



## From the IGU Secretariat

Since the last edition of the IGU Magazine (October 2008), the Secretariat has been busy with its regular duties as well as carrying out some new and challenging activities. These pages feature news items and information from the Secretary General (TI), the Senior Advisor (HR), the Advisor, Press Contact & Webmaster (EG) and the Assistant to the Secretary General (FDE).

### ● **First IEF-IGU Ministerial Gas Forum**

The First Ministerial Gas Forum organised by the International Energy Forum (IEF) and IGU was held

in Vienna, Austria, November 24, 2008, with over 100 participants including ministers and delegates from gas producing and consuming countries, top industry executives and senior officials from international organisations. The theme was “The world gas market going from regional to global” and the concluding statement is published in the article on pages 46-49 of this issue.

The Forum was an important step forward in promoting and strengthening a global dialogue between natural gas producing and consuming countries. The event was a major undertaking both administratively and financially. Sponsorship from OMV, E.ON Ruhrgas, Dong Energy, GDF SUEZ, Total and Gasunie covered a significant proportion of the costs. Delegates



This picture of the staff of the Secretariat shows from left to right: Florijana Đedović, Assistant to the Secretary General, Erik Gonder, Advisor, Press Contact & Webmaster, Åse Nicolaysen, Administration Assistant, Torstein Indrebø, Secretary General, and Hans Riddervold, Senior Advisor.

welcomed the offer by Qatar to host the Second IEF-IGU Ministerial Gas Forum in 2010.

EG

### ● **New IGU members**

At the 2008 Council meeting on September 24 in Gyeongju, Republic of Korea, delegates approved the accession of three new Charter Members and two new Associate Members. They also approved the change from Associate to Charter status of Romgaz SA as it is the only representative from Romania.

The new Charter Members are: Libya, represented by the National Oil Corporation of Libya; Macedonia, represented by the Macedonian Gas Association; and Vietnam, represented by Vietnam Oil and Gas Group (PetroVietnam).

The new Associate Members are Bayerngas GmbH, Germany, and GasTerra, The Netherlands.

IGU welcomes the new members and looks forward to their cooperation in all the Union's activities.

EG

### ● **France to hold the 2012-2015 Presidency**

During the Gyeongju Council meeting France was elected to hold the Presidency of IGU for the 2012-2015 Triennium and host the 26th World Gas Conference in Paris in 2015. See pages 52-61 for a full report of the Council meeting.

EG



Erik Gonder and Barbara Schmid preparing for the Forum (ABOVE) which was held in the Hofburg in Vienna (BELOW).

### ● **IGU Gas Efficiency Award**

In 2008 IGU launched the Gas Efficiency Award, an annual competition calling for new ideas and projects aimed at obtaining greater efficiency in the use of gas. All IGU members were invited to nominate projects and two prizes of €10,000 were awarded. The winning projects are profiled in an article on the IGU Awards in this issue (pages 64-66).

The deadline for nominations for the 2009 competition is the end of April, and once again there will be two prizes to the projects providing the most substantial improvements in gas efficiency.



Then the best of the four winning projects in 2008 and 2009 will be chosen and the author invited by the IGU President to present the project at the World Gas Conference in Buenos Aires in October.

FDE/HR

● **IGU Social Gas Award**

In 2009 IGU is also organising a competition for the new Social Gas Award, which falls under the pedagogical and educational category to support and promote gas-efficient behaviour.

Last November the Secretariat sent out an invitation to all IGU members encouraging them to nominate candidates for the Social Gas Award by the end of April 2009. For more information see the IGU website and the Awards article on pages 64-66.

FDE/HR

● **Successful IGRC 2008**

The International Gas Union Research Conference (IGRC) took place in Paris, October 8-10, with a record turnout as 811 delegates from 41 countries were registered for the event.

Given the strategic challenges facing the gas industry and as there has been a general trend over the last 10 years for gas companies – particularly those in liberalised markets – to reduce R&D expenditure, IGRC this time focused on R&D issues combined with a strategic business focus in order to reverse the downward trend.

The conference featured oral sessions, poster sessions, workshops and, for the first time, a CEOs' roundtable discussion. All in all, the event offered a unique networking opportunity for researchers, experts and businesspeople, and there is a report on pages 78-80.

The next IGRC will be held in Seoul, Korea, October 19-21, 2011.

EG

● **Meeting between IEA and IGU**

The managements of IGU and the International Energy Agency met in Paris on October 9, 2008, to

update each other on organisational changes and to discuss the status of cooperation between the two organisations. The areas covered by the discussions included:

- Gas security;
- The IGU 2030 Natural Gas Industry Outlook study;
- IEA support to the IGU Gas Efficiency Award;
- IGU support to IEA gas reports; and
- IGU secondees to IEA.

TI

● **New secondee**

Barbara Anette Schmid left the Secretariat at the end of 2008 to take up a new position in Bayerngas, Germany. Her successor as a secondee is Janke Jeltje (Jeanet) van Dellen from Gasunie, The Netherlands, who started work in February.

Jeanet has a Master's Degree in Economics and has held various positions in Gasunie since 2003. She will be on secondment to the Secretariat for a two-year period, and we are very pleased to welcome her to Oslo.

EG



Janke Jeltje van Dellen is the new secondee in the Secretariat.



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### ● **Barbara says farewell**

I have had a fascinating time working in the IGU Secretariat, which was hosted by Denmark when I joined in September 2006 and later moved to Norway. I started as Assistant to the Secretary General when I mostly wrote speeches or restructured and further developed the IGU Knowledge Centre. During the first year, my scope of tasks quickly developed and I got different opportunities to give my own speeches at international energy conferences in Turkey, Hungary and Russia.

At the beginning of 2008, after Norway had taken over as the host country, I was promoted to Advisor to the Secretary General. One of my tasks was to manage the first round of the new IGU Gas Efficiency Award which I had developed in the Danish Secretariat. My biggest project was the organisation of the First IEF-IGU Ministerial Gas Forum, which was held in Vienna, November 24, 2008. This was a great project to manage and I was happy that it turned out to be a big success and the start of further conferences of that kind.

To future secondees coming to the IGU Secretariat I say: Take all the chances you are offered.

This is a unique opportunity not only to develop your network, your knowledge and capabilities but also your personality.

I would like to say thank you to all of those with whom I got the chance to work during this period. I hope to meet you again my new position as head of the international business department of the German energy company Bayerngas GmbH, which is based in Munich.

**BAS**

### ● **IGU website**

Since the last edition of the IGU Magazine, two new folders have been established in the Knowledge Database: climate and natural gas; and members' information about natural gas markets.

Both these sub folders will be updated with pdf files received from IGU members. This will give members an opportunity to promote and present views on climate and natural gas, and to provide presentations of themselves and the latest developments in their own markets.

Pdf files should be sent to Erik Gonder, Webmaster in the IGU Secretariat.

**EG**

### ● **Preparations for the Malaysian Presidency 2009-2012**

The Secretariat has started the preparations for the next Presidency. In a meeting in February, organised by the incoming CC Chairman, Hoo Sook Wah, the Secretary General and the Webmaster met with the incoming Presidency and all incoming Chairs, Vice Chairs and Secretaries of the Technical Committees. The participants were informed about the current status of IGU and its activities as well as the relationship between the Secretariat and the Technical Committees of IGU. An introduction to the website was given including instructions to the Chairs, Vice Chairs and Secretaries about their responsibilities for the WOC and PGC webpages.

The incoming CC Chair and respective Chairs and Secretaries were also encouraged to have a



Barbara at her desk shortly before leaving the Secretariat.

# Concept to Reality



Photo courtesy of Pioneer Natural Resources USA, Inc.

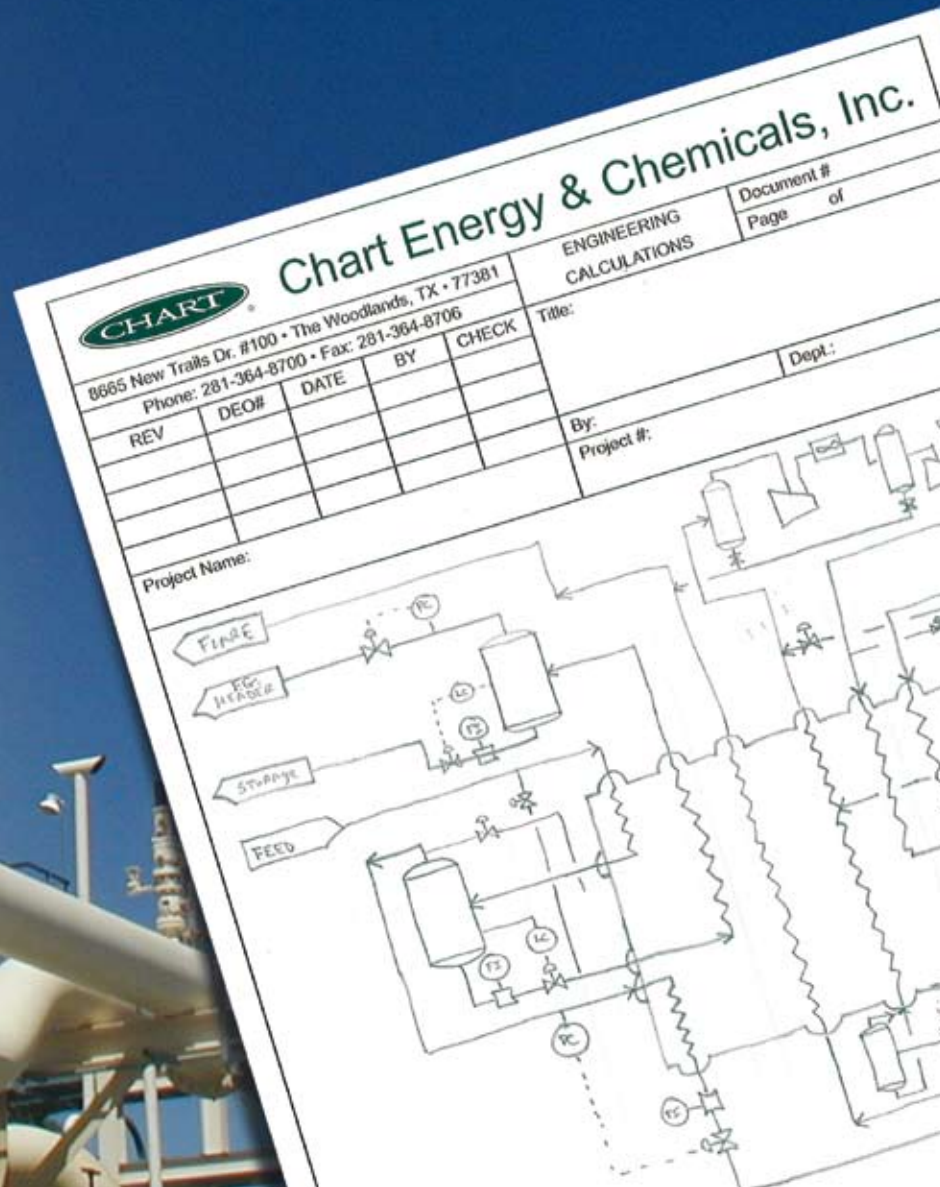


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dialogue with the Webmaster on possible new folders that should be introduced prior to start of the next Triennium in October.

**EG**

● **IGU at COP 14 in Poznan**

COP 14 took place in Poznan, Poland, December 1-12, 2008. This UN climate change conference concluded with a clear commitment from governments to shift into full negotiating mode in order to shape an ambitious and effective international response to climate change, to be agreed in Copenhagen (COP 15) at the end of 2009. The IGU Secretariat had a stand in the conference area, which was also used to promote NGVs in cooperation with IANGV. Hyo Sun-Kim,

from KOGAS, Republic of Korea and a member of PGC A, was also representing IGU at the conference.

IGU information material, focusing on sustainability and gas as the fuel of choice, was distributed during the conference. New contacts were established, and the Secretariat will use the experience from Poznan to prepare for COP 15. These preparations will also include an evaluation of possible partners for organising side events that will focus on certain aspects of natural gas and the role of natural gas in a low carbon scenario.

**EG/FDE**

● **Participation in GASEX 2008...**

Provietnam from Hanoi, Vietnam, hosted the 10th GASEX (Gas Information Exchange for the Western Pacific) Conference, November 12-15.

As GASEX is the Western Pacific's official platform for the gas industry, IGU continued its active involvement in promoting gas and providing a global perspective to this regional event. The President, Ernesto López Anadón, was a keynote speaker and he used this opportunity to welcome Vietnam as a new IGU member.

**FDE**

● **...and in the 12th African Oil & Gas Conference**

UNCTAD and the government of Equatorial Guinea organised the 12th African Oil, Gas & Minerals Trade & Finance Conference & Exhibition in Malabo, November 4-7, 2008. The Secretary General gave a presentation and took part in a panel discussion on global gas developments.

The event offered an excellent opportunity to present IGU to a large African community and to meet many new potential members as there were more than 400 participants from all over the African continent. West Africa is rich in natural gas resources and many countries are in the process of expanding their natural gas activities. Equatorial Guinea already has an LNG plant in operation.



IGU's stand at COP 14 with, from left to right, Torstein Indrebø, Secretary General, Florijana Đedović, Assistant to the Secretary General, and Erik Gonder, Advisor, Press Contact & Webmaster.



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During his visit to Malabo the Secretary General met Juan Antonio Ndong Ondo, General Director of Sonagas GE.

The Secretary General also met Juan Antonio Ndong Ondo, General Director of Sonagas GE, the national gas company, and discussed potential membership of IGU.

TI

● **60th Anniversary of VNIIGAZ**

VNIIGAZ, the research and development institute of Gazprom, celebrated its 60th anniversary in October 2008. The event took place on the occasion of the international conference INNOTECH-2008, which the Secretary General addressed with greetings from the IGU community.

In honour of the long and close cooperation between IGU and VNIIGAZ, the Secretary General presented a gift to General Director Roman Samsonov during the celebration ceremony.

TI

● **Conferences in Europe in November 2008**

Senior Advisor, Hans Riddervold, made presentations at the 2008 Autumn Gas Conference, November 3-4, in Brno, Czech Republic; at the Oil and Gas International Conference on November 5 in Kiev, Ukraine; and at the Russian Gas VIth International Forum on November 18 in Moscow,



The Secretary General presented a gift to VNIIGAZ General Director Roman Samsonov during the ceremony marking the institute's 60th anniversary.

Russia. These were excellent opportunities to meet IGU members and promote the organisation to a broader natural gas audience.

HR

● **Cooperation between IGU and Oil for Development, Norway**

IGU and Oil for Development (OfD) are in a process of developing cooperation in the field of natural gas. OfD is presented in a separate article in this magazine (see pages 210-214). The OfD initiative includes support on natural gas, and the plan is to develop an educational module that can be used as part of the OfD assistance on gas management. IGU has access to a vast network of gas expertise around the globe and can serve as a partner to OfD in providing relevant competence and training courses.

The partnership will be formalised and presented for approval by the two organisations later this year. Further details on the programme and required competence will be provided when developed more in detail. Hans Riddervold in the IGU Secretariat will be the contact point for persons and institutions that may be interested in participating in this programme.

TI/HR



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## IGM: The IGU Marketing Committee

By Marc Hall

The 102nd session of the IGU Marketing Committee (IGM), formerly Intergas Marketing, was hosted by Bayerngas on October 30-31, 2008. The meeting took place in the Bavarian metropolis of Munich in southern Germany, where Bayerngas is based. IGM is a forum for marketing experts from all over the world allowing them to exchange experiences and strategies of how to market natural gas.

IGM has two Study Groups with Study Group M.1 dealing with natural gas and renewables using a marketing approach, and Study Group M.2 investigating how marketing can contribute to promoting natural gas in new areas and new technologies.

### ● Meeting report

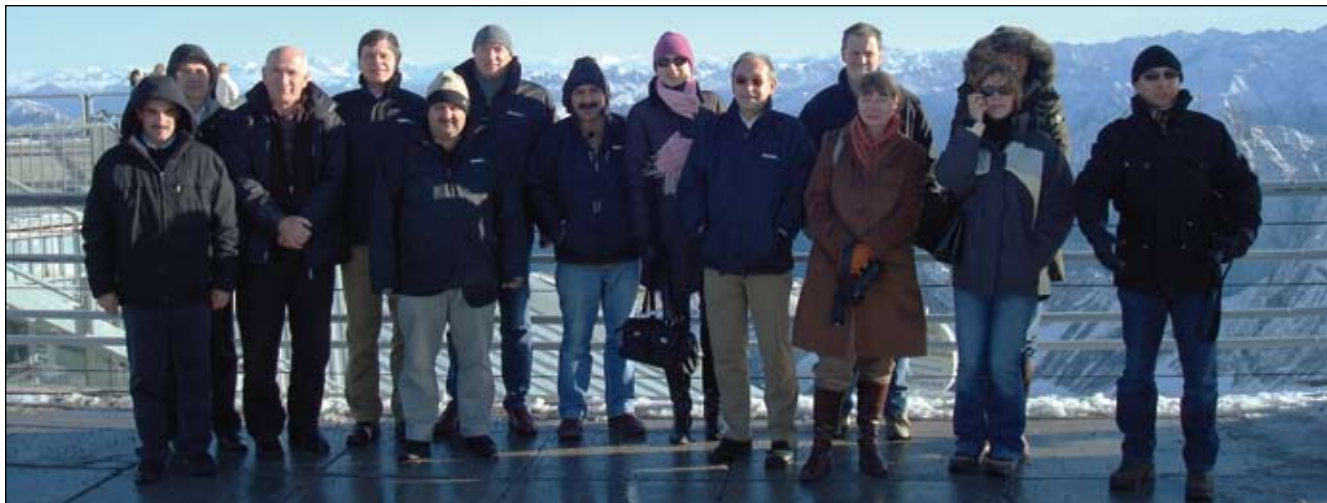
During the two-day session in Munich, delegates discussed IGM's presentation and report for the forthcoming 24th World Gas Conference in Buenos Aires in October.

IGM will be holding a Strategic Panel (SP8) during the 24th WGC on: "Marketing Natural Gas in a Demanding Environment". The session will take place on Friday, October 9, between 09:45 and 11:45.

The idea is to stage a multimedia "show programme" consisting of an anchorman, presentations, panel discussions and interactive elements to highlight the enormous potential of natural gas in combination with renewable energies. Using this framework future leading technologies will be introduced and the advantages of natural gas in terms of CO<sub>2</sub> reduction demonstrated. The key message would be: natural gas is not a self-selling product therefore creative marketing is a must.



IGM Chairman Marc Hall addresses delegates in Munich.



The social programme for delegates included a visit to the Zugspitze, Germany's highest mountain.

#### Study Group M.1

**Leader:** Lars Møller Jørgensen (Denmark)

lmjoe@dongenergy.dk

**Co-Leader:** Anne Sypkens-Smit (The Netherlands)

The group discussed possible topics for an interactive wall as part of the multimedia show. This wall would feature nine topics which would be arguments proving the statement that natural gas enables a bright future. The arguments could be underlined by short promotional films and other materials.

#### Study Group M.2

**Leader:** Khaled Abu Bakr (Egypt)

k.abubakr@taqa.com.eg

**Co-Leader:** Alexander Moiseev (Russia)

The group discussed two of the three projects which will be presented during the session in Buenos Aires as good examples of how technological developments can contribute to society by turning environmental advantages into customer benefits. It is intended to produce short promotional films of the different technologies which will be shown during the session. The projects are:

- Mother-daughter CNG system (Iran);
- District cooling (Egypt); and
- Micro cogeneration (The Netherlands).

#### ● Future plans

Any IGU member is invited to participate in IGM's activities and the Committee and its two Study Groups welcome new participants, in particular from dynamic organisations or markets in transition. The next IGM Plenary Session and Study Group meetings are scheduled for April 9-12 in Tehran, Iran, hosted by the National Iranian Gas Company (NIGC).

*Marc Hall is the Chairman of the IGU Marketing Committee. For more information please contact him at [Marc.Hall@bayerngas.de](mailto:Marc.Hall@bayerngas.de).*



Nurettin Erikçi, Assistant General Manager of İzgaz, prepares to give a presentation.

# Nabucco Gas Pipeline – a Gas Bridge to Turkey and Europe

Nabucco is a project of major European significance. It is the first pipeline that will connect the world's richest gas region – the Caspian region and the Middle East – with the European gas market.

The consumption in Europe now among the European Union members is about 500 bcm of which 300 bcm are imported. In the next 10 to 15 years the overall gas consumption will increase. At the same time European production will go down. That leaves room for 150-200 bcm additional gas that has to be imported which will create a huge necessity for transportation capacity. Unutilised gas reserves around Europe are available, but it is a logistical challenge to transport the gas to the consumers. Therefore new pipeline projects are needed in Europe.

The EU has declared Nabucco as strategically important because Nabucco is a key project for diversification of the gas portfolio.

The pipeline will start at the eastern border of Turkey, run through Bulgaria, Romania and Hungary to end in Baumgarten, close to Vienna. When completed, the pipeline's annual capacity will be 31 bcm over a length of 3,300 km.

Nabucco will be built in two stages. The first stage is split into two construction phases. The first phase will cover the planned route between Ankara and Baumgarten. East of Ankara, the existing pipeline facilities will be used initially. During the second phase, Nabucco will be extended by to run between Ankara and the eastern Turkish border.

In construction stage II, the final pipeline capacity of 31 bcm will be reached by the installation of further compressor stations.

The main strategic goals are to:

- ▶ Open a new gas supply corridor for Europe;
- ▶ Raise the transit role of the participation countries along the route;
- ▶ Contribute to the security of supply for all partner countries; and
- ▶ Strengthen the role of the gas pipeline grids.

Nabucco shareholders are RWE (Germany), OMV (Austria), MOL (Hungary), Transgaz (Romania), Bulgargaz Holding (Bulgaria) and Botas (Turkey). Each shareholder holds an equal share of 16.67 % of Nabucco Gas Pipeline International.

The estimated construction costs are €7.9 billion. Approximately 30% of the investment will be paid by the consortium partners (equity), while 70% will be provided by lenders (debt). Of the 70% debt financing one-third will be provided by international institutions like the European Investment Bank or the European Bank for Reconstruction & Development. The balance will come from various national agencies and banks that support exports and commercial finance institutions.

Nabucco is an enabling pipeline and follows a multi-sourcing approach. The project will provide the technical options to transport gas from various sources, like the Caspian Region, the Middle East and Egypt. Nabucco Gas Pipeline Int. is responsible for the construction and development of the project. Nabucco Gas Pipeline Int. will act as a Transmission System Operator and will not buy or trade any gas. Transport customers will do so and they have to decide which sources they will approach. Central Asia, the Arabic Region and North Africa is the most gas rich region in the world. This will ensure that there is more than enough gas for Nabucco.

From the very beginning gas from Azerbaijan is expected. Furthermore gas from Turkmenistan and from Iraq will be fed into the pipeline.

Nabucco is an "enabler" – it enables countries to be more secure, it enables companies to enter new markets and it enables the EU and its partners to develop the gas resources of the Caucasus and the Middle East.





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## The First IEF-IGU Ministerial Gas Forum

By Erik Gonder

The First IEF-IGU Ministerial Gas Forum was held in Vienna, Austria, November 24, 2008. IEF and IGU joined forces to organise the event because they saw the need, in the words of IGU President Ernesto López Anadón, “to enhance dialogue among all parties on matters relating to natural gas”.

With over 100 participants including ministers and delegates from gas producing and consuming countries, top industry executives and senior officials from international organisations, the Forum was well received and a second one is planned in 2010.

The Forum’s theme was “The world gas market going from regional to global”. It was organised as

a pair of roundtable discussions under Chatham House rules, with the morning session discussing gas market globalisation and the afternoon session focusing on partnership and cooperation in a global gas market. Each roundtable had nine distinguished panellists and was moderated by Tim Eggar, who is the Chairman of Indago Petroleum and also a member of IGU’s Wise Persons Group.

Participants discussed the changing dynamics of gas markets – principally driven by the growth of LNG trading – and the key challenges facing the natural gas industry, particularly funding investment to meet future demand during the current economic crisis. They noted the growing interdependence of exporting and importing countries and considered the balance between security of supply and security of demand. They also discussed transit issues, NOC-IOC cooperation and moves to improve energy efficiency, energy conservation and transparency. The concluding statement below gives more details.



IGU President Ernesto López Anadón (ABOVE LEFT) and Austria’s then Federal Minister of Economics and Labour, HE Dr Martin Bartenstein, opened the Forum.

“The issues we discussed were very important,” said HE Dr Chakib Khelil, Algeria’s Minister of Energy and Mines and the President of OPEC in 2008, who expressed his support for the next Forum in 2010.

Summing up, Ernesto López Anadón said he was very pleased with the success of the Forum in establishing “an open dialogue”, while for the IEF, Secretary General Dr Noé van Hulst declared: “We look forward to carrying the global dialogue forward”.

### ● Concluding statement

Discussion during the First IEF-IGU Ministerial Gas Forum focused on the following major areas.

#### Investments

Ministers and industry leaders stressed that, subject to adequate and timely investment, natural gas reserves are sufficient to meet future demand in the coming decades. They discussed the role for natural gas in a “low-carbon emissions” energy-mix scenario and noted that natural gas demand is expected to continue growing in the future, mainly driven by power generation, at an average annual rate of 1.8% up to 2030. Demand growth is projected to be largest in newly emerging consuming countries (5.8% in China and 4.8% in India) as well as in the Middle East (3.8%).

While acknowledging that natural gas reserves are amply available, ministers and industry leaders noted that timely and accurate investments are needed to deliver gas to the markets. The most recent figures estimate the accumulated worldwide investment required in the gas industry at \$5.5 trillion up to 2030, or about \$230 billion annually – a staggering amount against the background of a global financial crisis, huge uncertainties and extremely volatile oil prices which combine to cause investors to pause for thought. The current hesitation in gas investment may lead to bottlenecks, in particular in liquefaction capacity, as large gas projects are capital intensive and require long lead



From left to right in this picture of the morning roundtable are panellists: Jochen Weise, Member of the Board of E.ON Ruhrgas; HE Natiq Aliyev, Azerbaijan’s Minister of Industry and Energy; and HE Dr Mohammed S. Al-Sada, Qatar’s Minister of State for Energy and Industry Affairs.



Morning panellists HE Maria van der Hoeven, The Netherlands’ Minister of Economic Affairs, and Liv Monica Stubholt, State Secretary in Norway’s Ministry of Petroleum and Energy, flank the roundtable’s moderator, Tim Eggar.



From left to right in the morning roundtable are: HE Akbar Torkan, Iran’s Deputy Minister for Planning and Hydrocarbon Resources Administration, Philippe Boisseau, President Gas and Power, Total; and Marcel Kramer, CEO of Nederlandse Gasunie.





Panellists in the afternoon roundtable included from left to right: HE Dr Chakib Khelil, Algeria's Minister of Energy and Mines; Helge Lund, CEO of StatoilHydro; Gertjan Lankhorst, CEO of GasTerra; and Stanislav Tsygankov, Head of the International Business Department of OAO Gazprom.

times, particularly in a context of a huge cost escalation in recent years and a persisting shortage of skilled labour.

Considering the uncertainty surrounding the estimates of the investment needed and the related risks, ministers and industry leaders discussed impediments to investment and underlined the need for a frank and open dialogue between producing and consuming countries to improve understanding and reduce uncertainties that hamper investment.

#### **Globalisation of the gas markets**

There was a wide-ranging discussion between ministers and industry leaders on the globalisation of the gas markets and global energy security. They observed that interregional gas trade is likely to increase significantly in the coming decades with the Middle East emerging as a major exporting region alongside Russia and Central Asia.

The bulk of the increase in gas trade is in LNG, which is witnessing rapid changes. It is becoming increasingly flexible, with greater market access, increased volumes and increased short-term and spot trading. The LNG trade is growing and globalising, with new consumers and producers continuing to enter the game.

Ministers noted that, besides traditional LNG projects, underpinned by long-term contracts, recent projects have been endorsed with new business models and more flexible deals based on spot/short-term sales. From a straight-line-chain model, LNG trade is evolving to a multiple-destination or flexible network model.

As LNG trade is now increasingly linking the regional gas markets, ministers and industry leaders discussed how this will develop and underlined that, although a global gas price is unlikely to be seen in the near future, connectivity and thus convergence of prices between regions will increase.

While the trend to globalisation will continue, ministers and industry leaders noted that long-term contracts will remain a dominant commercial tool to link supply and demand on capital intensive projects as they enable an acceptable sharing of risk and guarantee security of supply to the buyer and security of demand to the seller.

#### **Increased interdependence**

Among other issues of importance, ministers and industry leaders noted the growing interdependence between producing and consuming countries. They advocated that all parties find

ways and means to translate this higher interdependence into a vector of cooperation and effective action-oriented dialogue through the IEF.

Ministers and industry leaders encouraged more cross-investment and cooperation between gas consumers and producers, building positively on the interdependence between them. Natural gas exporters are entering ventures in consuming countries such as receiving terminals and distribution networks, while gas importers are involved in upstream gas field development, natural gas transportation and liquefaction plants.

Going beyond the buyer-seller relationship, enables the two parties to jointly explore and develop new opportunities for partnership and cooperation and to identify potential synergies, ministers and industry leaders said.

Ministers and industry leaders affirmed that human resources and technology are key drivers for energy security, and encouraged NOCs and IOCs to enhance cooperation and partnership to develop human resources and encourage R&D efforts in pursuit of efficiency and cost improvements through technological advances.

Discussing the issue of gas transport and the role of transit countries, ministers and industry leaders noted that the development of transport and transit infrastructures will enhance interdependence between producing, transit and consuming countries, and called for regional agreements and a better coordination between governments and companies to reduce uncertainties and thus encourage investment.

Ministers and industry leaders also emphasised the need to improve energy efficiency and energy conservation across the board in both gas consuming and producing countries to curb global CO<sub>2</sub> emissions and to increase the export potential of gas producing countries.

### **Transparency**

Recognising that investment decisions can be facilitated by stable and transparent economic,

fiscal, legal and regulatory frameworks, ministers and industry leaders advocated all parties to focus on practical ways to improve the transparency of oil and gas markets.

While acclaiming the role of the Joint Oil Data Initiative (JODI) in improving transparency in the oil market, ministers and industry leaders noted that improving transparency on gas market information such as prices and flows will contribute to the reduction of uncertainties, improve predictability and project planning and leads to better allocation of gas resources across the globe.

Ministers and industry leaders discussed the relevant issue of whether a mechanism of gas data reporting similar to JODI would enhance gas market transparency, and encouraged the IEF Secretariat to assess with other relevant international organisations the possible extension of JODI to cover natural gas data.

### ***A sustained and enhanced global dialogue***

The shared understanding is that through an enhanced and sustained dialogue natural gas stakeholders can better address key challenges facing the gas industry such as market transparency, investment, interdependence, transit and contractual frameworks.

Expanding markets, their globalisation and the development of capital intensive infrastructures require enhanced cooperation and a global and sustained dialogue between the energy industry and governments.

Ministers and industry leaders affirmed that this First IEF-IGU Ministerial Gas Forum was an important step forward in promoting and strengthening a global dialogue between natural gas producing and consuming countries, and welcomed the invitation of Qatar to host the Second IEF-IGU Ministerial Gas Forum in 2010.

*Erik Gonder is Advisor, Press Contact & Webmaster in the IGU Secretariat.*

# Chevron

Access to reliable and abundant energy is essential for human and economic progress. As the world's population continues to grow, so does our need for greater supplies of energy.

Natural gas is poised to play an increasing role in meeting the global energy challenge. An economical, environmentally friendly and efficient energy source, natural gas is the cleanest-burning conventional fuel, producing lower levels of greenhouse gas emissions than heavier hydrocarbon fuels, such as coal and oil.

Historically, natural gas has also been one of the most economical energy sources. Natural gas fuels electric power generators, heats buildings and is used as a raw material in many consumer products, such as those made of traditional plastics.

The range of applications for natural gas in the power, industrial, commercial, residential and transportation sectors is driving the development of remote resources and marketplace dynamics. The natural gas market is moving from unconnected local or regional markets to a truly global marketplace with multiple opportunities for commercialising gas resources.

To succeed in this dynamic and challenging global business environment, an energy company needs access to resources and markets, capabilities in all links of the natural gas value chain, ample capital, technological ingenuity, and the expertise to manage long-term, complex gas projects involving multiple partners.

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Natural gas is a growing segment of Chevron's energy portfolio. Our 140 tcf of unrisks natural gas resources span six continents, including significant holdings in Africa, Australia, Southeast Asia, the Caspian region, Latin America and North America.

Chevron has a highly integrated gas business with expertise in every aspect of developing natural gas – exploration and production, liquefaction, shipping, regasification, pipeline operations, gas marketing, power generation, and GTL technology. Our Global Gas organisation is focused on commercialising our natural gas resources while pursuing growth opportunities. We pride ourselves in our people, partnership and performance.

We are a longtime participant in Australia's North West Shelf Venture, which ships LNG to customers in Japan, South Korea and China. Chevron also supplies natural gas to LNG processing facilities in Point Fortin, Trinidad, and in Bontang, Indonesia.

Working closely with host governments and partners, Chevron is pursuing two major LNG supply projects in Africa: the Angola LNG project, which is under construction and is expected to deliver first gas in 2012; and Olokola LNG in Nigeria, where technical and commercial work is under way. Chevron holds a 36.4 percent interest in Angola LNG and 19.5 percent interest in Olokola LNG. Chevron Nigeria Limited and Nigeria National Petroleum Company are also building the EGTL plant, a Gas-to-Liquids facility, a key component of our Nigeria gas strategy, with start up expected in 2011.

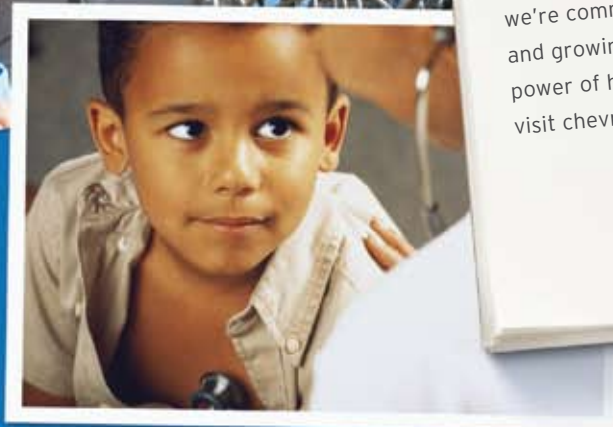
Chevron is leading the development of the extensive Greater Gorgon Area gas fields offshore Western Australia. The Gorgon project involves a proposed LNG and gas processing facility on Barrow Island. The company also plans to develop an LNG project on the northwest coast of mainland Australia based on its Wheatstone natural gas discovery.

By developing the world's natural gas resources, the energy industry will continue to grow and prosper while delivering the energy needed to fuel global economic development and a better way of life for millions.



Australia's North West Shelf Venture ships LNG to customers in Japan, South Korea and China.

Through partnership comes progress.



When we work together, great things happen. Because together, we have the power to make natural gas an important part of the world's future – and bring progress to countless communities along the way. In countries around the world, Chevron and its partners are doing just that. As one of the world's largest producers of natural gas, we're committed to creating opportunity and growing local economies. This is the power of human energy. To learn more, visit [chevron.com](http://chevron.com).



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## A Busy Council Meeting in Korea

By Mark Blacklock

The 2008 Council meeting in Gyeongju, Korea, covered important ground including the approval of IGU's first Strategic Statement, the accession of five new members, a preview of the 2009-2012 Triennium and the election for the 2012-2015 Presidency.

The Council meeting was held at the Hilton Hotel in Gyeongju on September 24, following sessions of the Coordination Committee and the Executive Committee. The whole event was organised by Charter Member the Korea Gas Union, and was attended by 133 delegates and 30 accompanying persons.

Opening the day's business, President Ernesto López Anadón noted that this was the first convening of the Council since the Secretariat had moved to Norway and he gave the floor to the Secretary General. Torstein Indrebø introduced the members of the Secretariat present – Hans Riddervold, Erik Gonder, Barbara Schmid and Florijana Đedović (Åse Nicolaysen was on duty in the Oslo office) – and asked for nominations for a new secondee to take over when Barbara Schmid's term ended. He thanked Honorary Secretary

General Peter Storm for his support during the handover, and explained how he and his team are building on the work of the former Secretariat to enhance the Union's global profile and improve cooperation with other international organisations.

One aspect of this is a new agreement with bodies active in the LNG sector: the US Center for LNG (CLNG), Eurogas, the International Group of LNG Importers (Groupe Internationale des Importateurs de Gaz Naturel Liquéfié – GIIGNL), Gas LNG Europe (GLE) representing the European LNG terminal operators and the Society of International Gas Tanker and Terminal Operators (SIGTTO). "We have signed a protocol of cooperation with these LNG organisations to avoid overlap and improve communication," announced the Secretary General.

Another example is the IEF-IGU Ministerial Gas Forum. The President briefed delegates on final preparations for the inaugural Forum, which was held two months after the Council meeting (see pages 46-49), and the Secretary General invited applications to host the second Forum in 2010.

And there is IGU's first annual Strategic Statement. This was presented to the Council and the President urged members to distribute it widely. The statement is on gas market integration (see box over) and it will be in force until October.

The President then reported that a working group had been set up to consider the future



IGU President Ernesto López Anadón convenes the 2008 Council meeting...

development of IGU and that discussions had highlighted three areas for change:

- 1** The appointment of regional coordinators;
  - 2** Expanding the role of Associate Members and increasing their seats on the Executive Committee from three to five;
  - 3** Increasing the focus on climate change issues.
- Firm proposals will be brought to the Council in due course.

● **New members**

On the membership front, delegates approved the applications of National Oil Corporation of Libya, the Macedonian Gas Association and Vietnam Oil and Gas Group (PetroVietnam) to become Charter Members, and of Bayerngas (Germany) and GasTerra (The Netherlands) to become Associate Members. They also approved the change from Associate to Charter status of Romgaz as it is the only representative from Romania. IGU now has a total of 102 members (72 Charter and 30 Associate) from 71 countries.

“This is a great honour,” declared Dr Nguyen Van Minh, Vice President of Vietnam Oil and Gas Group, who gave a short profile of his country’s gas industry saying he expected production to more than double by 2020 to up to 1800 mcf/day (50.4 bcm/day). He also invited delegates to GASEX 2008 which Vietnam was preparing to host after the Council meeting (it took place in Hanoi,



Dr Nguyen Van Minh: IGU membership is a great honour.

November 12-15). He concluded by presenting gifts to the President and Hae-Jung Oh, Secretary General of the Korea Gas Union.

The Secretariat continues its efforts to increase membership under IGU’s marketing plan, which has identified a number of countries and companies of particular interest.

● **Introducing the next Triennium**

Taking the floor to introduce the 2009-2012 Triennium, Vice President Datuk Abdul Rahim Haji Hashim and Coordination Committee Vice Chairman Ho Sook Wah announced that it will



...which was a busy one for delegates.



have the theme “Gas: Sustaining Future Global Growth” and four Strategic Guidelines:

- 1** Enhancing the role of gas for sustainable development and balancing the needs of all stakeholders;
- 2** Improving the availability of gas and access to markets;
- 3** Maximising efficiency throughout the expanding gas value chain;
- 4** Ensuring adequate human capability to enable the growth and integrity of the industry.

“We will bring IGM into the mainstream of IGU activities,” said Ho Sook Wah, explaining that there will be a new Programme Committee (E) dedicated to marketing and three Task Forces. These will address the building of strategic human capital, the

nurturing of future generations and the geopolitics of natural gas, while the existing R&D Task Force will be integrated into the IGU Gas Research Conference. He went on to present the logo for the 25th World Gas Conference, which will be held in Kuala Lumpur, June 4-8, 2012, and for which Wan Zulkiflee Wan Ariffin will be Chairman of the National Organising Committee (NOC).

Then the Council approved the nominations of the countries appointing Chairs and Vice Chairs of the five Working Committees and five Programme Committees for the 2009-2012 Triennium (see table). Traditionally the Vice Chairs of the current Triennium take the Chair in the next, so the new selection was for PGC E and the Vice Chairs.

The first session ended with delegates approving IGU’s accounts for 2007 and the budget for 2009.

#### LEADERSHIP OF IGU COMMITTEES 2009-2012

Committee	Country Holding Chair and Candidate	Country Holding Vice Chair
WOC 1	Algeria Kamel E. Chikhi	Algeria
WOC 2	France Hélène Giouse	Slovak Republic
WOC 3	The Netherlands Eric Dam	Argentina
WOC 4	Italy Alessandro Soresina	Germany
WOC 5	Japan Tatsuo Kume	Russia
PGC A	Spain Juan Puertas	Japan
PGC B	UK Colin D. Lyle	France
PGC C	Brazil Antonio L. F. dos Santos	Korea
PGC D	Qatar Alaa Abujbara	The Netherlands
PGC E	Germany Marc Hall	Spain

#### ● Awards

After the coffee break the winners of IGU’s Gas Efficiency Award for 2008 were announced and a new Social Gas Award was launched.

From a field of 40 entries the judges chose a Dutch-German project submitted by Paul Vloon of Bosch Thermotechnik entitled “A new generation of gas-fired heat pumps”, and a Japanese project submitted by Hideki Yamaguchi and Yoshinori Hisazumi of Osaka Gas entitled “An economical thermal network cogeneration system for apartment buildings (neighbouring cogeneration system)”. Each prize was worth €10,000 and the projects are profiled on pages 64-66. The deadline for entries for the 2009 Award is the end of April and again there will be two prizes of €10,000. The best of the four winners will be invited to the 24th WGC in Buenos Aires in October.

Barbara Schmid, who as Advisor to the Secretary General had been coordinating the Awards programme, presented the proposal for a new IGU Social Gas Award to delegates, explaining that it is “more directed to companies and institutions that promote gas efficient behaviour” and as such

## IGU STRATEGIC STATEMENT

### GAS MARKET INTEGRATION: A CORNERSTONE FOR SUSTAINABLE DEVELOPMENT

The dynamics of the world energy scenario have driven the natural gas industry into two correlated trends: growth and globalisation.

As a result, upstream, infrastructure and LNG investments have been triggered, but several predictions agree that the pace might not be enough to avoid considerable disruptions in the foreseeable future.

From a systemic point of view this symptom is an indication that, somewhere along the line, the component parts are not sharing the same expectations.

Natural gas is the cleanest and most efficient fossil fuel, with a high potential of interacting with renewable fuels, providing a solid bridge to the coming generation of sustainable energy sources. However, without a shared understanding of what is needed to enable the gas industry to develop trans-national and regional markets, the full economic and environ-

mental benefits of this amazing fuel are seriously challenged.

There is, however, a general consensus that individual economies have a lot to gain from a viable integration of their gas markets to dampen the uncertainties and settle the needs of both security of supply and security of demand, while adequately balancing commitments for the long term and the flexibility desirable for the short and medium terms.

The role of governments is the cornerstone in any energy integration process, as they are laying the grounds for both clear rules and clear roles.

In line with its Vision and Mission, IGU will actively continue to foster dialogue between all parties: government, NOCs and IOCs, so that these grounds bear the results and solutions the international community is expecting from us.

would not have a cash component. The launch of the new Award was approved by the Council.

A booklet profiling the winning projects of the Argentine Triennium will be produced for distribution at the 24th WGC.

Following Barbara Schmid's presentation, the President thanked her for all her work during a two-year secondment from RWE Transportnetz Gas to first the Danish and then the Norwegian Secretariat, and presented her with a diploma. He also thanked RWE Transportnetz Gas and its CEO Klaus Homann for the company's support of the secondment programme. Klaus Homann, who represents Germany on the Executive Committee, was unable to attend the meetings in Korea but will receive a diploma at the next meeting of the Executive Committee in June.

#### ● Briefings

A series of briefings was kicked off by Alexandre Clauwaert, Vice President International of Suez, who gave a presentation on the merger of Associate Members Gaz de France (GDF) and Suez to form a company with annual revenues of €74 billion which is present throughout the entire energy value chain with a particular strength in LNG. Clauwaert said that in 2007 GDF and Suez sold and transported some 21 bcm of LNG – 9.3% of the global trade. He informed delegates that Georges Bouchard would be the main point of contact in GDF SUEZ as regards IGU business.

Next up was Coordination Committee Chairman Roberto Brandt who gave a progress report on the Triennial Work Programme and plans for presentations at the 24th WGC in Buenos Aires.





Coordination Committee Chairman Roberto Brandt briefs delegates on progress on the Triennial Work Programme.

“For the first time,” he said, “the strategic panels will not conflict with committee sessions, which means the days will be slightly longer and end at 1830.” He then asked Jean Schweitzer, Chairman of WOC 5, to brief delegates on the status of the development of IGU’s energy efficiency indicators, one of the projects which will be presented at the conference, before giving the floor to NOC

Chairman Eduardo Ojea Quintana.

“The 24th WGC,” declared Eduardo Ojea Quintana, “has been declared of national interest by the Presidency of Argentina and the City Council of Buenos Aires.” Launching the preliminary programme, he detailed the latest preparations for the conference and the exhibition, which will run from October 5-9. He also invited entries to an international photography contest with the theme “Views on Gas Worldwide”, set up following a suggestion from Alexander Lipatov, a keen photographer who represents Russia on the Executive Committee. The contest is open to employees of Charter and Associate Members and the winner will announced at the 24th WGC.

#### ● Election time

Presentations from Brazil, France and Qatar followed as the final stage in their bids for the 2012-2015 Presidency and the hosting of the 26th World Gas Conference in 2015. Each contender had 12 minutes and each opted for a combination of a personal address to delegates and a video presentation.

Álvaro Alves Teixeira, Executive Secretary of the Brazilian Petroleum, Gas and Biofuels Institute (IBP), opened with a pitch to retain the Presidency in South America and host the WGC in Rio de Janeiro.

Next up was Jérôme Ferrier, Vice President and Senior Advisor to the President of Total Gas and Power, who stressed France’s record of commitment to IGU, dating back to the Union’s foundation in 1931.

Then Ahmed Al-Khulaifi, Chief Operating Officer Commercial and Shipping of Qatargas, made a strong case for the Presidency and the WGC to come to the Middle East for the first time, given its importance as a producing area.

After the presentations ballot papers were distributed for the 41 Charter Members present to vote. France won and thus Jérôme Ferrier will become Vice President for 2009-2012 and



Secretariat staff Hans Riddervold and Florijana Đedović distribute ballot forms.



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Newly-elected as President for 2012-2015, Jérôme Ferrier thanks delegates for their support.

President for 2012-2015, while Paris will be the venue for the 26th WGC. Jérôme Ferrier took the podium to thank delegates for their support and introduce the key members of his team.

Yves Tournié, Vice President Technology of Total Gas and Power, will be Coordination Committee Secretary, and Daniel Paccoud, Managing Director of the French Gas Association, will be the NOC Chairman for the 26th WGC. Both are members of the current Executive Committee. Georges Liens, who was not present, will be the Chairman of the Coordination Committee.

Daniel Paccoud is fresh from his experience as NOC Chairman for the IGU Research Conference (IGRC 2008), for which the final preparations were being made as the Council convened. Immediate Past President George Verberg took the floor in his role as Chairman of the IGRC Policy Committee to brief delegates on IGRC 2008 and initial preparations for IGRC 2011 in Korea. He will continue in his role, while Torstein Indrebø will succeed Peter Storm as Secretary of the Policy Committee, Marc Florette will take over from Christian Beckervordersandforth as Chairman of the Technical Programme Committee (TPC) and

Rob Badoux will take over from Rob Aptroot as TPC Secretary.

There were also reports from representatives of four energy organisations: Jean Vermeire, President of GIIGNL; Dr Said Nachet, Director of the Energy Division of the International Energy Forum; Vladimir Rakhmanin, Deputy Secretary General of the Energy Charter Secretariat; and Dr Pierce Riemer, Director General of the World Petroleum Council.

The morning's business was rounded off by a presentation on Algerian gas developments from Dr Chawki Mohamed Rahal, the country's representative on the Executive Committee. He reviewed domestic consumption and exports by pipeline and as LNG, noting that Algeria had sold 1 billion cubic metres of LNG since exports started in 1964 and would be hosting LNG-16 in Oran, April 18-21, 2010.

#### ● **Afternoon session**

Following lunch the Council reconvened for the third session, which followed the regular format of having a presentation from the host country followed by a round table and general discussion.

Dr Won Woo Lee, Vice President of the Korea Energy Economics Institute, started the proceedings with an overview of the Korean energy scene. Given Korea's high energy import dependency (96.6%), he said the policy priorities are to ensure security of supply and improve energy efficiency. The country will continue to build its investments in upstream developments overseas while expanding the role of nuclear and renewables. Dr Lee forecast that Korea's primary energy consumption will increase from 240 million tonnes of oil equivalent (mtoe) in 2008 to 300 mtoe by 2030, with an average annual increase of 1.5% up to 2020 falling to 0.4% between 2020 and 2030 as the energy efficiency drive kicks in.

Moving to a regional perspective, the round table looked at emerging issues, challenges and opportunities in the Asian gas market. It was



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**GDF SUEZ**

REDISCOVERING ENERGY



IGU Vice President Datuk Abdul Rahim Haji Hashim moderated the afternoon's round table.

moderated by Datuk Abdul Rahim Haji Hashim and the panellists were Alaa Abujbara, Marketing Director of Qatargas, John C. Harris, Director – Global LNG of Cambridge Energy Research Associates (CERA), who is based in CERA's Beijing office, and Dr Gi-Chul Jung, Chief Researcher at

the Kogas Centre for Gas Economics and Management, who is a member of PGC C.

Asia-Pacific dominates the LNG business, trading 38% of global exports within the region and buying another 27% from other regions. Acknowledging that there had been a recent tightness in supply, the panellists pointed to major new projects coming onstream that will alleviate this and cater for growth.

Alaa Abujbara pointed out that temporary shutdowns in Japan's nuclear generating capacity had increased demand for spot LNG shipments and Qatar had helped by diverting some supplies from the Atlantic Basin. Moreover, by 2011, when Qatar reaches its target annual output of 77 million tonnes, the largest share (40%) will go to Asia with 35% to Europe and 25% to North America. "We originally intended the split to be one third each," he said.

Observing that 100 million tonnes of LNG capacity are set to come onstream over the next four to five years, John Harris said that there is no



The farewell party was held in the grounds of the Gyeongju Hilton. (OPPOSITE) Hae-Jung Oh, Secretary General of the Korea Gas Union, is seen at centre of this group. (ABOVE) IGU President Ernesto López Anadón thanks the Korean hosts.

shortage of reserves. "The issues are above ground," he declared, highlighting the increasing costs of constructing liquefaction capacity.

Dr Jung added that several major projects have suffered delays and also pointed out how political factors are affecting Iranian supply potential. However, he said the arrival of pipeline gas from Central Asia within the next couple of years and ultimately from Russia will bring new competition: "The Asian gas market is growing strongly offering a great deal of opportunities." He expects to see an increase in the number of suppliers and consumers and more flexibility in contracts.

Both Dr Jung and John Harris addressed the traditional practice of oil indexation pricing clauses in Asian contracts. "Oil indexation does not reflect the market situation," said Dr Jung, and John Harris said it inhibited the convergence of regional gas prices. Convergence, he said, would require a significant increase in the amount of "flexible" or spot LNG to arbitrage across markets and he did not expect this in the near term. Dr Jung put the

timeframe for developing a more competitive LNG market at 10-15 years, but stressed that "a peaceful resolution of the nuclear issues in North Korea and Iran could change the Asian gas market dramatically".

Questions from the floor brought up the issue of different gas quality specifications and the costs entailed in switching the destination of LNG cargoes. Indeed, this is a particular focus of PGC D's work on which Study Group D.1 will be reporting at the 24th WGC.

As the most senior honorary official present, George Verberg closed the main proceedings by thanking the hosts for their excellent organisation, and the day was rounded off with a farewell dinner and a spectacular fireworks display.

The 2009 Council meeting will be held immediately prior to the 24th WGC on October 5 in Buenos Aires.

*Mark Blacklock is the Editor-in-Chief of International Systems and Communications.*



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Preparing the next generation of LNG plants, Technip is performing engineering studies, Pre-FEED's and FEED's, for several projects in Australia, Russia, Nigeria and elsewhere. Of particular note is the FEED for the Shtokman liquefaction plant. Furthermore, new technology for ethane recovery from LNG is being implemented through a FEED in Arzew, Algeria for Sonatrach.

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- The use of hydraulic turbines in place of Joule-Thomson valves
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