

**GASEX 2012**

**Keynote address**

***Global Economy and Cooperation***

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(HE. Purnomo Yusgiantoro, Minister of Defense, Republic of Indonesia,) *if he is staying after his Keynote Address 1*

Mr. Hendi Prio Santoso, Chairman of the Steering Committee GASEX 2012,

Mr. Anton Tjahjono, Chairman, of the GASEX 2012 National Organizing Committee

Distinguished Delegates,  
Ladies and Gentlemen,

It is a great honour and privilege for me to be here with you for the GASEX 2012 Conference, an event that IGU regards as the most important biennial Forum of exchange and cooperation for the gas industry in the Asia-Pacific area.

After the success of the IGU 2012 World Gas Conference in Kuala Lumpur last June, this event is another evidence of the eagerness of Asia-Pacific countries to cooperate with a view to realizing the full potential of natural gas for the benefit of the economic development of the area and of the regional and global environment.

I wish to thank the Steering Committee of GASEX for having invited me to intervene at this conference, not only because it gives me a special opportunity to meet with Fellow Members of IGU, who contribute so much to the activity and recognition of IGU in Asia, but also since I am sure that I will gather much useful information from the presentations and debates, which will support IGU's mission to advocate for gas at the political and international level.

I also wish to say that understanding how Asia-Pacific countries collaborate to make the best of natural gas and LNG in fostering a sustainable and environmentally friendly development, while ensuring sufficient security and diversification of supplies, will constitute a strong framework of action that can serve as an inspiration to other parts of the world.

I have been asked to speak on *Global Economy and Cooperation* through natural gas and LNG trade. Actually, I think that the Asia-Pacific area, by its large geographic extension, the diversity of its economies and cultures, forms an original and highly instructive model.

Asia's economic miracle has historically been fueled by coal and petroleum. The Asia-Pacific energy balance remains dominated by coal, with natural gas accounting merely for 11% of the mix, compared to a global average of 24% (*Slide2*). However, mainly for environmental reasons, the share of natural gas in the region's energy balance has steadily grown over the past two decades and Asia is now a leading force in the global LNG market.

The proven reserves of conventional gas in the Asia-Pacific area represent 8% of the global reserves, a figure that has remained stable over the last twenty years (*Slide3*). Corresponding figures for the gas production and consumption in 2011 are respectively 14.6% and 18.3%, while Asia-Pacific now accounts for more than 25% of the global GDP (*Slide 4*).

In explaining why gas has been underutilized in the region relative to its tremendous potential, it is useful to divide the Asia-Pacific gas market into three categories of countries:

- Gas exporting countries, which include Australia, Brunei, East Timor, Indonesia, Malaysia and Myanmar. In these countries, the share of natural gas in the primary energy balance varies from 13 % (Myanmar) to 79% (Brunei), with a weighted average figure of 30% ;
- Gas importing countries, which include China, India, Japan, Singapore, South Korea, Taiwan and Thailand. In these countries,

the share of gas varies from 4% (China), 11% (India ), 15% (South Korea) to 17% (Japan), with an average figure of 8% only ;

- Self-sufficient countries, which include Bangladesh, New Zealand, Pakistan, Philippines and Vietnam. In these countries, the share of gas varies from 10% (Philippines) to 76% (Bangladesh), with an average figure of 38%.

The relatively low penetration of natural gas and LNG in the energy balance of the importing group of countries helps explain the regional situation more generally and highlights the exceptional potential for further development of gas production and trade in the Asia-Pacific area. Assuming that the share of gas in the primary energy balance of importing countries would reach the average world figure of 24%, these countries' gas consumption (namely, 416 Bcm in 2011) should triple. As a result, the total consumption in the Asia-Pacific area would rise from 590 to 1420 Bcm/year, an increase of almost 900 Bcm/year, based on the 2011 figures.

One might argue, quoting an old French proverb that says “With a single “if” one could fit Paris in a bottle”... but a simple assertion should readily answer this argument, and that is: in the Asia-Pacific area, like on a global basis, natural gas and LNG should be labelled as “Triple A”, I mean Abundant, Affordable and environmentally Acceptable.

First of all, let's discuss resources and evidence that they are sufficient to respond to the Asia-Pacific natural gas ongoing and future needs (Slide5).

On this front, I have no doubt that sufficient reserves of both conventional and unconventional gas are available for sustaining the market growth, with due regards to the following key factors:

- Proven reserves of conventional natural gas in the Asia-Pacific area have grown from 9.3 Tcm in 1991 to 16.8 Tcm in 2011, evidencing the potential of the region to maintain a R/P ratio in excess of 40 years across the years, in spite of the production growth ;
- With conventional proven reserves of 3.8 Tcm, Australia has resources far in excess of its own needs and now appears as a game changer for LNG exports in the region. On the basis of

existing and planned projects, the exports of LNG from Australia could reach 120 Bcm/year by 2017, a significantly higher level than the present 95 Bcm/year of LNG exports from Qatar (*Slide 6*) ;

- Countries outside the Asia-Pacific region constitute another large potential source of natural gas, which can be imported in the region via pipelines or LNG schemes (*Slide 7*). In fact, as we will discuss it later, both pipeline and LNG new transcontinental projects are already under consideration. In 2011, the volume of trade movements in the region amounted to 250 Bcm, mainly by LNG (83%), this situation being due to the “distance factor” affecting the cost of pipeline projects ;
- In addition, unconventional gas reserves, most importantly shale gas and coal bed methane (CBM) should play a growing role in the region’s supply. While a more accurate estimate of these resources, as well as tests of their recoverability under environmentally acceptable conditions, remain to be performed, first evaluations are highly promising, with technically accessible figures, as quoted by IEA, of 1 275 Tcf (36 000 Bcm) for China and 396 Tcf (11 000 Bcm) for Australia (*Slide8*).

Secondly, we should assess whether the growth in demand for natural gas in the group of importing countries will match new supply opportunities. To evaluate this point, let’s focus on the two major countries where the penetration of natural gas and LNG in the energy balance has the greatest potential for increase, i.e. China and India.

China is currently the largest consumer of natural gas in the region, with a volume of 131 Bcm in 2011, before Japan, with 106 Bcm, even though the share of gas in its energy balance is only 4%, against 17% in Japan. Demand in China is expected to reach 260 Bcm in 2015, in accordance with the 12<sup>th</sup> Five-Year plan and could be as high as 520 Bcm/year by 2035. (*Slide9*). This would result from a series of environmentally-friendly measures, in particular a massive conversion of coal power plants to natural gas, the development of pipeline and LNG imports and a significant contribution from shale gas.

India is the third largest consuming country in Asia-Pacific, with a volume of 61 Bcm in 2011, out of which 44 Bcm come from national production and 17 Bcm from LNG imports, mostly from Qatar. The share of natural gas in the energy balance is currently at a modest 11% level, with therefore, like for China, a massive potential for growth. Thus, most

experts, including IEA, evaluate the gas demand in India to nearly 200 Bcm/year by 2035.

Altogether, most experts expect gas consumption in the Asia-Pacific region to at least double over the next 20 years, from 590 Bcm in 2011 to more than 1200 Bcm in 2030, the share of gas in the primary energy balance of the region moving from 11% to 16/17%, mainly at the expense of coal.

The entry of the Asia-Pacific area into the “*Golden age of Gas*”, should provide new opportunities for the development of intra- and inter-regional gas trades, both by pipeline and under LNG form. The present situation of the gas trade can be summarized as follows: (*Slide 10*)

- A rather limited series of intra-regional trade movements by pipeline of 30 Bcm/year, mainly from Indonesia to Singapore and from Myanmar to Thailand;
- A single inter-regional pipeline trade, from Turkmenistan to China, for 14 Bcm/year, through the new line commissioned in 2010;
- A very important flow of LNG trades, amounting to 207 Bcm, which is equivalent to 65% of the global LNG trade, respectively supplied by Qatar (24%), Malaysia (16%), Indonesia (14%) and Australia (12%) to the following countries: Japan (52%), South Korea (24%), China, India and Taiwan (each with a share of about 8%).

This picture should dramatically change over the next twenty years, since we may expect extensive developments for existing and new trades:

- The potential for export of Turkmenistan and other countries of the Caspian area, like Kazakhstan, Iran and Uzbekistan, to China and India is extremely important. With 24 Tcm of proved conventional reserves, Turkmenistan alone could export up to 100 Bcm/year of gas in the medium term and, in a first stage, could increase the capacity of the existing export pipeline to China at the level of 40 Bcm/year (*Slide 11*);
- Having taken the measure of the medium term self-sufficiency of the USA, with the development of their shale gas resources, Russia is redirecting its export policy, outside its historic markets in

Europe, to the Asia-Pacific region, primarily towards China and India. This means that the Sakhalin LNG project, with an existing capacity of 11 Mt/year, is now dedicated to supplying Japan, China and South Korea, but also that Gazprom and its partners in the large Shtokman LNG project are now contemplating a development dedicated to the Asia-Pacific area. Furthermore, Russia has plans to develop a new pipeline export project from Siberia to China.

This outstanding economic development of the Asia-Pacific region, requiring access to new large scale international gas and LNG projects, will largely contribute to the *Global Economy and Development* .

Gas trade requires and creates long-term bonds between sellers and buyers, and only gas and LNG have this important characteristic, since no other fuel, for instance crude oil or coal, implies the same degree of durable relationship.

Whether natural gas is traded by pipeline or as LNG, long-term agreements are necessary to obtain project financing. Such agreements have implications far beyond conventional sale and purchase relationships:

- They imply long and complex negotiations, allowing the parties to get familiar with the culture and business environment of their counterparts and, potentially, to tie friendly links;
- The weight of financing being borne both by the seller and the buyer for their respective part of the investments of the gas chain, they have a common interest in avoiding confrontations and finding mutually acceptable settlements of their possible disputes;
- By their size and geopolitical significance, natural gas and LNG projects require the consent, and often the support, of the governments of the seller's and buyer's countries and, in the case of pipeline gas, of the governments of the countries of transit. Such projects therefore encourage the development of an inter-governmental dialogue that may in turn foster general trade relations and exchanges of other goods and services between the countries involved..

A quick examination of trading flows of goods, as presented in the World Trade Organization maps, is a great illustration of how such exchanges feed each other.

Without meaning to imply a simple cause-and-effect relationship, the parallelism between exports and imports is striking, in both gas-exporting and importing countries (Indonesia, [Slide 12](#) and Australia, [Slide 13](#)) ;

One cannot derive from these maps that natural gas could, by itself, create the conditions of a more balanced regime of trade between nations, nor that it should be regarded as the single answer to the problems of co-development. However, it is clear from the example of the Asia-Pacific region, that natural gas and LNG trades have a significant positive impact on these processes.

At this stage, I would like to discuss the contribution of IGU in supporting the action of the gas industry in the Asia-Pacific region, in consideration to its new and challenging role of ensuring the largest share of the increase in the energy supply over the coming years.

Since the 22<sup>nd</sup> World Gas Conference, which took place in Tokyo in 2003, the presence and dedication of Members and Associate Members of IGU in Asia-Pacific has been steadily growing ([Slide 14](#)).

Eleven countries of the Asia-Pacific area are represented in IGU, namely Brunei, China, India, Indonesia, Japan, South Korea, Malaysia, Thailand, East Timor, Taiwan and Vietnam. They are quite active and report to IGU through an Asia-Pacific Regional Coordinator. I am delighted to see so many members of IGU being also represented at this GASEX 2012, a clear evidence of the convergence of purpose of the GASEX and IGU organizations.

Moreover, IGU is looking forward to welcoming other countries that play an important role in the development of gas trades in the region, such as Myanmar, Singapore and also New Zealand. In the process, both existing and new members of IGU will benefit as much from the contacts and experience transfers fostered by the organization.

The 2012-2015 Triennial Work Programme of IGU aims at supporting the action of the industry in favour of the development of gas and LNG at the global level, towards governments, international institutions, policy makers and opinion leaders, as well as facilitating the corresponding actions of its members in their respective countries ([Slide 15](#)).

This programme is structured around four goals, each of which aims at providing concrete answers to the main issues currently facing our industry :

- Making natural gas available everywhere, under affordable conditions;
- Demonstrating that natural gas constitutes the cornerstone of the energy mix for a sustainable economic development at the global level;
- Convincing all stakeholders that natural gas constitutes the ideal combination with renewables, with a view to granting access to most people to affordable and reliable electricity production systems;
- Advocating the attractiveness of the gas industry to young people and making our industry a pioneer in training new generations to the most advanced and prospective technologies.

I would argue that, in meeting these goals, the development of the gas industry in the Asia-Pacific region should constitute the greatest source of inspiration and feedback for the rest of the world.

Once again, I would like to thank the GASEX 2012 organizers for inviting me to speak to you this morning and I would also like to take this opportunity to invite all of you to join us at the WGC 2015, which will take place in Paris in June 2015.

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