New Energy and Climate Change

Paris, 19 March 2015

Jérôme Ferrier
President International Gas Union
Renewables and Natural Gas:
« Growing Together towards a friendly planet »

- Introduction
- Gas in global Energy demand
- Gas in Europe
- Gas factor of stability
- Geopolitic and Energy strategy
- Relationships between IGU, GOs and NGOs
- Conclusion
World primary energy demand

Natural gas demand by selected region

Source: IEA 2015
World natural gas demand by sector

Source: IEA 2014
Assessed shale oil and shale gas basins in the world

Source: IEA, Advanced Resources International
World natural gas production by type

Source: IEA 2014
Natural gas prices in Asia, Europe and the USA

Wholesale gas prices in Asia, Europe and America

Source: Platts and Reuters
The Natural Gas and LNG export potential

Source: OME
Key sources of gas supply in Europe
Storage volumes in Europe 2012

The overall working gas volume in EU-27 is around 82 bcm

Source: GSE, Cedigaz
Russian Export Diversification Strategy (Bcm/year)

Source: Energy strategy of the Russian Federation until 2030
The new route of South Stream (February 2015)

Source: g+ Europe
Gas pipeline projects in Central Asia

[Map showing proposed pipeline routes from Turkmenistan to India via Afghanistan and Pakistan.]
Number and share of people without access to electricity by country, 2012

Source: IEA WEO 2014
Electricity generation by fuel in sub-Saharan Africa

2012 total generation: 440 TWh
- Coal, 56%
- Hydro, 22%
- Nuclear, 3%
- Oil, 9%
- Gas, 9%
- Other renewables, 1%

Source: IEA WEO 2014

2040 total generation: 1,540 TWh
- Coal, 27%
- Gas, 25%
- Hydro, 26%
- Nuclear, 3%
- Oil, 4%
- CSP, 3%
- Solar PV, 4%
- Geothermal, 3%
- Wind, 2%
- Bioenergy, 3%

Source: UNESCO, 19 March 2015 - Paris
Human Ressources

UNESCO and the International Gas Union will host a Workshop on Women in Engineering at UNESCO Headquarters in Paris on 10 December 2013. The objective of the workshop is to identify the socio-economic, cultural, and educational constraints for women in engineering in Africa and the Arab States.

Women in engineering in Africa and the Arab States
Paris, UNESCO, 10 December 2013
4th MINISTERIAL GAS FORUM IN MEXICO – Nov 2014

UNESCO, 19 March 2015 - Paris
natural gas

+++ crucial role for a sustainable energy system/ to fight global warming
+++ ideal partner on the way to a renewable energy system
+++ still a limited and fossil resource and a possible obstacle to renewable energy / climate protection
+++ “fracking”: more risks than benefits
+++ storage capacities for renewable gas, a new market

+++ industry should develop a “road-map 2050”: with strategies to tackle climate change and pathways to a sustainable energy future