

Session one: Asian Markets - Legacy Meets Emerging

“Overview of Global LNG Markets – Asia Pacific Context”

By:

Datuk (Dr) Abdul Rahim Hashim

President

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

20th September 2011
Shangri-La Hotel | Singapore



- 1. Intro – Brief on IGU**
- 2. Energy Outlook until 2030**
- 3. Global LNG Supply-Demand Outlook**
- 4. Opportunities & Challenges**
- 5. LNG – Going Forward**
- 6. Closing Remarks**

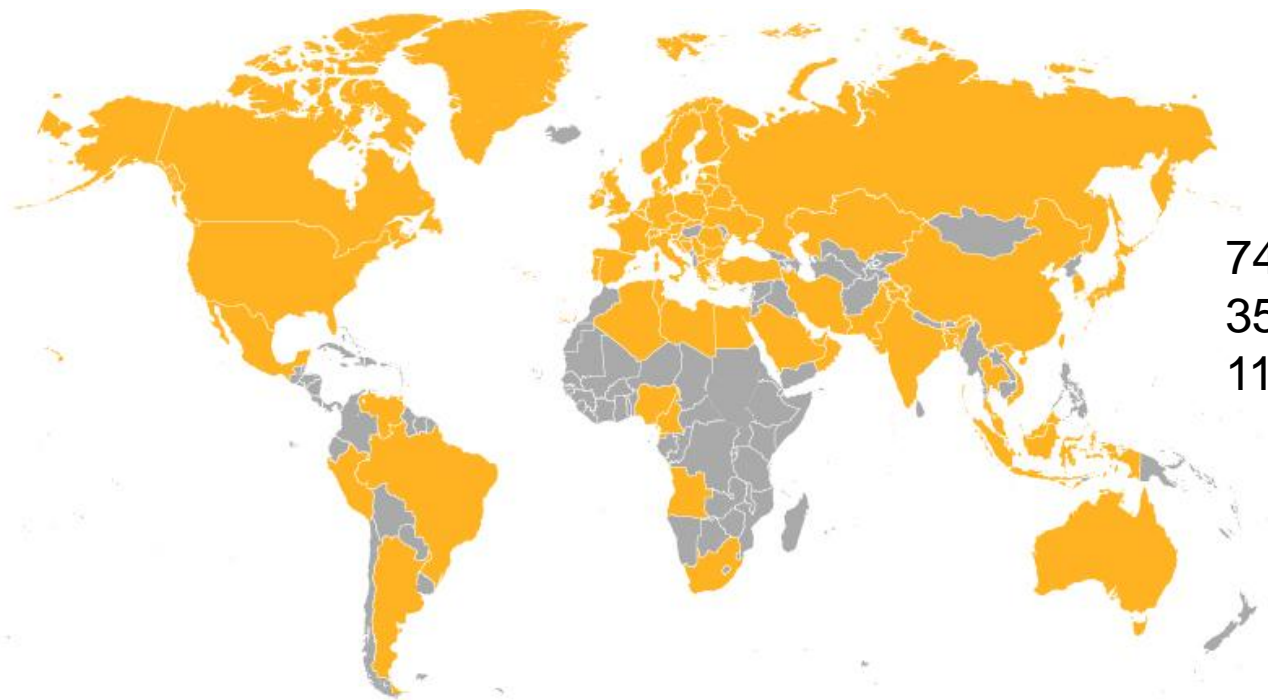


IGU as **THE** spokesman for the gas industry

- 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, policy issues and gas advocacy
- Cooperation with IEA, United Nations, World Bank, IEF and others



IGU members represent 95% global gas sales



74	Charter	members
35	Associate	members
11	Affiliated	members

 IGU Members

As of April 2011



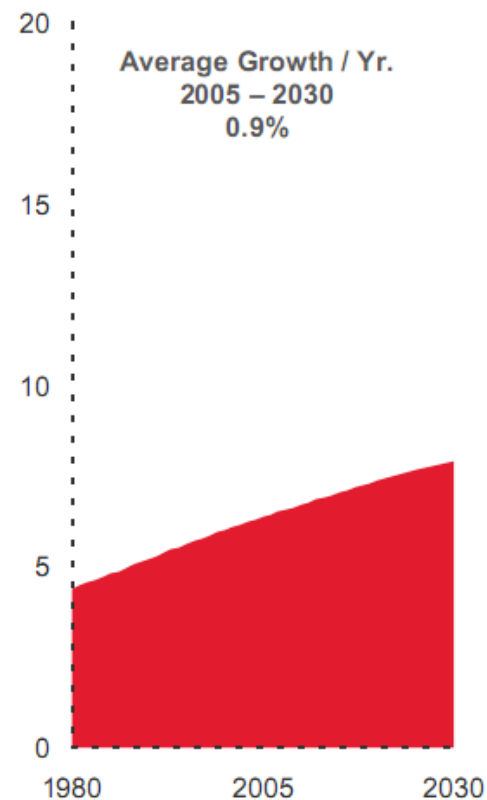
IGU in the 2009 – 2012 Malaysian Triennium



World demand for energy is increasing

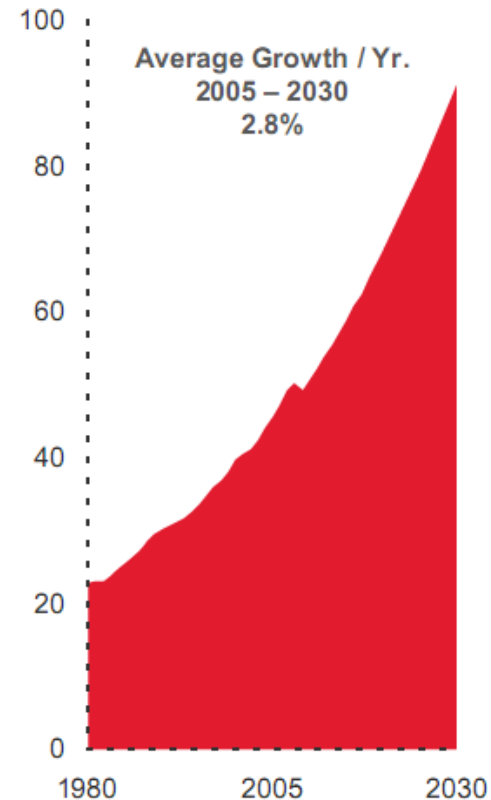
Population

Billion



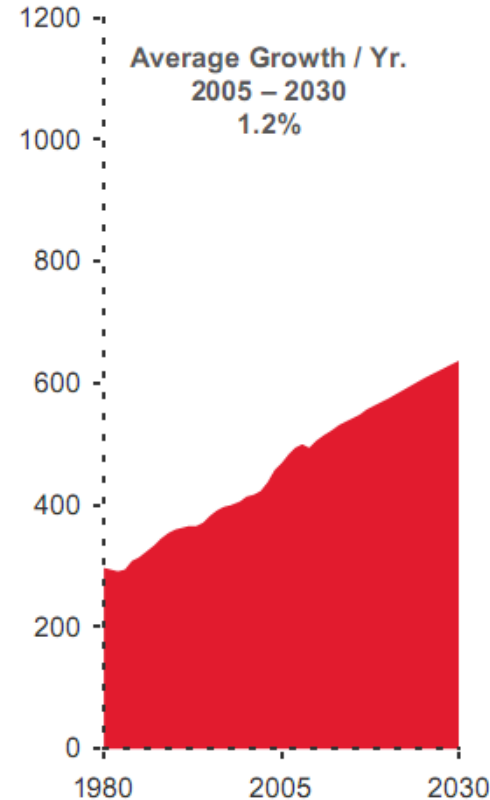
GDP

Trillion 2005\$



Energy Demand

Quadrillion BTUs



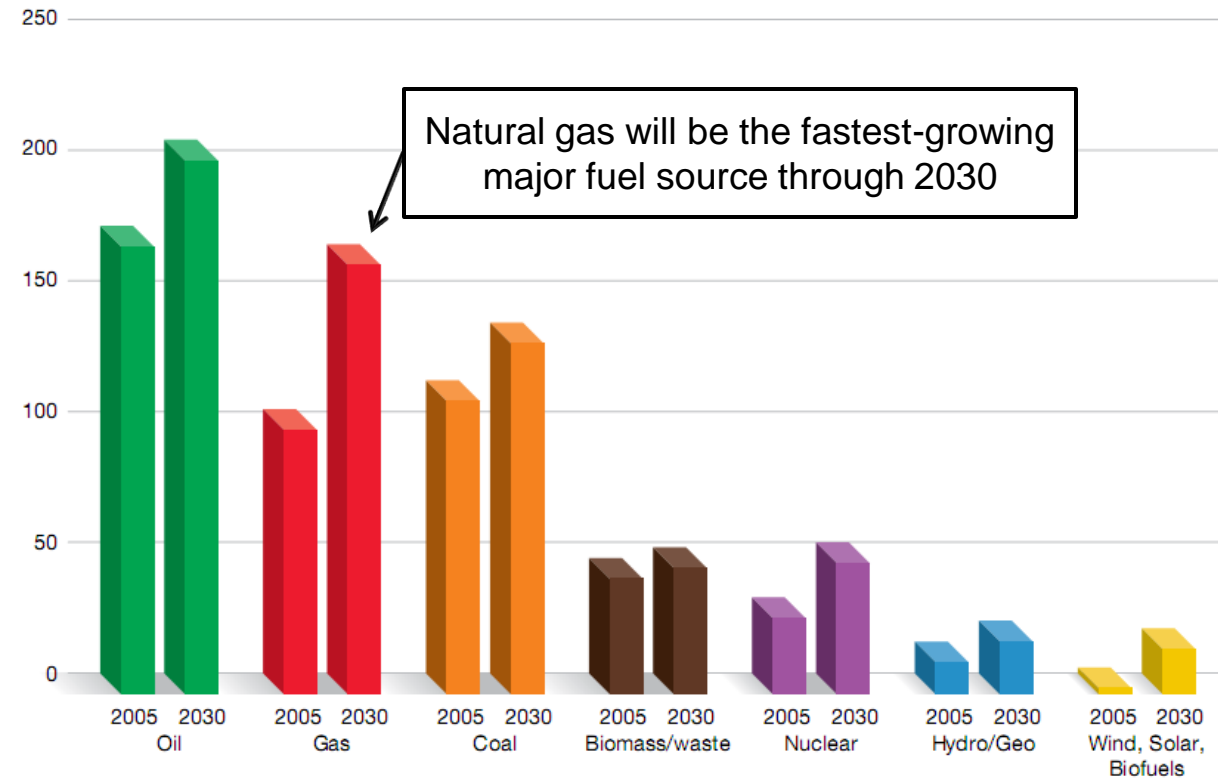
- population growth, economic expansion, urbanisation and individual's prosperity



Fossil fuels will still dominate for decades

Global demand by fuel

Quadrillion BTUs



Average growth rate per year Fuel Consumption 2005-2030

Oil	0.7%
Gas	2.0%
Coal	0.7%
Biomass/waste	0.4%
Nuclear	2.3%
Hydro/Geo	2.1%
Wind, Solar, Biofuels	9.9%

% of natural gas from total energy mix 1990-2030

1990	22%
2005	23%
2010	23%
2030	25% - 28%

- Coal is abundant and cheap but environmentally unacceptable.
- Most vehicles still depend on petroleum products.
- Renewables are growing rapidly but remain expensive.

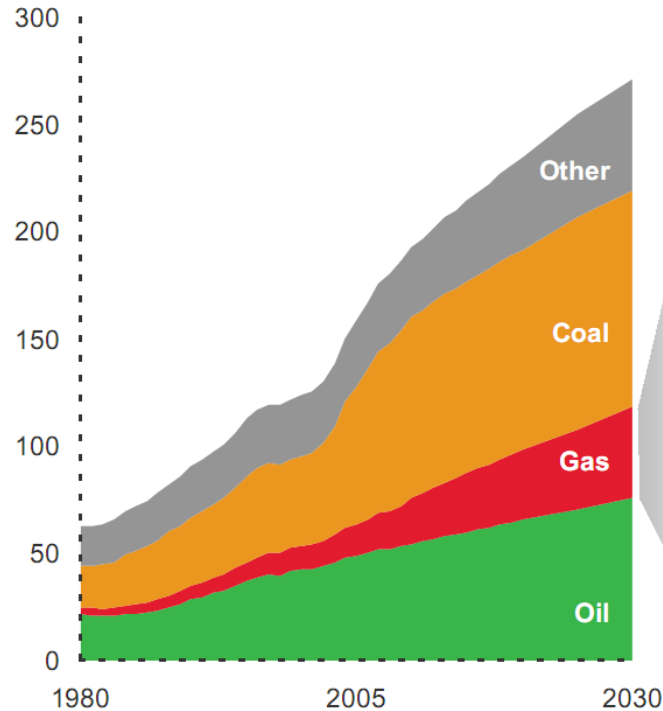


Gas demand outlook accelerates in Asia Pacific



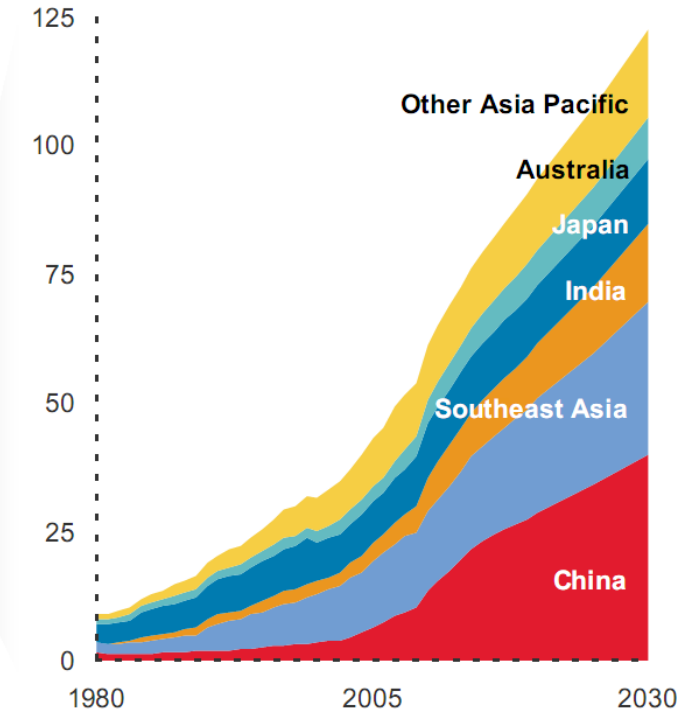
By Fuel

Quadrillion BTUs



By Region

BCFD

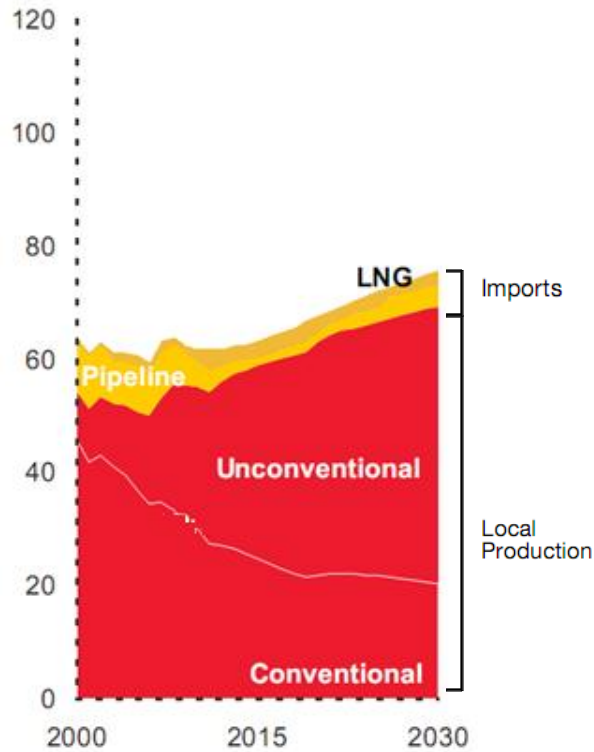


- The share of natural gas in Asia Pacific's energy mix accounted for 10% in 2010 as compared to the global natural gas's share of 23%.
- Accelerating economies of the Asia Pacific region have sparked a ferocious appetite for energy sources. China will be the largest gas use dominator with about 35% by 2030.

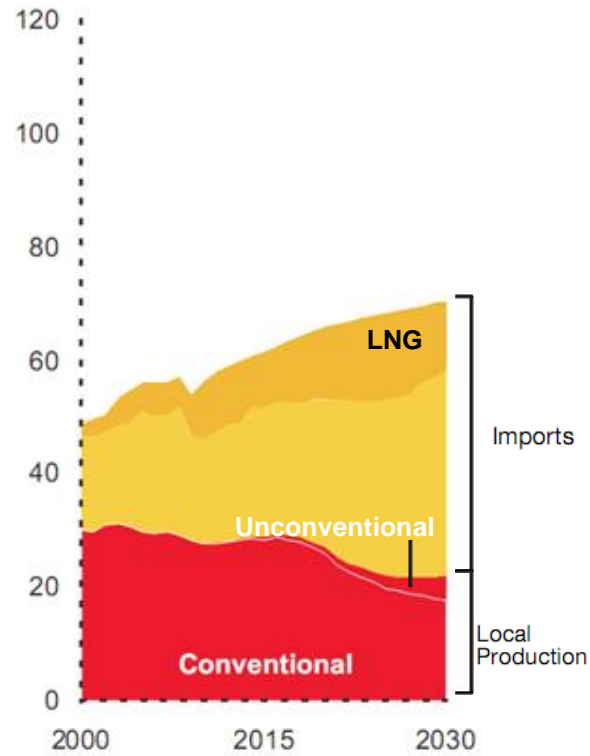


Global gas supply grows and diversifies...

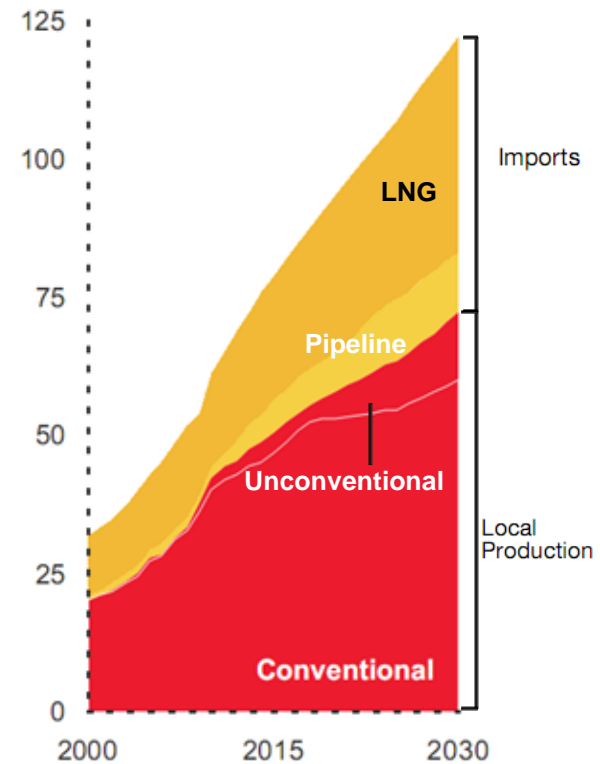
United States
BCFD



Europe
BCFD



Asia Pacific
BCFD

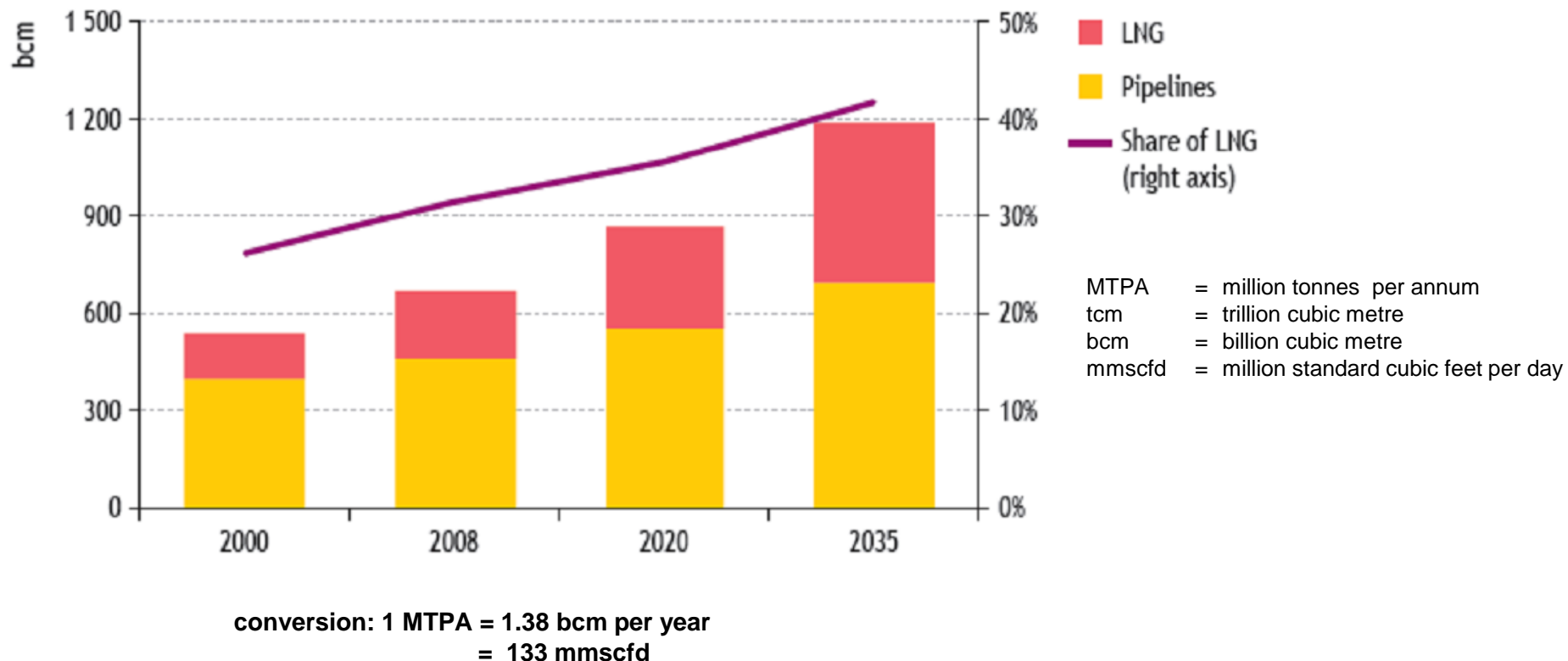


- Unconventional gas now accounts for over half of total US gas production with tight gas is the leading one, and shale gas is the fastest.
- Increased reliance on imported gas especially LNG that will make up for more than 1/3 of the Asia Pacific region's gas supply in 2030.



Rising LNG share in world gas trade

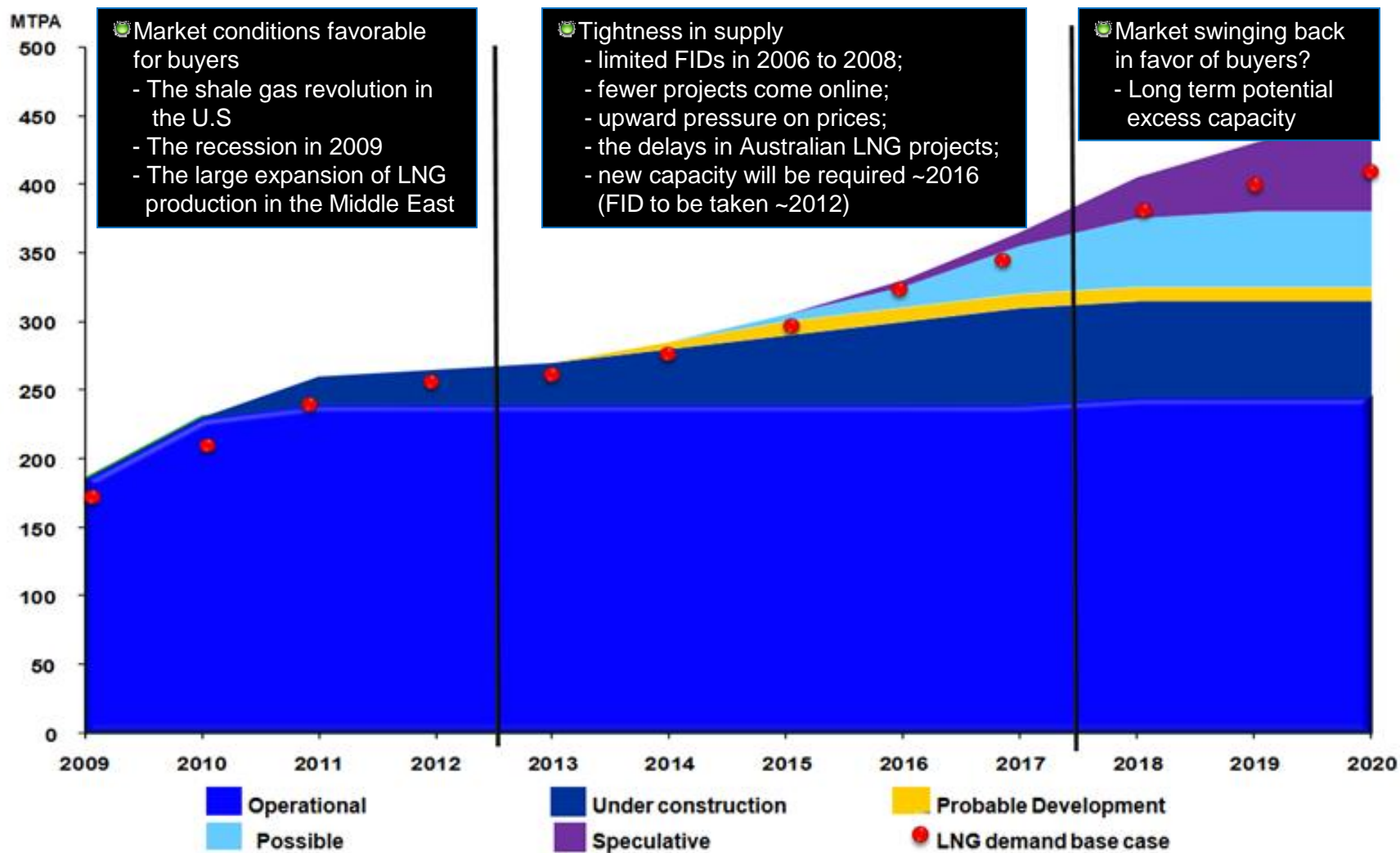
Historical & projection of world inter-regional gas trade



- The share of LNG continues to grow from around 31% in 2008 to 42% in 2035.
- The volume of LNG traded will be more than double over the projection period.



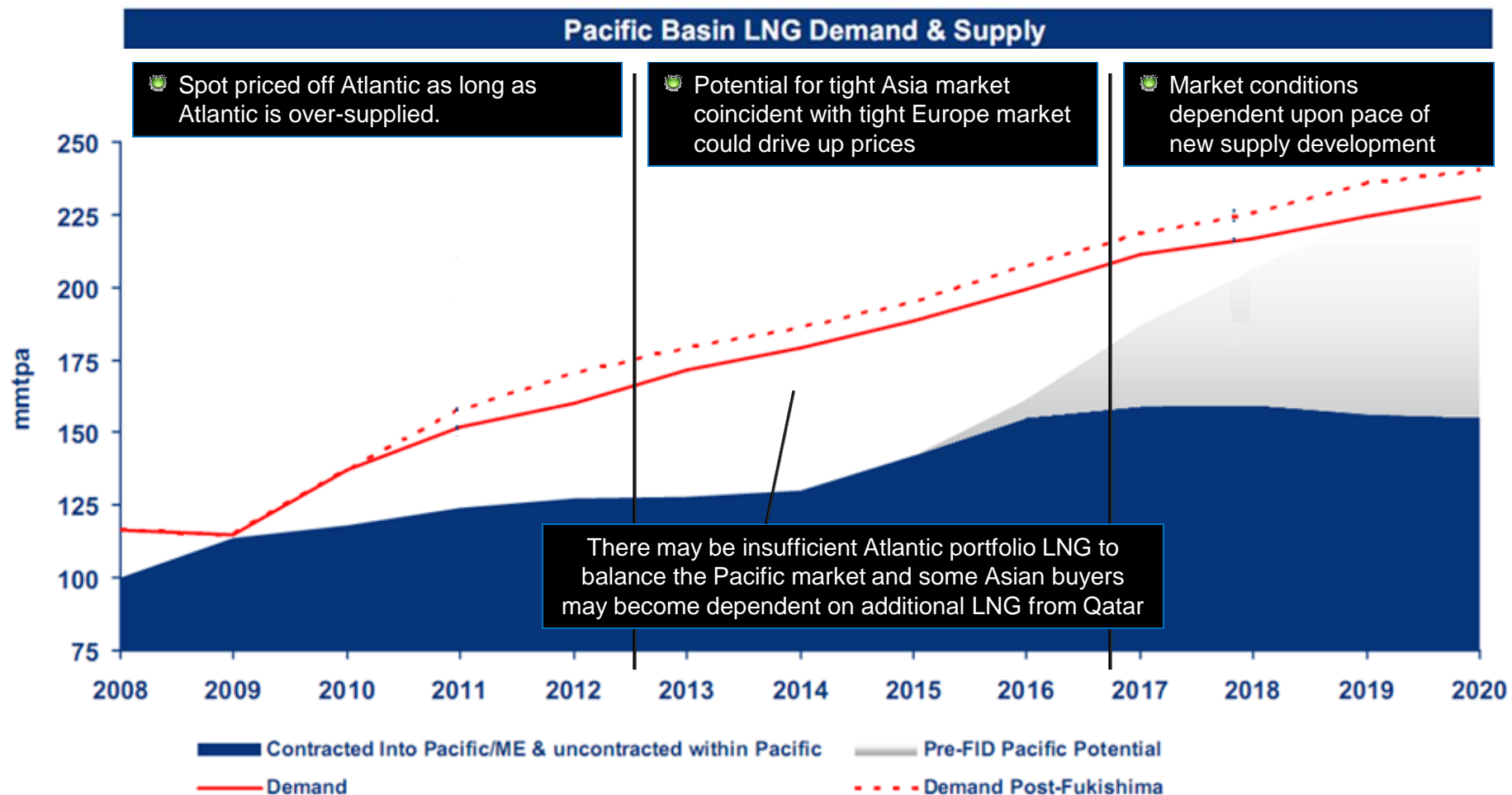
Global LNG business to 2020: feast or famine?



It is feast or famine in the LNG business. There is never a smooth curve!



Asia Pacific LNG outlook pre-&post-Fukushima

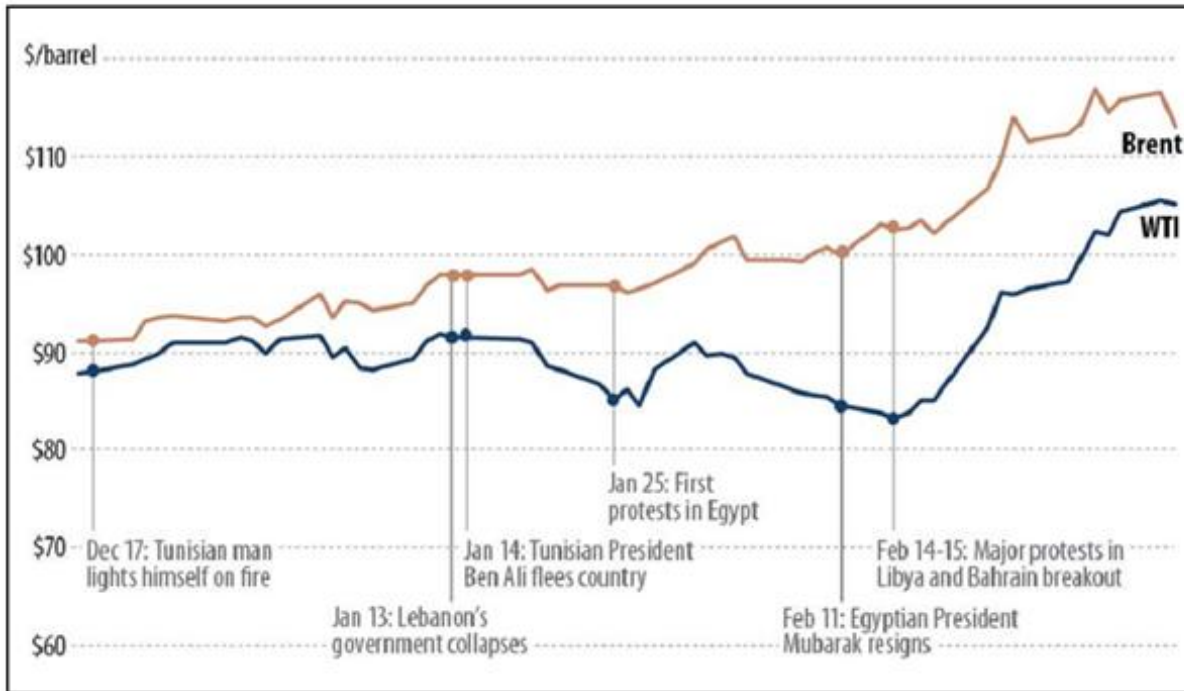


- The global LNG market responded quickly, with LNG supplies diverted to Japan.
- The power sector's demand for gas will grow to make up for the nuclear fallout.



The global impact of unrest in the Middle East

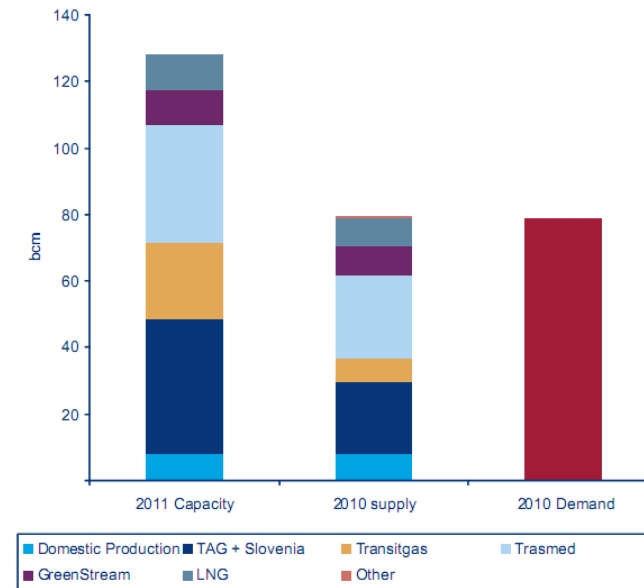
Prices from December 16, 2010, through March 8, 2011



Notes: WTI is the main U.S. benchmark for crude oil prices, while Brent is the main European benchmark price.



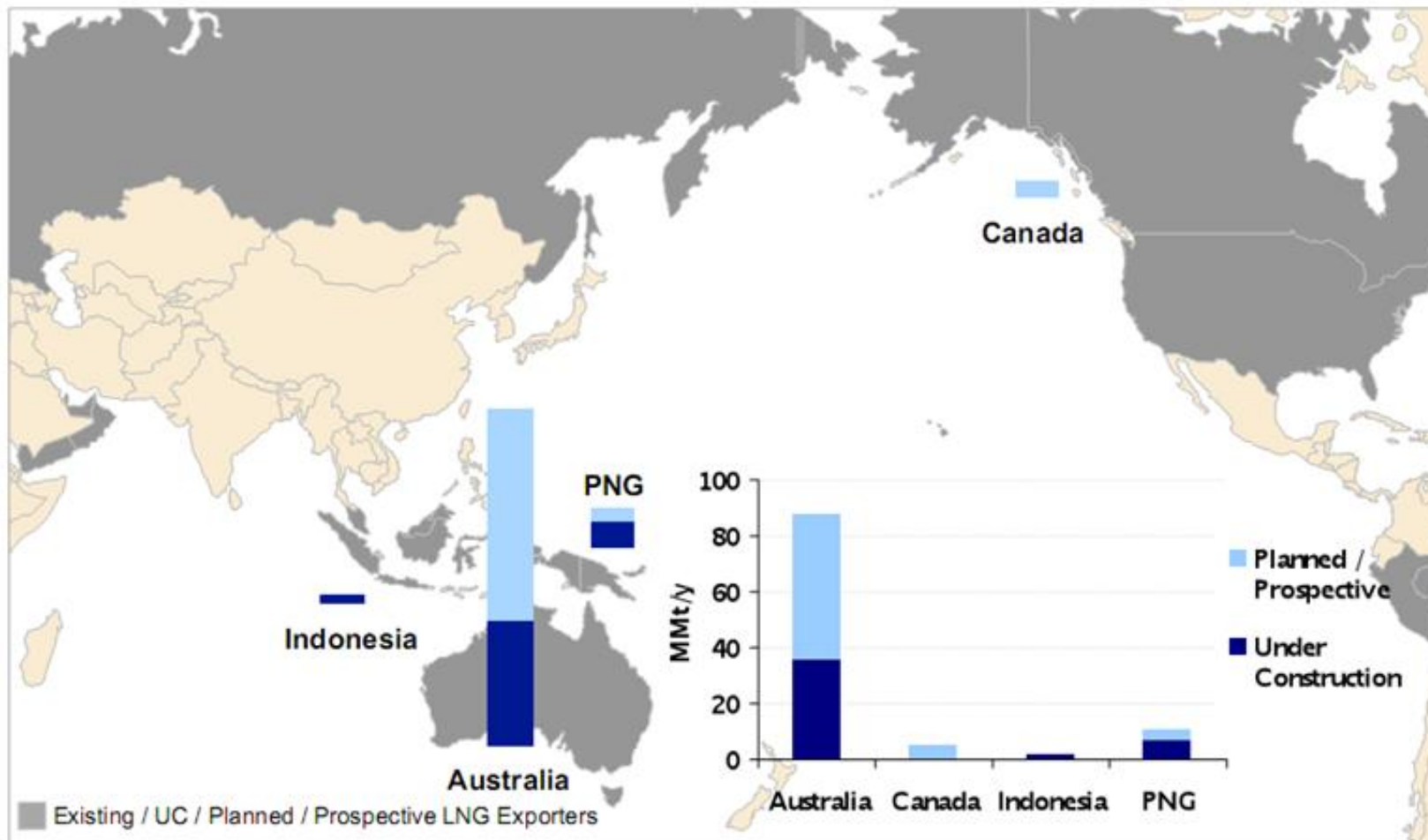
Italy - available import capacity (2011) and supply/demand (2010)



- Such situation has contributed to concern over energy supply and boost oil prices.
- One example: the Libyan civil war has removed 10 bcm of Italian piped gas import.



The evolution of Australia on global gas arena

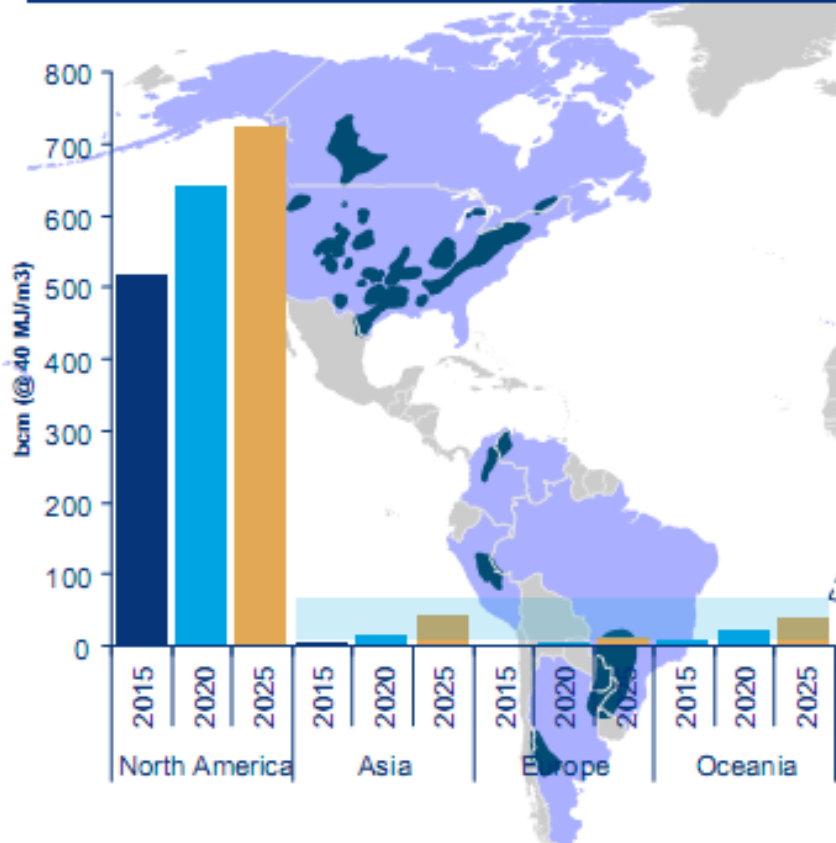


- Australia is driving the next wave of LNG capacity growth.
- Cost inflation remains a challenge.

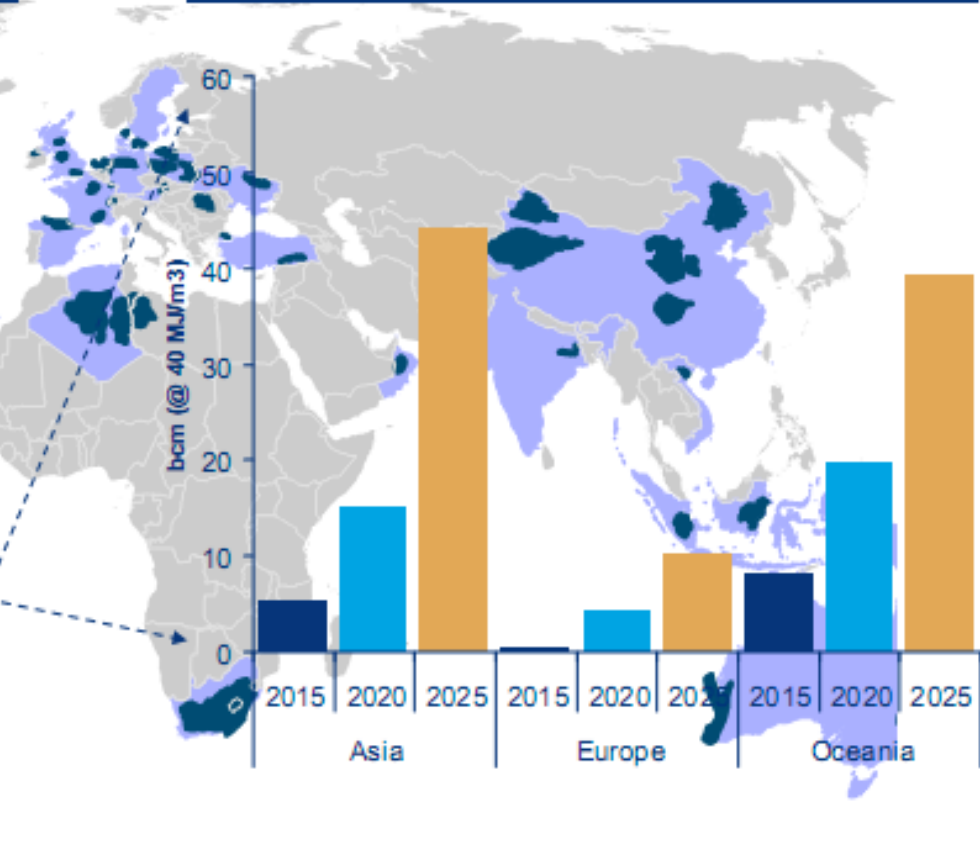


Unconventional gas and the impact on LNG

Global Unconventional Production



Unconventional Production exc. Nth America



- Unconventional gas brought on-stream to the market will augment supplies of LNG.
- The abundance of unconventional gas will strengthen the prominent role of gas.

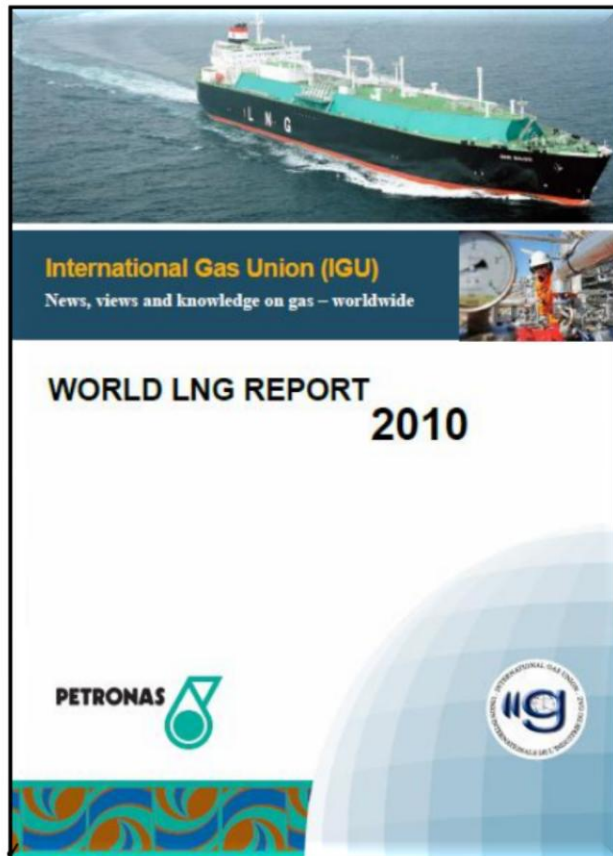


The LNG industry in the years ahead...

- The LNG market is already showing signs of tightening as a result of robust demand growth in 2010 and the demand shock from Japan in the aftermath of the Fukushima Daiichi tragedy.
- While there is an expectation on the incremental LNG supply into the market to grow significantly in 2011 albeit less than in 2010, a temporary slow-down is anticipated in liquefaction capacity brought online in the medium-term (end-2011 to 2013).
- Qatar, which is the largest LNG exporter, is expected to further increase its LNG exports in 2011 as the mega-trains realise full-year production. But in the longer term, Australia is projected to surpass Qatar as the largest LNG exporter.
- The tally of countries turning to LNG imports to meet domestic needs will also continue to rise. Just as the Middle East and South America became LNG importing regions during the last decade, Southeast Asia and possibly Africa, will begin importing LNG this decade.



IGU publication: World LNG Report 2010



- Produced by IGU annually
- Comprehensive report on the state-of-the-art industry covering the entire LNG chain
- Special section on the impact of unconventional gas on LNG industry

www.igu.org/igu-publications-2010/igu-publications-2010

portal.malaysiangas.com/modules/publication/publication/WorldLng/



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 !

