

# Adriatic LNG: The energy lives here

The Adriatic LNG Terminal is the first offshore, gravity-based structure (GBS) in the world for unloading, storage and regasification of liquefied natural gas (LNG). Engineers, technicians, and companies all joined forces to construct this remarkable structure, located in the North Adriatic sea, about 15 kilometres off the Veneto coastline, Italy. This new source of energy supplied from offshore is a major strategic breakthrough in Italian energy history.

The Terminal was designed, built and operated by Terminale GNL Adriatico S.r.l., commonly known as Adriatic LNG. The company was founded in 2005 by three leading companies in the energy sector: Qatar Terminal Limited (45%) – a Qatar Petroleum subsidiary, ExxonMobil Italiana Gas (45%) – an ExxonMobil subsidiary and Edison (10%).

With its 8 billion cubic meters capacity, approximately equal to 10% of the country's entire gas consumption, the Adriatic LNG Terminal will make a significant contribution to increasing and diversifying Italy's traditional sources of energy imports, thus contributing to the security and competitiveness of Italy's energy supplies.

## ► Technology and innovation

Overall 375m long and 115m wide, with the main deck 18 meters above the sea level, the facility is built with cutting edge technologies and boasts a highly innovative infrastructure. It is a crucial structure that has only been realized by bringing together a unique team of minds and resources from all corners of the globe.



The first LNG Cargo approaching the Terminal in August 2009

## ► Safety, a number one priority

In every strategic decision that has been made regarding the Adriatic LNG Terminal, in every proposition that has been forwarded and every action that has been taken, there has always been one overriding factor, and that is safety. Safety in terms of people and safety in terms of the environment. The structure is equipped with the latest control systems that allow safe completion of activities even under adverse weather and sea conditions.

## ► The Terminal and the environment

Adriatic LNG has adopted and adheres to the highest standards of environmental protection, which are regularly applied in day-to-day operations. The Terminal has passed four different Environmental Impact Assessments and obtained the Integrated Pollution Prevention and Control authorization to begin operating. In accordance with the relevant authorities, the Terminal has also adopted more than 100 specific environmental protection measures and activated environmental monitoring programs for both its construction and operation.

## ► Global vision, local focus

The Adriatic LNG Terminal mission has always had a twin focus: to provide the nation with a strategic entry point for new sources of energy, while also providing important new opportunities for local employment and development. Therefore in addition to the selection and training of engineers, technicians, and administrative staff for its on and offshore bases, Adriatic LNG has also insisted on selecting local firms for the supply of goods and services. To promote informed awareness of its activities and to cement local collaboration and cooperation, the Company has also developed a close working relationship with local schools, institutions and associations. This sense of togetherness is stimulated through sponsorships, visits and talks, all of which the Company believe are essential to the active, responsible role it plays in the economic, social, and cultural life of the local community.

# THE ENERGY LIVES HERE





## IGRC2011: Innovation is the Key to a Sustainable Future

By Robert Badoux and Jeanet van Dellen

The International Gas Union Research Conference (IGRC) aims to be the most important research and development (R&D) conference of the gas industry where technological developments meet market needs. The IGRC is a global event scheduled to take place around 12 months before the World

Gas Conference (WGC). With this timing it is possible to bring major results from the IGRC up to date and present them at the next WGC.

The IGRC provides gas researchers and other interested business partners with an excellent opportunity to exchange thoughts and ideas.

Natural gas plays a vital role in meeting the world's expanding energy needs; and despite intense interest in accelerating the development of "green energy" for the creation of the low carbon economy, it will continue to have an important role in the future global energy mix. However, the gas industry is facing a new energy regime with strong focus on the reduction of carbon emissions, enhanced energy efficiency and renewable energy – climate change, safety and competitiveness are its three main challenges. Researchers have a particular role to play in understanding the long-term impact of today's activities and decisions and preparing the technology and innovations for the future.

Technological success for the gas industry cannot be taken for granted, but will have to be based on R&D focusing on basic science as well as technology breakthroughs. In addition, technological developments should be closely linked to the requirements of the market players in the gas industry for increasing gas competitiveness.

In order to maintain natural gas's prominent role as the fuel of choice in the coming decades, IGU needs to position gas as the engine for global growth. More than ever, the gas industry needs to combine skills and resources with those of institutions of higher learning on the one hand, and engineering organisations and equipment manufacturers on the other, to define the technology breakthroughs which will increase the competitiveness and sustainability of natural gas by offering exceptional efficiency to our customers.

### ● IGRC2008

In 2008 the International Gas Union Research Conference (IGRC2008) was organised in Paris and was a great success. With over 800 registered



IGRC2008 featured a number of additions to the conference's format including a CEOs' round table.

participants from 41 countries, the conference provided a unique exchange and networking opportunity for researchers, experts and business people. We can conclude from the CEOs' round table which took place for the first time at an IGRC that the involvement of companies in R&D has developed extremely positively. For more information, see the April 2009 issue of the IGU Magazine, pages 78-80.

### ● **IGRC2011**

The preparations for the next IGRC are on track for a successful conference to be hosted by the Korea Gas Union in Seoul, October 19-21, 2011.

Over 100 gas professionals from Asia visited Paris and presented many high quality papers. Bearing in mind that the gas industry in Asia is growing at a relentless pace, we expect many

more intriguing innovations from Asian scientists in Seoul. For 2011 the Americas and Europe are challenged to take on this competition and to contribute to the same degree as that can only be good for our industry. Let intercontinental exchange of technological developments give another boost to the gas industry so we can fully exploit the efficiency and environmental advantages of the best fossil fuel.

To emphasise the challenges on the road to a bright future of natural gas in the energy mix and the importance of R&D, the next IGRC will be held with the slogan "Innovation is the key to a sustainable future".

### **Programme**

Workshops and round tables are planned on technological topics and major issues facing the

## BACKGROUND INFORMATION ON THE IGRC

Since 2005, IGU has taken the IGRC under its umbrella. IGU is committed to promoting R&D activities within the global gas industry, and sees the IGRC as one of the means of working towards that goal.

The origins of the IGRC go back to 1980 when the International Gas Research Conference was launched as a joint initiative of IGU and the US Gas Research Institute, with the latter responsible for providing the secretariat for the conferences which were held approximately every three years. In 2000, the Gas Research Institute merged with the Institute of Gas Technology to form the Gas Technology Institute (GTI), which was responsible for the 2001 and 2004 events.

After IGRC2004 in Vancouver, IGU and GTI agreed that in future the event should be organised under the auspices of IGU with the revised name International Gas Union Research Conference, retaining the IGRC abbreviation. IGU accepted an offer from Dutch Charter Member the Royal Dutch Gas Association

(KVG/N) and N.V. Nederlandse Gasunie to create a non-profit foundation to provide services to the IGRC. This is the Foundation International Gas Union Research Conferences (Foundation IGRC) and now provides secretarial functions to the Technical Programme Committee of each IGRC. Both Foundation IGRC and GTI are Organisations Affiliated to IGU.

Apart from the two founding partners the IGRC has support from different organisations. In the Policy Committee (PC) and Technical Programme Committee (TPC) the following organisations are currently represented: GTI, Gasunie, GDF Suez, Japan Gas Association, DVGW (German Technical and Scientific Association for Gas and Water), Gazprom, Sonatrach, Nigerian Gas Association, Romgaz, E.ON Ruhrgas, KEMA Gas Consulting & Services, DGC (Danish Gas Technology Centre), Kogas, Tokyo Gas and Petronas. With this worldwide representation the IGRC has the capability to develop an interesting programme covering all current topics.



The IGRC Policy Committee is working to ensure a successful event.

gas industry. In addition, there will be oral and poster sessions on each of the links in the gas chain. An innovation exhibition will also be organised in parallel with the conference.

The conference programme will offer a proper balance between research and more business-oriented issues. One must not forget that the IGRC is the only gas R&D conference, so “real” researchers should feel encouraged to attend and submit papers.

The IGRC leads up to the World Gas Conference one year later and thus needs to be more firmly anchored in the IGU structure. This will be done through increased interactions, such as:

- Regular contacts between the IGRC Technical Programme Committee (TPC) and IGU’s Technical Committees in order to embed R&D in the different committees and to ensure that their members are aware of this connection and have sessions on technology and research in the different study groups.
- A special IGRC follow-up session at WGC2012 with two items:
  - a report on the major findings of IGRC2011; and

- a strategic panel on “R&D and business”.

- Encouraging authors of IGRC2011 papers with a high level of business orientation to submit updated versions to WGC2012, and giving these papers priority for presentation.

**Focus**

The focus of the conference is minimising the footprint of the natural gas chain. The TPC has a programme in mind with sessions dedicated to:

- each segment of the gas chain from exploration and production to natural gas uses;
- gas and renewable energy sources / sustainable development;
- strategy, economics and regulation; and
- specific Asian topics, such as LNG, fuel switching and gas utilisation.

**Venue and call for papers**

The location of IGRC2011 will be COEX, the number one convention facility in Korea. The call for papers will be sent out in the third quarter of 2010 and the final



conference programme will be distributed in early 2011.

***Dan A. Dolenc Award and IGU Efficiency Award***

In honour of Dan Dolenc, the well-known organiser and promoter of previous IGRCs, an award is made for the best of the papers selected for the poster sessions. The 2011 winner will receive a certificate and a €10,000 prize.

For the first time the IGU Efficiency Award will be connected to the IGRC. The best papers in the field of gas efficiency can enter the competition for this prestigious award to be given at the 25th WGC in Kuala Lumpur, Malaysia, in June 2012. The winner will be invited to attend the WGC, with travel and accommodation expenses covered, and will receive a cash prize of \$5,000.

For further details about the conference programme, call for papers and information about sponsoring opportunities please visit [www.igrc2011.com](http://www.igrc2011.com).

● **Invitation to host IGRC 2014**

It is now possible to express your interest and candidacy to host the IGRC2014 conference and innovation exhibition. Please contact the IGU Secretariat if you are interested in the opportunity or would like to have more information on the possibilities of hosting this important event. The deadline to submit applications is June 1.

*Robert Badoux is Secretary of the IGRC Technical Programme Committee and Jeanet van Dellen is Assistant to the Secretary General.*



COEX in Seoul will be the venue for IGRC2011.

# Qatargas

Natural gas is increasingly becoming the fuel of choice for customers around the world due to its clean-burning and lower emission qualities. As leaders in the liquefied natural gas (LNG) industry, Qatargas is proud to deliver one of Qatar's most precious and important natural resources to the world.

Qatargas was established in 1984 as one of the main vehicles to develop the extensive offshore North Field. Qatargas began as a project with three trains of two million tonnes per annum (mtpa) capacity. Following a debottlenecking project in 2005, the total capacity of the trains rose to 9.7 mtpa.

Qatargas produces three main products for export: LNG, condensate and sulphur. In addition, helium and LPG are sold as secondary products. By the end of the decade we will be exporting these products to every corner of the globe. This achievement will be matched by our commitment that every market and every customer will be completely satisfied with our products and services.

Currently the Company is undergoing a period of rapid expansion, which when completed by the end of 2010 will see us exporting 42 million tonnes to markets in Europe, Asia and North America. The Qatargas 2, Qatargas 3 and Qatargas 4 projects will increase the total number of LNG trains to seven from the original three. Laffan Refinery is one of the world's largest refineries, with a processing capacity of 146,000 barrels per stream day.

The Qatargas 2 project, inaugurated in April 2009, is the world's first fully integrated value

chain LNG venture. It involves the development of two world class LNG trains each with a capacity of 7.8 mtpa of LNG and 0.85 mtpa of liquefied petroleum gas (LPG), 140,000 bpd of condensate, three storage tanks, power utilities and water injection systems, a fleet of 14 ships and a receiving terminal at Milford Haven, United Kingdom.

Along with our advances in onshore LNG facilities, Qatargas has pioneered the development of two new classes of LNG tankers. The Q-Max and Q-Flex LNG tankers have a cargo capacity 50-80% larger than the current LNG fleet.

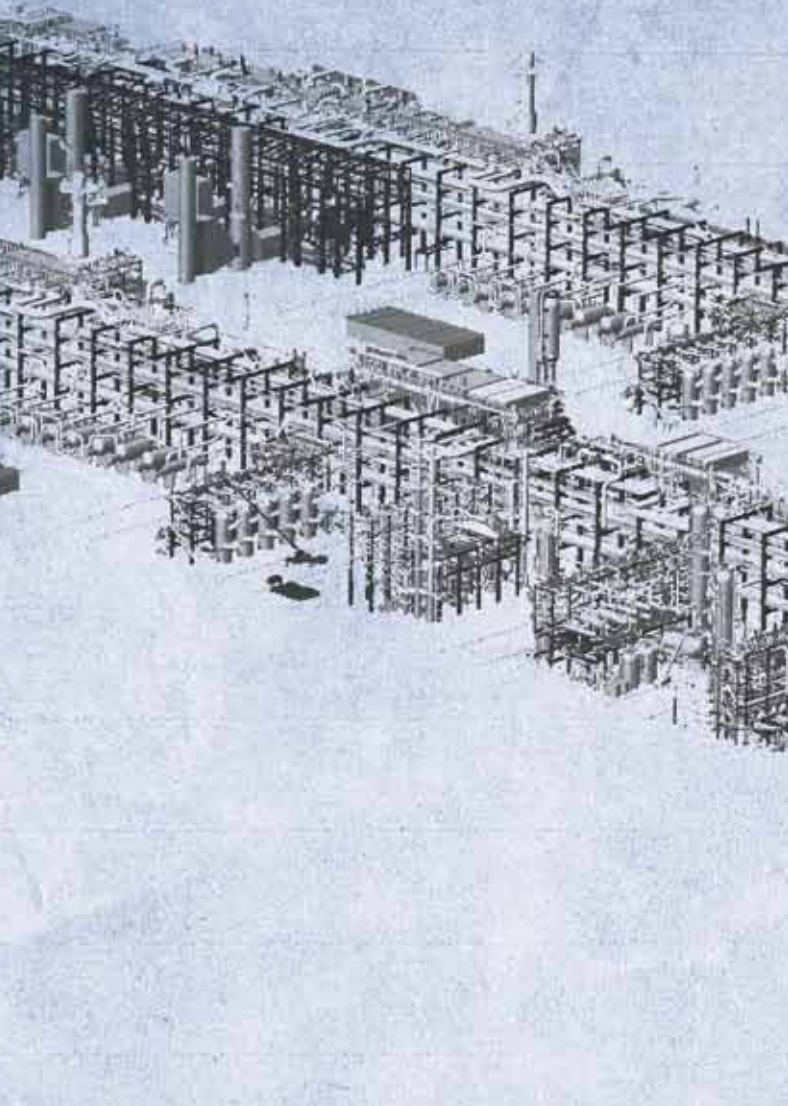
Currently Qatargas 1 supplies LNG under long term contracts to customers in Japan and Spain. Qatargas 2 is supplying customers in the United Kingdom, Europe and Japan. Qatargas 3 and 4 will be supplying markets in the United States, Europe and Asia, predominantly China, by the end of 2010.

Buyers in Japan were the foundation customers for the development of the original Qatargas trains. Qatargas currently supplies eight companies in Japan. The majority of these are power and gas utility companies which supply gas and electricity to millions of domestic users in the Japanese market.

In addition, in recent times we have supplied spot cargoes to the USA, Canada, UK, France, Italy, Spain, Turkey, Japan, China, and Mexico.

Although our world leading projects are ambitious, we remain focused on our goal. A goal matched by our commitment that every customer will be completely satisfied with our products and services.

# From vision to reality



Every day millions of people around the world rely on Qatargas. We are committed to supplying clean, reliable Liquefied Natural Gas (LNG) from Qatar to meet growing energy demand. Qatargas takes this responsibility seriously. We have built the world's largest LNG processing train and a dedicated fleet of mega-ships to transport our energy to the world.

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## Message from the Chairman of the NOC for WGC2012

*Dear Friends*

The launch ceremony in Kuala Lumpur, Malaysia, on November 5, 2009, marked the beginning of our journey as we embark on preparations to host the foremost gas event in the world, the 25th World Gas Conference or WGC2012. Based on the experience at both the launch ceremony and the handover ceremony during the 24th WGC in Buenos Aires, Argentina, we certainly have a lot to live up to in fulfilling the high expectations of Malaysia as the host of the upcoming WGC which will be held from June 4 to 8, 2012.

The official launch of WGC2012, which took place at the Kuala Lumpur Convention Centre, served not only to introduce the event to the Malaysian public but it was also a declaration of our commitment to making this event a success



Datuk Wan Zulkiflee, Chairman of the NOC.

within the gas fraternity globally. The ceremony saw Datuk (Dr) Abdul Rahim Hashim, as the newly appointed President of IGU, launch WGC2012 to more than 300 key industry players and members of the media.



IGU President, Datuk (Dr) Abdul Rahim Hashim, addresses key industry players and media representatives at the WGC2012 launch ceremony.



Members of the NOC, the Malaysian Gas Association (MGA) and the Coordination Committee celebrate the launch.

With a significant gas infrastructure and a growing economy, Malaysia is indeed playing a prominent role in the global gas industry. As the second Asian country to be given the honour to lead IGU and host the World Gas Conference, we would like to thank IGU members for the trust they have placed in us to work closely with gas companies globally to further drive the industry forward, especially in these challenging times.

On behalf of the National Organising Committee (NOC), I would like to invite all of you

to visit Kuala Lumpur and experience the vibrancy as well as the unique atmosphere it offers. As our esteemed guests, we invite you to experience the renowned warm Malaysian hospitality. Rest assured that members of the NOC will do their very best to be the ideal hosts in Kuala Lumpur, Malaysia.

Datuk Wan Zulkiflee



Guests enjoy a welcome drink.



MGA Secretary General, Zenorai Rambli (*far right*), briefs a party of guests.



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# WGC2009

This special section commemorates the 24th World Gas Conference, which was held October 5-9, 2009, in Buenos Aires, and was attended by over 3,500 delegates from 83 countries. We start with an overview from the editor and then publish the summary report of the Technical Committees.

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## **Wide-ranging Debates at WGC2009** **80**

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## **WGC2009 – Post-Conference Report from the Technical Committees** **88**

Working Committee 1 – Exploration and Production 88

Working Committee 2 – Storage 89

Working Committee 3 – Transmission 90

Working Committee 4 – Distribution 94

Working Committee 5 – Utilisation 96

Programme Committee A – Sustainable Development 98

Programme Committee B – Strategy, Economics and Regulation 100

Programme Committee C – Developing Markets 104

Programme Committee D – LNG 107

Task Force Research and Development 110

Task Force on Gas Market Integration 112

IGU Marketing Committee 114



## Wide-ranging Debates at WGC2009

By Mark Blacklock

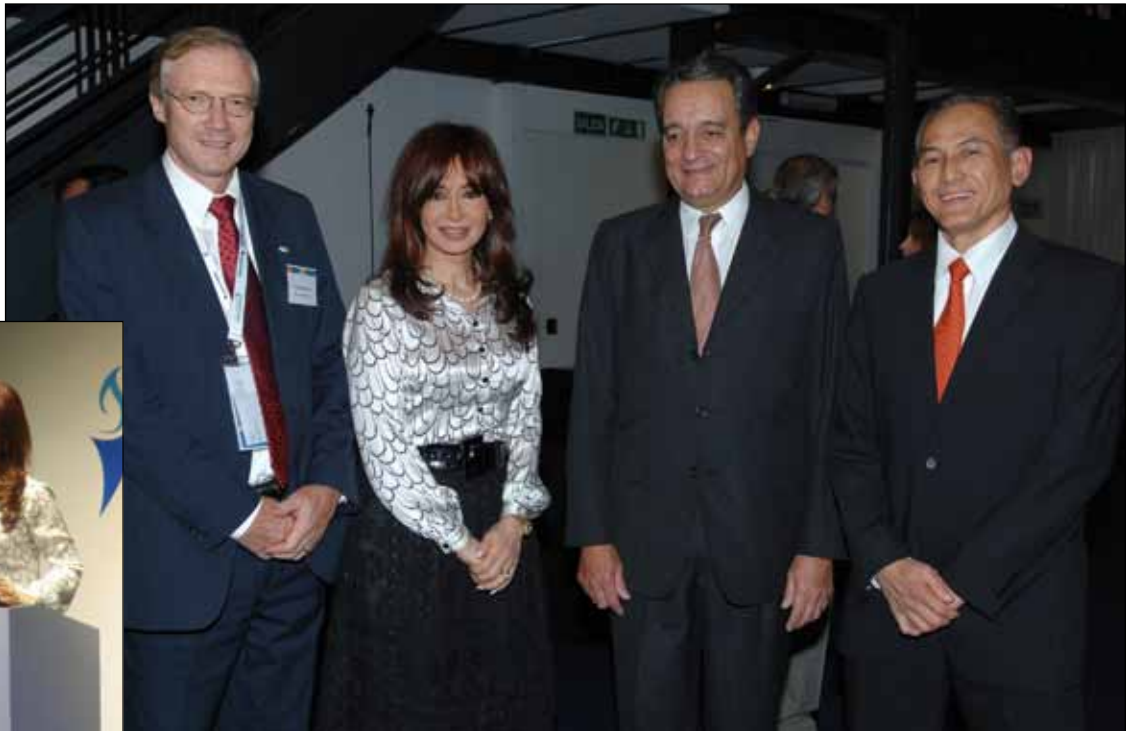
Over 3,500 participants from 83 countries gathered in Buenos Aires for the 24th World Gas Conference in October 2009, an impressive figure at a time of economic downturn and one which underlines the event's importance as a global forum. This WGC had the additional significance of being the first held in the southern hemisphere, and it was opened by Argentina's President, Cristina Fernández.

The conference's theme, "The Global Energy Challenge: Reviewing the Strategies for Natural Gas" was drawn from the first of the Argentine Presidency's three strategic guidelines. Its packed

programme was half an hour longer each day than the previous WGC in Amsterdam to avoid the Keynote Addresses and Strategic Panels overlapping with any Technical Sessions. In another innovation, the Technical Café combined a traditional display of posters with computer access to more detailed papers in a relaxed environment, which complemented the formal presentations of IGU's Technical Committees. In all, a record 356 papers and posters were presented.

As well as reviewing the work done during the 2006-2009 Triennium, delegates discussed how they were managing the short-term strains of falling demand and prices, while developing the long-term potential of natural gas as the cleanest of the fossil fuels.

With COP15 on the horizon, it was no surprise that climate change was a major issue. Indeed, the contribution natural gas can make to a



The 24th WGC was opened by Argentina's President, Cristina Fernández, in a ceremony held at the Luna Park auditorium in downtown Buenos Aires. She is seen in the main picture flanked by then IGU President Ernesto López Anadón (*right*), incoming President Datuk Rahim Hashim (*far right*) and the Secretary General, Torstein Indrebø (*left*).

sustainable energy future has long been a key item on IGU's agenda. It is enshrined in the Union's Vision, Mission and Objectives, and was incorporated in the second strategic guideline of the Argentine Presidency.

Pricing was also clearly going to be a hot topic given the major disconnect between gas and oil prices in the run-up to the conference, when gas was trading at around 25% of the equivalent energy value of oil.

And the integration of regional gas markets – on which the third strategic guideline focused – naturally had a key place in the programme.

But what was remarkable is how quickly unconventional gas has moved up the WGC agenda from discussions at a technical committee level in Amsterdam in 2006 to a plenary level topic in 2009. Keynote speaker after speaker affirmed that the exploitation of unconventional –

particularly shale – gas resources in the US has been a game changer.

In the accompanying exhibition, 270 exhibitors promoted their companies and organisations with the honours for the most striking stand going to IGU Charter Member Gazprom, which built an ice-rink and staged performances by Russian skaters.

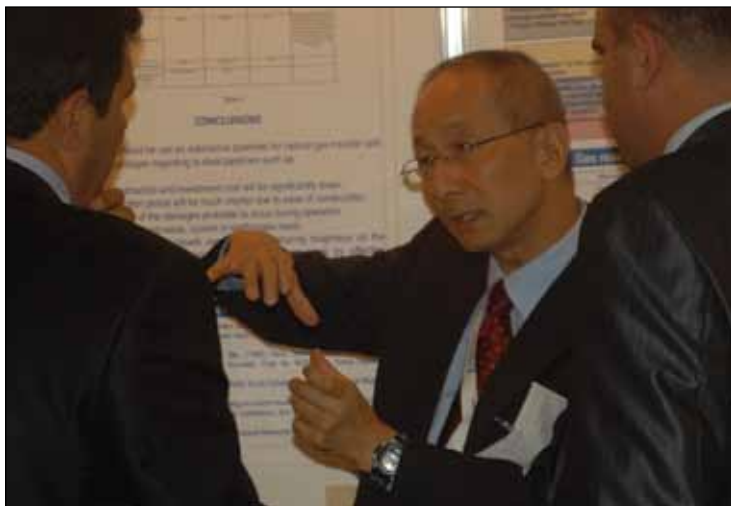
● **Climate change and sustainable development**

A key message of the WGC was the need for the gas industry to step up its lobbying of policy-makers to promote gas as part of the solution to climate change.

"We still have a lot of work to do in terms of geopolitics," said Professor Dr Coby van der Linde, Director of the Clingendael International Energy Programme and a member of the IGU Wise Persons Group, "and IGU is the obvious



Energy ministers taking part in the conference included Algeria's Dr Chakib Khelil (seated left) and Argentina's Julio de Vido (seated right).



Explaining a point in the Technical Café.

forum to take this up.” Her colleague in the Wise Persons Group, Dr Daniel Yergin, Chairman of IHS CERA, declared: “Natural gas needs to be a policy shaper not a policy taker”.

They were speaking during the first Strategic Panel when IGU’s “Natural Gas Industry Study to 2030” was launched. This key deliverable of the Argentine Presidency drew on the expertise of all the IGU Technical Committees and forecasts an annual average growth rate for the gas market to 2030 of between 1.8% and 2.2%, depending on the policy environment.

Speakers throughout the conference went on to set out a roadmap to tackle carbon emissions by expanding the role of the natural gas industry, improving its efficiency and working with the renewables sector.

In the words of GasTerra’s Head of Public Affairs, Geert Greving, who was the master of ceremonies for an innovative multi-media presentation on gas marketing: “The road to sustainable development is paved with natural gas”.

Coal remains the world’s number two fuel after oil – accounting for 29% of global primary energy consumption – but it is the dirtiest fossil fuel. Despite years of talk about operating carbon capture and storage (CCS) in conjunction with

coal-fired electricity generation (and in contrast to the gas industry’s pioneering CCS work), there is still no project up and running. As Didier Houssin, IEA’s Director of Energy Markets & Security declared: “It is essential we move to decarbonise the electricity sector”.

Policymakers tend to focus on renewables but while they are certainly playing an increasing role, “nobody can guarantee maintaining peak loads with energy produced from renewable sources”, pointed out Alexey Miller, Deputy Chairman of the Board of Directors & Chairman of the Management Committee of Gazprom.

Moreover, renewables are growing from a small base and there is still a lot of work to be done to reduce costs. “Greater use of natural gas can provide us with the quickest, most realistic path to achieving the largest emissions reductions at the lowest cost,” said BP’s CEO Tony Hayward.

Gas can be used in tandem with renewables with Rune Bjørnson, Statoil’s Executive Vice President for Natural Gas highlighting that its “flexibility in the power sector is unique”, while Norio Ichino, Chairman of the Japan Gas Association pointed to the successful launch of residential fuel cells in Japan which use hydrogen extracted from the city gas supply.

However, Hayward acknowledged that gas price volatility needs to be addressed, while Bernhard Reutersberg, CEO of E.ON Ruhrgas added that security of supply was a concern to policymakers. “It is essential to position gas better as a reliable, efficient and environmentally friendly energy source,” he said.

### ● Pricing

Of course, all energy prices were on a roller coaster during the last Triennium but as Repsol YPF’s CEO, Antoni Brufau, pointed out: “Gas prices did not recover in the middle of this year as oil prices did”.

At the time of WGC 2006, the Henry Hub price for gas was \$6 per million Btu. It peaked at \$13



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in mid-2008 and was just under \$4 at the time of WGC 2009. However, the oil price at the time of WGC 2006 was \$70 a barrel, peaked at \$147 in mid-2008 and was back to \$70 at the time of WGC 2009.

“There have been disconnects in the past but today’s is of a greater magnitude,” said Jean-François Cirelli, Vice Chairman & President of GDF Suez. Moreover, pointed out Tan Sri Hassan Marican, President & CEO of Petronas: “Gas prices across regional markets have diverged significantly”.

“We must review how we contract and price gas sales,” said BP’s Hayward, while Marican called for a long-term price formula linked to other fuels “to encourage development”.

Wholesale gas pricing is one of the issues being studied by the Gas Exporting Countries Forum (GECF) now that it has become a formal body with statutes and a secretariat. Other issues on GECF’s agenda include analysis of supply and demand trends, investment programmes and coordination of major projects. “The challenge will be to work together to ensure supply in an organised way to the benefit of both suppliers and consumers,” said Dr Chakib Khelil, Algeria’s Minister of Energy & Mines, who was GECF Vice President at the time of the conference and is about to become President.

Retail pricing was addressed by Thomas Skains, Chairman of the American Gas Association, and Chairman, President & CEO of Piedmont Natural Gas Company, Inc. “Traditional volumetric rate designs are no longer appropriate in today’s new energy economy,” he said. “We should, instead, encourage the adoption of new regulatory rate structures that align the interests of energy utilities and their customers with energy efficiency and conservation.”

### ● Unconventional gas

Some delegates questioned whether low prices might slow down the supply of higher-cost unconventional gas but all were agreed on its market impact – it now accounts for over half of US gas production and the need for imports of Canadian pipeline gas and LNG is falling.

“Domestic production, led by unconventional onshore shale gas, has increased about 9% over the last two years,” reported Skains. He went on to say that the US gas resource base is now estimated to exceed 2,000 tcf (56 tcm), “that’s about 100 years of gas supply at current US demand levels and with current technology”.

The US has been exploiting unconventional gas (tight, shale and coal-bed methane) for many years, but technical advances in terms of combining horizontal drilling and hydraulic



| Rune Bjørnson, Statoil’s Executive Vice President Natural Gas, gave one of the four Luncheon Addresses.

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fracturing with greater understanding of the formations have paid off dramatically in recent years. Although there are environmental issues due to high water consumption and the use of chemicals, in the words of IHS CERA's Yergin, "this may well turn out to be the most significant energy innovation of the decade".

#### ● LNG and market integration

Innovation on the LNG front was called for by Total's Chairman & CEO, Christophe de Margerie, who asked: "Are the 7-8 mtpa trains the best we can do?" And Faisal Al-Suwaidi, Chairman & CEO of Qatargas provided an answer saying that he thought debottlenecking could get another 2 mtpa from each Qatari megatrains once the North Field moratorium is lifted. "LNG will play an increasingly important role in energy diversification in many countries," declared Al-Suwaidi.

After a hiatus in 2008 caused by construction delays, LNG production capacity is flooding on stream. Russia joined the ranks of LNG exporters in March 2009 and Yemen did so just after the WGC. Peru will follow in the second half of 2010, Angola in 2012 and existing exporters are boosting capacity. Although supply is currently out-

stripping demand, this situation is not expected to last as global economic recovery kicks in.

The potential was underlined by Chevron's Executive Vice President Upstream & Gas, George Kirkland, who briefed delegates on the newly-approved Gorgon Project, describing it as "a long-term growth engine with prime access to the entire Asia-Pacific market". Kirkland said that the Wheatstone project would be next in line to boost Australia's LNG exports, while Gazprom's Miller was also bullish, forecasting that Russia would be producing 80-90 mtpa of LNG by 2020.

And while the role of long-term contracts remains vital, the amount of uncommitted capacity is increasing. Repsol's Brufau pointed out that "virtually half of new LNG capacity is flexible".

The increase in short-term trades and the inherent flexibility of LNG, which can be purchased via a long-term supply chain or as discrete cargoes through temporary, floating regasification terminals, is one of the factors helping to integrate regional gas markets. "LNG is the new model of energy integration in South America," said Maria das Graças Silva Foster, Director of Gas & Energy at Petrobras, pointing to new import terminals in Argentina, Brazil and Chile.

BELOW  
The exhibition  
featured 270  
companies and  
organisations.



Gas market integration (GMI) has clear advantages in terms of both supply and demand security, and IGU's Task Force on GMI presented a model based on analysis of nine case studies from around the world to identify the key issues and stages in a successful integration process.

### ● Investment

Despite the short-term pressures on demand and prices, the long-term outlook for the gas industry is promising. However, delegates stressed the need to maintain investment to realise this promise.

"Without continued investment, natural gas will simply not be able to meet demand and drive economic growth," declared Chevron's Kirkland. "Construction of new infrastructure is vital," said Gasunie's Chairman of the Executive Board & CEO, Marcel Kramer, who called on policymakers to create a regulatory environment that balances the needs of investors and consumers.

The issue of investment was also addressed by Azizollah Ramezani, Deputy Oil Minister & Managing Director of the National Iranian Gas Company, who said his country's gas sector was open for business: "Foreign direct investment will be key to the long-term development of gas supply



During the closing ceremony Ernesto López Anadón handed over as IGU President to Datuk Rahim Hashim.

projects in the region". Meanwhile, Petronas's Marican stressed the importance of investment in human resources, a focus of one of the strategic guidelines of the new Malaysian Triennium.

The official handover from Argentina to Malaysia was made during the closing ceremony of the conference which IGU's outgoing President, Ernesto López Anadón said had "achieved our objective of making the voice of the gas industry heard throughout the world and enabled a better understanding of the challenges that all areas of our industry face". Accepting the baton, Datuk Abdul Rahim Haji Hashim thanked the Argentine team for a job well done and declared that "it is an honour and a privilege for Malaysia to take on the IGU Presidency", while noting that at two years and eight months the new Triennium will be the shortest in IGU's history. It will culminate in the 25th WGC in Kuala Lumpur in June 2012.

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

