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**INQUIRY INTO EUROPEAN UNION ENERGY POLICY:
GAS SUPPLY AND ACCESS**

Evidence to:

Sub-Committee B (Internal Market) of the House of Lords Select Committee on
the European Union

Security of European Gas Supply

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Introduction

In 2004, there is little problem about the general availability of gas in European Union countries either individually or collectively. There is currently a surplus of supply which has arisen because of the much slower than expected growth of gas demand, which in turn has been largely due to high (oil-linked) prices and slow development of gas-fired power generation. However, the current surplus does not mean that no problems exist in respect of availability and accessibility. This evidence is focussed specifically on security of supply issues.

European natural gas security can be seen as a multi-dimensional matrix encompassing contractual, governmental and facility risks with the potential to disrupt supply in the short and long term to individual countries and the EU in general, from national, EU and external suppliers. The potential for supply disruption can be analysed along any single dimension or any combination of dimensions. Analysis of risks is therefore complex and there is a danger of over-concentrating on a specific dimension of security risks, particularly imports of gas from external suppliers, to the exclusion of other possible problems.

EU Natural Gas Security of Supply Risk Matrix

SUPPLY SOURCE	National	Intra-EU	External to EU	TIME
CONTRACTUAL	Technical Breakdown		Commercial Dispute	LONG/ SHORT TERM IMPACT
GOVERNMENTAL	Political Disagreement		Military Action	
FACILITY FAILURE/ ACCIDENT/TERRORISM	Production/Processing/Transportation/Transit/LNG			
DISRUPTION OF:	National supplies		EU-wide supplies	

AVAILABILITY AND SECURITY OF SUPPLY

QUESTION (1) Is there a threat, real or latent, to security of gas supply to and within the European Union? What policy issues arise from risks to security of supply? Are current policies adequate?

ANSWER (1) It is hard to make a convincing case that security of gas supply – that is, the likelihood that significant numbers of gas consumers in a single EU member state or EU-wide, will be subject to a serious supply disruption - is currently an imminent threat within the European Union. It is also dangerous to make the assumption that, because a greater proportion of EU gas supply will be coming from external sources over the next two decades, this will automatically entail a reduced level of security. The matrix shown above is an attempt to encompass the full range of potential risks to gas supply. However, in early 2004, the most commonly cited security issue – that of diminishing indigenous supply being replaced by greater imports of external gas – is as much a foreign policy as an energy policy issue. The energy partnerships and dialogues created by the European Union with its major gas suppliers in Russia and North Africa have been a very good start. However, these dialogues also need to involve transit countries – as evidenced by

the problems involving Ukraine and (most recently) Belarus in the case of Russian gas. Problems in the commercial and political relationships between Russia and these transit countries present unresolved problems between states which have the biggest potential to create gas disruption risks for the European gas market *as a whole*. While the risk of disruption is not urgent, it will exist for as long as there is no enforceable *long term* commercial/legal framework between Russia and its gas transit countries. The Transit Protocol of the Energy Charter Treaty has the potential to create such a long term framework.

In terms of specific gas security problems, low probability/high impact events caused by technical failure, accident or terrorist activity probably pose the greatest threat to individual countries. The attempt by the European Commission to pass a gas security directive to deal with these (and other) emergencies has been somewhat undermined by the lack of an overall framework within which the costs, risks and benefits of insurance investments can be judged.

QUESTION (2) What forms of diversification of gas sources of supply are feasible and affordable, and over what period of time?

ANSWER (2) On a European level, *limited* diversification is both feasible and affordable by increasing imports of liquefied natural gas (LNG). Costs throughout the LNG chain (liquefaction, shipping and regasification) have fallen sharply over the past decade and this trend is anticipated to continue increasing the commercial viability of supplies from the Middle East, sub-Saharan Africa and the Caribbean. Greater pipeline interconnection between EU member states, and between external suppliers and member states, is feasible and in some cases affordable. The EU has extended a significant volume of concessionary finance for interconnections, many of which would not have been considered commercially viable for private companies and bankers. It will be difficult and expensive to introduce a major new source of pipeline supply unless large scale transit of Central Asian gas via Russia can be arranged.

QUESTION (3) Is it possible or desirable to create safeguards and pooled reserves to cover unexpected temporary, part or complete, interruption in the delivery of gas supplies to the European Union, within an international gas market, and similar to those measures that obtain in the international oil market?

ANSWER (3) It is much harder to take such measures in a *liberalising* gas market compared with the monopoly markets which existed previously. Gas storage is much more expensive than oil storage and may not be the lowest cost response to the risks of supply interruption. Creating potentially expensive safeguards against low probability events requires an analysis of costs and risks, as well as agreement on who will pay for such measures. These are the main reasons why there has been strong resistance to the setting of mandatory storage requirements in the Draft Gas Security Directive.

QUESTION (4) What impact does the changing nature of gas production have on the availability of gas supply from the United Kingdom's gas and oil fields?

ANSWER (4) The principal security problem stemming from the decline of UKCS gas production is the loss of "swing" capacity which allowed Britain the luxury of physical "storage" by means of surge capacity in offshore fields. Not only is production declining in many fields, but customers cannot require producers to install production and transportation capacity in excess of average daily delivery requirements (as did the state-owned British Gas monopoly). The consequence is that surges in demand, or shortfalls in supply, can no longer be compensated from domestic production and other measures must be sought.

ACCESSIBILITY AND THE OPERATION OF A FULLY LIBERALISED MARKET

QUESTION (5) Is there a genuine pan-European Union gas pipeline infrastructure currently accessible, commercially and operationally, to all customers at all times?

ANSWER (5) There is a genuine pan-European Union gas pipeline infrastructure but aside from Britain, accessibility varies between moderate and poor in most countries. This is a situation which the second Common Rules Gas Directive is intended to rectify. However, unless and until the priorities of many Continental European governments are shifted towards competition; and the powers which those governments give to national regulators to remove barriers to access are substantially strengthened, obstacles to accessibility will remain significant.

QUESTION (6) What constraints does the European Union energy market place on the timeliness of investment in the distribution infrastructure and in gas-fired generating capacity?

ANSWER (6) Uncertainty about the pace and success of liberalisation are constraints to gas (and gas-fired power) investments of all types. The European market is in a transition towards liberalisation of uncertain duration. In many countries, concentration of market power in the hands of a few multi-utility giant companies has given rise to doubts as to whether competition will become more than a theoretical possibility. The timeliness of investment therefore remains in the hands of decision-makers in a few companies and their regulators. The first major breakthrough which has been awaited since the late 1990s is the arrival of genuine gas to gas competition causing a decisive move away from oil-linked pricing which is required for major investment in gas-fired generation.

QUESTION (7) Would a fully-liberalised internal European Union market remove these constraints?

ANSWER (7) A fully-liberalised internal European Union market would remove the major constraint on gas-fired power generation. A move to gas pricing based on some combination of spot and futures markets would see prices fall very substantially from

current levels of oil-linked prices for a period of years. Under these conditions Europe could see a substantial “dash for gas” in power generation.

In terms of transportation infrastructure, timeliness of investment will depend increasingly on how project sponsors see the competitiveness of gas going forward, and the impact of regulation on the financial attractiveness of investments.

QUESTION (8) Are the markets alone able to deal with low probability/high impact events or is there a need for intervention or direction at Union and/or Member State level?

ANSWER (8) Markets are largely unable to deal with low probability/high impact events which are best thought of in terms of an insurance proposition: how much are gas consumers – individually and collectively – prepared to pay in order to offset the worst effects of an event which has a very low risk of occurring, but a potentially devastating impact. Most major Continental European gas markets do not have an immediate problem since their level of storage, interconnection and interruptibility is such that they can withstand a complete cessation of supply from any major source for 6 months without needing to disconnect firm customers.

The UK has specific problems because of the size of its market – especially the residential market – its lack of storage capacity and the reliability of its ageing transportation infrastructure. Two recent events have highlighted this problem: the first in June 2003 when gas supplies to interruptible customers were turned off during the summer period because of problems at the beach terminals.¹ The second in late January 2004 when a temporary closure of the Rough storage facility looked as if it would coincide with a period of very cold weather.² In addition, it is unclear which regulatory body – if any – is responsible for measures to deal with such events.³ With 40% of its energy balance dependent on gas, the impact of a low probability/high impact event could be devastating. There is certainly a need for government attention to be given to a decision-making framework for deciding on possible interventions or directions.⁴

At a European level, there has been strong resistance to the setting of common standards and direct EU intervention via a coordinating body in response to an event as suggested in the draft gas security directive. Market players and regulators need to pay close attention to the potential legal consequences of continuing to resist these initiatives.

For full details of evidence to the House of Lords Committee click [here](#)

¹ Ofgem, *Summer Interruptions, 17 and 18 June 2003, Conclusions*. August 2003.

² In fact, the storage was brought back into operation more quickly than anticipated and the cold weather arrived later than forecast so that supplies were not threatened.

³ Ofgem’s duty is to “secure a diverse and viable long-term energy supply” and “to secure that all reasonable demands are met”. The main role of the Joint Energy Security of Supply Working Group is to “develop indicators over a timescale of at least the next seven years to monitor at a strategic level security of supply”. Ofgem, *Security of Supply April to September 2003*, February 2004.

⁴ Such a framework is set out in: Jonathan Stern, “UK Gas Security – time to get serious”, *Energy Policy* (forthcoming 2004).