



**GASEX 2010** Conference & Exhibition *November 24-26, 2010*  
**Taipei**

Gas Information Exchange In the Western Pacific Area

# **PURSUING COOPERATIVE PARADIGM ON ENERGY, ENVIRONMENT AND ECONOMY**

By

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**KUALA LUMPUR**  
**2012**  
WORLD GAS CONFERENCE



24-26 November 2010  
Taipei, Chinese Taipei



- 1. INTRODUCTION**
- 2. IGU PURSUING INTERNATIONAL COOPERATION**
- 3. NATURAL GAS AND LNG INDUSTRY LANDSCAPE**
- 4. ENERGY, ENVIRONMENT AND ECONOMY**
- 5. KEY CHALLENGES AND OPPORTUNITIES**
- 6. CLOSING REMARKS**



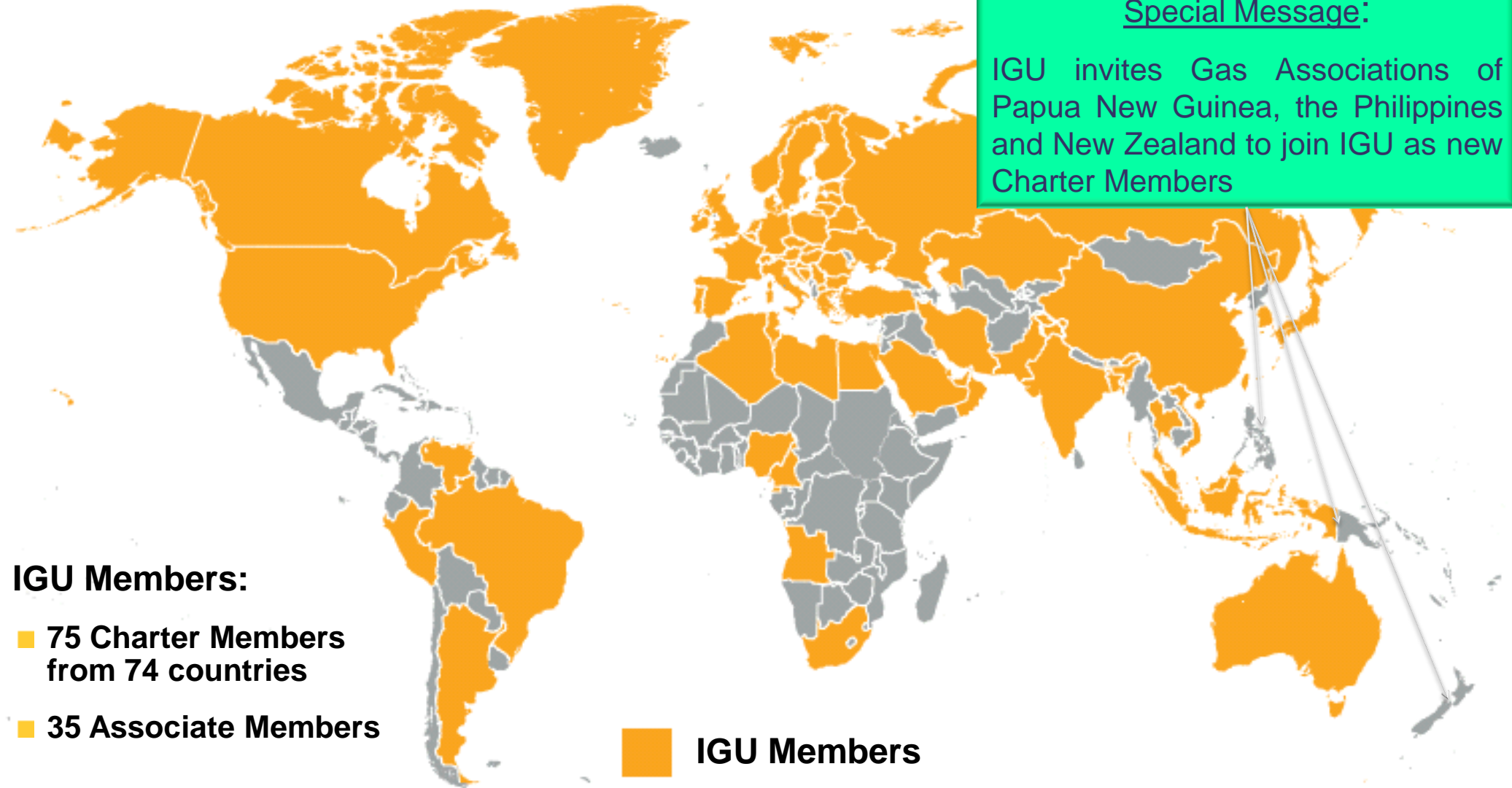
**Recognising that natural gas has an important part to play in satisfying the global need for an environment-friendly energy source, IGU will be the most influential, effective and independent non-profit organisation, while serving as the spokesman for the gas industry world-wide.**



# IGU represents around 95% of global gas market

## Special Message:

IGU invites Gas Associations of Papua New Guinea, the Philippines and New Zealand to join IGU as new Charter Members



### IGU Members:

- 75 Charter Members from 74 countries
- 35 Associate Members

■ IGU Members



## IEF-IGU Ministerial Gas Forums

- 1<sup>st</sup> IEF – IGU Ministerial Gas Forum, 24th Nov. 2008, Vienna, Austria
- 2<sup>nd</sup> IEF – IGU Ministerial Gas Forum, 30th Nov. 2010, Doha, Qatar



## UNFCCC– COP Meetings

- COP 15, Dec. 2009, Copenhagen, Denmark
- COP 16, Dec. 2010, Cancun, Mexico



## The IGU Research Conference

- IGRC 2008, Paris, France
- IGRC 2011, Seoul, Republic of Korea



## IGU World Gas Conferences (WGCs)

- 24<sup>th</sup> WGC - Buenos Aires, Argentina, 5-9 Oct. 2009
- 25<sup>th</sup> WGC - Kuala Lumpur, Malaysia, 4-8 June, 2012
- 26<sup>th</sup> WGC - Paris, France, 2015



KUALA LUMPUR  
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## Co-sponsor LNG Conferences

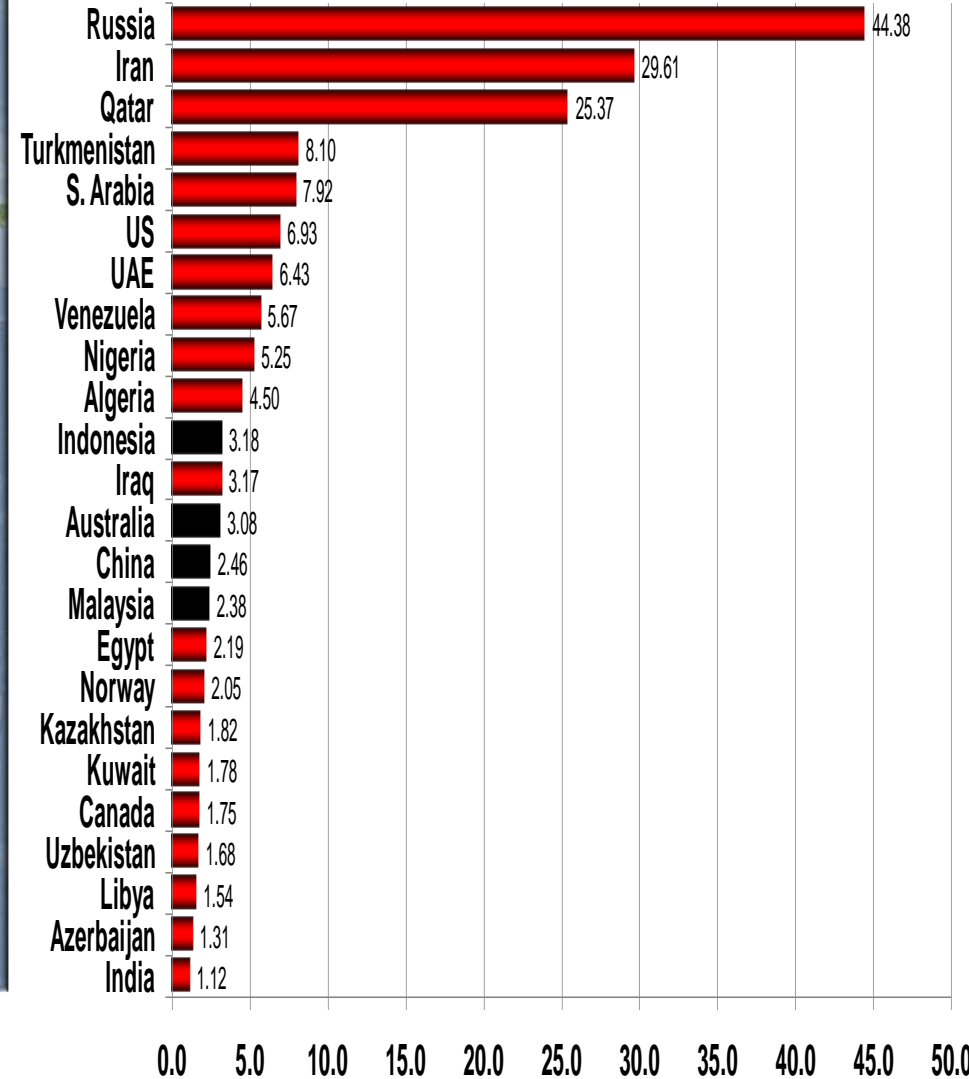
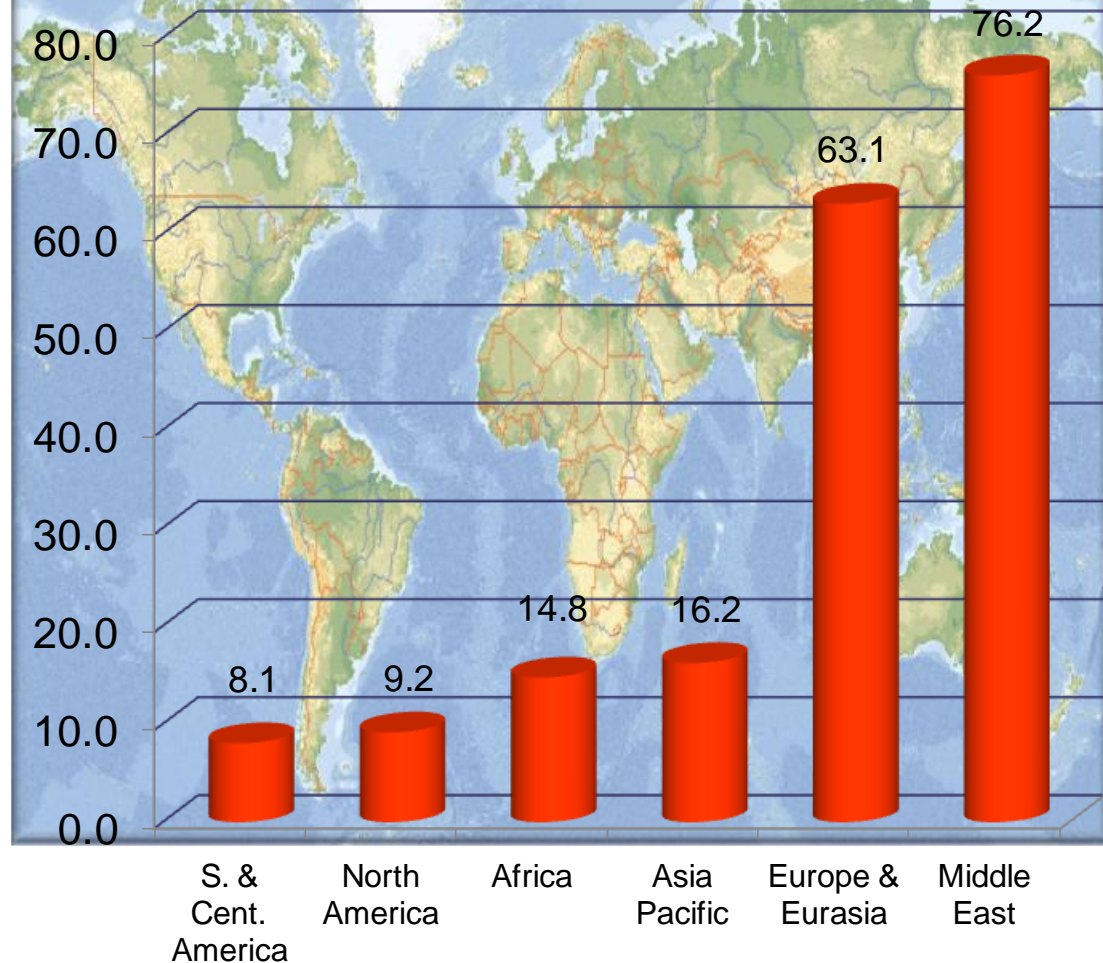
- LNG 16 - Oran, Algeria, April 2010
- LNG 17 – Houston, USA, 15-19 April 2013



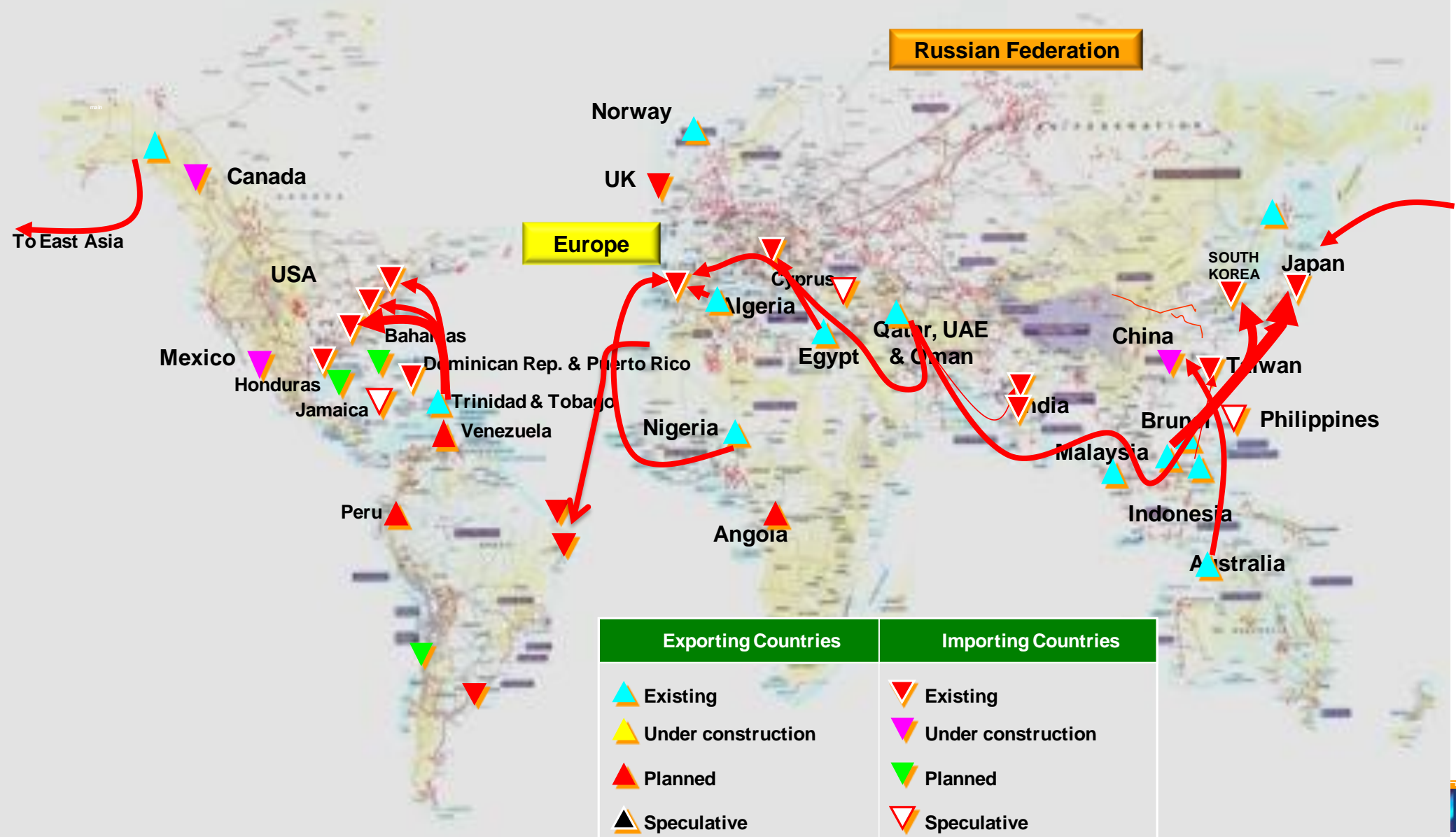
**70% of world's proven gas reserves are located in Russia/FSU and Middle East. Asia Pacific has a share of 8.7%.**

**World proven conventional gas reserves as at end 2009 = 187.5 Tcm**

TRILLION CUBIC METRES



# IGU and GASEX Members to provide wider access for it to become a global commodity

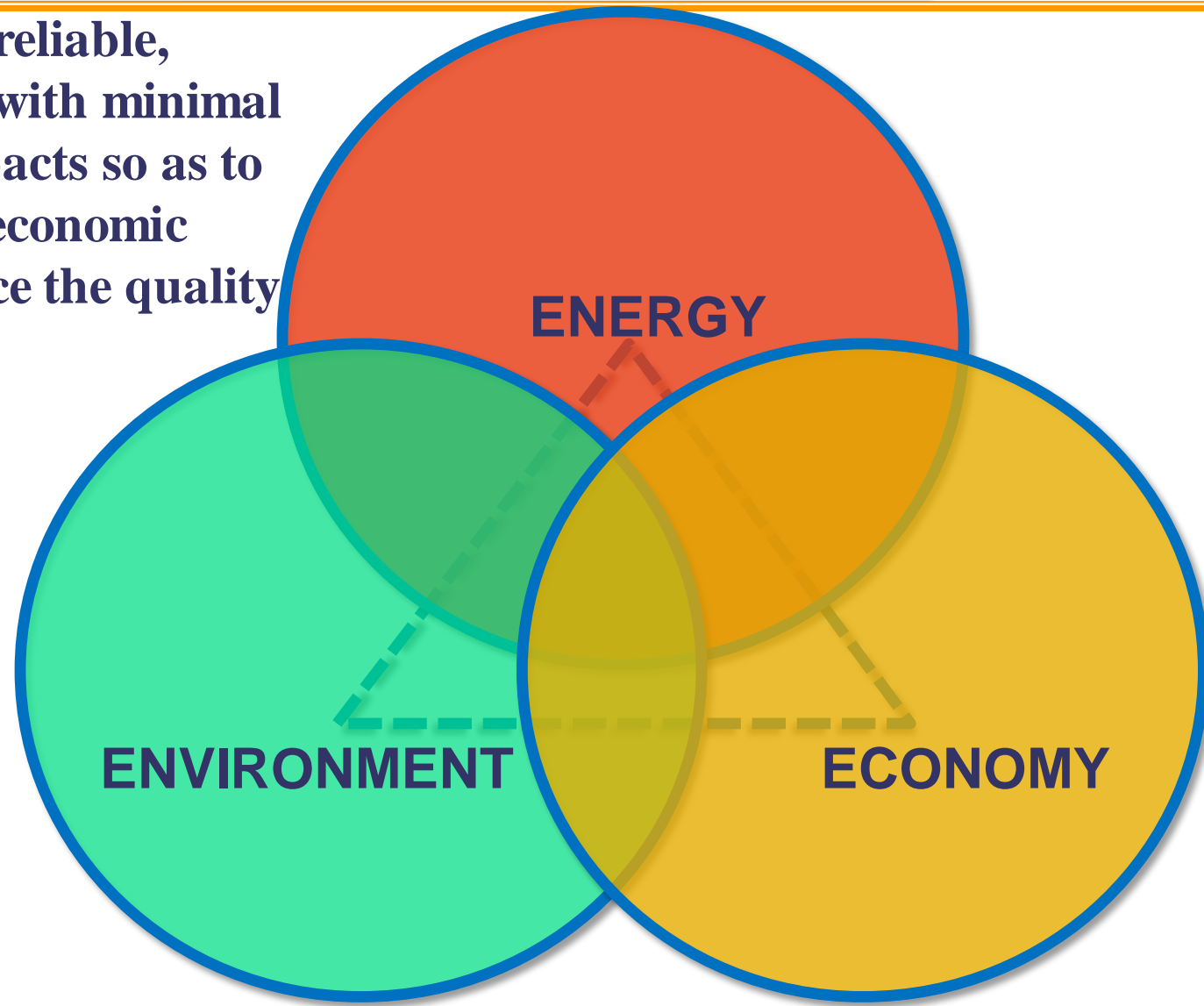




# G-to-G and B-to-B Cooperation essential to facilitate cross-border gas pipeline inter-connections



**Key challenge is to secure, reliable, affordable energy services with minimal adverse environmental impacts so as to promote sustainable socio-economic development and to enhance the quality of life.**



# IEA forecasted growing energy and gas demand in the future

MTOE

18 000

16 000

14 000

12 000

10 000

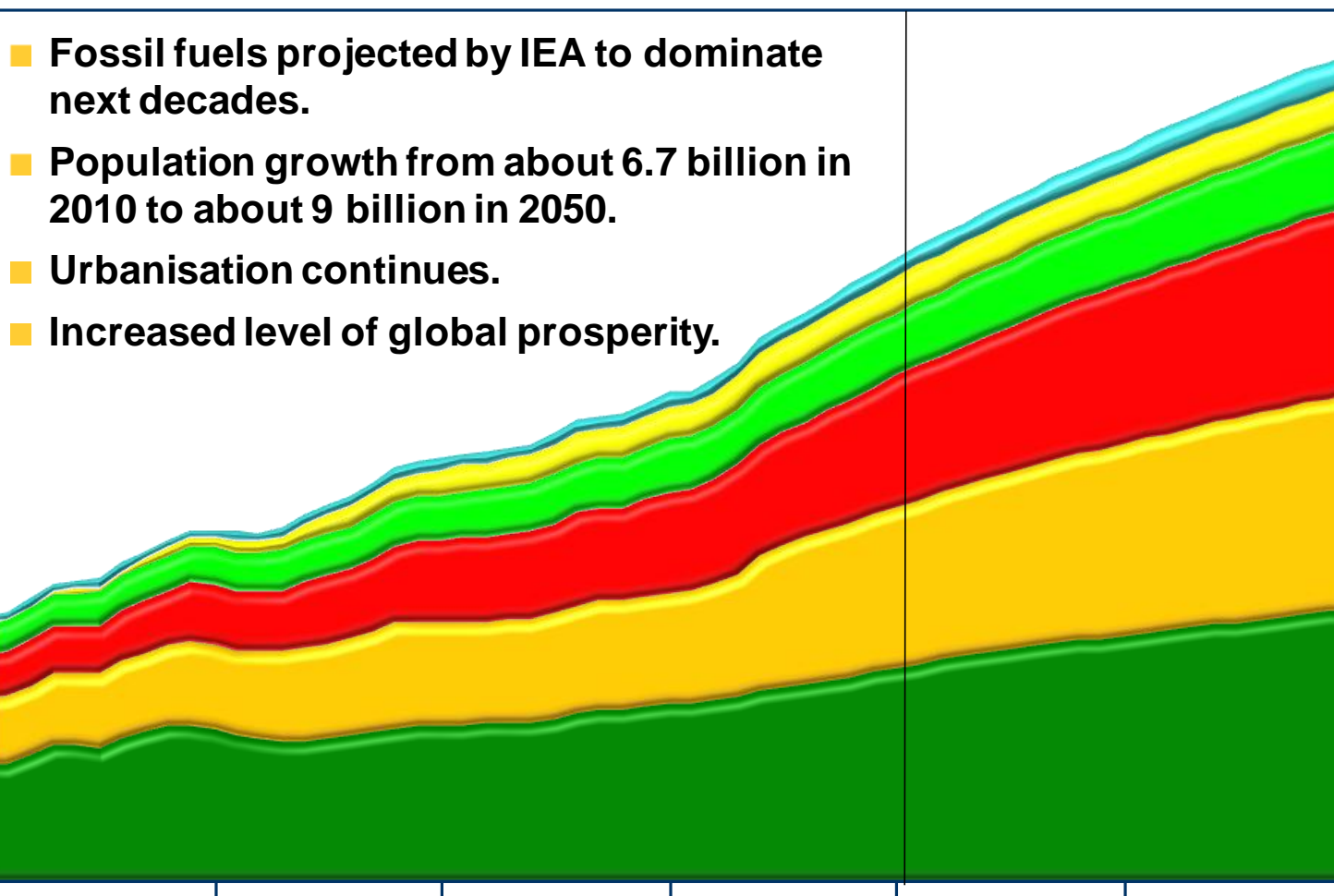
8 000

6 000

4 000

2 000

0



Other renewable

Nuclear

Biomass

Gas

Coal

Fossil Fuels

Oil

1970

1980

1990

2000

2010

2020

2030



# Images of Oil Spills in the Gulf of Mexico



# Images of Coal Mine Accidents

**West Virginia Mine Explosion,  
25 Dead**



**Coal Mine Accident in China**



**Coal Mine Accident  
in Chile**



**Coal Mine Accident  
in China**

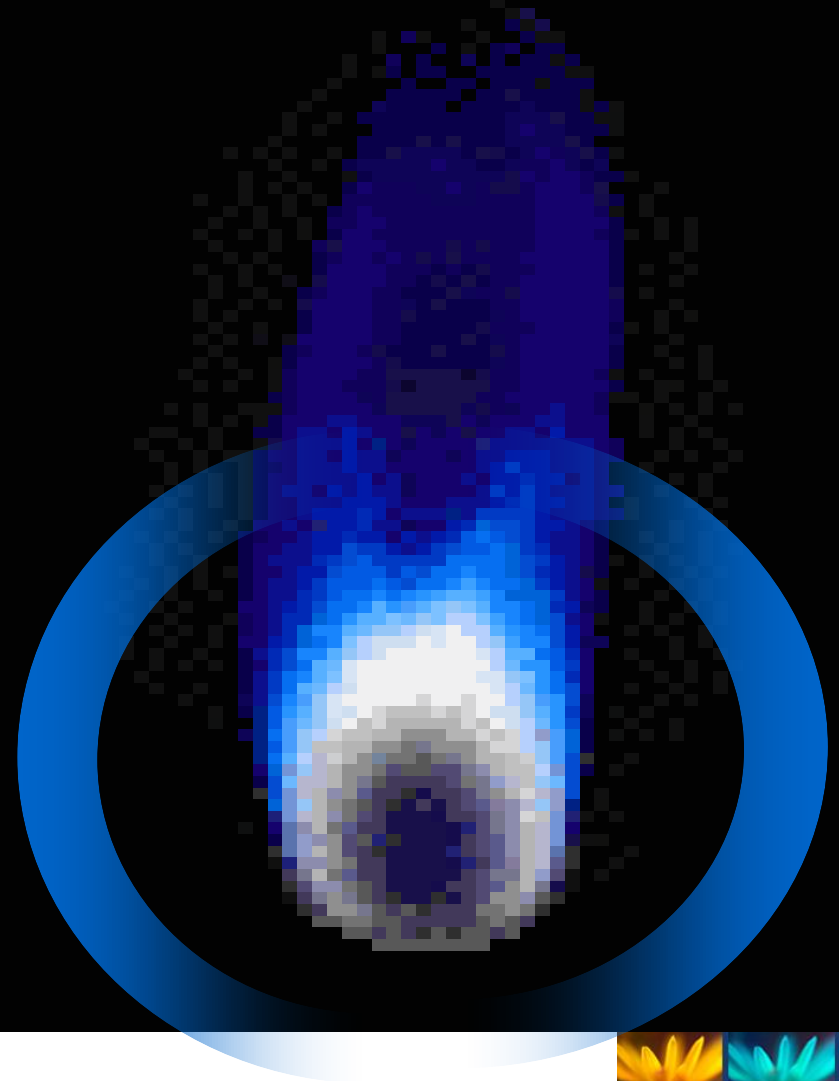


**Coal Mine Accident  
in Russia**



## Attributes of Gas

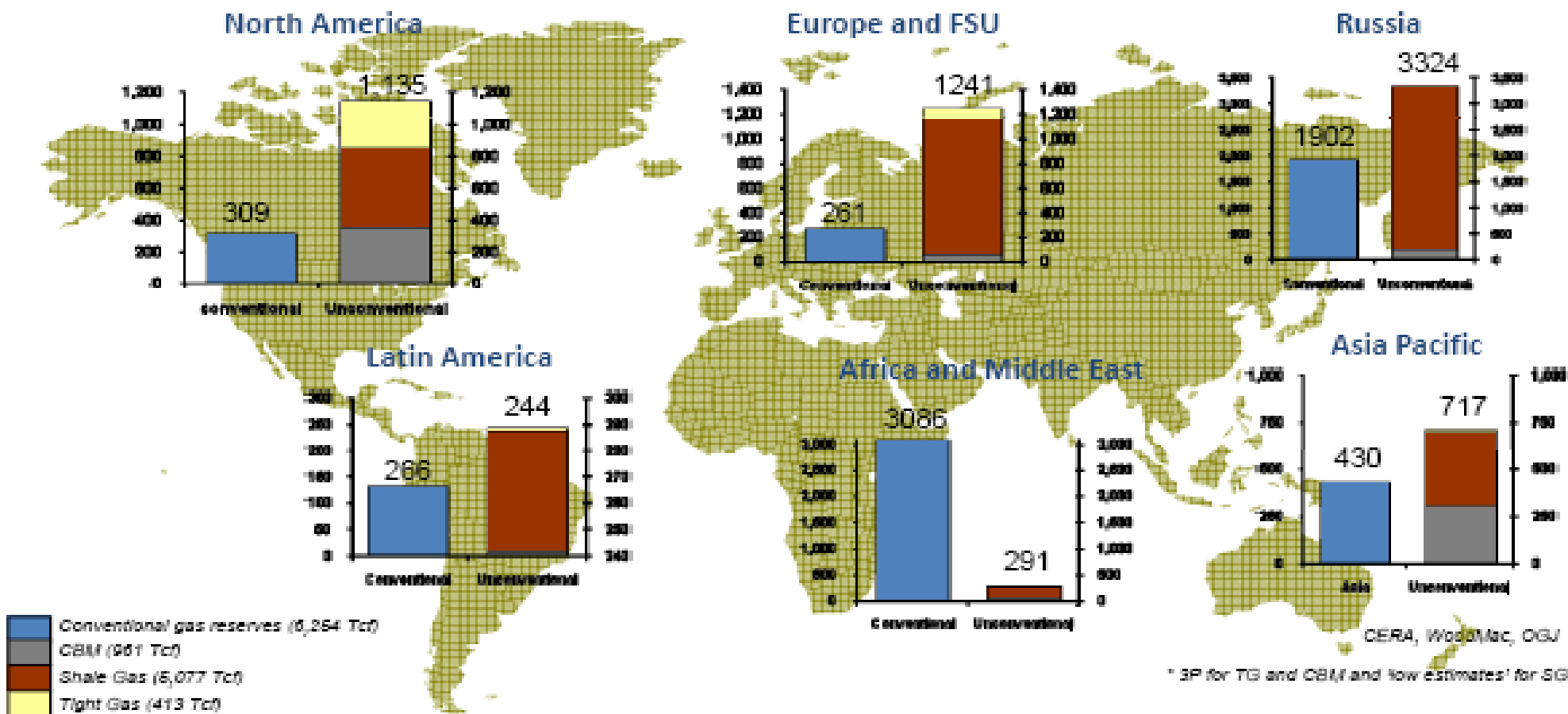
- Clean, efficient, versatile and environmentally friendly for more sustainable development and socio-economic growth;
- Abundant and available in large quantities with the technological breakthrough to commercialise unconventional gas resources; and
- Play an important and increasing share and role in global energy demand.



# Pursue innovation and achieve technological breakthrough

## Exploiting Unconventional Gas Resources:

- Huge resources of >30,000 Tcf, reserves around 6,952 Tcf\*.
- 5 out of top 10 largest M&As in 2008 were unconventional gas deals (valued at US\$21.3b).



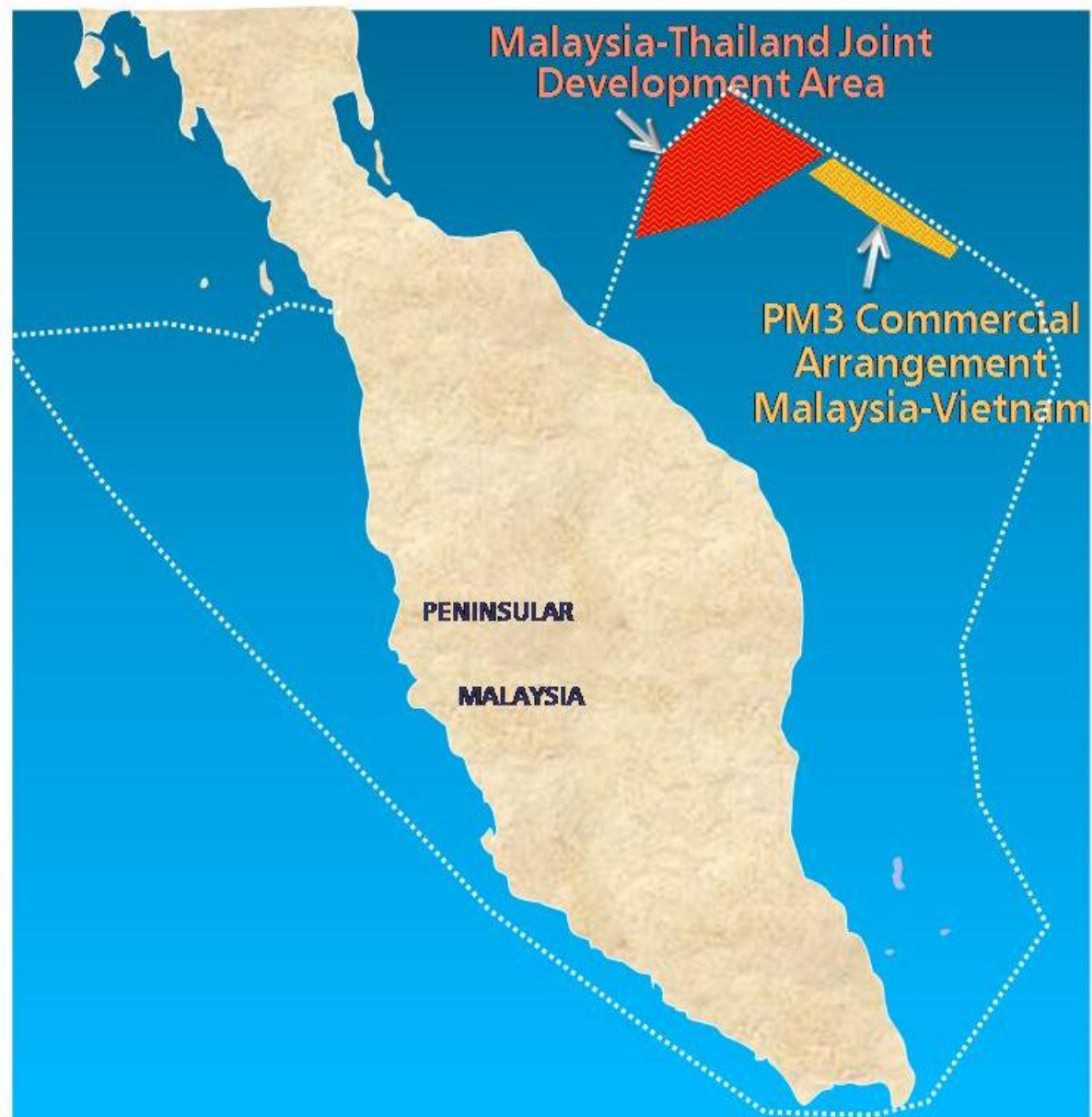
# Highly Capital Intensive Nature of the Gas Industry





## Examples of cooperative paradigm in addressing territorial disputed areas via Joint Development

- Cooperative paradigm at G-to-G and B-to-B levels to jointly explore and develop oil and gas resources in many of the disputed areas would be essential to realise joint benefits.
- Successful co-operative paradigm include Malaysia-Thailand Joint Development Area & PM3 Commercial Arrangement Malaysia - Vietnam.



# Leveraging science and technology to create technological breakthrough and innovation to harness new and renewables

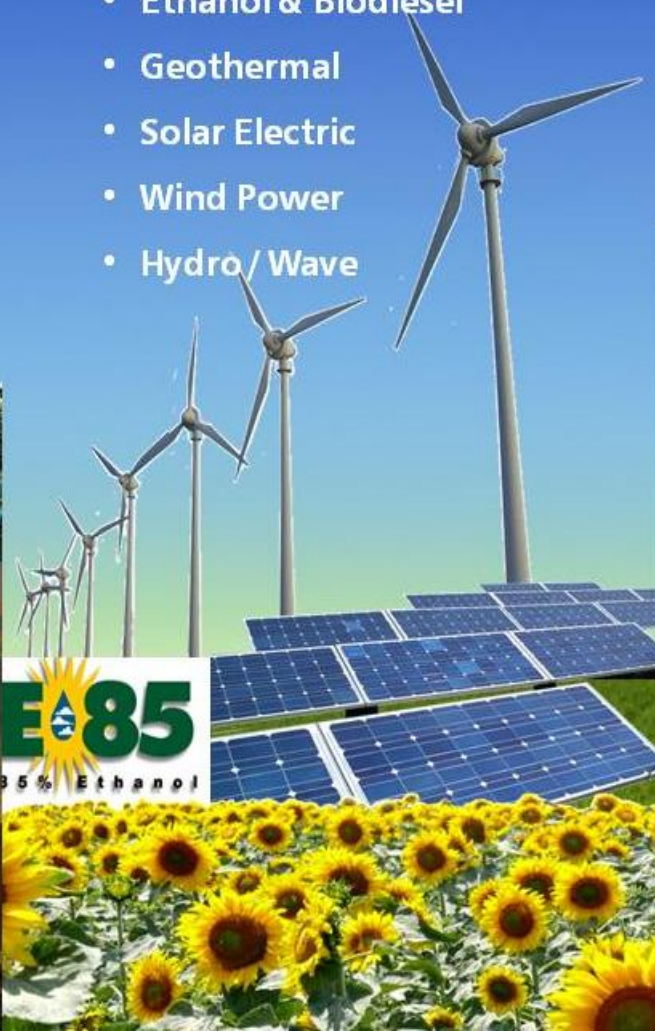
## Unconventional Fossils

- Gasification (inc. hydrogen & Coal to liquids)
- Gas to Liquids (GTL)
- Heavy Oil Conversion
- Shale Oil Development
- Tar Sands Production



## New and Renewable

- Biomass
- Ethanol & Biodiesel
- Geothermal
- Solar Electric
- Wind Power
- Hydro / Wave



## END USE

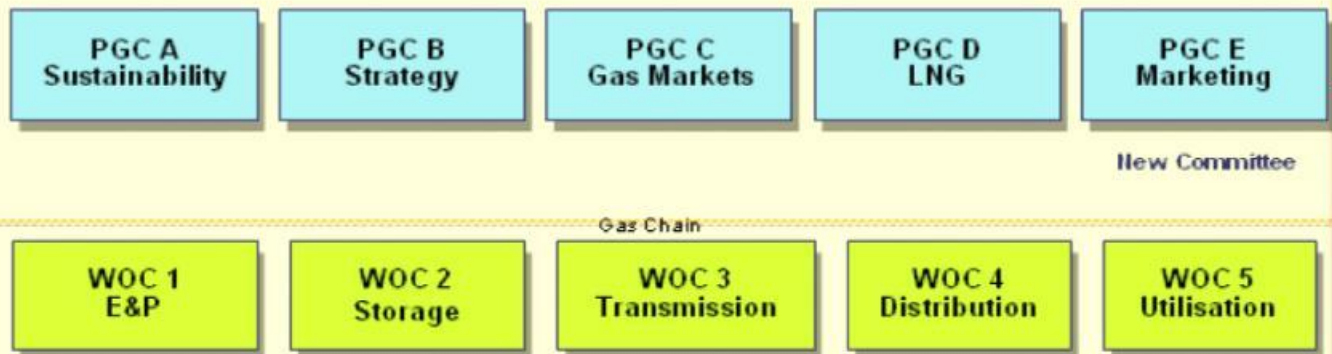
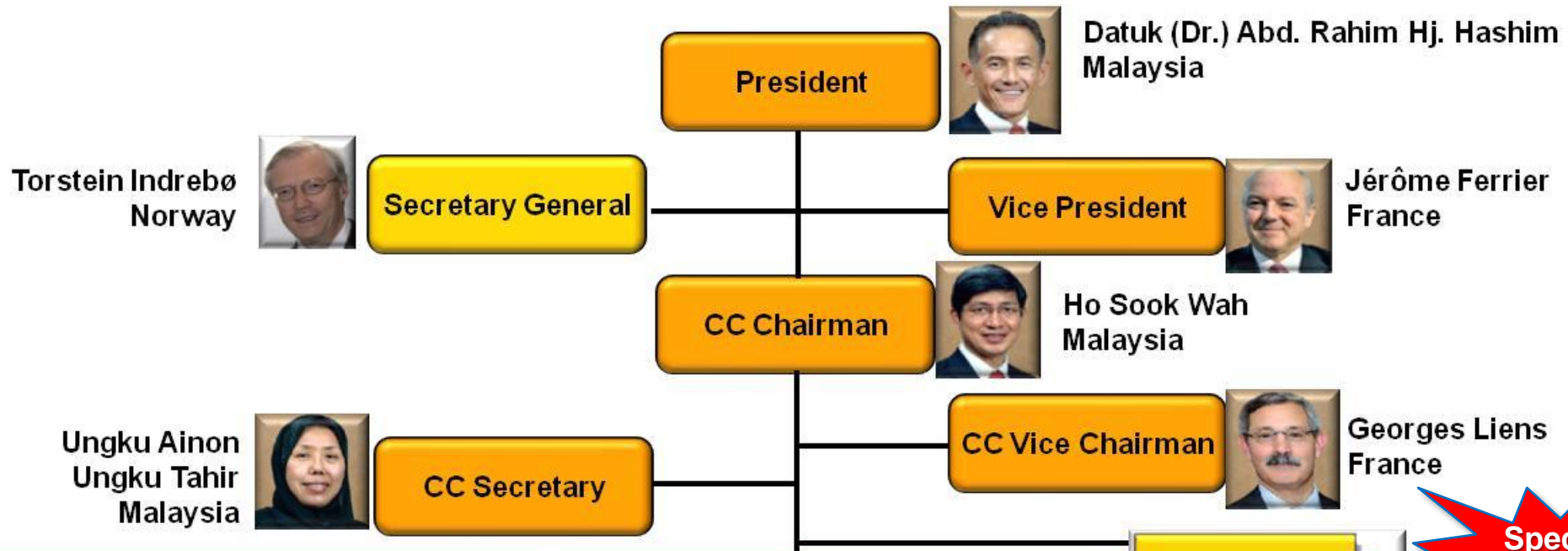
- Advance Technology Vehicles
- Fuel Cells
- Flex Fuel
- Cogeneration (CHP)



(Зображення відображає: Електроліт, Електроліт)



# IGU – Malaysian Presidency (2009-2012) with 3 Special Studies

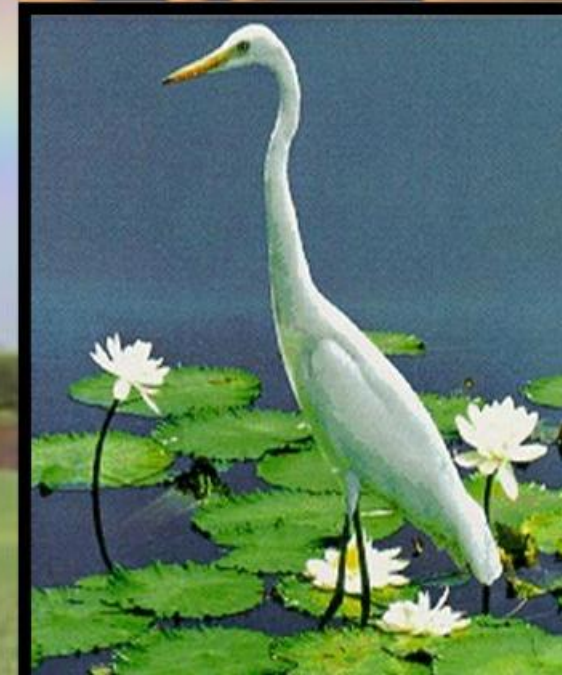


1. Building strategic human capital
2. Nurturing future generations
3. Geopolitics of Natural Gas



## Shifting towards a “low carbon or carbon-constrained economy”

Relentless pursuits to reduce carbon emission and the need to address issues on climate change calls for greater collective efforts to pursue cooperative paradigm within and between IGU and GASEX Members to promote wider use of this relatively clean, efficient, versatile and environmental friendly fuel while efforts in commercializing renewable energy is still being actively pursued



# You should not miss our Malaysian Hospitality

You should not miss to exhibit and show cases your products and services during this 25<sup>th</sup> World Gas Conference



**THANK YOU FOR YOUR KIND ATTENTION!**



# Welcome to 25<sup>th</sup> World Gas Conference and Exhibition

4-8 June 2012

Kuala Lumpur, Malaysia

<http://www.igu.org/>

<http://www.wgc2012.com/>