

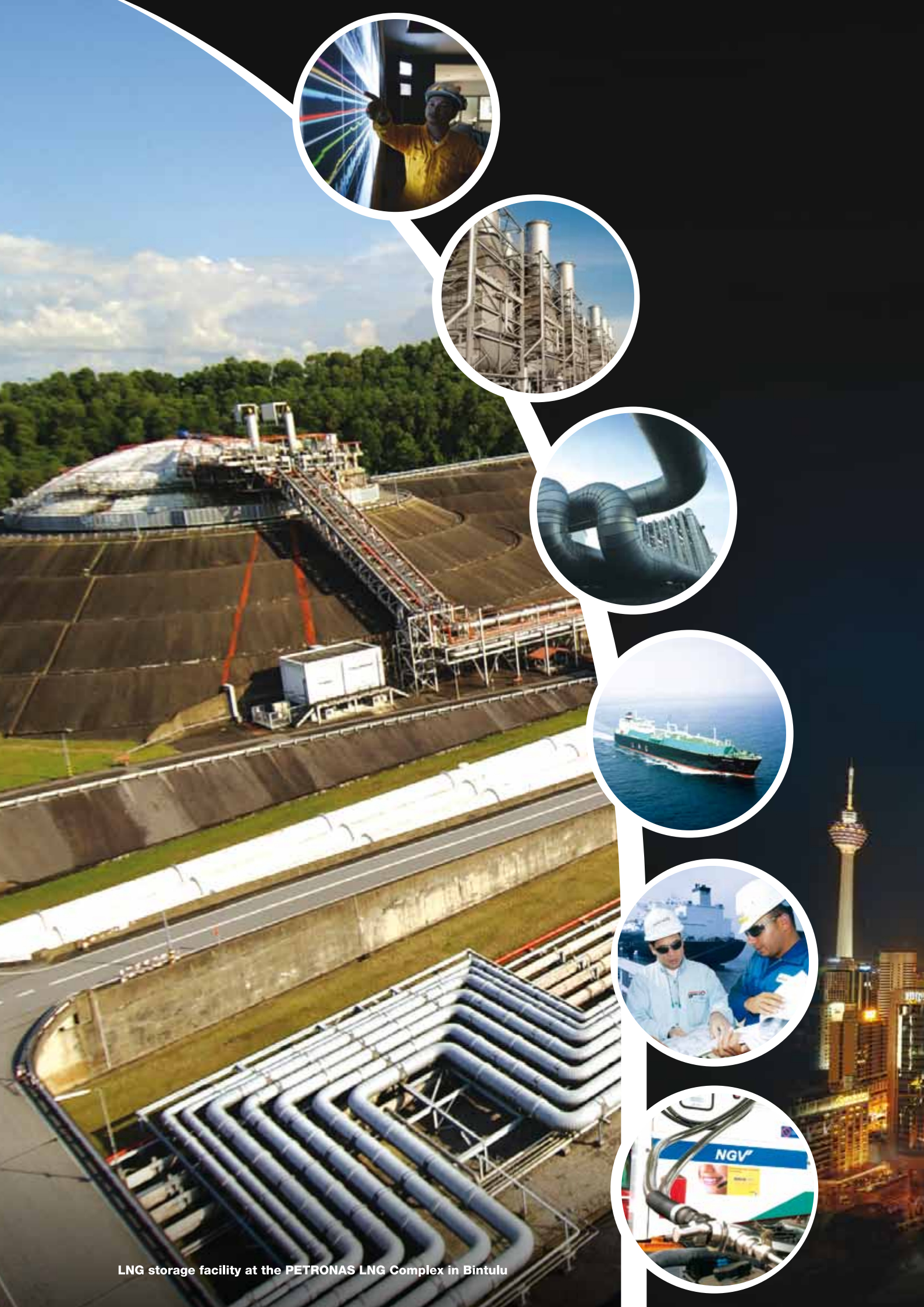
**International Gas** APRIL 2010  
INTERNATIONAL GAS UNION

# GAS: SUSTAINING FUTURE GLOBAL GROWTH

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LNG storage facility at the PETRONAS LNG Complex in Bintulu



Natural gas is becoming increasingly important in our daily lives. It is one of the cleanest, safest and most useful of all fossil fuels. As natural gas is an essential component of the world's supply of energy and as demand for it grows, a reliable supply is crucial.

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8 MTPY Qatar

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GE imagination at work



# **International Gas APRIL 2010**

## **The IGU Magazine**

Published by International Systems and Communications Limited (ISC)  
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## 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 95% 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.



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eni has always promoted advanced scientific research, rewarding the most innovative projects and discoveries in sustainable energy. The eni award is a prestigious prize awarded once a year to researchers who stand out internationally for their work on the new frontiers of hydrocarbons, unconventional renewable energies and environmental protection. To build a better future out of today's brightest ideas.

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BP is one of the world's largest and most experienced energy providers. Working with our partners across the value chain we produce over 8 bcf/d of natural gas, and are developing new gas supplies in the Middle East, Africa, the Americas and Asia Pacific.

Expanding and investing in our global LNG business, BP is leading the new Tangguh liquefaction project in Indonesia. We are using our expertise to manage complex projects and supply chains, and are enhancing security and ensuring the flexibility our customers require.

We are an active marketer and trader in the world's most liquid markets – North America and the UK. We are also increasingly active in European and Asian markets.

Mutual advantage, experience and commercial innovation make BP, a natural gas partner.





## Contents

<b>Introduction</b>		
Vision, Mission and Objectives	4	
Message from the President	10	
Message from the Secretary General	14	
Countries Represented in IGU	18	
IGU Organisation	26	
News from the Secretariat	30	
Record Numbers at the 2009 Council Meeting <i>By Mark Blacklock</i>	44	
First International Assignments for IGU's New President <i>By Zenorai Rambli</i>	50	
News from Organisations Affiliated to IGU	54	
IGRC2011: Innovation is the Key to a Sustainable Future <i>By Robert Badoux and Jeanet van Dellen</i>	70	
Message from the Chairman of the NOC for WGC2012	76	
<b>WGC2009</b>	<b>79</b>	
Wide-ranging Debates at WGC2009 <i>By Mark Blacklock</i>	80	
WGC2009 – Post-Conference Report from the Technical Committees	88	
<b>Features</b>	<b>117</b>	
Moving on from Copenhagen <i>By David Adam</i>	120	
IGU Puts the Message Across at COP15 <i>By Mark Blacklock</i>	126	
LNG Pioneer Algeria Hosts LNG16	132	
Gas Finance – Extraordinary Times <i>By Rod Morrison</i>	138	
Natural Gas Roundtable Introduces US Congressional Natural Gas Caucus <i>By David M. Sweet and Lauren Blossie</i>	148	
Building Strategic Human Capital <i>By Rod Kenyon</i>	150	
Task Force 1 Holds its First Meeting <i>By Manu Kohli</i>	154	
WOC 4 – Distribution Starts its Activities <i>By Alessandro Soresina</i>	156	
Biomethane as a Substitute for Natural Gas <i>By Nuno Afonso Moreira</i>	158	
IGU's New Programme Committee Starts Work <i>By Marc Hall</i>	162	
Presenting IGU's New Charter Members	166	
Angola LNG, Not Just Another Gas Project <i>By António Órfão, Jean-Eric Molinard, Bent Svensson and Mauricio O. Ríos</i>	170	
The Prospects for Gas Market Integration between Russia and China <i>By Timothy Boon von Ochssée and Irina Mironova</i>	180	
The Evolution of the Gas Industry in the UK <i>By Calliope Webber</i>	198	
NGA Defines Future Path for Gas Industry in Nigeria <i>By Chidinma Obi</i>	210	
GECF Moves Forward with Election of Secretary General <i>By Mark Blacklock</i>	212	
Publications and Documents Available from IGU	214	
Events and Acknowledgements	216	

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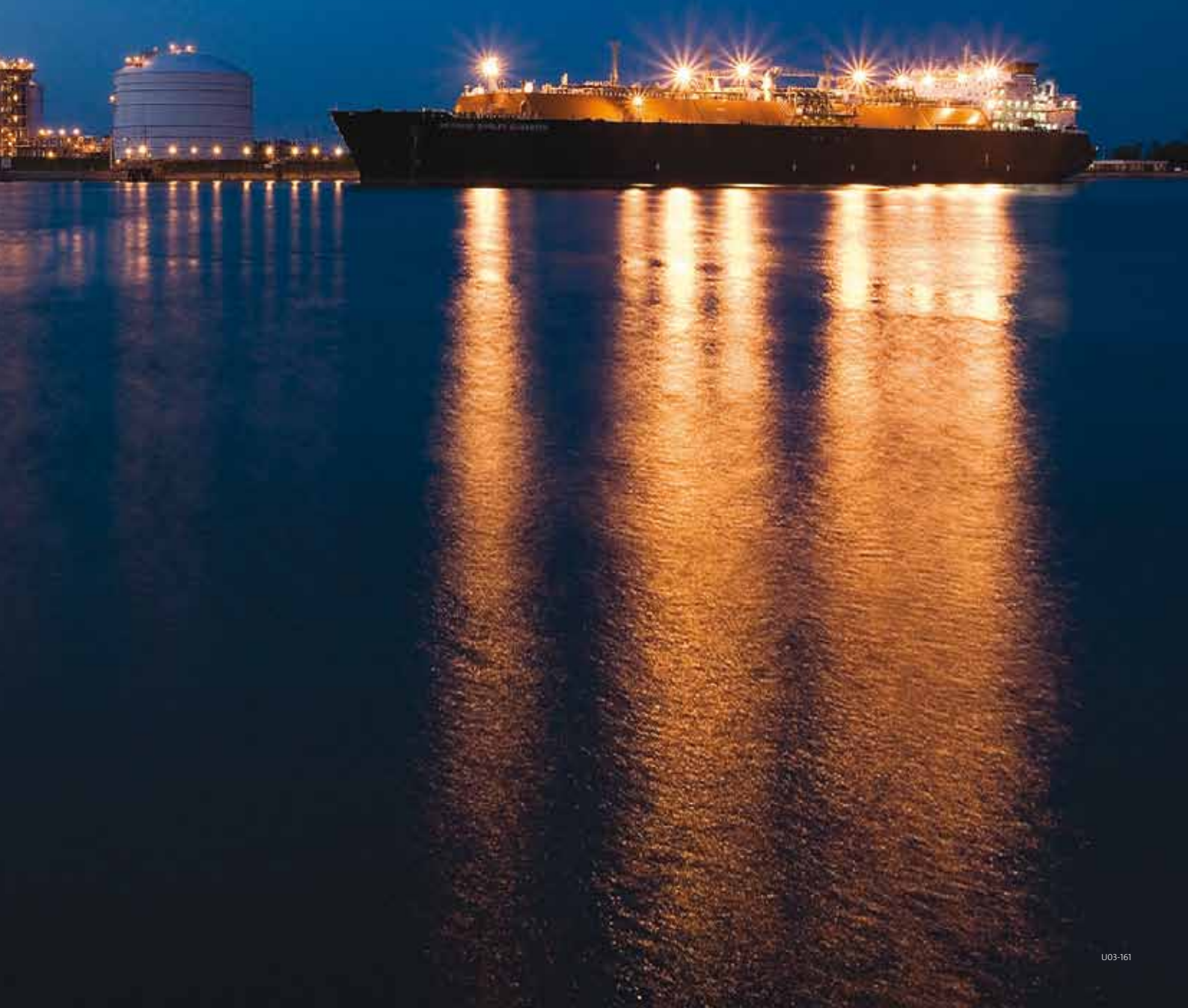
In the energy business, strong working partnerships are the key to success. At every stage, from gas exploration to LNG delivery, we work closely with our partners. We share with them our technical expertise, employ local people, invest in their communities and work together to find the right markets to maximise the value of our partners' natural resources. Their potential. Our expertise. It's a partnership you can rely on.

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# Turning partnerships into prosperity





## Message from the President

### *Dear Colleagues*

It is my pleasure to write this message to all of you in my capacity as the new President of IGU. This is the first issue of the IGU Magazine in 2010, a year which marks the beginning of a new and hopefully more promising decade in this millennium. The past decade has seen dramatic events in many business sectors including the sharp movements in energy prices which have had a tremendous impact on the global economy. Most notable has been the sudden and almost complete meltdown of the financial industry worldwide, with serious knock-on effects in terms of employment, production and consumption. Fortunately today, there are some positive signs of recovery thanks to the economic stimulus packages of many countries. Consumer spending and industrial activities are increasing in many sectors. With the global economy on the mend, we can now reflect on how we can make 2010 and the coming years better than those before.

In the global gas industry, particularly within the IGU fraternity, we will be striving to promote wider use of natural gas over the 2009-2012 Triennium. As the most environment-friendly fossil fuel, natural gas can make a major contribution to the mitigation of climate change by complementing renewable energy and enhancing energy efficiency. We should build on the limited success of the UN Climate Change Conference (COP15) held in Copenhagen last December; and we can do this without having to negotiate or reach binding agreements between developed and developing nations. By championing the worldwide development and growth of natural gas markets and infrastructure projects – in both gas producing and consuming nations – as an alternative to other fossil fuels, we can fulfil our collective

responsibility to promote sustainable development. The industry needs to boost investment in exploration activities to find more gas resources, especially in developing countries and in frontier areas, while at the same time promoting technologies that will help reduce emissions of greenhouse gases and thus mitigate adverse impacts on the environment due to global warming.

The focus of the Malaysian Triennium is on the sustainability of the gas industry as reflected in our theme, “Gas: Sustaining Future Global Growth”. We know that as the world economy recovers and expands, the need for clean, efficient energy will continue to grow. Our view is that, now and in the foreseeable future, gas with its inherent merits, is the key element in the fuel mix and plays a vital role in meeting expanding energy needs while helping to cut greenhouse emissions. However, the position of gas in the future energy system cannot be taken for granted. For gas to play a key role, there are a number of concerns that must be addressed.

Firstly, gas needs to have a more effective and consistent voice to support its rightful position in the overall energy system. We cannot assume that because natural gas is the most efficient and least polluting of the fossil fuels, it is the automatic solution of choice. There is a need for a strong case to be made for gas, especially in the policy arena.

Secondly, gas must be made available at the right time, right place and right price. This concerns access to upstream supplies as well as access to downstream markets. Issues that must be addressed include new technologies, investment incentives, regulatory regimes, geopolitics, resource nationalism and gas pricing. The recent revolution of non-conventional gas in the United States will potentially be a game changer and the implications have to be carefully assessed.

Thirdly, we need to improve gas efficiency throughout the value chain. Efficiency is an important imperative for sustainable growth and must be pursued more vigorously. Important

levers are the right energy policies, price, technology and innovation.

Fourthly, it is vital to ensure adequate human capability to foster the growth and integrity of the industry. This has often been neglected but it is a very important and critical issue for the sustainability and safety of the industry. A scarcity of talent, manifested in the difficulty in attracting and retaining manpower, has been plaguing the industry for a long time. When we consider the fact that the average age of the oil and gas industry worker is 49 years, this problem becomes more acute and pressing.

The above concerns are detailed in the Strategic Guidelines developed under the Triennial Work Programme and translated into the 32 studies that will be undertaken during the course

of the Malaysian Presidency. More than 500 people from across the IGU membership have so far signed up to participate in the Technical Committees, and I am very pleased with the support demonstrated. In addition, IGU will continue to work with other international organisations, to be the spokesman of the gas industry and to address the many challenges faced. I am confident that with the knowledge, skills and experience of the IGU membership, we can look forward to a successful Triennium.



Datuk (Dr) Abdul Rahim Hashim



Datuk (Dr) Abdul Rahim Hashim, President.

# At Repsol, we work everyday to contribute



Peru LNG Project

The Peru LNG Project entails the construction and operation of a 4.2 Mtpa. liquefaction plant in Pampa Melchorita, in which Repsol holds a 20% stake. Feed gas will be supplied to the plant by the Camisea consortium, in which Repsol has a 10% stake. The PLNG project also includes a pipeline that will connect with the existing natural gas transportation network to the domestic market.

Peru LNG will be the first liquefaction plant in South America and its completion is expected in mid-2010.

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*Let's invent the future*



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Repsol has secured a portfolio of natural gas supplies that provide the markets in Canada and the Northeast USA greater diversity and security of supply. This portfolio, combined with the capability of the Canaport™ LNG facility, allow Repsol to offer flexible supply arrangements to local distribution companies, power generators, industrial end-users and other markets in the region. Repsol's presence will enable the market to accomplish its cleaner burning energy agenda now and for the long term.



Canaport™ LNG Plant, Canada



## Message from the Secretary General

*Dear Reader*

The 24th World Gas Conference (WGC) in Buenos Aires, Argentina, October 5-9, 2009, will be remembered for its excellent professional and social content. It confirmed that the triennial WGC is the most important meeting place for the gas industry with many high-level participants and speakers representing the political and industrial leadership. The conference emphasised the positive outlook for natural gas and the industry's long-term commitment, especially in light of the need for reduced emissions of greenhouse gases.

During the Argentine Presidency IGU has enhanced its global reach, and has become more visible and active in geo-politics and the policy-making arena. This process will continue since politics and regulation at the national and international level have become increasingly significant for the gas industry.

The IGU Committees and Task Forces produced many excellent reports and publications as part of the 2006-2009 Triennial Work Programme (TWP).



Torstein Indrebø, Secretary General.

These can be downloaded from the IGU website and I recommend that you take a look.

The Council meeting that took place immediately before the 24th WGC approved Angola, Equatorial Guinea and Timor-Leste as new Charter Members together with six new Associate Members. These are: BG Group, UK; Det Norske Veritas, Norway; Gaslink, Ireland; Sonorgás, Portugal; Spetznftegaz, Russia; and Vopak LNG Holding, The Netherlands. The new Charter Members are



The IGU Gas Event in Copenhagen in December 2009 sent out a strong message.

presented in this issue of the IGU Magazine while the Associate Members will be presented in the autumn issue. Welcome to the IGU family!

The Council also elected Datuk Rahim Hashim as President of IGU for the 2009-2012 Triennium and Sook Wah Ho as the new Chairman of the Coordination Committee. The appointed Chairs, Vice Chairs and Secretaries of the IGU Committees and Task Forces together with the committee members have already started work on the approved TWP.

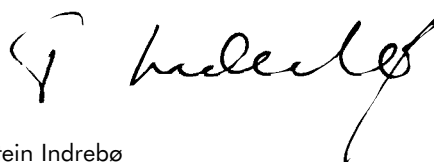
You will find more information about the 24th WGC in Buenos Aires and from the new Presidency as well as reports on other IGU activities over the last six months in the following pages. These activities include the IGU Gas Event at the UN Climate Conference in Copenhagen in December 2009, which gave a strong message:

- Switching to gas from coal in power production can give significant reductions in CO<sub>2</sub> emissions in the short, medium and long term;
- The technology is already available;

- Increased use of gas and emissions savings can take place without huge subsidies;
- Technological developments will continue in the areas of CCS and renewables, but it will take many years before such technologies can be deployed on a large scale.

IGU will enhance its efforts, ensuring that the environmental benefits of gas will be more recognised by the public and other stakeholders.

Enjoy your reading.



Torstein Indrebø



Over 3,500 participants from 83 countries gathered in Buenos Aires for the 24th WGC.





# Bringing energy to life

**Qatar, 6:30 am. Abdulla's heritage is linked to his future.  
RasGas is there.**

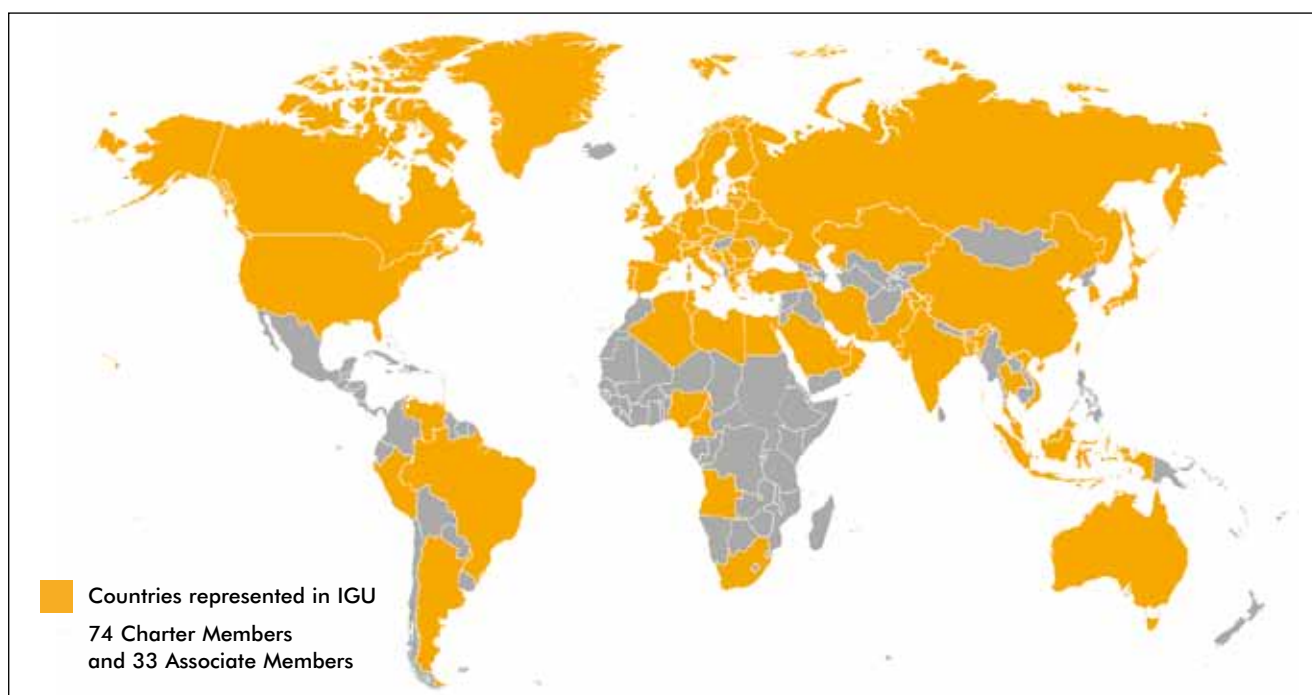
RasGas supplies Europe, Asia and America with liquefied natural gas,  
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THE ENERGY TO TRANSFORM

## Countries Represented in IGU

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







Transition activities

Efficiency  
and savings

Sustainability

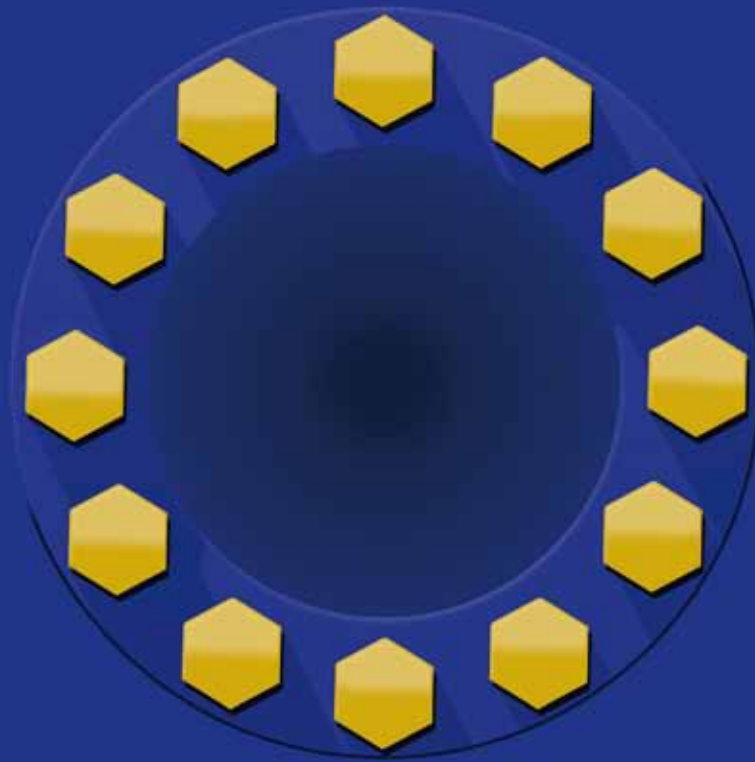
Improvement of  
climate and  
environment

## Moment of impact

GasTerra is an international company trading in natural gas. The number 1 EU-based supplier, selling around 80 billion m<sup>3</sup> annually. We provide also gas related services involving capacity, quality conversion and storage. Our products reflect market categories and our prices market values. Both oil- and spot-indexation prices are offered, depending on the type of contract and risk profile that our customers prefer. GasTerra strives to maintain long-term relationships. GasTerra is committed to sustainable development as a guiding principle for its strategy and actions. The company recognises the great importance of energy transition and initiates projects in this context, like advanced combined heat-power units, cooling by natural gas and the combination of natural gas with hydrogen and so-called green gasses. GasTerra is based in the Netherlands, in the midst of Energy Valley. We buy and sell natural gas and share our knowledge. **GasTerra, it's all in the name.**

## CHARTER MEMBERS

<i>Algeria</i> Association Algérienne de l'Industrie du Gaz – AIG	<i>Croatia</i> Croatian Gas Association	<i>Israel</i> The Israel Institute of Petroleum & Energy
<i>Angola</i> Sonangol Gás Natural	<i>Czech Republic</i> Czech Gas Association	<i>Italy</i> Comitato Italiano Gas (CIG)
<i>Argentina</i> Instituto Argentino del Petróleo y del Gas	<i>Denmark</i> Dansk Gas Forening – Danish Gas Association	<i>Japan</i> The Japan Gas Association
<i>Australia</i> Australian Gas Industry Trust	<i>Egypt</i> Egyptian Gas Association	<i>Kazakhstan</i> KazTransGas JSC
<i>Austria</i> Österreichische Vereinigung für das Gas- und Wasserfach (ÖVGW)	<i>Equatorial Guinea</i> Sociedad Nacional de Gas G.E.	<i>Korea, Republic of</i> Korea Gas Union
<i>Bangladesh</i> Petrobangla (Bangladesh Oil, Gas & Mineral Corporation)	<i>Estonia</i> Estonian Gas Association	<i>Latvia</i> JSC Latvijas Gāze
<i>Belarus, Republic of</i> Beltransgas	<i>Eurogas</i>	<i>Libya</i> National Oil Corporation
<i>Belgium</i> Association Royale des Gaziers Belges	<i>Finland</i> The Finnish Natural Gas Association	<i>Lithuania</i> Lithuanian Gas Association
<i>Bosnia and Herzegovina</i> Gas Association of Bosnia and Herzegovina	<i>France</i> Association Française du Gaz (AFG)	<i>Macedonia</i> Macedonian Gas Association
<i>Brazil</i> Associação Brasileira das Empresas Distribuidoras de Gás Canalizado (ABEGAS)	<i>Germany</i> Deutsche Vereinigung des Gas- und Wasserfaches e.V. (DVGW)	<i>Malaysia</i> Malaysian Gas Association (MGA)
<i>Brunei</i> Brunei Energy Association c/o Brunei LNG Sdn Bhd	<i>Greece</i> Public Gas Corporation of Greece (DEPA) S.A.	<i>Monaco</i> Société Monégasque de l'Électricité et du Gaz (SMEG)
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<i>Canada</i> Canadian Gas Association	<i>Indonesia</i> Indonesian Gas Association (IGA)	<i>Norway</i> Norwegian Petroleum Society (NPF) – Norwegian Gas Association
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*Portugal*  
GDP – Gás de Portugal, SGPS,  
S.A.

*Qatar*  
Qatar Liquefied Gas Company  
Ltd (Qatargas)

*Romania*  
S.N.G.N. Romgaz S.A.

*Russia, Federation of*  
OAO Gazprom

*Saudi Arabia*  
Saudi Aramco

*Serbia*  
Gas Association of Serbia

*Singapore*  
Power Gas Ltd

*Slovak Republic*  
Slovak Gas & Oil Association

*Slovenia*  
Geoplin d.o.o. Ljubljana

*South Africa*  
CEF (Pty) Ltd

*Spain*  
Spanish Gas Association –  
Asociación Española del Gas  
(SEDIGAS)

*Sweden*  
Swedish Gas Association –  
Svenska Gasföreningen

*Switzerland*  
Schweizerische Aktiengesellschaft  
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The Gas Association of the  
Republic of China, Taipei

*Thailand*  
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*Timor-Leste*  
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the Democratic Republic of  
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*Trinidad and Tobago*  
The National Gas Company of  
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Energy Delta Institute (EDI)	International Association for Natural Gas Vehicles (IANGV) including its regional affiliates
Foundation IGU Research Conferences (Foundation IGRC)	International Pipeline & Offshore Contractors Association (IPLOCA)
Gas Infrastructure Europe (GIE)	Marcogaz
Gas Technology Institute (GTI)	Pipeline Research Council International, Inc. (PRCI)
GERG – Groupe Européen de Recherches Gazières/European Gas Research Group	Russian National Gas Vehicle Association (NGVRUS)
GIIGNL – Groupe International des Importateurs de Gaz Naturel Liquéfié/International Group of LNG Importers	





## Natural gas logistics – we're assuming a new role in the new world of energy.

At the new Thyssengas, 300 specialists are taking charge of a new task in the changing world of energy: natural gas logistics.

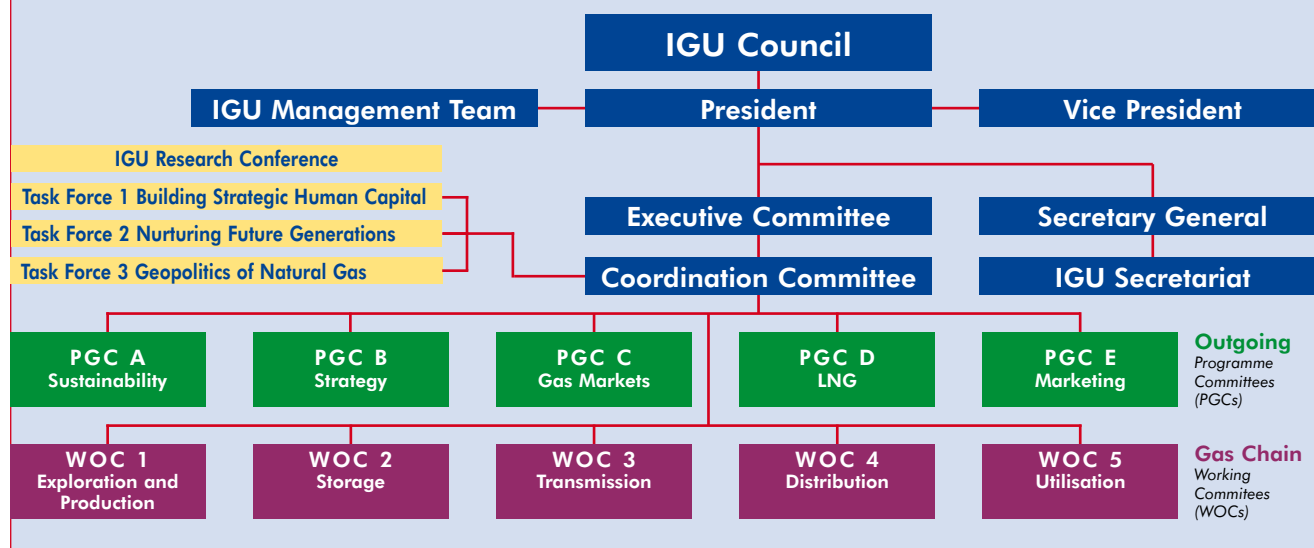
We balance all the functions of classical gas transportation with new service offers. At the same time, we will increase efficiency in the gas distribution system with innovative products. Our customers

obtain more transportation flexibility while profiting from newly created savings potential.

Those who have appreciated our competence in classical gas transportation now have new reasons to discuss natural gas logistics with us.

[www.thyssengas.com](http://www.thyssengas.com)

## IGU Organisation 2009–2012



This photograph was taken at the last Executive Committee (EXC) meeting of the Argentine Triennium in Buenos Aires in October 2009.

From left to right in each row starting at the front are:

Hae-jung Oh, Chawki Mohamed Rahal, George H. B. Verberg, Ernesto López Anadón, Datuk (Dr) Abdul Rahim Hj Hashim, Ho Sook Wah, Ieda Correia Gomes;

Domenico Dispenza, Yves Tournié, Jan Rune Schøpp, Antoni Peris Mingot, Torstein Indrebø (who attended as Secretary General and

is not a member of the EXC), João Carlos de Luca, Wan Zulkiflee Wan Ariffin, Peter I. Hinstrup;

David N. Parker, Daniel Paccoud, Colin Lyle (who was substituting for John Williams), Hirofumi Kyutoku, Tomáš Tichý, Evgueni Riazantsev, Georges Liens (not then a member of the EXC), Jérôme Ferrier (not then a member of the EXC), Reinhard Schweifer.

Roberto D. Brandt and Walter Thielen (who was substituting for Klaus Homann) missed the photo session.

The members of the current EXC are detailed opposite.

## IGU MANAGEMENT TEAM



Datuk (Dr) Abdul Rahim Hj Hashim,  
President (Chairman) (Malaysia)



Mr Jérôme Ferrier, Vice President (France)



Mr Ernesto López Anadón, Immediate  
Past President (Argentina)



Mr Ho Sook Wah, Chairman of the  
Coordination Committee (Malaysia)



Mr Georges Liens, Vice Chairman of the  
Coordination Committee (France)



Mr Torstein Indrebø, Secretary General

## IGU EXECUTIVE COMMITTEE 2009-2012 TRIENNium

Dr Chawki Mohamed  
Rahal, Algeria

Mr Ernesto López Anadón  
Argentina

Mr Carlos Eduardo de  
Freitas Brescia, Brazil

Ms Shahrzad Rahbar  
Canada

Mr Miloš Kebrdle  
Czech Republic

Mr Jérôme Ferrier  
France

Mr Georges Liens  
France

Mr Daniel Paccoud  
France

Mr Walter Thielen  
Germany

Mr Domenico Dispenza  
Italy

Mr Hirofumi Kyutoku  
Japan

Mr Hae-jung Oh  
Republic of Korea

Datuk (Dr) Abdul Rahim  
Hj Hashim, Malaysia

Mr Ho Sook Wah  
Malaysia

Mr Marcel Kramer  
The Netherlands

Mr Jan Rune Schøpp  
Norway

Mr Alaa Abu Jbara  
Qatar

Mr Evgueni Riazantsev  
Russia

Mr Antoni Peris Mingot  
Spain

Mr John Williams  
United Kingdom

Mr David N. Parker  
United States of America

Ms Ieda Correia Gomes  
BP Gas, Power & Renew-  
ables, Associate Member

Mr Wang Guangjun,  
China National Petroleum  
Corporation, Associate  
Member

Mr João Carlos de Luca  
Instituto Brasileiro de  
Petróleo, Gás e  
Biocombustíveis,  
Associate Member

Mr Khaled Abubakr,  
Taqa, Associate Member

Mr Yves Tournié  
Total, Associate Member





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