

# GAS

## Medium-Term Market Report 2012

# Medium-term Gas Market Outlook

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**Market Trends and Projections to 2017**

# Highlights

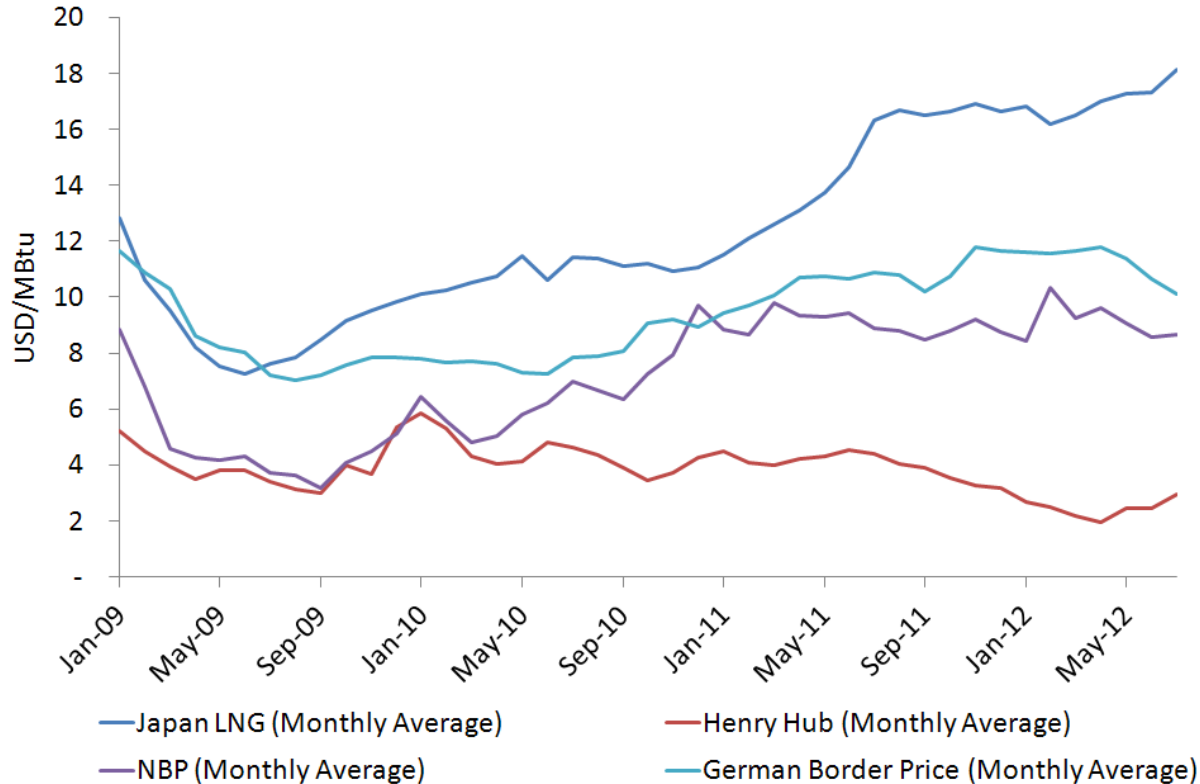
- **Natural gas demand is expected to increase by 576 bcm over 2011-17 to reach 3937 bcm (2.7%/y)**
  - China and the United States are the main drivers
  - No Golden Age of Gas in Europe!
  - Middle East demand is constrained by supply
  - Still uncertainty on Japan's LNG imports
  - *This assumes no double-dip recession*
  
- **FSU and North America are the largest contributors to global supply**
  
- **LNG markets tighten over 2012-14**
  - The next wave of LNG exports starts only end 2014 with Australian and later North American LNG
  - Still strong LNG demand over the next 2 years
  - LNG trade expands by 1/3 over 2011-17
  - China becomes the third largest importer after Europe and Asia Oceania

# Setting the scene

## *Review of the year 2011*

- **World gas demand increased by a modest 2% in 2011**
  - All regions but Europe saw their demand increasing
    - ◆ UK's demand back to the mid 1990s
  - China was by far the fastest growing market with 21% in 2011
  
- **Supply increased faster than demand**
  - The increase was supported by the United States, Qatar and Russia
  - Production dropped significantly in Europe and Africa
  
- **But LNG markets were still tight in 2011**
  - Notably due to the surge in Japanese LNG imports

# Regional gas prices are drifting further apart



Source: ICE, EIA, IEA, German Customs, Japanese Customs.

- **There are widening disparities between regional gas prices, which are increasingly determined by their respective regional dynamics**
  - Asian prices follow oil prices moves due to LT contracts
  - North America is totally disconnected from other regions and likely to remain so in the medium term
  - Europe in the middle between spot and oil indexation

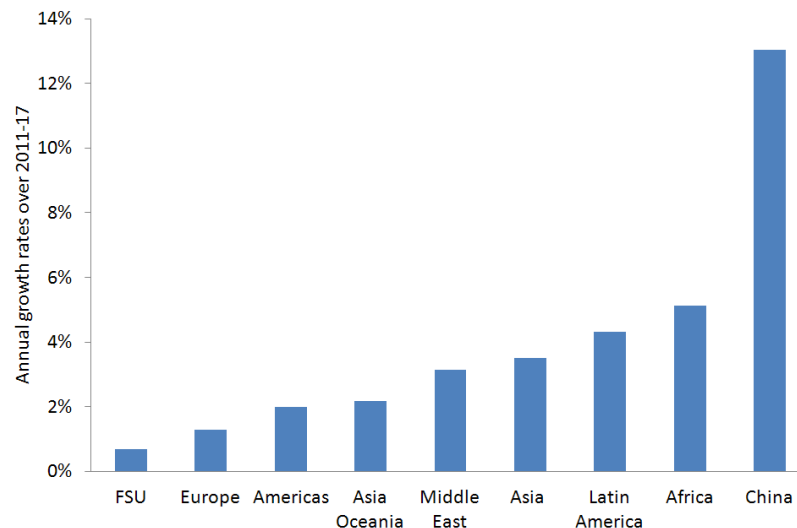
# Strong demand growth over 2011-17

*But with wide regional disparities*

- **World gas demand is to rise to 576 bcm by 2017**

- World gas demand increase of 2.7%/y over 2011-17 is in line with last decade's growth
- If the economy does not collapse

Regional demand growth rates 2011-17



- **The fastest growing region is by far China (+13%/y)**

- **Africa, the Middle East, Latin America, Asia have annual growth rates ranging from 3% to 5%**

- Slow growth in FSU

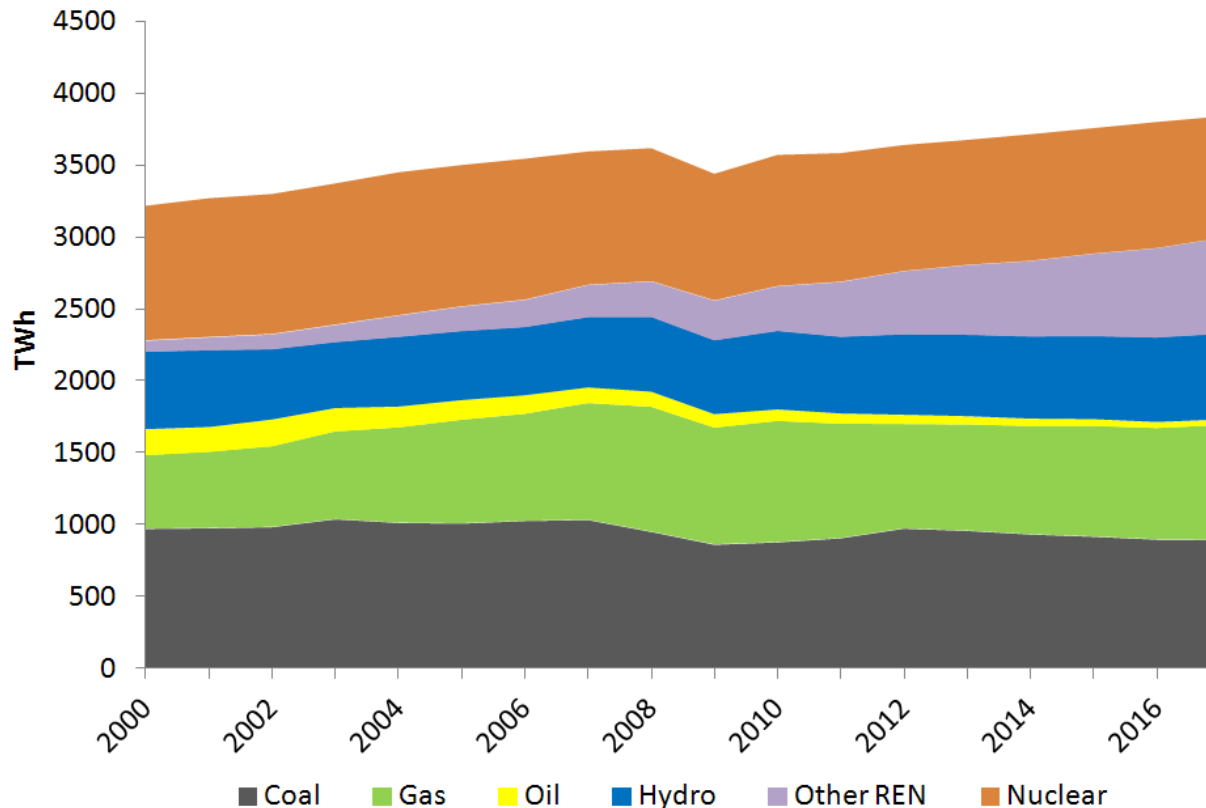
- **North America and Asia Oceania are the fastest growing OECD regions**

- European gas demand growth is limited (actually, we may have been optimistic)

# A bottom anywhere?

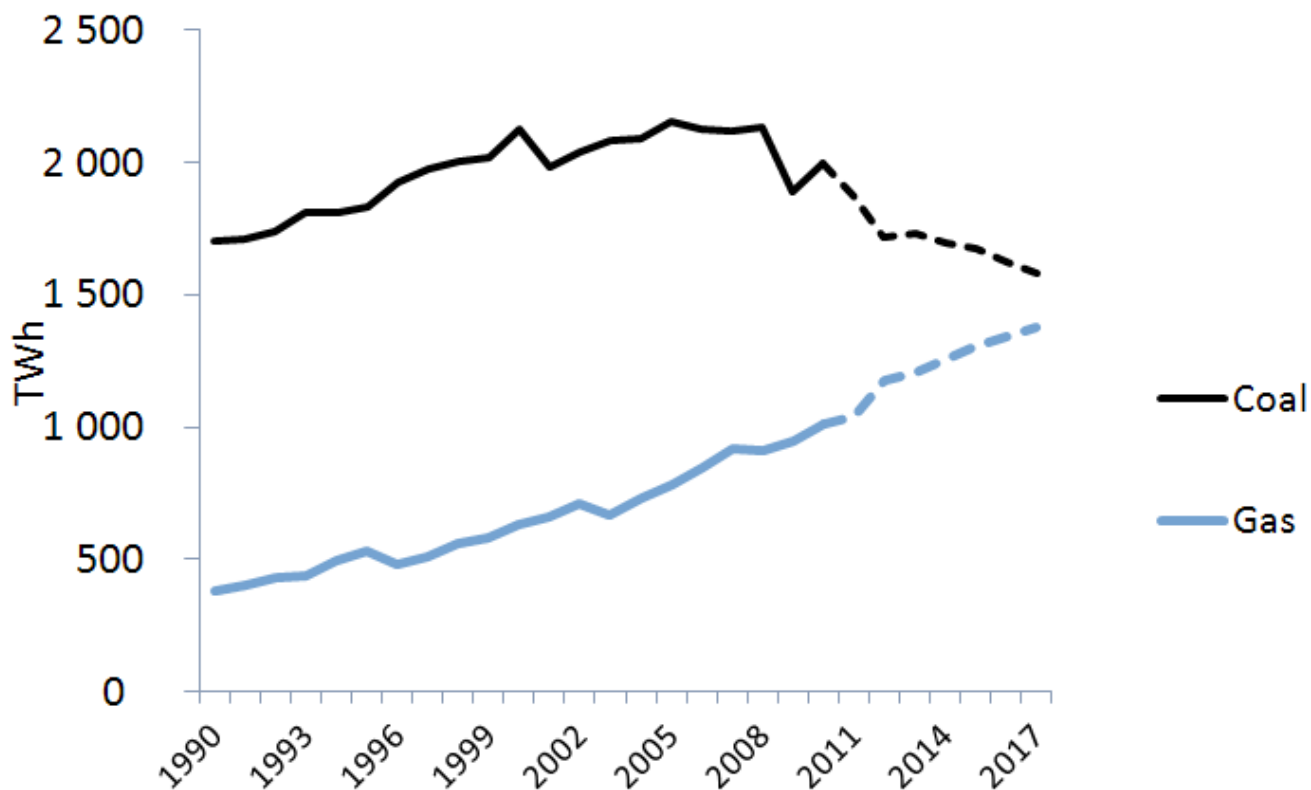
- **OECD Europe gas demand reached 520 bcm in 2011, a 9% drop**
  - This level is 10 bcm lower than the 2009 level, in the middle of the economic crisis
  
- **Weather contributed to 60% of the drop**
  - Industry to another 10%
  - And power generation to the remaining 30%
  
- **But 2012 hardly looks any better**
  - Demand dropped by another 3% over the first six months
    - Few exceptions such as Turkey
  - The drop seems to come mostly from the power and industry sectors

# In Europe, gas-fired plants will struggle



- Power demand increases slowly due to low GDP growth
- Renewables generation (excl. hydro) more than doubles from 2010
- There is less room for combustible fuels
  - Gas has to compete against coal-fired plants
  - Gas is disadvantaged due to high gas prices

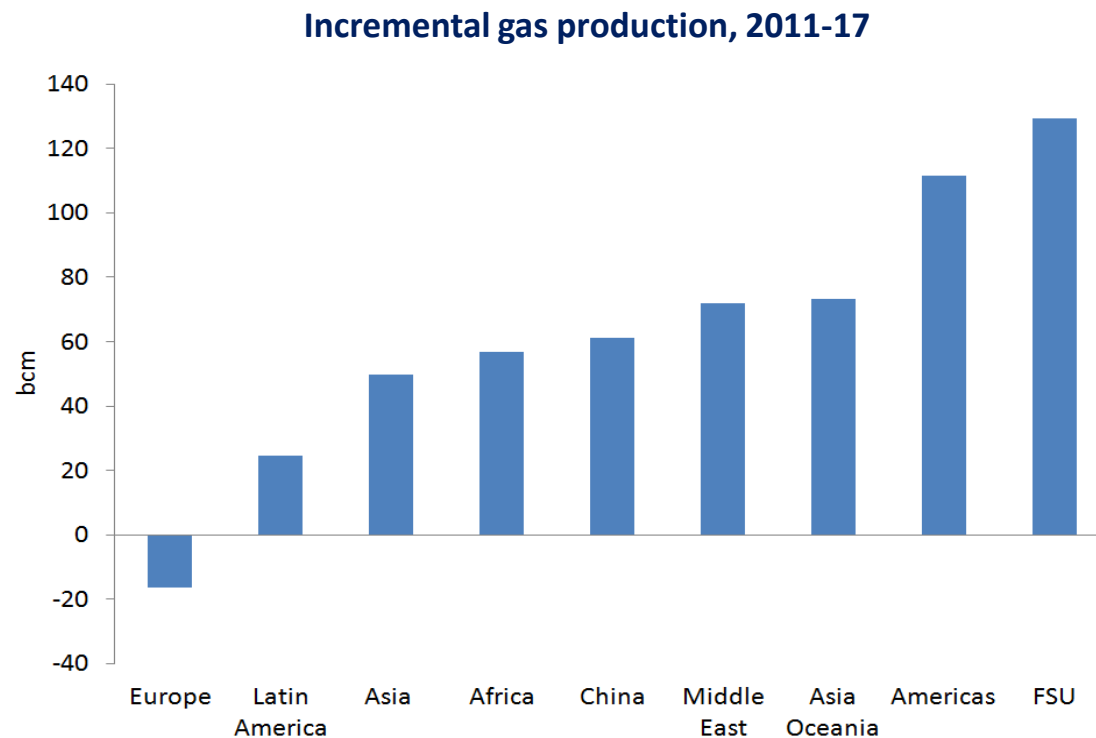
# By contrast, gas is catching up with coal in the US power sector



- Low gas prices are accelerating the penetration of gas in the power sector
- The increase has been even higher in early 2012
- Thanks for sending cheap coal to Europe!



# On the supply side, FSU and North America are set to be the largest contributors



- FSU is growing fast driven by incremental exports, notably to China
- North America's gas production meets booming demand and some LNG exports
- China and Australia become significant gas producers
- European domestic production continues to decline

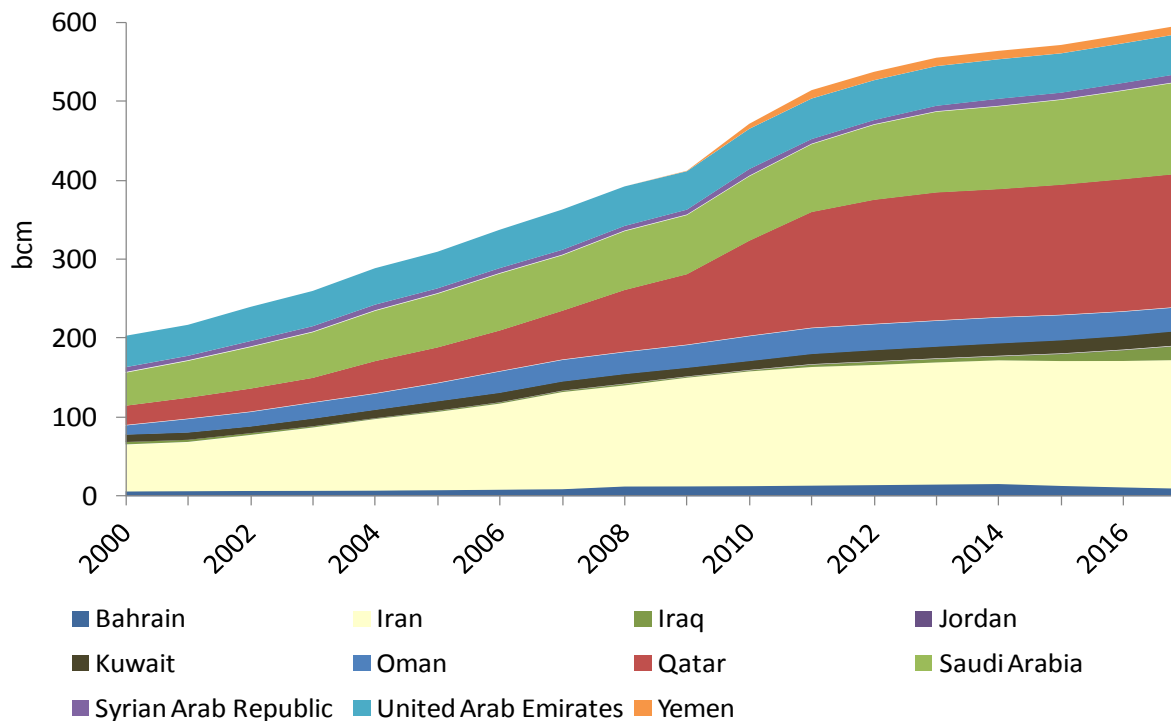
# Russia and the Caspian

*The interest is shifting to Asia*



- Yamal: 11.7 tcm reserves with a potential to produce 115 bcm/y by 2017
- Far East/East Siberian projects for China/Korea/LNG export await FID
- FEED on Shah Deniz-II started in 2012, production might begin 2018
- To watch: Novatek's moves...

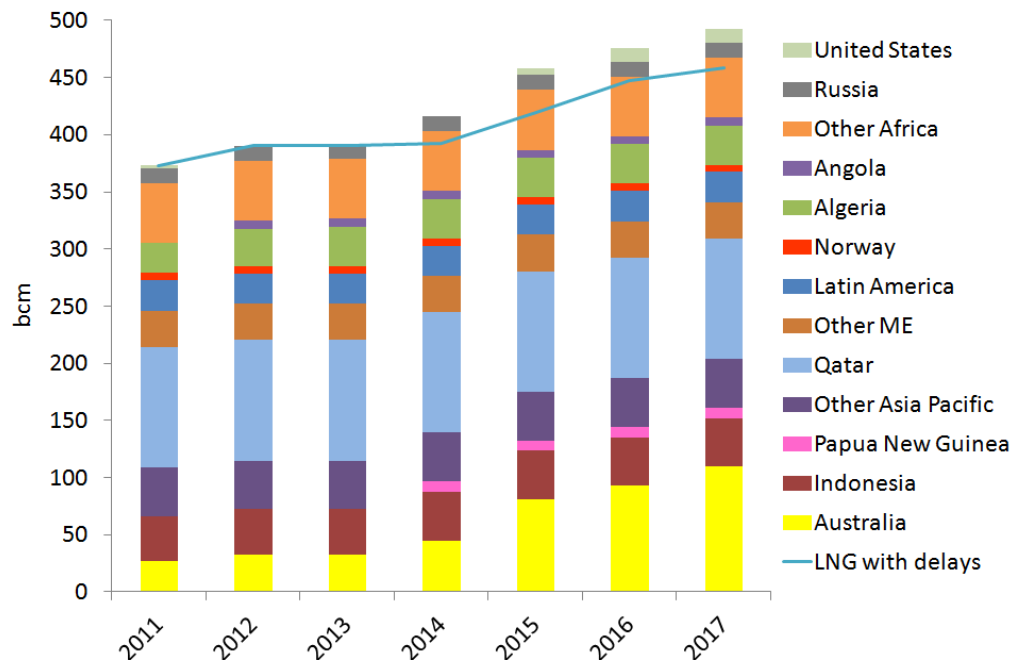
# Middle East production growth is slowing down



- **No additional exports in sight over the medium term**
- **Most countries are struggling to develop their gas fields due to difficult fields combined with low gas prices**
- **Qatar is the exception**
- **Iraq is the wild card, but holds huge undeveloped resources and could easily use flared gas**

# Committed liquefaction projects

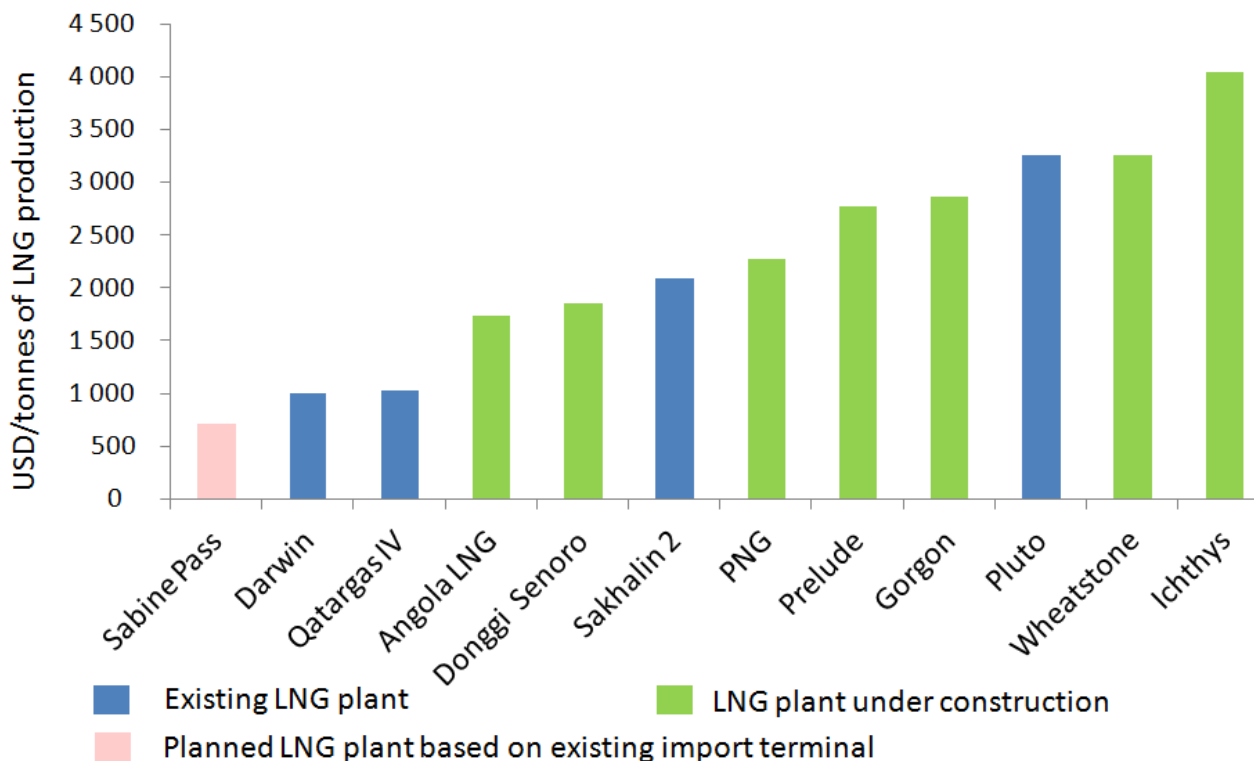
LNG liquefaction capacity – committed projects (as of September 2012)



- 13 LNG projects amounting 121 bcm/y are currently under construction and expected to start by 2017
- LNG capacity additions from 2012 until mid-2014 will be limited to 25 bcm/y
- By 2017, global LNG capacity is planned to reach around 490 bcm/y
- But there is much uncertainty on the impact of delays

# How expensive?

*New LNG projects will not be cheap*



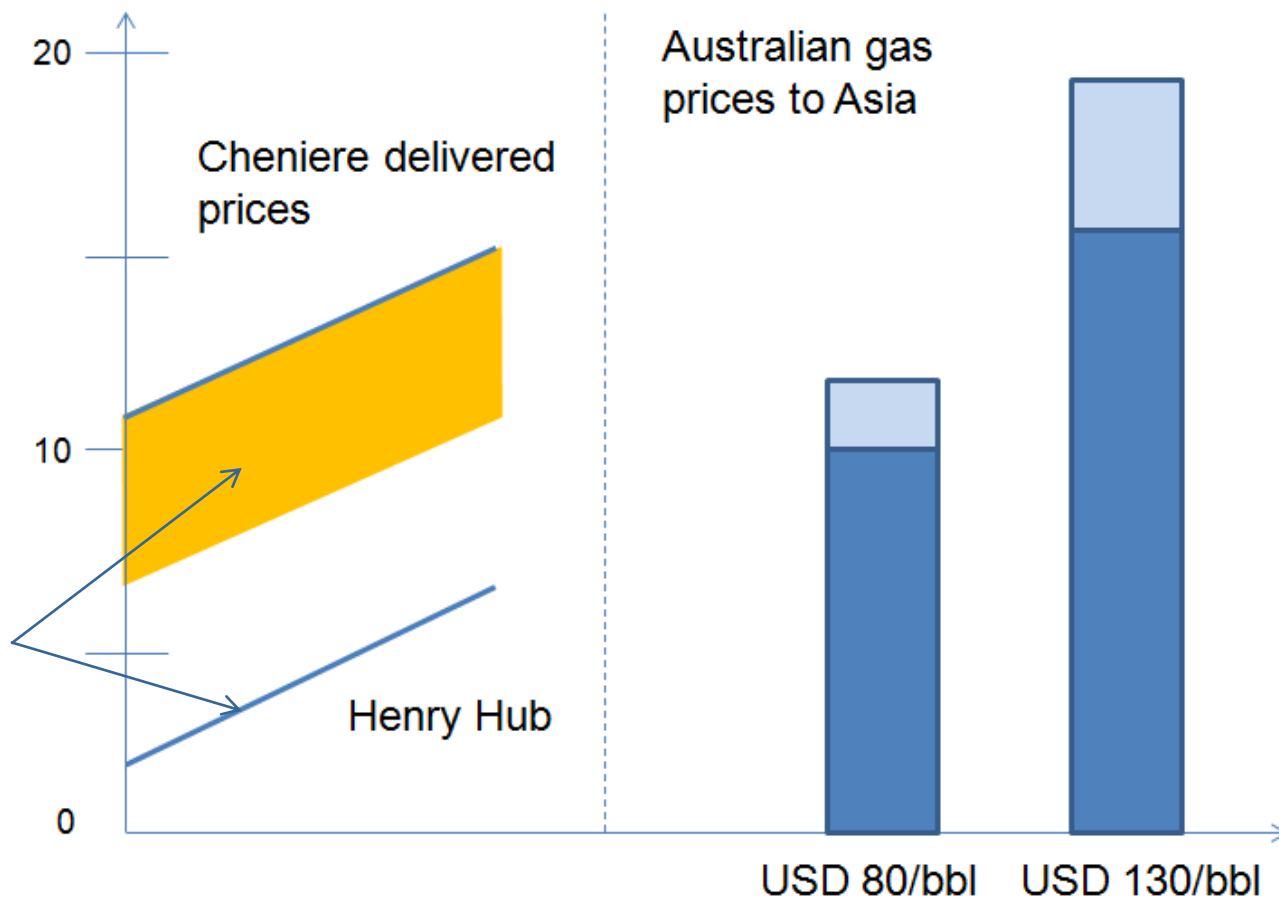
- Most new LNG export plants will be twice more expensive than the previous ones such as Qatar's LNG export plants
- Timing will be key
- The only exception is the US LNG export plant

# To export or not to export?

*Who wants to be in the US government's shoes?*

- 14 applications to the Department of Energy for export approvals to FTA and non-FTA countries
- Then LNG projects need FERC's approval
- Only Sabine Pass got the non-FTA application approved and FERC's go-ahead
  - Projects without the right to export to non-FTA are unlikely to move forward
- The US government dilemma
  - The shale gas revolution means there is plenty of gas available ... at which cost?
  - Significant political debate on the price effect for the US market (and therefore for the consumer/voter in November)
  - Not even mentioning the chemical industry, fertiliser producers currently enjoying a "Renaissance"

# What will be the export price?



Uncertainties on HH and on the transport cost

- High interest from Japan to move to HH or NBP indexation (North America, East Africa)
- It is not only a question of HH price level, if indeed other North American LNG exporters opt for that formula
- But also in the case of Cheniere's formula, a question of transport costs – currently quite high

# Want to know more?



- The Medium-Term Gas Market Report 2012 can be purchased online at:

[www.iea.org](http://www.iea.org)

- Thank you for your attention!