“Gas, an energy source for sustainability”

By:
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International Gas Union (IGU),
Malaysian Gas Association (MGA)

24th May 2011
Madrid, Spain
IGU as **THE** spokesman for the gas industry

- Worldwide and non-profit organisation established in 1931
- Promotes technical and economic progress of the gas industry
- Emphasising sound environmental performance worldwide
- Increased focus on strategic and policy issues
- Cooperation with IEA, United Nations, World Bank, IEF and others
IGU members responsible for 95% of Global Gas Sales

74 Charter members
35 Associate members
11 Affiliated members

As of April 2011
The world faces twin challenges

- Increased demand for energy
- Need to address environmental issues & climate change
Gas utilisation is about 1/4. Will it be same in the future?
Unfavorable scenarios of gas a few years ago

R/P ratio: > 60 remaining years

¾ of the world’s proven natural gas reserves are within Middle East and Eurasia

Reserve-to-production ratio, image

Source(s): BP Statistical Review of World Energy, IHS CERA 2010
- Availability: 60 years to 250 years
- Abundant global gas reserves

Source(s): Shell 2011
The technological breakthrough for unconventional gas

- Technology – hydraulic fracturing

Source(s): AGA 2010
The complexity of today’s global energy equation

- The increased relevance of sustainability
- It represents major and key solution to the world’s economic and environmental challenges

- It is a “destination” fuel
  
  - Triple A product: Abundant, Affordable, Acceptable
  - Triple E product: Efficient, Economical, Environmental for power generation
  - It can be an “enabling fuel” to renewables
  - Well-accepted in terms of economics, security, environment and scale
Some of conceivable impacts may include:
- It will alter the energy mix globally
- It will increase the role of gas compared to other fuels
- It will lead to price convergence
MENA gas demand is rising and gas shortages are likely
Applications of technology and innovation to drive gas for sustainability

- Fuel for Gas District Cooling
- Fuel for Residential
- Fuel for Commercial
- Fuel for Automotive
- Fuel for Industry
- Fuel for Power Generation
- Fuel for Petrochemical Feedstock

- Increasingly applied in energy utilizations
Make gas green!
- from biogas, synthetic natural gas (SNG) & landfill gas

- Carbon Capture & Storage (CCS)
- Fuel cells

Source(s): PETRONAS 2010, Senternovem 2010
Sustainability is attainable given that commitment from all

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Interests</th>
<th>Contributions</th>
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<tbody>
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<td>Governments</td>
<td>Energy security</td>
<td>Stable funding</td>
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<td>Increased supply</td>
<td>Sound fiscal &amp; regulatory framework</td>
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<td>Reduced carbon</td>
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<td>Businesses</td>
<td>Make profits</td>
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<td>Detailed studies</td>
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- No single part of society can achieve sustainability by acting alone!
Areas of improvement that cannot be neglected

- To intensify advocacy for rebranding gas
- To promote gas in eradicating energy poverty
It is a clean, affordable, reliable, efficient, and secure energy source.
The unforgettable energy-deprived countries across the globe

By 2030, about 1.3 billion people do not have access to electricity despite more widespread prosperity and more advanced technology

Role of gas in overcoming energy poverty

Source(s): OECD/IEA 2009, IAEA 2010, ExxonMobil 2009
IGU Message on Natural Gas

- It is abundant, affordable and acceptable
- Clean, efficient, versatile and environmental friendly fuel
- Continue to play a substantial role in global energy demand
- Basis for a sustainable economic growth

Natural gas – major part of the long term energy solution
The 25th World Gas Conference (25th WGC)

“GAS : SUSTAINING FUTURE GLOBAL GROWTH”

Kuala Lumpur Convention Centre
4 to 8 June, 2012

www.wgc2012.com/, www.igu.org/

THANK YOU FOR YOUR KIND ATTENTION!
BACK-UP SLIDES
What differs gas among other fuels?

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<tr>
<th></th>
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- Coal increases energy security but brings harmful impacts to environment
- Renewables have environmental appeal but doubtful on economics and scalability
- Ethanol poses potential threats on global food prices and a carbon footprint
- Nuclear offers greater supply security but carries serious public opposition

➢ Gas is likely to be the “winner” fuel!
Why gas is the fuel of choice?

Natural Gas

- Abundant
- Economical
- Environmental
- Acceptable
- Affordable
- Efficient

- Triple A’s slogan
- Triple E’s slogan