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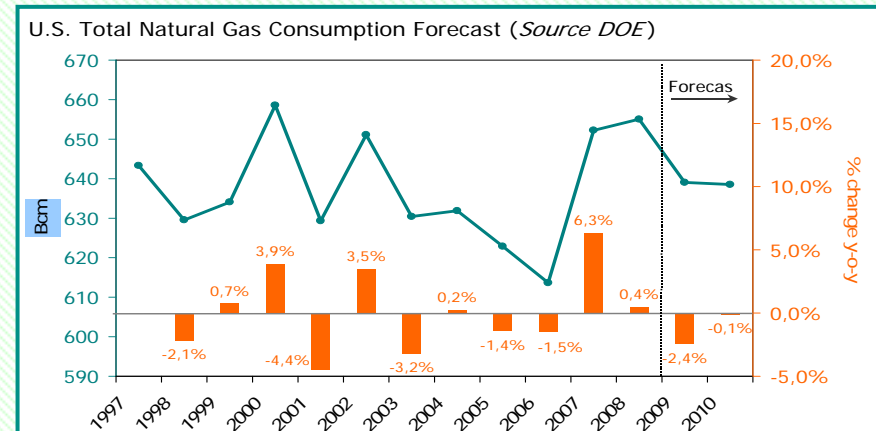
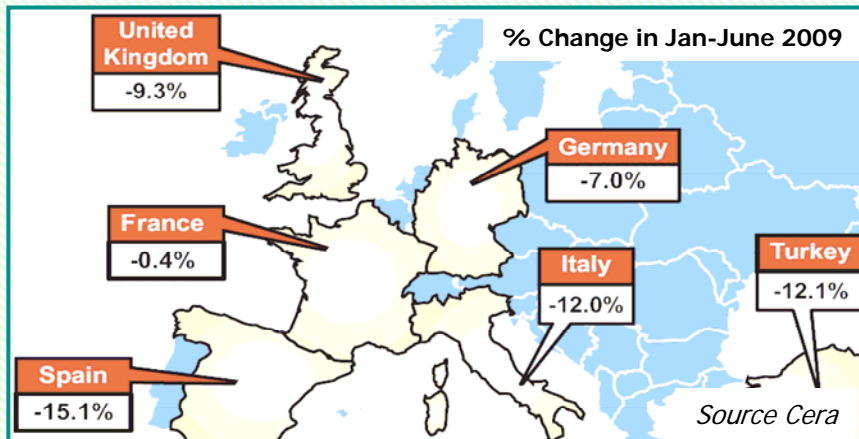
Supply-demand balance – Towards a new gas market?

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Gas supply-demand balance : a short term oversupply 1/2

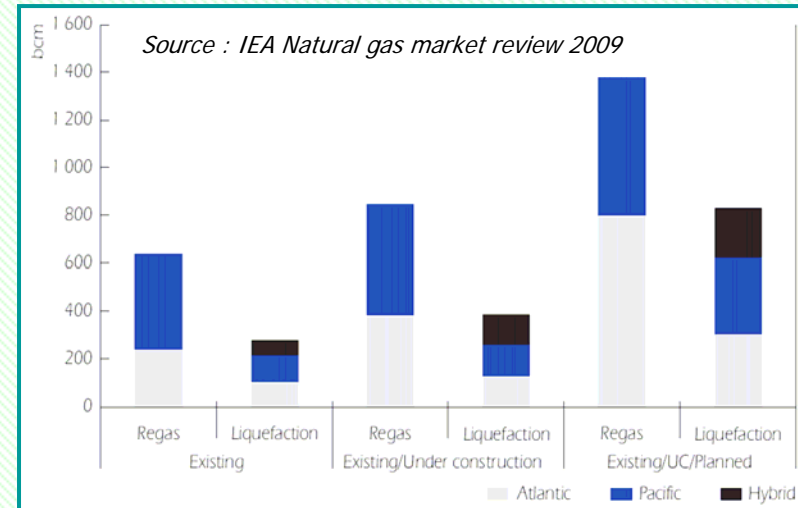
- On the one hand, **gas consumption falling even deeper than forecasted**
 - Europe (Cera) : ~ -35 Bcm in 2009 (-6%)
 - US (DOE) : ~ - 2.5% in 2009
 - Asia (PIRA) : ~ - 5-6% in Japan and Korea in 2009
 - CIS and Russia (OIES) ~ - 60 to 90 Bcm in 2009 (e.g. ~ - 6% in Russia and ~ - 29% in Ukraine)



- But confidence that demand will eventually recover as **natural gas has a key role to play in the energy mix**
 - Least carbon emitting fossil fuel
 - Flexible and abundant
 - Cheap energy and quick implementation

Gas supply-demand balance : a short term oversupply 2/2

- On the other hand, the 2009-2013 period will see **liquefaction capacity increase drastically...**
 - Almost a 50% increase within five years (280 Bcm as of end 2008, 373 Bcm by end 2010, 410 Bcm by end 2013)



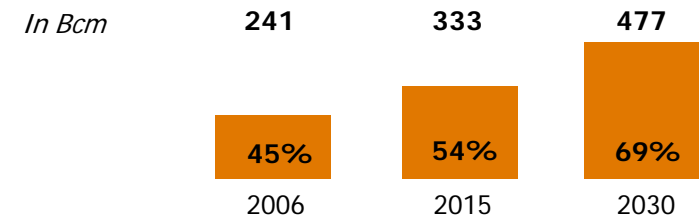
- ...and the gas industry has experienced a **development of the unconventional gas production in the recent years** (already playing a significant role in the US)
 - Credit squeeze and low gas prices could **delay** investment programs, potentially setting up a strong supply-crunch once the economy recovers
- ⇒ **An oversupply context and an increase of competition between producers**
- ⇒ **Despite short term challenges and uncertainties , gas players need to “prepare the future” and investment program should proceed**

European supplies : between historical dynamics and new challenges 1/2

Pipeline gas

- Europe is increasingly depending on its gas imports

OECD Europe's dependency on gas imports



Share of total consumption (%)

Source: IEA - World Energy Outlook 2008

- Russia remains a key partner for Europe
 - But gas from Africa, Central Asia and Middle East could also play its part in supplying Europe
 - Thanks to its geographic position, Europe is able to access large reserves of natural gas from different areas
- ⇒ Europe should participate to the development of new infrastructures : Medgaz, Nordstream, development of the Yamal peninsula, South East corridor...

European supplies : between historical dynamics and new challenges 2/2

Unconventional gas and LNG

- **Europe is also attractive for LNG** in particular thanks to its increasing re-gasification capacities
- **Unconventional gas has created new opportunities**
 - Europe has a potential for unconventional gas production ?
 - Australia is developing its CBM reserves to become a significant LNG producer
 - North America, with mostly shale & tight gas, may become self-sufficient again and already allows LNG to flow back to Europe

Market squeeze : possible tensions

Production

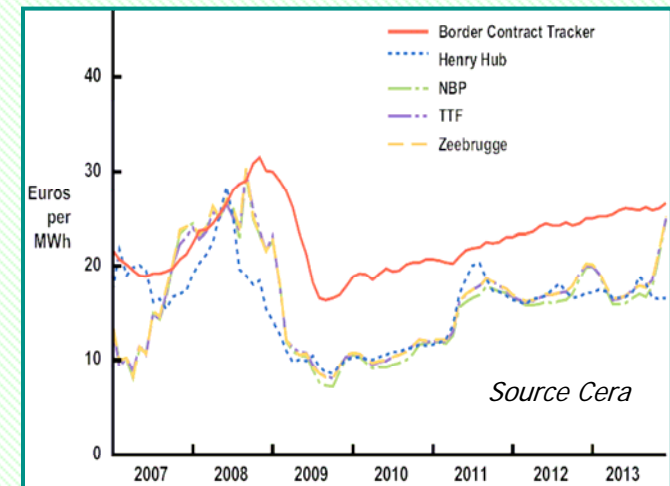
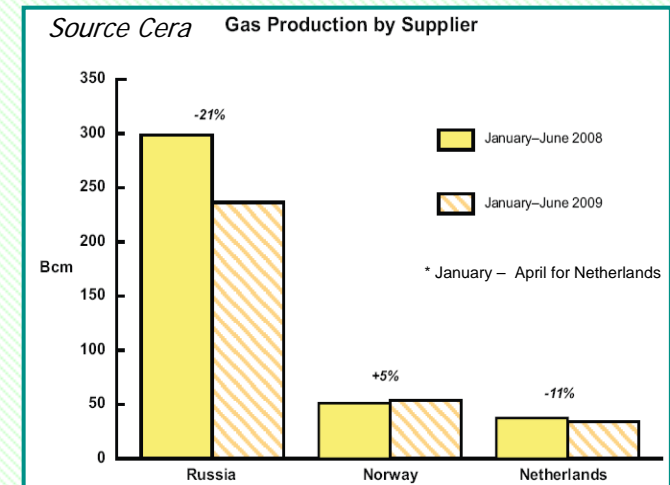
- Production levels and exports have reduced to cope with demand
- Nevertheless, market prices remain depressed

Supplies

- Volume : ToP obligations
- Price : spot market prices significantly lower than oil indexed contract prices
- The oversupply situation could last
 - ✓ Volatility on market is set to increase
 - ✓ Market price booming when economy recovers ?
 - ✓ Short term impact of weather evolution on winter gas demand ?

⇒ Possible tensions may arise

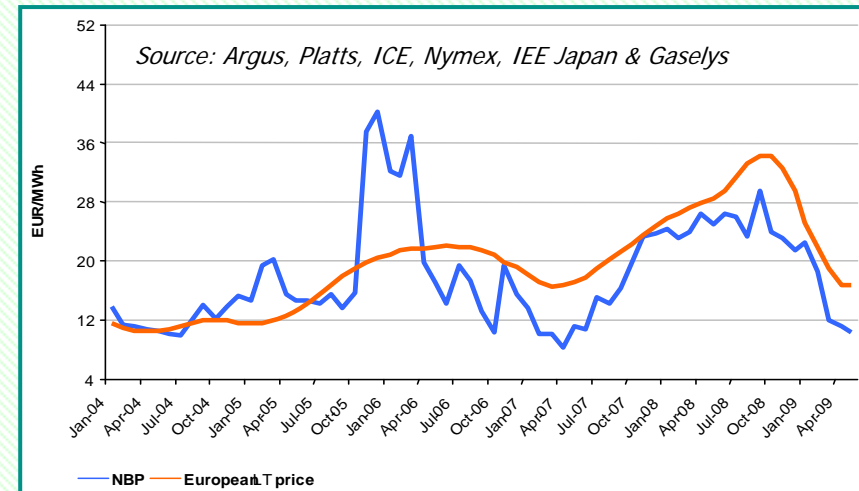
- Need to :
 - Adapt the system to give more flexibility
 - Preserve the structures of the gas industry



Towards new mechanisms? Long term contracts

- Gas buyers might want to review and possibly revise some of long term contracts characteristics

- **Lower prices** : price level and indexation
- **Lower volumes** : ToP levels review?
- **What impact on the contractual framework between producers and suppliers?**

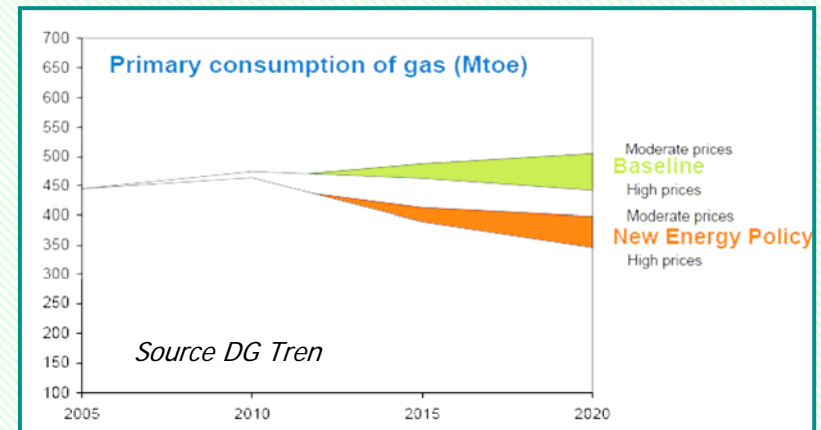


- Long term contracts are still necessary to secure investments and supply, and to reduce volatility
 - Long term contracts have to be respected...
 - ...but the current market situation needs to be addressed
 - Oil indexation, partial or total, is still at stake
- ⇒ The current market circumstances should not question the persistence of the fundamentals of the gas industry

Natural gas : fuel of choice/fuel of transition

NATURAL GAS "LESS FAVOURED" BY POLICY MAKERS

- Debate on Security of Supply and on CO2 emissions have impacted negatively the status of natural gas
- Strong energy efficiency programs and renewable energies now prevail upon the global energy demand development
 - ⇒ Gas demand hinges upon implementation of the environmental policy



STRENGTH OF GAS

- Gas is the cleanest fossil fuel
 - It compares favourably with other energies
 - And its flexibility allows to combine ideally with renewables
- ⇒ All gas players need to cooperate and rally to promote its product as a reliable energy and as the "transition fuel" towards an emission free economy
- ⇒ Natural gas is the fuel of choice as it is abundant, competitive and clean



Together, let's rediscover energy

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