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**OFFSHORE NORTHERN SEAS CONFERENCE
STAVANGER 27-30 AUGUST 1996**

“The UK and BG: Any future for Norwegian gas?”

**Presentation by Dr Pierre Jungels, Managing Director,
Exploration and Production, British Gas plc**

4.30 pm, Wednesday 28th August 1996

Good afternoon, ladies and gentlemen. It is a great pleasure to be speaking at this conference today, both personally and on behalf of my company British Gas.

The question posed for my session is, what future will there be for Norwegian gas in the UK market? In the past, gas from Norwegian waters has played a significant role in meeting UK natural gas demand, enabling the UK to develop one of the most successful gas industries in the world.

Today the situation has changed, to the extent that Britain is effectively self-sufficient in natural gas and with the run-down of the Frigg reserves, Norwegian exports to the UK have dwindled. In 1985, they amounted to 14 billion cubic metres, representing 27% of UK demand. Today, the figure stands at just 1.7 billion cubic metres a year, or 2% of UK demand. Just to put the numbers in context, UK demand is currently running at around 75 billion cubic metres per annum, while demand in the whole of continental western Europe is about 275 billion cubic metres per annum.

I think that we cannot evaluate what the prospects might be for Norwegian gas without looking first at the UK market itself. It is a market which has been greatly altered since the 1970s and 80s and will be transformed even more radically over the next two years. I shall therefore begin by updating you on the progress of deregulation and competition in the UK, before going on to review the position upstream. I will then consider the prospects for UK gas in continental European markets, before concluding with a personal view of how all these factors bear on the feasibility of future Norwegian exports to Britain.

The UK gas supply market

First, then, the UK gas market. Although I speak for a company which is still a vital force in the country's gas supply, we must remember that British Gas is no longer the only company buying and selling gas in Britain. Gas-on-gas competition in the industrial and commercial sector has existed for several years. There are now more than 30 suppliers in this sector. They were encouraged by strong regulatory measures which effectively constrained British Gas's ability to compete. These competitors have secured 65% of the industrial market, against 35% remaining with British Gas.

Now, we are entering a new and much more dramatic stage of deregulation. Four months ago, Britain began the process of opening up its domestic gas market to competition, commencing with a pilot scheme involving half a million customers in the south west of England. This will be followed by an extension of the trial to a total of two million customers next April, with full competition scheduled for 1998.

Eight new gas suppliers are competing in the pilot scheme for domestic gas customers. The launch was accompanied by fierce price-cutting campaigns, and competitors have now secured over 10% of the domestic market in the south west. It is too early to tell how this will develop over time, or in other geographical areas. Indeed, there are no comparable initiatives anywhere in the world which we could use to make predictions.

Equally, there were no precedents or models for developing the new market structure and its underlying systems. British Gas retains its monopoly over the national transmission system, whilst also being one of the shippers using the system. Ways had to be found for this single infrastructure to serve significant numbers of licensed suppliers, including British Gas itself, without discrimination. This needed to be achieved without jeopardising safety or security, and at prices which reflect the cost of service provision.

We have accomplished this by developing a completely new legal and operating framework, known as the Network Code. It is an important piece of legal history for our industry, both in the UK and as a model for other countries. It will in due course enable ~~18 million domestic gas customers~~ throughout the UK to choose from a wide range of competing suppliers. It is a world 'first'.

In practical terms, the Code makes competition possible by giving all suppliers open and equal access to the British Gas pipeline system. It controls the activities of all parties

involved in gas transmission, from acceptance of gas from producers to output to customers. Each shipper must sign an agreement to operate under the Code before registering its customers and booking entry and exit capacity. On a daily basis, British Gas is responsible for ensuring the physical balance of the network but each shipper is financially responsible for the costs incurred in managing any imbalance between its gas flow nominations and actual flows.

The workings of the system are administratively complex and require the support of extremely robust, industry-wide computer systems. These have been developed and tested very quickly to meet the UK government's targets for introducing competition. When one remembers that TransCo, the pipeline arm of British Gas, manages 267,000 kilometres of lines with six entry points and 19 million exit points, balancing this system is quite a challenge - but it can be done, and it will be done.

The UK upstream gas market and the Interconnector

The points I have covered so far are important to an understanding of the structural change which is transforming the downstream gas industry in Britain. This transformation should lead to lower prices to the consumer and, in turn, a significant increase in gas demand. However, such an increase could be affected by other factors, either downwards or upwards. For example, a Labour government might introduce an energy policy favouring coal, or there could be legislation to further reduce carbon dioxide emissions. Against this background, I would now like to widen the picture to look at the upstream market and the overall pattern of demand and supply.

The UK gas industry is characterised by a large number of producers, operating principally in offshore waters. Since the 1960s, the natural gas industry has benefited from a high rate of success in exploration and production, the development of a national transmission system, and the consequent growth of energy market share. In fact gas has a higher penetration in the UK than in almost any other country, accounting for nearly 50% of energy consumption, if you exclude transport.

This market is however now mature, and aggregate production of gas currently exceeds demand. What is more, there is a great deal of UK gas still waiting to be produced. On the basis of established discoveries, reserves are expected to last for about 20 years at current production levels. However, when undiscovered potential is taken into account,

UK supplies could last for much longer - up to 40 years at the top end of the government's recent estimates.

Much of this gas can be brought into production at low resource costs. Advanced techniques are now enabling producers to work their assets harder, increasing production at relatively low incremental costs. Even for large single projects, CRINE type initiatives are leading to very large cost savings with consequently low resource costs.

Armada, operated by British Gas Exploration and Production, will establish a record for a large central North Sea project. Creative contractor management ensured that all parties were introduced into the project from the start, and incentives are being used to align the goals of all participants. As a result, the 10,000 ton integrated deck of Armada will be constructed with around 125 man hours per ton, and its total development cost will be below 3 dollars per barrel of oil equivalent.

All this points to UK production growing over the next few years, and by the end of the century it should be meeting about a quarter of the demands of Western Europe as a whole, that is, including the UK. This exceeds the forecast of supplies from any one of the big production sources - Norway, Algeria, the Netherlands or even Russia - and would make the UK the single largest source of natural gas supply for Western Europe.

Most of this gas will be used in the UK itself. However, from 1998, when the Interconnector is completed, there will, physically, be a single market - so UK supplies could also be an important influence on, and contributor to, continental markets.

The European market, competition and deregulation

I specifically use the word 'physical' to describe this pan-European market because we do not, as yet, have a corresponding single economic market for gas in Europe. Our fellow EC members have lagged behind Britain in opening up their markets to competition and this presents potential barriers to free trade. We face import monopolies in some countries and in others, only one or a very small number of companies have access to the pipelines.

The French government, for example, still affords a huge amount of protection to Gaz de France. In Germany, Wingas have invested a very substantial sum to build their own pipelines and bypass the Ruhrgas monopoly, but few other players can afford to do this,

so there is still a *de facto* restriction on further competition. This is in marked contrast to the UK market, where any company can sell gas to some thirty UK shippers, or indeed direct to end users.

Many arguments are advanced for maintaining the status quo. In developing countries where the gas industry is still at an early stage and where really large investments are needed, there may be good reasons for protecting those involved. Deregulation is for mature gas industries, not fledgling ones. However, this is not the case in western Europe, where gas industries are well developed.

It has also been said that countries which are dependent on imported supplies should exercise caution in experimenting with deregulation on the scale which we in the UK, being self-sufficient in gas, can afford to do. Arguments based on supply security are however losing their strength when gas is coming into Europe from Russia, Norway, the UK, Algeria and later Libya and Egypt by pipeline, and from Algeria, Libya, Trinidad, the Middle East and even Australia by LNG. All the signs are that breakthroughs in contract management and engineering design will bring the possibility of a complete diversification of LNG cargo supplies, not dissimilar to the diversity of crude cargo supply opportunities.

In any case, supply security is surely not a very strong argument for making it impossible for a French producer on the UKCS to sell its own gas to its own French customers. I certainly do not think such arguments will carry much weight with big industrial customers on the continent, who, in today's highly competitive world, would like to share the lower gas costs enjoyed by their British counterparts.

There would clearly be a benefit to Europe in opening up her gas markets. Major industrial companies, almost without exception, now have to compete in a global market, against rivals from both the industrialised and developing world. Energy costs are a major factor in their ability to sell their products at a competitive price. Continental European countries simply cannot afford to fetter their manufacturing industries with higher gas prices than need be the case.

So the single buyer concept which has sustained electricity and gas utilities in Europe is now being challenged in a number of ways, and the pressure for changes to the protectionist structure of the gas industry in continental Europe will intensify. We already

have large energy users in the Benelux countries and to some extent in Germany pressing for alternative sources of supply.

All this augurs well for the UK to export gas via the Interconnector. Its capacity of 20 billion cubic metres per annum represents around one quarter of UK production, but less than 7% of continental European consumption, and I believe that despite intense competition from other producing countries, particularly Russia, UK gas will prove attractive and competitive enough to sustain a good level of exports, with supply contracts developing throughout Europe from the Zeebrugge hub. Indeed, I am pleased to say that the process has already begun, with the signing of a contract for British Gas to sell around 20 billion cubic metres of gas to Wingas over ten years from 1998.

The prospects for Norwegian gas

So where, finally, does all this leave Norwegian gas? Given the UK's surplus and the current low level of beach prices, there is little scope at present for significant exports to Britain. There may be some scope for more flexible supply arrangements to meet winter demand. Indeed, last winter, on five different days, TransCo beat all records for transmission and delivery.

Next winter, the Network Code will be fully operational and will lead to a real spot market. Comparison with the US shows that when a real spot market functions, producers may choose to curtail or even shut down production in the summer and sell only in the winter. In that scenario, there is room for efficient, flexible suppliers. If Norway is willing and able to fulfil that role, there may be room for Norwegian gas in the UK long before the supply/demand balance appears to indicate.

How long the present situation will continue depends on a number of factors. The whole pattern of supply and demand will of course be changed by the Interconnector which will, in effect, create the third arm of a supply triangle between the UK, Norway and the continent. To this extent, Britain and Norway are now direct competitors to meet continental European demand. Looking at it another way, we are now all part of a single European gas network.

If we stand back a little further, we need to see this in the wider context of total European demand and supply over the next ten to fifteen years.

There are several well-argued scenarios for European gas demand up to the year 2010, some predicting growth as high as 50%. However, these make a number of assumptions, particularly about demand growth in central and eastern Europe, which should be treated with caution. Overall growth is likely to be much more modest, and it is clear that Europe will be well supplied with gas until at least the year 2000, and possibly rather longer than that.

Russia is probably the least predictable variable in the whole scenario. Much depends on how aggressively the country seeks to dispel its gas 'bubble' in the direction of Europe; there could be 60bcm of gas coming through a new pipeline route from Russia via Belarus and Poland. All this will affect the UK's ambitions to sell its 20 bcm of gas a year through the Interconnector, and Norway's plans to deliver up to 60 additional bcm through its new pipelines. And it all considerably overshadows the marginal amount of gas which might or might not be delivered from Norway to the UK.

I am conscious therefore that I am reaching the end of my talk without giving you a conclusive answer to the question posed at the beginning, which was, "does Norwegian gas have a future in Britain?" What I hope to have done is to demonstrate why a simple 'Yes' or 'No', however well argued and supported, is inadequate to the real issues implicit in the question.

These issues, as I see them, are about how quickly and fully Europe can evolve an open and competitive gas market, where all countries can trade on an equal footing. They are about giving customers competitive edge through low energy costs so that European firms can compete effectively in global markets. And they are about Europe being able to meet her present and future gas supply needs from secure and reliable sources.

In this more fluid and open marketplace, only the most competitive companies - companies which are prepared to respond to the challenge - will succeed. As gas flows increasingly freely around Europe there is no reason why Britain and Norway should not both profit from the changing market. There is potential for us both to become winners in this new scenario.

Ladies and gentlemen, thank you very much.