5. Gas

5.1 Introduction

5.1.1 The UK has benefited from indigenous reserves of gas for many years but, as North Sea reserves decline, we will become increasingly dependent on imported gas. Gas imports are already meeting around a third of the UK’s total annual gas demand, potentially rising to around 80% by 2020, although measures to maximise economic recovery of remaining gas reserves from the UK Continental Shelf may help to reduce that proportion.

5.1.2 Higher levels of import dependence bring new risks. These are not necessarily any greater than the risks to indigenous supplies (which may arise, for example, due to technical difficulties, adverse weather conditions or problems with industrial relations) and they cannot be avoided altogether. They therefore need to be managed. Options for doing this, all of which are under way, include:

- Facilitating and encouraging investment in gas storage and import infrastructure to maximise the diversity of options available for gas supply;
- Improving the effectiveness and transparency of UK and EU gas markets so as to enable gas to be delivered more efficiently to where it is needed;
- Working with international partners to improve the functioning of global energy markets. This includes work at EU level, in particular in the context of the EU’s Strategic Energy Review, and the ongoing oil consumer-producer dialogue which was established at the Jeddah energy meeting in June;
- Facilitating and encouraging flexibility on the demand side; and
- Through a focus on the more efficient use of energy, ensuring that our gas import requirement is no greater than it needs to be.

5.1.3 This diversity of options increases the likelihood that gas demand will be met, but also increases uncertainty as to the balance of sources. The demand outlook is also particularly uncertain given likely forthcoming changes in
the electricity generation sector and possibly also in domestic heating. This chapter looks at recent developments and projections and the implications for security of supply.

5.1.4 Where this chapter presents data and projections from National Grid covering the National Transmission System\(^\text{41}\), drawing on analysis for their report Transporting Britain’s Energy 2008, these refer to the supply-demand balance in Great Britain. DECC’s own data and projections\(^\text{42}\) refer to the UK as a whole, but these focus on annual (or, for historic data, at best monthly) periods. There are other views on a range of issues such as the level of UK gas production or where our gas imports will come from\(^\text{43}\).

## 5.2 Demand

5.2.1 The UK is the largest gas consumer in Europe with demand representing close to a fifth of the EU total and 3% of the global total. In addition to meeting domestic gas demand, supplies to Great Britain are also needed to meet demand from Northern Ireland and the Republic of Ireland and for (gross) exports to the Continent through the Bacton–Zeebrugge Interconnector. Irish gas import demand is currently met through pipelines from Scotland; in future some Irish demand might be met by direct importation of LNG\(^\text{44}\).

5.2.2 Peak monthly demand has fallen in recent years as a result of milder winters and, especially, higher prices; but there remains a very strong seasonal pattern, with much lower demand in summer. Household demand is much more seasonal than industrial demand, which is more sensitive to price. Demand for gas for electricity generation is sensitive to the price of gas and also to the coal–gas price differential, which is in turn influenced by the level of the carbon price which affects the cost of generating electricity from coal and gas-fired power stations to differing extents.

5.2.3 The principal issue for security of supply purposes is the ability to deliver enough gas to meet demand both throughout the year and on the coldest days of the year.

\(^{41}\) [http://www.nationalgrid.com/uk/Gas/OperationalInfo/TBE/](http://www.nationalgrid.com/uk/Gas/OperationalInfo/TBE/) chapter 3 sets out the rationale behind the Base Case supply forecast for all supply sources and storage.


\(^{44}\) [http://www.shannonlngplanning.ie/](http://www.shannonlngplanning.ie/)
We therefore show National Grid’s Base Case projections for peak and annual gas demand illustrated in the next two charts. National Grid is expecting both peak and annual demand to grow, with the main growth in both cases coming from the electricity generating sector.

Chart 5.1: Base Case Peak Gas Demand Forecast

Source: National Grid

Note: DN Firm: Distribution Networks – broadly, domestic, commercial and smaller industrial demand. NTS Power: Electricity generation. NTS Industrial: Large industrial consumers who take delivery direct from the national transmission system.

Note: This is peak day demand in a 1-in-20 cold winter and thus very much higher than peak day demand actually observed in recent winters.

There is significant uncertainty around these Base Case forecasts. Factors such as the gas price, the success of energy efficiency policies, general economic conditions and the deployment and use of gas-fired electricity generating capacity may all have an effect in one direction or another.
Chart 5.3: Sensitivities around base case peak day demand forecast

Source: National Grid

Note: This is peak day demand in a 1-in-20 cold winter and thus very much higher than peak day demand actually observed in recent winters.

5.2.5 In the case of annual demand, weather trends are also a significant factor.

Chart 5.4: Sensitivities around annual forecast

Source: National Grid
5.2.6 The UK Government’s Renewable Energy Strategy requires a ten-fold increase in the level of renewable energy in the UK over the next 12 years. On the Government’s central assumptions this would see a reduction in annual UK gas consumption in 2020 of around 10 per cent from the level previously projected. On the chart above that would be towards the lower part of the range shown, below the “base case”. Given the high level of import dependency expected then, the reduction in net annual imports would be a slightly greater percentage, perhaps 12 – 14% in 2020 compared to what it would otherwise have been. Peak daily consumption, however, may not be very much affected; if a cold day coincides with still weather, wind generation will not be able to contribute very much to reducing the pressure on gas demand from the electricity generating sector.

5.3 Sources of Supply

5.3.1 There are a number of potential sources of supply to meet UK gas demand. These include: production from the UK Continental Shelf (UKCS), which peaked in 2000 and is expected to continue to decline; imports by pipeline directly from Norway (currently via Vesterled, Langeled and the Tampen Link); imports from the Continent through the (Interconnector and BBL) pipelines to Bacton in Norfolk from Zeebrugge in Belgium and Balgzand in The Netherlands; and imports of Liquefied Natural Gas (LNG) by tanker (to the Isle of Grain, Teesside, soon Milford Haven and in future potentially elsewhere). Gas storage facilities also provide a role in matching supplies from these sources and demand.

5.3.2 The Government is encouraging new investment in gas storage and import infrastructure through reform of the planning and consents regulatory framework to ensure that it is clear and consistent and reflects the national need for new infrastructure. The Energy Act paves the way for a new, fit for purpose licensing scheme which will enable offshore gas storage and import projects to come forward. The reforms set out in the Planning Act are intended to ensure that the proposed Infrastructure Planning Commission can handle applications for development consent for gas supply infrastructure in England comprising

47 Paragraph 10.4.5 of the Renewable Energy Strategy
gas storage facilities, LNG import facilities, gas reception facilities and connection pipelines.

5.3.3 Each of these sources will deliver a greater or lesser proportion of total demand depending on several factors which vary daily or seasonally and with varying levels of predictability/manageability e.g. price, production conditions and contractual arrangements.

5.3.4 The chart below illustrates the monthly variation in the principal sources of UK gas supply. The much-reduced level of seasonal flexibility in supply from UK production is evident, partly reflecting a greater share of production from associated gas fields and less from dry gas fields and partly also because there are now no demand constraints. Also evident is the rapid increase in imports, especially from Norway, as UK production continues to decline. On a monthly basis, the use of storage does not appear to have grown in line with the growth of imports, having been broadly stable relative to total demand since winter 1999/2000.

Chart 5.5: UK Monthly Gas Supply

Source: DECC

49 About 60% of UKCS production is associated with oil production.
5.3.5 The constitution of future gas supply for both annual and peak analyses is subject to considerable uncertainty. This is due to numerous reasons, notably:

- supply capacity generally exceeds supply availability;
- because of demand seasonality, supply availability generally exceeds demand;
- for numerous supplies there are options to supply gas to alternative markets;
- the role of storage in meeting demand.

5.3.6 National Grid’s Base Case supply forecast is based on declining United Kingdom Continental Shelf (UKCS) production and increasing import dependency. In constructing their Base Case, National Grid break down supply into three main components, namely UKCS, imports and storage. For imports they further assess by supply type (Norway, Continent and LNG) and import routes (i.e. Vesterled, Langeled, BBL, IUK, LNG terminals).

5.3.7 As all supplies have a degree of uncertainty associated with them, supply ranges are considered for all supply types. Whilst these can be readily illustrated individually, it is difficult to show the interaction between supply types.

5.4 **UK Production**

5.4.1 UK gas production peaked in 2000 and has been declining since. That trend is generally expected to continue, as shown in the chart below which compares National Grid’s range of forecasts of annual UKCS gas production with their Base Case forecast of annual UK gas demand. As with projections of demand, projections of UK gas production are inherently uncertain and should be treated as indicative rather than definitive. One particular area of uncertainty is whether and, if so when, significant volumes of gas from West of Shetland will be developed and brought to market; if this is not the case, the rate of decline will be greater.
5.4.2 Supplies from the UKCS are considered as the first source of supply in determining National Grid’s supply forecasts, based on the following considerations:

- currently, the UKCS remains the major supply component;
- most UKCS fields are already in production;
- there are very limited options for UK production to supply alternative markets;
- low production/transportation costs.

5.5 Imports

5.5.1 UK gas import demand is set to rise to a significant scale in terms of global and, in particular, European gas demand. Notionally, as shown in the following chart, annual gas import capacity is already sufficient to meet annual UK gas demand and it is expected to grow significantly in the next few years.
Import reliance, although neither new to the UK nor uncommon around the world, can bring additional risks of disruption to supply sources. These risks may include, for example, lack of access to pipeline infrastructure outside UK borders or low market liquidity or competitiveness. Liquid, competitive markets can facilitate the transportation of gas to where it is valued most and investment in interconnection, import facilities and source development; their absence can prevent gas from being produced and delivered as and when needed.

While the UK gas market is one of the most liquid markets in the world and the most liquid in Europe, there is a relative lack of liquidity and competitiveness in some of the markets from which we import gas supplies. This needs to be borne in mind when we consider the likely responsiveness of the international marketplace to price signals from the UK. In the winter of 2005 – 2006, for example, imports from the Continent proved difficult to obtain despite a very strong price signal, due to a combination of regulatory, commercial and infrastructure constraints; some of these are in the process of being addressed through EU market liberalisation.

Source: National Grid

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Nevertheless, the UK market now enjoys a wider diversity of supply sources and supply routes and this should increase our resilience to interruptions to, or reductions in, flows from individual supply sources, whether domestic or external.

The world’s gas reserves are relatively concentrated, with 41.3% of the world total held in the Middle East (15.7% in Iran, 14.4% in Qatar) and 30.2% in the former Soviet Union (25.2% in the Russian Federation). 1.7% of the reserves are in Norway.

Imports from Norway (direct by pipeline)

Norwegian flows to Europe (Germany, France and Belgium) in the past two winters have been close to, but not at, the capacity of the pipelines through which the gas flows. Norwegian supplies direct to the UK have, broadly, been a residual after they met their contractual commitments under long-term supply contracts to those markets. At times of peak supply they have nevertheless approached the import capacity of the pipelines direct from Norway to the UK. Additional supplies from Norway may arrive in the UK via one or both of the pipelines from the near Continent to Bacton (see below) or possibly, in future, by tanker, since some Norwegian production (from the Snøhvit Field) is now exported as LNG. Any significant additional Norwegian production would be likely to require new export capacity.

The next chart shows National Grid’s forecasts of Norwegian pipeline export capacity and flows to the UK. Supplies from Norway are considered as the second source of supply in determining National Grid’s supply forecasts, based on the following considerations:

- in terms of the UK supply mix, Norway is an important and growing supply component;
- an expectation of increasing Norwegian production;
- though the offshore Gassled network is extensive, flows through existing pipelines to the Continent are close to capacity; with limited options to supply extra gas to the Continent the UK is expected to receive much of any increased production;
- relatively low production costs.

5.5.8 National Grid’s Norwegian forecast is based on limited information received through consultation with the UK energy industry\(^{52}\), commercially available Norwegian field data and interpretation of aggregated Norwegian production forecasts from Norwegian agencies. To determine flows to the UK, National Grid assess Norwegian production against pipeline capacities to the UK and Continent. They have also assumed no new major Norwegian export pipelines are built in the near future.

5.5.9 Assessment of historic utilisation rates for the pipelines transporting Norwegian gas to the Continent has enabled National Grid to create a range for Norwegian import flows to the UK. These are typically ±4.5 bcm/year.

*Chart 5.8: Actual/Projected Annual Norwegian Import Capacity and Flows*

![Chart 5.8: Actual/Projected Annual Norwegian Import Capacity and Flows](chart.png)

Source: National Grid

**Imports from Europe**

5.5.10 There are two pipelines between the UK and the near Continent, importing gas from the rest of the EU. This will include gas produced within the EU, for example in the Netherlands, as well as gas imported from outside the EU, 52 http://www.nationalgrid.com/uk/Gas/OperationalInfo/TBE/
for example from Russia (which supplies some 25% of the EU’s gas) and Norway (9%).

5.5.11 The Bacton–Zeebrugge Interconnector\(^{53}\) from Belgium was commissioned in October 1998. Its import capacity has since been expanded progressively and, at 25.5 bcm/year, now exceeds its export capacity of 20.0 bcm/year. However, despite the expansion of import capacity since 2006, recent flows have been much reduced.

5.5.12 BBL (the Balgzand–Bacton Line) from The Netherlands\(^{54}\) was commissioned in December 2006 with a capacity of 25 mcm/day and expanded from November 2007 to 40 mcm/day by additional compression. The decision in August 2008 to add a fourth compressor is expected to expand the capacity to 46.7 mcm/day from December 2010 and further expansion is possible in the years ahead. BBL is also now offering interruptible forward flow and non-physical reverse flow capacity on the pipeline.

5.5.13 The next two charts show National Grid’s forecasts of the capacity and flows of IUK and BBL. Supplies from the Continent are considered as the third source of supply in determining National Grid’s supply forecasts, based on the following considerations:

- increased options to flow gas to alternative markets;
- uncertainty of market liberalisation, access to transmission pipelines and use/role of storage within the rest of the EU market.

5.5.14 National Grid’s Continental forecast of flows to the UK assumes that the current basis for IUK and BBL will remain broadly unchanged, namely that BBL will tend to import at reported contract rates and that IUK will continue to respond to market conditions, thus operating seasonally.

5.5.15 Longer term, National Grid anticipates higher Continental imports as the UK’s level of import dependence increases. Due to the uncertainty associated with Continental imports National Grid have assumed a relatively high range of approximately ±3.5 bcm for BBL and ±5 bcm for IUK.

\(^{53}\) [http://www.interconnector.com/]
\(^{54}\) [http://www.bblcompany.com/]
Chart 5.9: Bacton–Zeebrugge Interconnector Annual Capacity and Actual/Base Case Forecast Flows

Source: National Grid

Chart 5.10: Balgzand–Bacton Line Capacity and Imports

Source: National Grid
5.5.16 The UK’s ability to import gas from this source will depend in part on whether the EU market as a whole is well supplied with gas; and in part on the extent to which the internal EU market functions to ensure efficient distribution of the gas that it has.

**European security of gas supply**

5.5.17 The EU as a whole is about 25% dependent on gas for its energy supply and about 60% dependent on imports for its gas supply; this latter figure is expected to rise to over 75% by 2020. Its main external suppliers are Russia, Norway and Algeria. Historically these have all been consistently reliable suppliers and the EU has been working to develop its relations further with these, and other, important supplier countries. There are, however, growing concerns about the security of the EU’s gas supply among EU Member States. These include the risk that not enough is being invested in production capacity by some suppliers to meet future demand, and that energy supply and supply routes might be used for political ends.

5.5.18 In March, European Leaders underlined the need for more work to improve security of supply. These calls were repeated at an extraordinary European Council in September at which Heads of State and Government discussed the impacts of the crisis in Georgia. They called in particular for more work to diversify the routes and sources of the EU’s energy supplies.

5.5.19 The European Commission published its Second Strategic Energy Review on 13 November. The Government is working with the Commission and other Member States to ensure a thorough debate about the EU’s energy security, leading to practical actions to improve security of supply. The UK is keen, for example, to see more political and economic engagement with countries along the Southern Corridor (the route which would bring gas from the Caspian region, through Turkey, to the EU).

**The European internal gas market**

5.5.20 The UK Government has long argued that competitive energy markets are the best way of maintaining secure and sustainable energy supplies, increasing efficiency and
improving services for customers\textsuperscript{55}; and so welcomes the significant steps that have already been taken to develop a competitive internal gas market, in particular the 2003 Gas Directive. A third package of EU legislation\textsuperscript{56} is expected to be adopted early in 2009. This will strengthen the regulatory framework and remove structural barriers to discrimination with the goal of establishing a properly functioning and transparent internal energy market that encourages cross-border trade and investment in infrastructure.

5.5.21 Under the new legislation, regulators in all Member States will have strong powers, including powers to impose tough penalties (up to 10% of company turnover) if companies do not comply with their obligations in the package. Moreover, an agency composed of national regulators will be set up so that regulatory regimes are more consistent across the whole of the EU, which will encourage investment and trade across borders.

Imports of Liquefied Natural Gas\textsuperscript{57}

5.5.22 There are currently two LNG import facilities in the UK with more under construction or planned. The principal existing facility is at the Isle of Grain. The other facility, at Teesside, has to date received only one cargo and even that was only partly unloaded for commissioning purposes. Two large import facilities at Milford Haven are expected to begin operation during early 2009 and to be expanded in stages in the years ahead. Of these, the South Hook facility is expected to import gas from a large new liquefaction facility in Qatar while the Dragon facility is not tied to any particular import source.

5.5.23 The next chart shows National Grid’s forecasts of LNG import capacity and flows to the UK. LNG imports are considered as the fourth and final source of supply in determining National Grid’s supply forecasts, based on the following considerations:

\textsuperscript{55} A study commissioned from Ernst and Young, “The case for liberalisation”, was published in January 2006 and is available on the BERR website at http://www.berr.gov.uk/whatwedo/energy/markets/liberalisation/page28403.html.

\textsuperscript{56} There is a fuller account, by the International Energy Agency, of the development of EU energy markets at http://www.iea.org/textbase/papers/2008/gas_trading.pdf

● limited operational experience to date;
● global options to deliver gas to alternative (higher priced) markets;
● delays in commissioning dates of new import facilities and delays in the construction of new production facilities;
● a view that there is limited LNG currently contracted to UK players.

5.5.24 Hence National Grid’s forecast for LNG imports to the UK is primarily driven by the import requirement after consideration of alternative import sources. Nevertheless, over time the UK’s requirement for LNG grows considerably.

5.5.25 To create a range for LNG, National Grid has aggregated the supply ranges for the three other sources of supply. This creates a large range commensurate with the uncertainties associated with LNG imports.

Chart 5.11: Actual Annual LNG Flows and Base Case Flow Forecasts

Source: National Grid

5.5.26 The availability of LNG to the UK market will depend on the development of the global LNG market.
5.5.27 A report commissioned from Global Insight in 2007\(^5\)\(^8\) considered various scenarios, concluding broadly that the global LNG market is likely to change from consisting primarily of bi-lateral trades to a much more flexible market with an increasing proportion of gas not contractually committed to one specific destination. This would increase the responsiveness of supplies to price differentials between different potential import markets. However, the report also identified several areas of risk, notably delays in worldwide LNG liquefaction projects.

5.5.28 Similarly, the International Energy Agency\(^5\)\(^9\) sees an "irreversible" trend towards regional gas markets converging into globalisation, encouraged by the emergence of more producing and consuming countries, growing European dependence on external imports, tighter balances, increasing volumes of spot and short-term LNG and higher prices. The IEA calls for more transparency on prices and flows and more competitive internal markets to enable interregional competition to improve global gas security.

Storage Withdrawals

5.5.29 Storage is one means of managing seasonal price fluctuations and also one option for dealing with short-term demand fluctuations/supply disruptions. The charts below show storage space and deliverability in terms of existing facilities, those under construction and those proposed\(^6\)\(^0\). The charts also show storage space since 2000/01 and National Grid’s Base Case forecasts of capacity/deliverability.

5.5.30 Inclusion of all proposals for UK storage could increase storage deliverability from approximately 130 mcm/d to above 550 mcm/d (hence higher than our current peak day demand). For their Base Case, however, National Grid assume that not all of the storage proposals will proceed as planned and many of those that are developed may slip in terms of their delivery dates.

\(^{58}\) http://www.berr.gov.uk/files/file41844.pdf


\(^{60}\) There is a full list of existing, under construction and publicly announced proposals for gas storage facilities at table A2 in National Grid’s report Transporting Britain’s Energy 2008 available at http://www.nationalgrid.com/uk/Gas/OperationalInfo/TBE/
5.5.31 Gas from storage does not make a net contribution to annual gas demand since, broadly, summer inputs into storage equal winter offtakes. That said, stored gas is expected to play an increasingly important role in meeting winter demand as the UK’s import requirement grows. Under the base case the UK is expected to be able to store about 10% of its expected annual demand by 2020/2021.

Chart 5.12: UK Storage Space Projections

Source: National Grid
5.5.32 Storage capacity is often described in terms of number of days’ worth of supply, but this is not a particularly satisfactory or meaningful measure since stored gas is not used on its own to meet demand. Instead, gas from storage is used to supplement supply from other sources to a greater or lesser extent depending on overall demand and the availability of other supplies. For example, the UK’s largest gas storage facility, Rough, is capable of delivering over 10% of typical UK winter daily demand and could do so continuously for about eleven weeks if it started from full; other facilities can collectively deliver more per day, but would run out of gas much more quickly if they were to run at their maximum rate.

5.5.33 Under the base case, then, by 2021 the UK is expected to have the capacity in theory to meet nearly 60% of its expected peak daily demand from stored supply, but such a delivery pattern would not be sustainable for long.

5.6 Composition of Supplies

5.6.1 The existence of import capacity is a necessary but not a sufficient condition to ensure that import flows are able to meet import requirements. As far as import capacity goes,
we have shown that, based on existing import facilities and those under construction, there is expected to be more than enough import capacity to deliver the UK’s expected requirement for gas imports for the period covered by this report. It can also be shown\(^{61}\) that any two of Norwegian, Continental or LNG gas supply capacity are large enough to deliver sufficient gas to meet the UK’s import requirements to 2010 or even longer (even assuming no additional flows from the UKCS or use of storage supplies). For example, Norwegian flows at about 70% and Continental flows at about 25% of capacity could meet demand even with no LNG supply in 2010.

5.6.2 Thereafter, and noticeably by about 2015, the increasing level of import dependency means that a loss of one type of supply would result in a need for significant additional flows from alternative import sources. For example, if no new import capacity were available, the loss of Norwegian supply would require flows from the Continent at about 60% and LNG flows at over 50% of expected capacity as early as 2011/12, while the loss of Continental gas would require both Norwegian and LNG flows at around 80% by 2015. These levels of capacity utilisation indicate that more import capacity would need to be available by then if the UK is to maintain the position of being physically able to meet demand even in the absence of one of the import supply routes.

5.6.3 However, the existence of capacity is not a guarantee that gas will flow through it. The extent to which flows from each of the different sources and supply routes (including the UKCS) would respond to price signals resulting from changes in the supply-demand balance within the UK market, is subject to considerable uncertainty deriving from a range of factors – commercial, technical, weather-related, geopolitical, seismological, industrial relations-led, for example. Nevertheless, the extent to which any individual issue can affect the overall availability of gas to the UK reduces, as the diversity and overcapacity of delivery routes increases.

5.6.4 In the UK, gas suppliers have a responsibility to ensure that their customers’ demand is met. As well as the reputational and commercial risks involved in not being able to offer gas supply at competitive prices, gas suppliers face financial penalties, which can be very severe, if they fail to balance

their inputs into the National Transmission System with their customers’ offtakes on a daily basis. The suppliers have an incentive to ensure that they minimise these risks; options include diversity of sources and supply routes, contractual arrangements or vertical integration with producers and/or importers, holding gas in storage and reliance on the daily market as well as the construction of new import and supply facilities.

5.6.5 There is therefore scope for a wide range of possibilities as to the extent to which the different supply source will be used to meet the UK’s gas demand out to the medium term. We show here the National Grid base case for annual and peak day supply.

*Chart 5.14: Annual Gas Supply Forecast (Base Case)*

Source: National Grid
5.7 Conclusion

5.7.1 For the medium and longer term, further investment in additional import and storage capacity will be required. Delivery of additional storage capacity in the short and medium terms is likely to reduce some of the current uncertainty around availability of supplies at times of peak winter demand. Under a central scenario of demand, additional infrastructure would also be needed from around the middle of the next decade to ensure secure supplies. Significant additional investment is taking place in such infrastructure, including through the new terminals currently under construction at Milford Haven.

5.7.2 The Energy Act 2008 will enable a fit for purpose regime for certain types of offshore gas infrastructure including gas storage. Also, the Planning Act 2008 should facilitate delivery of onshore storage. Although there are widely differing views on the actual future sources of gas, there is expected to be increasing diversity of the sources of supply. There may also be a beneficial effect of further liberalisation in Europe.

Source: National Grid
Forecasts are for peak demand in a 1-in-20 winter, which is why they are higher than actual supply in previous years.
Northern Ireland

Since 1 January 2007, the supply of natural gas to non-domestic and domestic consumers in the Greater Belfast licensed area in Northern Ireland has been open to competition. The natural gas market in Northern Ireland is concentrated in this area, where gas is supplied to around 120,000 consumers, principally by Phoenix Natural Gas. Firmus Energy is engaged in ongoing work to develop the gas market in ten towns outside Belfast and presently has around 4000 customers.

Gas Demand

The Northern Ireland Authority for Utility Regulation (the energy regulator) prepares an annual report, the NI Gas Pressure Report, which details current and future gas demand for power generation, business, and domestic users.

Gas Delivery

Northern Ireland has no indigenous sources of natural gas, and is therefore reliant on gas supplies from Great Britain. While there is gas interconnection with the Republic of Ireland, which has some indigenous sources of natural gas, it too receives the bulk of its gas from Great Britain.

In order to get to Northern Ireland, gas is piped by National Grid to Moffat, in southern Scotland. From there it passes through the Scotland–Northern Ireland Pipeline (SNIP) to near Stranraer and then under the sea to Islandmagee. At Islandmagee, much of the gas is used by Ballylumford power station, but the remainder is transported to Torytown near Carrickfergus and into the main distribution system. In addition, the South-North gas transmission pipeline, completed in October 2006 between Dublin and Antrim, provides additional security of supply to Northern Ireland by providing access to gas from the Republic of Ireland.

Information on the gas market in Northern Ireland is available from the Department of Enterprise, Trade and Investment (http://www.detini.gov.uk) and the Northern Ireland Authority for Utility Regulation (http://ofreg.nics.gov.uk/index.html)
There has been renewed interest in developing underground gas storage in caverns created by solution mining of salt strata in the East Antrim area. While Northern Ireland benefits from the additional security of supply which will result from ongoing investment in gas storage and other supply infrastructure in Great Britain, establishing gas storage in East Antrim would provide significant additional security of gas supply for Northern Ireland.