

WORLD GAS CONFERENCE 2009
SPECIAL SESSION ON TWP 2009-2012
9 October 2009, Buenos Aires





AGENDA



- Introduction to the Malaysian Triennium
- Presentation on the Theme, Strategic Guidelines and main highlights of the Triennial Work Programme
- Work Programme of Technical Committees
- Task Forces – Special Projects
- Presentation on the 25th World Gas Conference



THE MALAYSIAN PRESIDENCY IS OFF TO A FLYING START



Our office situation opposite the KL Convention Centre:

Level 20, Tower 1, Etika Twins,
11 Jalan Pinang
50450 Kuala Lumpur,
MALAYSIA

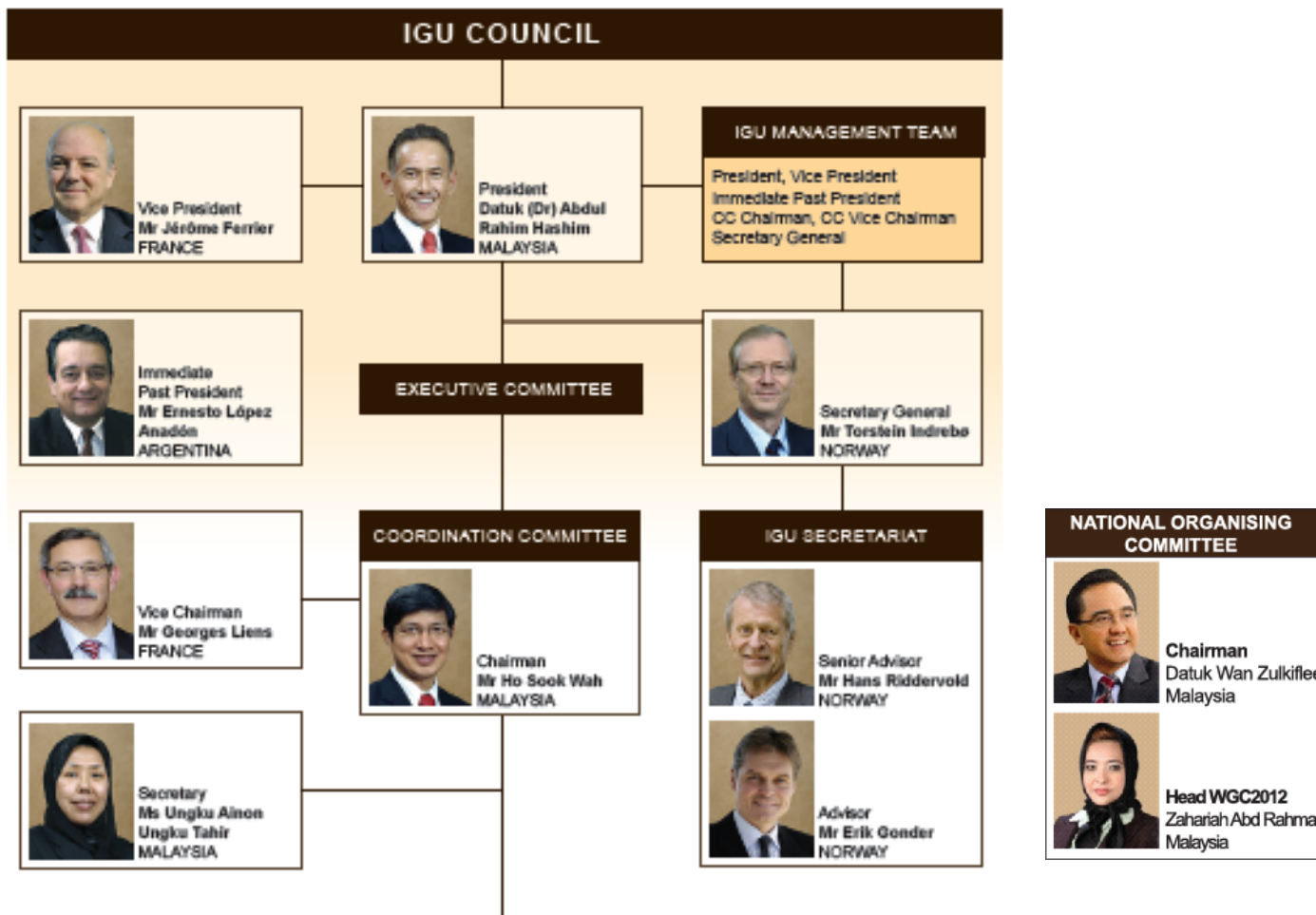


Our family has grown to
36 staff

Comprising of:
25 NOC
4 CC
7 MGA



KEY AUTHORITIES – 2009-2012



Milestones of 2009-2012 TWP Preparation

Date	Key Activities	Venue
Sept. 2006	<ul style="list-style-type: none"> 1st Workshop to discuss Theme, Key Issues and Challenges. 	Kuala Lumpur
Aug. 2007	<ul style="list-style-type: none"> 2nd Workshop to draft Theme and Strategic Guidelines. Forum on “Prospects for Gas in Asia – Issues, Challenges and Opportunities”. 	Kuala Lumpur
Jan. 2008	<ul style="list-style-type: none"> Finalisation of Theme and Strategic Guidelines 	
Sept. 2008	<ul style="list-style-type: none"> Approval of Theme and Strategic Guidelines by IGU Council in Gyeongju, Korea 	Gyeongju
Feb. 2009	<ul style="list-style-type: none"> 1st Incoming CC meeting. Decide on the Study Topics for the Committees. 	Kuala Lumpur
June 2009	<ul style="list-style-type: none"> Approval by IGU Executive Committee 2nd Incoming CC Meeting 	London
October 2009	<ul style="list-style-type: none"> Approval by IGU Council Presentation to WGC 2009 3rd CC meeting 	Buenos Aires



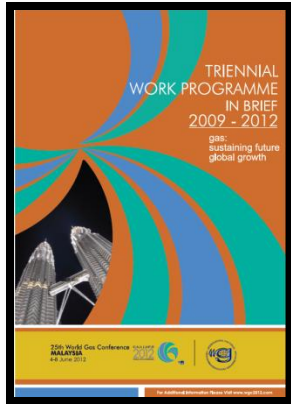
AGENDA



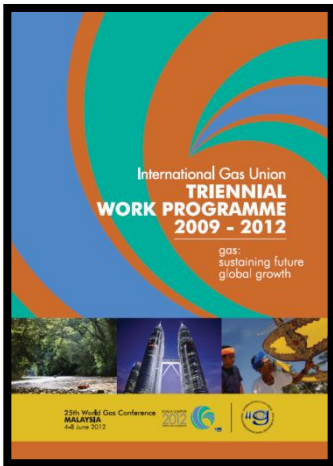
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THE TWP DOCUMENT COMES IN 2 VERSIONS



1) TWP in brief (available to all delegates)



2) TWP (full version) in booklet
(Limited copies – upon request)



GAS : SUSTAINING FUTURE GLOBAL GROWTH

- Gas plays a vital role in meeting the world's expanding energy needs, while helping to cut greenhouse gas emissions.
- The challenges facing the industry include:
 - Continue to position gas as the fuel of choice
 - Maximise value from the depleting resource
 - Provide for future sustainability from the economic, social, technical and environmental aspects in order to contribute to global economic growth.

- 1) Enhance the role of gas for sustainable development and balancing the needs of all stakeholders
- 2) Improve availability of gas and access to markets
- 3) Maximise efficiency throughout the expanding gas value chain
- 4) Ensure adequate human capability to enable growth and integrity of the industry

1) Enhance the role of gas for sustainable development and balancing the needs of all stakeholders

- Natural gas is in a strong position as the fuel of choice towards a sustainable energy future.
- Strong interplay with cost/price, availability/reliability, environmental impact of other primary fuels.
- Enhance role of gas to achieve security of energy supply, promote economic performance and mitigate climate change.
- Address stakeholder needs.

2) Improve availability of gas and access to markets

- Access to upstream supplies
- Access to downstream markets
- Unconventional gas supplies
- New technologies, collaboration, investment climate, regulatory regime

3) Maximise efficiency throughout the expanding gas value chain

- Expansion of the use of natural gas at the end user
- Efficient usage throughout the value chain
- Energy policies, regulation, gas pricing, risk management
- Technical innovation
- Optimisation of efficiency – imperative to sustainable growth



THE STRATEGIC GUIDELINES

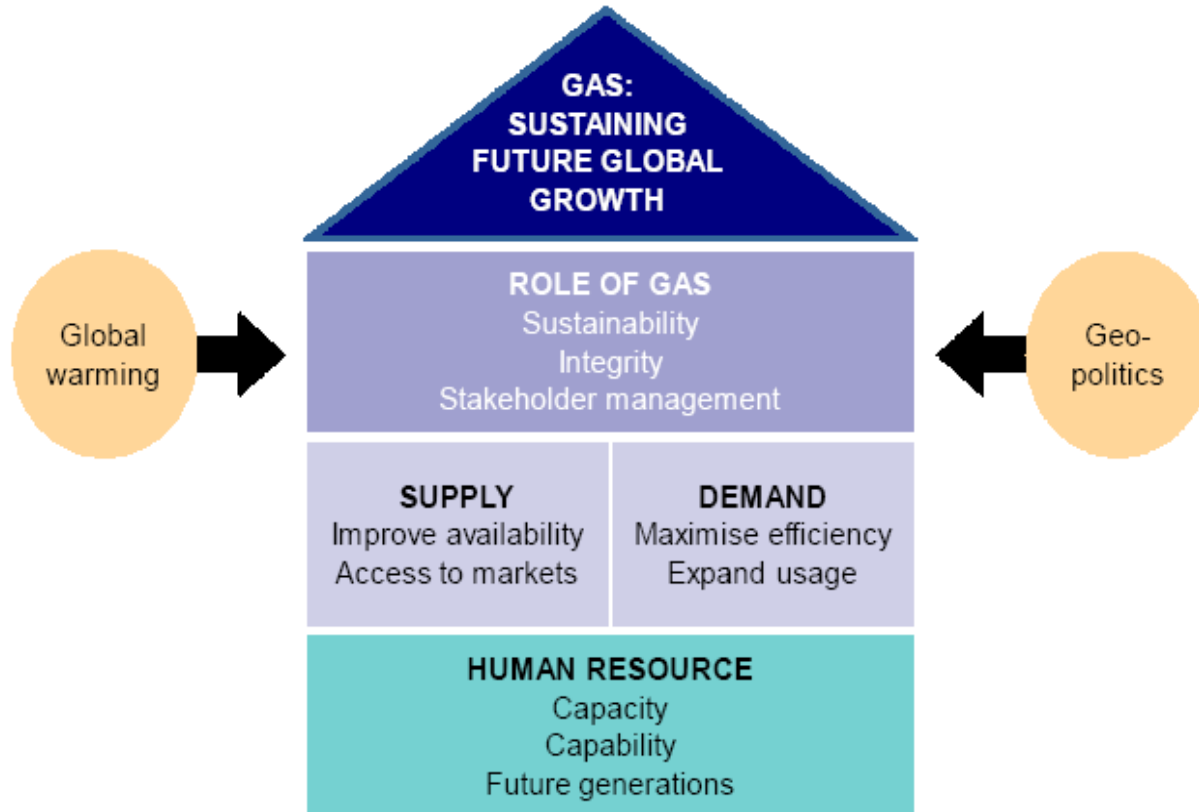


4) Ensure adequate human capability to enable growth and integrity of the industry

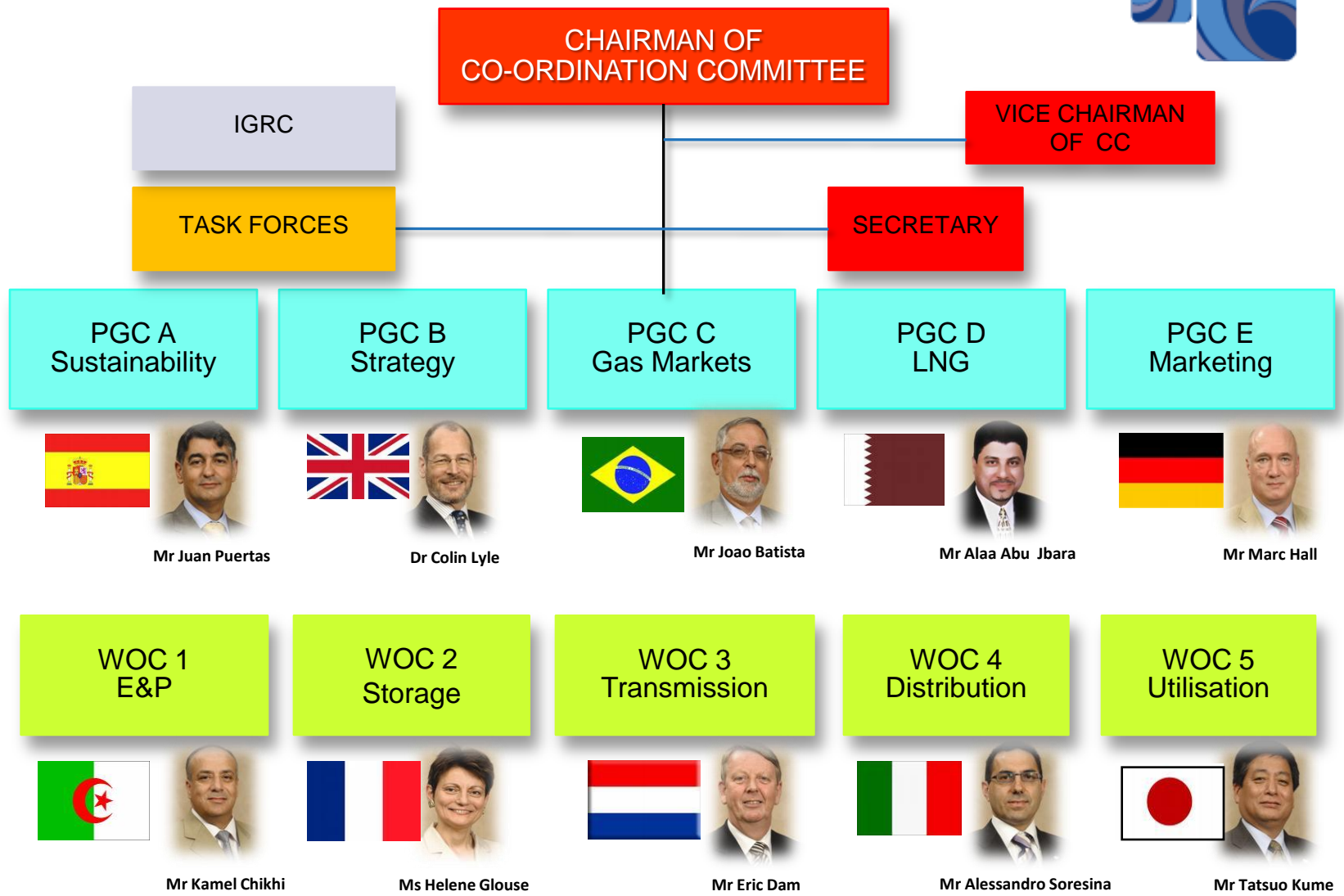
- Building of sufficient human resource capacity
- Development of talent across the value chain
- Attraction and retention of skilled manpower
- Nurturing the future generations towards the energy industry



THE STRATEGIC FRAMEWORK



COMMITTEE STRUCTURE 2009-2012





TASK FORCES – SPECIAL PROJECTS



Building Strategic Human Capital

To understand the key issues impacting the attraction and retention of talent in the gas industry and develop a strategic approach to human capacity building to ensure sufficient capable manpower are available at the right time and place for the future sustainability and integrity of the gas industry.

Nurturing Future Generations

To develop a comprehensive approach to nurture the future generations towards the energy industry and to implement specific programs to address the Youth during the 2009-2012 triennium and WGC.

Geopolitics in Natural Gas

To understand and examine the interplay between economic and political factors in the development of Natural Gas resources and analyse the political challenges, issues and consequences that accompany a shift to a more gas-intensive world.



TASK FORCES – KEY AUTHORITIES



Building Strategic Human Capital



Chair

Ms Ieda Gomes
UK



Vice Chair

Mr Rod Kenyon
UK

Nurturing Future Generations



Chair

Ms Soh Mey Lee
Malaysia



Vice Chair

Ms Agnes Grimont
France



Geopolitics in Natural Gas



Chair

Mr Mel Ydreos
Canada



Vice Chair

Mr Geert Greving
The Netherlands





SUMMARY OF TWP



Total of 32 topics/Study Groups

Committee	Study Group	Topic
WOC1	SG 1.1	Recent Advances in Exploration and Production of Natural Gas
WOC1	SG 1.2	Most significant E&P New Gas Projects
WOC2	SG 2.1	Updating and improving UGS Database and promoting it as a reference
WOC2	SG 2.2	Definition of some best practices in UGS operations and design
WOC2	SG 2.3	Skills and competencies for UGS activities
WOC3	SG 3.1	Strategic gas transmission infrastructure project
WOC3	SG 3.2	Integrity of gas transmission system and environmental footprint reduction
WOC3	SG 3.3	Securing sufficient expertise to operate gas transmission systems safely and adequately
WOC4	SG 4.1	Gas Distribution Safety Management System
WOC4	SG 4.2	Smart metering system: characteristics, technologies and costs
WOC4	SG 4.3	Unaccounted For Gas: Identification, measurement, calculation and management
WOC5	SG 5.1	Industrial utilisation
WOC5	SG 5.2	Domestic and commercial utilisation
WOC5	SG 5.3	Natural Gas Vehicles (NGV)
PGCA	SG A.1	Sustainability and investment
PGCA	SG A.2	Integrating other gases into the natural gas grid
PGCA	SG A.3	Reduction of gas emissions (A comprehensive industry guide)



SUMMARY OF TWP



Committee	Study Group	Topic
PGCB	SG B.1	World gas supply, demand and trade
PGCB	SG B.2	Wholesale gas price formation
PGCB	SG B.3	Corporate strategy and regulation
PGCC	SG C.1	Gas markets in ASEAN and NE Asia
PGCC	SG C.2	Gas markets in North America
PGCC	SG C.3	Gas markets in Europe and Russia
PGCD	SG D.1	Enhance terminal compatibility
PGCD	SG D.2	Penetrate new markets for LNG
PGCD	SG D.3	Enhance efficiency in LNG value chain
PGCE	SG E.1	Natural Gas and renewables
PGCE	SG E.2	Marketing campaigns
PGCE	SG E.3	Image of Natural Gas
TF 1	Special Project	Building Strategic Human Capital
TF 2	Special Project	Nurturing the Future Generations
TF 3	Special Project	Geopolitics of Natural Gas



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2009-2012 Triennial Work Programme

Working Committee 1 (WOC1) Exploration & Production



Buenos Aires, 9 October 2009



WOC 1 - Exploration & Production

Study Group	Topic
SG 1.1	Recent advances in Exploration and Production of Natural Gas
SG 1.2	Most significant E&P new gas projects



Working Committee 1 – E&P Study Groups - Topics

Study Group 1.1: Recent advances in exploration and production of natural gas

Scope and Purpose:

- Resources and reserves assessments
- Exploration & Discoveries trends
- New and frontier exploration areas
- Recent gas development technologies and standards

Working Committee 1 – E&P Study Groups - Topics

Study Group 1.2: Most significant E&P new gas projects

Scope and Purpose:

- Identification and review of significant gas projects in terms of technology, reserves, impact on regional and global gas industry
 - Conventional Gas Projects: Projects located in the vicinity of regional consumption areas and remote areas Projects
 - Unconventional Gas Projects: Tight gas, Shale gas, Coal Bed Methane (CBM) and Acid gas
 - Update of methane hydrates gas projects
 - Mapping of CO₂ sequestration alternatives linked with current projects (in co-ordination with WOC2)



WOC 1 – E&P Key Authorities

Chair : Kamel Eddine Chikhi



Vice-Chair: Marcio Felix Carvalho Bezerra



Secretary: Ilhane Dib



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Up NextWOC2

KUALA LUMPUR
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4-8 June 2012
Kuala Lumpur
Malaysia



2009-2012 Triennial Work Programme

Working Committee 2 (WOC2) Gas Storage



Buenos Aires, 9 October 2009



WOC 2 - Storage

Study Group	Topic
SG 2.1	Updating and improving UGS Database and promoting it as a reference
SG 2.2	Definition of some best practices in UGS operations and design
SG 2.3	Skills and competencies for UGS activities

Working Committee 2 – Storage Study Groups - Topics

Study Group 2.1: UGS Database

Scope and Purpose:

- Follow-up of the update of the existing database compiling both existing UGS and projects
- Collaboration with international organisations such as Gas Storage Europe or United Nations Economic Commission for Europe
- Analysis of the database to draw major trends in UGS developments

Working Committee 2 - Storage Study Groups - Topics

Study Group 2.2: Best practices in UGS operation and design

Scope and Purpose:

- Definition of best practices among dedicated fields of expertise:
 - Methane emissions
 - Methanol/glycol consumption
 - Gas conditioning
 - Well integrity assessment
 - Checking gas inventory
 - Input data for storage geological models
 - Content of safety and environmental report for permit allocation
- Collaboration with PGC A - Sustainability

Working Committee 2 - Storage Study Groups - Topics

Study Group 2.3: Skills and competencies for UGS activities

Scope and Purpose:

- Description of skills, know-how and profiles of professionals requested
- Assessment of the number of professionals needed
- Review of the most relevant educational programs and degrees
- Organisation of training programmes and student exchanges
- Contribution to the work of Task Force 1 “Building Strategic Human Capital”



WOC 2 - Storage Key Authorities

Chair : H el ene Giousse, France



Vice-Chair: Ladislav Goryl, Slovakia



Secretary: Madeleine Lafon, France



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Up NextWOC3

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4-8 June 2012
Kuala Lumpur
Malaysia



2009-2012 Triennial Work Programme

Working Committee 3 (WOC3)

Gas Transmission



Buenos Aires, 9 October 2009



WOC 3 – Gas Transmission

Study Group	Topic
SG 3.1	Strategic gas transmission infrastructure projects
SG 3.2	Integrity of gas transmission systems and environmental footprint reduction
SG 3.3	Securing sufficient expertise to operate gas transmission systems safely and adequately

Working Committee 3 – Transmission Study Groups - Topics

SG 3.1: Strategic Gas Transmission Infrastructure Projects

Scope and Purpose:

To share lessons learned and practices from strategic gas infrastructures projects and the construction of pipelines under extreme conditions. .

These covers:

- Cross border pipeline systems:
 - Inquiry into existing and new planned systems
 - Investigation into experiences of planning, construction and operating .
- Pipelines under extreme conditions:
 - Investigation into experiences, codes applied, practices and problems in constructing pipelines
 - List of do's and don'ts



Working Committee 3 – Transmission Study Group - Topics

SG 3.2: Integrity of Gas Transmission Systems and Environmental Footprint Reduction

Scope and Purpose:

- Undertake Investigation into the most important threats to the integrity of pipelines and obtain more insight into the effectiveness of the threats reducing measures
- Investigate whether the national and international safety and environmental regulations are issued by authorities alone or in close cooperation with gas transmission companies
- Investigate the societal responsibility of gas transmission companies to measure environmental footprint and initiated actions to reduce emissions.

Working Committee 3 – Transmission Study Group - Topics

SG 3.3: Securing Sufficient Expertise to Operate Gas Transmission Systems Safely and Adequately

Scope and Purpose:

Qualified expertise is becoming in short supply for the purpose of operating and maintaining gas transmission systems safely and adequately. This study will examine the following issues:

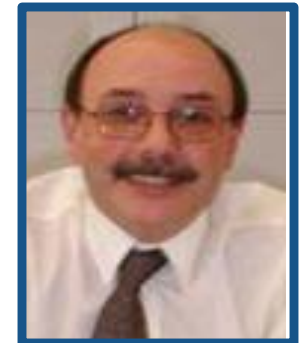
- How to determine the required expertise level of personnel?
- Other organizational models necessary to provide for this scarcity?
- Do we need other equipment or systems that require less expertise?
- Does ageing of gas transmission systems require more personnel and other expertise?

WOC3 - Transmission Key Authorities

Chair : Eric Dam, The Netherlands



Vice-Chair: Jorge Bonetto, Argentina



Secretary: Robert Badoux, The Netherlands



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Up NextWOC4

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Malaysia



2009-2012 Triennial Work Programme

Working Committee 4 (WOC 4)

Distribution



Buenos Aires, 9 October 2009



WOC4 – Distribution

Study Group	Topic
SG 4.1	Gas Distribution Safety Management Systems
SG 4.2	Smart metering systems: characteristics, technologies, costs
SG 4.3	Unaccounted For Gas: identification, measurement, calculation and management

Working Committee 4 - Distribution Study Groups - Topics

Study Group 4.1: Gas Distribution Safety Management Systems

Scope and Purpose:

This study will review processes and methodologies used to develop safety strategies for managing gas distribution pipeline systems. This covers:

- Evaluation and recommendation in the following areas:
 - Identification of ingredients and milestones of a management system devoted to safety
 - Identification of KPIs related to safety management
 - Definition of a set of units to measure KPIs
 - Influence of regulation and legislation
 - The possibilities and role of certification
- Drawing the basic steps to implement a Safety Management System and a list of main KPIs and relative set of units.



Working Committee 4 - Distribution Study Groups - Topics

Study Group 4.2: Smart metering systems: characteristics, technologies, costs

Scope and Purpose:

- The study will undertake a review of smart metering systems in gas distribution systems including:
 - Identification of operations that can be included in smart metering
 - Review of smart metering technologies and smart index solutions available
 - Identification of best practices
 - Availability and applicability of cost/benefit calculations
 - Added value for distribution operators and/or commodity business
- The study will set a list of operations that can be included in smart metering and draw a basic cost/benefit calculation model to be used by distribution companies to evaluate the opportunity of introducing smart metering systems in their networks.

Working Committee 4 - Distribution Study Groups - Topics

Study Group 4.3: Unaccounted For Gas: identification, measurement, calculation and management

Scope and Purpose:

- This study will address the concept of UFG including:
 - Definition of UFG
 - Identification of main components of UFG
 - Definition of a set of units to measure or calculate UFG
 - Review approaches adopted for the management of UFG (technical and commercial)

- The study will design a tool that can be used by distribution companies to approach measurement or calculation of UFG in their distribution networks



WOC4 - Distribution Key Authorities

Chair:

Alessandro Soresina, Italy



Vice-Chair:

Dietmar Spohn, Germany



Secretary:

Mario Pelizzoli, Italy



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Up NextWOC5

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2009-2012 Triennial Work Programme

Working Committee 5 (WOC5)

Gas Utilization



Buenos Aires, 9 October 2009



WOC5 – Gas Utilisation

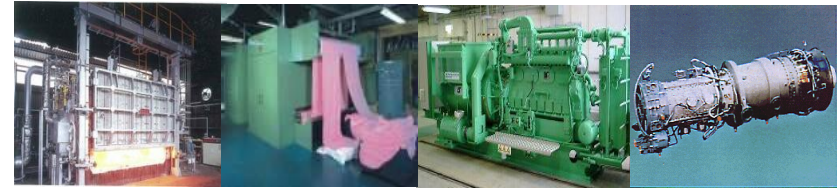
Study Group	Topic
SG 5.1	Industry Utilisation
SG 5.2	Domestic and Commercial Utilisation
SG 5.3	Natural Gas for Vehicles

Working Committee 5 – Utilization Study Groups - Topics

Study Group 5.1: Industry Utilization

Scope and Purpose:

- Significant energy saving by natural gas (case study)
- Harmonizing biogas and natural gas for the benefit of customers and gas industries.
 - **Continue the investigation of the biogas utilization by industrial customers**
- Investigating new technologies to promote gas sales.
 - **Gas cooling for process and flame- less combustion technology etc.**
- Integrating information of successful CHP by Industrial customers
- Impact of quality variation on gas utilization
- Methods to control calorific variation at the customers



Working Committee 5 – Utilization Study Groups - Topics

Study Group 5.2: Domestic & Commercial Utilization

Scope and Purpose:

- Investigating DG Micro co-generation, opportunities and challenges
- Investigating new innovative appliances
 - **Future residential units providing pleasant living environment eco-friendly lifestyles**
- Realizing harmonious coexistence of gas with renewables;
 - **Solar heat, solar power, geo thermal heat pump etc**
- Building up appliance data base
- Impact of gas quality variation on utilisation
- Survey on home fuelling appliances for NGV
- Efficiency indicators
- Energy service · value added services for retaining customers



Working Committee 5 – Utilization Study Groups - Topics

Study Group 5.3: NGV Scope and Purpose:



- Monitoring and analysis of world, regional and local NGV markets
 - **Statistics, economics, technology, legislation etc. – update of existing databases – continuous work**
- Best practice on CNG refueling stations
 - **Experiences of a CNG refueling stations. Possible construction strategies and modular approaches for good case studies**
 - **Government and industrial applications.**
 - **Technical issues for successful fuelling business**
 - **Gas quality / composition**
- To investigate impact of bio methane on NGV
 - **Green gas principle and technology**
- NGV related technologies enhancing efficiency
- NGV for large fleets: its economic interest and incentive





WOC5 - Utilization Key Authorities

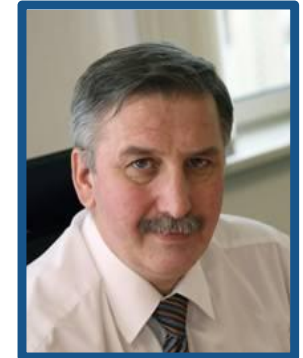
Chair:

Tatsuo Kume, Japan



Vice-Chair:

Eugene Pronin, Russia



Secretary:

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Up NextPGCA

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2009-2012 Triennial Work Programme

Programme Committee A (PGC-A)

Sustainability



Buenos Aires, 9 October 2009



PGC-A Sustainability

Study Group	Topic
SG A.1	Sustainability & Investment
SG A.2	Integrating other gases into the natural gas industry
SG A.3	Reduction of gas emissions



Programme Committee A - Sustainability Study Groups - Topics

Study Group A.1: Sustainability and investment

Scope and Purpose:

- Three subtopics will be undertaken, namely:
 - The role of natural gas in a hydricity model - opinions will be gathered from experts about the viability of this model, and the role of natural gas as a transition fuel will be analysed and to design a model consolidate.
 - Natural gas and renewable energy policies and tools to boost economic growth - to present the best hybrid solutions between renewable energies and natural gas.
 - Carbon capture and storage(CCS) – the technology and economics - to study the state of development of CCS technology and analyse the implications to the gas industry.



Programme Committee A - Sustainability Study Groups - Topics

Study Group A.2: Integrating other gases into the natural gas industry

Scope and Purpose:

- To define the conditions required for the incorporation of biogases and unconventional gases into the transmission, distribution and utilization systems.
- To identify and distribute information regarding the best available technologies to produce biogas and the most efficient processes to generate synthetic gases.



Programme Committee A - Sustainability Study Groups - Topics

Study Group A.3: Reduction of gas emissions (A comprehensive industry guide)

Scope and Purpose:

- To capture the best practices in the gas chain and to develop a comprehensive industry guide to reduce gas emission that allows decrease in the gas emissions in each process and the environmental impact of each activity.



PGC – A Sustainability Key Authorities

Chair :

Juan Puertas, Spain



Vice-Chair:

Satoshi Yoshida, Japan



Secretary:

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Up NextPGCB

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2009-2012 Triennial Work Programme

Program Committee B (PGC B) Strategy



Buenos Aires, 9 October 2009



PGC-B Strategy

Study Group	Topic
SG B.1	World gas supply, demand and trade
SG B.2	Wholesale gas price formation
SG B.3	Corporate strategy and regulation

Programme Committee B - Strategy Study Groups - Topics

Study Group B.1 – World Gas Supply, Demand and Trade

Scope and Purpose:

- Analyse regional gas supply, demand & trade, 2000-2030
- Explore drivers and develop scenarios (e.g. low CO₂ case)
- Identify government policies & corporate strategies for
 - Indigenous gas supply
 - Local market development
 - International trade
- Investigate establishing an IGU global gas model to 2050
- Work in close contact with IEA & other forecasting entities

Programme Committee B - Strategy Study Groups - Topics

Study Group B.2 – Wholesale gas price formation

Scope and Purpose:

- Analyse impact of globalisation on gas price convergence
- Investigate the political considerations of affordability as well as trading concepts of price elasticity and volatility
- Examine the impact of a CO₂ tax or cap-and-trade policies on gas price formation
- Develop regional pricing models for indigenous & international gas, (is gas just another commodity?)
- Continue the IGU global survey of wholesale gas prices



Programme Committee B - Strategy Study Groups - Topics

Study Group B.3 – Corporate Strategies and Regulation

Scope and Purpose:

- Review & share industry experiences over the last 10 years
 - Regulatory risk mitigation
 - Developing new commercial opportunities
- Identify economic effects of regulation on gas assets
- Explore industry and government responses to globalisation
- Analyse cases studies on responses to technical, commercial and regulatory change, and identify future key issues.
- How should companies along the gas chain respond in a changing business environment?



PGC – B Strategy Key Authorities

Chair:

Colin Lyle, UK



Vice-Chair:

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Secretary:

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2009-2012 Triennial Work Programme

Program Committee C (PGC C) Gas Markets



Buenos Aires, 9 October 2009



PGC-C Gas Markets

Study Group	Topic
SG C.1	Gas markets in ASEAN and North-East Asia
SG C.2	Gas Markets in North America
SG C.3	Gas Markets in Europe and Russia



Programme Committee C Study Groups - Topics



Study Group C1: Gas markets in Southeast and Northeast Asia

Purpose

Review and analyse security of supply, identify local gas market drivers and explore additional supply from non-conventional sources.

Scope

- Assess security, reliability, and sustainability of gas supply and consolidating gas demand for the region.
- Identify emerging issues and challenges in developing and growing gas markets and potential LNG imports within the region.
- Identify opportunities to further develop and grow gas markets. Demand centres are away from supply sources. Long term availability depends on upstream development and downstream infrastructure.
- Identify investments/funding throughout the gas chain



Programme Committee C Study Groups - Topics

Study Group C.2 : Gas Markets in North America

Purpose

Investigate key drivers and practical issues related to the development of markets based on supplies from alternative sources such as CBM, tight gas sands and shale gas.



Scope

- Examine alternative gas supplies, identifying legal, technical and economic challenges faced by the largest and most price responsive gas markets in the world
- Examine shale gas as a vast resource that has become economic
- Identify emerging issues and challenges in growing gas markets such as
- Identify opportunities to further develop, grow and integrate the North American gas markets.



Programme Committee C Study Groups - Topics

Study Group C.3 : Gas Markets in Europe and Russia

Purpose

Identify and analyse gas markets in Europe and Russia with emphasis on energy security. List and address key market drivers, emerging issues and challenges.



Scope

- Assess the supply–demand balance in key parts of the region, where demand centres are not in the proximity of reserves;
- Identify emerging issues and challenges in developing and growing gas markets;
- Identify opportunities to further develop and grow gas markets taking into account that the countries are at different levels of economic development;
- Study investment, climate and funding needed to monetise gas fields and to build infrastructure across several nations to deliver gas to the downstream markets.



PGC-C Gas Markets Key Authorities

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2009-2012 Triennial Work Programme

Program Committee D (PGC D) Liquefied Natural Gas



Buenos Aires, 9 October 2009



PGC-D LNG

Study Group	Topic
SG D.1	Enhance Terminal Compatibility
SG D.2	Penetrate New Markets for LNG
SG D.3	Enhance Efficiency in the LNG Value Chain



Programme Committee D - LNG Study Groups - Topics

Study Group D.1 - Enhance terminal compatibility

Scope and Purpose

- Gather information on existing loading and receiving terminals' compatibility with various ship sizes and configurations
- Develop recommendations to enhance compatibility between the full range of LNG ships and loading and receiving terminal facilities



Programme Committee D - LNG Study Groups - Topics

Study Group D.2 - Penetrate New Markets for LNG

Scope and Purpose

- Review and study new market entrants to identify market entry factors
- Apply new market entry lessons learned to new potential markets and develop creative solutions to bring LNG to markets and eliminate barriers of entry

Programme Committee D - LNG Study Groups - Topics

Study Group D.3 - Enhance Efficiency in the LNG Value Chain

Scope and Purpose

- Review and study alternative LNG project solutions to satisfy unique locations, environmental & public requirements.
- Review further efficiency enhancement to existing LNG operating facilities.
- Look for areas to enhance efficiencies through innovative solutions.



PGC-D LNG Key Authorities

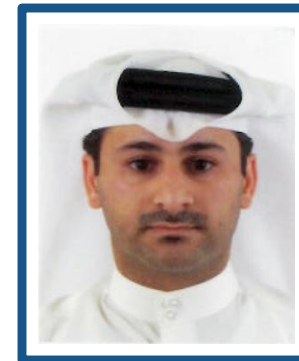
Chair: Alaa Abu Jbara, Qatar



Vice-Chair: Dirk A van Slooten, the Netherlands



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KUALA LUMPUR
2012
WORLD GAS CONFERENCE



4-8 June 2012
Kuala Lumpur
Malaysia



2009-2012 Triennial Work Programme

Program Committee E (PGC E)

Marketing



Buenos Aires, 9 October 2009



PGC-E Marketing

Study Group	Topic
SG E.1	Natural Gas and Renewables
SG E.2	Marketing Campaigns
SG E.3	Image of Natural Gas



Programme Committee E - Marketing Study Groups - Topics

Study Group E.1 - Natural Gas and Renewables

Scope and Purpose

- Position of natural gas in combination with renewables
 - With solar
 - With wind
 - With biogas
 - With ambient heat

- Case studies focusing on marketing strategies



Programme Committee E - Marketing Study Groups - Topics

Study Group E.2 - Marketing Campaigns

Scope and Purpose

- Scan existing marketing strategies of natural gas across different sectors
- Optimize the value of natural gas within the sectors
- Analyze marketing campaigns and their key factors of success and pitfalls and possible failures



Programme Committee E - Marketing Study Groups - Topics

Study Group E.3 - Image of Natural Gas

Scope and Purpose

- Analyze of the positive and negative perception of natural gas
- Develop guidelines for improving the image of natural gas



PGC-E Marketing Key Authorities

Chair: Marc Hall, Germany



Vice-Chair: Roland Mett, Spain



Secretary: Barbara Schmid, Germany



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AGENDA



- Introduction to the Malaysian Triennium
- Presentation on the Theme, Strategic Guidelines and main highlights of the Triennial Work Programme
- Work Programme of Technical Committees
- Task Forces – Special Projects
- Presentation on the 25th World Gas Conference



2009-2012 Triennial Work Programme

Task Force 1 Building Strategic Human Capital

Buenos Aires, 9 October 2009



Task Force 1 – Building Strategic Human Capital

Objectives

- To understand the key issues impacting the attraction and retention of talent in the gas industry
 - Across the gas value chain
 - By geographic area

- To develop a strategic approach to human capacity building.
 - IGU as a catalyser in debating and bringing new light on key issues
 - Dealing with the issues associated with economic cycles

- To share best practices on talent development and retention across the value chain
 - Through IGU membership and reputed institutions



Task Force 1 – Building Strategic Human Capital

Scope

- Map critical talent and human resources across the gas value chain, from production to utilization.
- Conduct a survey across IGU's members to understand the demographic of the industry
- Identify gaps and key human resource issues impacting the gas industry in the short and long term, particularly in recruitment and capability development.
- Assess the impact of the economic downturn in recruiting, development and retaining talent
- Compile best practices across the gas value chain
- Assess the role of governments, industry associations, universities and private companies and scope for cooperation.



Task Force 1 – Building Strategic Human Capital

Deliverables

- 2012 Triennium Report with Conclusions and Recommendations to the industry.
- Regional workshops/thematic video conferences in 2010/2011
~ 1st meeting from 18-19 November in London.
- Roundtable forum during 25th WGC 2012.
- Guidebook compiling best practices across regions and value chain
- Worldwide survey on key issues and demographics impacting recruitment and retention of key human resources
- Articles for IGU magazine and content for President's speeches.
Publication of intermediary findings (workshops).



Task Force 1 – Building Strategic Human Capital Key Authorities



Ieda Gomes
TF1 Chairperson



Rod Kenyon
TF1 Vice-Chairperson



Manu Kohli
TF1 Secretary



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Up NextTF2

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2009-2012 Triennial Work Programme

Task Force 2 Nurturing the Future Generations

Buenos Aires, 9 October 2009

Task Force 2 – Nurturing the Future Generations

Objectives

- Develop a comprehensive approach on *nurturing future generations'* inclination towards the gas industry.
- A study on best practices and factors that could stimulate the younger* generations interest towards science, technology, engineering, and mathematics (STEM) disciplines that will eventually lead them to the gas industry.
- Design and implement specific programmes to address Youths during the 2009-2012 triennium and at the 25th WGC 2012.
- Aim to ensure that the gas industry will have deep talent pipelines to achieve the industry's objectives.

*subject to definition of age limit/group



Task Force 2 – Nurturing the Future Generations

Scope

- Examine and identify the factors that can stimulate young generations' interest and inclination towards Science, Technology, Engineering and Mathematics (STEM)
- A full review of best practices adopted by the industry, government bodies and institutions of higher learning
- A '**Generational Strategy Blueprint**' with ideas and proposals to industry players on how to attract/inspire young talents towards a career inclination in the Oil & Gas industry
- Implement specific programmes for the Youth's participation at the 25th WGC 2012 as an inaugural event



Task Force 2 – Nurturing the Future Generations

Deliverables

- A comprehensive **Report/Study** that will highlight best practices to stimulate the younger generation generations interest towards science, technology, engineering, and mathematics (STEM) disciplines
- Provide **ideas and recommendations** to the gas industry on how to attract and inspire young talents towards a career inclination in the Oil & Gas industry
- Design and implement **specific programmes for Youths** during the 25th WGC 2012
- **On-site Youth event** at the 25th WGC 2012



Task Force 2 – Nurturing the Future Generations Key Authorities

Chair : Soh Mey Lee, Malaysia



Vice-Chair: Agnes Grimont, France



Secretary: Jasmin Ramli, Malaysia



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Up NextTF3

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2009-2012 Triennial Work Programme

Task Force 3

Geopolitics of Natural Gas



Buenos Aires, 9 October 2009

Task Force 3 – Geopolitics of Natural Gas

Objectives

- **Examine the interplay between economic and political factors in the development of Natural Gas resources**
- **Analyse the main political challenges, mega-trends, issues and consequences that may shape a future natural gas-intensive world.**
- **Engage the international stakeholder community in a dialogue aimed at:**
 - creating greater awareness of the potential hurdles to a growing international gas market, and
 - fostering co-operation between the industry and policy makers in producer and consuming countries
- **Distill potential recommendations for further advancement of cooperation between key stakeholders, for review at 25th WGC 2012 Round Table**



Task Force 3 – Geopolitics of Natural Gas

Scope

- **Description of current landscape for governments, institutions and fora involved in gas policy development, and their interfaces.**
- **Analysis of degree of consistency on views of the value and potential of natural gas as the bridging fuel to sustainability**
 - Natural gas industry compared to national and regional energy policy influencers
- **Examination of key drivers affecting the development of natural gas resources**
 - Primary focus on the interplay between economics and politics
 - Within a ‘global energy security’ context



Task Force 3 – Geopolitics of Natural Gas

Scope

- **Examination and analysis to include:**
 - Regional geopolitics and unique features of different regions
 - Future gas business models and their implications
 - Development perspectives, including major regional markets of gas distribution and LNG
 - Challenges for the future and potential pitfalls
 - Interdependency and transparency – Resource nationalism and market nationalism
 - International gas trade- Challenges and opportunities
 - Historical Case Studies and lessons learned for the future
 - Future threats, including terrorism



Task Force 3 – Geopolitics of Natural Gas

Deliverables

- **During the next Triennium:**
 - 3-4 Regional Forums
- **Shortly before the 2012 World Gas Conference:**
 - Overall Report - Development trends, issues and challenges
 - Separate Regional Reports – 3-4 Regions (specific issues and alternative scenarios)
- **At the 2012 World Gas Conference:**
 - Strategic Round-table



Task Force 3 – Geopolitics of Natural Gas Key Authorities

Chair : Mel Ydreos, Canada



Vice-Chair: Geert Greving, Netherlands



Secretary: Jeff Okrucky, Canada



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PRESENTATION BY

CHAIRMAN OF NATIONAL ORGANISING COMMITTEE

WORLD GAS CONFERENCE 2012

9 OCTOBER 2009



Malaysia: centrally located within the Asia-Pacific region ...



© 2009 Google

© 2009 Europa Technologies

© 2009 Tele Atlas

© 2008 AND

4°10'39.23" N 114°18'15.10" E elev=237 m

Malaysia: centrally located within the Asia-Pacific region ...



Endowed with natural gas reserves



... a key player in the world gas industry ...



MLNG - One of the top LNG exporters in the world



... a key player in the world gas industry ...



MISC - The largest single owner operator of LNG tankers in the world



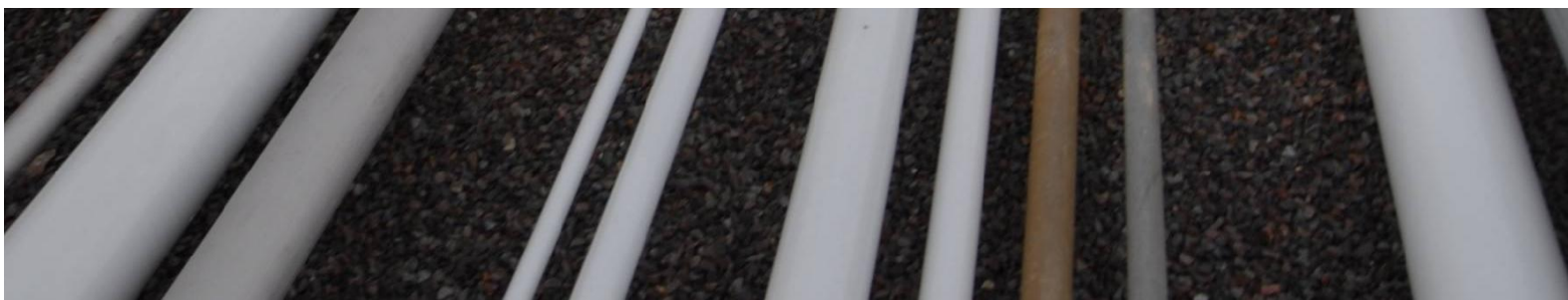
... a key player in the world gas industry ...



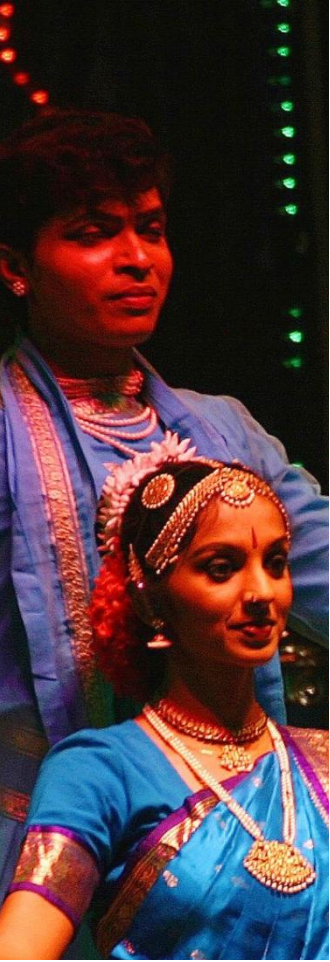
One of the most extensive natural gas pipeline networks in Asia



... a key player in the world gas industry ...



Potpourri of different races



... renowned for its cultural diversity and Asian hospitality



With gleaming cities and lush tropical wonders

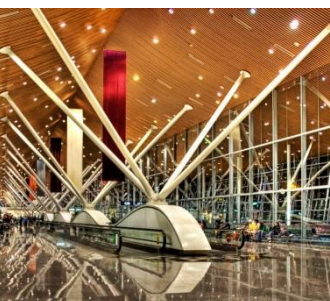


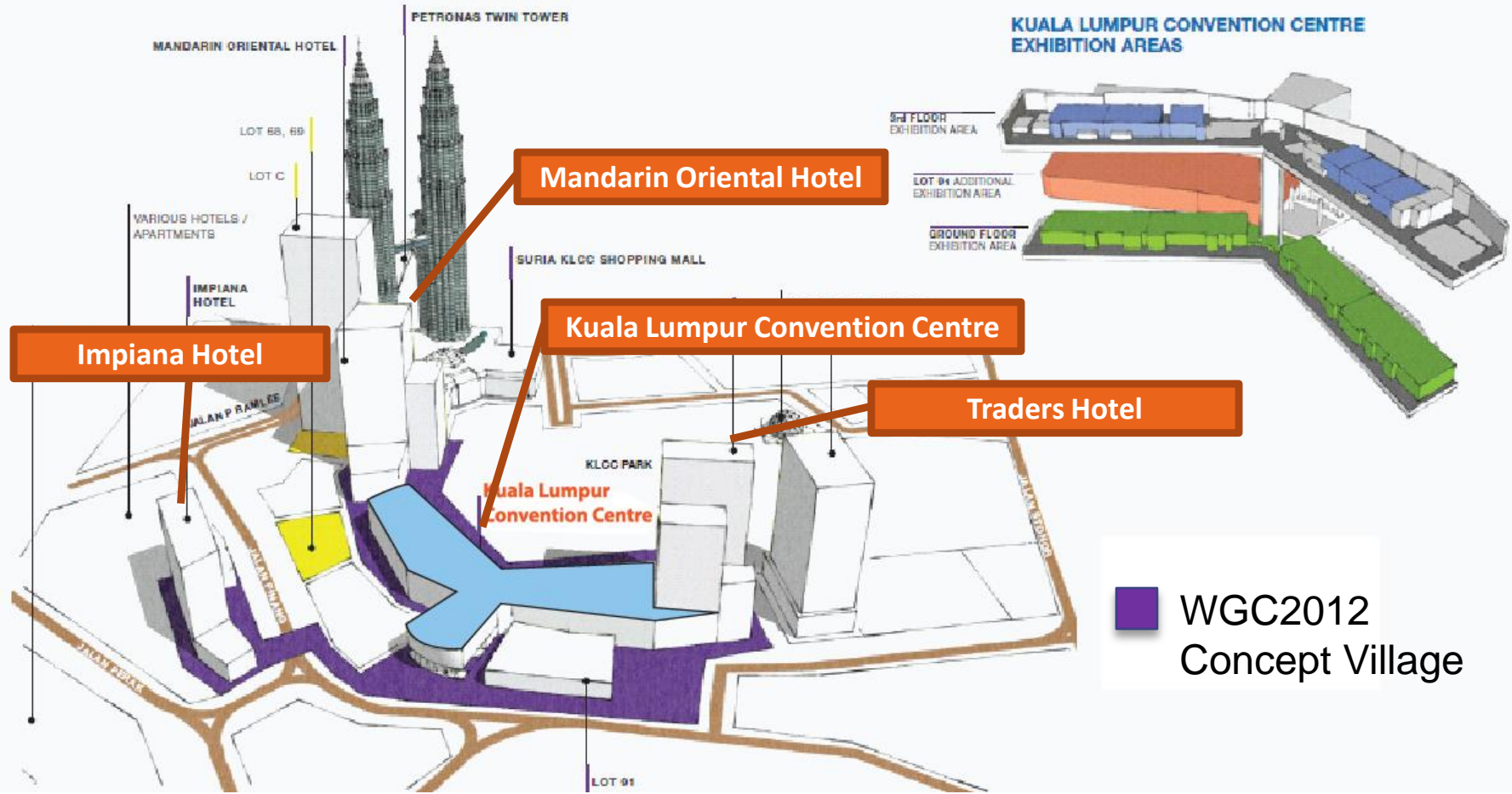
... renowned for its cultural diversity and Asian hospitality





Kuala Lumpur city - modern amenities and traditional attractions





The venue is a “village” within Kuala Lumpur City Centre

World-class facilities in Kuala Lumpur Convention Centre



The venue is a “village” within Kuala Lumpur City Centre



Hotels within walking distance



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visit www.WGC2012.com for more information



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CONCLUSION

25th World Gas Conference

**GAS:
SUSTAINING
FUTURE GLOBAL
GROWTH**

ROLE OF GAS

PGC A, B, C, D, E

**SUPPLY
WOC 1, 2,
3, 4**

**DEMAND
WOC5,
PGC-C, E**

HUMAN RESOURCE

TF 1, 2

Global
warming

**PGC-A,
Special WG**

Geo-
politics

TF 3

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4-8 June 2012
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