

SLIDE 1

Ladies and gentlemen, it is a great pleasure for me to participate to the World Gas Conference in the beautiful city of Buenos Aires.

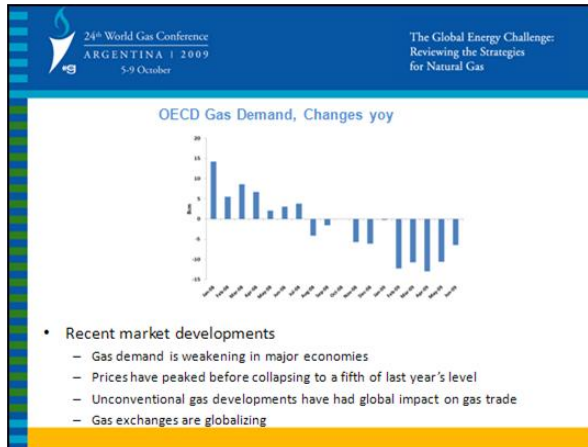
I would like to thank the IGU for inviting the IEA to this prestigious conference. I am speaking today on behalf of Mr. Tanaka, who apologizes for not being able to be here with you. He is speaking at an important United Nations negotiating session in Bangkok leading up to Copenhagen. He is launching an important excerpt from the WORLD ENERGY OUTLOOK 2009.

As you know, the IEA acts as energy policy advisor to 28 developed Member Countries in their efforts to ensure reliable, affordable and clean energy for their citizens. It was founded by members of the OECD after the oil crisis of 1973 and the IEA's initial role was to co-ordinate measures in times of oil supply emergencies.

But as energy markets have changed, so has the IEA: its mandate has now broadened to cover the 'four Es' of balanced energy policy making - Energy security, Environmental protection, Economic development and Engagement worldwide.

Now the IEA perspective on energy security has become larger: it is not just about oil but also about gas and power. Indeed IEA Ministers will meet next week in Paris, and the issue of gas security is high on the agenda together with climate change.

So, with this brief introduction, let us now turn to the topic that I want to address today: the future challenges in the role of natural gas.



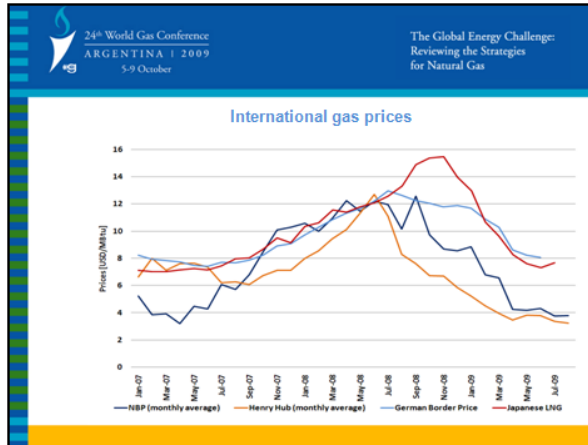
SLIDE 2

Let me start with what we have been through over the past two years. Up to mid 2008, increasing **energy prices hit record levels**. The **global gas supply and demand balance was relatively tight**, and there were fears that a lack of investments in the upstream could lead to an even tighter market.

The economic crisis and financial crisis has changed all of this: **demand is weak, spot prices are low**, and we seem to be heading towards a **gas glut, at least in some regions**. As you can see on this graphic, gas demand in OECD countries was still increasing quite strongly up to mid 2008, but started declining in August 2008.

In 2009 gas demand in OECD countries has declined by **6.5% over the first six months** compared to the same period in 2008. This represents **50 bcm**, slightly more than Argentina's annual gas demand. Although June gas demand seems to show a lower relative decline than the previous months, it is still too early to say that a rebound of gas demand is starting.

The crisis is also affecting many non-OECD countries. Gas supply to Russian consumers fell 6% year-on-year over the first 6 months. In total, we expect the world gas demand to decline by around **3 to 4% in 2009**, with a relative decline more pronounced in OECD countries - around 5% compared to a 1% decline in non OECD countries. We also anticipate that global electricity demand will fall for the first time since 1945.



SLIDE 3

International gas prices have been declining from 13-15 \$/Mbtu last year but at different speeds depending on the regions so that they are now at quite different levels. On this graphic, we can distinguish two groups of prices. **The highest ones are the contract oil-linked prices**, the border prices in Japan and Germany.

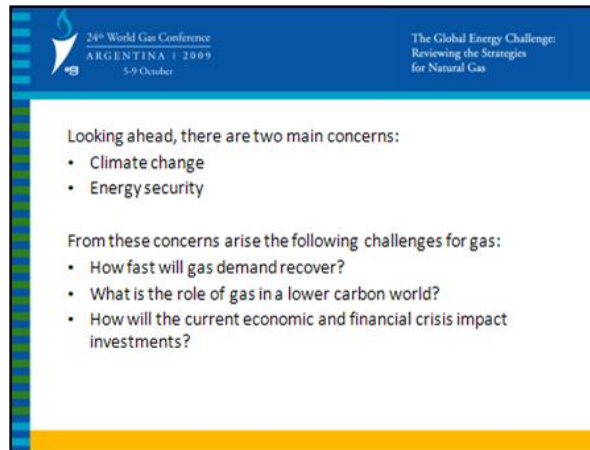
The lowest ones are the spot prices in the US and the UK. Henry Hub gas prices fell well below \$3MMBtu early September, but recently bounced back again. Oil-linked gas prices have been declining as well, although with a lag, and far less than spot prices.

There are 2 remarkable observations that I want to highlight:

- 1) **Oil linked gas prices have been twice as high as spot prices.** With oil-linked gas prices expected to increase over the coming months, incorporating rising oil prices seen since February, this gap may become even wider.
- 2) As you can see on the chart, **spot prices have been converging over the past 6 months.** Until now, these prices were reacting to trends in their regional supply and demand balances. As markets are globalizing and a lot of gas is available, NBP seems likely to track HH prices with a premium.

This price convergence is a direct consequence of **major changes happening on the supply side.** Unconventional gas developments in the US have completely changed the supply picture and have dramatically lessened the LNG import requirements of the United States. US gas production increased by 8% or 40 bcm last year and despite the decline in the number of rigs, US gas production has still been increasing in the first half of 2009.

We have also seen an **increase of LNG exchanges** between the Atlantic and the Pacific over the past year. Furthermore, LNG capacity will increase by 50% between early 2009 and 2013.



SLIDE 4

When we look at future energy demand today, we at the IEA have **two main concerns: climate change and energy security**.

In our new **WEO 2009** to be released in November, energy demand growth and related CO₂ emissions into the medium-term will be lower than our previous forecasts due to the impact of the economic crisis, plus some important policy measures adopted in the last year. In a sense, this crisis has given us an opportunity to change our future **but the window of opportunity is narrow**. Decisions have to be made now and we all hope that the Copenhagen Summit in December will be able to reach a comprehensive and durable agreement.

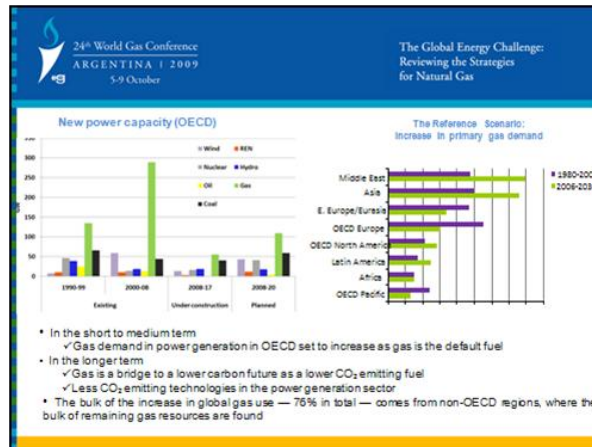
Another important issue is energy security: we have learned that it's not only about oil but about gas too. It is therefore important to make sure that the necessary investments are done to ensure short- and long-term security of gas supply. This also means developing the tools to lessen the impact of potential supply disruption as we have experienced this past winter in Europe.

From these two concerns arise the following challenges for the gas industry:

How fast will gas demand recover? This depends first on the economic recovery. Several signs of green shoots have appeared, even if this has not yet translated into growing energy demand everywhere. On the other hand, how demand will recover depends on many factors, in particular on the choices made on power generation technologies in the coming years.

Indeed what would be the role of gas in a lower carbon world? To achieve our goals and build a sustainable future, it is essential that we move to decarbonise the electricity sector. While this means using more non CO₂ emitting technologies, gas remains a very important fuel to ensure this transition to a lower carbon economy.

The most pressing issue is **how much investment is needed and whether it will occur on time**. Over the past years the IEA has expressed worries about the slow pace of gas investments right through the value chain. Now the economic recession has given us a break but there is still the risk of a supply crunch for the medium term if investments are not made in a timely way, especially as we all know the long lead times associated with greenfields gas development.



SLIDE 5

When looking at future gas demand, two conclusions from our WEO 2008 are important and I believe still broadly valid:

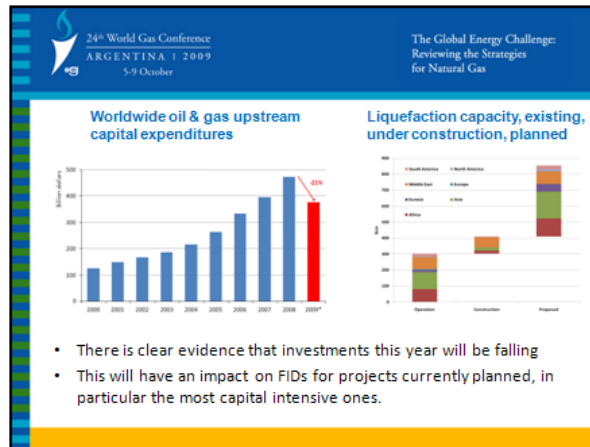
- Half of future incremental gas demand growth comes from the power generation sector and
- Demand will increase more and more rapidly in non-OECD countries, in particular China, India and the Middle East

The **power generation sector will remain the primary driver behind gas demand growth** with limited if no growth in the industrial and residential sectors. This decade, **gas fired power has provided 80% of OECD incremental power demand**. Moreover, the graphic on the left-hand side shows power plants under construction and planned in OECD countries versus those which were built over the past two decades. As you can see, gas-fired plants - represented by the green bar - are still the preferred option for the coming years, so the pattern of gas fired power dominating new supply will last well into the medium term.

We all know the advantages of gas: gas-fired plants benefit from shorter construction times, are less politically sensitive than nuclear, less subject to NIMBY issues than coal, nuclear or even wind. Gas is therefore the default fuel compared to other options. In some ways, the financial crisis and the uncertainty about the recovery will favor gas further, since alternatives are slower to build and more capital intensive.

The various regions will have differing recovery paths, with developing Asia seemingly recovering quicker than OECD economies. As OECD countries have been particularly affected by the economic crisis, gas demand is expected to recover more slowly, especially in Europe and the Pacific. The industrial sector has been hit quite severely and recovery can be expected to be slow.

In non-OECD countries, gas use is also growing and in contrast to OECD countries this is happening in all sectors. Among these countries, **China and India** will have among the highest growth rates. Despite that, gas is expected to represent a small share of their primary energy demand by 2030 while coal retains the lion's share. Both countries are emerging as important LNG buyers, as well as developing pipeline imports as well as pushing ahead with their own resource development.



SLIDE 6

These effects have indeed reduced investment all throughout the energy supply chain, from production to end use. As we speak now, **projects are being delayed or cancelled**. There is clear evidence that energy investment in most regions and sectors will drop sharply in 2009.

The **financial and economic crises** have both impacted future investments.

The graphic on the left comes from the IEA's input to the **Rome G8 Energy Ministers Meeting** in May this year. We estimated that global upstream oil and gas investment budgets for 2009 had already been cut by around **21% compared with 2008** – a reduction of about USD \$100 billion. For example, the development of the Yamal peninsula has been pushed back from 2011 to 2012, while the start of the second phase of Shah Deniz has been pushed back to 2016.

In the near term, there will likely be surplus on global gas markets: we have around 100 bcm of liquefaction capacity coming on line by 2013. Low spot prices combined with uncertainties on future demand requirements in the traditionally importing regions will be a disincentive for some project sponsors to invest.

There has been some good news though: **Gorgon** project sponsors took a FID on September 14, which is the first LNG FID since Gassi Touil in 2008. It is interesting to see that 9 companies from 4 countries committed to take volumes from Gorgon, all in the Pacific region. In our Gas Market Review published this summer, we had been looking at some key LNG projects expected to take FID this year or next: Gorgon is the only one who has moved forward so far and there are still **many uncertainties about the next generation of LNG plants**.

However there is **a strong asymmetry between demand and the supply side**. Demand has the potential to recover or to increase much faster than expected, especially in the power sector. On the other side, investments on the supply side take often 4 to 5 years to be completed even when the FID has been taken.

24th World Gas Conference
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The Global Energy Challenge:
Reviewing the Strategies
for Natural Gas

World Energy Outlook 2009:

- Detailed reference case with lowered demand in short to medium term
- A 450 case—addressing climate change
- A major study on natural gas
 - Demand, supply, price formation
 - Unconventional gas
 - Decline rates

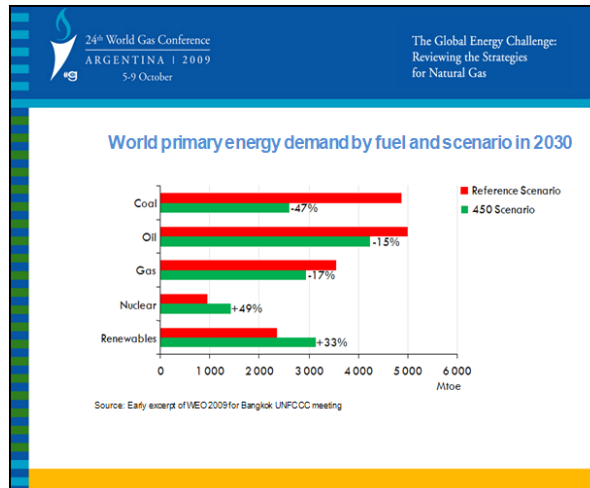
SLIDE 7

As I noted earlier, Mr. Tanaka is addressing a key lead up meeting to Copenhagen in December.

I will be able to give a few insights into this year's WEO, in particular our key findings on our low emission scenario –the so-called 450 scenario---have just a few hours ago been presented to the Bangkok forum by Mr. Tanaka.

The reference scenario outlines how the dramatic developments of the last two years impact medium and longer term demand. While there have been obvious declines in energy demand, and this lowers greenhouse gas emissions in the medium term, the future still looks unsustainable in this scenario. The 450 ppm scenario is designed to reduce emissions to more sustainable levels. I should address that in a moment.

This year the World Energy Outlook addresses natural gas in a way we have never done before, in depth. Apart from a detailed examination of demand, supply and price formation, it examines the growth in unconventional gas production, and prospects for the future in North America and in other regions. As we did last year for oil, we examine decline rates for existing gas production areas on a field by field basis. I am sure there are a number of people in the audience who contributed to this third part through our extensive peer review system, and we thank them for their inputs to this work.



SLIDE 8

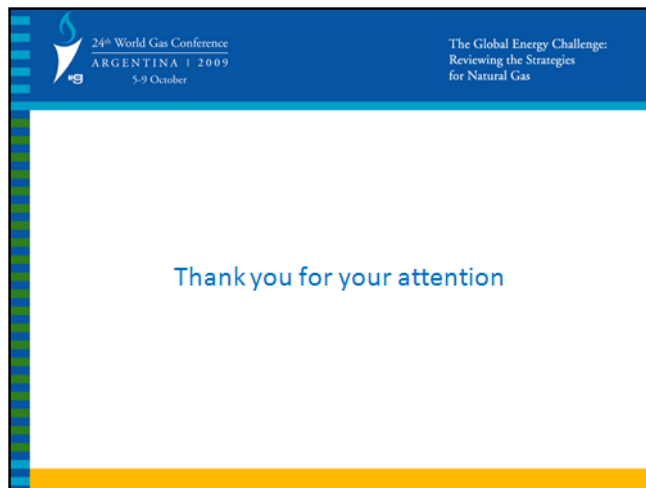
My final slide relates to the 450 scenario, and the role of gas.

This slide shows the differences between our reference scenario and the 450 scenario for the world energy demand by fuel by 2030.

As expected, all fossil fuels would be affected in a carbon constrained world. The share of fossil fuels in energy demand in the 450 Scenario declines from 81% today to 68% in 2030, with gas remaining at close to today's levels of 20%.

Gas demand would be 17% lower than in the reference scenario but **still growing by 17% from 2007's levels of 3049 bcm compared to a 41% growth in our reference scenario**. Oil demand would remain a little higher than 2007 levels (4093 mtoe). Gas is favoured against coal due to its lower emissions – and you can see that coal demand would be halved in our 450 scenario. But measures to encourage energy efficiency as well as the tremendous increase of renewables and nuclear would reduce gas demand.

The biggest reduction in gas demand will be achieved in the power generation sector, but savings in buildings and efficiency gains in the industry would also play a role. Meanwhile renewables share of energy demand would be higher than gas by 2030.



SLIDE 9

Gas demand looks set to increase, in particular through an increased use in the power sector. Gas resources are also available for many years, not only conventional gas but also unconventional gas resources, but of course timely investment is needed to bring this gas to market.

While we understand the difficulties of many producers in terms of reduced cash flows from prices and volumes down, all of us are aware of the necessity to invest through the investment cycle.

Our message in the WEO 2009 underscores that a tremendous amount of investment will be needed in the energy sector if we want to be successful in meeting the climate change challenge. The IEA is convinced that the gas industry will certainly be up to the challenge and a key player in bringing about the solutions.

And finally, I would like to thank the organizers for the excellent organization of the World Gas Congress in this beautiful city of Buenos Aires, Chevron for hosting this great lunch and all of you for your kind attention.

Thank you.