ИНСТИТУТ ЭНЕРГЕТИКИ И ФИНАНСОВ

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The Russia’s LNG production: prospects and problems

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3 d GLOBAL LNG FORUM, Lisbon, Portugal, 18-20 February 2013

Summary

- The Russia's LNG production targets
- Global gas market restructuring with emphasis on LNG trading
- The Asia-Pacific as potential gas consumption growth area
- Growing competition among LNG producers: to what extent?

RUSSIA’S LNG PRODUCTION PROJECTS: ACTUAL AND PROSPECTIVE

	YEAR	Capacity	Extension	Maximum capacity
				MLN T/Y
Sakhalin II	2009 two trains in operation	9.9	0.5	10.4 (since 2012 up to 2015)
			Third train after 2015 ?	Pending
Yamal LNG	2013 start of construction			
	2016 first phase		SLATED	
	2018 second& third phase		SLATED	15
Vladivostok LNG	2013 start of construction	10	SLATED	15
	2017-2020 start of operation			
Pechora LNG	2018 start of operation	2.6	SLATED	8
Shtockman		phase 1	Delayed beyond 2020	28-30
		phase 2		
		phase 3		
TOTAL additional by 2020				38.5

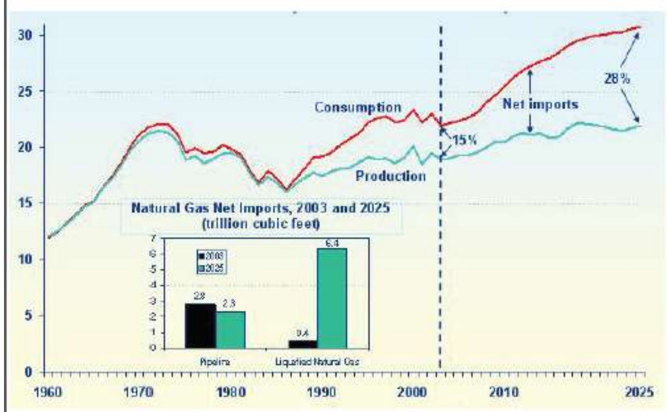
Gas market phases in terms of correlation between gas and oil in energy equivalent

Figure 1 Parameters of gas Supply/Demand equilibrium with gas/oil price ratio to lie within specified price correlations

US GAS STORY

Holmwood consulting

USA gas market



- Growing gas demand in USA
- Limited current supply sources
  - Rapidly decreasing own production
  - Pipelined from Mexico and Canada
- Major and growing shortfall

Figure 2 Picture of US dependency on gas imports in 2006

US GAS PROSPECT

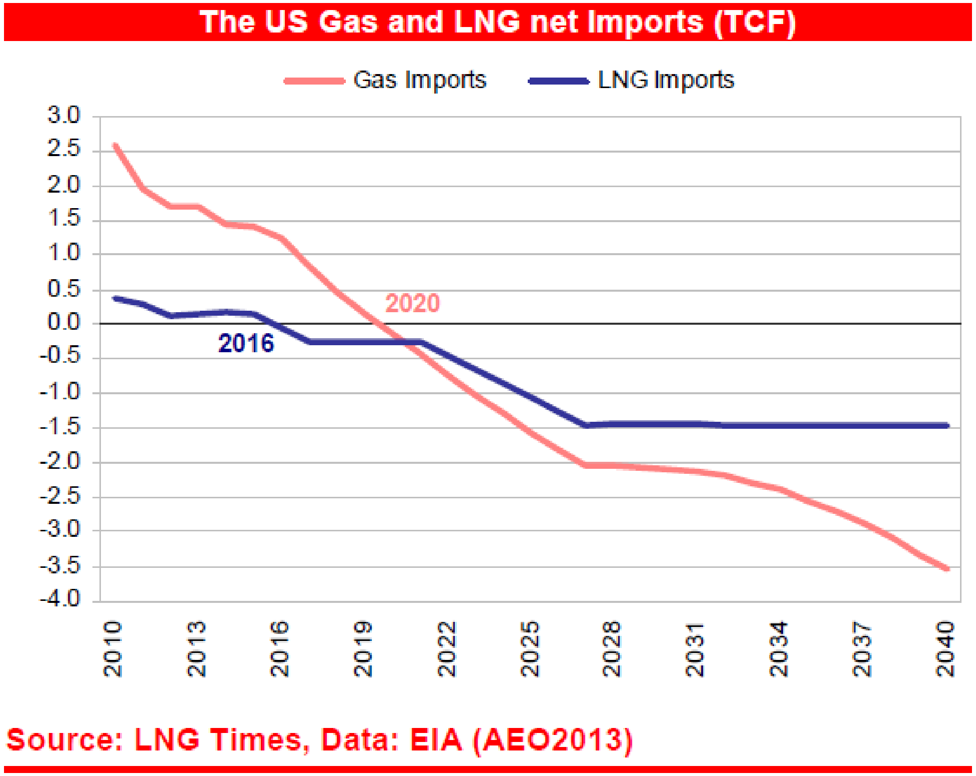


Figure 3 US DOE projections up to 2035

The European gas demand trend

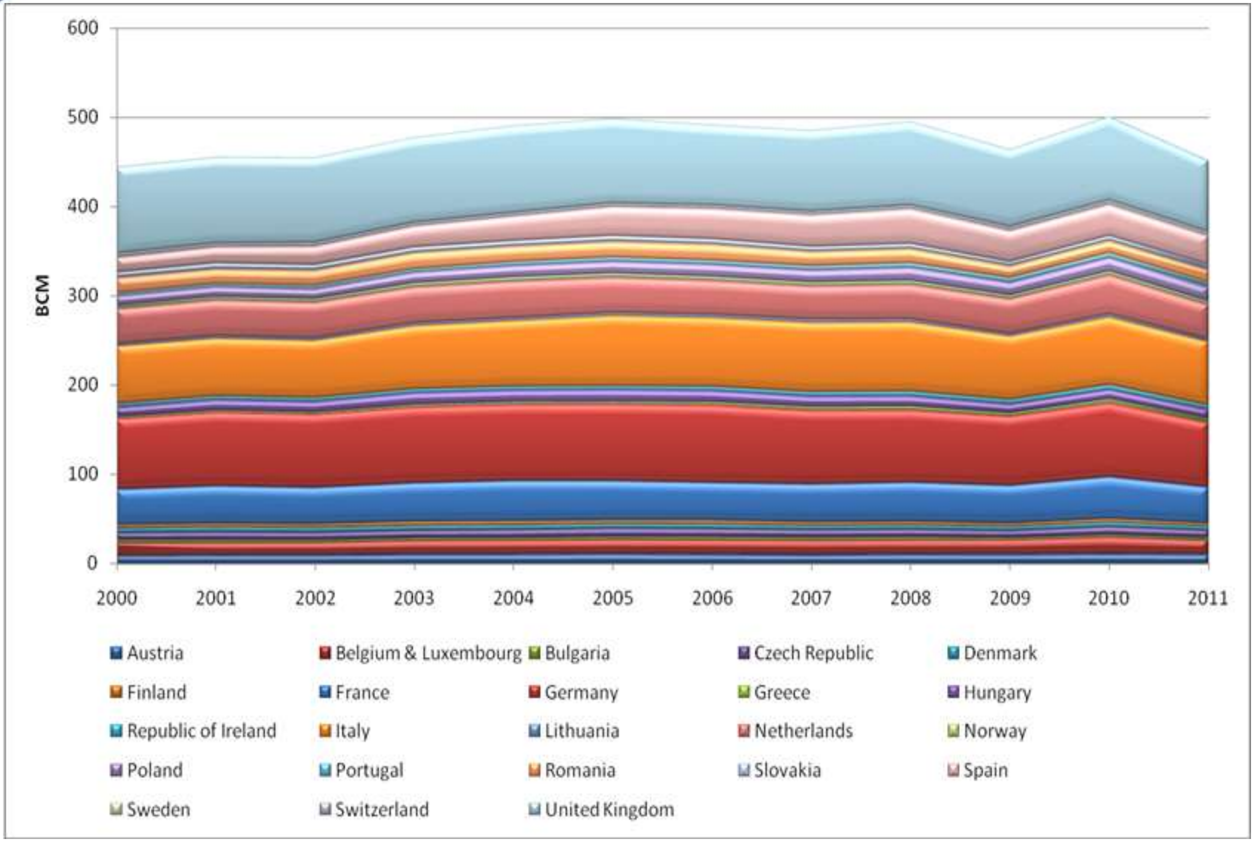


Figure 4 The European gas demand trends over 2000 - 2011

The Asia Pacific gas consumption story

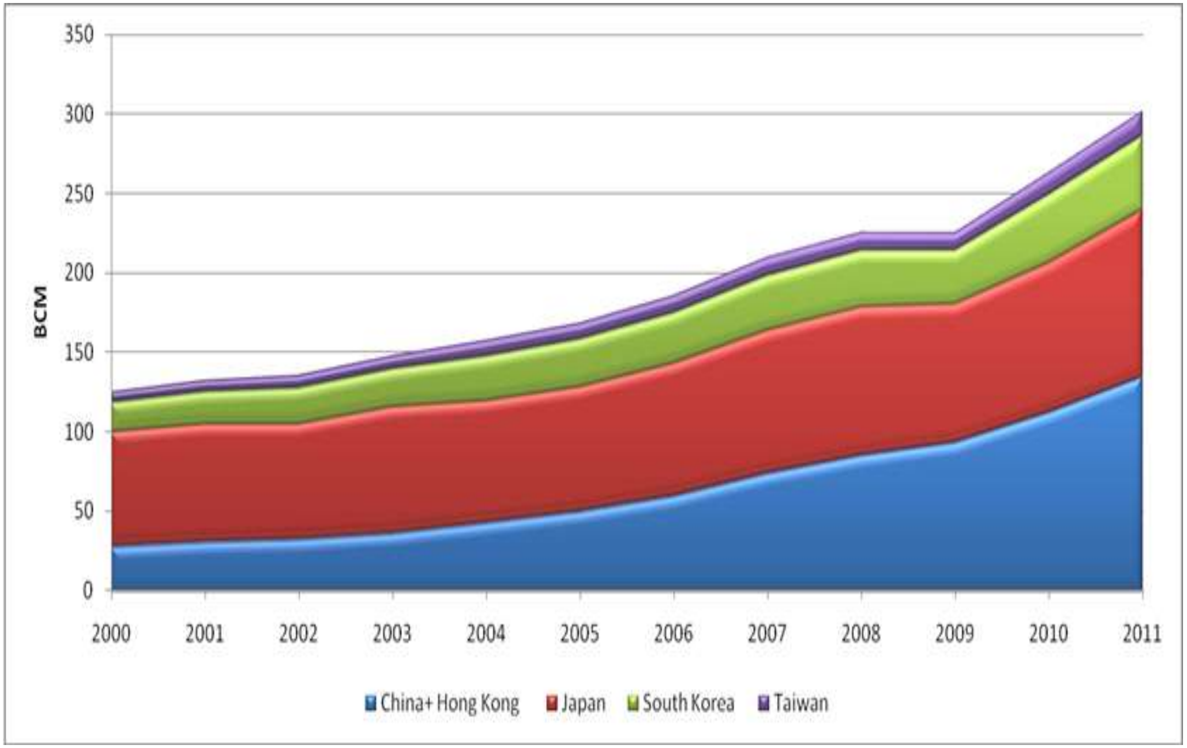


Figure 5 Gas Demand side over 2000-2011 represented by major Asia Pacific energy and gas consumers

North American gas consumption

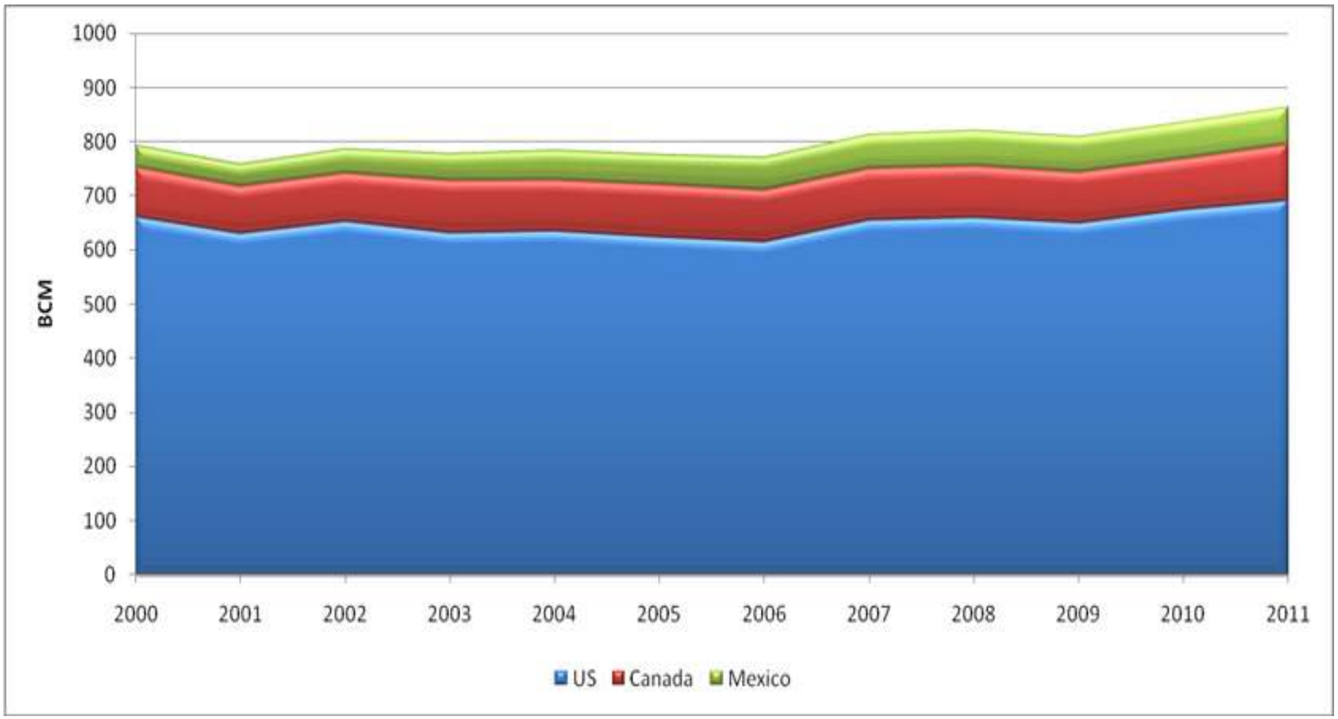
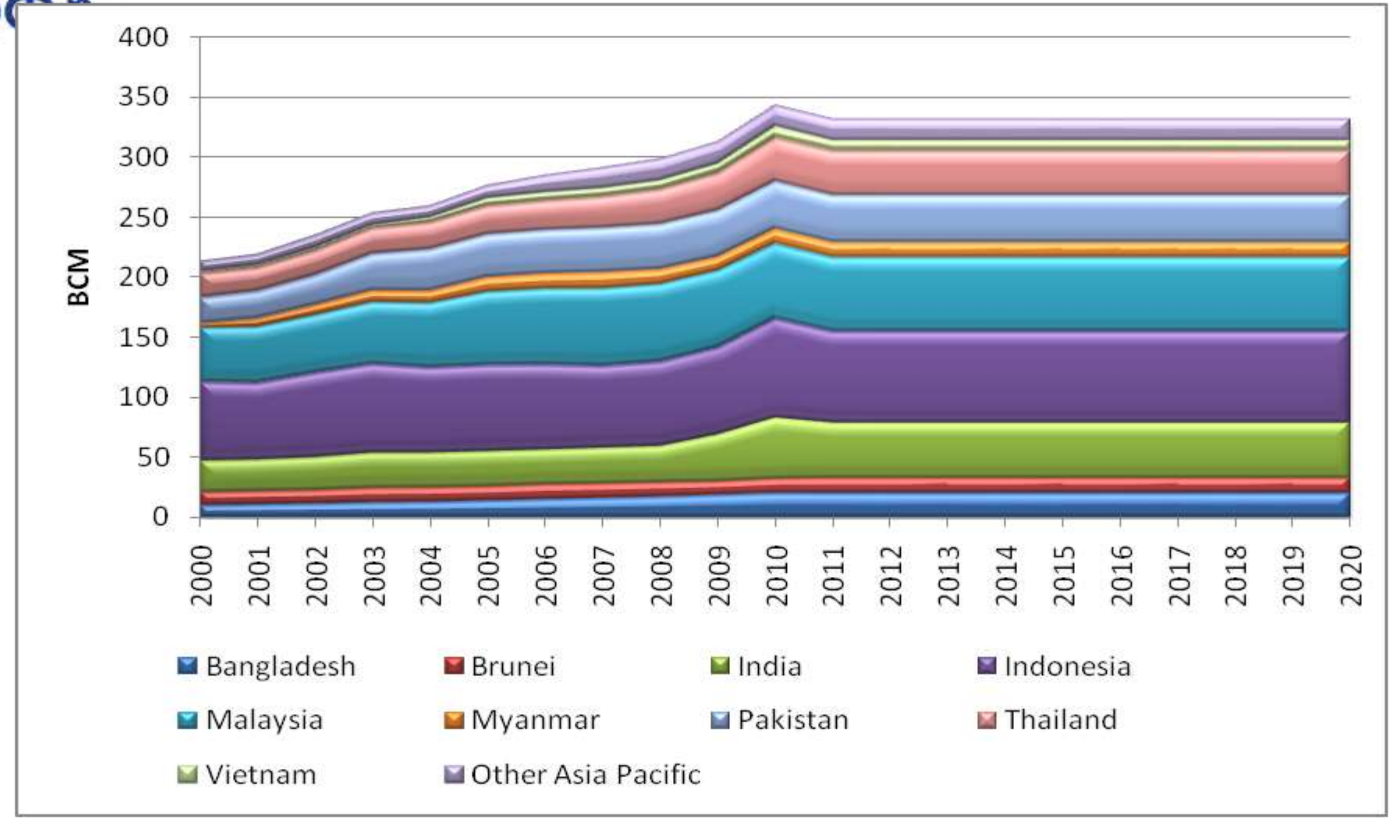


Figure 6 North American gas consumption profile, 2000-2011, BCM

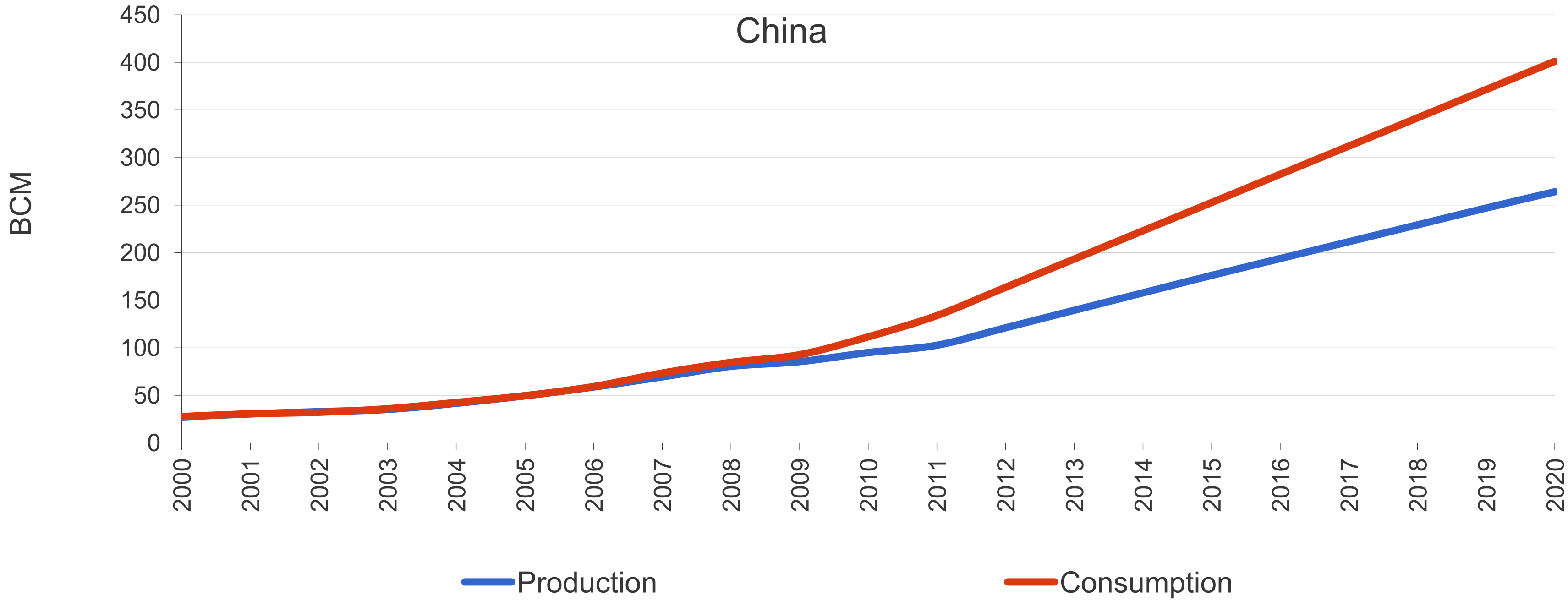
Conventional Asia Pacific gas producers gas production outlook



IEF estimate, various sources

Figure 7 Asian gas production outlook without critical gas players – China and Australia, up to 2020, BCM

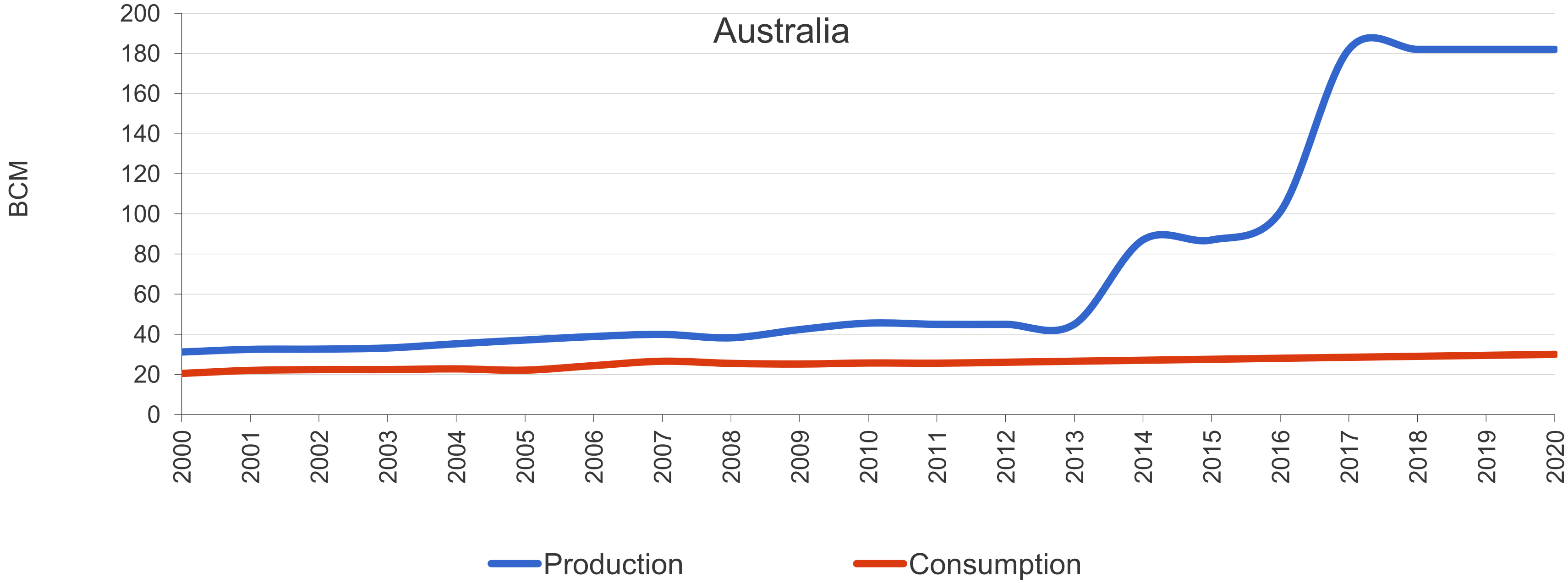
China's gas consumption vs. gas production



IEF estimate, various sources

Figure 8 China's gas consumption and gas production outlook by 2020, BCM

Australia's gas production vs. gas consumption outlook up to 2020



IEF estimate based on optimistic the Standard&Poor's projections

Figure 9 Australia's gas consumption and gas production outlook by 2020, BCM

Australia's LNG Projects

Figure 10 Australia's LNG production projects' geography

Asia’s gas production outlook

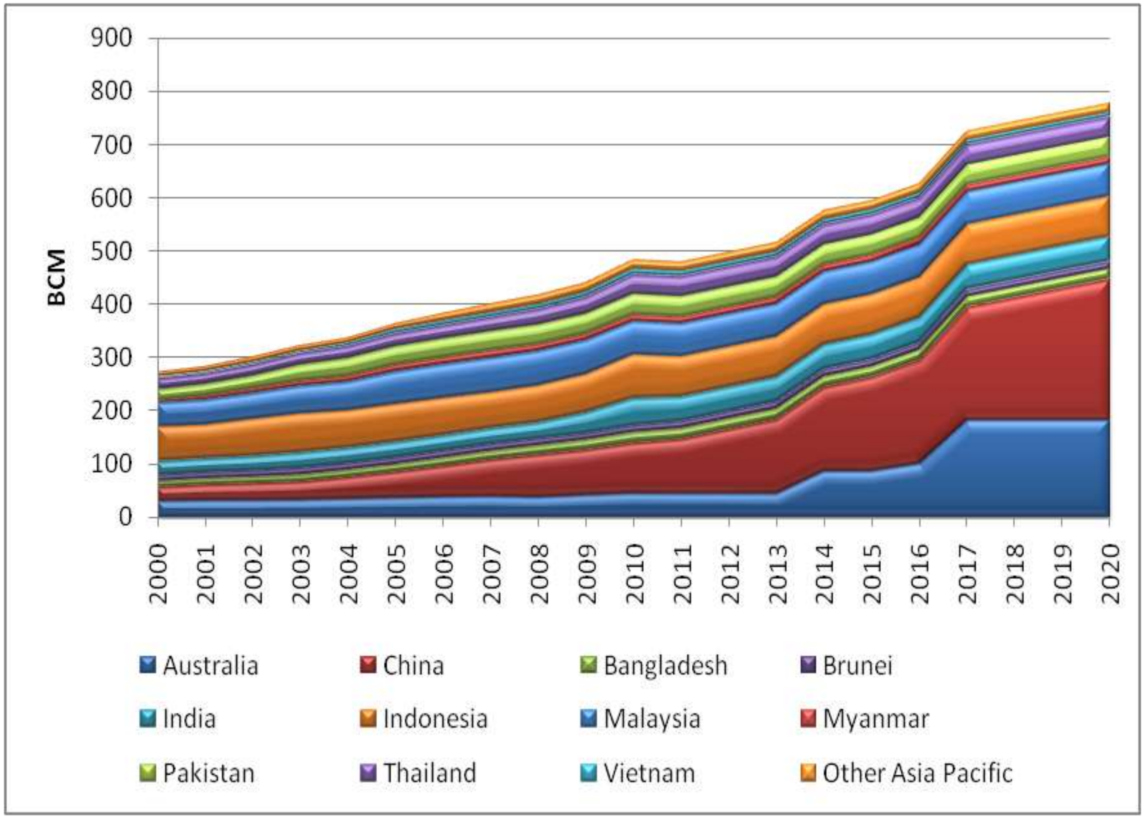


Figure 11 Asian gas production profile up to 2020, BCM

Asia’s gas consumption outlook

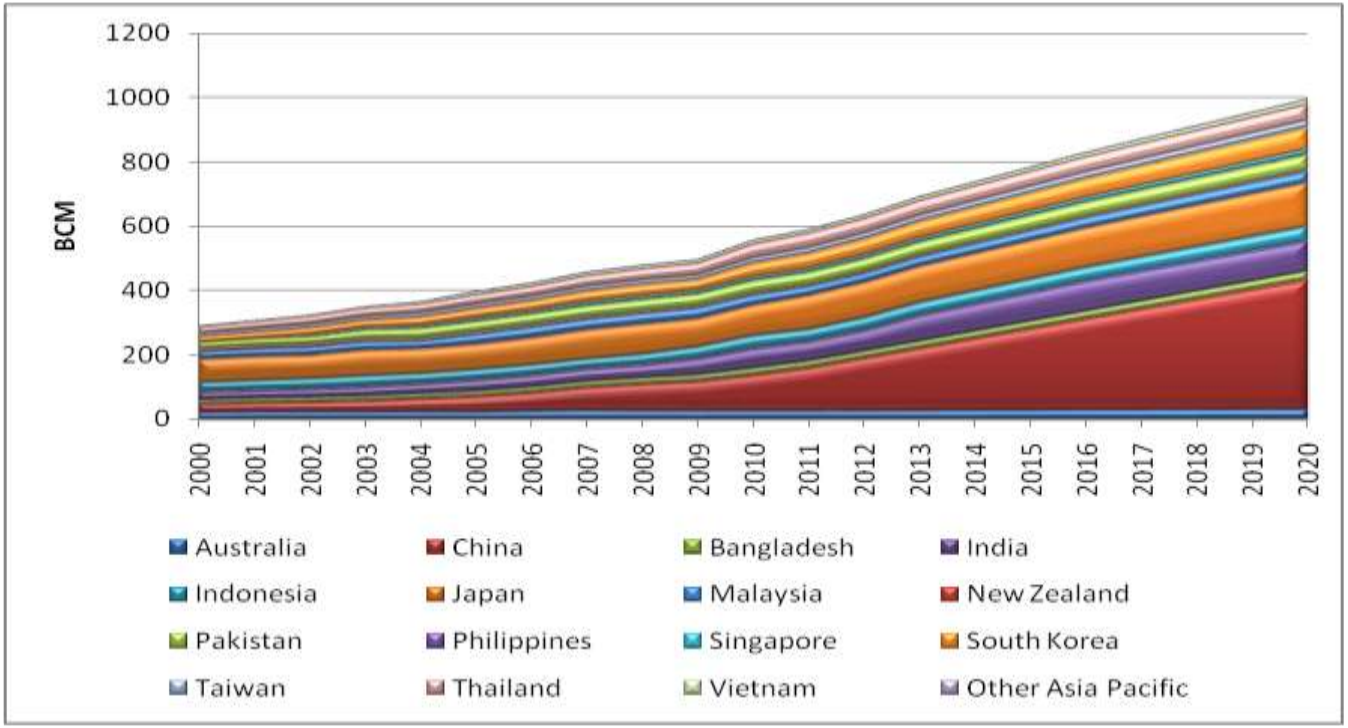


Figure 12 Total Asian gas consumption outlook up to 2020, BCM

Major LNG production additions worldwide over 2013 -2020

- **By 2018-2020 new additions of Australia’s and New Guinea’s LNG production only is some 100 mln t/y, or some 136-140 BCM**

- **By the end of the assessment period (2017-2020) other major new contributions include:**

  The Russian Federation – 52 BCM

  The USA – 42-43 BCM

- **Total major new LNG production additions can come up to as high as 251-257 BCM**

Excessive gas demand potential over regional gas production projections in Asia Pacific up to 2020

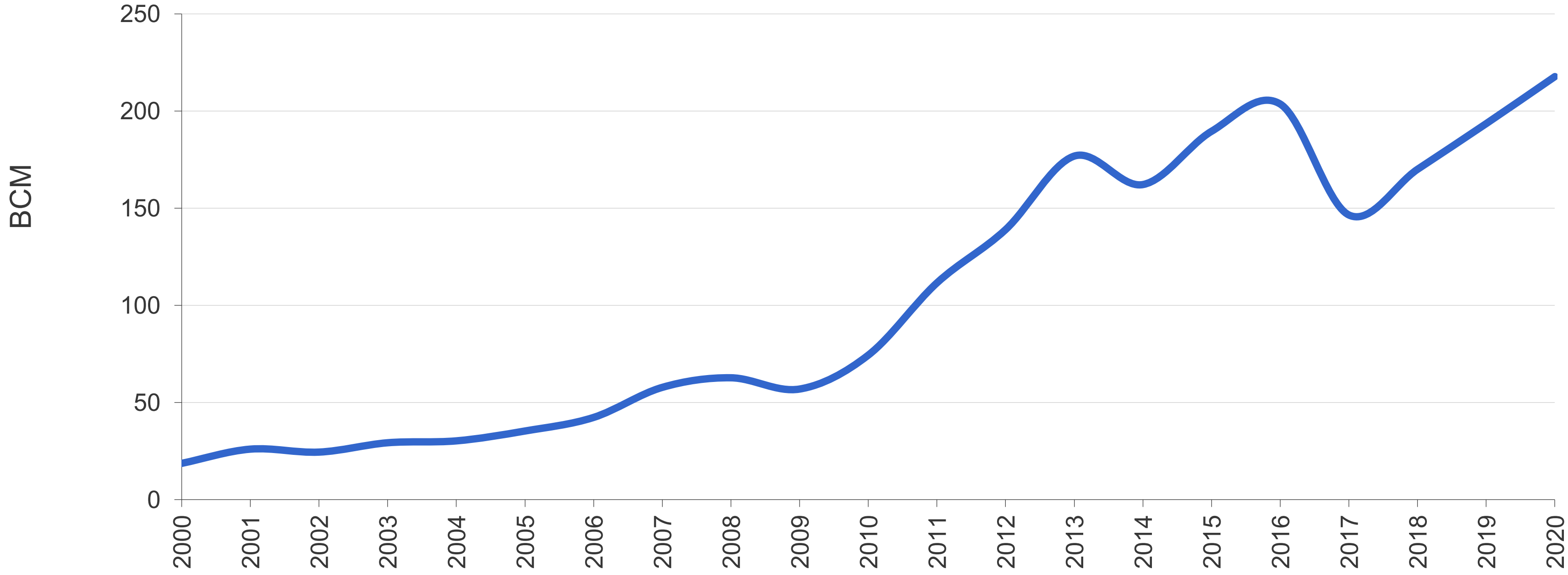


Figure 13 Asia Pacific external gas demand potential up to 2020

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China in focus

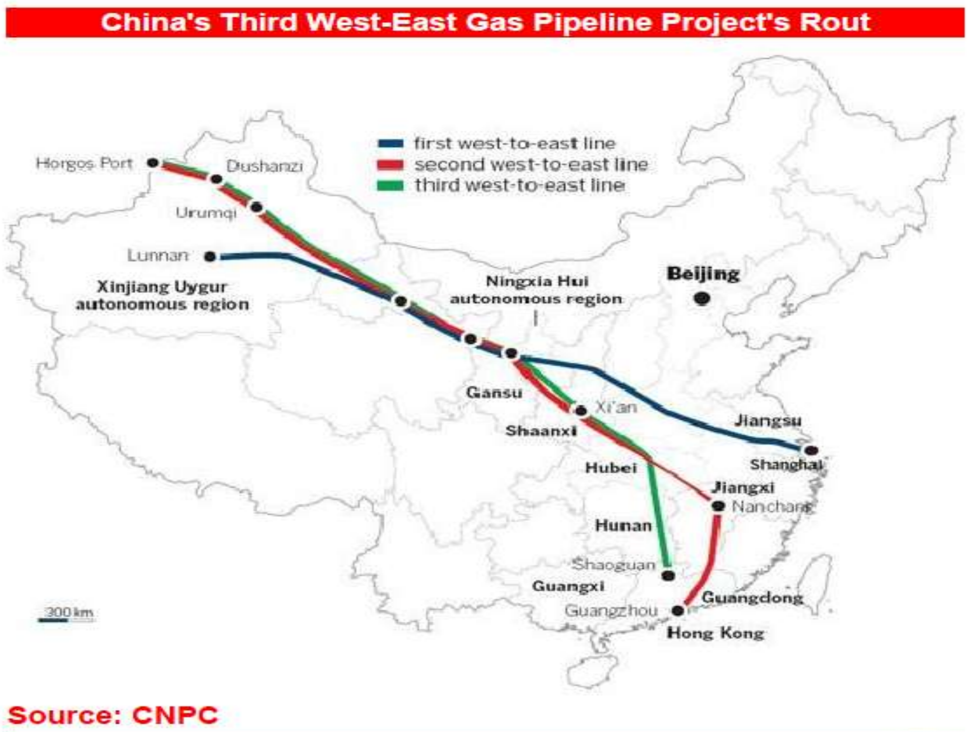


Figure 14 China's gas infrastructure under development

China’s near term

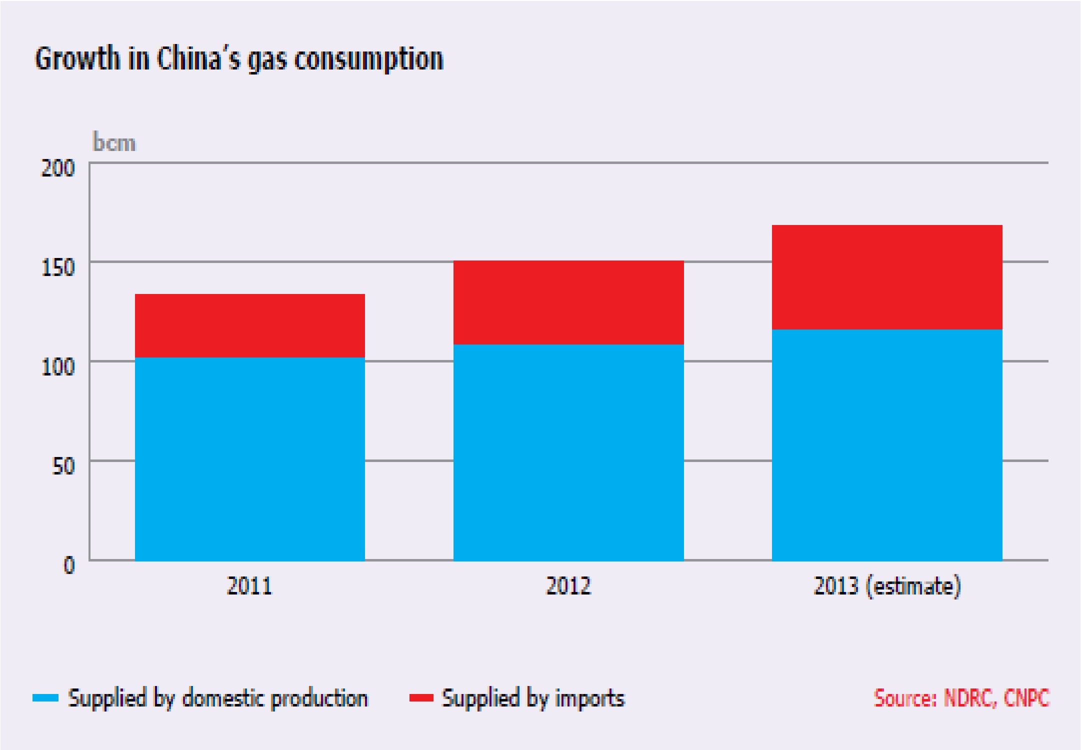


Figure 15 Facts of the Chinese gas production and consumption, 2011 – 2013

Japan’s near term

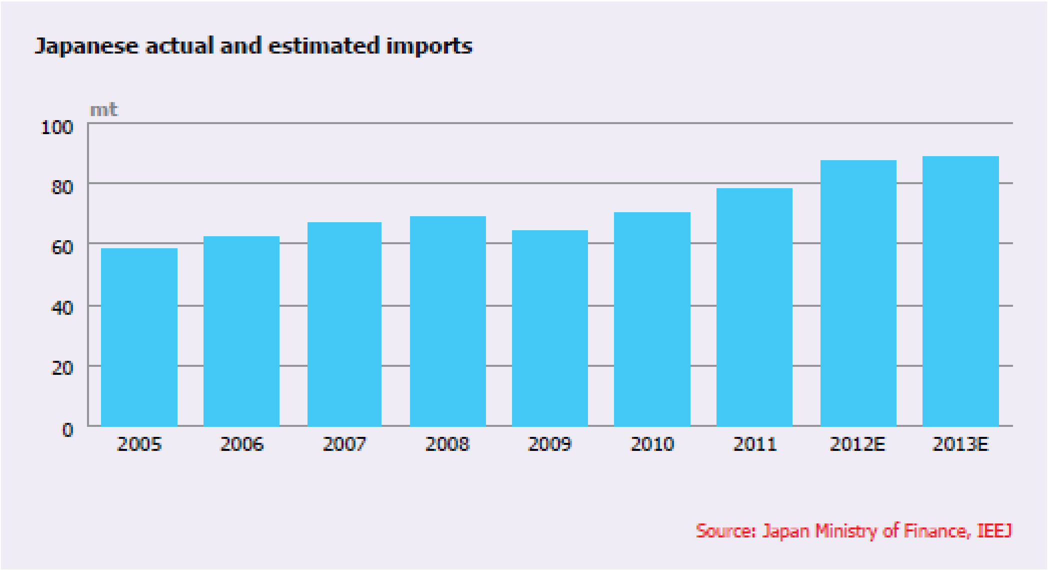


Figure 16 Japan’s LNG import dynamic, 2005-2012 actual, 2013 estimate

India’s mid term

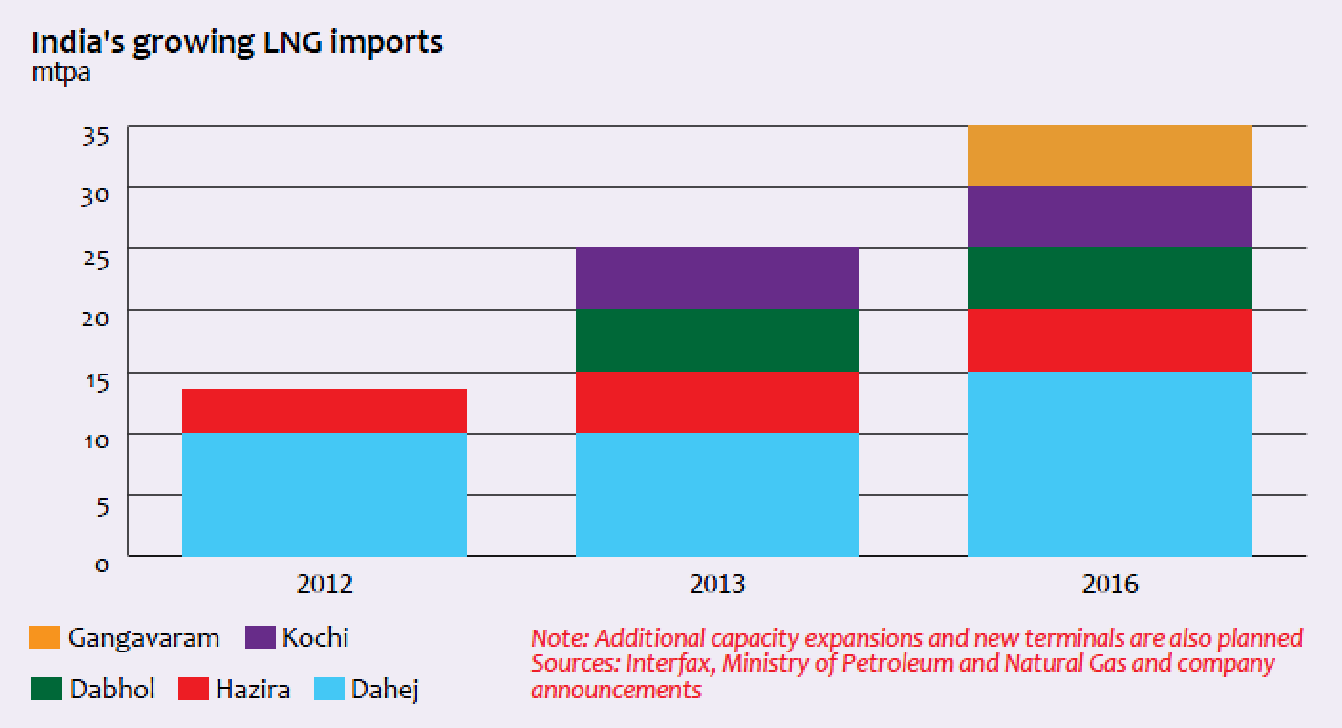
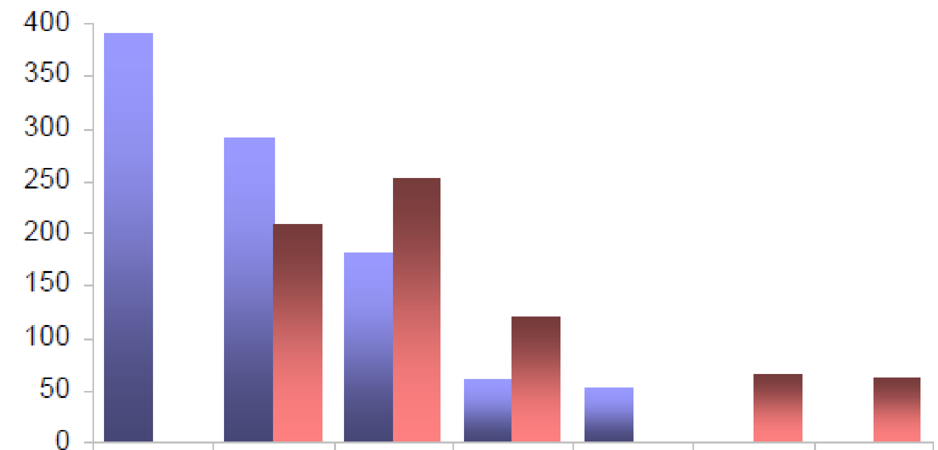


Figure 17 India’s LNG import potential by 2016

Thailand today

Thailand's LNG Providers 2011-2012 (1000-MT)



	Yemen	Peru	Qatar	Nigeria	Trinidad	Indonesia	Russia
2012	392	290	180	61	51	0	0
2011	0	208	252	121	0	63	62

Source: LNG Times, Data: GLNGD, Thai Custom

Figure 18 Thailand's LNG Providers 2011-2012

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Actual gas pricing trends in Asia and the US

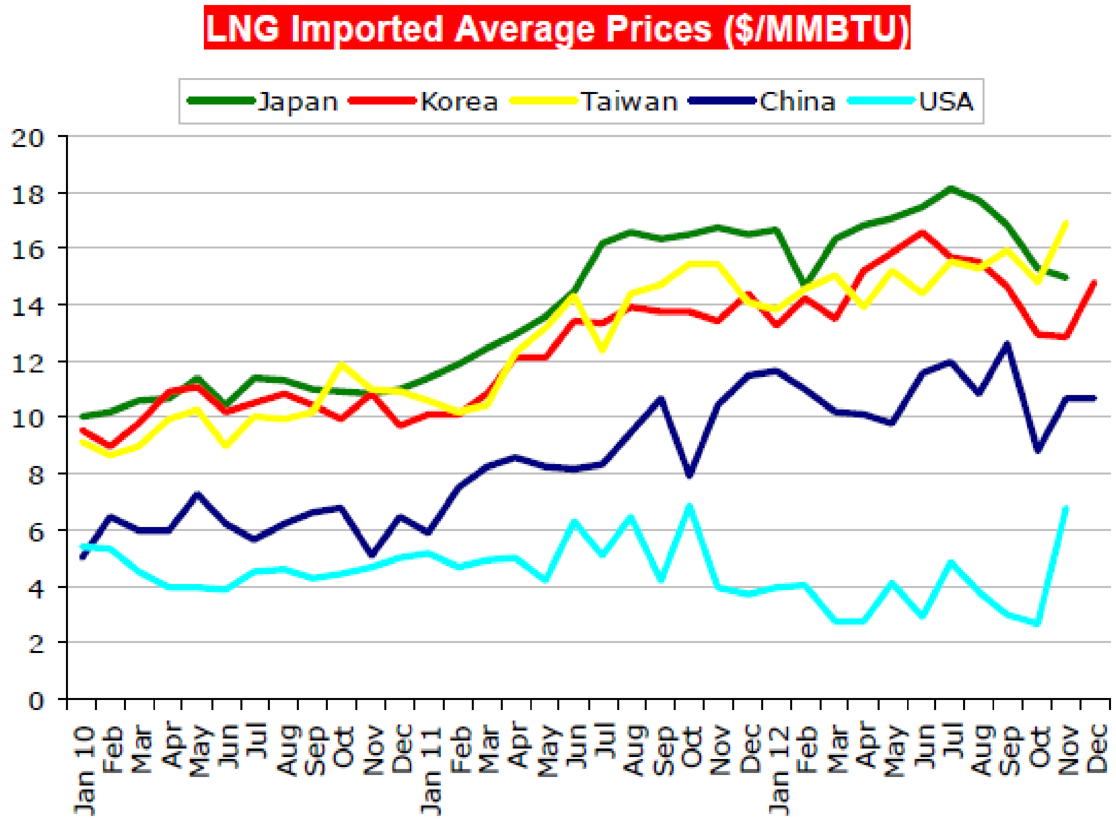

Figure 19 LNG pricing picture in the Asia Pacific over January-October 2012

2013 LNG landed prices worldwide

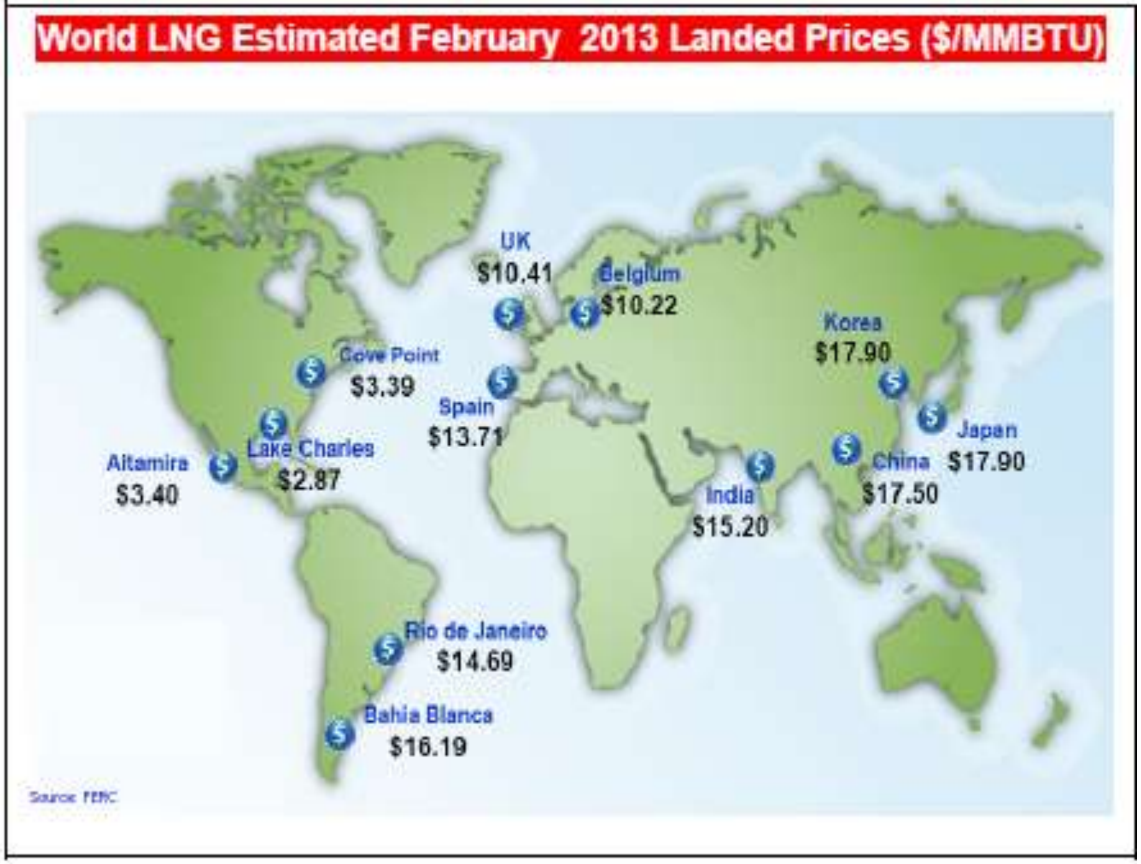

Figure 20 LNG pricing picture worldwide, February 2013

Portugal

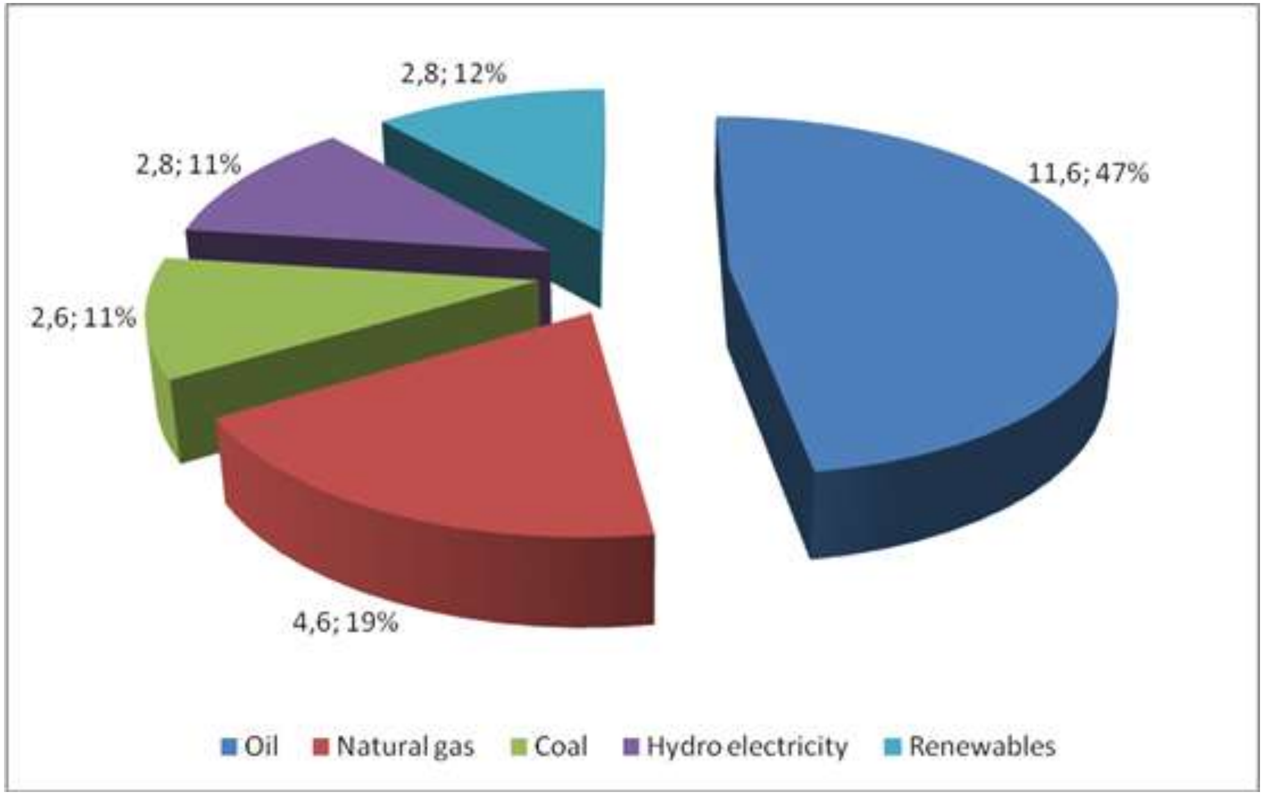

Figure 21 Portugal's energy consumption profile, 2011

Conclusion

- Over 2013- 2020, according to optimistic view, new additions of Australia's and New Guinea' LNG production only is some 100 mln t/y, or some 140 BCM
- By the end of the assessment period (2017-2020) other major new contributions include: The Russian Federation – 52 BCM and the US – 43 BCM;
- Judging by the LNG infrastructure development in the Asia Pacific over 2013- 2020, some more than 147 BCM/y can be delivered in the region additionally

Conclusion

- Competition among key new LNG producers – the Russian Federation and the US should increase to the extent the global gas market can absorb additional gas supply without damaging conventional long-term oil-linked contractual system
- General approach to LNG production projects development require stable economic climate with understandable oil-linked pricing and clear gas demand perspective

CONCLUSION

Over 2013-2020 extra regional LNG additional supply potential coming from Russia the US and West Africa as estimated at 117 BCM in total, on the background of potential demand side taking into account conventional gas flowing to the area somehow equates to the Asia Pacific external gas demand potential up 2018-2020 with oversupply tendency

Competition among LNG producers should increase to the extent the global gas market can absorb additional gas supply without damaging conventional long-term oil-linked contractual system

Thank you for your time!