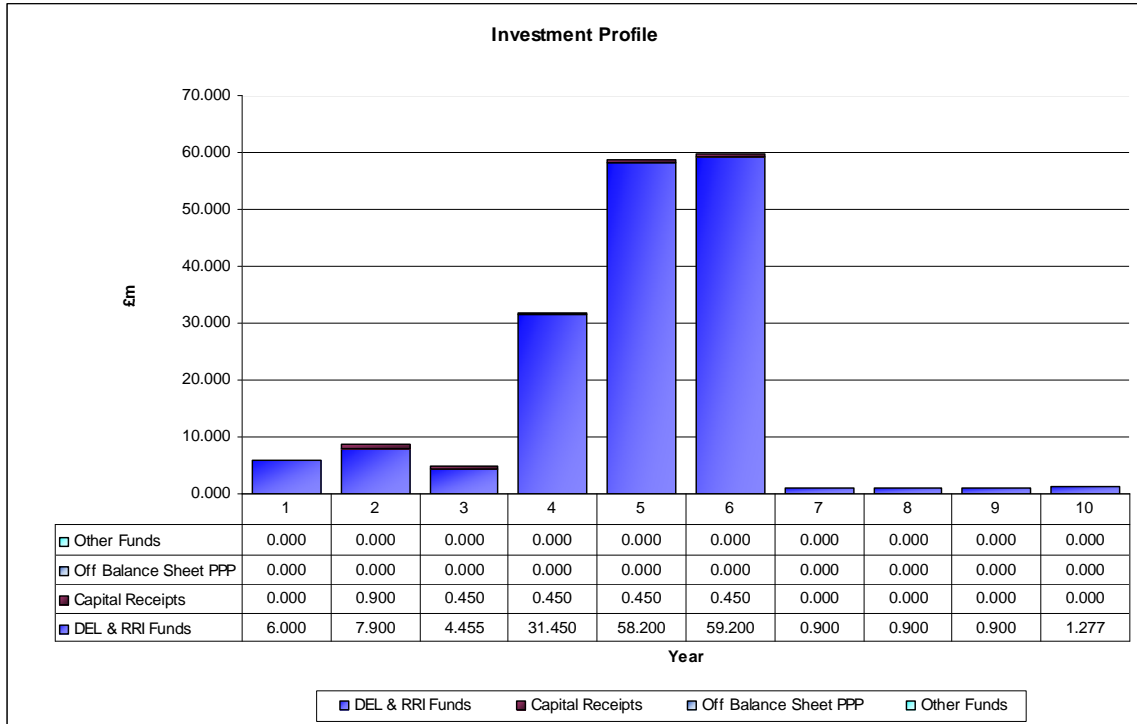
One of the key objectives of the Investment Strategy for Northern Ireland 2008 – 2018 (ISNI), is investment in infrastructure to help grow a dynamic and innovative economy, and to help to deliver modern, high quality and efficient public services. Delivering better infrastructure is vital to help us achieve our priorities for the economy, our society, and the environment.

Energy Division's contribution to ISNI falls within the 'network' pillar. Energy networks are among the vital arteries of today's most successful economies through powering competitive advantage in business, and helping to reduce social isolation. Investing in efficient, reliable, competitive, and sustainable networks is critical if NI is to deliver its top priority of growing a dynamic and innovative economy.

Looking ahead, the security of energy supply, increasing use of renewable energy sources, and cost of energy, remain vital issues for the future. A key goal is investment to support a single electricity market which delivers tangible benefits to consumers. This will include consideration of investment to support better grid connectivity, as informed by the recently published cross-border grid study. The Single Electricity Market provides a framework for further regional harmonisation across electricity and gas markets, which is in line with the EU vision for a more competitive internal market that is open and fair and delivers benefits. A reduction on our reliance on fossil fuels through, for example, enhanced emphasis on energy efficiency and increased development and use of renewable energy sources, could have significant payoffs in the future by reducing our greenhouse gas emissions, and may contribute to reducing fuel poverty.

These goals also link with Energy Division's Public Service Agreement targets which support the Northern Ireland Executive's Programme for Government. These commit the Department to (i) reducing energy costs relative to UK/EU regions by 2011 and (ii) securing 12% of electricity consumption in Northern Ireland from indigenous renewable sources by 2012.

## SECTION 2: FUNDING PROFILE & SOURCES (£m)



Notes: Receipts relate to EU Competitiveness Operational Programme

### SECTION 3: KEY PROJECTS / PROGRAMMES

Historically there has always been Government support for major energy infrastructure projects. This has mainly been through the European Structural Funds, with support in the Single Programme 1994-99 for the Scotland – Northern Ireland Gas Pipeline, the conversion of Ballylumford Power Station to gas firing and the Moyle Electricity Interconnector and in the Building Sustainable Prosperity 2000 -06 for the gas pipeline to the North West. The Northern Ireland Executive 1999-2001 agreed to provide assistance for the construction by Bord Gáis Éireann Northern Ireland of the gas pipelines to the North – West and South – North.

The following sets out a broad overview of the main constituent elements of the Northern Ireland energy sector and the key areas for prospective infrastructure investment in 2008 - 2018.

#### **Co-operation with the Irish Republic on Energy Infrastructure**

Work to ensure a competitive, secure and sustainable energy supply for Northern Ireland is set firmly in the context of UK and EU energy policy and EU directives, working in conjunction with the Irish Republic where this will bring mutual economic and social benefits.

The promotion of competition as part of a single market infrastructure within the EU Internal Markets for Electricity and Gas framework will stimulate efficiencies and productivity gains in the electricity generation industry.

Security of supply is crucial for a stable economy and society. It needs robust transmission and distribution networks and electricity generating capacity to ensure consistent supply to consumers and all sectors of the economy. This requires reliable access to oil and gas supplies and the infrastructure in place to import, distribute and store fuel stocks, including the potential for Liquefied Natural Gas (LNG). Without adequate investment in key strategic infrastructure such as regional interconnection, the Internal Market will not function properly (whether on the island of Ireland or regionally within the British Isles) and both security of supply and efficiency and competitiveness will be adversely affected.

Access to a secure and sustainable energy supply puts a growing emphasis on diversity of supply and requires that the infrastructure is capable of supporting a growing renewable electricity generation sector. This places an added pressure on the existing network which will require significant investment over the next decade. Details of Electricity Interconnection and Electricity Grid Investment are stated separately below.

Cooperation with the Irish Republic since 2004 under the All-island Energy Market Development Framework identified, as a key priority, the establishment of a Single Wholesale Electricity Market (or SEM) on the island of Ireland which became operational from 1 November 2007. Early work is now underway between the UK and the Irish Republic and France to establish

a regional market in the medium to long term as part of the development of the EU Internal Market.

Cooperation on energy infrastructure was also identified as one of the priorities in the joint all-island economic report for the British Irish Intergovernmental Conference in 2006. It included a clear and strong economic rationale for North / South economic cooperation as both economies, North and South, face challenges relating to the increased pace and intensity of global competition. Collaborative action in areas such as infrastructure improvements is identified as an important source of competitive advantage.

The Irish Republic's Energy White Paper and their National Development Plan 2007-2013 have since highlighted cooperation under the All-island Energy Market Development Framework as a key facet of Irish energy policy and investment. The NDP's investment programme aims to strategically underpin the Framework in cooperation with Northern Ireland and in conjunction with developing links with the UK energy market.

The Infrastructure Programme of the NDP suggests that the Irish Republic's semi-state companies may invest some €1.25 billion in key strategic energy infrastructure projects including new east-west electricity interconnection with Wales and the second north-south interconnector, improved gas interconnection and strategic reserve capacity.

The extent of work required to reinforce and develop cross border links, and the extent to which any public money might need to be committed by Northern Ireland needs to be considered.

The NDP's Sustainable Energy Sub-programme is also expected to result in some €276 million being invested in the sustainable energy sector to support targets for renewable energy, energy efficiency and innovation. The Sub-programme is expected to contribute to future north south energy cooperation under the All-island Energy Market Framework and joint initiatives which bring mutual benefits are likely.

Cooperation to improve the efficiency and effectiveness of Northern Ireland and Irish Republic energy research has been a feature of the All-island Energy Market Framework. The overall aim of energy research cooperation with the Irish Republic under the Framework is to help grow market driven and knowledge based innovative energy sectors, North and South. Funding has already been identified by the Irish Republic. The NDP has identified a direct investment of nearly €150 million in energy research and innovation by a range of departmental and semi-state bodies, which will enable leverage of additional EU funding by the Irish Republic.

Exploratory work is also underway on the potential for east west cooperation with Scotland, Wales and the Irish Republic to develop policy in areas such as Grid interconnection, access and performance; micro generation; and marine energy testing and research. Each region has a common problem – the

electricity grid infrastructure has not been developed as an offshore grid in order to exploit the major marine renewable resource in peripheral coastal regions, which have low population densities and weaker network infrastructure.

A tripartite infrastructure study will determine the future economic and environmental feasibility of capitalising on the marine energy resources off the coasts of Scotland, Northern Ireland and the Irish Republic. This would link off-shore wind farms, wave and tidal generation sources via a grid network. It would build on the findings of the Northern Ireland-Irish Republic Electricity Grid Study. The aim for Northern Ireland will be to maximise future access to our renewable energy potential. Financial support under INTERREG 4 is being sought.

### **Electricity Interconnection**

Recent proposals from the industry have suggested that North South electricity interconnection costing in total some £120m to construct, plus network reinforcement in NI of the order of some £10m-£15m, is needed to support the growth of competition in the Single Electricity Market as well as providing increased security of supply for industry, business and other consumers.

Subject to verification of need, £10m in Year 2011-12 could provide a measure of public investment against a strategic asset in conjunction with any similar action by the Irish Republic for their section of the line..

Identifying this possible scenario is done therefore without prejudice to planning and investment decisions made by NIE and Eirgrid on the interconnector. Indeed the favoured option at this juncture is for the grid companies to build the interconnector above ground and recoup the cost via the electricity tariffs. Given the high cost of energy in Northern Ireland and high levels of fuel poverty there may be a case to justify use of public funds to mitigate any tariff increase.

### **Electricity Grid Investment**

Against a background of national and European carbon emissions targets, the Strategic Energy Framework for Northern Ireland identified the need to ensure that the electricity transmission and distribution system is sufficiently robust and flexible to effectively manage an increasing contribution from renewable energy. Northern Ireland's renewables target is that, by 2012, 12% of electricity consumption will be generated from indigenous renewable energy sources.

An all-island Grid Study Working Group identified and defined a number of studies on an all-island basis that needed to be completed to provide evidence-based information to inform the development of a strategy for electricity generation mix, network development options and the economic and other impacts of the increasing deployment of renewable technologies, i.e. how the electricity infrastructure on the island might best develop to allow

the maximum penetration of renewable energy.

The Working Group recommended an “All Island Grid Study” which investigated the renewables resource issues for 2020, investigated to what extent additional renewable generation could be accommodated on to the all island system with regard to variability and predictability, and also investigated the costs and benefits of absorbing various levels of renewable generation and the effects on emissions and existing plant.

The study results indicate that it is technically feasible to substantially increase the level of electricity generation from renewable sources, with corresponding decreases in carbon dioxide emissions, however this will require very substantial investment in conventional and renewable generation, and in the electricity grid in particular. As with the second interconnector, there may be public pressure for undergrounding of lines. While NIE could make the necessary investment on a commercial basis and recoup it from the tariffs, this would impact on electricity costs in Northern Ireland. Use of public monies could be considered appropriate to facilitate grid development in order to maximise renewables uptake whilst minimising the impact on customers. This would be subject to full business case, appraisal and state aid requirements.

Investment in the electricity grid will require a significant amount of planning and has the potential to meet with objections. Even if grid investment decisions are taken in 2008/09, there is likely to be a 2-3 year lead-in to overcome planning objections and complete construction.

### **Gas Storage**

Northern Ireland currently obtains 100% of its natural gas supplies from Great Britain via the Scotland to Northern Ireland (SNIP) gas pipeline. Natural gas supplies around 65% of power generation in Northern Ireland, approximately 115,000 customers in the Greater Belfast area, and a further 2500 customers in urban areas in the north-west and south-east of the Province. Gas supplies to the entire island of Ireland are distributed via three undersea gas interconnectors from a single exit point in Scotland; hence Northern Ireland and the Irish Republic are vulnerable to disruption to gas supplies originating in Great Britain.

A recently completed study into the need for gas storage on the island of Ireland has confirmed the island’s dependence on natural gas imports. While there are some indigenous sources of natural gas in the Irish Republic, the bulk of their natural gas requirements are imported from Great Britain, and therefore indigenous sources provide very limited benefit to Northern Ireland. The study confirms the benefits to Northern Ireland which gas storage would provide in terms of additional security of supply in the event of a supply failure from Britain, the ability to buy and store gas during the summer period to avoid price spikes during periods of high gas demand over the winter, and to protect domestic customers in the event of a catastrophic infrastructure failure.

Two companies are currently involved in research into the geology of East Antrim to confirm if suitable geological conditions exist for the development of underground caverns for gas storage through solution mining of salt deposits. While there can be no guarantee that the geology will be suitable to allow development of a gas storage facility, such a facility would provide significant energy security of supply benefits to Northern Ireland and perhaps the entire island.

The Irish Republic is keen to proceed with facilitating construction of a liquefied natural gas (LNG) terminal at the Shannon Estuary, however this is unlikely to benefit consumers in Northern Ireland as in the event of any major disruption to gas supplies, the LNG would largely be used for consumption in the Irish Republic. It is also accepted that the recently completed South-North gas pipeline from Dublin to Antrim does not have sufficient capacity to provide gas for power generation in NI in addition to supplying domestic consumers; hence Northern Ireland needs to consider investment in independent gas storage or LNG provision. Another option which the Department has begun to consider is the benefit of developing onshore infrastructure to allow dispatch of natural gas which has been "regassified" from LNG delivered by ship to a suitable coastal terminal.

There has been considerable investment in gas storage and LNG in Great Britain, and while Northern Ireland can benefit from this through gas supplies via the SNIP interconnector with Scotland, Northern Ireland retains significant vulnerability if the gas supply via SNIP failed. Given this, and the fact that two out of the three power generating stations in Northern Ireland are gas fired, there is strategic value in Northern Ireland having a local gas storage or LNG facility to service power generation and other consumers in the event of a gas supply failure or major shortage.

It should also be noted that energy is a devolved responsibility in Northern Ireland, and as part of the devolution settlement, there is a clear responsibility to ensure that Northern Ireland is self sufficient and sustainable in terms of arrangements to ensure security of energy supply. Hence consideration of support for investment in strategic gas storage is considered worthwhile.

While the market may provide a commercial level of gas storage, experience elsewhere suggests that strategic levels of gas storage will not be provided without government intervention. Subject to confirmation of need, ISNI funding would allow for the option of public support to ensure provision of a strategic level of gas storage or access to LNG for Northern Ireland.

### **Natural Gas Infrastructure**

Development of the natural gas industry in Northern Ireland began in 1996 with significant ERDF grant support from Brussels for construction of the Scotland to Northern Ireland (SNIP) gas pipeline, a gas transmission pipeline to serve Greater Belfast and Larne, and gas distribution networks in the Phoenix Natural Gas licenced area. Phoenix currently has around 115,000

customers, and has announced plans to take natural gas to Comber.

With £38 million of financial support from the Northern Ireland Executive, including an £8.5 million contribution from the Irish Republic's Government, Bord Gais Eireann constructed two gas transmission pipelines in Northern Ireland. One serves the north-west, and the South-North pipeline connects Northern Ireland with the natural gas system in the Irish Republic. Bord Gais subsidiary Firmus Energy are engaged in connecting customers to 10 towns and cities served by the pipelines with the aim of having around 70,000 customers by the end of their licence period. Firmus Energy had around 2500 customers at December 2007.

The South-North pipeline would also allow natural gas to be provided to Cookstown and Dungannon through reinforcement of the network south of Portadown, subject to further economic assessment. However there are no plans to take natural gas to other areas in Northern Ireland leaving the west of the Province without natural gas supplies for the foreseeable future.

In 2004, the Commission for Energy Regulation in the Irish Republic commissioned a study for taking natural gas from Londonderry to Letterkenny and via Strabane. A study, co-ordinated by Strabane District Council, in 2004, supported taking gas from the North-West pipeline to Strabane and Lifford at an estimated cost of £2m and to Enniskillen and industrial users in Fermanagh involving an investment of around £22.5m. The Department has also received requests for natural gas to be supplied to Co.Fermanagh and the Enniskillen/ Derrylin areas in particular. Any investment of this nature would have to be recovered from all energy consumers in Northern Ireland and, again, was not considered by the Department to be economically viable without direct financial support. While there may be possibilities of connecting to future gas supplies to Sligo, there are no firm plans to provide gas to Fermanagh.

Natural gas will only be provided by the industry where it is economic to do so, and without government support it is highly unlikely that areas west of the Bann such as Strabane, Omagh, and Enniskillen will receive a natural gas supply in the foreseeable future. It is highly unlikely that the North-West and South-North gas transmission pipelines would have been constructed without the government support noted in paragraph 2 above. Given this, the Department included a bid within ISNI to facilitate extension of the natural gas network in Northern Ireland.

The Utility Regulator has stated that replacing heating oil with gas as the fuel of choice for the domestic sector would be the largest single policy action possible to reduce Northern Ireland's carbon footprint, and installing gas central heating continues to be a main method of combating fuel poverty. It is also the Regulator's view that, over the long-term, gas prices will be lower than oil prices. These relate to there being larger natural gas reserves around the world than oil reserves, gas being less concentrated in areas of political instability; and Europe's relative proximity to gas reserves.

Extension of the existing network and further interconnection with the Irish Republic system is likely to enhance security of supply, allow greater harmonisation of gas transmission arrangements on the island thus reducing costs, and would reduce greenhouse gases produced by burning alternative fossil fuels. There would be no natural gas industry in Northern Ireland without the direct government financial support provided to establish the industry from 1996 onwards, and extension of the network is highly unlikely without further financial support from government.

### **Renewable Energy**

DETI through its Sustainable Energy Branch manages a number of programmes (including EU funded programmes) to provide support for renewable energy and energy efficiency activities.

Northern Ireland's renewables target is that, by 2012, 12% of electricity consumption will be generated from indigenous renewable energy sources; and that 15% of that renewable element will be from non-wind sources. Currently around 4% of electricity consumption in Northern Ireland is from indigenous renewable sources and another 2.5% from imported renewable electricity.

Wind is the prime source of renewable electricity generation. There are currently 16 windfarms (1 MW or over) in Northern Ireland. In addition, the Snugborough Windfarm (13MW) on the border in Co Cavan is linked directly and exclusively to the Northern Ireland Grid. Capacity of around 400MW of wind is needed to meet the 12% renewables target.

Other renewable energy initiatives currently being undertaken include the installation of a 1.2MW tidal power generator in Strangford Lough, it is anticipated that this will happen in March 2008. The Combined Heat and Power (CHP) plant at Balcas Sawmills near Enniskillen, represents an exemplar in sustainable energy development with the by-products from the sawmill being used to generate heat and power as well as producing wood pellets for sale.

The Northern Ireland Renewables Obligation (NIRO) is the primary support mechanism for the promotion of large-scale renewables. The NIRO places a legal requirement on electricity suppliers to account for a specified and annually increasing proportion of their supply to final consumers as having been generated from renewable sources; or to pay a buy-out fee that is proportionate to any shortfall. Evidence of compliance is by way of Renewables Obligations Certificates (NIROCs), which are issued to generators for each MWh of renewable electricity generated. The NIRO operates in tandem with similar Obligations in GB and NIROCs are traded on a UK-wide basis.

To accommodate additional renewable generation substantial investment in the electricity grid would be required. While the necessary investment could be made on a commercial basis the use of public monies might be considered

appropriate in order to maximise renewables uptake and minimise impact on consumers.

DETI is also responsible for the Energy from Waste flagship projects. The appraisal process on this is nearing completion and there are now 5 projects which, subject to final approvals, will shortly receive letters of offer. One of these projects is a wood waste combined heat and power plant serving a new Olympic sized swimming pool, local schools and the sponsoring local authority's head office. Three others are in the agri-food sector and will help address potential waste issues in the red meat industry. The fourth an animal feed mill which will produce all its process heat requirements and much of its electricity from locally sourced wood waste. ISNI funding will allow these projects to be taken forward over the period 2008-11.

DETI Energy Division will provide funding through the European Sustainable Competitiveness Programme 2007 – 2015 which is co-financed by the European Regional Development Fund (ERDF). The programme supports regional strategy by promoting investment in research and technological development and by encouraging enterprise and entrepreneurship in an overall context of Sustainable Development. Protecting and enhancing the environment is a pivotal aspect of the programme.

Energy Division will administer projects under Priority 3 of the Competitiveness Programme which aims to improve accessibility and protect and enhance the environment. Activities funded under Priority 3 will include those that develop support mechanisms to encourage / pilot renewable energy and energy efficiency programmes; actions to increase the more efficient and effective use of energy; and, those that raise awareness and knowledge of both renewable energy and energy efficiency. It is anticipated that calls for suitable projects will issue by the third quarter of 2008/09.

#### **SECTION 4: CONTRIBUTION TO THE OBJECTIVES OF INFRASTRUCTURE INVESTMENT**

DETI's role is to promote the strategic direction of the energy industry and its infrastructure in Northern Ireland in the balanced interests of the economy, consumers and the environment. In line with EU priorities this means an increasing emphasis on collaborative regional approaches to energy policy development, given the many common challenges in areas such as security of supply and tackling climate change and the opportunities to secure mutual benefits for consumers.

Co-operation in developing infrastructure, where appropriate, will help ensure more efficient planning and joined-up delivery of key projects, resulting in better value for money, economies of scale in public investment, and better deals from financial markets.

The development of Northern Ireland's energy infrastructure with particular reference to reinforcing and modernising the electricity transmission and

distribution networks and associated cross-border interconnection with the Irish Republic, as well as links to Great Britain, is based on providing a robust and "future proof" energy infrastructure which will support economic growth and improve economic competitiveness.

This must be capable of supporting a significant growth in renewable electricity generation, especially in the west and along coastal areas as well as continuing to support the growth in conventional gas, oil and coal fired generation within the Single Electricity Market. The current Electricity Grid studies will provide the benchmark material to allow policy decisions to be made on the level of investment needed from government and from the private sector.

The provision of a stable energy infrastructure will provide the framework for long term economic growth, especially in the west and in rural areas, where there will be opportunities for rural development, for example the growing of biomass crops. It will support renewable micro and community based generation schemes, including CHP, as well as large scale renewable generation from wind, wave and tidal. This will contribute significantly to greater social inclusion and cohesion and may ease fuel poverty due to access to the spread of supported renewable technology in rural areas. It will be a major contributor to the development and growth in locally based sustainable forms of energy generation technology and usage with the emphasis on a long term and sustained reduction in carbon and other emissions.

The extension of the natural gas network could also contribute to lowering emissions and alleviating fuel poverty, by offering more consumers in Northern Ireland a choice of a lower and cheaper carbon fuel than either oil or coal on which Northern Ireland is still highly dependent at household level.

Sustainable energy issues are placed high on government's agenda in terms of addressing present and future economic and social needs while minimising the environmentally damaging impacts of energy usage.

The key projects and programmes listed above, link to the Sustainability Strategy by investing in modern infrastructure to support the needs of the people of Northern Ireland. The investment will ensure a modern, sustainable, economic infrastructure to support business.

All of these projects represent important economic development issues for Northern Ireland.

## **SECTION 5: DELIVERY ARRANGEMENTS**

### **Electricity Interconnector**

Provision of the second North South electricity interconnector is being taken forward by NIE and Eirgrid. Statutory approvals will have to be sought, taking into account public concerns about the environmental impact of the new line. If planning approval is granted construction is due by 2012. Progress will be monitored by the All-island Energy Market Joint Steering Group.

### **Grid Investment**

Grid investment will be taken forward by Northern Ireland Electricity (NIE) as current owner and operator of the electricity grid in Northern Ireland. NIE will engage specialist technical consultants and contractors to design and build the network, subject to satisfactory completion of planning, environmental, and energy consent processes. NIE will also be required to engage with the Utility Regulator and DETI in relation to agreeing costs of network improvements, and cost recovery from consumers.

### **Gas Storage**

Gas storage would be likely to be delivered by a private sector energy company, possibly one of those currently engaged in the completion of geological testing in the Larne area. Construction of underground caverns would be delivered through the solution mining of salt deposits around 1,500metres below ground, and depends on suitable geological formations being proven by the ongoing geological surveys. Approval from Planning Service and DETI Minerals Branch would be required to construct a gas storage facility and would require a licensing agreement with the Utility Regulator.

### **Gas Infrastructure**

Extension of the natural gas infrastructure in Northern Ireland would be likely to be delivered by a natural gas company with experience in design and construction of gas transmission networks. Planning, environmental, and other statutory approvals would be required, and an agreement on licensing and cost recovery with the Utility Regulator. Further interconnection with the gas transmission system in the Republic of Ireland would also require approval from the Irish government and the Commission for Energy Regulation.

### **Sustainable Energy**

Projects to support energy efficiency and renewable activities, will be financed from the EU Competitiveness Programme. Competitive calls will be used where appropriate, and approval from DETI and DFP will be required.

## **SECTION 6: RISK MANAGEMENT PROCEDURES**

### **Electricity Interconnector**

The most significant risk is public objections to interconnector pylons and overhead cables. The Interconnector may be laid underground however this would present technical and increased cost issues. There is also the risk of failure to achieve necessary consents in both jurisdictions. Risk management will involve DETI in liaison with DCENR in the Republic of Ireland and both Regulators monitoring progress through regular reports provided by NIE and Eirgrid to the All-island Joint Steering Group.

### **Grid Investment**

The principal risks are significant political and public objection to overhead electricity transmission infrastructure, failure to achieve planning and other consents, or technical failure to deliver the project.

Risk management will entail a co-ordinated approach by DETI, involving DOE and DARD, to gain political and public acceptance of the need for grid strengthening to ensure security of electricity supply, and to enhance the contribution from renewable energy sources towards power generation.

DETI and the Utility Regulator will seek assurances from NIE in relation to its procurement of grid design services, land purchase/ easement procedures, and the appointment of suitably qualified and experienced contractors to construct the grid improvements. NIE will be required to provide regular reports to both bodies to include details of actual progress, costs, and reason for delays.

### **Gas Storage**

The principal risks relate to failure to find suitable geological formations to allow construction of caverns through solution mining of salt strata, and failure to attract private sector investment to construct the gas storage facility.

To manage the risks, Energy Division within DETI will liaise with Geological Survey of NI and DETI Minerals Branch who have issued exploration licences. DETI will also continue to liaise with prospective developers of gas storage, and seek to encourage private sector interest through provision of information on geological research from existing and new geological data.

DETI will also work in conjunction with the Utility Regulator to ensure an appropriate regulatory framework is in place to facilitate gas storage development.

### **Gas Infrastructure**

Previous gas infrastructure projects involving the laying of underground pipes have not been the source of public objection or safety concerns, hence risks relate primarily to consideration the economic viability of extension of the network to particular areas even with government support, associated statutory approvals, and technical ability to design and construct the new pipelines.

Risks will be managed by DETI through liaison with the Utility Regulator to consider the most economically viable areas for gas network extension, and work to ensure that political and statutory approvals are in place. DETI will also have oversight of the competition to award licences to extend the gas network, and will liaise with authorities in the Republic of Ireland in relation to enhanced gas interconnection.

### **Sustainable Energy**

Principal risks are the need to ensure economic factors are assessed in relation to emerging renewable energy technologies, and that value for money can be exhibited for the market sector. DETI will manage the risk by ensuring activities support the market, and that the economics of renewable energy provision, is robustly assessed. DETI will administer draw downs and payment of financial support to projects.

#### Programme Management Methodology

The Gateway Review process will be used in the above programmes where appropriate.

## **SECTION 7: MONITORING**

### **Electricity Interconnector**

Progress will be monitored through regular reports from NIE and Eirgrid to the All-island Joint Steering Group which includes both Departments and Regulators, north and south. This will include updates on consents and other approvals, design, procurement and construction. DETI would administer draw down and payment of financial support to the project

### **Grid Investment**

DETI will work closely with the Utility Regulator and NIE to establish a programme for the design, approvals process, and construction of the grid improvements. DETI in conjunction with the Utility Regulator will monitor project costs, and DETI will administer draw down and payment of financial support to the project.

### **Gas Storage**

DETI Energy Division will work closely with DETI Minerals Branch, the Utility Regulator and the developer to monitor the design, seeking of approvals, and construction of a gas storage facility of sufficient proportion to provide strategic gas storage. Progress will be monitored on a regular basis by DETI in conjunction with the Utility Regulator to monitor project costs, and DETI will administer draw down and payment of financial support to the project.

### **Gas Networks**

DETI will work closely with the Utility Regulator to establish and oversee a licensing competition to deliver extension of the gas network, and will oversee a programme for the design, seeking of approvals, and construction of the pipeline networks. Progress will be monitored by DETI in conjunction with the Utility Regulator who will monitor project costs. DETI will administer draw down and payment of financial support to the project

### **Sustainable Energy**

DETI will include monitoring arrangements in all letters of offer (LOOs) issued to projects. Progress against pre-defined targets will be monitored both during the project and post completion. Post project evaluations will be completed within 6 months. Expenditure will be vouched before payment.

### **Investment Monitoring System**

DETI will commit to update monthly the Investment Monitoring System for all projects and programmes.

## ANNEX 1: Summary of major investment in [sub-pillar] NETWORKS

Project title & description (including description of tangible outputs expected from the investment)	Capital value (£m)  Current prices	Anticipated procurement route <sup>1</sup>	Indicate next gateway stage <sup>2</sup>	Anticipated date of advertisement to market	Estimated completion date/delivery date	Location
Grid Investment / Strengthening	Est £200m	(a) via Northern Ireland Electricity	0	Q4 2010 – subject to inter-departmental, Executive / Assembly agreement to the recommendations in the recent Grid strengthening Study.	Not known	West of Northern Ireland
Gas Storage	Est £200m	(a) project delivered by private sector.	0	Q1 2013 – encouraging results from the initial geological investigation. Market may deliver economic level of storage without support. Strategic gas storage likely to need support.	Not known	Larne area in Co.Antrim
Gas Network Extension	Rough Est £100m	(a) constructed and operated by gas transmission company.	0	Q4 2013 – this project is unlikely to be economically viable and will probably require Ministerial and perhaps Executive direction.	Not known	West of Northern Ireland, ie. Strabane, Omagh, Enniskillen

Electricity Interconnector	Est. £135m	(a) constructed by NIE/Eirgrid	2	Q4 2012 – construction of this project will be subject to successful completion of the consents process in both Northern Ireland and the Republic of Ireland.	2012	Tyrone – Cavan border area.
Sustainable / Renewable Energy - EU Competitiveness Programme	£9m	( c )	0	Q1 2009	March 2018	Across Northern Ireland
Energy from Waste (EfW)	£17m	( c )	3	Q1 2008	March 2011	Northern Ireland
<p>Note to table:</p> <p><sup>1</sup> Please select from (a) PFI/PPP; (b) Design and Build; (c) Conventional Procurement.</p> <p><sup>2</sup> Gate 0: Strategic Assessment; Gate 1: Business Justification; Gate 2: Procurement Strategy; Gate 3: Investment Decision; Gate 4: Readiness for Service; Gate 5: Benefits Evaluation</p>						

## **ANNEX 2: POLICY FRAMEWORK**

Investment under this sub-pillar is informed by the following strategic and policy frameworks. These documents should be referenced for a fuller understanding of the context in which investment under this sub-pillar is being delivered.

### ***Strategic Energy Framework***

The Strategic Energy Framework acknowledges the key challenges facing the energy sector in Northern Ireland and sets out clear goals towards achieving its primary objective of achieving a competitive, sustainable, reliable energy market at the minimum cost necessary in an all-island, UK and European context.

<http://www.detini.gov.uk/cgi-bin/downutildoc?id=547>

*Weblink to a copy of the strategy for further information.*

### ***All-island Energy Market Framework***

The All-island Energy Market Framework sets out the policy context for co-operation between Northern Ireland and the Irish Republic on common energy issues including a more competitive market, reducing energy costs and improved reliability of supply. It is set against the background of the European Union's single market for electricity and natural gas and the growing regionalisation of markets.

<http://www.detini.gov.uk/cgi-bin/downutildoc?id=812>

### ANNEX 3: SUB PILLAR CONTACT DETAILS

#### Key Contacts

Name, address, telephone number, e-mail in each case

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Delivery agencies:	
Centre of Procurement Expertise (COPE):	DFP Central Procurement Directorate
SIB contact:	Martin Spollen