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Securing long term supply for European market : the need for cooperation

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promoting stable and

reliable energy within Eurasia ” - Ashgabat

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Presentation outline

1

▶ **Natural gas : fuel of choice/fuel of transition**

2

▶ **Managing the gas paradox**

- **The current situation** : the gas bubble
- **The next step** : preparing the future supplies

3

▶ **European supplies : between historical dynamics and new challenges**

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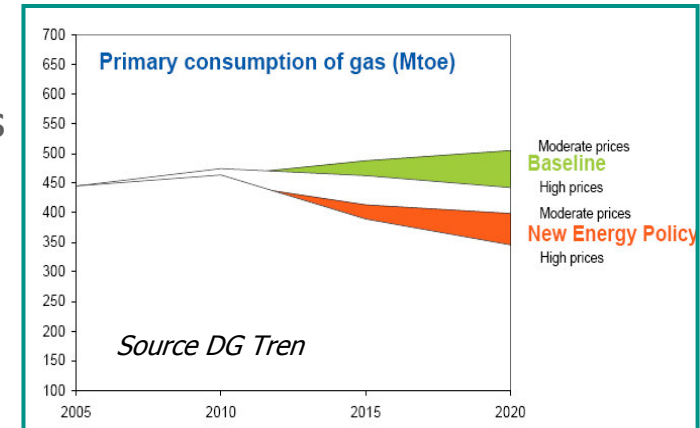
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▶ **European supplies : between historical dynamics and new challenges**

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** (economics)
- **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**

Gas has a bright future ahead

- ⇒ Beyond current crisis, world energy demand will continue to grow in the long run
- ⇒ All energies will be required to fulfill this growing need for energy

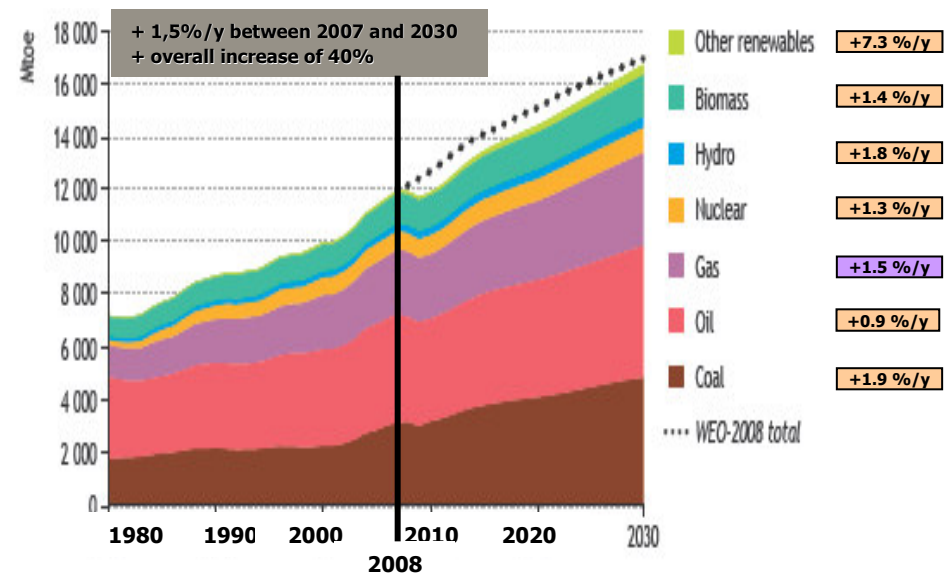
► Natural gas is the energy of choice to drive a transition towards a low-carbon economy:

- Development of renewable energies will remain limited even with regulatory constraints while nuclear development is uncertain due to acceptability issues
- CCGT is less CO₂ intensive than oil and coal fired power plants

► Natural gas is abundant:

- Proven gas reserves represents 60 years of production at current levels
- Gas recoverable from unconventional plays could be of the same order of magnitude as conventional (but are highly dependent on technical and economical recoverability conditions)

World primary energy demand by fuel in the Reference Scenario¹



Source IEA, World Energy Outlook 2009

1. The **Reference Scenario** describes a future in which governments are assumed to make no changes to their existing policies and measures insofar as they affect the energy sector

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Managing the gas paradox

The current gas bubble (1/2)

1

- ▶ **The most severe economic crisis since 1929: First ever decline in global gas demand** due to the economic downturn (industry and power generation)
 - Expected to reach - 4% (source IEA) in 2009 (vs. 2008) for the World, roughly similar as in oil

2

- ▶ **Additional gas production capacity**
 - **New LNG projects on stream** (Qatar, Yemen,...) over the period 2008-2011
 - **Unconventional gas in the US** (highly dependant on technical, economical and environmental conditions)

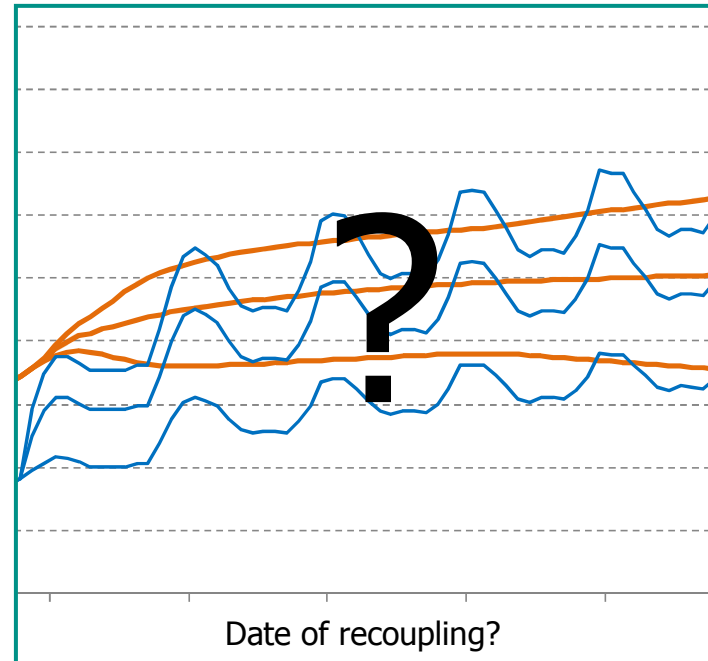
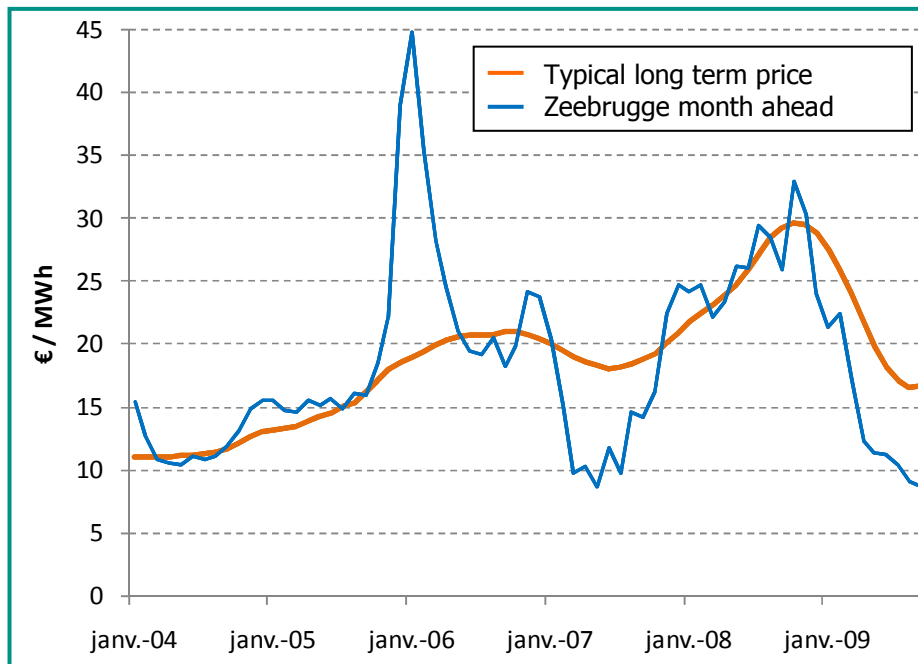


**A potential global supply overcapacity of natural gas
in the short to medium term before mitigation reactions
[estimated at ~ 100 bcm out of a ~3000 bcm gas market]**

Managing the gas paradox

The current situation (2/2)

Historical gas prices spot vs. forward



- ▶ **Increased liquidity of spot gas markets**
- ▶ **Price decoupling of European gas markets with oil indexed contracts**

Recoupling of spot gas and oil indexed prices is expected, but timing for this recoupling will depend on world economy recovery

Managing the gas paradox

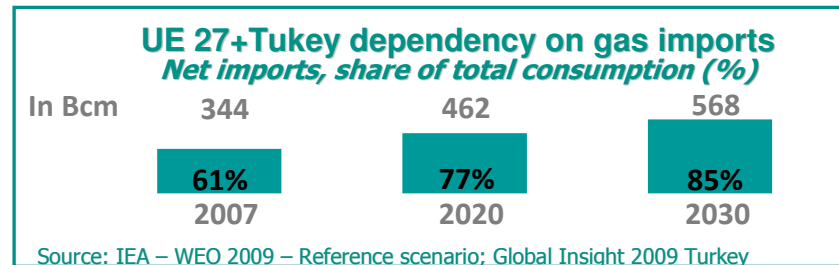
Preparing the future supply despite a current lower demand

1

- ▶ Credit squeeze and low gas prices could **delay** investment programs, potentially **setting up a strong supply-crunch once the economy recovers**

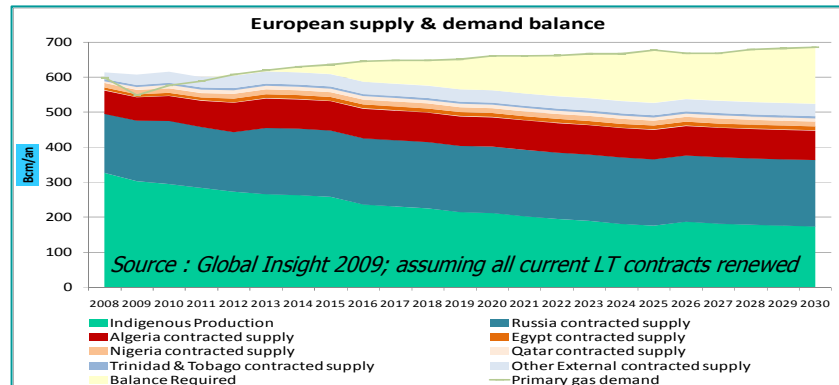
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- ▶ **A significant increase in Europe's gas-import dependency**



- ▶ **Need for extra supply even if one assumes the current long term contracts will all be renewed**

- Extra ~100 Bcm needed by 2020



Despite short term challenges and uncertainties, gas players need to “prepare the future” and investment program should proceed

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European supplies : between historical dynamics and new challenges

3 key uncertainties on development

1

▶ Gas demand growth will depend on environmental policies

- Development of renewable energies, energy efficiency...
- Development of technologies : CO₂ capture and storage, clean coal...

2

▶ Development of/Potential for unconventional gas

- Increasing unconventional gas production in the US will probably lead to more available LNG for the other parts of the world
- Europe has a potential for unconventional gas production? Could lead to less import needs by lessening the decrease of indigenous production ?

3

▶ Development of LNG

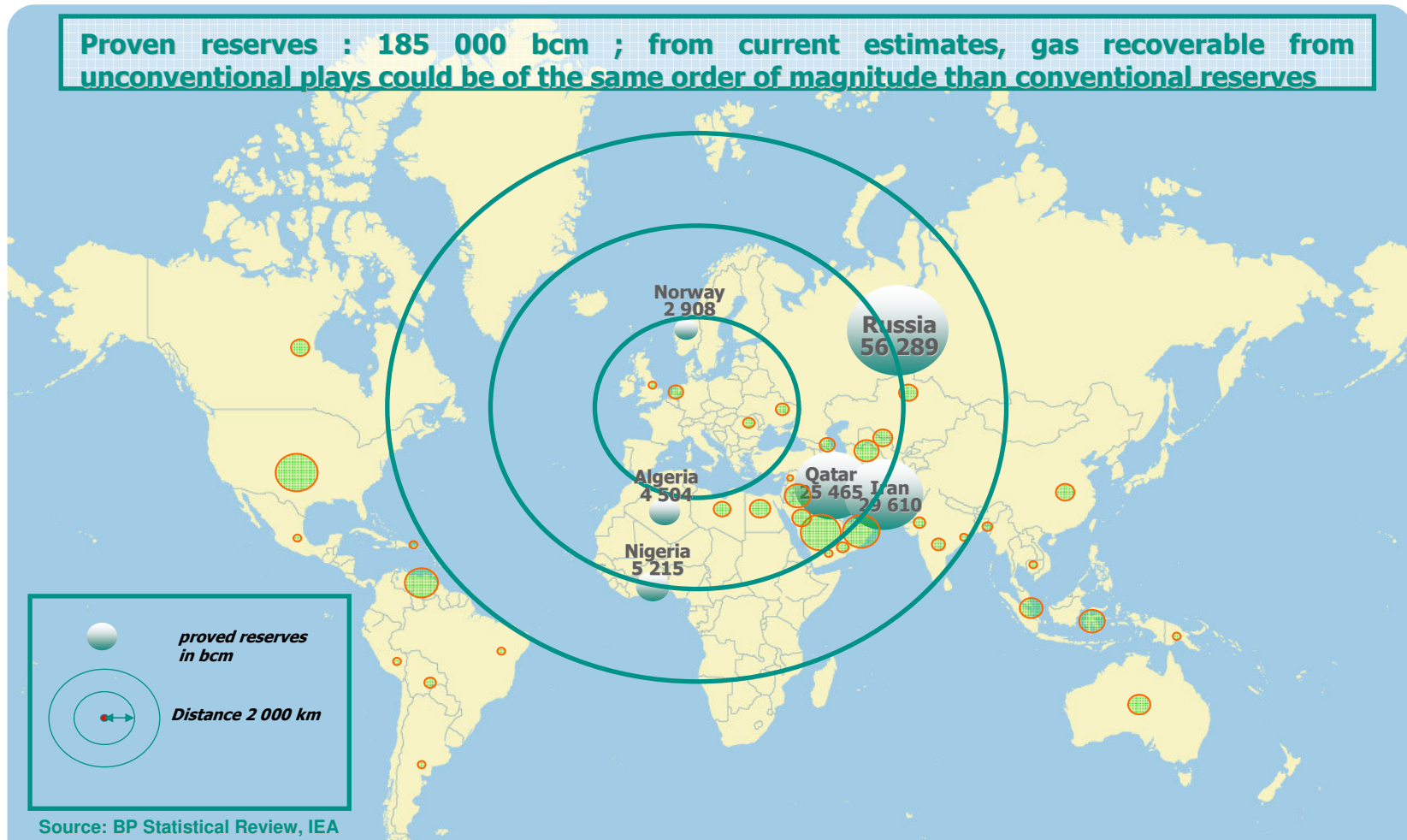
- Increasing liquefaction & re-gasification capacities
- Globalization of gas trade



⇒ Pipe gas will have to deal with an increasing competition : with other energies, with local production and LNG growth

European supplies : between historical dynamics and new challenges

Proven reserves : 185 000 bcm ; from current estimates, gas recoverable from unconventional plays could be of the same order of magnitude than conventional reserves



Source: BP Statistical Review, IEA
2009

Nearly 80% of proven gas reserves are in countries within a 5,000 km radius of Europe. The fastest growing markets are located south from main consuming areas

European supplies : between historical dynamics and new challenges

1

▶ Russia remains a key partner for Europe

- Already a strong partner, Russia has large reserves, existing infrastructures and is close to Europe
- Gazprom is aiming at 32% of the European market by 2020

2

▶ But Europe will need extra supply and is looking for diversifying its supplies

- Gas from Middle East, Central Asia and Africa could also play an increasing part in supplying Europe
- Increasing unconventional gas production in the US will probably lead to more available LNG for the other parts of the world
- But strong competition with local demand (North Africa, ME...) and with other parts of the world targeting the same gas (China for Caspian gas; Asia & Latin America for LNG...)

⇒ Due to its geographic position, Europe is able to access abundant and diversified gas sources and should take advantage of this position to fulfil its imports needs
⇒ Need for better cooperation within Europe to deal with an increasing competition to access gas new resources



Together, let's rediscover energy

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