

International Gas SEPTEMBER 2004
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Site web : www.sonelgaz.dz



International Gas SEPTEMBER 2004

The IGU Magazine

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International Systems and
Communications Limited
36 Grosvenor Gardens
London SW1W 0EB
England

Telephone: + 44 20 7730 5454
Facsimile: + 44 20 7730 6936
E-mail: general@intscltd.demon.co.uk
Website: www.isyscom.com

International Gas Union
c/o DONG A/S
Agern Allé 24-26
P. O. Box 550
DK-2970 Hørsholm
Denmark.

Telephone: + 45 45 17 12 00
Facsimile: + 45 45 17 19 00
E-mail: secre.igu@dong.dk
Website: www.igu.org

We've invested in Egypt

We've invested in Myanmar

Now Iran, Turkey, Bangladesh,
Phillipines, Malaysia, Pakistan and
Thailand are in the pipeline



And we've just begun.



GAIL (India) Limited

Gas & Beyond



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The opinions and views expressed by the authors in this book are not necessarily those of IGU, its Members or the publisher. While every care has been taken in the preparation of this magazine, they are not responsible for the authors' opinions or for any inaccuracies in the articles.

Unless otherwise stated, the dollar (\$) values given in this magazine refer to the US dollar.

RasGas: Crossing Boundaries

RasGas was established in 1993 to produce and sell hydrocarbons from the world's largest non-associated gas field, Qatar's North Field. Its vision is to be a world-leading and pacesetter LNG producer and supplier, as measured by profitability, operational performance, commitment and concern for people and the environment.

The Ras Laffan Liquefied Natural Gas Company Limited is owned by Qatar Petroleum (QP – 63%), ExxonMobil RasGas Inc. (a wholly owned subsidiary of Exxon Mobil Corporation – 25%), Itochu Corporation (4%) and LNG Japan Corporation (3%). KORAS, a Korean-owned entity, was also established to acquire a 5% equity interest in the Company.

Ras Laffan Liquefied Natural Gas Company Limited (II) was established in 2001 by QP (70%) and ExxonMobil (30%) to fund and oversee the construction and operation of trains 3 and 4.

RasGas Company Limited was established in 2001 by QP (70%) and ExxonMobil (30%), to assume responsibility for providing a full range of operations and maintenance management services to RasGas, RasGas (II) and future expansion opportunities.

► Success story

Two fundamental elements in the success story of RasGas are its long-term Sales and Purchase Agreements (SPAs) with the Korean Gas Corporation (KOGAS) in 1995 and Petronet LNG Limited of India (PLL) in 1999. To supply the KOGAS SPA, RasGas constructed its first two LNG trains with a combined capacity of 6.6 MTA. A third train was built to meet the requirements of the Petronet SPA, while train 4 is currently under construction to fulfill future requirements.

During 2003, RasGas signed four new agreements with leading energy companies; Endesa Generacion of Spain, Edison Gas S.p.A of Italy, the Chinese Petroleum Corporation of Taiwan and US major, Exxon Mobil Corporation.

To accommodate its new ex-ship SPAs, RasGas

(II) has concluded a number of time charter agreements with two separate shipping company consortia to provide six LNG tankers. All of these dedicated LNG tankers are to be constructed at Samsung Heavy Industries' shipyard in Korea. The first, Fuwairit, was delivered in January 2004 with the second available for the RasGas trade in April 2004.

During 2003, RasGas Company Limited was appointed to construct and operate the first phase of the Al Khaleej Gas Project for and on behalf of ExxonMobil Middle East Gas Marketing Limited. The project will supply pipeline sales gas to domestic and regional markets and will produce associated condensate and natural gas liquids (NGLs).

Moreover, May 2003 witnessed the culmination of the efforts of RasGas, RasGas (II) and its sister company Qatargas to combine resources to plan, build and operate, administer and execute the Ras Laffan Helium Project. The project is a 100% Qatari venture, co-owned by RasGas, RasGas (II) and Qatargas with RasGas Company Limited operating the plant on behalf of the owners.

On March 23, 2004, RasGas inaugurated its third LNG train, the largest in the world to date, with production capacity amounting to 4.7 MTA. Train 3 represented a safety record in achieving over 20 million man-hours without lost time incident.

► Future

Before the end of the decade, the expansion of RasGas is expected to include four additional trains including giant 7.8 MTA trains to feed US supplies. Total production is expected to quadruple from the initial 6.6 MTA in 2000 to 37 MTA by 2010.

RasGas looks forward to yet greater accomplishments in the future; achievements that will ensure its position and reputation as a world-leading LNG producer and an industry pacesetter, recognised for its professionalism, reliability and expansive resources, and its respect for people and the environment.

Pure Energy

from Qatar to the World



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Message from the President

Dear IGU Colleagues

At the International Energy Forum (IEF) on May 22 in Amsterdam, Ministers of 70 energy countries and representatives of several international organisations discussed a range of topical energy issues. This meeting was a good example of enhancing the dialogue between energy producing and consuming countries. On the occasion of the Business Forum, which was incorporated in the IEF meeting, I underlined the importance of such a dialogue in order to ensure continuity of gas market development. As an introduction to this second IGU Magazine and as a background for our IGU Mission, I would like to share with you some observations

and suggestions I presented on that occasion.

Natural gas has a promising future, with expected growth in global market share from 23% now to 28% in 2030. This growth will not materialise without considerable effort in three areas: human capital, financial capital and policy/regulatory policy setting. According to the International Energy Agency (IEA), the potential growth will require investments of more than \$3000 billion in the coming 30 years. That is more than \$2 billion a week: quite a challenge!

It's a challenge which natural gas can meet, because it is the most convenient and least polluting fossil fuel around and is therefore the perfect energy source, which explains IGU's slogan: "Gas powers the people, preserves the world, promoted by IGU". However, to extract the fullest potential from natural gas, some policy and regulatory issues need to be taken into account carefully.



George H. B. Verberg, President.

● **Interdependence calls for dialogue**

The natural gas chain connects different countries, even different continents: the demand markets are mostly in the OECD regions (Europe, North America, Japan, Korea), plus two giant newcomers: China and India. The main supply regions are Russia, the Middle East, south-east Asia and the Caribbean/South America. This makes consumer and supplier countries interdependent, and government and regulatory policies should reflect that. It does not make sense, for example, that regulatory policy is developed to restructure the gas market in a demand region such as Europe without timely and real dialogue with the producing countries. Exporting countries also have a widening choice of customers to whom to sell new



volumes. Russia, for instance, is tied less and less to Europe.

● Reflecting the whole gas chain

The policy and regulatory scene in the consumer regions should reflect the fundamentals of the intrinsic structural requirements of the gas industry along the whole gas chain. According to several recent studies, the capital-intensive gas industry needs to have a vertical structure if it is to function effectively and efficiently. Governments and regulators should pay due attention to that phenomenon, by creating a regulatory framework in which either vertically-integrated companies can function in a way which is compatible with the requirements of healthy competition, or where different companies along the gas chain can enter into long-term contractual relationships, again with due respect to competition requirements.

Regulatory policy in the gas market needs to address the real and overall structure of that market, not the desired or perceived or partial structure. Implementing a regulatory framework which proceeds from the basis that the supply side is atomised or fragmented, when in fact it is not, will not benefit the consumer at the end of the day. The supply structure of the gas market is different for different demand regions of the world. The supply side of the European gas market, for example, will certainly not become fragmented for some time to come. At the same time, obtaining adequate volumes in time at competitive prices is precisely the main challenge facing the European Union in the coming decades. One can therefore question whether there is at present the right balance in the EU between regulatory policy and energy policy.

● Security of supply

Transparency, predictability and consistency are three basic requirements for an adequate policy and regulatory framework and a framework which makes commercial contracts enforceable. Governments should provide these basics.

In particular, the consuming countries and regions should realise that a policy framework that is clearly biased towards short-term market clearing mechanisms is no guarantee of security of supply, which requires full acceptance of long-term contracts. A churn factor of 10 or 20 on a spot market may indicate good short-term liquidity, which may be good in terms of the functioning of the market but it doesn't secure a single additional cubic metre of gas to the supply. Sound links with supply regions do.

Security of supply is an essential prerequisite for building customer satisfaction. Most end-consumers cannot store the gas, so security of supply is critical for them. Loss of security of supply means loss of the competitive edge over coal and oil, notwithstanding the clear environmental and other advantages of natural gas. With the rapid growth in the share of gas-fired power stations, the issue of gas supply portfolio management is coming to the fore. It will be found that further supply diversification is not detrimental to one or two existing suppliers and will allow further growth of the gas market. In doing so it will be beneficial to all suppliers.

● Investment climate

Given the enormous investments they have made, security of demand is equally critical for the producers and transporters. The gas infrastructure is becoming more and more involved in unbundling and re-regulation exercises. Governments must ensure that these exercises are directed towards maintaining an efficiently functioning gas industry, for the benefit of consumers in both the short and long run. It is also recommended that regulation should reflect the necessary structure of the gas market.

Respect for property rights is essential to the investment climate. Companies are always seeking opportunities, but – especially those working in a capital-intensive industry like the gas industry – they have a memory like an elephant when it comes to governments tinkering with property rights or changing the rules during the game. If a



For more information about the IEF, visit its website www.iefs.net.

government considers it desirable to create (or maintain) a national (or regional) monopoly for the infrastructure, it should keep open the option of private investment in the gas infrastructure (such as pipelines). If required, these investments can be brought into the monopoly after a certain period of time, in exchange for previously agreed compensation. This approach serves two goals:

- First, it will keep the monopolists sharp; they have to perform well to the benefit of the user.
- Second, it could increase the financial possibilities for the development of the national gas infrastructure if the monopoly has reached its financial limits for the time being.

US regulatory authorities have recently been taking an appropriate and flexible approach by revising the regulations for LNG terminals in order to improve the investment climate. Furthermore, harmonisation of LNG quality can enhance the flexibility of supply and thereby promote the

dynamics of the market. It seems, however, that local rules and procedures are still heavily influenced by the NIMBY (Not In My Back Yard) and BANANA (Build Absolutely Nothing Anywhere Near Anybody) syndromes. If the US gas market is to be cleared at a lower price level than at present, this certainly needs to be addressed.

● Take emotional value into account

Natural resources like gas generally represent an emotional value to the local or national population. A resource can only be produced once, so it is important to make good use of it. Often there is a sense that, one way or another, "it's our gas". Governments should

respect these feelings, by making their policy fully transparent and demonstrating how gas production benefits the nation and hence the population. If they do not, they can expect problems at the end of the day.

Transit countries are entitled to a fair transit fee, no more and no less. More importantly, they have the opportunity of access to valuable supplies.

Obviously, there is quite a job to do for policy makers, regulators and professionals alike to extract the fullest potential from the "fuel of choice", but the rewards are great for the people, the economy and the environment. We can help decision makers, all over the world, to enlarge and deepen their understanding of the fundamentals of our business. IGU supports this mission.

George H. B. Verberg



Vision, Mission and Objectives

The International Gas Union (IGU) is a worldwide, non-profit organisation promoting the progress of the gas industry. Through its many member countries representing approximately 90% of global gas sales, IGU covers all aspects of the natural gas industry.

● The Vision

Recognising that natural gas has an important part to play in satisfying the global need for an environment-friendly energy source, IGU will be the most influential, effective and independent non-profit-organisation, while serving as the spokesman for the gas industry worldwide.

● The Mission

IGU will actively, directly and through its members, promote the technical and economic progress of the global gas industry.

IGU will work towards improving the competitiveness of gas in the world energy markets. By promoting the development and application of new technologies and best practices, IGU will help optimise the economics of the entire gas chain, while emphasising sound environmental performance, safety and reliability.

IGU – serving as a global information clearing house – will promote transfer of technology and know-how.

In carrying out this mission, IGU will maximise value to its members and gas customers.

● Objectives

In striving towards the vision and fulfilling the mission, IGU will regarding:

ECONOMY: Promote all activities within the entire gas chain, which can add to the technical and economic progress of gas;

CUSTOMERS: Encourage development of good customer services and customer relations;

TECHNOLOGY: Encourage research and development towards new and better technologies for the gas community;

SAFETY: Promote the safe production, transmission, distribution and utilisation of gas;

ENVIRONMENT: Encourage and promote development of clean technology, renewable energy applications and other activities, which will add to the environmental benefits of gas;

INTERNATIONAL GAS TRADE: Encourage international trade in gas by supporting non-discriminatory policies and sound contracting principles and practices;

LEGAL: Promote and contribute to the development of legislation concerning:

- the establishment of equitable, non-discriminatory and reasonable environmental and energy efficiency regulations, and
- efforts to establish appropriate and relevant international standards, as well as
- the promotion of and participation in the exchange of information relating to regulatory processes;

COOPERATION: Enhance partnership with industry and manufacturers, and cooperation with governments, policy makers and international energy related organisations, and promote the exchange of information among members in order to help them in improving the efficiency and safety of gas operations.



Message from the Secretary General

Dear Reader

When the first issue of this new IGU Magazine appeared during the IGU Spring Session in Doha, Qatar, last March I received a lot of positive feedback, not least concerning News and the Progress Report from the IGU Coordination Committee now featured in one and same publication.

After Doha, the feedback became scarce, the reason unfortunately being "hiccups" in the global distribution. In many cases IGU individuals and Member Associations only got their copies in the course of May and sometimes in small portions at a time, for which I apologise.

At least – and at last – everybody got their copies, I hope.

This is naturally unacceptable for a Magazine with biannual progress reports and topical news and features. The publisher, ISC Ltd, and I are in total agreement about that, and we are assured that future deliveries will run smoothly and according to plan.

The fact that we accept a certain amount of relevant energy advertising in the Magazine has not given rise to any comments, and as you can see from both issues advertising in this Magazine is very popular.

Some have mentioned that perhaps we are sending out wrong signals with such a glossy publication. I have, however, also received opposite opinions, but we may experiment with a matt cover next year. Mind you, there is no difference in cost to IGU.

As with the first issue, we have tried to create a mix for you of relevant information, features covering special events and articles about a variety of interesting topics for the gas industry and its



Peter K. Storm, Secretary General.

global environment. Also, you can find for the first time reports and information from the IGU affiliated organisations Intergas Marketing and Marcogaz.

Apart from the key purpose of serving our Members, the Magazine has an important additional role of reaching a broader audience and profiling IGU and what it stands for, and we take this into account when planning its contents.

Your opinion is very important for the future of this Magazine, so at the IGU Secretariat we would very much appreciate any comments or suggestions you might have.

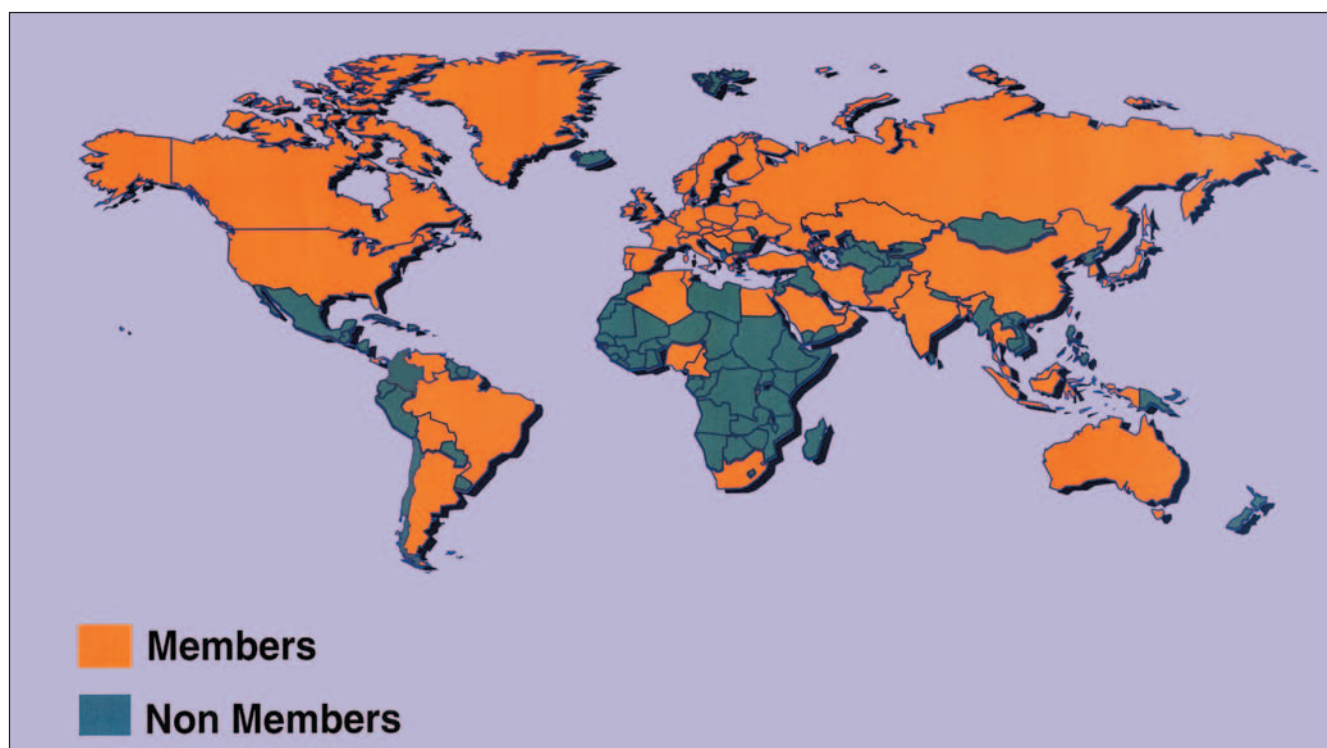
Enjoy your reading.

Peter K. Storm



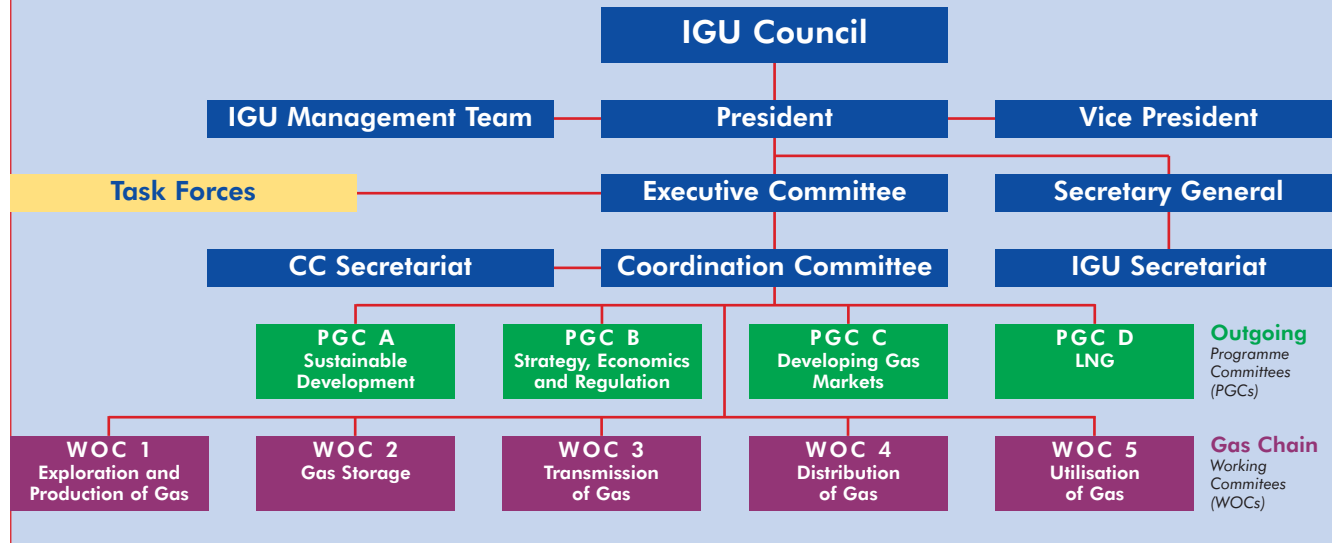
Countries Represented in IGU September 2004

Algeria	Egypt	Latvia	Slovak Republic
Argentina	Estonia	Lithuania	Slovenia
Australia	Finland	Malaysia	South Africa
Austria	France	Monaco	Spain
Bangladesh	Germany	Netherlands, The	Sweden
Belarus, Republic of	Greece	Nigeria	Switzerland
Belgium	Hong Kong, China	Norway	Taiwan, China
Bolivia	Hungary	Oman, Sultanate of	Thailand
Bosnia and Herzegovina	India	Pakistan	Trinidad and Tobago
Brazil	Indonesia	Poland	Tunisia
Brunei	Iran	Portugal	Turkey
Cameroon	Ireland, Republic of	Qatar	Ukraine
Canada	Israel	Romania	United Arab Emirates
China, People's Republic of	Italy	Russia, Federation of	United Kingdom
Croatia	Japan	Saudi Arabia	United States of America
Czech Republic	Kazakhstan	Serbia and Montenegro	Venezuela
Denmark	Korea, Republic of	Singapore	





IGU Organisation



From left to right in the back row of this photograph taken at the Executive Committee meeting in Cape Town, South Africa in October 2003 are Pavol Janočko, José R. Dávila (who was substituting for Antoni Llardén), Christian Beckervordersandforth (who also acted as a substitute for Jürgen Lenz), Alexander I. Lipatov, Jong-Sool Kim, John Kean Sr, Ole Nygaard Olsen, Bert Panman, Abdul Rahim Haji Hashim, Hans Riddervold, Domenico Dispenza and Eduardo Ojea Quintana. From left to right in the front row are Peter Storm (who of course attended as Secretary General and is not a member of the Executive Committee), Robert J. Harris, Hiroshi Urano, George H. B. Verberg, Ernesto L. Anadón, Roberto D. Brandt, Boleslaw Rey and Chawki M. Rahal (who was substituting for Ali Hached). Daniel Paccoud attended the meeting but missed the photo session, while Yves Tournié could not attend the meeting or send a substitute.



IGU MANAGEMENT TEAM



Mr George H. B. Verberg, IGU President (Chairman) (The Netherlands)



Mr Ernesto L. Anadón, IGU Vice President (Argentina)



Mr Hiroshi Urano, Immediate Past President (Japan)



Mr Bert Panman, Chairman of IGU Coordination Committee 2003-2006 (The Netherlands)



Mr Roberto D. Brandt, Vice Chairman of IGU Coordination Committee 2003-2006 (Argentina)



Mr Peter K. Storm, Secretary General

IGU EXECUTIVE COMMITTEE AS OF OCTOBER 2003

Mr Ali Hached
Algeria

Mr Eduardo Ojea
Quintana
Argentina

Mr Ernesto L. Anadón
Argentina

Mr Roberto Daniel Brandt
Argentina

Mr Ole Nygaard Olsen
Denmark

M. Daniel Paccoud
France

Dr Jürgen Lenz
Germany

Dr Eng. Domenico
Dispenza
Italy

Mr Hiroshi Urano
Japan

Mr Jong-Sool Kim
Republic of Korea

Mr Abdul Rahim Haji
Hashim
Malaysia

Mr George H. B. Verberg
The Netherlands

Mr Engbert (Bert)
Panman
The Netherlands

Mr Hans Riddervold
Norway

Mr Boleslaw Rey
Poland

Mr Alexander I. Lipatov
Russia

Mr Pavol Janočko
Slovak Republic

Mr Antoni Llardén
Spain

Dr Robert J. Harris
United Kingdom

Mr John Kean Sr
United States of America

Mr Christian
Beckervordersandforth
Ruhrgas AG, Associate
Member

M. Yves Tournié
Total, Associate Member

DSME LNG Carriers

As LNG carriers are required to transport high vapourable natural gas in liquid at 163° C below zero, only companies with the most advanced building technologies can construct LNG carriers. DSME, with accumulated experience in building and technology development, has been building the safest and the most economic LNG carriers in the world. LNG carriers built by DSME are exceptional.

Since the early 1990s, DSME has been continuously developing the Gaz Transport membrane-type LNG carrier, which has the highest economic value, based upon its forecast of spectacular growth in LNG ship demand. Through the dedicated exertions for LNG ship design and construction made ever since a Licence Agreement with Gaz Transport in 1990, DSME has accumulated extensive know-how and knowledge that are the key features in the LNG shipbuilding field.

DSME has purpose-built shops to fabricate insulation boxes and an invar processing shop, where quality invar parts are fabricated. The company also has a special pipe production shop. DSME uses its in-house-developed automatic invar welding machines approved by GTT and major Classification Societies to reduce the welding defect rate to nearly zero. Once the membrane of each barrier is installed, a 100% helium leak test is conducted on the entire welded section to guarantee a gas-tight seal.

DSME is known as a cutting-edge specialist, building sophisticated and high value-added vessels, which require both innovative design and production technologies and R&D input. The main commitment of DSME is to further refine its expertise in this sector, through continuous development of its core values and provision of experienced and dedicated personnel, combined with the high efficiency of its production facilities.

DSME's intensive and vigorous research and development activities can be credited with yet another advancement: the development of membrane-type LNG carriers, which assure the full satisfaction of ship owners and operators.

► Quality management

The reliability and superiority that our vessels have demonstrated in service with LNG shipping clients and owners testify to the expertise which DSME has developed in relation to hull, cargo containment, cargo handling, steam plant and automation parts.

Pursuant to a strict quality management system, DSME provides training on job guidelines and quality management in advance, and a ship owner's special requirements are tightly reflected based on a block-unit manual. Only after self-inspection by manufacturing staff and QC inspection, will the process move on to the next stage, and high quality is guaranteed through the systemisation of voluntary quality checks between processes and inspections with customers' attendance.

DSME has achieved a spectacular record of 2 points per tank in air-tightness tests for the cargo hold, and the average glitch ratio is maintained 50% lower than that of other competitors. Thanks to its excellent performance, DSME was granted the "Shipbuilding Certificate" from GTT, the Award for the Korean 10 New Technologies and the Chang Young-shil Award in 2001. DSME's ships were selected as one of the Korea's 10 best export goods in 2001, demonstrating the company's outstanding technology and high quality both at home and abroad.

Based on more than 20 years of experience in working with leading ship operators around the world, DSME has developed essential technologies to build LNG carriers as well as other types of vessels.

Thanks to its high standards of design, construction and quality management, DSME had won consecutive orders for 39 LNG vessels (14 LNG carriers delivered and 25 on order) as of June 2004 from major LNG carrier clients such as Shell (UK), Bergesen (Norway), Golar (Norway), Exmar (Belgium), Teekay (Canada), NWS (Australia), Petronet (India) and Maran Gas (Greece).

www.dsme.co.kr

DSME

Offers reliable solutions, which enhance
the value of the businesses of our clients.



140,500 CBM LNG Carrier
Granatina
Shell International Trading & Shipping Co.Ltd.

138,000 CBM LNG Carrier
Methane Princess
GOLAR LNG LIMITED

138,000 CBM LNG Carrier
Berge Everett
Bergesen Dy ASA

135,000 CBM LNG Carrier
SK Summit
SK Shipping Co., Ltd.

140,500 CBM LNG Carrier
Fernando Tapias
Naviera F. Tapias

138,000 CBM LNG Carrier
Excalibur
Exmar N.V.

DSME can be assured of a more prosperous
future with our valued customers in LNG
Business.

DSME
DAEWOO SHIPBUILDING &
MARINE ENGINEERING CO.,LTD.



From the IGU Secretariat



Peter K. Storm, Secretary General.

These pages feature news items and information from the Secretary General (**PKS**) and his Assistant (**LKO**). However, comments and suggestions of general interest from Members or other organisations may also be displayed here. When submitting contributions to the Secretariat please ensure that any electronic pictures are supplied in a high resolution – 300dpi is the minimum required for print reproduction.

● www.igu.org

The number of visitors to the IGU website is still increasing with quite a lot from outside the Union.

Our logs show that many visitors make use of the list of Member Associations, the Knowledge Database and the Events Calendar, while the documents most often downloaded include the IGU

Annual Report 2003, the Triennial Work Programme 2003-2006 and some of the national entries about "Actual Developments in the Gas Industry".

The website is constantly updated and when important news or items are displayed the Secretariat will normally send out a mail indicating just that to all IGU Members. However, in order to make it easier and more recognisable for the users we have introduced a small flame to the left of "News" on the home page. This flame indicates that another news item has been displayed within the last three days. After that, the flame will disappear unless other items have since been introduced.

The IGU Coordination Committee (CC) has also been improving the IGU Collaboration Portal in order to present added and improved services to the users. You can read more about the Portal in the Progress Report from the CC, which starts on page 35.

As usual, the Secretariat welcomes any comments or suggestions you might have in order to improve the IGU website and facilitate its use.

PKS

● **Electronic Session of the Council**

In April-May this year the Secretariat conducted an Electronic Session of the IGU Council no. 1/2004 for the second time since the new rules in the Articles of Association were adopted in 2002.



Lisbeth Koefoed, Assistant to the Secretary General.



Visitors to the IGU website continue to increase and downloads from the Knowledge Database are popular.



The purpose was to get approval from the Council about new Membership in order for IGU not to have to wait until the ordinary Council meeting in the autumn before starting working with the new Members in the Committees and elsewhere.

According to the rules about an Electronic Session, the Session was advertised on April 13 by mail and in a few cases by fax. The Session began on April 20 with an Opening Statement from the President and it closed two weeks later with a Closing Statement. During that period 11 mails were sent out from the Secretariat to all Council Members and some 20 Members reacted by sending mails or faxes to the Secretariat. It is worth noting that in questions about Membership and similar issues a non-reaction from Members is considered as approval of the proposal put forward by the IGU Management.

The outcome of this Session was that IGU welcomes Eurogas as a Charter Member, and S.N.G.N. Romgaz S.A. from Romania and Union Fenosa Gas from Spain as Associate Members.

Following this Session IGU now has 67 Charter Members and 16 Associate Members.

A few Members might wonder why they were not mentioned in the mails from the Session. The reason was simply that we only received their mails – all supporting the proposals – after the Electronic Session had been closed.

PKS

● Regional gas-related events

It is part of the current IGU policy to support regional gas-related events, initiated by Members or other energy organisations.

In February, IGU supported the Indian Charter Member GAIL (India) Ltd in organising the Second Asia Gas Buyers' Summit held in Mumbai, India, where the IGU President was among the Keynote Speakers during the Opening Ceremony.

In March, the Secretary General chaired a Session at IGE 2004 in Kuala Lumpur, Malaysia,

ASSOCIATE MEMBERS

BP Gas, Power & Renewables

ChevronTexaco Overseas Petroleum

Gaz de France

IGDAŞ – Istanbul Gas Distribution Co.

Naturgas Fyn A/S

NV Nuon

Petróleo Brasileiro S.A. – Petrobras

Ruhrgas AG

Russian Gas Society

RWE Gas AG

Shell International Gas Ltd

S.N.G.N. Romgaz S.A.

TBG – Transportadora Brasileira Gasoduto
Bolívia-Brasil S.A.

Total S.A.

Tractebel S.A.

Unión Fenosa Gas

organised by the Malaysian Energy Commission and the IGU Charter Member, Malaysian Gas Association.

In April, IGU was one of the sponsors behind the 4th Latin American and Caribbean Gas and Electricity Conference (LACGEC), taking place in Rio de Janeiro, Brazil. The IGU President spoke at a luncheon hosted by IGU and IGU also provided a few other speakers for the programme.

Following this Conference the Special Project on Gas to Power of the Dutch Presidency organised a high-level closed workshop in Rio. This was hosted by the Brazilian Institute of Oil and Gas, which at the same time declared a wish to become an Associate Member of IGU.

In May, the IGU President participated in the 9th International Energy Forum, which was held in Amsterdam, the Netherlands. He has summarised



CC Secretary Rob Aptroot was part of the IGU delegation to GAS 2004 in Belgrade in June.

the issues he raised for delegates in his "Message from the President" for this issue of the Magazine on pages 8-10.

In June, the President, the Secretary General, the CC Chairman and the CC Secretary participated in GAS 2004, the Regional Conference on Development in the Gas Industry of South and East European Countries in Transition, which took place in Belgrade, Serbia and Montenegro.

IGU assisted the Charter Member from Serbia and Montenegro in organising this event in which some 300 delegates, representing 22 countries, participated. IGU arranged speakers from the European Commission, Gas Transmission Europe, the Energy Charter Secretariat and Eurogas, our new Member. Furthermore, IGU speakers from Programme Committee C and from the Special Project on Gas to Power also presented papers, some of which can be found on the Knowledge Database on the IGU website.

As a special feature to encourage young people to join the gas industry, IGU organised an Award with prizes for the best papers looking at ways of improving the gas industry in the region.

The age limit was 35 and six papers by young authors from Bosnia, Hungary, Lithuania and Serbia were awarded.

Also in June the Special Project on Gas to Power staged another very successful workshop in Paris in cooperation with the International Energy Agency (IEA).

In August, the IGU President was due to make a presentation at the China Gas 2004 Conference in Shanghai, People's Republic of China.

PKS

● Financial matters

As expected the net result for the financial year 2003 was very positive indeed and has now been added to the net capital of the Union consolidating the firm financial position built up over the last couple of years.

The invoices charging the IGU Membership Subscription Fee of €4,500 were forwarded to all current IGU Members by mail in late January being due in early March.

As it stands, the amount of outstanding payments is fortunately relatively low as compared to earlier years.

Should any IGU Member have doubts or inquiries about invoices or payment procedures, please do not hesitate to contact the IGU Secretariat.

LKO

● Future events

Future gas or gas-related events of possible interest to IGU Members can be found in the Events Calendar on page 124.

I would like to draw your particular attention to IGRC-2004, the International Gas Research Conference, taking place in Vancouver, Canada, this coming November 1-4. The IGRC is held every three years and the previous one, IGRC-2001 in Amsterdam, was a great success. In these times of turbulence for the gas industry it



seems important to maintain a reasonably high level of research and development. The IGRC organisation, of which IGU is one of the main sponsors, and where traditionally the IGU President is the Chairman, is one efficient tool in that direction thanks to close links to academic institutions and to company research departments.

I encourage you to join this event in Vancouver or to take on one of the sponsorships. Funds from North American and European authorities, which used to be part of the IGRC budget, are unfortunately not available any more, so potential sponsors will be most welcome.

We are considering whether IGU should take a stronger role in organising the IGRC in the future, linking it closer to the World Gas Conferences. In June, the President and the Secretary General sent a letter to all IGU Members about this issue.

Next spring offers you another special event, namely ICT 2005, the 7th Global Congress on Information and Communication Technology in Energy, which will take place in Korea's second city, Busan, on May 23-25, 2005.

A special IGU Task Force is preparing the programme, which is supported by World Energy Council (WEC) and World Petroleum Congress (WPC). You can read more about this in the Progress Report (see pages 60-62) in this edition and in the next issue of the IGU Magazine.

In view of the strong role several Asian countries play in the ICT industry, the Congress should constitute a good opportunity for developing better ICT tools for the energy industry, and I strongly encourage you to participate and/or sponsor some of the events. The Second Announcement and the Call for Papers have been issued, and if you have not received them you can obtain them from the Korean Gas Union, which is the national organiser of the Congress. You can also learn more by visiting the IGU website under "Events".

PKS



Also taking place in June was the first inspection of the Amsterdam RAI Congress Centre for WGC2006 (see report on pages 116-117).

● **Forthcoming issues**

The production schedule for the IGU Magazine "International Gas" is arranged to make the first copies available at the IGU spring and autumn Sessions, respectively. Copies for individuals and Member organisations should then be distributed around the world by the end of the month in which the Session takes place. The third issue of this Magazine is consequently scheduled to appear at the spring 2005 Session in Warsaw, Poland, and be further distributed in the course of April.

However, as I have mentioned in my Message earlier, we had some difficulties with the distribution last time. Hence, the Secretariat would appreciate being informed if you do not receive this Magazine as indicated above, i.e. in the course of September 2004.

The Member Associations typically get between 10 and 50 copies of the Magazine based on an evaluation of their size and needs, but you can get more if you want. Many of you have already indicated to the Secretariat the number of copies you would like to have each time. You should do the same, if your organisation has special wishes. Please send an email to secre.igu@dong.dk. Thank you.

PKS

Polish Oil and Gas Company

The origins of the oil industry in Poland date back a century and a half and Polskie Górnictwo Naftowe i Gazownictwo S. A. (the Polish Oil and Gas Company – POGC) continues this tradition today.

POGC was established in 1982 and transformed into a joint stock company in 1996. The establishing body and owner of 100% of POGC shares is the State Treasury. The Company acts on the basis of the binding law provisions of the Code of Commercial Companies in particular, the Statutes of Association as well as the Company's organisational regulations.

The focus of POGC's activity is on two strategic areas:

- ▶ exploration and production activity (upstream); and
- ▶ transportation, distribution and sales of gas (downstream).

In recent years, the Company has been undergoing a restructuring process with the establishment of strong specialised entities within the framework of the POGC group. This is aimed at addressing the challenges brought by Poland's recent accession to the European Union and in particular the introduction of a freely-competitive energy market.



Polish Oil and Gas Company

6/14 Krucza Street
00-537 Warsaw
Poland

Tel: +48 22 583 50 00
Fax: +48 22 691 82 73
E-mail: pr@pgnig.pl
Website: www.pgnig.pl



Information from Organisations Affiliated to IGU

The term "affiliated to" is not an official term, but an expression of intent between the organisations concerned to coordinate effectively, by making use of each other's work and results and by sharing information of general interest with all Members of the organisations in question.

As an example, Members of Intergas Marketing and Marcogaz will receive this IGU magazine on a regular basis.

● Intergas Marketing (IGM)

IGM was created by IGU in 1951 and currently has 14 Member countries. It is a forum for the exchange of marketing experiences and information and is of particular relevance to countries with strong downstream gas activities that are liberalising or have deregulated their gas markets.

Each Member has a delegation composed of representatives of gas associations and companies. Contributions from the latter are particularly valuable as they have the day-to-day operational experience and, in practice, IGM operates as a network of exchange for the marketing and sales managers of the companies.

IGM meets twice a year to discuss marketing developments in the Member countries and hear progress reports from the Working Groups. Currently two Working Groups are in progress with the subjects: "Enquiries into Customer Satisfaction" and "Entering New Markets".

At the 93rd Session, which was held in May in Helsinki, Finland, business matters included a decision to follow the examples of IGU and several other international organisations by making English the only working language of IGM.

Ties with IGU have been close over the years, and traditionally IGM organises a Marketing Session at the World Gas Conferences.



Urs Zeller, President of IGM.

In 2003, IGU and IGM entered into an agreement making IGM an organisation affiliated to IGU. IGM will support the Triennial Work Programme of IGU and has agreed to undertake a study on how the gas industry can develop into a "Corporate Responsible Citizen". The results of the study will be presented at the 23rd World Gas Conference in Amsterdam, The Netherlands in June 2006 at the IGM Session.

Contact

For many years the IGM Secretariat was hosted by Gaz de France in Paris, but at the end of May the IGU Secretariat took over responsibility for the IGM Secretariat on conditions agreed between the two organisations. Therefore the new address of the Secretariat of Intergas Marketing (IGM) is:
P. O. Box 550
c/o DONG A/S
Agern Allé 24-26
DK-2970 Hørsholm
Denmark

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Tel. +45 45 17 12 00
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 Website: www.igmnews.com

Message from Urs Zeller, President of IGM

Change is the only thing that is constant nowadays. Intergas Marketing is currently at a watershed. On the one hand, the important Secretariat General function, which has been performed by Gaz de France for decades, is relocating to Denmark. The close working relationship between IGM and the IGU Secretariat General will be simplified in future by the two organisations' proximity in terms of personnel and space.

With extensive market deregulation in practically all countries, natural gas marketing, and thus IGM too, are on the doorstep of new challenges. As a result, areas of common ground have shifted – one-time allies have become rivals overnight. However, as the meeting in Helsinki confirmed, an exchange of ideas and experiences among competitors can also be both necessary and interesting.

A whole host of countries from eastern Europe have shown a keen interest in joining our organisation. These markets would like to learn from the experiences of the established markets. It is up to all of us to welcome these marketing specialists into the fold and integrate them fully. It can only be of benefit to both sides.

We have accepted the new challenges and are well on the way to putting the requisite measures in place as quickly as possible.

● **Marcogaz – the Technical Association of the European Gas Industry**

Created in 1968 to harmonise specifications at European level concerning products used on gas networks and gas appliances, Marcogaz has developed over the years an efficient reputation with the official bodies in the European Union and other influential partners.

As a representative organisation of the European natural gas industry, it aims at monitoring and taking influence when needed on European technical regulation, standardisation and certification with respect to safety and integrity of gas systems and equipment, and rational use of energy. Environmental, health and safety issues related to natural gas systems and utilisation are also of great importance for Marcogaz.

The European Directive 2003/55/EC on liberalisation of gas markets, underlining the essential role of gas transmission and distribution operators in terms of security and efficiency of gas supply, has increased the role of Marcogaz being the representative of the gas industry for technical issues in Europe.

Mission and objectives

The main goal of Marcogaz is to serve its members as the European window on technical legislation and standardisation and to promote technical conditions required for the market success of natural gas

The objectives of Marcogaz are to:

- Promote the safety, reliability, cost effectiveness and environmental advantages of natural gas systems and appliances;
- Identify, monitor and take action on technical legislation at EU level;
- Promote with the EU institutions fair European legislation reflecting the industry's high safety record and respecting subsidiarity;
- Actively monitor standardisation activities related to natural gas conducted by the European Committee for Standardisation (CEN), the International Organisation for Standardisation (ISO), the International Organisation of Legal Metrology (OIML) and others;
- Identify appropriate levels of competence for a safe and effective operation of gas systems;
- Study any technical subject of interest for its members; and
- Promote cooperation with other associations



representing the gas industry and the manufacturers.

The activities of Marcogaz are implicitly highlighting the major objective for its members to achieve an effective industry presence and response towards public and official queries and regulatory initiatives facing the gas sector at the European level and often following through to the national level. Industry cooperation within Marcogaz will ensure timely information, consultation and response, while offering a platform for authoritative and consistent industry representation making the most effective use of industry resources in terms of experts, knowledge and finance required.

Marcogaz coordinates with Eurogas (European Union of the Natural Gas Industry) and GERG (European Gas Research Group) and is affiliated to EASEE-gas (European Association for the Streamlining of Energy Exchange-gas) and recently to IGU.

Organisation

Marcogaz is currently in the process of adapting its internal rules to the new environment created by liberalisation. Its new statutes will be published soon.

The General Assembly of Marcogaz consists of national delegations representing the various gas industry companies and bodies sharing in the membership.

The Executive Board, meeting normally three times a year, defines, adopts and controls strategies. It gives guidance to the two Standing Committees Gas Utilisation and Infrastructure, and, jointly with Eurogas, to the Joint Group Environment Health and Safety.

Industry executives and high level experts are members of the two Standing Committees and the Joint Group, in charge of their respective fields of activity.

Working Groups are set up when required to deal with specific subjects.

The General Secretariat, representing Marcogaz with all relevant external official and industry partners and servicing the activities of Marcogaz internal bodies, consists of one full time executive (the Secretary General) with secretarial assistance.

Activities

The three main fields of Marcogaz activity are in the hands of the Standing Committee Gas Utilisation, the Standing Committee Gas Infrastructure and the Joint Group Environment,

Health and Safety. The latter is a Joint Group of Marcogaz and Eurogas. See Figure 1 on page 28.

Contacts

Daniel Hec, Secretary General
Tel +32 2 237 11 35 or
+33 1 47 54 32 58
Mobile: +33 6 72 27 48 14
e-mail: daniel.hec@marcogaz.org
Ann Boterman, Administrative Secretary
Tel: +32 2 237 11 39
e-mail: ann.boterman@marcogaz.org
Website: www.marcogaz.org



The Marcogaz website is at www.marcogaz.org.

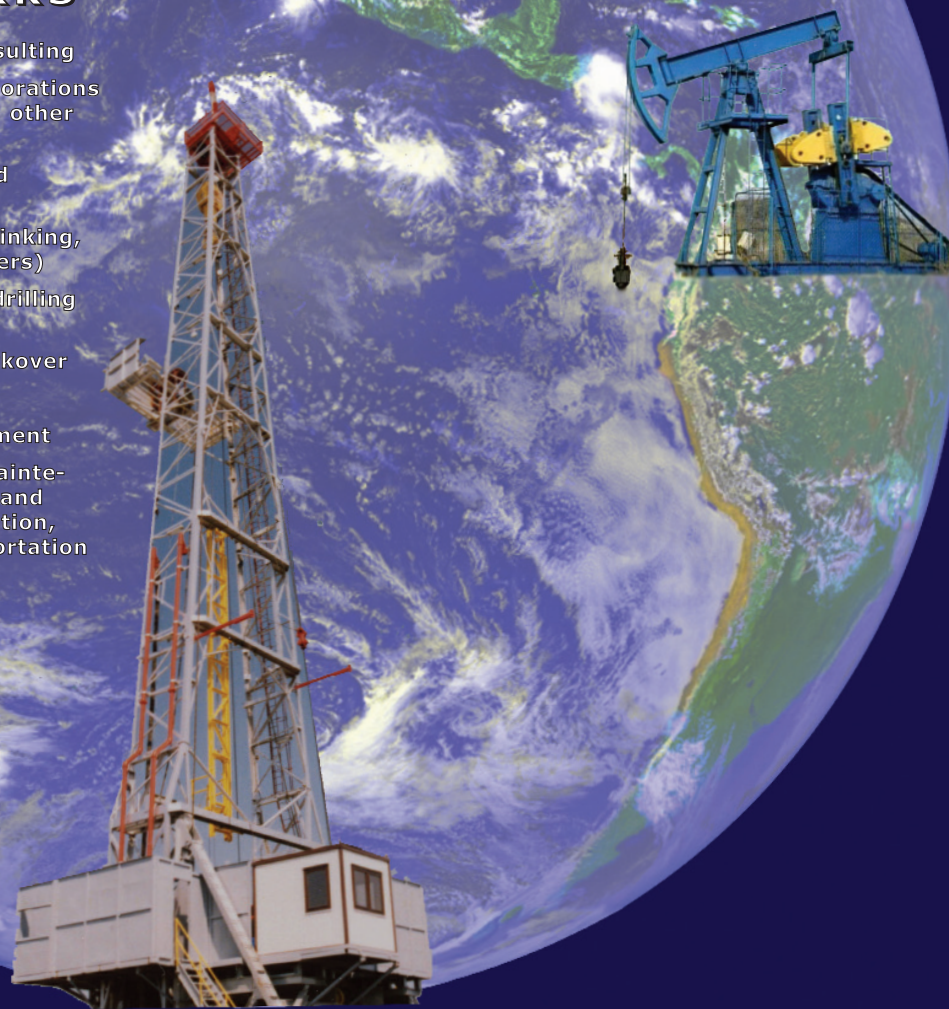
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hands**



SCOPE OF WORKS

- *Petroleum engineering and consulting
- *Geological and geophysical explorations of oil and gas, ground waters and other mineral sources
- *Drilling wells for oil and gas and ground waters
- *Utilization of ground waters (drinking, mineral, thermal and healing waters)
- *Special works and services for drilling for oil, gas and ground waters
- *Well testing, unloading and workover
- *Carrying out of capital projects
- *Oil and gas production management
- *Construction, production and maintenance of the production facilities and equipment for oil and gas exploration, production, gathering and transportation
- *Administration and services



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phone: +381-21/481-1111 e-mail: office@mail.nis-naftagas.co.yu www.naftagas.co.yu





ACTIVITIES

Standing Committee Gas Utilisation

Scope of activity: Gas appliances, internal gas installations, ducting systems and associated equipment.

The overall objective is the development of appropriate technical conditions for the market success of natural gas and of new energy efficient technologies.

Standing Committee Gas Infrastructure

Scope of activity: Gas transmission and distribution networks, associated plant and related equipment.

The main goal is to promote the safety, reliability and efficiency of natural gas supply systems.

Joint Group Environment, Health and Safety

Scope of activity: It covers the collection of industry data and preparation of views relating to environmental studies and policy proposals by the European Communities and other international bodies, which may affect gas industry interests and operations of gas supply and utilisation.



Woodside

Woodside is Australia's largest publicly listed independent oil and gas exploration and production company and is one of the nation's most successful explorers, developers and producers of hydrocarbons.

The company, which is celebrating its 50th anniversary in 2004, is listed on the Australian Stock Exchange (ASX: WPL). It employs about 2100 people and has its headquarters in Perth, Western Australia.

Woodside's core areas of focus are Australia, the United States and Africa.

In Australia, the company's major current producing asset is based on the North West Shelf Venture, Australia's largest resource development. As operator of the venture, Woodside produces LNG, natural gas, LPG, condensate and oil from fields off Western Australia. Woodside has major exploration and development interests in Western Australia, including world class gas discoveries in the Browse basin and the major new oil province based on the offshore Vincent, Enfield and Laverda fields. Woodside also has significant gas discoveries in waters off Victoria and the Northern Territory, including the Sunrise LNG project.

In the United States, Woodside has interests in several deepwater and shallow water exploration blocks of the Gulf of Mexico, including oil and gas development opportunities.

In Africa, Woodside is operator of the Chinguetti, Tiof and Banda oil and gas discoveries offshore Mauritania. It also has exploration interests in Libya, Kenya, Sierra Leone, and the Canaries and is a partner in major producing gas and condensate fields in Algeria.

Woodside operates two floating production, storage and offloading facilities, including the *Northern Endeavour* which is based on one of Australia's largest oil fields, Laminaria and Corallina in the Timor Sea, and the *Cossack Pioneer* based on the North West Shelf. It also operates the *Legendre*, *North Rankin* and *Goodwyn* platforms off Western Australia.

Woodside's web site: www.woodside.com.au



Innovatively Australian. Global in Perspective.

Woodside is Australia's pre-eminent upstream oil and gas company with a 50-year history backed by one of the world's premier LNG developments, the North West Shelf LNG Project.

As operator of the North West Shelf, Australia's largest resource project, we've been delivering LNG to Japan, the United States, Korea and Spain for the past 15 years. We're now set to deliver gas to China's first LNG project.

Our growing suite of interests span Africa and the United States. We're backed by world class reserves, quality assets, low cost operating efficiencies and a culture built on innovation and leading edge technology. Woodside is committed to growing its gas business internationally.



www.woodside.com.au



A Gallery of Pictures from the IGU Meetings in Doha

The spring 2004 meetings of the Coordination Committee and the Executive Committee were held in Doha, Qatar on 26 March following the LNG-14 Conference and Exhibition. The meetings were hosted by Qatar Petroleum and its sister company Qatargas, and the hospitality and efficient organisation of the Qatari hosts was greatly appreciated by all the delegates.



THIS PAGE

The Coordination Committee met in the morning under Chairman Bert Panman.

