

Danish Annual Gas Conference 2013
Copenhagen, Tuesday November 14th
Session: Geopolitics and Strategy
The global gas strategy: the IGU way
Jérôme Ferrier, President IGU

Allocated time: 30 minutes

Distinguished Panellists and Delegates;
Ladies and Gentlemen;

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It is a great honour and privilege for the *International Gas Union* and his President to have been invited to present the views of the Organization at the opening session of the 2013 *Danish Gas Conference*.

IGU is representing the worldwide gas industry, gathering 83 countries, and covers 95 % of the natural gas and LNG global gas market. This conference is an event of great importance for IGU, which believes that, as a pioneer in promoting a coordinated and harmonious development of natural gas and renewables, Denmark appears as a leader in the transition to green energy.

However, the energy supply and demand patterns of IGU's members are extremely diverse, as well as their stage of economic and technological development and accordingly, each of their energy roadmaps has to take into account many parameters.

Mark Twain used to say: *"It is not best that we should all think alike; it is a difference of opinion that makes horse races"*. The strength of natural gas lies in its outstanding adaptability to the need of consumers. Therefore, IGU's action aims at identifying the specific energy challenges of its members and at ensuring that natural gas should best contribute to building up a safe, sustainable and environmentally friendly energy future, while meeting their respective supply and demand requirements.

IGU has deployed its triennial 2012 -2015 program with a view to streamlining hand-tailored strategic targets in accordance with the status of the main regional natural gas markets of North America, Asia – Pacific, Europe and the developing countries of Africa and South America.

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The regional markets differ by a series of factors: the availability of resources, of course, but also the density of population, the stage of production and pipeline infrastructure development, a sea access for LNG, and the affordability of gas and electricity for the consumers.

Such factors account for a wide discrepancy in the regional natural gas consumption per capita, which constitutes in itself a challenge for IGU and for the organizations with which we actively inter-relate, in particular UNO and its agencies UNIDO, UNESCO and UNFCCC that are eager to foster access to energy for all through natural gas.

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We will shortly present the main features of the three largest natural gas markets of North America, Asia-Pacific and Europe and identify the main topics for which the flow of information within IGU through its working groups is most important and beneficial to our members across the board.

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The North American experience in shale gas exploration and production and the feedback extended through IGU should help countries having large shale reserves, like China, Argentina, Algeria, Mexico and Russia, all among the top 10 countries with shale gas reserves still at an early stage of activity, to elaborate regulations and best practice rules for a safe and environmentally respectful development programme of their own resources. The technological breakthroughs in the shale oil and gas operations place North America in a position to do more than make them energy independent and IGU's network of experts have fairly well understood this reality.

The "*Golden rules*", issued by IEA in 2012, for promoting a safe and responsible development of shale gas at a global level, constitute a challenge both in R&D terms and in operational practice, all subjects of intense discussion among IGU's members.

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The capacity of North America to export LNG to Europe and Asia is also triggering exchanges in our organization on the technological progress in liquefaction, storage and transportation of LNG, as well as on the ways and means to reduce the costs of the LNG chain.

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Against a prevailing opinion in Europe, the development of shale has quite beneficial environmental consequences in North America, through a massive switch from coal to gas for power generation.

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Shale gas has dramatically transformed the outlook for US energy supplies and is also having a profound economic impact, reducing consumer cost of natural gas and electricity, creating an impressive number of new jobs, bolstering federal, State and local tax revenues and triggering large industrial projects in the petrochemical industry, fertilisers and other energy intensive sectors.

Shale gas, after transformation into LNG or GTL, has also opened in North America new avenues as a fuel for freight trucks and bunkering, a scheme that is under investigation in Northern Europe, where the fuel emission regulations are becoming more and more severe.

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The IEA's 2013 *World Energy Outlook* points out that global energy demand is increasing by one third over the next 25 years, reaching almost 17 000 Mtep by 2035. India and China account for half of that growth and, for these two countries, in particular, there is a major environmental issue deriving from a massive use of coal for power generation: in a nutshell, Asia is burning 70% of the global coal production, and China and India alone respectively 50 % and 8 % of same.

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Non-OECD countries are projected to account for approximately 80 % of gas demand growth to 2035, and in Asia, demand should increase by over 4 % per year. In particular, Chinese gas demand will surge and reach up to 500 bcm in 2035, which represents a quarter of additional gas demand globally. Over the same period, Indian demand will triple to 190 bcm. The huge amount of investments in infrastructures required by such development has been enhancing a transfer of technology and experience within IGU's experts, for their mutual benefit.

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Sufficient power provision is key to sustaining economic growth and development. In India, electricity demand is anticipated to more than triple to 3 200 TWh by 2035, which implies that over 650 GW of new capacity have to be installed. IGU is advocating that most of the increase should be provided by natural gas and renewables, in close synergy. However, the social and cost aspects of locally produced coal are jeopardizing this goal, at the expense of the climate change; therefore the price of imported natural gas and LNG is a major conundrum for India.

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In Europe, IGU is endeavouring to promote a substitution of natural gas to coal for power generation and to ensure that all the possible synergies between renewables and natural gas are considered and not ostracized.

The frightening come back of coal for power generation in Europe, combined with the mothballing or closure of 10 000 MW of CCGT units mainly in Germany, the Netherlands and Spain, constitute a danger for the climate as well as a situation of unfair competition with natural gas, as long as the low GHG emission level of natural gas will not be accounted for through carbon pricing or new regulatory measures on emissions.

IGU has undertaken a series of actions to revert this trend, in particular at EU level, and also as a main sponsor of the *Gas Naturally* initiative. These efforts have not yet been fruitful on the continent. However, in the UK, a new piece of regulation, introduced in the *Energy Bill 2012-2013* is a fair step in the direction recommended by IGU.

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The *Emissions Performance Standards (EPS)* reinforces the requirement that new coal-fired power stations are constructed with CCS. The *Energy Bill* sets a statutory limit on the amount of annual CO₂ emissions allowed from new fossil fuel generating stations. This limit is set at 450 g/kWh until 2045, a process called “grandfathering” which provides long-term certainty to gas investors. The EPS will complement the economic signals already provided by the *Carbon Price Floor*.

The UK EPS is not much different from the US “Climate action Plan” introduced in June 2013 by President Obama, which sets emission standards that will rule out any new coal fired power plant without CCS. This plan also sets new targets for NO_x and mercury emissions that may lead to closing up to 31 000 MW of existing coal fired units before 2021.

IGU is advocating for a similar system at the EU level.

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IGU also promoting the global concept of “green gas” and the new role of gas networks to accommodate biogas and to improve the balancing regime of electricity grids that are supplied by renewable sources, through hydrogen intermediation (the *Power to Gas* concept) and smart grids. This new field of synergy between electricity and gas is one of the most promising and inspiring themes for IGU’s experts, and first realizations have entered into service in North America and Europe.

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For the developing countries, in particular in Africa and South America, IGU is conducting a series of work programmes aiming at promoting a right balance between exports and domestic demand, monetization of natural gas for electricity production, and regional integration.

IGU’s action plan for the promotion of a universal access to energy, under the triennial programme 2012-2015, is a two-fold one:

- To collaborate with international organisations such as UNO and its agencies, UNIDO, IMF, UNESCO, The World Bank, and also with OECD and IEA, with a view to place natural gas as a cornerstone of the energy roadmap of developing countries, in terms of investments, infrastructures, job creation and local training;
- To elaborate models of cooperation and partnerships between international oil and gas companies for the development of untapped resources, for the implementation of practical master gas and power plans that should be feasible on the technical, financial and contractual sides. A special accent is placed on the development of regional natural gas infrastructures and markets integration in Africa and South America.

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Once again, I wish to thank the *Danish Gas Association* for having given to me this opportunity to present at your 2013 Conference. As you have probably noticed it, the IGU way is not “*one strategy fits all*” but, on the contrary, an approach meeting the different needs and goals of its 83 members, while fostering a multilateral debate among them through Working Groups and Committees, and undertaking a series of action with policy makers focused on common targets, on a regional basis.

I would finally like to invite you all to join the World gas Congress in June 2015 in Paris where all these issues will be debated at the highest level in our industry.
