

# 17<sup>th</sup> INTERNATIONAL CONFERENCE & EXHIBITION ON LIQUEFIED NATURAL GAS (LNG 17)



## Will LNG Exports from North America / East Africa Drive Global Price Integration?

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17 April 2013

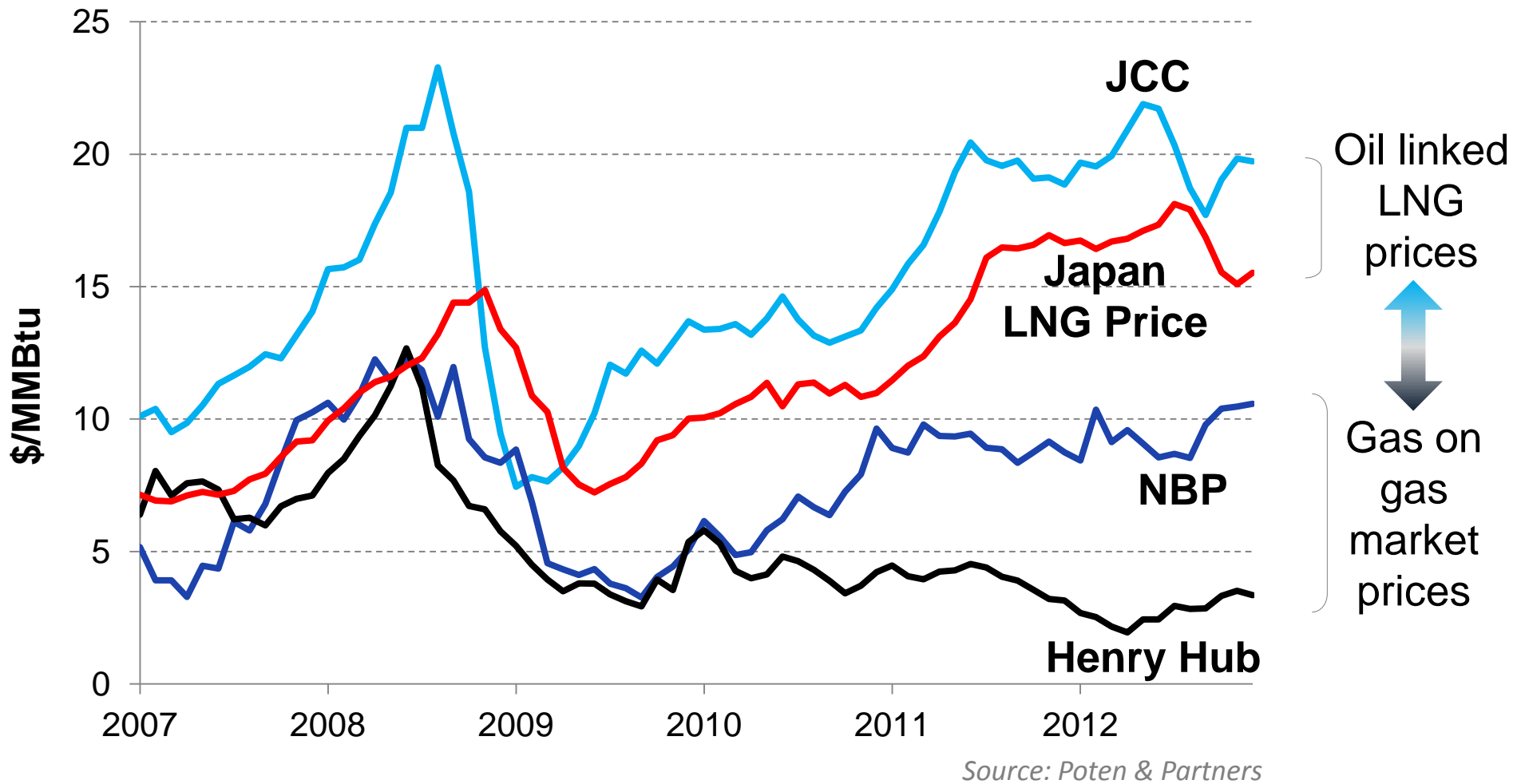
International Organizers



Host Association



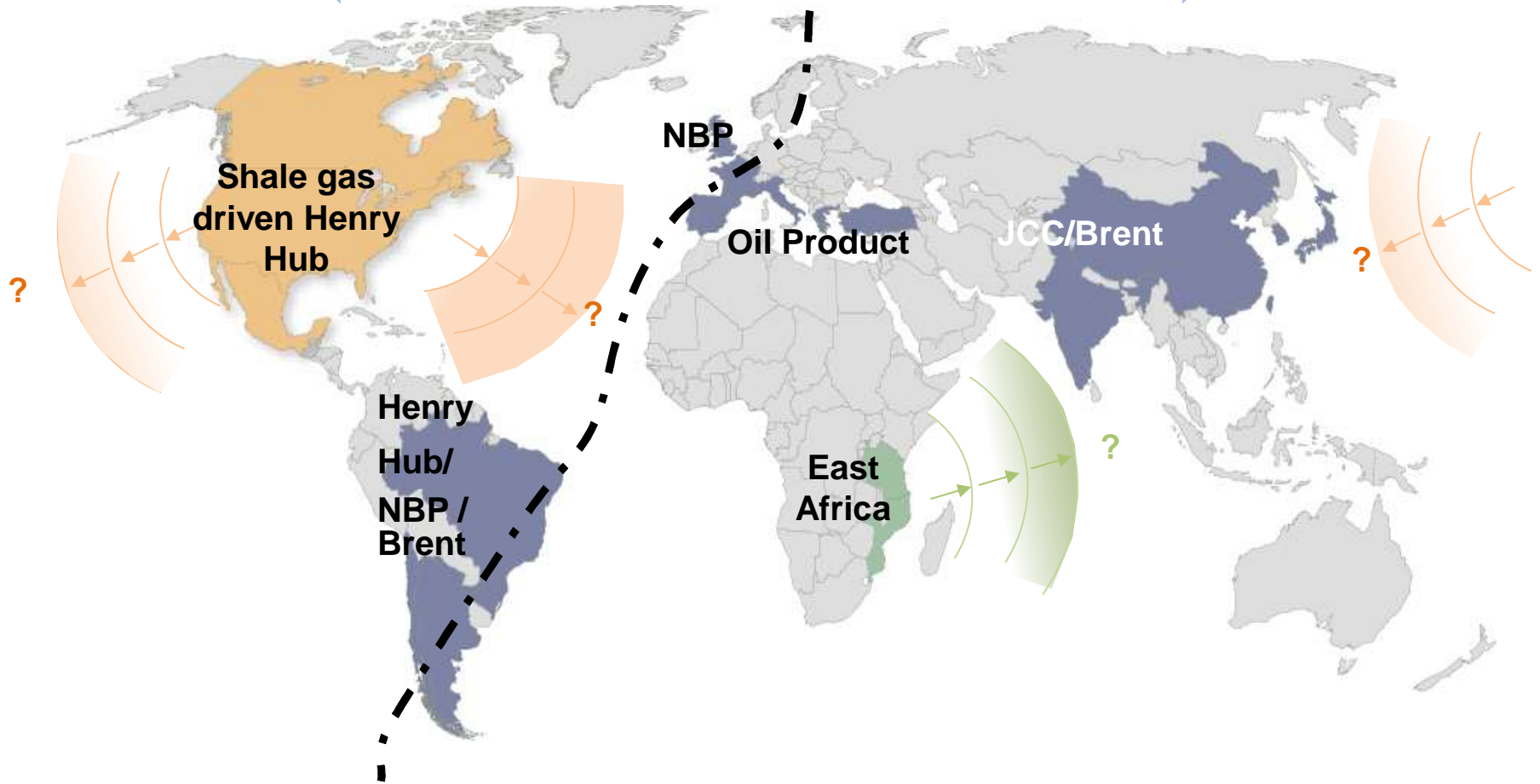
# Gas prices worldwide continue to diverge



Shale gas revolution has driven down Henry Hub prices

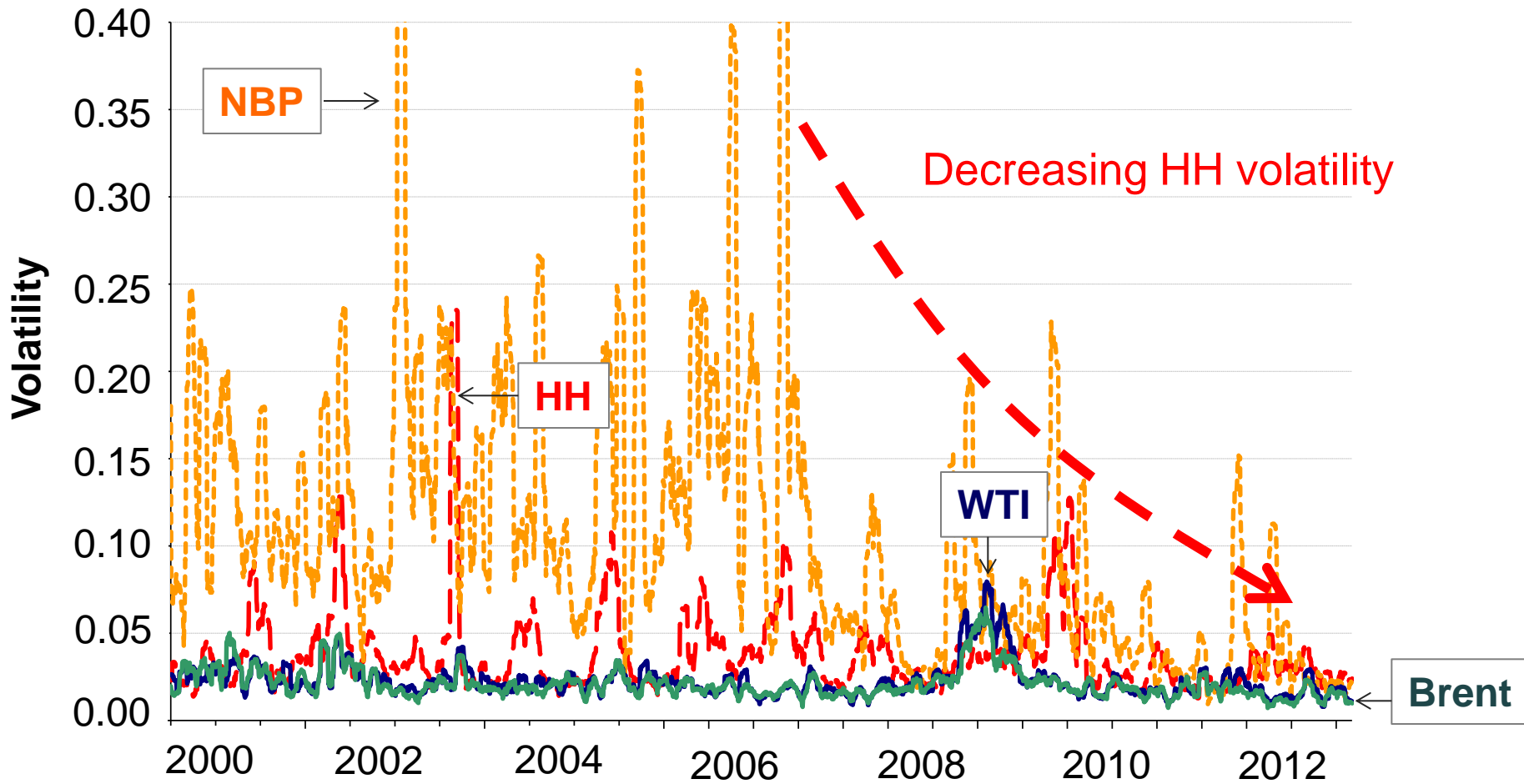
# Will LNG exports from North America / East Africa drive global price integration?

← Gas-on-gas markets Oil-linked markets →



# Asian buyers more comfortable with decreasing HH price volatility...

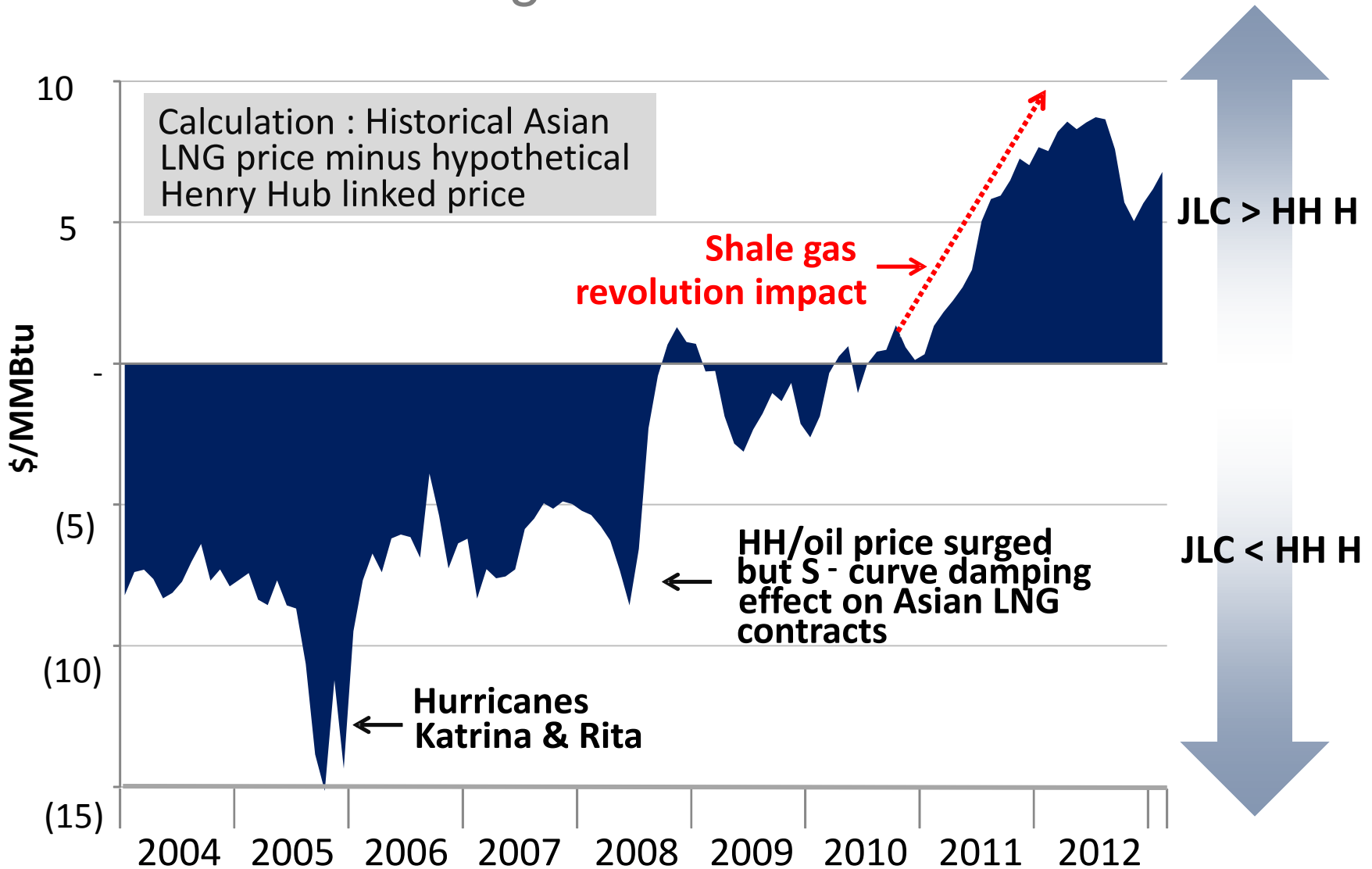
## Volatility of Henry Hub, NBP, WTI, and Brent Prices



Note: Volatility=Standard deviation of natural log.

Source: Poten & Partners

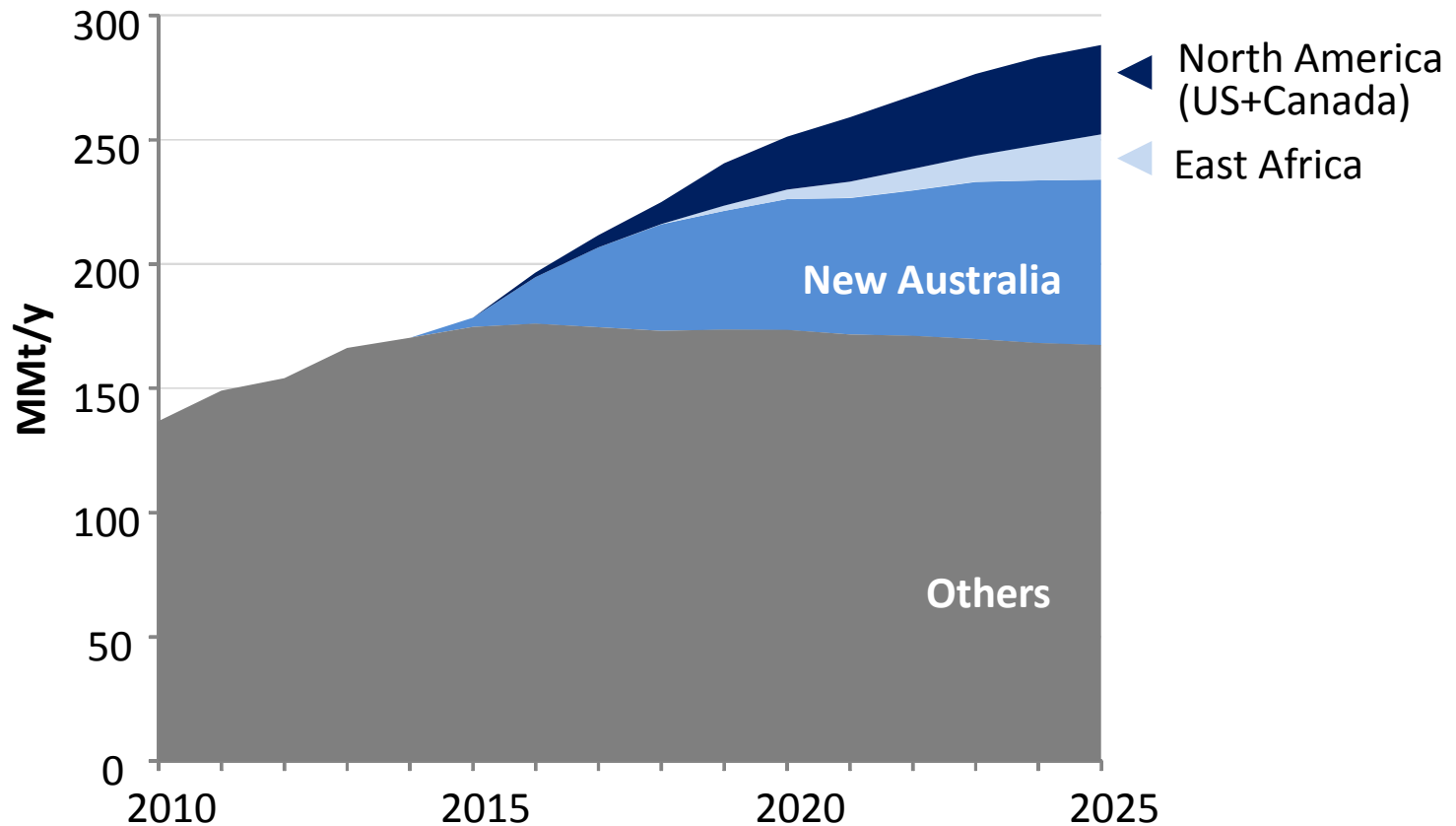
# ...but remember large historical variations



Source: Poten & Partners

# Increasing new supply sources but still limited share in the growing Asian LNG market

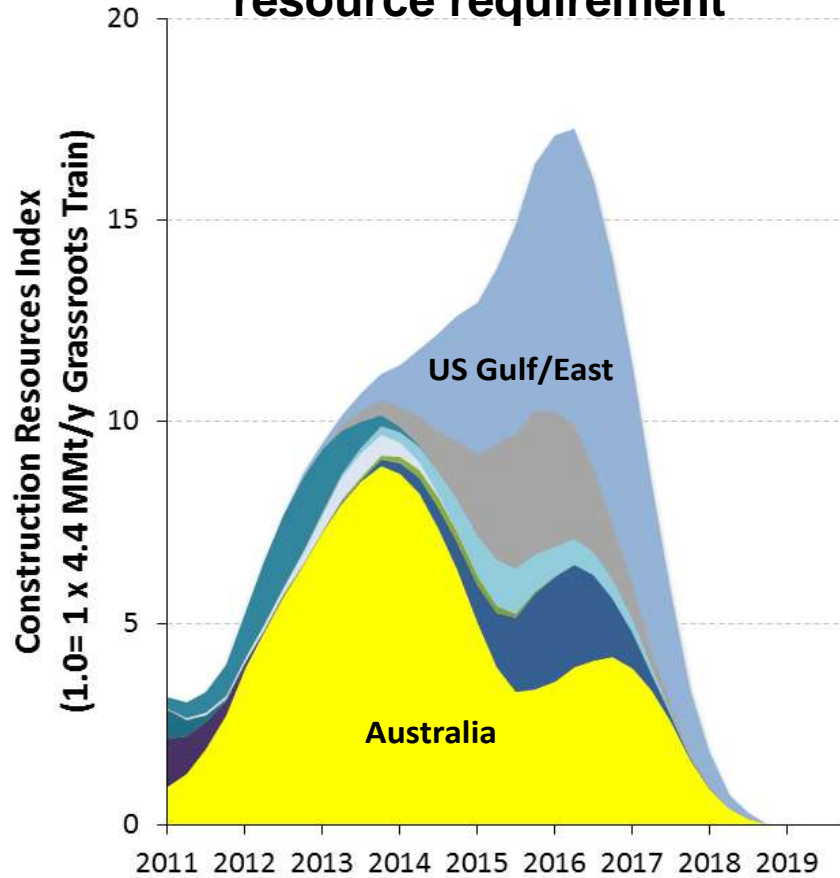
## LNG Supplies into Asia – New Australian supplies remain the major contributor to Asian market



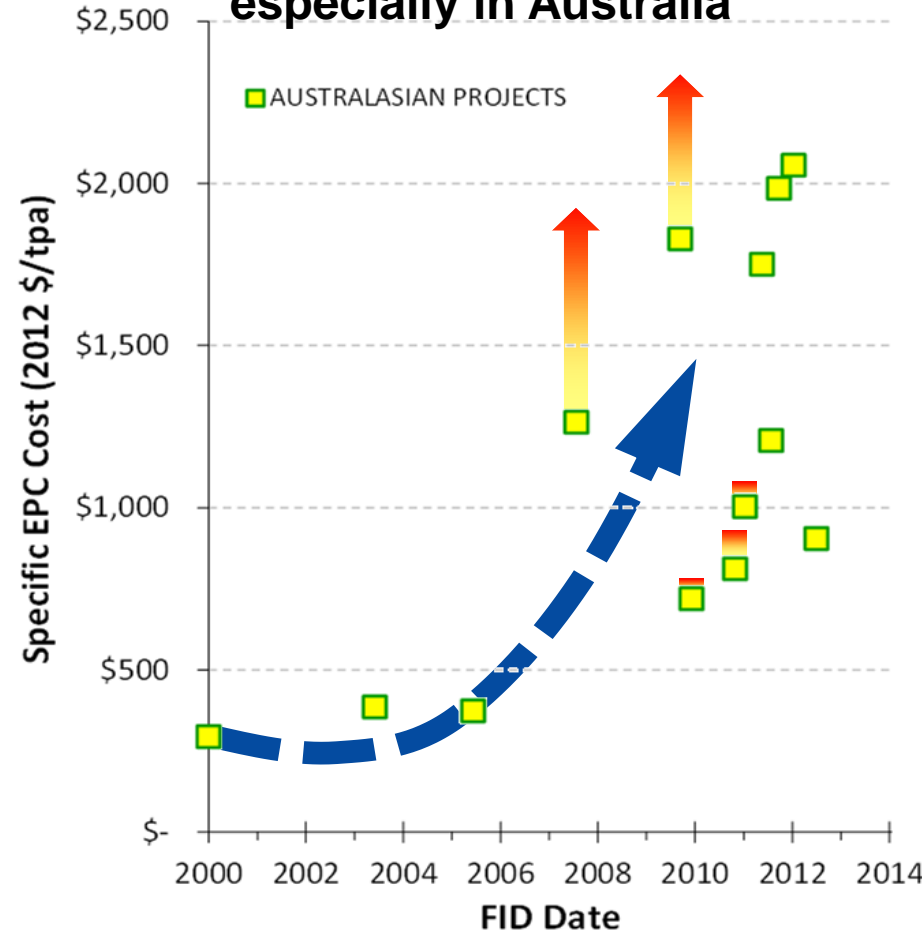
Source: Poten & Partners

# Challenging cost structures for green field projects in Asia Pacific

## Mounting construction resource requirement



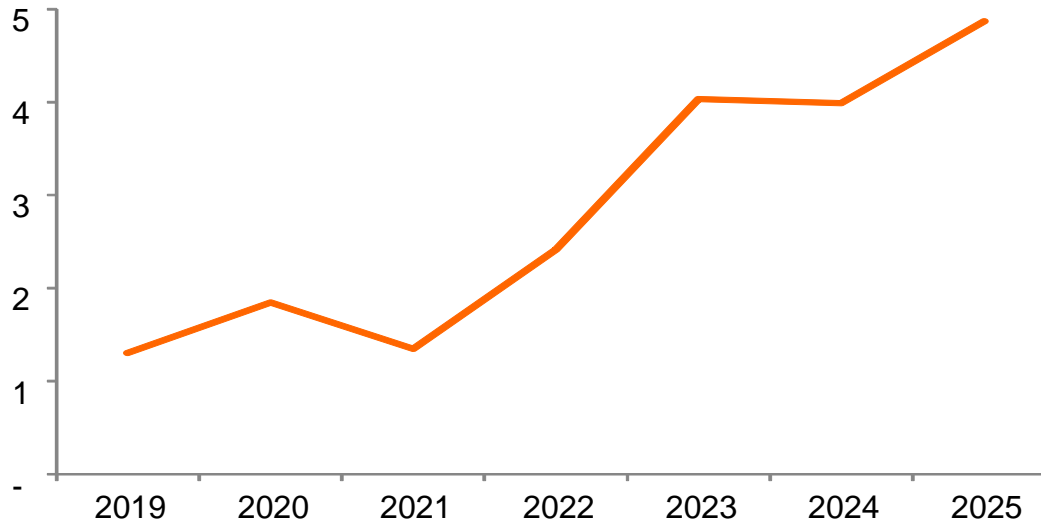
## Ever increasing EPC costs especially in Australia



Source: Poten & Partners

# Increased competition for the Asian market lowers long term contract price

**Poten Asia Pacific Market Competition Index**



Year of first production



Oil Parity

Poten projected Asian long-term contract slope

5 year lag

Year of finalization of LNG sale

Source: Poten & Partners



# Can local Asian gas-on-gas market develop?

## Critical factors:

- ✓ An interconnected gas transmission system
- ✓ Deregulated markets
- ✓ Transparent market with limited gov. intervention
- ✓ A short term and futures market



## Other important factors:

- ✓ Growing domestic production
- ✓ Growing pipeline imports and exports
- ✓ Substantial storage capacity
- ✓ LNG trade
- ✓ High liquidity

# It took 20 to 30 years for US/UK to develop gas-on-gas markets

## US

**1970s**

Natural Gas  
Policy Act -  
FERC

**1980s**

US  
eliminates  
take-or-pay  
clauses

**1990s**

Open Access.  
NYMEX started  
Henry Hub trade

## UK

**1970s**

**1980s**

Natural Gas  
Act in 1986

**1990s**

British Gas split into  
Centrica and BG plc  
in 1997, Lattice  
transmission in  
2000. NBP started in  
1996

# New pricing mechanisms emerging but no material de-linkage from oil indexation in Asia

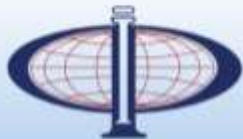
- Even if all North America LNG were to be gas-hub linked, it represents no more than 10% of the total Asian demand in 2020
- Increased competition will drive down oil indexed prices
- New pricing mechanisms – anywhere between a traditional oil-linkage and a Henry Hub linkage – are emerging

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