

## **Gas for Europe: A resource at risk**

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Ladies and Gentleman,

I am very pleased to be here today, to talk about the security of gas supply: the security of the gas supply.

This is a crucial issue, not just for gas companies and politicians but also for citizens, who - perhaps for the first time - see that the availability of such a vital resource maybe at risk.

To start with, I will begin by going through the factors which, in

the 1990s and the rapid increase in the demand for  
and the liberalization process that followed.

Then, we talk about what happened in the last few years,  
mainly in the transition period.

Lastly, we focus my attention on the European market, and  
highlight that we should not guarantee our continent a future  
energy security.

**Transition with increasing energy demand**

There has been a rapid increase in gas consumption, which has  
occurred in the last few years.

Between 1990 and 2000, total consumption rose by about  
10%. However, in some areas growth was much higher.  
Look at Spain and Turkey, for instance, where consumption  
increased at an average rate of 15% from 1990. In the last three

years, the growth rate has been even higher: 18% for Spain and 16% for Turkey. Even in Italy demand increased by 7% a year over the same period.

The reasons for this growing demand were the substitution of heating oil and fuel oil in the civil sector and in industry, but especially the creation of new gas fired power plants, and the conversion to gas of part of the existing generation capacity.

Gas has become the fuel of choice for power generation all over the world. In the United States new gas-fired power plants for over 170 GW were created, between 1998 and 2005 - accounting over 95% of the total new thermal capacity built over the period. In Europe, too, new gas fired capacity for about 57 GW has been created over the same period - equivalent to 75% of the newly created thermal power generation capacity.

conditions which favoured this boom in gas consumption were:

- the availability of supply at low prices throughout the 70s and 80s, and 90s, and
- the environmental benefits of using gas compared to other fossil fuels

In that context of abundant supply and low prices, the US and the UK were the first to start a complex liberalisation process.

The idea was to create a plurality of suppliers to give a free choice of suppliers to the end consumer.

These liberalisations were based on the fact that the US and the UK were self-sufficient in gas supply. So the existence of several operators competing with each other was enough to guarantee that the end consumers would get competitive prices for their gas.

In continental Europe, we have imported this model of liberalisation without taking into account the extreme dependence

of our continent on gas imported from just three producing countries - Russia, Algeria and Norway.

The result is that our liberalisations did not quite achieve to produce the desired effect. Instead, they are discouraging investments in infrastructure and fragmenting the market into a multitude of small operators which are too small to make the necessary billion-euro investments in gas networks and to negotiate on an even footing with producers.

### **What has changed since the 80s and 90s**

The inability of operators to invest in infrastructure and the existence of regulated tariffs for its use bring me to the second point of my argument. While consumption grew at a record pace, supply wasn't quite as dynamic.

Since 2003 the former abundance of gas at low prices turned into relative scarcity and sky-high prices. Here's an example. In 1998,

the price of a thousand cubic meters of natural gas at the National Balancing Point was around 60 euro: in 2000, it was around 100 euro. And in December 2005, the average price was 465 euro. Following the end of the cold season, prices have fallen back to around 180 euro, but the January 2007 future is around 500 euro

It is only recently that legislators have taken a second look at the liberalisations that were implemented, and have started managing demand. The US has responded quickly to the emergency. Starting with the Energy Bill, in the summer of 2005, the country has deregulated access to LNG terminals, provided financial incentives for the development of non-gas-fired power plants (including coal, nuclear and renewable facilities) and encouraged energy efficiency. [backup 1](#)

Europe too must move in this direction, especially because it is clear that, in the future, consumer countries will be locked in to fierce competition for gas supplies.

With the convergence of regional gas markets towards one global LNG market, we are heading towards a scenario of competition for supply. Suppliers will send LNG to those markets which are prepared to pay more. And European countries will be in the uncomfortable position of being buyers in a sellers' market.

Already, last winter, Europe experienced tight gas market conditions. True, the consequences were modest. But time has come to face the problems that the future holds. If we don't address the structural problems which threaten the availability of gas in Europe and start managing demand, we risk an authentic shortage.

**Moving now to my third point. Will Europe be able to satisfy demand by 2012?**

Look first at the expected growth in demand. Making the assumption that it will keep growing strongly, supported by

policies which discourage the use of coal and nuclear in power generation, and taking into account a decline of internal production of around 50 bcm, we might need up to an additional 200/220 bcm by 2012. That's of course an enormous amount, since I am assuming a strong increase in demand - almost 4% a year on average - in line with our high consumption growth scenario - which is also the worst case scenario for the European consumer.

Nevertheless, where are we going to find all that gas?

Part of the additional demand can be satisfied through pipelines, but no more than 90 bcm, according to our assumptions on existing pipeline spare capacity and new pipe availability by that time – among which we have also considered the construction of the North European Gas Pipeline from Russia, Langeled from Norway and Medgaz from Algeria. [backup 2](#)

If 90 bcm, out of the 220 of additional demand, might be provided



via pipelines, a further 130 bcm of LNG should arrive in Europe by 2012. Considering available regasification capacity, by 2020 we would need about 12 new regasification terminals - or even more if we consider that the national markets are poorly connected.

Then we would need gas and liquefaction capacity. That's the real bottleneck in the LNG chain.

Out of 130 bcm requirement of LNG, the additional supply already contracted for Europe for 2012 is around 60 bcm. [backup 3](#)

We still have a gap of about 70.

Liquefaction capacity in the world is expected to grow by 2012 by just under 70 bcm of spare capacity. But this will be largely located in difficult countries, where project delays are not uncommon. [backup 4](#)

And even though capacity were built, it is not clear who would address additional needs of us as a continent. It is not clear that we would get that additional capacity in LNG. It is not clear who would satisfy the growing demand in Korea, Taiwan, Japan, U.S.A. and especially China and India.

In conclusion

Firstly, much of the new supply to Europe is likely to come via LNG

Secondly, while the regasification capacity may be adequate in terms of absolute quantity it is likely to be geographically uneven. Without European interconnection pipeline capacity in the UK is unlikely to be available to cover demand elsewhere. There are, for instance, no pipelines in Italy.

Thirdly and most importantly, there might be competition in liquefaction capacity.

The trend is clear. We are approaching a gas shortage.

**What should we do if such an event occurs?**

We do not have a single simple solution but there are four things we can do to mitigate this risk.

1. We need to build the LNG terminals and storage infrastructure to improve the security and flexibility of the European gas supply.
2. We need to interconnect the single national markets, so that gas can be delivered wherever it is needed.
3. Alongside measures to manage gas supply, we also need to manage demand, providing adequate incentives for energy multiple sourcing and efficiency, like the US are doing.
4. Lastly, we need to balance environmental concerns with

energy security as the two are mutually dependent. Clearly, moving to penalise coal or nuclear energy, at a time when the supply of gas is constrained, will just exacerbate the problem.

**Thank you for your attention**