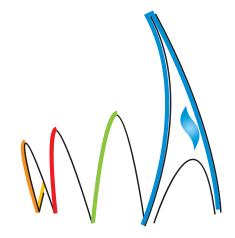






WORLD GAS CONFERENCE PARIS - FRANCE 1-5 June 2015



PRESENTED BY



HOST SPONSORS







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INVITATION FROM THE INTERNATIONAL GAS UNION (IGU) PRESIDENT

Energy is central to addressing major challenges and creating new business opportunities in the 21st century. As the need for clean and efficient energy continues to grow, gas has a vital role to play in meeting the world's expanding energy requirements. Gas offers significant advantages over other fossil fuels in an increasingly carbon constrained world where climate change is a cornerstone of energy policies.

In recent years the IGU has dramatically expanded its presence and influence all over the world with membership now representing more than 95% of the global gas market. It is this market presence that is enabling us to fulfil our exciting and challenging role to advocate the development of natural gas. This is not only as a foundation fuel, but also as a key long-term solution for sustainable economic growth and a more secure energy future for everyone, globally.

It is a great honour for France to host the 26th World Gas Conference; the most significant global industry gathering which convenes only once every three years. The French IGU Presidency is on track and busy organising a prestigious global event which will surpass expectations. Our focus will be to highlight the essential role that gas will play in future world growth, especially given the increasing demand for cleaner energies.

A large part of the WGCPARIS2015 programme will be the culmination of studies and research conducted throughout the triennium by a global network of over 1,000 industry professionals who make up the 14 IGU Working Committees, Programme Committees and Task Forces. The knowledge from this wealth of industry professionals ensures that the World Gas Conference programme stands out from other industry events by providing an array of conference topics spanning across the whole gas value chain, as well as considering all the major advancements affecting the gas industry worldwide.

The French presidency has also led the way forward by focusing on three Task Forces:

- Human capital: human resources are a key issue for the gas industry in particular ensuring that young educated professionals are fairly represented. A full day of the conference will be dedicated to this issue.
- Gas advocacy: several panels will be dedicated to this presentation of an updated strategy and of a new policy for a better communication about natural gas.

 Geopolitics: the IGU has developed and reinforced its relationship, partnership and dialogue with international organisations amid UNFCCC, UNIDO, UNESCO, WORLD BANK GROUP, IEA and environmental organisations. The participation of top executives from these organisations will be key moments of this conference particularly to promote natural gas as complement to renewable energy.

WGCPARIS2015 is a great opportunity to meet and discuss the future of the industry. Thousands of international delegates are due to attend the conference including policy makers and top executives from the major gas companies, as well as thousands of industry professionals to visit the 40,000sqm exhibition.

We look forward to welcoming the gas energy community at this prestigious event. Paris will certainly offer an exceptional experience of culture, the finest culinary cuisine and world famous sites which will make this an enriching and memorable trip.

Jérôme Ferrier President IGU



INVITATION FROM THE INTERNATIONAL GAS UNION (IGU) SECRETARY GENERAL

Since 1931 the International Gas Union (IGU) has promoted the technical and economic progress of the gas industry all over the world, and has the vision of becoming the most influential, effective and independent non-profit organisation, while serving as the spokesman for the gas industry worldwide.

The IGU has become a more active contributor to policy formulation with increased focus on political and strategic challenges. Current priorities include the promotion of the long term role of gas in a less carbon intensive energy future, and continuous improvement of corporate performance towards a sustainable development.

The Union has extensive cooperation with other international organisations such as the United Nations institutions like UNIDO and UNESCO, the International Energy Agency, the World Bank and the International Energy Forum, amongst many others.

The IGU now has 126 members from countries on all continents. The members are national associations and corporations of the gas industry who every triennium provide experts to the professional committees which normally meet twice a year to discuss the study programme to be developed and presented at the World Gas Conferences.

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IGU's working organisation covers all aspects of the gas value chain from exploration and production, transmission, storage, distribution and utilisation as well as sustainability, strategic issues, gas markets, LNG and marketing. Separate task forces are established to address issues of special relevance.

The World Gas Conference is the most important of the world gas events. Every three years the industry meets at this renowned conference, organised by one of the IGU Charter members. Several thousand industrial and political leaders, gas executives, specialists in many fields and exhibitors are meeting at the 26th World Gas Conference taking place in Paris, France the first week of June 2015.

The stakeholders of the gas industry will discuss and share ideas on how to meet the many global challenges facing the industry and the world today, including:

- The role of natural gas in a low carbon energy future
- The industry's contribution to job creation and sustainable economic development
- Advocacy of natural gas towards policy-makers and the public in general
- The impact of unconventional gas on global energy markets
- Expansion of gas demand into new market segments
- Measures to improve energy efficiency
- Safety and environmentally responsible operations
- Recent developments in gas related research and development
- The impact of geopolitics on energy markets
- The challenge of attracting and developing human talent
- Mitigation of global energy poverty.

I can assure you that the 26th World Gas Conference will be a fascinating event which will enrich you professionally, socially and culturally.

Welcome to Paris!

S. Wderly

Torstein Indrebø Secretary General IGU



INVITATION FROM THE NATIONAL ORGANISATION COMMITTEE (NOC) CHAIRMAN

WGCPARIS2015 will be based on the theme of 'Growing together towards a friendly planet'. It will feature over 500 expert speakers presenting their findings and knowledge on the latest developments and challenges facing the natural gas industry, as well as offering ideas on how to combine renewables and electricity to meet the ever changing and growing demands of the world's energy requirements.

The French presidency has worked hard throughout the triennium to ensure the conference remains current and presents new qualities. Each day of the conference will be dedicated to one of the pillars that builds the programme of the French triennium:

Day 1 – Tuesday 2 June (green pillar): "Natural gas as a core pillar for a sustainable future of the planet"

Day 2 – Wednesday 3 June (yellow pillar): "Gas, renewables and electricity: together a perfect combination"

Day 3 – Thursday 4 June (red pillar): "Natural gas as a growth factor for new economies"

Day 4 – Friday 5 June (blue pillar): "Human capital for the future of the gas industry"

The need to attract new and younger professionals to the industry will also be a continuing theme of the WGCPARIS2015 conference. The Youth Programme will be included again as in WGC 2012. In honour of the 100th anniversary of 'Underground Gas Storage (UGS)', students and young specialists have the opportunity to submit a thesis relevant to the yellow and green pillars for an award. The winner will have the opportunity to present their work at the conference as part of a WOC 2 session.

The exhibition of the 26th World Gas Conference will boast 40,000sqm of exhibition space on one level adjacent to the main conference venue. It will provide display stands for over 300 exhibitors enabling delegates to have the greatest opportunity yet to meet and do business with the gas industry. Additionally WGCPARIS2015 will feature a never seen before "Natural gas as a transportation fuel" pavilion situated inside the main exhibition centre. This dedicated area for exhibitors focuses on the technology around land and marine vehicles that use natural gas as a fuel. A seminar area will be allocated within the pavilion for experts in this field to share their knowledge and latest ideas.

Alongside our enriching conference programme which will be opened by an unforgettable gala evening, there are extensive opportunities to explore the enchanting city of Paris, through the variety of social tours that you can choose from. Ranging from tours of the Eiffel Tower or the Opera, lunch cruises on the Seine, wine and cheese tasting and cookery classes, there is something for everyone's enjoyment! Post conference tours to dream destinations like Côte d'Azur or Champagne will also be proposed, as well as several technical tours including charming touristic visits.

We are confident this will be an outstanding event attracting the highest number of delegates, trade visitors, press and exhibitors to date, and we look forward to welcoming you to our city!



Daniel Paccoud Chairman National Organising Committee

IGU 2012-2015 TRIENNIUM AUTHORITIES

IGU COUNCIL



Vice President David Carroll USA



President Jérôme Ferrier France

IGU MANAGEMENT TEAM

President, Vice President, Immediate Past President, CC Chairman, CC Vice Chairman, Secretary General

IGU SECRETARIAT



Immediate Past President Datuk (Dr) Abdul Rahim Hashim Malaysia

EXECUTIVE COMMITTEE

COORDINATION COMMITTEE



Vice Chairman Mel Ydreos USA



Chairman Georges Liens France



Secretary General Torstein Indrebø Norway



Deputy Secretary General Pål Rasmussen Norway



Director Carolin Oebel Norway



Webmaster Sjur Runar Boyum Norway



Secretary Yves Tournié France

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IGU's Triennial Work Programme (TWP) is prepared by the technical committees outlined below. Together they form the operational hub of IGU. Thanks to the invaluable time and efforts of these teams we are able to bring you a fresh and exciting programme.

COMMITTEE	CHAIR	VICE-CHAIR	SECRETARY
Working Committee 1 (WOC 1)	Denis Krambeck Dinelli	Adif Zulkifli	Marco de Freitas Sugaya
Exploration and Production	Brazil	Malaysia	Brazil
Working Committee 2 (WOC 2)	Ladislav Goryl	Nikita Barsuk	Maria Polakova
Storage	Slovakia	Russia	Slovakia
Working Committee 3 (WOC 3)	Benjamin Guzman	Martin Slaby	Daniel Falabella
Transmission	Argentina	Czech Republic	Argentina
Working Committee 4 (WOC 4)	Dietmar Spohn	José Maria Almacellas	Uwe Klaas
Distribution	Germany	Spain	Germany
Working Committee 5 (WOC 5) Utilisation	Eugene Pronin Russia	Mohammad Reza Ghodsizadeh Iran	Valery Nemov Russia
Programme Committee A (PGC A)	Satoshi Yoshida	Maria Gabriela Roselló	Tokyo Gas
Sustainability	Japan	Argentina	Japan
Programme Committee B (PGC B)	Fethi Arabi	Ulco Vermeulen	Malek Salim Benabdallah
Strategy	Algeria	The Netherlands	Algeria
Programme Committee C (PGC C)	Dr Gi Chul Jung	Sid-Ahmed Hamdani	Shin Soo-Ock
Gas Markets	South Korea	Algeria	South Korea
Programme Committee D (PGC D)	Dirk van Slooten	Masanori Oki	Feikje Wittermans
Liquified Natural Gas (LNG)	The Netherlands	Japan	The Netherlands
Programme Committee E (PGC E)	Alfredo Ingelmo Torres	Barbara Jinks	Juan Antonio Perez Cuevas
Marketing and Communication	Spain	Australia	Spain
Programme Committee F (PGC F)	Jack Lewnard	Gerald Linke	Rod Rinholm
R&D and Innovation	USA	Germany	USA
Task Force 1 (TF 1) Human Capital	Agnès Grimont France	Abdulaziz Mohammed Al-Mannai Qatar	Sonia Lefebvre France
Task Force 2 (TF 2)	Michele Pizzolato	Kevin Murphy	Giulia Migueles Pereyra
Gas Advocacy	Italy	USA	Italy
Task Force 3 (TF 3)	Geert Greving	Chang Keun Lee	Rik Komduur
Geopolitics	The Netherlands	South Korea	The Netherlands

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IGU 2012-2015 TRIENNIUM WISE PERSONS' GROUP

Besides the support from its members, the IGU is honoured to work in close collaboration with a number of organisations throughout the world.

From this, a strong connection has been established with a few of its distinguished members, who have contributed from their own expertise and perspectives on key issues of the global natural gas industry, and whom the IGU has familiarly defined as the Wise Persons' Group.



Nobuo Tanaka Japan

Executive Director Global Associate Energy Security and Sustainability Institute of Energy Economics



Prof. Dr Coby van der Linde The Netherlands

Director Clingendael International Energy Programme (CIEP) Professor of Geopolitics and Energy, The University of Groningen Member of The Dutch Energy Council



Dr Daniel Yergin USA

Vice Chairman IHS Chairman of Cambridge Energy Research Associates



Dr Kandeh K. Yumkella UN

Under Secretary General Special Representative of the Secretary-General & Chief Executive Officer UN – Sustainable Energy for All

NATIONAL ORGANISING COMMITTEE (NOC) WGCPARIS2015

NATIONAL ORGANISING COMMITTEE (NOC)



Chairman Daniel Paccoud NOC



Advisor Emmanuelle Wicquart NOC



Secretary Annie Louys NOC



ACKNOWLEDGEMENTS WGCPARIS2015 SPONSORS

The National Organising Committee would like to thank the following companies for their sponsorship and respective contributions to the 26th World Gas Conference.



ACKNOWLEDGEMENTS WGCPARIS2015 SPONSORS

WGC ORGANISERS





The **International Gas Union (IGU)** is a non-governmental organisation whose mission is to promote gas industry development across the world. It was founded in 1931 and has established itself as the voice of the gas industry, supporting technological progress and competitiveness on the energy markets to governments and international organisations.

The IGU's area of responsibility covers the entire gas chain and includes natural gas, liquefied natural gas, exploration, production, storage, use and distribution. The IGU is registered in Switzerland and has under its aegis over one hundred chartered or associate members across 83 countries.

These members take part in IGU-led projects and research activities to assess the industry's potential and its strategies for growth, in the context of a responsible environmental policy. The results are presented every three years at the World Gas Conference.

The **French Gas Association (AFG)** was founded in 1874, and operates as the professional association for the gas chain in France. This organisation represents all members of the sector to public authorities at national level. Its aim is to promote the development of gas and secure its place in the energy package of the future. The AFG encourages dialog between the members so as to bring collective answers to economic or technical challenges or regulatory problems.

Within the association, seven permanent committees run projects that cover the fields of transport and storage, distribution, suppliers, utilisation, liquefied natural gas (LNG), gas industry economy and environmental issues. As an active member of the International Gas Union, the French Gas Association supported France's bid for the presidency of the IGU for the triennium 2012 to 2015, and is now in charge of organising the World Gas Conference in Paris in June 2015.

ELEPHANT LIVE

Elephant Live is an events production agency company, founded by Emmanuel Chain, Thierry Bizot and Hervé du Verne. The agency designs and produces events for the general public and for company events including fairs, shows, conventions, congresses, evenings. Elephant Live is a subsidiary of Elephant Group – a production company for French TV channels, brands and companies. Our portfolio of clients includes: AXA, BNP Paribas, Canal +, EDF, Faurecia, France 2, Kering, Michelin, Pernod Ricard, Laboratoire Roche, Renault, Sanofi, SNCF, TF1, Total.



From Perth to Paris, Kuala Lumpur to Houston, **ETF** brings thirty years exhibition and sponsorship experience across five continents. We specialise in working with national associations as they host global energy conferences. ETF is proud of our success in delivering record sponsorship and exhibition outcomes for our clients, supporting their broader conference and industry objectives. ETF's portfolio extends from LNG 12 to LNG 19; and WGC 2012 to WGC 2018.



The **CWC Group** has 17 years' experience in delivering oil, gas and energy conferences, exhibitions and training. CWC has long-established relations with governments, corporate investors, trade organisations and senior industry executives. During this time CWC has produced more than 600 events in 35 countries across 5 continents, granting us with a wealth of knowledge and experience on the opportunities and challenges facing the global energy industry. In addition to its growing portfolio of annual industry events, CWC has a specialist division, CWC Solutions, which provides the entire range of event management services for clients globally. CWC Solutions has been appointed to organise many renowned international events including the World Gas Conference (2009, 2012, 2015 and 2018) and LNG 17, as well as bespoke conferences, exhibitions, receptions, gala dinners and roadshows for leading industry organisations. Our expertise ensures record attendance levels, global impact and increased visibility for our clients.

ACKNOWLEDGEMENTS WGCPARIS2015 MEDIA PARTNERS

AIRLINE PARTNERS





OFFICIAL MEDIA PARTNER





To benefit from attractive discounts on flights with either of the airline partners for travel to WGCPARIS2015 please quote the relevant promotional code:

Air France – KLM: 22401AF via the website: www.airfrancekIm-globalmeetings.com Qatar Airways: PARWGAS15 Please note that terms and conditions apply.

GENERAL PROGRAMME WGCPARIS2015

Please refer to the "fold-out" table at the back of the programme for the full details of the WGCPARIS2015 Technical Programme.

SATURDAY 30) MAY 2015
14:00 - 19:00	Registration at official hotels*
SUNDAY 31 M	AY 2015
07:00 - 15:30	WGCPARIS2015 golf tournament
09:00 - 12:00	Incoming IGU coordination committee meeting**
10:00 - 19:00	Registration at official hotels*
12:30 - 14:30	IGU coordination committees lunch and awarding of diplomas**
19:00	President's dinner**
Monday 1 Ju	JNE 2015
10:00 - 19:00	Registration at official hotels*
10:00 - 17:00	Registration at Porte de Versailles*
12:00 - 13:30	IGU Council lunch buffet**
13:30 - 16:00	Council meeting
20:00 - 23:00	Welcome gala evening
TUESDAY 2 J	UNE 2015 – Natural gas as a core pillar for a sustainable future of the planet
07:30 - 18:30	Registration at Porte de Versailles*
08:30 - 10:00	Opening ceremony
10:15 - 11:15	Morning sessions
11:30 - 18:30	Exhibition (opening ceremony commences at 11:30)
12:00	Interactive sessions opening
12:15 - 13:45	Conference luncheon
14:00 - 18:30	Afternoon sessions
WEDNESDAY	3 JUNE 2015 – Gas, renewables and electricity: together a perfect combination
07:30 - 18:30	Registration at Porte de Versailles*
08:30 - 12:00	Morning sessions
08:00 - 18:30	Exhibition
12:15 - 13:45	Conference luncheon
14:00 - 18:30	Afternoon sessions
THURSDAY 4	JUNE 2015 – Natural gas as a growth factor for new economies
07:30 - 18:30	Registration at Porte de Versailles*
08:30 - 12:00	Morning sessions
08:00 - 18:30	Exhibition
12:15 - 13:45	Conference luncheon
14:00 - 18:30	Afternoon sessions
FRIDAY 5 JUN	IE 2015 – Human capital for the future of the gas industry
07:30 - 12:30	Registration at Porte de Versailles*
08:30 - 12:00	Morning sessions
08:00 - 17:15	Exhibition
12:15 - 13:45	Conference luncheon
14:00 - 15:30	TWP 2015-2018 presentation
16:00 - 17:00	Closing of Youth Programme
17:15 – 18:30	Closing ceremony
18:45	Farewell party

*Details of the official hotels can be found in your registration pack. When registering please bring your confirmation information, which will entitle you to collect your conference badge and documentation. **By invitation only.

Please note schedules may change nearer to the conference.





CONFERENCE PROGRAMME OVERVIEW BY IGU COORDINATION COMMITTEE



TRIENNIAL WORK PROGRAMME

The French triennium began against a background of economic crisis which was particularly prominent in Europe. Nevertheless, natural gas has gained a more favourable position in the future world energy mix than it had a few years ago. This has been due to the development of shale deposits in some important countries, its impact on the American industry and the continuing developments of Asian economies. Gas is still viewed as a transition fuel by some institutions such as the European Commission, and environmental associations, yet natural gas could also emerge as a "foundation" fuel, a core pillar for sustainable development.

2012 – 2015 Theme and strategic guidelines The theme for the French triennium is: **"Growing together towards a friendly planet"**

As the need for clean and efficient energy continues to grow, gas has a vital role to play in meeting the world's expanding energy requirements. Gas offers significant advantages over other fossil fuels, especially in an increasingly carbon constrained world where climate change is a cornerstone of energy policies.

These gas resources will be available today and for decades to come. Gas will continue to be a flexible source of power generation, and will remain an AAA (Available, Affordable, Acceptable) energy supply which will play a key part of the fuel mix and driving future global growth. The power sector will be by far the largest growth sector for gas.

With global energy requirements continuing to make increasing demands on gas supplies, industry growth must continue to be sustainable. It needs to continuously improve the resources and their uses without compromising the ability of future generations to meet their own needs, and take economic, environmental and social factors into account. For gas to be part of a sustainable development, its growth needs to be shared between continents and its benefitting qualities to be as widespread as possible. It will also mean not only improving the availability of gas by developing and implementing new gas technologies, but also recruiting the critical human resources needed to ensure that all the essential elements are in place and can be operated safely at optimum levels throughout the entire value chain. Ultimately it must be affordable, particularly when combined with renewables. In this respect gas CARES (Clean, Acceptable, Reliable, Efficient and Secure) about the future.

To support the theme and reinforce the IGU's role in the gas industry, we have identified four strategic guidelines (or pillars) to sustain future global growth. These are to:

- Obtain official recognition for natural gas as a "foundation" fuel for sustainable development
- Promote an appropriate mix of natural gas with renewables and electricity
- Improve the availability of natural gas in new areas and in developing countries
- Attract human resources and reduce staff turnover.

These four pillars form the framework of the technical programme, including special triennium projects.

CONFERENCE PROGRAMME OVERVIEW BY IGU COORDINATION COMMITTEE

The programme for the 26th World Gas Conference is the culmination of three years of studies and research conducted by over 1000 industry professionals who make up the 14 IGU Working Committees (WOC 1-5), Programme Committees (PGC A-F) and Tasks Forces (TF 1-3).

Like our Malaysian colleagues before us, we believe that human resources and education are key for the future of our industry. In this complex world and globalised gas market, geopolitics is a driving force behind gas industry developments. With serious potential implications for the future sustainability of the industry, these areas merit further consideration. We have so merged the two previous Task Forces responsible for these special projects during the Malaysian triennium into one in charge to continue to cover all aspects of human capital, and particularly the place of women in the gas industry.

Another concern is the image of natural gas: how policy makers, international organisations and NGOs the world over, perceive natural gas. While the world will continue to depend on fossil fuel for most of its energy requirements in the foreseeable future, we believe natural gas has an important role to play in mitigating climate change. We have therefore set up a new Task Force dedicated to gas advocacy. This Task Force, under the umbrella of the IGU Presidency and Secretariat, uses its own experts and consults Programme Committee leaders, particularly the sustainability (PGC A) and marketing and communication committees (PGC E). The aim is to increase our visibility and promote gas use by maintaining, improving and adapting the key arguments already developed. This will be achieved by launching a new Global Gas Portal for the IGU dedicated to be the "Global Gas Voice"; by increasing lobbying activities at major forums such as the UNFCCC

(COP) meetings and meetings for the preparation of G20.

To achieve our work programme, we are continuing to collaborate, through organised common meetings, seminars, and training programmes, with other international organisations such as the International Energy Agency (IEA), the International Energy Forum (IEF), the World Petroleum Council (WPC), the World Energy Council (WEC), and the World Bank (WB). We are also developing special projects with United Nations Agencies: UNIDO, UNESCO and the new entity SE4All (Sustainable Energy for All), managed by our Wise Person, Kandeh Yumkella.

We therefore hope that the 26th World Gas Conference programme provides you with a variety of arguments, discussions and valuable feedback within the parameters of the "Growing together towards a friendly planet" theme and promotes ideas for the future of the gas industry.

We encourage you to regularly view the WGCPARIS2015 website for updates on the programme at www.wgc2015.org and look forward to welcoming you to Paris.

Georges Liens Chairman IGU Coordination Committee

Yves Tournié Secretary IGU Coordination Committee

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TECHNICAL PROGRAMME OVERVIEW DAY BY DAY

Each day of the conference is dedicated to one of the four pillars around which the programme has been developed.

DAY 1 NATURAL GAS AS A CORE PILLAR FOR A SUSTAINABLE FUTURE OF THE PLANET



In a carbon constrained future, natural gas is the cleanest carbonated energy. In the last five years the estimated gas reserves have dramatically increased due to the development of shale gas and the use of methane hydrate reserves. The development of these unconventional sources has increased available resources and opened new possibilities around the world particularly when joined with the use of Natural Gas Vehicles (NGV) through Compressed Natural Gas (CNG) for big cities, and LNG for trucks and transport, playing a key factor for a sustainable future in developing areas. At the same time gas industry members have to work together to maintain or obtain the recognition of natural gas as a core fuel for a sustainable future for economies, mature or developing, and more generally of the planet.

Day one will see two Strategic Panels dedicated specifically to the day's theme with 'Life Cycle Assessment (LCA): a tool for decision makers' and 'Gas flaring and venting reduction'. A further Strategic Panel will be dedicated to the future; '2050 prospective study' and the last panel will see a debate between political leaders, industry, institutions and NGO's.

DAY 2 GAS, RENEWABLES AND ELECTRICITY: TOGETHER A PERFECT COMBINATION

The energy future will not be founded on "one size fits all". Diversity of situation will necessitate a diversity of solution. With its adaptability and its efficiency, natural gas excellently complements the different forms of renewable energy, and through bio-methane it is by itself a renewable energy. With the development of smart grids and decentralised energy, natural gas is a perfect solution to produce heat and power locally. In a context of energy savings and development of electricity uses, coupling gas networks and electricity networks provides a solution to use existing gas networks in mature countries to avoid massive investments in electricity networks. With the flexibility of gas to power, the utilisation of gas storage and the potential of power to gas, these couplings could solve the problem of electricity storage.

Day two will see one Strategic Panel address the topic of 'Smart grids in a sustainable energy future' and others dedicated to 'How natural gas can raise its voice' and 'LNG as a key factor'. Thematic Sessions will be dedicated to gas convergence with electricity and renewable, natural gas completing and coordinating with other energies, and to the strategy of gas and energy companies.

During the day the incoming chairs, vice chairs and secretaries of WOC, PGC and TF will present their projects and have the possibility to discuss directly with their future members.

TECHNICAL PROGRAMME OVERVIEW DAY BY DAY

DAY 3 NATURAL GAS AS A GROWTH FACTOR FOR NEW ECONOMIES

One Strategic Panel will address the topic "Gas development in emerging countries", with another covering "Unconventional gases". The "Human capital strategy for the future" will enlighten you on how to attract new human resources for developing gas everywhere and the last session will be dedicated to 'The role and impact of innovation in the gas

industry'. Thematic Sessions will be dedicated to the new

transmission projects, the challenges and opportunities of

small scale LNG and to wholesale gas price formation.

The development of new economies needs available, quick, affordable, efficient, acceptable and reliable solutions. Natural gas has all these qualities. It can be available everywhere through the use of pipelines or by LNG. It can be used directly for residential, commercial or industrial utilisations, or to produce electricity and also as a fuel for clean transport. The development of unconventional sources, widespread around the world, is a key factor for offering new possibilities at an affordable cost. Natural gas is therefore a cornerstone for the development of emerging countries and developing economies.

DAY 4 HUMAN CAPITAL FOR THE FUTURE OF THE GAS INDUSTRY

Human capital is key for all industries. Natural gas had really developed in Europe by the mid-sixties with the first large import/export contracts (Dutch and Russian gas) and by the mid-seventies with new sources (Algeria, Norway), taking the place of city gas. Natural gas is now developing guickly in Asia and South America through domestic resources and LNG. The resources are huge, remote and diverse. This means our industry has to attract young people to replace the first generations and also to develop our industry upstream and downstream everywhere. The composition of the workforce has been until recently mainly male. Nevertheless to attract the best researchers, managers, and technicians in a growing industry with new needs, we have to develop the female proportion of the industry and for that more young women need to be attracted to an education in science and technology. We also have to increase communication and education about gas and our industry.

One Strategic Panel will address with the topic "Women's place in the gas industry", another will cover "Gas communication". A parallel session will be dedicated to the IGU Awards (IGU Global Gas Award and Best Practices Awards).

Before the closing ceremony, the handover to the new Presidency and the farewell party, there will be two Special Sessions, one dedicated to the presentation of the Triennial Work Programme 2015-2018, and another to the closing ceremony of the Youth Programme.

We hope to reach our goal and to have contributed to building our future!

HOST SPEAKERS WGCPARIS2015

TUESDAY 2 JUNE 2015



IN MEMORIAM

Christophe de Margerie Chairman and Chief Executive Officer, Total SA

The TOTAL Keynote Speaker will be announced in due course.



Gérard Mestrallet Chairman and Chief Executive Officer, GDF SUEZ

Mr Mestrallet is a graduate of Ecole Polytechnique, Ecole de l'Aviation Civile, Institut d'Etudes Politiques (Toulouse) and the Ecole Nationale d'Administration. He was Civil Administrator in the Treasury and Advisor on Industrial Affairs to Finance Minister Jacques Delors. In 1984, he became Advisor to the Chairman of Compagnie de Suez. In 1986, he was appointed Senior Executive Vice President in charge of Industrial Affairs. In 1991, Mr Mestrallet became Chairman and Chief Executive Officer of the Management Committee of Société Générale de Belgique. In July 1995, he was appointed Chairman and Chief Executive Officer of Suez Lyonnaise des Eaux until May 2001, when he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez. In July 2008, he was appointed Chairman and Chief Executive Officer of Suez.

KEYNOTE SPEAKERS

TUESDAY 2 JUNE 2015



Alexey Miller

Deputy Chairman of the Board of Directors, Chairman of the Management Committee, Gazprom

Mr Miller graduated from Voznesensky Leningrad Finance and Economics Institute and holds a PhD in Economics. Upon graduation, Mr Miller was engineer-economist at the General planning division of Leningrad Civil Construction Research and Design Institute (LenNIIproekt under the Executive Committee of the Leningrad City Council). By 1990 he was a Junior researcher, Leningrad Finance and Economics Institute; Section Head, Economic Reform Committee, Executive Committee of the Leningrad City Council. By 1990 he was a Junior researcher, Leningrad Finance and Economics Institute; Section Head, Economic Reform Committee, Executive Committee of the Leningrad City Council. Between 1991-1996, Mr Miller was Head of the Markets Monitoring Division, Foreign Economic Relations Directorate, External Relations Committee of St. Petersburg Mayor's Office; Head of the Foreign Economic Relations Directorate; Deputy Chairman of the External Relations Committee. In 1996 until 1999, Mr Miller had progressed to the position of Director for Development and Investments, Sea Port of St. Petersburg. From 1999-2000 he was the Director General of Baltiyskaya Truboprovodnaya Sistema (Baltic Pipeline System) before becoming the Deputy Energy Minister of the Russian Federation in 2000. In 2001 Mr Miller has been the Chairman of the Management Committee, Gazprom. Since 2002 he has been the Deputy Chairman of the Gazprom Board of Directors.



Hamad Rashid Al Mohannadi Chief Executive Officer, RasGas Company Limited

Mr Al Mohannadi joined RasGas Company Limited as Managing Director on 29th April 2007. He has been a board member of Ras Laffan Liquefied Natural Gas Company Limited since its establishment in 1993. He is Vice Chairman of the Board of Directors of Qatar Petroleum (QP). Prior to joining RasGas, he was General Manager at Qatar Petrochemical Company (QAPCO), responsible for its growth and expansion for 16 years. Mr Al Mohannadi has a wealth of experience in the energy industry having spent over 32 years working in refining, petrochemical and oil and gas within QP companies and Joint Venture Companies. Since 2009, he has been a member of the Board of Trustees of Qatar University and was most recently appointed by His Highness Sheikh Tamim bin Hamad Al Thani as Chairman of the Board. In addition, he is the Deputy Vice Chairman of the Board of Industries Qatar (IQ) and Qatar Vinyl Company Ltd (QVC) and Chairman of Board of Directors at several high profile companies such as Qatar Petrochemical Company (QAPCO), Qatofin Company Limited and Qatar Fuel Additives Company Limited (QAFAC). He is also a board member of Qatar Petroleum International (QPI), Qatar Electricity & Water Company (QEWC) as well as an Advisory Board Member of the Bilateral US-Arab Chamber of Commerce. He holds a Bachelor's degree in Applied Engineering Science from Portland State University, USA, 1981.



Khalid Bin Khalifa Al Thani Chief Executive Officer, Qatargas

Mr Al Thani was appointed Chief Executive Officer of Qatargas Operating Company Limited in 2010. He is a Member of the Board of Directors of Qatargas, Vice-Chairman & Chief Executive Officer of Laffan Refinery Company Limited. He is also Vice-Chairman of Qatar Gas Transport Company (NAKILAT), which operates the largest LNG shipping fleet in the world. Before his appointment to Qatargas, Mr Al Thani was Director of Ras Laffan Industrial City since 2007 and prior to that held the position of Business Development Manager of Messaieed Industrial City. Mr Al Thani held various key positions in Qatar Petroleum since joining the company in 1991. Mr Al Thani holds a Masters Degree in Business Administration (MBA) from Pacific Lutheran University, Tacoma, Washington, United States. At the 2012 European Gas Conference, he received the coveted "Executive of the Year" award "in recognition of his passion in leading a world-class company (Qatargas), with a vision to be the world's premier LNG company by 2015".



John S. Watson

Chairman of the Board and Chief Executive Officer, Chevron Corporation

Mr Watson is chairman of the board and chief executive officer of Chevron Corporation, a position he has held since 2010. Previously Mr Watson served as vice chairman of the board from 2009 to 2010 and was responsible for business development; mergers and acquisitions; strategic planning; corporate compliance; policy, government and public affairs; procurement; and the Project Resources Company. Mr Watson serves on the board of directors and the executive committee of the American Petroleum Institute. He is a member of the National Petroleum Council, The Business Council, the Business Roundtable, the J.P. Morgan International Council, the American Society of Corporate Executives and the University of California Davis Chancellor's Board of Advisors.



Ben van Beurden Chief Executive Officer, Royal Dutch Shell plc

Mr van Beurden became Chief Executive Officer (CEO) of Royal Dutch Shell plc with effect from 1 January 2014. Mr van Beurden joined Shell in 1983, after graduating with a Master's Degree in Chemical Engineering from Delft University of Technology in the Netherlands. Mr van Beurden's career in Shell spans both Upstream and Downstream activities. He has held a number of operational and commercial roles, including some 10 years in the LNG business. From January to September 2013, Mr van Beurden was Downstream Director and a member of the Executive Committee.

WGCPARIS2015

WEDNESDAY 3 JUNE 201



Peter Coleman

Chief Executive Officer and Managing Director, Woodside

Mr Coleman has 30 years' experience in the global oil and gas industry, and was appointed Chief Executive Officer and Managing Director of Woodside upon joining the company in May 2011. He began his career at Esso Australia (later to become part of the ExxonMobil group) following graduation from Monash University, and stayed with ExxonMobil until joining Woodside. Mr Coleman is a member of both the University of Western Australia Business School Board and the Executive Committee of the Australia Japan Business Cooperation Council.



Jean-François Cirelli Vice Chairman and President, GDF SUEZ

Mr Cirelli is a graduate of the Institut d'Études Politiques de Paris and the Ecole Nationale d'Administration. In 1985 he worked with the Treasury division of the French Ministry of the Economy and Finances, and IMF and by 1995 Mr Cirelli became Economic counselor to the President of the French Republic (Jacques Chirac). In 2002 he began working as the Deputy Chief of Staff to the French Prime Minister (Jean-Pierre Raffarin). By 2004 Mr Cirelli was Chairman and Chief Executive Officer of Gaz de France. Since 2008 he has been the Vice Chairman and President of GDF SUEZ. In addition, since 2012, in charge of GDF SUEZ Energy Europe. Mr Cirelli is also Board Member of SUEZ Environnement, Vallourec and President of Eurogas association.



Gertjan J. Lankhorst Chief Executive Officer, GasTerra President, Royal Dutch Gas Association – KVGN

Born in Amsterdam, Mr Lankhorst worked at the Vrije Universiteit in Amsterdam from 1982 to 1986. In 1986, he took up a position at the Dutch Ministry of Economic Affairs as a member of the General Economic Policy Department. He then held various other positions at the Ministry including Director for Oil & Gas (1996-1999), Director of Competition (1999-2003) and Director-General for Energy (2004-2005). Mr Lankhorst was appointed as GasTerra's Chief Executive Officer on 1 September 2006. Mr Lankhorst is educated in General Economics from the Vrije Universiteit Amsterdam.

THURSDAY 4 JUNE 2015



Yves Louis Darricarrère President of Upstream, Total SA

Mr Darricarrère began his career in Elf Aquitaine in 1978, first in the Mining Division in Australia and later in the Exploration & Production Branch, where he was appointed successively Country Representative for Australia and Egypt at head office; Managing Director of the subsidiaries in Egypt and then in Colombia; In 1998, he was appointed Deputy Director-General of Elf Exploration-Production responsible for Europe and the United States. In 2000, he was appointed Senior Vice-President for Exploration & Production Northern Europe and became a member of the Total Group Management Committee. On 1st September 2003, he was nominated to the Group's Executive Committee and was appointed President of Total Gas & Power. On 14th February 2007, he became President of Total Exploration & Production. On 1st July 2012, he became President of Total Upstream. Mr Darricarrère is a graduate of the Ecole Nationale Supérieure des Mines and the Institut d'Etudes Politiques in Paris and holds a Master's degree in economic science.



Yalan Li

Chairperson of the Board of Directors, Beijing Gas Group

Ms Li has nearly 30 years' experience working in the natural gas industry. Her rich experiences encompass gas planning, technology, strategy, distribution and investment management. Ms Li has led the formulation and implementation of Development Strategy for Beijing Gas Group and a series of Natural Gas Development Plans for the city of Beijing. Ms Li has rich engineering and managerial experiences which she has acquired from the leading roles she has played in both the Chinese government and enterprise. Ms Li is currently the Chairperson of the Board of Directors for Beijing Gas Group.



Jean-Marie Dauger Executive Vice President, GDF SUEZ

Executive vice President, GDF SUEZ

In addition to being Executive Vice President within GDF SUEZ and member of the Executive Committee, Mr Dauger has the responsibility for Global Gas and LNG business line. Mr Dauger is Chairman of the Board of Directors of GDF SUEZ E&P Norge since 2004 and Director of Electrabel since 2008. Prior to this, he was Chief Operating Officer of Gaz de France and Head of the Global Gas & LNG Business Line of Gaz de France. He held several positions in Supply and Strategy Divisions before being appointed Executive Vice President of Gaz de France in 2000. He joined Gaz de France in 1978 in the Transmission and Production Division. Mr Dauger began his career in different positions at Péchiney, Trad Bank (Lebanon) and in the Finance Division of EDF. He is a graduate of the HEC business school.



Terry D. McCallister

Chairman and Chief Executive Officer, WGL Holdings, Inc. and Vice Chairman, American Gas Association

Mr McCallister is Vice Chairman of the American Gas Association (AGA) (he will become Chairman in 2015). The American Gas Association is the national trade association representing more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 71 million residential, commercial and industrial natural gas customers in the United States. Mr McCallister is the Chairman of the Board and Chief Executive Officer of WGL Holdings, Inc. and Washington Gas, the natural gas utility serving over 1.1 million customers in the Washington metropolitan area and surrounding region. He joined Washington Gas in 2000 as Vice President of Gas Transportation. Prior to joining Washington Gas, Mr McCallister had extensive energy industry experience, with Southern Natural Gas Company and with the Atlantic Richfield Co. (ARCO). Mr McCallister is on the boards of a wide variety of industry and non-industry related organizations, and currently serves as chairman of the Gas Technology Institute. Mr McCallister is a graduate of University of Missouri-Rolla where he received a Bachelor of Science in Engineering Management.

As is customary in IGU's conferences, a luncheon will be organised every day to provide a break from the intense activities of the conference and exhibition, as well as an opportunity to network with colleagues from the global gas community.*

TUESDAY 2 JUNE 2015 TIME: 12:15 – 13:45



Christiana Figueres Executive Secretary General, UNFCC

Ms Figueres has a long and distinguished career in climate change and sustainability issues, having participated in the climate change negotiations since 1995; she has made important contributions to the literature on the design of the climate solutions, worked with governments and NGOs, and been a frequent advisor to the private sector.

Ms Figueres holds a Masters Degree in Anthropology from the London School of Economics, and a certificate in Organisational Development from Georgetown University.

WEDNESDAY 3 JUNE 2015 TIME: 12:15 - 13:45



Anita George

Senior Director, Global Practice on Energy and Extractive Industries World Bank Group

Ms Maragoly George is Senior Director of the World Bank Group's Global Practice on Energy and Extractive Industries. In this position, she provides leadership and strategic direction to the Global Practice that fosters partnerships with key clients through lending, advisory and knowledge services. The energy and extractive industries are key to delivering on the twin goals of the World Bank of reducing extreme poverty and improving shared prosperity. Before assuming this position on 1 July 2014, Ms George was the Asia Pacific Regional Director for Infrastructure and Natural Resources at the International Finance Corporation (IFC). She has played several roles in the World Bank Group working in Asia, Africa, Middle East and Latin America.

Besides her work with the Bank Group, she has headed Siemens Financial Services in India covering the telecommunications, power and transportation sectors, and has also served in management positions with the Steel Authority of India. Ms George holds a dual Masters' degree in Business Administration and Economic Policy from Boston University.

LUNCHEON ADDRESSES WGCPARIS2015

THURSDAY 4 JUNE 2015 TIME: 12:15 - 13:45



Maria Van der Hoeven Executive Director, International Energy Agency

Ms Van der Hoeven took over as Executive Director of the International Energy Agency (IEA) on 1 September 2011. Ms Van der Hoeven has steered the IEA during a period of exceptional change in the global energy landscape. While the original IEA mandate of energy security remains at the core of the agency's mission, the IEA has been challenged by rapidly shifting supply/demand balances for oil as well as other major fuels, affecting its members' interests and also those within the wider global energy economy. Ms Van der Hoeven is taking the initiative to address the challenges of global energy governance in the face of changing worldwide requirements. She is determined to strengthen the Agency's role, enabling it to take the lead in the transition to a secure and sustainable energy future. One of her overarching priorities is implementing a new global engagement strategy to further build and formalise cooperation with the major emerging energy players of the 21st century. Another is expanding modern energy services to the 1.3 billion people worldwide who currently lack them. In recognition of the IEA's efforts to address the crisis of energy poverty, Ms Van der Hoeven has been invited to serve on the Advisory Board to the UN Sustainable Energy for All initiative.

Previously, Ms Van der Hoeven served as Minister of Economic Affairs of the Netherlands from February 2007 to October 2010, during which time she demonstrated leadership on energy policy at the national, regional and global levels.

FRIDAY 5 JUNE 2015 TIME: 12:15 - 13:45



Irina Bokova

Director-General, UNESCO

Ms Bokova took office as UNESCO's Director-General in November 2009. She was previously Ambassador of the Republic of Bulgaria to France and Monaco, Personal Representative of the Bulgarian President to the "Organisation Internationale de la Francophonie" and Permanent Delegate to UNESCO from 2005 to 2009. Ms Bokova has been actively engaged throughout her career in international efforts to advance the rights of girls and women, and participated in the World Conferences on Women organized in Copenhagen (1980), Nairobi (1985) and Beijing (1995). She considers gender equality to be one of the most important political and humanistic goals of our times, and launched a Global Partnership for Girls' and Women's Education and a High-Level Panel in May 2011 to galvanize support and step up global advocacy for gender equality.

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The following strategic panels have been identified to address some of the key issues and challenges facing the gas industry in line with the theme and strategic guidelines of the French Presidency. Experts will be invited to provide their perspectives from diverging angles to ensure an enriching debate and discussion.

STRATEGIC PANEL 1

Political leaders, industry, institutions and NGOs geopolitical debate Tuesday 2 June 2015, 15:15 – 16:45

Chaired by: Gertjan Lankhorst, GasTerra, The Netherlands Royal Dutch Gas Association – KVGN, The Netherlands

The purpose of this panel is to discuss at a global level common issues, related to the fuel mix in a setting with our environment. The common themes here will be on emission reduction as well as clean air – an urgent political topic. The Chinese representative from the energy policy institute (belonging to the party office) would particularly cover this aspect. The purpose will be also to cover in a global approach, so connecting any way the US (reducing the CO₂ footprint) and Russia with a strong energy policy to interconnect new consumer and consumer sectors (logistics) and regions (mid and far east). The IEA will have come up with a global gas report at the end of 2014 and will include Europe within a global setting; did our European drive on energy bring the right outcomes to Governments and to consumers?

STRATEGIC PANEL 2

Gas flaring and venting reduction Tuesday 2 June 2015, 15:15 – 16:45

Chaired by: Bjorn Hamso, World Bank, USA and Denis Krambeck Dinelli, Petrobras, Brazil

In spite of the considerable effort already developed to reduce the emissions of greenhouse gases derived from natural gas, substantial amounts are still flared or vented to the atmosphere for a number of reasons. These include insufficient infrastructure, poor access to the markets, inadequate planning, absence of political will and poor regulations. This strategic panel will describe the progress obtained so far, and will debate on the next steps to further reduce these emissions.

Topics of interest include:

- Regulatory and fiscal frameworks
- Development of infrastructure and technology to reduce flaring and venting
- Benchmarks and standards for gas flaring and venting reduction
- Success stories and best practices



STRATEGIC PANEL 3

2050 prospective study Tuesday 2 June 2015, 15:15 – 16:45

Chaired by:

Nobuo Tanaka, Institute of Energy Economics, Japan Fethi Arabi, Sonatrach, Algeria and Ulco Vermulen, Gasunie, The Netherlands

Natural gas has entered its golden age as new discoveries are made and new resources are continually unlocked. The challenges however are far from being completely mastered, whether over the short or the long run. Developments such as the economic crisis, nuclear Fukushima accident, rising geopolitical issues and new technological breakthroughs are constantly changing paradigms for the energy of the future. The place of natural gas in the future energy mix will depend on the creativity and innovation of all the players involved – states, industry, regulators, technology developers – to maintain and increase the attractiveness of gas by consolidating its current advantages and strengthening its competitiveness.

The panel will discuss the future developments that will foster natural gas use in the very long run, as well as those that could hinder its usage. A particular focus will be made on the role of technology in the future of natural gas. It will also aim to bring some useful ideas to the future role of gas players in preparing the ground for actions to be undertaken in order to guarantee a comfortable future of gas in the 2050 energy mix.

STRATEGIC PANEL 4

Life Cycle Assessment (LCA): a tool for decision makers Tuesday 2 June 2015, 15:15 – 16:45

Chaired by: Satoshi Yoshida, Tokyo Gas Company, Japan and Anne Prieur Vernat, GDF SUEZ, France

Life Cycle Assessment is a support tool to account for environmental performances of natural gas in decision making. In the context of a growing importance of environmental and societal responsibility of companies, this session will demonstrate how Life Cycle Assessment (LCA) results can support strategic or policy decision making or to answer stakeholder's expectations (regulatory aspects or expectations from NGOs or the general public).

Three to four experts from world gas companies will present their views, representing the various regions of the world, in particular North America, Asia and Europe.

STRATEGIC PANEL 5

How natural gas can raise its voice Wednesday 3 June 2015, 15:15 – 16:45

Chaired by:

Dr Daniel Yergin, IHS CERA, USA and **Jean-François Glachant**, Florence School of Regulation, Italy

The objective is to organise a debate between institutional stakeholders and the natural gas industry about the information needs of policy makers and other stakeholders and their views about the potentiality of natural gas in the future energy mix. The Strategic Panel would be articulated in three parts.

- In the first part the institutional stakeholders present the view about the role of natural gas in the different regions for the triptych: energy, environment and economic sustainability.
- The second part, initiated by a high level natural gas industry representative, would be devoted to the responses of natural gas industry representatives on the first part and presenting in this view the natural gas industry points about the role of natural gas in the triptych.
- In the third part, coordinated by the chairs, there would be a synthesis debate brain storming, among institutional stakeholders and natural gas industry representatives about central points for future natural gas advocacy actions: how natural gas can raise its voice.

STRATEGIC PANEL 6

LNG a key factor Wednesday 3 June 2015, 15:15 – 16:45

Chaired by: Marcel Kramer, Gazprom, Russia

Emphasis is on the growing importance of LNG in the world gas markets. LNG was up until recently a commodity meant to supplement or replace natural gas flows through pipelines. LNG has become an important source for primary power generation as well as for the heavy industry and has proven to be a reliable source of energy. LNG has also brought distant sources of gas to markets located remotely from gas pipeline infrastructure, creating a more global supply of gas market. On top of this security of supply type of gas business, which represents still 65% of all LNG business, new markets such as small scale and the use of LNG as fuel, are developing at a fast pace.

The floor will be given to top managers within the LNG/Gas industry. Four panel members in total of which 2 will represent the LNG/gas sellers and 2 the LNG/gas buyers. The panel members will be challenged on the future developments of LNG further into the value chain and how they want to secure their fair share of the total value created.

Finally Jérôme Ferrier, President of the IGU, will launch the official Annual LNG Report 2015.

STRATEGIC PANEL 7

Natural gas transportation roundtable Wednesday 3 June 2015, 15:15 – 16:45

Chaired by: Mike Gallagher, NGV Global, Canada and Diego Goldin, NGV Global, Argentina

The use of Natural Gas in transportation has mutated from being a cheap option for urban transport, mainly in light duty vehicles in developing countries, to a real alternative for almost every mode of transport around the world. The ever-growing availability of Natural Gas thanks to the technological advances in production of unconventional resources and renewable methane has not only reduced the global prices but has also opened the door to widespread utilisation. This Strategic Panel will showcase recent developments in the Natural Gas for Transportation industry, and present its strengths, its effects in the sustainable future and also potential barriers that should be overcome for a greater growth.

Participants will be representatives from the NGV Industry, OEMs and big NGV markets.

STRATEGIC PANEL 8

Smart energy systems in a sustainable future Wednesday 3 June 2015, 15:15 – 16:45

Chaired by: Marc Florette, GDF SUEZ, France

The objective is to show how smart and cooperative networks can contribute efficiently to environmental friendly and cost effective energy. What are the potential benefits of cooperation between gas and electricity systems? How can the advantages of gas and electricity be combined?

How can the technical and economic challenges be addressed to reach cooperation between gas and electricity systems? What new technologies can add value to integrated energy systems?

How can we get value from information and communication technologies, big data analysis, in integrated energy systems? How must we reengineer our organisational and technical processes to be ready for a data driven business? How can we rule strategic decision making to deploy cooperative systems between gas and electricity, including multiple criteria: safety, environment, economy, social acceptability? How can they be included in the energy transition strategies?

STRATEGIC PANEL 9

Gas development in emerging countries Thursday 4 June 2015, 15:15 – 16:45

Chaired by:

Prof. Dr Coby van der Linde, Clingendael International Energy Programme (CIEP), The Netherlands

Over the last several years, a massive amount of both conventional and unconventional natural gas resources have been found. These findings are expected to create a great deal of new opportunities for host countries in various respects. In particular, emerging economies in Africa, South America, and Asia will significantly benefit from the findings. However, there are also a number of obstacles and challenges that emerging countries need to overcome such as lack of infrastructure, legal system, tax regime, and skilled workers, which are essential to the development of natural gas. This session attempts to debate on various aspects of gas development particularly in emerging countries. Special attention will be given to the key factors for successive gas development. Through sharing experiences and information, this session aims to draw valuable insights for successful utilisation of natural gas in emerging countries.

Panellists will discuss key factors associated with successive development and utilisation of natural gas in emerging countries. They will be encouraged to further discuss various schemes to promote gas development in those countries.

STRATEGIC PANEL 10

Unconventional gas Thursday 4 June 2015, 15:15 – 16:45

Chaired by:

Denis Krambeck Dinelli, Petrobras, Brazil and Maria Gabriela Roselló, Total SA, Argentina

The unconventional gas revolution has completely changed the economic scenario in North America, and many are now trying to reproduce it in other parts of the globe. This session will analyse the most important barriers that must be overcome for that purpose, including infrastructure, fiscal regimes and general regulations, aiming at the best business models and practices that are able to deliver performance and environmental compliance. The chairman of WPC will introduce the perspective of unconventional oil on this panel.

A panel discussion preceded by introductory presentations performed by invited speakers and outstanding contributions selected from the call for abstracts. Topics of interest include innovation and technology, regulatory and fiscal frameworks, production in different countries, environmental issues and case studies.

STRATEGIC PANEL 11

Human capital strategy for the future Thursday 4 June 2015, 15:15 – 16:45

Chaired by: Abdulaziz M. Al-Mannai, Qatargas, Qatar

The past few years have had a major impact on our industry. Price volatility, emergence of unconventional gas and rapid growth of LNG have put human resources and capability back in the spotlight.

In this context this session will share the results of the International Gas Union Human Capital survey which was launched during this Triennium. This survey investigates i) the commonalities, specificities and key issues impacting the industry's human resources across different regions and industry segments, ii) understanding the best practices developed by companies to attract young talent and make the industry more female friendly which has always been a challenge and iii) assessing the most efficient policies implemented by companies to develop and retain their talented staff.

This session will also share insights from some of the industry's majors on what the future holds for the industry in terms of human capital challenges and how we should be prepared to tackle these.

STRATEGIC PANEL 12

The role and impact of innovation in the gas industry Thursday 4 June 2015, 15:15 – 16:45

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Chaired by:

Jack Lewnard, Chesapeake Utilities Corporation, USA and Gerald Linke, E.ON Ruhrgas, Germany

Innovations have a disruptive impact on traditional business segments. At the same time they are the starting point of new business options. Especially, digital media has revealed this potential in the past decades impressively. Research and development built the foundation of a steady growth of the rate of utilisation of natural gas. Many examples can be found along the entire value chain. But will this trend go on? Will latest concepts on gas production – shale gas as well as biogas of power to gas – on smart gas grids, and on fuel cells or mobility based on NG, CNG or LNG turn into sustainable solutions?

Which areas are those where customers' acceptance and market growth can be expected and where industry is willing to finance the development phase?

The panel provides the stage for experts on gas technologies and future energy system who will sketch the possible improvement of environment, air quality and comfort of life if latest gas technologies come into place. Which are those promising innovations?

In addition, panellists are challenged to identify those innovative concepts in the loop that are prohibited by missing incentives or an insufficient regulatory framework. They should provide an answer on how to overcome this blockade.

Finally, the question should be addressed, who feels responsible for a continuous improvement of gas technologies and who sponsors research and development and innovations? Is there a gap that has not been filled, yet, when former major gas players deliquesced their integrated business into separated services?

STRATEGIC PANEL 13

Women's place in the gas industry Friday 5 June 2015, 10:30 – 12:00

Chaired by: Dr Kandeh K. Yumkella, UN and Agnès Grimont, GDF SUEZ, France

For nearly three decades, governments and industries across the industrialised world have sponsored efforts to increase the representation of women in professional engineering, recognising the (largely) untapped pool of talent amongst women. These efforts have had some impact, but engineering remains a heavily male-dominated occupation in most countries. There is clearly room for improvement; not only in recruiting women into engineering, but also in retaining and promoting those women who do enter the profession.

Given the current and future global need for engineering, it is imperative to encourage more women to study engineering and to enter the engineering workforce. Women face diverse challenges when pursuing an engineering education and when deciding to apply for engineering jobs, even within the gas industry.

This strategic panel intends to shed light on educational or cultural constraints, focusing on concrete recommendations to improve the cultural and social conditions in which female engineers live and will develop their educational and professional careers within the gas industry. We will combine this strategic panel with the youth event and its strategic line: attracting women within the industry.

STRATEGIC PANEL 14

Gas communication Friday 5 June 2015, 10:30 – 12:00

Chaired by: Alfredo Ingelmo Torres, Gas Natural Fenosa, Spain

There is a need for more and better communication to stakeholders of the gas industry on the value of natural gas and the significant role it can play in fuelling the world's sustainable economic growth. The opportunity is now, when the world is making decisions and other energies are presenting their case. Communication needs to be proactive, well-coordinated, effective and timely otherwise, sustainable economic opportunities can be missed. The impact of new media on the gas industry and its communication to new audiences and podia, and regional differences would be considered – the world is not flat (gaswise).

We present The Global Voice for Gas project, the answer by IGU to the communication needs of the industry. Supported by the i-gas research (the impact of online and new media on the gas industry) and highlights from the research done by PGC-E during the two past trienniums. The session will be a round table discussion with 4 high-level panellists covering key regions of the world; North America, Middle East, Asia and Europe.

SPECIAL SESSION 1

IGU Global Gas Award and Best Practices Awards Friday 5 June 2015, 10:30 – 12:00

Chaired by: Pål Rasmussen, IGU, Norway

The IGU Gas Award competition has been established since 2008 with the objective of contributing to the progress of the gas industry through promoting innovation and sustainability. The competition is open for all IGU members. The best project, selected by the IGU judging panel, shall demonstrate indepth knowledge of the industry and the relevance for the sustainable development. It will contribute to an active promotion of natural gas, be innovative and realistic in its implementation.

In 2014, IGU further developed the concept of the Award. It is now one unique Award and the topic is related to the IGU priority projects of the 2012-2015 Triennium: "Call for Sustainable Development and Innovative Promotion of Natural Gas".

The IGU Evaluation Committee will select the finalists among all the submissions received. These selected projects have then been submitted to the judging panel composed of the IGU officials and top-level international experts which elected the winner. The finalists' projects and the winning project will be presented during this special session.

The session will also be dedicated to reward the authors of best practices selected by the different WOC and PGC.

SPECIAL SESSION 2

TWP 2015-2018 Friday 5 June 2015, 10:30 – 12:00

Chaired by:

Mel Ydreos, IGU Coordination Committee, Canada

The members of the incoming coordination committee, chairs and vice chairs of WOC, PGC, and TF will present their guidelines and terms of reference for the work to be done during the new triennium 2015-2018.



IGU TECHNICAL COMMITTEES WGCPARIS2015

The content of the Thematic Sessions featured throughout the conference programme are developed through the extensive research and studies conducted by the five Working Committees, six Programme Committees and three Task Forces. Their continued activities throughout the triennium ensure the programme is current and contains the issues that are at the forefront of the industry.

WORKING COMMITTEES

COMMITTEE	CHAIRED BY	COMPANY	COUNTRY
WOC 1: Exploration and Production	Denis Krambeck Dinelli	Petrobras	Brazil
WOC 2: Storage	Ladislav Goryl	NAFTA	Slovakia
WOC 3: Transmission	Benjamin Guzman	Transportadora del Gas Sur	Argentina
WOC 4: Distribution	Dietmar Spohn	Stadtwerke Bochum	Germany
WOC 5: Utilisation	Eugène Pronin	Gazprom	Russia

PROGRAMME COMMITTEES

COMMITTEE	CHAIRED BY	COMPANY	COUNTRY
PGC A: Sustainability	Satoshi Yoshida	Tokyo Gas Company	Japan
PGC B: Strategy	Fethi Arabi	Sonatrach	Algeria
PGC C: Gas Markets	Dr Gi Chul Jung	KOGAS	South Korea
PGC D: Liquified Natural Gas (LNG)	Dirk van Slooten	Vopak	The Netherlands
PGC E: Marketing and Communication	Alfredo Ingelmo Torres	Gas Natural Fenosa	Spain
PGC F: R&D and Innovation	Jack Lewnard	Chesapeake Utilities Corporation	USA

TASK FORCES

COMMITTEE	CHAIRED BY	COMPANY	COUNTRY
TF 1: Human Capital	Agnès Grimont	GDF SUEZ	France
TF 2: Gas Advocacy	Michele Pizzolato	Eni	Italy
TF 3: Geopolitics	Geert Greving	GasTerra	The Netherlands

WOC 1 EXPLORATION AND PRODUCTION

WOC 1 sessions will focus on the assessment of conventional and unconventional resources, on key technologies for the exploration and production of natural gas and on new policies and fiscal regulations for upstream businesses.



Chair Denis Krambeck Dinelli Petrobras Brazil

THEMATIC SESSION WOC 1-1: THURSDAY 4 JUNE, 08:30 - 10:00

Technological advances in gas exploration and production

Chaired by: Adif Zulkifi, PETRONAS, Malaysia

upstream segment of the gas industry.

The potential for the production of conventional and unconventional gas is extensive in many parts of the world, but price volatility and narrow margins are pushing companies to balance their investment portfolios. This session will discuss the technologies that could be a game changer for upstream business by improving production costs, efficiency and productivity.

THEMATIC SESSION WOC 1-2: THURSDAY 4 JUNE, 17:00 – 18:30

Natural gas available everywhere: An assessment of global resources and reserves Chaired by: Denis Krambeck Dinelli, Petrobras, Brazil and Fernando Jorge Bado, Tenaris, Argentina

In the middle of the so called unconventional gas revolution, one of the most important challenges is the development of reliable estimates for both conventional and unconventional gas reserves and resources. This session aims to provide an updated global assessment of them, including the most important trends, uncertainties, opportunities and threats to the



THEMATIC SESSION WOC 1-3: WEDNESDAY 3 JUNE, 17:00 – 18:30

Fiscal regimes for the production of conventional and unconventional gas

Chaired by: Daniel Johnston, Daniel Johnston & Co., Inc, USA and Marcos de Freitas Sugaya, Petrobras, Brazil

Gas projects have different characteristics when compared with their oil counterparts, so a distinctive treatment is required from regulators, government authorities and stakeholders. This session aims to debate on the reasons and causes for the unconventional gas revolution as well as on the regulations, business models and fiscal incentives for the production of conventional and unconventional gas.

THEMATIC SESSION WOC 1-4: FRIDAY 5 JUNE, 08:30 - 10:00

Technologies for the monetisation of gas reserves

Chaired by: Rashidah Karim, PETRONAS, Malaysia

This session aim is to explore the use of advanced technological options to monetise stranded gas reserves, including the production of gas at challenging conditions or difficult locations, as well as the use of technology transfer as a means to anticipate results and reduce costs. Case studies taken from the Arctic, deep waters and unconventional reservoirs will also be featured.

THEMATIC SESSION WOC 1-5: WEDNESDAY 3 JUNE, 08:30 – 10:00

Gas on gas competition and upstream investment

Chaired by: Marcos de Freitas Sugaya, Petrobras, Brazil

Over recent years a significant growth has been observed in the use of hub pricing mechanisms in lieu of the traditional longterm contracts indexed in oil, which is transferring market risks to the portfolio of gas producers. Could this significantly affect new upstream investment? Hub pricing is not a synonym of cheaper gas, and in the long term consumers could meet a completely different scenario. This session will provide you with background information on gas pricing mechanisms, upstream costs and project financing and include case studies on the production of gas.

WOC 2 STORAGE

Underground Gas Storage (UGS) activity is a valuable part of the gas chain. Both the operation and development of storage facilities are now seen as separate businesses, supported by the independent companies or subsidiary companies of integrated energy groups. The operation focuses on two main axis: developing a valuable flexibility for the gas chain and providing security of supply to customers. Thanks to the work



Chair Ladislav Goryl NAFTA Slovakia

of its study groups, the WOC 2 sessions will analyse the impact of these new challenges in the UGS business.

THEMATIC SESSION WOC 2-1: WEDNESDAY 3 JUNE, 08:30 - 10:00

What is ahead of us? General trends and perspectives for UGS

Chaired by: Ladislav Goryl, NAFTA, Slovakia

The aim is tracking the trends of development and outlining perspectives of underground gas storage worldwide. The main objective is to provide the current status of the storage industry today and its future trends and perspectives in the dynamically changing environment we are experiencing now. Examples of subjects covered in this session will include, main trends for underground gas storage in established storage regions, underground gas storage developments in fast growing markets and major underground gas storage projects.

THEMATIC SESSION WOC 2-2: THURSDAY 4 JUNE, 17:00 – 18:30

Innovations and new technologies: can the UGS industry take/do more?

Chaired by: Fabien Favret, EDF, France and Jacques Grappe, Geostock SA, France

The main objective is to provide the current status of innovations and technologies applied in the Underground Gas Storage (UGS) industry. Deployment of innovative techniques, methods and technology is vital for keeping attractiveness of UGS with other sources of flexibility. Their contribution to increased efficiency and reduced environmental footprint with a constant focus on raising safety standards are key drivers for underground gas storage remaining an attractive option for market with flexibility. A traditional role of underground gas storage might be enriched with an innovative concept of energy storage thus supporting energy development towards sustainability.

THEMATIC SESSION WOC 2-3: FRIDAY 5 JUNE, 08:30 - 10:00

Increasing attractiveness of gas storages: what shall be done?

Chaired by: Nikita Barsuk, Gazprom, Russia

Programme of competitions among students and young specialists theses in honour of the 100 year anniversary of UGS.

WOC 3 TRANSMISSION

The gas industry is growing and governments are changing the energy matrix in order to prioritise the use of gas. The introduction of shale gas has opened a new vision in the gas industry. There are now new markets, new transmission projects, new regulations, and new integrity management systems. It has also meant it is necessary to obtain public acceptance for operations and that companies should now report on



Chair Benjamin Guzman Transportadora de Gas Sur Argentina

the different actions they are taking for environmental footprint reduction. During the triennium WOC 3 will be facing new challenges, as well as developing objectives regarding the previous ones, and hopes to present its findings throughout the three sessions.

THEMATIC SESSION WOC 3-1: THURSDAY 4 JUNE, 17:00 - 18:30

New transmission projects

Chaired by: Peter Tóth, eustream a.s., SLOVAK GAS TSO, Slovakia

New gas transmission infrastructure will be the main bridge between the gas sources (both conventional and unconventional) and gas consumers. Every new gas transmission project is complex and unique because of special characteristics. In some cases, the new project involves laying high pressure gas pipelines along very long distances, across difficult land, deep water or densely populated areas. Some projects have a combination of these challenges. New gas infrastructure is becoming more complex, with the requirement that its design and operation must be based on the latest safety regulations and best technical practices. This session will detail experiences incurred in the planning, permitting, constructing and operating of cross-border gas transmission systems, and the improvements in the compression process, turbo machineries, performance optimisation and emissions.

THEMATIC SESSION WOC 3-2: WEDNESDAY 3 JUNE, 08:30 – 10:00

Pipeline integrity management systems

Chaired by: Abderrahame Taberkokt, Sonatrach, Algeria

Pipeline Integrity Management Systems (PIMS) refers to the resources (organisation, equipment, know-how, etc.) and activities provided by the gas transmission company to control the hazards associated with its natural gas transport network, in order to guarantee the:

- Safety of the employees and the public
- Protection of urban, natural or industrial environments
- Service life and reliability of industrial equipment (network's gas).

This thematic session will inform attendees of the pipeline integrity concept, in-line inspection, integrity assessment/diagnostic technique for un-piggable pipelines and prediction of MIC (extended corrosion) on buried pipelines as well as repair methods and best practices.

THEMATIC SESSION WOC 3-3: FRIDAY 5 JUNE, 08:30 - 10:00

New technologies for transmission systems

Chaired by: Alessandro Moretti, Snam Rete Gas, Italy

The gas industry has to face new challenges due to the evolution market and of the regulatory framework. Therefore the new technologies applied to transmission systems can play a crucial role. On one hand they can ensure the transportation of greater quantities of gas in the most flexible way, yet on the other hand they are essential to maintain and develop the systems in the most safe, efficient and environmentally sustainable way. Therefore, it is very important for the gas transmission companies to deal with new technology, keeping themselves at pace and implementing the most updated technologies available. The objective of this session is to provide an overview of the new technologies and their application to the transmission systems. Speakers accepted to this session will focus on their experience of the implementation of new technologies by their company and describe how these were successfully applied in the transmission of gas.



WOC 4 DISTRIBUTION

Gas distribution covers the part of the gas production and delivery system that is most visible to the end client. To encourage clients to choose gas as their source of energy it is important that gas distribution services are perceived as top quality. This must continue to be the case even after economic environments have changed. WOC 4 will examine some of the changes in progress and how these can be exploited to help further improve services.



Chair Dietmar Spohn Stadtwerke Bochum Germany

THEMATIC SESSION WOC 4-1: TUESDAY 2 JUNE, 17:00 – 18:30

Third party access to distribution networks: could it bring benefits to the parties involved in the gas chain?

Chaired by: José Carlos Broisler Oliver, Comgas, Brazil

When investigating this issue it becomes clear that Third Party Access (TPA) is much more frequent for transmission networks than for distribution networks. Although in many cases the TPA is specifically regulated for distribution networks, its application often does not occur as effectively in transmission networks. It is also interesting to note that most of the regulation for distribution is almost a copy of the rules for transmission, without considering any difference that could be applicable. Moreover literature describing technical issues related to distribution TPA is uncommon.

In evaluating different experiences across countries or regions in the world, it is noted that TPA presents a wide variety of concepts and stages of development. Usually the level of implementation is directly related to the maturity of the gas industry in the studied area. More mature gas markets, such as the U.S. and the European Community, are the regions with the most experiences in TPA and, because of that, turn out to be regulatory references.

It is important to highlight that increasing the supply of gas and reducing the costs to consumers are the pillars that usually justify the implementation of TPA, but these regulatory objectives are not always effectively achieved.

THEMATIC SESSION WOC 4-2: WEDNESDAY 3 JUNE, 17:00 – 18:30

Evolution into a lower carbon gas future: managing the diversification of gas quality

Chaired by: Peter Flosbach, Westnetz GmbH, Germany

The aim is to introduce new "green" gas sources for securing long term attractiveness and competitiveness of natural gas as the cleanest fossil fuel. As gas is both clean and flexible compared to other fuels this development is clearly favourable for natural gas.

Government and climate protection targets demand the introduction of green fuels and technologies that reduce CO₂ emissions. Moreover, the CO₂ balance of natural gas can be positively influenced by "greening" it through renewable gases. Besides greening the substitution for coal and oil with gas can substantially contribute to the overall reduction of the CO₂ emissions and particulates, while gas-fired power generation is needed to complement intermittent renewables such as photovoltaic and wind power. The session is set up to enhance the diversification of gas quality through innovative system infrastructure solutions and advanced technologies for the introduction of renewables.

THEMATIC SESSION WOC 4-3: THURSDAY 4 JUNE, 08:30 - 10:00

Towards smart distribution gas grids: why and how?

Chaired by: Pascal Vercamer, GDF SUEZ, France

The energy landscape is changing. Energy is set to become more decentralised and greener with local production of electricity and gases like biomethane or hydrogen. "Power to gas" is used to describe a strong interaction between gas grids and electricity grids leading a promising way for the future energy systems that implies more interactive gas distribution networks. Additionally, technologies based on real time communication are now available to help the development of smart grids including a better surveillance of networks and therefore an improvement in their safety and reliability. This session will inform attendees of the benefits of the changing energy landscape and how this can be achieved successfully.



WOC 5 UTILISATION

Gas use is the ultimate objective of the international gas industry. It is where the ingenuity, work and dedication of millions of gas industry employees must meet their final destination – the billions of end users scattered around the globe. This is where gas is used to power and heat public buildings and homes, to cook food and power vehicles. WOC 5 will continue to monitor and aims to report the existing and



Chair Eugene Pronin Gazprom Russia

future gas uses to further develop the global gas market and improve our customer's quality of life.

THEMATIC SESSION WOC 5-1: FRIDAY 5 JUNE, 08:30 - 10:00

Natural gas as a leading fuel for efficient industry growth

Chaired by: Egidio Adamo, Eni, Italy

The aim is to analyse and investigate the efficient use of gas in the industrial sector, giving suggestions and recommendations to the gas industry in order to enhance opportunities for development of the role of gas in this sector. The focus will be on the latest developments for technology and economy and regulatory contest.

This session will include topics such as technologies using natural gas for fuel from other fuels, experiences on energy efficiency driven by natural gas, best practices for fuel switch, and new trends in gas to power technologies.

THEMATIC SESSION WOC 5-2: THURSDAY 4 JUNE, 17:00 - 18:30

Heating and power production technologies in the residential and small commercial environment Chaired by: Martin Seifert, Swiss Gas & Water Association, Switzerland

The aim is to investigate and analyse the actual status of gas appliances for the residential and commercial market and to monitor the innovative new gas technologies like gas heat pumps, micro-cogeneration and fuel cells. How can these technologies together with the conventional condensing gas boiler contribute to a more efficient use of natural gas providing the same or better comfort?

The focus is predominately on market issues: gas industry, statistics, technological trends and road maps, national/regional markets, regulatory issues, case studies, infrastructures development, technology development to the status of serial systems, integration of new technologies in the heating and cooling appliance markets.

THEMATIC SESSION WOC 5-3: WEDNESDAY 3 JUNE, 17:00 – 18:30

Natural gas vehicles: the sustainable road towards a clean planet

Chaired by: Miriam Eklo, GDF SUEZ, France

The aim is to analyse and investigate how Natural Gas Vehicles (NGVs) can contribute to accelerating the establishment of sustainable transport systems and low carbon society in the near future. The session is set up to depict the overall picture of the NGV market worldwide and its potential, but also to share information related to technologies, new developments, government policies and best practices. The pathway to the future will be given also with highlights on LNG, biomethane, and even H₂-methane mixtures, as a fuel.

The focus will be on market issues: gas industry, statistics, technological trends, national/regional markets, regulatory issues, case studies, infrastructures development.

THEMATIC SESSION WOC 5-4: TUESDAY 2 JUNE, 17:00 – 18:30

Technological and economic aspects for power to gas and upgrading of biogas to natural gas quality Chaired by: Aksel Hauge Pedersen, Dong Energy A/S, Denmark

This session will discuss cases for power to gas, including technology, injection possibilities, storage, economy for production of hydrogen and biomethane based upon hydrogen and CO₂. The upgrading (not production) of biogas to natural gas quality, injection possibilities, economy etc. will also be covered. The focus of this session will be on latest development for technology and the economy.

THEMATIC SESSION WOC 5-5: WEDNESDAY 3 JUNE, 08:30 – 10:00

Gas quality, a growing concern for end users?

Chaired by: Maryuli Rodriguez Malaver, PDVSA, Venezuela

Gas quality issues are becoming more prominent around the world due to the diversification of supplies. The growing LNG business brings rich gases in areas where usually only pipeline gases, with lower Wobbe indexes, are used. Renewable gases, generally much leaner than traditional natural gases, are also welcomed in the grids. This leads to increasing gas quality variations in the grids while at the same time more stringent requirements are coming from end users. The challenges brought by these evolutions will also be discussed. This session will also provide experiences of introducing new supplies in the networks and addresses gas quality challenges when bringing new applications on the market.

PGC A SUSTAINABILITY

Natural gas has gained prominence in public debate as a form of clean energy that emits half as much carbon dioxide as coal and is free of particulates and toxic heavy metals. Natural gas has also often been described as a form of bridge or transition energy to a low-carbon society based on renewable energy. Accompanied by innovative technologies like carbon capture and storage, natural gas can even be



Chair Satoshi Yoshida Tokyo Gas Company Japan

a form of 'foundation' energy. PGC A will be addressing issues around the topics above.

THEMATIC SESSION PGC A-1: TUESDAY 2 JUNE, 17:00 – 18:30

Carbon Capture and Storage (CCS) development and perspectives for a sustainable gas industry Chaired by: Ichiro Fukuda, Tokyo Gas Company, Japan

CCS can be an option for the natural progression for a sustainable gas industry. The aim is to explore the recent developments and challenges with regard to CCS technologies, economic feasibility, legal framework and social acceptance. Recent experiences from CCS implementation in the gas industry will be shared. New and on-going research and development on capture, transport, storage as well as utilisation will also be highlighted.

THEMATIC SESSION PGC A-2: WEDNESDAY 3 JUNE, 17:00 – 18:30

The economic, environmental and social aspects of renewable gas

Chaired by: Elbert Huijzer, Alliander, The Netherlands

Renewable gases like biogas, biomethane and biosyngas are a useful new supply for the natural gas market. The aim of this session is to explain economic, environmental and social aspects of renewable gases. The focus will be on actual cases, projects or strategies to fully exploit the environmental and social advantages and to improve the economic possibilities for renewable gases.



THEMATIC SESSION PGC A-3: THURSDAY 4 JUNE, 08:30 - 10:00

Opportunities and challenges of Life Cycle Assessment (LCA) applied to the natural gas industry – case studies

Chaired by: Anne Prieur-Vernat, GDF SUEZ, France

Life Cycle Assessment (LCA) evaluates environmental impacts associated to a product, a service, a process or even an organisation. LCA is more and more used as a support to decision making processes at political and private company levels. Applied to natural gas, LCA is an efficient tool to promote its environmental performances and to improve them.

LCA may be used for various purposes:

- Design: technology improvement and innovation
- Define and prioritise actions to reduce the environmental impact of the natural gas chain
- Communication: promotion of natural gas chain's environmental performances and answer to stakeholders' expectations
- Monitoring: checking the environmental efficiency of action plans

The aim is to demonstrate how LCA may be applied to the natural gas industry and share some practical applications. The scope includes, but is not limited to, greenhouse gas emissions and climate change. Other environmental impacts may include water footprint (linked both to scarcity and water pollution), local impacts linked to atmospheric emissions and resources depletion. All end uses of natural gas may be included, e.g. power generation, cogeneration, heating, transport, production of conventional natural gas as well as unconventional gas or biogas/biomethane.

THEMATIC SESSION PGC A-4: FRIDAY 5 JUNE, 08:30 - 10:00

Environmental aspects of unconventional gas

Chaired by: Maria Gabriela Roselló, Total Austral SA

PGC A-4 has the goal of seeking to improve public acceptance of unconventional gas by providing a balanced approach to the discussion about its environmental impacts based on science, fact, technological innovation and management best practices. Speakers will contribute and share knowledge and best practices related to solutions that help gain public acceptance and/or reduce environmental impacts of the exploitation of unconventional natural gas resources.

Hydraulic fracturing techniques have enabled the commercial development of natural gas resources that were not economic until a few years ago. Public awareness and acceptance of this technique is varied across geographies with countries and regions where opposition is fierce. Gaining a "social license" to apply hydraulic fracturing and face large scale developments has become a main issue for the natural gas industry.

Innovation in technology as well as in social communication and the application of best practices are key factors for success. They will facilitate a balanced development of the resource while reducing its footprint and environmental impacts allowing natural gas to stand out as being a better and cleaner fuel.

This forum will examine the best practices and technologies that could be articulated to fully satisfy the most stringent concerns, setting the scenario for a debate on the future of unconventional gas.

PGC B STRATEGY

Throughout the three PGC B sessions the objectives are to analyse the forecasts, policies and economies affecting regional and global gas supplies demand and trade. It will also be to examine the wholesale gas price formation and gas pricing trends for both indigenous production and international trade, as well as to share information on company strategies in relation to commercial regulatory change. PGC B also aims to coordinate on the 2050 natural gas prospective.



Chair Fethi Arabi Sonatrach Algeria

THEMATIC SESSION PGC B-1: TUESDAY 2 JUNE, 17:00 - 18:30

World gas outlooks to 2035

Chaired by: Thomas Dirksmeyer, E.ON, Germany

The aim of this session is to develop the future regional and global scenarios of gas supplies, demand and trade to 2035 based on the analysis of the different drivers and trends that will affect the development of the future gas markets. Examples of subjects included in the session will include regional demand outlooks, supply perspectives and exports potential, economic growth scenarios and environmental regulation.

THEMATIC SESSION PGC B-2: THURSDAY 4 JUNE, 08:30 - 10:00

Wholesale gas price formation

Chaired by: Mike Fulwood, Nextant, United Kingdom

This session will examine wholesale gas price formation and gas pricing trends for both indigenous production and international trade. Such topics that will be covered include, updates of the wholesale gas price survey, and a review of liquidity in traded gas markets and hubs. There will also be an analysis of the level of liquidity required for reliable price discovery and case studies of specific countries and/or regions as to how gas pricing is changing for both indigenous production and internationally traded gas.

THEMATIC SESSION PGC B-3: WEDNESDAY 3 JUNE, 17:00 – 18:30

Strategy and regulation

Chaired by: Francisco Garcia de la Flor, Enagas, Spain

The aim is to share information on company strategies in relation to commercial and regulatory change. Examples of topics to be discussed will include: success stories of developing projects in cooperation with NOCs, IOCs and SPs, and overviews of regulatory models to develop national or regional investments and market integration. It will also feature examples of cooperation between companies and regulators in developing regulation at local or regional level, and how companies are adapting to regulatory and market changes or responding to fast growing or declining markets.

PGC C GAS MARKETS

The mission of PGC C is to identify and analyse the emerging issues and key market drivers that both developed and developing gas markets are faced with and to provide insights into the promotion of gas markets. Over the last trienniums, PGC C focused on changes in regional gas markets. During the 2012-2015 triennium, however, PGC C has turned its attention to specific world-wide issues and their impact



Chair Dr Gi Chul Jung KOGAS South Korea

on regional gas markets. In this way, more comparative analyses across the regional gas market will be carried out. The issues to be examined are the role of natural gas in the electricity mix and implications of developing unconventional gas.

THEMATIC SESSION PGC C-1: THURSDAY 4 JUNE, 08:30 - 10:00

Role of natural gas in the electricity generation mix

Chaired by: Sid-Ahmed Hamdani, Sonatrach, Algeria

The largest sector for gas demand has been electricity generation and this will likely continue in the foreseeable future. In particular, emerging countries are likely to show remarkable increases in gas requirements for power generation. The aim is to analyse changes to the electricity generation fuel mix, their impact on the supply-demand balance and prices in different gas markets, the implications for both advanced and emerging markets will also be examined.

THEMATIC SESSION PGC C-2: THURSDAY 4 JUNE, 17:00 - 18:30

Implications of developing unconventional gas

Chaired by: Dr Gi Chul Jung, KOGAS, South Korea

Shale gas development and export potential in North America have been the hottest issues in the world gas market over the last few years. In addition, their impact on major Asia-Pacific LNG importing countries, as well as other regions of the world is attracting a lot of concern from both unconventional gas resource holders and major gas consuming countries. The aim is to identify the supply potential and characteristics of unconventional gas resources worldwide. This session will also examine changes in government policies and energy mixes in countries with abundant unconventional gas resources. The session intends to draw a consensus on the future of unconventional gas.

PGC D LNG

PGC D's role is to monitor and promote the development of the LNG business. The committee will study topics of current importance and interest to LNG industry participants and interested stakeholders from other segments of the natural gas industry. The output of the committee will provide a clear understanding of the global LNG industry and the challenges ahead. The committee will monitor the LNG business by



Chair Dirk van Slooten Vopak The Netherlands

issuing a report, which will provide historical data on the LNG trade, LNG liquefaction capacity, LNG shipping fleet and re-gasification terminals. In addition the report will highlight emerging trends within each part of the LNG value chain.

THEMATIC SESSION PGC D-1: WEDNESDAY 3 JUNE, 17:00 – 18:30

Remote LNG

Chaired by: Simon Frost, Repsol, Spain

This session explores the evolving challenges faced by the growing number of LNG projects being planned and constructed in more and more remote areas of the world. As gas exploration and production moves into ever-more challenging areas, in part driven by the availability of LNG production as the monetisation and export option, major LNG facilities are being considered in areas with extreme environmental conditions, no technical or social infrastructure and often with considerable environmental sensitivity. As experience grows regarding such remote projects, the aims of the session are to disseminate experiences from the remote project visualisation stages right through construction to operation.

THEMATIC SESSION PGC D-2: WEDNESDAY 3 JUNE, 08:30 - 10:00

The role of LNG as the alternative fuel

Chaired by: Richard Lammons, Chevron, USA

This session explores the evolving role of Liquefied Natural Gas (LNG) as a fuel across all industries that consume hydrocarbon energy, especially transportation (road, rail, marine and aviation, heavy machinery, mining, drilling, agricultural, and power generation). Whether principle interests relate to the regulatory or environmental drivers, the economic or commercial incentives, or the health and safety aspect of operations, all participants in this fuel evolution should be aligned for success. The goals are to increase awareness of the rapidly evolving LNG as fuel business and discuss tangible next steps for a safe, economic and reliable industry.

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THEMATIC SESSION PGC D-3: THURSDAY 4 JUNE, 08:30 - 10:00

Challenges and opportunities of small scale LNG

Chaired by: Wouter Meiring, Shell, The Netherlands

The small scale LNG business is rapidly developing across the globe. New regions are opening up; new players are entering this sector, with existing players expanding. Compared to the well-established base-load LNG industry, small scale LNG is characterised by different dynamics and drivers. Therefore the production, transportation and regasification of LNG in small scale (less than 1 MTPA) for new market segments such as the transportation sector (trucks, vessels) and small industrial applications requires a different approach, imposing the application of different technologies in order to meet efficiency and cost requirements.

The goal is to describe this new sector in all its complexity, capturing the specific technical and logistical challenges as well as the business and regulatory success factors for on-going and future projects.

THEMATIC SESSION PGC D-4: FRIDAY 5 JUNE, 08:30 - 10:00

The role of LNG in sustainability and environmental quality

Chaired by: Ted Williams, American Gas Association, USA

The aim is to address issues of sustainability and environmental aspects and advantages of the LNG chain in addressing world energy needs. A key aspect of the session is sharing experiences, tools, and approaches for better understanding and communicating environmental advantages of natural gas from LNG. Global LNG industry and environmental perspectives are featured, as well as potential future advantages from expansion of the LNG industry into new markets and developing economies. Opportunities for improved environmental performance within the LNG industry are also explored.



PGC E MARKETING AND COMMUNICATION

PGC E will be addressing marketing and communications with a twofold objective: to identify and develop ideas, tools and products for a successful promotion and sale of natural gas, and to define ways to effectively convey the merits of natural gas and its role in sustainable development, and in a clean economy. The committee will divide its work into three study groups who will be largely based on success



Chair Alfredo Ingelmo Torres Gas Natural Fenosa Spain

stories, evaluating the key drivers behind them. At the end of the triennium the work and studies developed will contribute to promoting the important role of natural gas in the future energy mix.

THEMATIC SESSION PGC E-1: THURSDAY 4 JUNE, 17:00 – 18:30

Additional uses for gas, how do we go beyond gas to power?

Chaired by: Luis Pinto, Shell International E&P, The Netherlands

As the availability of natural gas continues to increase globally, different companies are looking to utilise gas in alternative (additional) ways – from gas for transport, to industrial use, to domestic use (cooking, heating). Additionally, governments around the world are realising the societal benefits of making natural gas the backbone of their country's energy systems. The aim will be to highlight best practices on how individual companies, industries and countries have promoted alternative uses of gas successfully, and find ways to replicate them in other markets.

THEMATIC SESSION PGC E-2: WEDNESDAY 3 JUNE, 17:00 – 18:30

Effective gas marketing and lessons from other industries

Chaired by: Barbara Jinks, Australia

Marketing programmes are key to communicating the benefits of natural gas and, where required, to correct misinformation, debunk myths and gain stakeholder and public support.

The aim is to encourage audience members to consider how they can improve their own marketing activities to better communicate with stakeholders. Objectives include learning from speakers in the gas industry who will outline ways of being effective in communicating the gas message. In addition proven marketing tools and strategies used by other industries will be analysed.

THEMATIC SESSION PGC E-3: TUESDAY 2 JUNE, 17:00 – 18:30

Public acceptance of natural gas projects

Chaired by: Hansch Van der Velden, Gasunie, The Netherlands

Natural gas can transform the way the world produces and uses energy. To do that, the sector will need to build new pipeline systems, onshore and offshore production sites, compressor stations, carbon capture facilities, shale gas drilling pads and LNG terminals. Yet when you build, communities will be impacted and are increasingly likely to be vocal and say 'Not in My Backyard' (NIMBY). Public acceptance is the deciding factor in the success of many of these projects. Without public acceptance there is no business case.

Addressing public concern about natural gas development requires substantially more effort from companies. Communities have to trust the natural gas sector to do the right thing. Therefore, we have to invest in building our reputation locally and engaging with communities, local leaders, small businesses, nongovernmental organisations (NGOs) and the local government. The message is that communication is key: our hardware has to come with soft skills.

The aim is to gain a greater understanding public acceptance: what drives it, how can you lose it, and how can you gain it?

PGC F R&D AND INNOVATION

The impact of R&D and technology innovation is a foundational element across the spectrum of the gas industry – from the substantial growth in global resources with the resultant expansion in gas transportation infrastructure, to development and implementation of efficiencies and new applications in energy utilisation. PGC F is progressing in its activities to further information exchange and collaboration in



Chair Jack Lewnard Chesapeake Utilities Corporation USA

global gas research, technology transfer, and emerging technology and innovation. The gas industry is experiencing rapid advancement in technical and commercial innovations. Global gas supply is expanding due to development of unconventional resources such as coal bed methane, tight sands, and shale gas, as well as advances for deepwater and Arctic areas. On the demand side, innovations are creating expanded opportunities for gas in traditional markets as well as rapidly growing markets such as transportation, either directly through CNG or LNG, or indirectly via gas-to-liquids processes. Safety continues to be a focus area for the gas industry, for both existing infrastructure and the rapidly expanding transmission and distribution systems in growing economies. PGC F has established three study groups to address key natural gas research and innovation topics.

THEMATIC SESSION PGC F-1: TUESDAY 2 JUNE, 17:00 – 18:30

Global partnering in energy innovation – effective collaboration

Chaired by: Rod Rinholm, Gas Technology Institute, USA

Over the last decade there has been a general decline in R&D investment by the gas industry, which is counter to the continued industry needs and opportunities for effective technology solutions. The goal is to review, identify and discuss means for the effective communication, cooperation and enhancement of research, development, and innovation within the gas industry.

The aim is to present an inventory of global R&D programmes, facilities and priorities, and evaluate business models and case studies for gas R&D in terms of short and long-term drivers, and the intrinsic value from research and technology investments. The focus will also be on latest development for technology and economy and regulatory contest.

THEMATIC SESSION PGC F-2: WEDNESDAY 3 JUNE, 08:30 – 10:00

Convergence of gas appliances and infrastructure with electric systems and renewable energy Chaired by: Gerald Linke, E.ON Ruhrgas, Germany

The goal is to identify positioning and business models that anchor natural gas as part of the future energy mix. For example, zero-carbon renewable gas, produced from biomass via anaerobic digestion or gasification/methanation, can be integrated into the existing gas infrastructure. Gas can augment renewable geothermal and solar energy for heating and cooling loads. It can also back up intermittent electricity production from renewable sources such as solar, wind, and wave power. In addition, the gas grid has enormous potential to provide energy storage for the electric grid by converting the energy from "excess electrons" into gaseous fuel components. Given these scenarios, the gas infrastructure becomes critical for integrated energy grids that holistically manage electricity and thermal loads.

Specific objectives will be to explore innovative technology and business models to maximise the value of gas and the integration and relationship with renewable power and electric distribution systems.

TF 1 Human Capital

The past three years have had a major impact on the oil and gas industry. They have put human resources and flexibility back in the spotlight. Over the next decades, we will face a talent crunch in Sciences Technology Engineering & Mathematics (STEM) in most parts of the world. Highly qualified people will be increasingly mobile. Furthermore, the oil and gas industry suffers from negative perception as an old fashioned



Chair Agnès Grimont GDF SUEZ France

industry, unfriendly to women. The ageing demographic further exacerbates the problem and will see many industry experts going into retirement. Mirroring the ageing global population trend, age distributions in the current STEM work force show that approximately 42 percent of scientists and engineers are in the '45-64' age group and are fast approaching retirement age. With only slightly over 30 percent of scientists and engineers in the '35-44' age group, it will be difficult fill the vacuum left by retirements.

The global gas industry will have to take a long term view that delivers a strategic response to the problem of attracting, retaining and developing its talents. The thematic session for this committee will discuss the issues around these topics.

THEMATIC SESSION T 1-1: THURSDAY 4 JUNE, 17:00 - 18:30

Battle for talent

Chaired by: Agnès Grimont, GDF SUEZ, France and Abdulaziz M. Almannai, Qatargas, Qatar

The objective is to promote STEM education. Specific youth oriented programmes will be organised during the 2012-2015 Triennium and at the 26th World Gas Conference. They will be aimed at bringing together people at different stages in their careers to provide the next generation with a comprehensive view of the gas industry. The subjects covered will include the education system: the question about the STEM education and the talent crunch in the industry.

YOUTH PROGRAMME PREPARED BY TF 1 FOR WGCPARIS2015

The Youth Programme is dedicated to talented students and young professionals aged between 20 and 30 years old. The 'Human resources for the future' pillar of WGCPARIS2015 will show that we can notice a lack of interest from new generations to join the industry as it is perceived to be less trendy than other sectors and less environmentally friendly.

This event will show that on the contrary, the gas industry has a lot of great opportunities and challenges for the youth of today. It will be the second edition since a very successful event was organised in Kuala Lumpur for WGC 2012. The Youth Event Programme will last 3 full days with a welcoming on the evening of Tuesday 2 June and a Closing Ceremony on the afternoon of Friday 5 June. About 200 students and young professionals will have the chance to participate in this programme based on two major issues: Attracting youth and especially women, and Sustainable energy for all. The programme is designed for the youth by youth. It will be comprised of conferences conducted by high level speakers and workshops dealing with the two main issues. Thus, the youth will be able to participate in the main conference and interact with decision-makers. They will have the opportunity to attend in small groups speeches presented by young successful people of the gas sector who will explain their careers.

This event takes place in the middle of the WGCPARIS2015 conference and is a unique occasion to show to the youth of today all the assets the gas industry has to offer and the fact that it is a major consideration for their career. This is also a way of explaining the expectations of youth toward the industry and to understand their requirements better.



TF 2 GAS ADVOCACY

The energy sector is set to face increased challenges that will lead to structural changes in the natural gas market. The mitigation of climate change and security of supply and access to energy at reasonable prices have become some of the most important political issues. In this framework, one aim of TF 2 is to show and endorse the essential role of natural gas in the energy system's forthcoming transformation



Chair Michele Pizzolato Eni Italy

Natural gas is also commonly recognised as the most environmentally friendly, affordable, reliable, efficient and secure fossil fuel; accordingly, the present and potential role of natural gas has to be recognised in policy debates. It is necessary to further reinforce the characteristics of natural gas and to underscore its role as a fuel that promotes both growth and decarbonisation.

TF 2 also aims to coordinate the efforts to endorse, to promote and to be the "voice" of natural gas in the institutional and regulatory forums of interest.

THEMATIC SESSION T 2-1: WEDNESDAY 3 JUNE, 08:30 - 10:00

The role of natural gas in power generation

Chaired by: Michele Pizzolato, Eni, Italy

The aim is to explore the topic of "capacity markets". The focus should be alternatively on the economic literature or on concrete experience of implementation of these mechanisms. This session will cover the topics of the growing share of renewables and security of supply, challenges in maintaining security of power supply in Europe, the implementation of capacity remuneration mechanism in Brazil and the role of CCGT plants in granting security of power supply.

THEMATIC SESSION T 2-2: THURSDAY 4 JUNE, 08:30 - 10:00

Relationship between coal and gas

Chaired by: Ieda Gomes, Energix Strategy Ltd, United Kingdom

The aim is to explore the competitive relationship between gas and coal, including case studies on the coal to gas and gas to coal switch in different parts of the world. Also of interest are global trends, regulatory provision and environmental aspects. The session will discuss the effects on global CO₂ emissions of the renascence of coal, gas to coal in USA and the growth of coal importation in Europe.

TF 3 GEOPOLITICS

At the forefront of the growing eminence of natural gas is the key issue of global energy security as producing and consuming countries compete for control of resources and markets. Competition for, control of, and access to natural gas resources and markets will set the political agenda and strategic manoeuvring that will pit major powers, IOCs, NOCs, and consuming countries against each other in the pursuit of energy security.



Chair Geert Greving GasTerra The Netherlands

TF 3 has been formed to examine the interplay between economic and political factors in the development of Natural Gas resources and analyse the main political challenges, mega-trends, issues and consequences that may shape and drive the future natural gas-intensive world.

THEMATIC SESSION T 3-1: TUESDAY 2 JUNE, 17:00 – 18:30

Geopolitics and energy security

Chaired by: Prof. Dr Coby van der Linde, Clingendael International Energy Programme (CIEP), The Netherlands

Here we will set a lively debate by economists and academics with industry members on the issue of energy and security (Russia or USA). It will cover case studies; concrete lines and, rules for good practise on gas.

THEMATIC SESSION T 3-2: FRIDAY 5 JUNE, 08:30 - 10:00

Corporate behaviour in the political arena

Chaired by: Geert Greving, GasTerra, The Netherlands

This thematic session will see industry experts discussing the report written with the support of Dimitry Medvedev which detailed the best practises for Russia (also a key issue into the Arctic region). The discussion will also cover new forms of energy and energy saving for regions like Africa and the Gulf.

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WGCPARIS2015 EXHIBITION

Located on one level and adjacent to the conference, the WGCPARIS2015 Exhibition will boast 40,000sqm of exhibition space and will display stands for over 300 exhibitors from more than 50 countries; providing delegates with the opportunity to meet and do business with the global natural gas industry.

The conference organisers have planned generous breaks in the conference program to allow delegates the time to visit the exhibition throughout the event. In addition to this, the exhibition has allocated three dedicated days for access for trade visitors.

NEW FOR THE WGCPARIS2015 EXHIBITION "Natural Gas for Transportation Village"



The 26th World Gas Conference will feature, for the first time, a village within the exhibition dedicated to "Natural Gas for Transportation". Co-hosted by NGV Global and NGVA Europe, the village will profile the rapidly growing natural gas as a transportation fuel sector.

The new Natural Gas for Transportation Village will include a seminar stage with a free to attend programme, providing additional education opportunities to complement the topics featured in the main conference agenda. Throughout the four days, the latest developments, opportunities and challenges for the NGV sector will be presented and cover a diverse range of topics such as:

- On-road, off-road, marine, and rail applications
- Fuelling Stations
- Safety
- CNG, LNG, and RNG dispensing systems including those used for marine bunkering

The Natural Gas for Transportation Village will also provide the opportunity for exhibiting companies servicing this sector to be grouped to together within the village, showcasing their products and services to the qualified delegates and trade visitors who attend. A special trade visitor marketing campaign targeting buyers from the natural gas a transport fuel sector, will complement the extensive WGCPARIS2015 delegate marketing.

For more information on the Natural Gas for Transportation Village, including exhibitor and speaking opportunities please contact Lorraine Elysée on **lelysee@etf.com.au**

If your company would like to exhibit at the conference, now is the time to secure your exhibition space. Please contact **Robby Clark** at Exhibitions and Trade Fairs (ETF) for more details:

Telephone: +61 2 9556 7992 Mobile: +61 407 031 274 Email: rclark@etf.com.au



WGCPARIS2015 EXHIBITORS

Detailed below are the confirmed exhibitors for the 26th World Gas Conference.

ABS AUIT Akfel Holding AS Anadarko/Mozambique LNG Angola LNG Apator Metrix SA Atlas Copco Banides & Debeaurain **BG** Group ΒP Cheniere Energy Inc Chevron Global Gas China National Petroleum Corporation (CNPC) Chiyoda Chuchu Decayeux Cixi Sanyang Electronics Co Ltd Common SA **CPL** Concordia Cryostar Daesung Measuring Co Ltd DEME DENSO GmbH DNV GL Dresser-Rand E.ON Ruhrgas AG EDF **EFFBE** France Elgas **Eliot Innovative Solutions** Elster GmbH Emerson Process Mgt Regulator Technologies Enagas S.A Esri Eustream a.s Excelerate Energy Exxon Mobil Corporation Fluxys FMC Technologies SA Foster Wheeler GAIL (India) Limited Gas Natural Fenosa Gascat Industria e Comercio Ltda GasTerra B.V. Gasunie Gazprom GDF Suez

GE Oil & Gas **GEA Batignolles Technologies** Thermiques GeoFields GEP AFTP GES* GFO Europe BV GrDF Groupe VINCI/Entrepose Contracting GRT Gaz Gurtner Heath Consultants Incorporated Heatric Hermann Sewerin GmbH Herose Honeywell Inpex Corporation Interfax Europe Ltd **ITP** Interpipe Itron Jereh Petroleum Equipment & Technologies Co Ltd JHC Korea Gas Corporation (KOGAS) Mareal Engineering & Consulting MECI Mesura Meter Italia* MSA A.S. Mueller Co NAFTA a.s Nexant NGV Global NGVA Europe Nirmal Industries Controls PVT NOVATEK **Opgal Optronic Industries Overpipe SAS** Pergam-Suisse AG Peru Petro SA Petrobras PGME Pietro Fiorentini SpA Plymouth Polish Oil & Gas Company (PGNIG) Ponticelli Prosernat PSI AG

PT Pertamina (Persero) PTT Public Company Limited Qatar Petroleum Ravetti **RegO Products** Romet Ltd Rubinetterie Bresciane SpA Saipem SA Salzgitter Mannesmann Line Pipe GmbH Sapura Kencana Petroleum Berhad Schneider Electric Industries SAS Schutz GmbH Messtechnik Shell U.K. Limited SICK SIS – SEVME Informatique & Services SKF Magnetic Mechatronics SAS Snam SOFREGAZ Solar Turbines Incorporated Sonatrach South Stream Transport BV Statoil STF GAS SRL TAQA Arabia TCL S.A. TD Williamson Technip France Technolog Ltd The Japan Gas Association TIGE Tormene AG* Total SA UAB "Vilduja" Valve Technology Australia Pty Ltd Velan SAS Verbandd Schweiz Gas Industrie (VSG) Vitol S.A. Wenzhou Blue Sky Electronic **Equipment Limited** Wingas GmbH Wintershall Holding GmbH Wood Mackenzie Woodside Wuzhou Valve Co Ltd Yemen LNG Company Ltd

*Co-exhibitor





GENERAL INFORMATION WGCPARIS2015

Access to the conference

Participants and accompanying persons are requested to wear their badges at all times during the conference including at social events and on tours. Please do not leave personal bags unattended at any time.

Transportation

Transport will be provided between the official conference hotels and the conference venue. A transportation schedule will be available in your registration pack.

Official conference language

English is the official language of the conference.

Registration and information

On-site registration will take place at the main hotels and in Pavilion 1 at Porte de Versailles (event venue).

Registration opening times are as below:

Saturday 30 May	14:00 – 19:00 (Official hotels)
Sunday 31 May	10:00 – 19:00 (Official hotels)
Monday 1 June	10:00 – 17:00 (Porte de Versailles)
	10:00 – 19:00 (Official hotels)
Tuesday 2 June	07:30 – 18:30 (Porte de Versailles)
Wednesday 3 June	08:00 – 18:30 (Porte de Versailles)
Thursday 4 June	08:00 - 18:30 (Porte de Versailles)
Friday 5 June	08:00 - 12:00 (Porte de Versailles)

All times are subject to change.

When registering on-site, please bring your confirmation information, which will entitle you to collect your conference badge and documentation.

Passport and visa requirements

Depending on the nationality of the delegates, the duration and the reason for their stay in France, it may be necessary for them to obtain a visa before starting their journey to France. In this case, they should apply to the French consulate in their country. More information can be found on the French Ministry for Foreign Affairs website. We recommend you allow plenty of time for your application for be processed. www.diplomatie.gov.fr

Cloakroom

A cloakroom will be available at the venue.

Dress code

Business attire is requested for attendance at the conference and exhibition sessions including the opening and closing ceremonies and the welcome gala reception. Smart casual attire is suggested for the farewell party.

Climate

June is a fantastic time to visit Paris, when the weather is mostly warm, dry and sunny. The average temperature is around 20°C during the day and around 12°C at night.

There are around 11 days of rain during June and there is often a light breeze with clear sky's.

Currency and banking advice

The monetary unit of the country is Euro (\in). The exchange rate is valued as USD1 = 0,80 EUR at the time of print. Foreign currencies can be exchanged at banks and money changers. Major credit cards are accepted in most hotels, stores and restaurants. Service is included in bills at restaurants and generally tips are not required but appreciated.

Insurance

It is recommended that participants take out adequate insurance cover for health, travel and private liability before they depart from their home countries. The organisers are not responsible for personal injuries, or loss, or damage to private property belonging to conference participants and accompanying persons.

Mobile phones

We recommend you ask your mobile phone company if they have international coverage and please be aware that international tariffs may apply. Having an unblocked mobile phone will give you the possibility of buying a new SIM card in France and you will receive a new local telephone number. If you choose to do this, local fees will apply.

Time

Paris is 1 hour ahead of Greenwich Mean Time (GMT).

Electricity

The voltage is 220 Volt AC.

REGISTRATION WGCPARIS2015

Registration to attend WGCPARIS2015 can be made via the conference website: www.wgc2015.org. If for any reason you are unable to complete the registration form online please contact the WGCPARIS2015 registration secretariat.

Every participant, including accompanying persons must be registered in order to attend the conference. Due to limited capacity at the conference venue we recommend that you register as soon as possible.

REGISTRATION KEY DATES

Registration opens for delegates and accompanying person(s):

1 April 2014

Deadline for early registration: **16 January 2015**

Deadline for registration cancellation: **5 April 2015**

Deadline for bank transfer payment: **15 April 2015**

Deadline for registration on WGCPARIS2015 website: **30 May 2015**

Registrations at official hotels: **31 May – 1 June**

Registration at Porte de Versailles: 1 – 5 June 2015

WHAT IS INCLUDED

Delegate registration

- Welcome gala evening
- Admission to all conference sessions
- Conference documentation
- Conference and exhibition opening
- Admission to the exhibition
- Coffee breaks
- Internet access
- Closing ceremony and farewell party
- Paris city tour (tours will be handled on a first-come, firstserved basis)
- Shuttle bus service from official hotels to the conference venue.

Accompanying persons

- Documentation for accompanying persons
- Welcome gala evening
- Conference and exhibition opening
- Admission to the exhibition
- Closing ceremony and farewell party
- Paris city tour (tours will be handled on a first-come, firstserved basis)
- Shuttle bus service from official hotels to the conference venue
- City pass
- Access to register to attend tours in the social programme. Please note additional charges apply.



REGISTRATION FEES

Registration	EARLY FEES Until 16 January 2015		LATE FEES After 16 January 2015			ON-SITE FEES 31 May – 5 June 2015			
category	Rate	VAT	Rate (VAT included)	Rate	VAT	Rate (VAT included)	Rate	VAT	Rate (VAT included)
Delegate	€2,250	€450	€2,700	€2,650	€530	€3,180	€2,850	€570	€3,420
	UNIQUE FEE								
Accompanying persons	Rate		VAT		Rate + VAT				
	€750		€150		€900				

Registration fees are subject to French VAT at the rate of 20% (correct at April 2014).

All payments have to be made including VAT.

To benefit from the early registration fee, payment must be received by 16 January 2015.

OPTIONAL ACTIVITIES

The following items are optional activities that delegates can attend during their time at the conference.

Event		Rate	VAT	Rate (VAT included)
Luncheons	Tuesday 2 June	€150	€30	€180
	Wednesday 3 June	€150	€30	€180
	Thursday 4 June	€150	€30	€180
	Friday 5 June	€150	€30	€180
Golf tournament	Sunday 31 May	€350	€70	€420
Introductory golf lesson	Sunday 31 May	€150	€30	€180

Group registration

For groups of 10 or more, please contact the registration secretariat directly for details on how to register.

Payment

MCI France will be responsible for processing and receiving payments. Payments may be made via:

- Credit card (Visa/Master Card): Ensure your credit card details are completed on the online registration form
- Bank transfer: Payments need to have the reference name WGCPARIS2015/MCI

The details required for paying by bank transfer will be supplied upon registration.

REGISTRATION WGCPARIS2015

Terms of payment

- To secure your place at the conference, payment needs to be made within 30 days of registration.
- Bank transfers are only accepted before 15 April 2015. After this date payments can only be made via credit card.
- A copy of the bank transfer document must be sent by fax or email to the registration secretariat stating the conference name and the delegate(s) first and last name.
- The conference organisers must receive the registration amount in full, free from issuing and receiving bank charges. Any difference in amounts will be charged to the delegate on-site.
- Do not send cash or other valuables by post or courier. The conference organisers accept no liability for registration payment lost in the mail.
- Registration forms received without payment will not be confirmed until the payment is received.
- All registration fees are payable in Euro.
- Only registration applications accompanied by the appropriate payment will be processed.
- Registration requests or changes by phone will not be processed.
- Upon receipt of your registration and after payment clearance, the registration agency will email you an electronic invoice summarising all registration and accommodation details and specifying payment status as well as Value Added Tax (VAT) amounts.

Cancellation policy

All cancellations must be made in writing (mail, fax or email) to the registration secretariat.

- The following conditions apply.
 - Up to 5 April 2015: 50% of the payment will be withheldAfter 5 April 2015: no refund
- No refunds will be made for luncheon addresses.
- Any reimbursements due will be processed 60 days after the end of the event.
- Requests for refunds received by the registration secretariat after 30 June 2015 will not be considered.

Registration secretariat:

WGCPARIS2015 MCI France

Phone +331 53 85 82 71 Fax +33 1 53 85 82 83 Email registration-wgc2015@mci-group.com

ACCOMMODATION WGCPARIS2015

WGCPARIS2015 has selected a number of hotels with negotiated rates and easy access to the venue. They are either located in the city center or near the venue. We advise you to make your reservation early in order to have the best choice of hotels. Rooms will be allocated on a first come first served basis.

If you want to book a hotel that is recommended by WGCPARIS2015, reservations must be made through MCI France, the official housing and registration agency for WGCPARIS2015.

Consult the list of hotels in Paris and book yours early!

Individual hotel booking

Hotel rooms at special rates are being held for participants in various hotels of different categories all over Paris.

All rates are indicated in Euro (\bigcirc) per night and per room and include VAT tax, city tax and breakfast. Reservations must be made through the official housing agency to guarantee the indicated rates negotiated for the Congress.

To book a room please visit the conference website: www.wgc2015.org

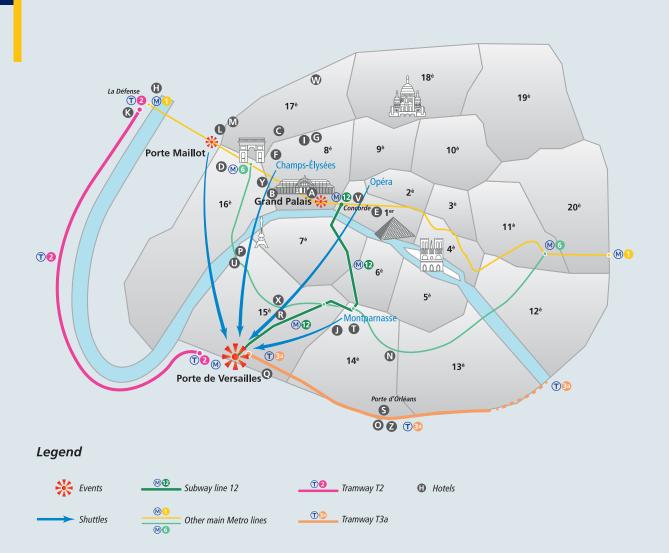
(All payment methods are accepted: cheque, bank transfer or credit card – Visa, Mastercard, Eurocard, American Express).

Reservation procedure

- Reservations by phone will not be processed.
- Two nights of deposit must be prepaid in advance. Your entire stay must be paid by 1 September 2014.
- MCI will contact you on 1 September 2014 in order to arrange this payment.
- Upon receipt of your hotel reservation request, you will receive an invoice/confirmation letter summarising accommodation details and specifying payment status.
- In case of no-show, the pre-paid night(s) will be held by the hotel.
- If you shorten your stay, no refund will be made for the cancelled pre-paid room nights.
- Bookings are made on a first come first served basis. However, in the event that your preferred room type is no longer available at the time of booking, the housing agency will do their utmost to accommodate your requests with a similar alternative.
- Important note: twin occupancy rooms are available upon request.



ACCOMMODATION WGCPARIS2015



Hotel reservation cancellation policy – for individual reservations

All cancellations must be notified in writing (by mail, fax or email) to the housing agency according to the following conditions:

• Before 13 March 2015: 50% of the payment will be withheld.

After 13 March 2015: no refund.

Group hotel booking

For groups of 10 people or more, please contact the housing agency via email **hotel-wgc2015@mci-group.com** or download the accommodation request form from the WGCPARIS2015 website.

WGCPARIS2015 and MCI France cannot take responsibility for the cancellation of the event. Conference organisers cannot be held liable by participants for any damages, costs, or losses incurred, such as transportation costs, accommodation costs, costs for additional orders, and financial losses.

Contact housing agency:

WGCPARIS2015 MCI France

Phone +33 1 53 85 82 71 Fax +33 1 53 85 82 83 Email hotel-wgc2015@mci-group.com

$\ensuremath{\mathsf{RATES}}$ (All rates include breakfast and city tax)

Category	Hotel Name	Type of Room	Location	Price of single room	Price of double room
5*	Hotel Le Collectionneur Arc de Triomphe	Superior	I	€470.00	€490.00
5*	Hotel Napoleon	Classic	F	€450.00	€480.00
5*	Hotel Napoleon	Superior	F	€500.00	€530.00
5*	Lucien Barriere – Hotel Fouquet's Barrière Champs Elysées	Deluxe	Y	€1020.00	€1020.00
5*	Marriott Champs Elysées	Deluxe	А	€610.50	€632.00
5*	Prince de Galles	Art Deco	В	€749.00	€769.00
5*	Renaissance Arc de Triomphe	Deluxe	С	€420.50	€442.00
5*	Renaissance Le Parc Trocadéro	Superior	D	€400.50	€422.00
5*	Renaissance Vendôme	Superior	E	€490.50	€512.00
5*	Renaissance Vendôme	Prestige	E	€530.50	€552.00
5*	Sofitel Arc de Triomphe	Deluxe	G	€540.00	€565.00
5*	Sofitel La Défense Centre	Classic	Н	€340.00	€360.00
4*	Concorde Montparnasse	Classic	J	€300.00	€320.00
4*	Concorde Montparnasse	Superior	J	€320.00	€340.00
4*	Concorde Montparnasse	Deluxe	J	€350.00	€370.00
4*	Hilton Paris La Défense	Hilton Guest Rooms	К	€350.00	€370.00
4*	Hyatt Regency Paris Etoile	Queen	L	€300.00	€310.00
4*	Hyatt Regency Paris Etoile	Queen Deluxe	L	€330.00	€340.00
4*	Hyatt Regency Paris Etoile	Executive	L	€500.00	€510.00
4*	Hyatt Regency Paris Etoile	Suite Ambassador	L	€1,200.00	€1,210.00
4*	Hyatt Regency Paris Etoile	Suite Royal	L	€1,800.00	€1,810.00
4*	Hyatt Regency Paris Etoile	Club Queen	L	€360.00	€370.00
4*	Le Méridien Etoile	Classic	Μ	€375.00	€395.00
4*	Le Méridien Etoile	Executive	Μ	€415.00	€435.00
4*	Le Méridien Etoile	Junior Suite	М	€675.00	€695.00
4*	Le Méridien Etoile	Suite Executive	М	€875.00	€895.00
4*	Le Méridien Etoile	Suite Presidentielle	М	€1,075.00	€1,095.00
4*	Marriott Rive Gauche	Deluxe	Ν	€339.00	€394.00
4*	Mercure Paris Centre Tour Eiffel	Standard	Р	€265.00	€280.00
4*	Mercure Paris Centre Tour Eiffel	Privilege	Р	€265.00	€280.00
4*	Mercure Paris Centre Tour Eiffel	Privilege vue Tour Eiffel	Р	€325.00	€340.00
4*	Mercure Paris Centre Tour Eiffel	Junior Suite	Р	€370.00	€385.00
4*	Mercure Porte d'Orléans	Standard	0	€225.00	€241.00
4*	Mercure Porte de Versailles Expo	Standard	Q	€267.00	€382.00
4*	Novotel Paris Vaugirard Montparnasse	Standard	R	€240.00	€255.00
4*	Novotel Porte d'Orléans	Standard	S	€230.00	€247.00
4*	Pullman Montparnasse	Standard	T	€295.00	€320.00
4*	Pullman Montparnasse	Junior Suite	T	€615.00	€640.00
4*	Pullman Montparnasse	De Luxe Suite	Т	€815.00	€840.00
4*	Pullman Tour Eiffel	Classic	U	€416.00	€442.00
4*	Pullman Tour Eiffel	Superior	U	€456.00	€482.00
4*	Pullman Tour Eiffel	Deluxe	U	€506.00	€532.00
4*	Pullman Tour Eiffel	Junior Suite	U	€566.00	€592.00
4*	Westin Paris Vendôme	Superior	V	€459.00	€479.00
3*	Ibis Berthier Porte de Clichy	Standard	W	€137.50	€146.50
3*	Ibis Paris Cambronne Tour Eiffel	Standard	X	€168.00	€177.00
3*	Ibis Porte d'Italie	Standard	Z	€125.00	€134.00

OFFICIAL CEREMONIES WGCPARIS2015

The following official ceremonies are included in the delegate and accompanying persons fee should you wish to attend these.

Welcome gala evening

Monday 1 June, 20:00

Located in the heart of Paris on the avenue des Champs Elysées, the Grand Palais is an iconic Paris monument. Built for the Universal Exhibition in 1900 and dedicated "by the French Republic to the glory of French art", it was designated as an historic monument in 2000. This magnificent venue has been chosen for the welcome gala evening, the theme of which will be "Growing together towards a friendly planet". More than 4,000 people from all over the world are expected to celebrate the opening of WGCPARIS2015 during a cocktail party "à la Française" in an informal atmosphere.

Opening ceremony

Tuesday 2 June, 08:30

The official opening of the World Gas Conference Paris 2015 will be celebrated in the large amphitheater at the Palais des Sports at the Porte de Versailles. This ceremony will be opened by a welcoming address by the IGU French president. The French president Mister Francois Hollande will also attend this spectacular opening ceremony bringing together over 4,000 gas industry professionals from all over the globe.

Closing ceremony

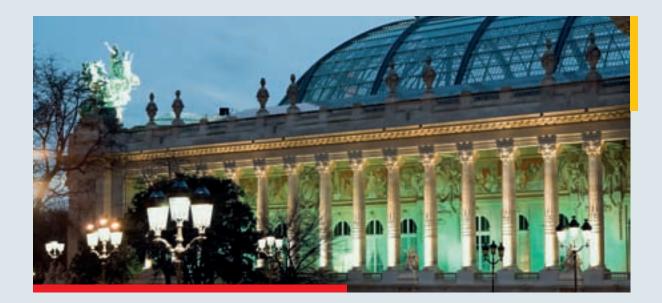
Friday 5 June, 17:15

The closing ceremony will also be celebrated in the Palais des Sports at the Porte de Versailles. At this ceremony the next Presidency will be introduced which be led by the United States and will take place in Washington DC. The US Presidency will host the 27th World Gas Conference in June 2018.

Farewell party

Friday 5 June, 18:45

The party will mark the end of the event as delegates gather together under the theme "Franco-America". This occasion will be a celebration of the end of the French triennium just after the closing ceremony.



TECHNICAL VISITS WGCPARIS2015

After the WGCPARIS2015 conference there are a number of optional Technical Visits to choose from as detailed below.

For detailed information on these Technical Tours, please contact Emmanuelle Wicquart, WGCPARIS2015, via email: ewicquart@wgc2015.org





Storengy – UGS facility Céré-la-Ronde *Combined technical and social tour*



Duration: One day tour Date: 6 June Timings: Meeting at 07:15 and returning at 19:20 Tour includes: 1 hour train journey and transfer, tour of UGS facility, lunch in Chenonceau, visit to Chenonceau castle, and return travel via Amboise castle Price: €375 per person including VAT

The Céré-la-Ronde storage is located in the heart of the Sologne region in the center of France, an area of Loire famous for its castles and vineyards and wines producers. Opened in 1993, it is the most recent natural aquifer UGS put into service in France by Storengy.

Located at a depth of 910 meters, it has a total capacity of 1.200 Gm³ and was last renovated and developed between 2007 and 2012. Since September 2012, the site has been committed to biodiversity conservation through a proactive approach. The site treats its green areas sustainably with 300m² of wetland area restored in order to promote and maintain the pond colonisation with a variety of plant and animal species.

TECHNICAL VISITS WGCPARIS2015





Fosmax LNG Elengy / The Fos Cavaou LNG terminal Combined technical and social tour



Duration: Two day tour

Date: 6-7 June

Timings: Meeting at 06:45 on 6 June and returning at 18:20 on 7 June Day 1: 3 hour train journey, tour of LNG terminal, lunch, view of the Mediterranean coast and one night's accommodation in a hotel

Day 2: Visit of Les Baux de Provence village, lunch, visit of Avignon city and return journey

Price: €785 per person including VAT

The Fos Cavaou LNG terminal is spread over 80 hectares, enjoys a strategic on the Mediterranean coast, 50km west of Marseille, at the heart of the Cavaou peninsula (Fos-sur-Mer). Owned by Fosmax LNG and operated by Elengy, the facility has been commercially operational since 2010 and fulfills the natural gas supply needs of France and the interconnected European markets. Its storage capacity is 330,000m³ with three 110,000m³ cryogenic storage tanks. Its regasification capacity is 8.25 billion m³ per year, i.e. the equivalent of around a sixth of the French natural gas consumption. More than 9000 LNG tankers from 75,000m³ (class Med-max) to 260,000m³ (Q-Max), the world's largest LNG tanker, were unloaded by Elengy on the three French LNG terminals since 1965.





EDF Montereau thermal power plant *Combined technical and social tour*



Duration: One day tour Date: 6 June Timings: Meeting at 08:00 and returning at 17:45 Tour includes: 1 hour and 15 minutes transfer by bus, technical visit to the plant, lunch in Fontainebleau and a visit to Fontainebleau castle Price: € 130 per person including VAT

Located one hour from Paris, the Montereau power plants' fuel-fired turbines are a recent technology which integrates the most modern technology to reduce the impact on environment. The turbines have the role to produce electric energy to face the consumption peaks. Montereau power plant was put in service in 2010 and develops a power of 370MW.

TECHNICAL VISITS WGCPARIS2015





EDF Dunkerque LNG terminal



Duration: One day tour Date: 6 June Timings: Meeting at 07:15 and returning at 19:10 Tour includes: 1 hour and 40 minutes train and transfer to facility, lunch, short view of Dunkerque city and sea coast and return travel Price: €345 per person including VAT

The Dunkerque LNG terminal is currently under construction and is planned to be put into service at the end of 2015. It will have an annual regasification capacity of 13 billion m³ of gas, representing around 20% of France and Belgium's annual natural gas consumption making it the 2nd largest terminal in continental Europe.

As a liquefied natural gas regasification infrastructure, the terminal will be able to accommodate the world's largest LNG tankers in France, at the western outer harbour. 65% of Dunkerque LNG is owned by EDF Group, 25% by Fluxys group and 10% by Total group.

Dunkerque LNG is committed to ecologically enhancing the site and its surrounding area by active and passive restoration of the dune grassland. Owing to the ban on access to the site and the terminal's ecological management plan, the site aims to gradually and naturally be colonised by flora and fauna.



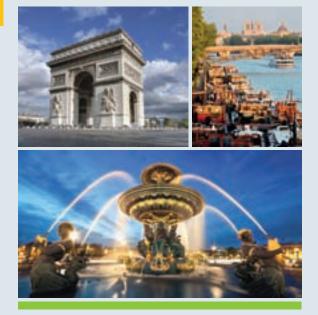
GRTGaz Alfortville interconnection grid



Duration: Half day tour Date: 6 June Departure: 08:00 and returning at 13:00 Tour includes: 30 minute bus tour transfer, tour of facility, a visit to the gas museum and return travel Price: €35

The Alfortville grid is located in a suburb of Paris and is an important strategic point for the transportation of natural gas into Paris as it provides one third of gas to this region. This former gas plant was built in 1952 and the site has been a compression station before becoming the interconnection grid that it is today. Important renovation work has been carried out on this site since 2004 including burying of the former aerial gas network, removal of the gasometer (the last one in France), the building of a new grid, linking to the existing national network, and complete depollution of the site.

GRTGaz is deeply involved in the environmental protection of the area and has decided to make this site a pilot study for the harmonic management of the environment, with an ecologic landscape and biodiversity development.



Paris city tour

Dates: 31 May – 5 June 2015 Times: 09:00 – 12:00 and 14:00 – 17:00 daily Please note this tour is not available on Tuesday 2 June at 09:00 or Friday 5 June at 14:00 Duration: 3 hours Number of spaces: 50 people per session Price: Included in registration

This city tour will give the opportunity to view Paris and its main attractions by coach. Discover the history of Paris and admire the main squares, bridges, streets and buildings.

Key places to be visited include:

Place de l'Opera, Place de la Concorde, the Champs-Élysées, the Arc de Triomphe, the Trocadero, the Tower Eiffel, Invalides, Pont-Neuf, the Bastille Opera House, Notre Dame Cathedral, the Luxembourg Garden and St Germain des Prés.

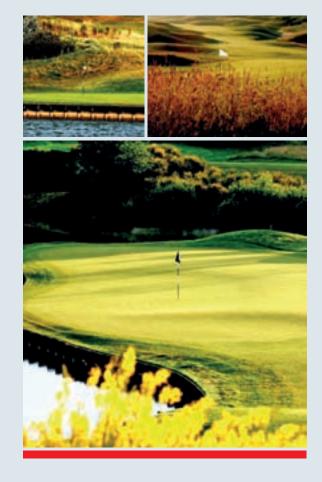
Golf tournament

Dates: 31 May 2015 Times: 07:00 - 15:30Duration: 8.5 hours Number of spaces: 100 spaces for the golf tournament 10 spaces for the golf lesson Price: $\in 420$

Following the tremendous success in Kuala Lumpur, the French presidency has decided to organise a golf tournament. This will be the perfect opportunity for participants to network, make new contacts and will also be an entertaining icebreaker prior to the conference. Up to 100 people will have the chance to enjoy a full round of 18 holes on the challenging Golf National course. This course is considered to be one of the top 100 courses in the world and will host the Ryder Cup in 2018. The tournament itself will be scored using the Stableford point system.

Introductory golf lesson Price: € 180

For participants who are new to golfing but do not want to miss out on the day, there will also be an introductory golf lesson taking place at the same time as the main golf tournament. Participants will be able to learn the basic techniques as well as having the opportunity to play on the Golf National course as well.











During your time in Paris, there are many opportunities for you to explore the city through the variety of tours.

MUST SEE



Guided tour of the Louvre

Dates: 31 May – 5 June Times: 08:30 - 13:00 and 14:00 - 18:30Duration: $4\frac{1}{2}$ hours Number of spaces: 60 per session Price: €86

Your visit to Louvre will transport you in time from the ancient to the modern world, viewing archeology, paintings, sculptures and architecture. Examples of items you will see include the Vénus de Milo, the Noces de Cana, the Mona Lisa, the Radeau de la Méduse and much more.



Tour of the Eiffel Tower and Quai Branly museum

Dates: 31 May – 5 June Times: 08:00 – 15:00 Duration: 7 hours Number of spaces: 60 per session Price: € 179

You will be accompanied by a guide who will tell you many anecdotes about this symbolic spot by when you enter through to the backstage area. You will first enter the former bunker which is hidden under the Champ de Mars. As a special guest, you will be able to go into an impressive elevator room, with its old machinery which still controls the elevators. You will also be able to go to the roof top area of the prestigious restaurant Le Jules Verne and you will discover an exclusive and unique view of Paris. The Quai Branly museum is located near the Eiffel Tower and displays permanent collections and temporary exhibitions on primitive arts. The lunch included in this tour will be at the restaurant Les Ombres located in the terrace of the Quai Branly Museum. From its panoramic terrace you can easily admire the fascinating and beautiful Eiffel Tower and the Seine.



Guided tour of the Musée d'Orsay

Dates: 31 May – 5 June Times: 08:30 - 13:00 and 13:30 - 18:00Duration: $4\frac{1}{2}$ hours Number of spaces: 60 per session Price: €86

Accompanied by a tour guide, we will lead you on a discovery of the Musée d'Orsay's history and permanent exhibition. The museum owns the world's largest collection of impressionist and post-impressionist works, including painting masterpieces such as Edouard Manet's *The Luncheon on the Grass* or *Olympia*, Degas' *The Little Dancer aged Fourteen, A Burial at Ornans, The Painter's Studio* by Courbet as well as *Dance at Le Moulin de la Galette* by Renoir. This delightful museum is a must see for all art lovers during your stay in Paris. This guided tour will allow you to admire the unique architecture of this place, and the timeless works of art exhibited in the spacious halls, which are bathed in natural light.



Tour to wine museum with wine tasting

Dates: 2-5 June Times: 09:00 – 12:30 and 14:00 – 17:30 Duration: $3\frac{1}{2}$ hours Number of spaces: 20 per session Price: €86

Close to the Eiffel Tower in the heart of Paris, the wine museum welcomes you to go back in time, in its 15th century vaulted cellars. The museum's permanent collection, containing 2000 objects and belonging of the Conseil des Échansons in France since 1984, honours all those who have worked to produce wines which are now globally famous. Trades and traditions are discussed, highlighting thousands of years of knowledge and the richness of our heritage. The tour will end with a blindfolded tasting session followed by a reward for the best wine tasters.



VIP lunch cruise on Bateaux Parisiens

Dates: 31 May – 5 June Times: 11:30 – 15:30 Duration: 4 hours Number of spaces: 20 per session Price: €142

Discover the most beautiful spots of Paris during a lunch cruise with a menu that combines traditional and original Parisian cusine. You will be seated at the front of the boat under a glass roof, where you will view stunning views of Paris' monuments. During your time on the boat you will be able to experience the delightful sound of a live pianist and violinist adding to your experience of Paris.



A day at Versailles

Dates: 31 May and 3-5 June Times: 08:30 - 15:00Duration: 7½ hours Number of spaces: 60 per session Price: €185

The Palace of Versailles is one of the most visited monuments due to its flamboyance, excessiveness, and history. Following a tour which takes you through the most beautiful rooms of this royal home, you will visit the private apartments of either the King or Marie Antoinette (according to the day's opening hours) and discover the secrets and unusual side of Versailles. You will then have lunch at the Chez Angelina restaurant: located on the first floor of Pavillon d'Orléans, Chez Angelina has become the Palace of Versailles' gourmet restaurant stop.

CLASSICS



Guided tour of the Opéra Garnier

Dates: 31 May – 5 June Times: 09:00 – 13:00 and 14:00 – 18:00 Duration: 4 hours Number of spaces: 60 per session Price: €49

Led by a tour guide, you will be amazed by its rich architecture, its opulent decor and the variety of materials used for its building. Your tour will begin at the Rotonde des Abonnés (Member's Rotunda) where audiences were once welcomed. You will discover the architect's unique signature amongst the arabesques. The mysterious Pythoness will greet you as you follow the majestic Main Staircase, leading up to the auditorium, private boxes and halls. The many paintings and sculptures make Palais Garnier both a theatre and a museum.



Guided tour of the Rodin Museum and the Invalides

Dates: 31 May and 2-5 June Times: 09:00 - 12:00 and 14:00 - 17:00Duration: 3 hours Number of spaces: 60 per session Price: € 80

Since 1919, the Rodin museum has taken care of the preservation and brilliance of Auguste Rodin's work (1840-1917). The Rodin Museum was created in 1916, on Rodin's initiative. It was built on the site chosen by the sculptor: The Biron Hotel and its garden, built at the start of the 18th century was where Rodin lived as a tenant from 1908. The international fame of this artist, who created universally known sculptures such as *The Thinker*, now an icon of western art, or *The Kiss*, has made this place notorious. In the Hôtel Biron (that will be visited during the tour) and the Villa des Brillants, more than 6,600 sculptures, 8,000 drawings, 8,000 black and white pictures and 7,000 artworks are on show for visitors to view. You will then visit L'hôtel des Invalides, which was commissioned by Louis XIV, to accommodate the injured members of his armies. Today it houses the Musée de l'Armée as well as a military pantheon where many men from the French war are buried, including Napoleon I.



Guided tour of Giverny

Dates: 31 May and 2-5 June Times: 08:30 – 18:00 Duration: 9½ hours Number of spaces: 40 per session Price: €185

A day trip to Giverny to visit the house of the famous artist Claude Monet. This is the place where he devoted himself to his multiple passions: painting, gardening and photography. The property has been transformed into a museum where reproductions of Monet's greatest paintings are exposed. The famous gardens, often used in his paintings were also redesigned. Lunch will be provided at the restaurant of Hotel Baudy, which is located in the town of Giverny and close to the museum. If you visit this town you'll be astonished by this place full of history.



French cookery workshop

Dates: 31 May – 5 June Times: 10:00 – 15:00 Duration: 3 hours (2 hours of cooking / 1 hour of tasting) Number of spaces: 10 per session Price: € 326

This cookery workshop will take place in the heart of St Germain des Prés in a new concept store. Each participant will create a whole meal that they will be able to recreate at home. This class is managed by professional chefs especially trained to involve the participants in the creation process.

The class will be held in English with written recipes to take home.



Guided tour of Montmartre

Dates: 31 May – 5 June Times: 08:30 - 15:00Duration: $6\frac{1}{2}$ hours Number of spaces: 60 per session Price: €86

Experience the cobbled streets of Montmartre: from the prestigious Bateau Lavoir to Emile Goudeau Square and ending at the Jean Marais Passe-Muraille. Take a deep breath and climb up the Abreuvoir Street and Montmartre's vineyards. Leaving the Sacré-Coeur, you will be able to admire a stunning and unique view over the rooftops of Paris. Lunch will be provided at the Chamarré restaurant where you be delighted by the mixed French cuisine with Indian flavours. After lunch you will be able to discover the Chamarré Montmartre on the heights of Montmartre.

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OFF THE PATH



Guided tour of the Marais

Dates: 31 May – 5 June Times: 08:30 - 13:00 and 13:30 - 18:00Duration: $4\frac{1}{2}$ hours Number of spaces: 20 per session Price: € 62

The Marais is one of Paris' oldest and most visually stunning quarters. First developed in the 12th century, the neighbourhood, whose name means "swamp" in French and once was one, went from being a royal favourite under Henry IV and Louis XIII, to falling into ruin after the French Revolution of 1789. Since its revival in the 1960s, it has shone as a center of Parisian artistic and cultural life. It has also been significantly redeveloped, evolving from a mostly working-class and immigrant neighbourhood to one of the most affluent and prestigious areas in the city. This, of course, is not to the liking of all, but whatever your stance, it's undoubtedly made it a stunning place to walk around, eat, drink, and relax. The Marais is one of the only areas that preserves the narrow streets and architectural styles of Medieval and Renaissance eras of Paris. Most of Paris was overhauled in the mid-19th century under the direction of Napoleon III and architect Baron Georges Eugène Haussmann.



Parisian passages and galleries

Dates: 1-5 June Times: 08:30 - 13:00 and 13:30 - 18:00Duration: $4\frac{1}{2}$ hours Number of spaces: 20 per session Price: $\in 62$

At the end of the 18th and beginning of the 19th century numerous covered passages were created in Paris. The passages, mostly shopping arcades covered with glass roofs, were modern symbols of urban life and the place to shop in Paris. Many of these passages were beautifully decorated with mosaic floors, cast iron gates, marble pillars and ornate clocks. Today the passages are home to numerous upscale, quirky and speciality shops. Some, such as the passage Brady and the passage des Panoramas, house plenty of restaurants. Rainy days are ideal for a stroll through some of these historic arcades where you can enjoy the architecture or browse the many boutiques and antique shops while being sheltered from the rain.



Notre Dame, L'Ile Saint Louis

Dates: 31 May – 5 June Times: 08:30 - 13:00 and 13:30 - 18:00Duration: $4\frac{1}{2}$ hours Number of spaces: 60 per session Price: €62

This tour will start with a visit of Notre Dame de Paris cathedral, whose construction stretched

over more than 2 centuries and was completed in 1345. Next will follow a tour of Sainte Chapelle, a gothic jewel built in Saint Louis in the heart of I'lle de la Cité. You will finish by a walk in lle Saint Louis with a break for a tasting at Berthillon, the famous ice cream maker.



Guided tour of the Père Lachaise cemetery

Dates: 31 May – 5 June Times: 09:00 – 13:00 and 14:00 – 18:00 Duration: 4 hours Number of spaces: 60 per session Price: €56

Historic and romantic, the Père Lachaise is the largest cemetery in Paris. Situated in the 20th arrondissement, it is home to many dead key figures, writers, poets, musicians, from Frédéric Chopin to Jim Morrison. During this walk, you will stroll through a maze of walkways, trees and paths, where your guide will show you the most strange and odd gravestones in this beautiful cemetery.



Guided tour of Latin quarter

Dates: 31 May – 5 June Times: 8:30 – 13:30 and 13:30 – 18:30 Duration: 4 hours Number of spaces: 20 per session Price: €60

This left bank walking tour explores the famous Latin Quarter – the land of students for 1,000 years, and possibly the world's single greatest source of artistic inspiration – from Picasso to Woody Allen to Jack Kerouac, and from Hemingway to Cyrano de Bergerac. This Latin Quarter tour is an exploration of old Paris and modern-day Parisians all at once. The tour may end at several spots near Pantheon, depending on the participants' particular interests that day.



Ride in a Citroën 2CV

Dates: 31 May – 5 June Times: 10:00 - 11:00 and 14:00 - 15:00Duration: 1 hour Number of spaces: 18 spaces per session and two people per car Price: $\in 61$

Discover the most beautiful Parisian monuments in a convertible Citroën 2CV with a dedicated driver guide.

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PRESTIGE



Wine and cheese tasting

Dates: 31 May – 5 June Times: 09:00 – 13:00 and 14:00 – 18:00 Duration: 4 hours Number of spaces: 10 per session Price: € 321

Discover the three most famous French ingredients: bread, wine and cheese! You will make a "Tour de France" of the major cheese flavours by learning how the cheeses are manufactured and why they taste so differently. You will taste 5 different cheeses with a selection of handmade artisan bread and two quality wines (directly coming from the vineyards) in order to discover the best combination.



Cookery class with Alain Ducasse

Dates: 2-5 June Times: 08:00 - 14:00 and 13:00 - 19:00Duration: 6 hours Number of spaces: 10 per session Price: € 358 (2 options)

Cooking class and lunch (08:00 - 14:00)

A 90 minutes cooking class given by an English speaking chef followed by a 3 course lunch including drinks. Theme of the class: Cooking discovery.

Cooking class and tasting (13:00 - 19:00)

A 90 minutes cooking class given by an English speaking chef, followed by a tasting session. Theme of the class: Finger food.

Location of both classes: Ecole de Cuisine Alain Ducasse (Paris 16th arrondissement).



Garden party at a wine estate

Dates: 31 May – 5 June Times: 10:00 – 16:00 Duration: 6 hours Number of spaces: 40 per session Price: €408

A garden party in the middle of vineyards, located in a private mansion on the edge of the Bois de Boulogne. A unique opportunity to experience a moment of refinement. After being welcomed by the owner, you will visit his vineyards and you will taste several wines. After the tasting, lunch will be prepared in the French tradition by the Chef of the Domaine. This vineyard is the last vineyard (with Montmartre's vineyard) still existing in Paris.



The Champs Elysées district

Dates: 31 May – 5 June Times: 08:00 - 13:00 and 13:00 - 18:00Duration: 5 hours Number of spaces: 15 per session Price: €222

A discovery of the most beautiful avenues in the world: its history, famous hotels, palaces, malls, legendary spots. You will visit, Mansions (La Paiva), Mythical places (Studio Harcourt, Artcurial, Christie's), Legendary cafés (Fouquet's), famous jewelers (Cartier, Tiffany's), Avenue Montaigne and famous brands, and the Petit and Grand Palais. Tasty break at Ladurée included.



Tour of a haute couture designers workshop – by Ana Couperie-Eiffel

Dates: 1-5 June Times: 09:00 - 12:30 and 14:00 - 17:00Duration: $3\frac{1}{2}$ hours Number of spaces: 4 per session Price: $\in 222$

During this tour of Paris haute couture you will experience a secret Paris, witness to a globally known art of French living, and rich in a teaching which honours the skill of the hand. See the reality of handmade luxury with its rare and ancestral knowledge. Venture into a Paris which is sometimes off the tourist tracks, and be surprised by its authenticity!



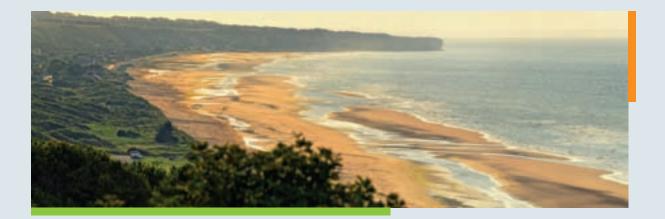
Tour of the fashion houses (by appointment only)

Dates: 1-5 June Times: 09:00 – 13:00 and 14:00 – 17:00 Duration: 4 hours Number of spaces: 4 per session Price: €222

An exclusive tour by appointment of the French fashion houses: Hermès, Goyard, Chanel or

Balenciaga. Depending on the schedule, you can visit up to two design houses in the morning or afternoon, to have enough time to fully enjoy your visit.

After the WGCPARIS2015 conference should you wish to explore more of what France has to offer, there are a number of tours which you can choose from that can be tailored to your needs in terms of the duration of the tour and type of travel. Further information on these tours can be found below. To book a tour please visit www.wgc2015.org



Normandy's landing beaches

Price: From €300 per person depending on how you tailor your trip. Please contact the WGCPARIS2015 tours team for more information and confirmation of price Languages: English and French

On the 6 June 1944, during the Second World War, allied forces landed on the Normandy coast to begin the liberation of France.

During this trip you will relive the great events of the Battle of Normandy. You will visit the main beaches where the never to be forgotten battles took place: Omaha Beach, Pointe du Hoc, Juno Beach. Your guide will also take you to the Mémorial de Caen as well as to the Cimetière de Colleville sur Mer.

If you want to extend your stay, the second day will be spent discovering two iconic places on the Normandy coast: Deauville and Honfleur. This trip leaves from Paris in either a private car or minibus depending on the number of participants. It can be taken as a one day (return to Paris) or two day trip.

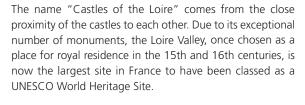
- Transfer to and from Paris
- Optional overnight hotel stay
- Tour of Mémorial de Caen
- Tour of Pointe du Hoc (landing site of the US Rangers)
- Tour of the American cemetery at Colleville sur Mer
- Stop at Omaha Beach
- Lunch in a restaurant near Arromanches
- Visit to Juno Beach and the Mur de l'Atlantique ruins
- Tour of Honfleur
- Transfer to Deauville for lunch
- Tour and free time in Deauville



Castles of the Loire

Price: From €350 per person depending on how you tailor your trip. Please contact the WGCPARIS2015 tours team for more information and confirmation of price Languages: English and French

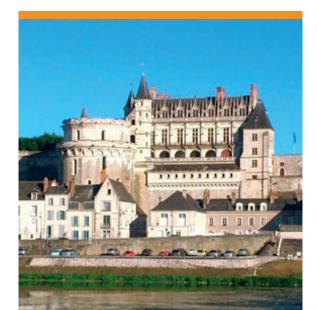
The Loire Valley's castles are renaissance masterpieces which mix art and history with the easy-going way of life in this, and each can be referred to as a "Garden of France". Each of the Loire castles that you will visit display technical and architectural expertise as well as beauty: Château de Chambord with its 426 rooms and 282 chimneys and Château de Chenonceau which spans the River Cher. All are surrounded by superb scenery and exceptional gardens.



This trip leaves from Paris in either a private car or minibus depending on the number of participants. It can be taken as a one day (return to Paris) or two day trip.

Tour schedule could include:

- Transfer to and from Paris
- Optional overnight hotel stay
- Tour of the Château d'Amboise
- Lunch in a restaurant near the Château d'Amboise
- Tour of Château de Cheverny and its gardens
- Tour of Château de Chambord



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Mont Saint Michel

Price: From €350 – €650 per person depending on how you tailor your trip. Please contact the WGCPARIS2015 tours team for more information and confirmation of price Languages: English and French

During this trip we will take you to Mont Saint Michel, situated in the middle of a huge bay in Normandy, which is affected by the highest tides in Europe. Mont Saint Michel is the most visited tourist site in Normandy due to its architecture and surrounding bay.

It was classed as a historical monument in 1874 and has been on the list of UNESCO World Heritage Sites since 1979. Built on the sand, Mont Saint Michel was one of the most amazing creations of the middle ages. You will be amazed by the sight of the monastic architecture, which seems to rise up out of the sea. Throughout this trip you can also discover the medieval town, the Mont Saint-Michel Abbey, a pilgrimage site in the middle ages, and all the places which have made this site famous. If you wish to extend your stay, the second day will be spent discovering the landing beaches.

- Transfer to and from Paris
- Optional overnight hotel stay
- Guided tour of the abbey
- Lunch in a restaurant in Mont Saint Michel
- Free time for a walk on the battlements and through the village
- Tour of Mémorial de Caen
- Tour of Pointe du Hoc (landing site of the US Rangers)
- Tour of the American cemetery at Colleville sur Mer
- Stop at Omaha Beach
- Lunch at a restaurant near Arromanches
- Visit to Juno Beach and the Mur de l'Atlantique ruins





Burgundy

Price: From €400 – €650 per person depending on how you tailor your trip. Please contact the WGCPARIS2015 tours team for more information and confirmation of price Languages: English and French

Burgundy is one of France's most famous regions. It is best known worldwide for its rich land and excellence as a winegrowing region, producing legendary crus such as Romanée Conti, Clos de Vougeot or Grands-Échezeaux, not forgetting the Chardonnay from around Chablis.

In ancient times, this excellence was noted by the Romans, who ripped up some of the vines and forbade any new plantations, as the French wine was competition for their own wines. During the 5th century invasions, the Burgondes came from the Baltic coast and settled in the plain of the River Saône and its surrounding areas. The spread of Christianity resulted in the vineyards being replanted, with large estates being created around abbeys. The abbeys which saw the most development were Cluny, Clairvaux, and of course Vézelay, from where the call for crusade was made. Today, the beauty of the landscape, and the colours of the vines in autumn give this region the name the "Gold Coast". This trip leaves from Paris in either a private car or minibus depending on the number of participants. It can be taken as a one day (return to Paris) or two day trip.

- Transfer to and from Paris
- Optional overnight hotel stay
- Tour of Château de Bazoches
- Tour of the Sainte Madeleine basilica in Vézelay
- Lunch in Vézelay
- Tour of a wine cellar followed by wine tasting in Chablis



Champagne region and Reims

Price: From €300 per person depending on how you tailor your trip. Please contact the WGCPARIS2015 tours team for more information and confirmation of price Languages: English and French

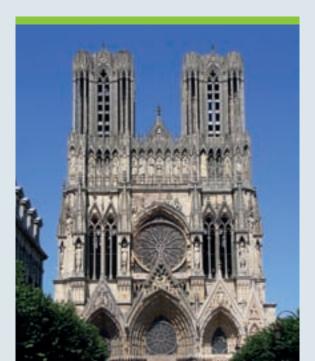
The Champagne region has been inhabited since Neolithic times. At the heart of the region is the town of Reims, where many French kings were crowned in its cathedral. A masterpiece of gothic art, the 800 years old Notre Dame cathedral was listed as a UNESCO World Heritage Site, outdoing many others with its 2,303 statues, including the famous Smiling Angel, which is the town's emblem. In 1974 new stained glass windows were installed, designed by Marc Chagall.

Champagne is the other jewel in Reims' crown. The famous wine was born in the 17th century when sparkling wine was first produced, by the monk Dom Pérignon among others. The champagne houses helped it to become the drink of kings, the drink for celebrations, and a worldwide symbol of French spirit through its many famous brands.

Not to be missed are also the towns of Épernay and Aÿ, home to the prestigious Deutz cellars, created in 1983 by William Deutz and Pierre-Hubert Geldermann.

This trip leaves from Paris in either a private car or minibus depending on the number of participants. It can be taken as a one day (return to Paris) or two day trip.

- Transfer to and from Paris
- Optional overnight hotel stay
- Tour of the Cathédrale de Reims
- Minibus drive to Epernay, along the "champagne route"
- Lunch in Epernay
- Private tour of a prestigious cellar





French Riviera

Price: From €350 - €600 per person depending on how you tailor your trip. Please contact the WGCPARIS2015 tours team for more information and confirmation of price Languages: English and French

Everyone should visit Monaco at least once in their life. This fabulous place nestled between the Alps and the velvet blue Mediterranean is almost too good to be true. It is a modern town, a place of economic prosperity, bustling tourism, and real estate, but it is also a traditional town with vintage postcard glamour. The Principality of Monaco is known for its luxury, outstanding celebrations, gambling, the jet-set life style and designer brands.

During this Monacan getaway you can discover its historical center, the famous "Rocher" with its narrow streets and its cathedral, as well as the Palais Princier. Lunch is followed by a sunny walk along the quays of Port Hercule to Place du Casino where you will find many of the biggest French and international stores. Then enjoy a bit of free time, discovering the town's boutiques, gardens and unique atmosphere.



We suggest extending your stay until the next day so that you can enjoy a drive along the small, breathtakingly high roads around the Mediterranean shores, and then visit the medieval town of Eze. Tour this unique village, perched high above the sea, featuring an unmissable stop at the headquarters of the Fragonard perfumery. Return along the coast to Nice to visit the famous "Promenade des Anglais", and the city's historical center.

This trip leaves from Paris (by plane). It can be taken as a one day (return to Paris) or two day trip.

- Transfer to and from Paris
- Optional overnight hotel stay
- Arrive at Nice, transfer journey to Monaco
- Tour of Rocher(Palais Princier, old town, cathedral, Oceanographic museum)
- Lunch
- Tour of the town (Place du Casino, Port Hercule)
- Free time
- Tour of Eze village and the Fragonard perfumery
- Lunch
- Museum between Monaco and Nice: Villa Ephrussi de Rothschild at St Jean Cap Ferrat
- Tour of Nice old town

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Post conference tours

Please contact the 'Come to Paris' team on their website: www.wgc2015.cometoparis.com/post_tours



NOTES WGCPARIS2015





DETAILED TECHNICAL PROGRAMME

Meeting Room	Palais des Sports	Notre Dame – Room Number 7	Tour Eiffel – Room Number 3	Concorde – Room Number 4	Invalides – Room Number 2	Louvre – Room Number 6	Opéra – Room Number 8	Sacré Cœur – Room Number 5
				MONDAY 1 JUNE				
20:00 - 23:00	Welcome gala reception –							
	Grand Palais			TUESDAY 2 JUNE				
08:30 - 10:00	Opening ceremony			TUESDAT Z JUNE				
10:10 – 10:15	, , ,			Coffee	Break			
10:15 – 11:15	КА							
11:30 - 12:00	Exhibition opening							
12:15 – 13:45	LA – Parvis – Pavillon Officiel							
14:00 – 15:00	KA							
15:15 – 16:45	SP 1. T 3 Political leaders, industry, insitutions and NGO's geopolitical debate	SP 2. WOC 1 Gas flaring and venting reduction	SP 3. PGC B 2050 prospective study	SP 4. PGC A Life Cycle Assessment (LCA): a tool for decision makers				
16:45 – 17:00				Coffee	Break			
17:00 – 18:30		TS. PGC B-1 World gas outlooks for 2035	TS. WOC 3-3 & PGC E-3 Public acceptance of natural gas projects	TS. WOC 4-1 Third party access to gas distribution networks: could it bring benefits to the parties involved in the gas chain?	TS. PGC A-1 Carbon Capture and Storage (CCS) development and perspectives for a sustainable gas industry	TS. T 3-1 Geopolitics and energy security	TS. PGC F-1 Global partnering in energy innovation – effective collaboration	TS. WOC 5-4 Technology and economic aspects for power to gas and upgrading of biogas to natural gas quality
				WEDNESDAY 3 JUN	E			
08:30 - 10:00		TS. T 2-1 The role of natural gas in power generation	TS. WOC 1-5 Gas on gas competition and upstream investment	TS. WOC 3-2 Pipeline integrity management systems	TS. PGC D-2 The role of LNG as the alternative fuel	TS. PGC F-2 Convergence of gas appliances and infrastructure with electric systems and renewable energy	TS. WOC 5-5 Gas quality, a growing concern for the end user?	TS. WOC 2-1 What is ahead of us? General trends and perspectives for UGS
10:00 - 10:30				Coffee	Break			
10:30 – 12:00	КА							
12:15 – 13:45	LA – Parvis – Pavillon Officiel							
14:00 – 15:00	КА							
15:15 – 16:45	SP 5. T 2 How natural gas can raise its voice	SP 6. PGC D LNG a key factor	SP 7. WOC 5 Natural gas transportation roundtable	SP 8. WOC 4 & PGC F Smart energy systems in a sustainable future				
16:45 – 17:00				Coffee	Break			
17:00 – 18:30		TS. PGC B-3 Strategy and regulation	TS. PGC E-2 Effective gas marketing and lessons from other industries	TS. PGC D-1 Remote LNG	TS. WOC 5-3 Natural gas vehicles: the sustainable road towards a clean planet	TS. PGC A-2 The economic, environmental and social aspects of renewable gas	TS. WOC 4-2 Evolution into a lower carbon gas future: managing the diversification of gas quality	TS. WOC 1-3 Fiscal regimes for the production of conventional and unconventional gas
				THURSDAY 4 JUNE				
08:30 - 10:00		TS. PGC B-2 Wholesale gas price formation	TS. PGC D-3 Challenges and opportunities of small scale LNG	TS. WOC 4-3 Towards smart distribution gas grids: why and how?	TS. WOC 1-1 Technological advances in gas exploration and production	TS. PGC A-3 Opportunities and challenges of Life Cycle Assessment (LCA) applied to the natural gas industry	TS. PGC-1 The role of natural gas in the electricity generation mix	TS. T 2-2 Relationship between coal and gas
10:00 – 10:30				Coffee	Break			
10:30 - 12:00	КА							
12:15 – 13:45	LA – Parvis – Pavillon Officiel							
14:00 – 15:00	KA							
15:15 – 16:45	SP 9. PGC C & T 3 Gas development in emerging countries	SP 10. WOC 1 & PGC A Unconventional gas	SP 11. T 1-1 Human capital strategy for the future	SP 12. PGC F The role and impact of innovation in the gas industry				
16:45 – 17:00				Coffee	Break			
17:00 – 18:30		TS. PGC E-1 Additional uses for gas, how do we go beyond gas to power?	TS. WOC 1-2 Natural gas available everywhere: An assessment of global resources and reserves	TS. WOC 3-1 New transmission projects	TS. WOC 5-2 Heating and power production technologies in the residential and small commercial environment	TS. T 1-2 Battle for talent	TS. WOC 2-2 Innovations and new technologies: can the UGS industry take/do more?	TS. PGC C-2 Implications of developing unconventional gas
				FRIDAY 5 JUNE				
08:30 – 10:00		TS. PGC A-4 Environmental aspects of unconventional gas	TS. WOC 2-3 Increasing attractiveness of gas storages: what shall be done?	TS. T 3-2 Corporate behaviour in the political arena	TS. WOC 5-1 Natural gas as a leading fuel for efficient industry growth	TS. WOC 1-4 Technologies for the monetisation of gas reserves	TS. PGC D-4 The role of LNG in sustainability and environmental quality	TS. WOC 3-3 New technologies for transmission systems
10:00 – 10:30				Coffee				
10:30 – 12:00	SP 13. T 1-3 Women's place in the gas industry	SP 14. PGC E Gas communication	SS 1. CC IGU Global Gas Awards & Best Practice Awards					
12:15 – 13:45	LA – Parvis – Pavillon Officiel							
				SS 2. CC		KEY KA Keynote Address SP	Strategic Panel TS Thematic Ses	sion
14:00 – 15:30				TWP 2015-2018		LA Luncheon Address SS	Special Session WOC Working Con	
16:00 - 17:00		Closing of youth programme				PGC Programme Committee T	Task Force	
17:15 - 18:30	Closing ceremony							
18:45 – 22:00	Farewell party							

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