

# Symposium on Gas and Coal Market Outlooks

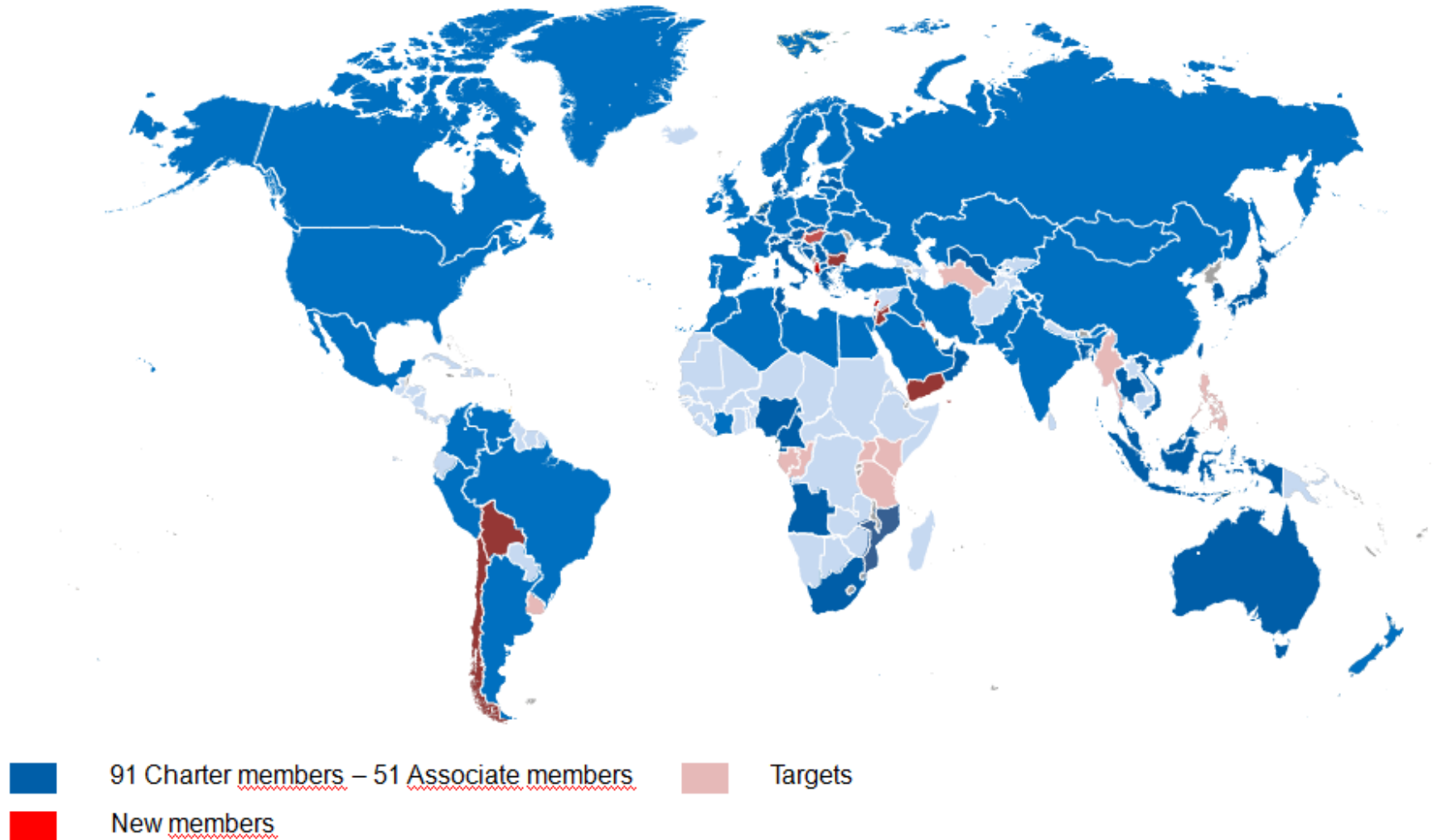


*Thursday 30 October 2014*

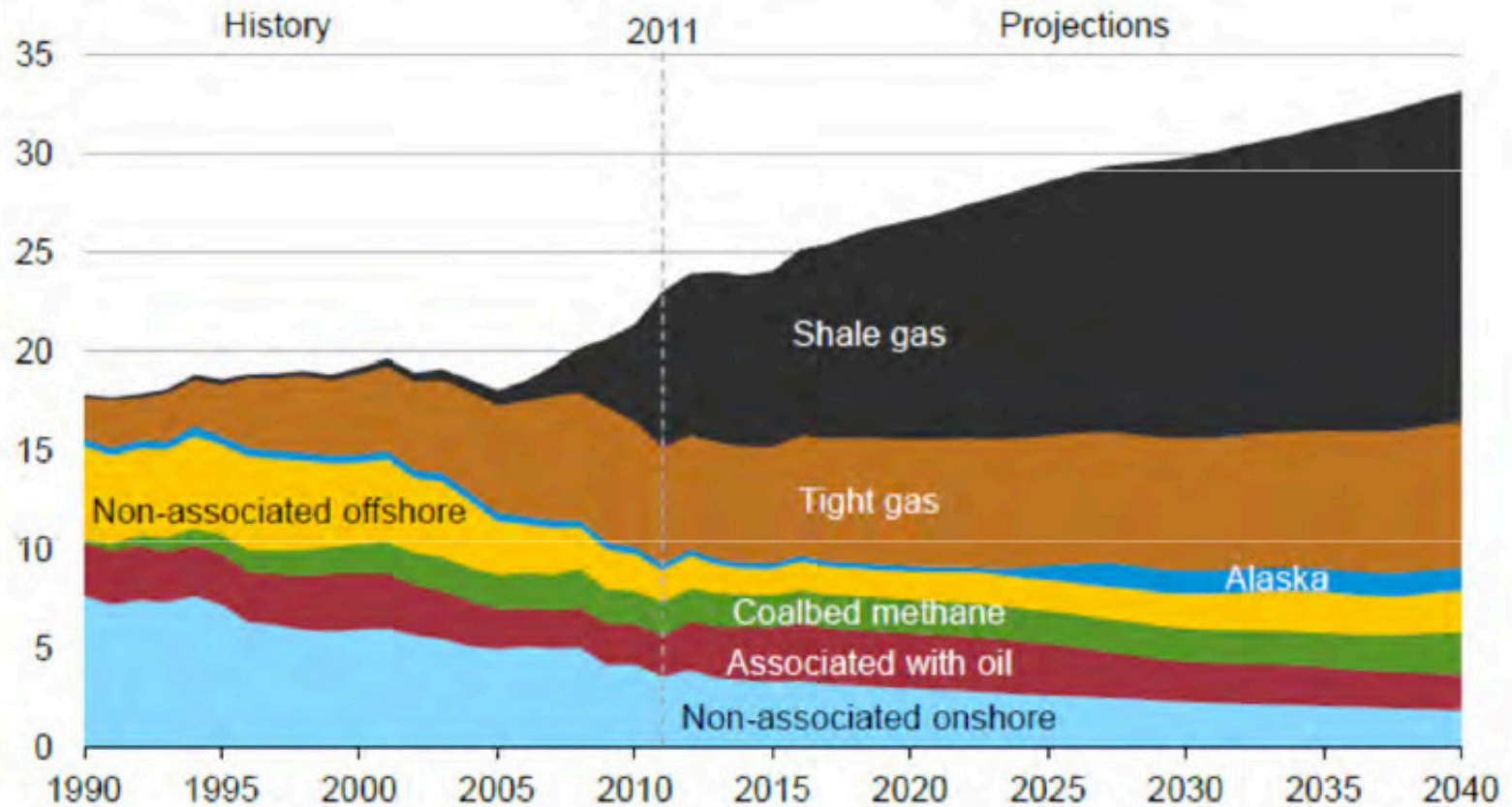
## North American developments and trends

**Jérôme Ferrier**  
**President IGU**

# IGU is the voice of 98 % of the Global Gas Market

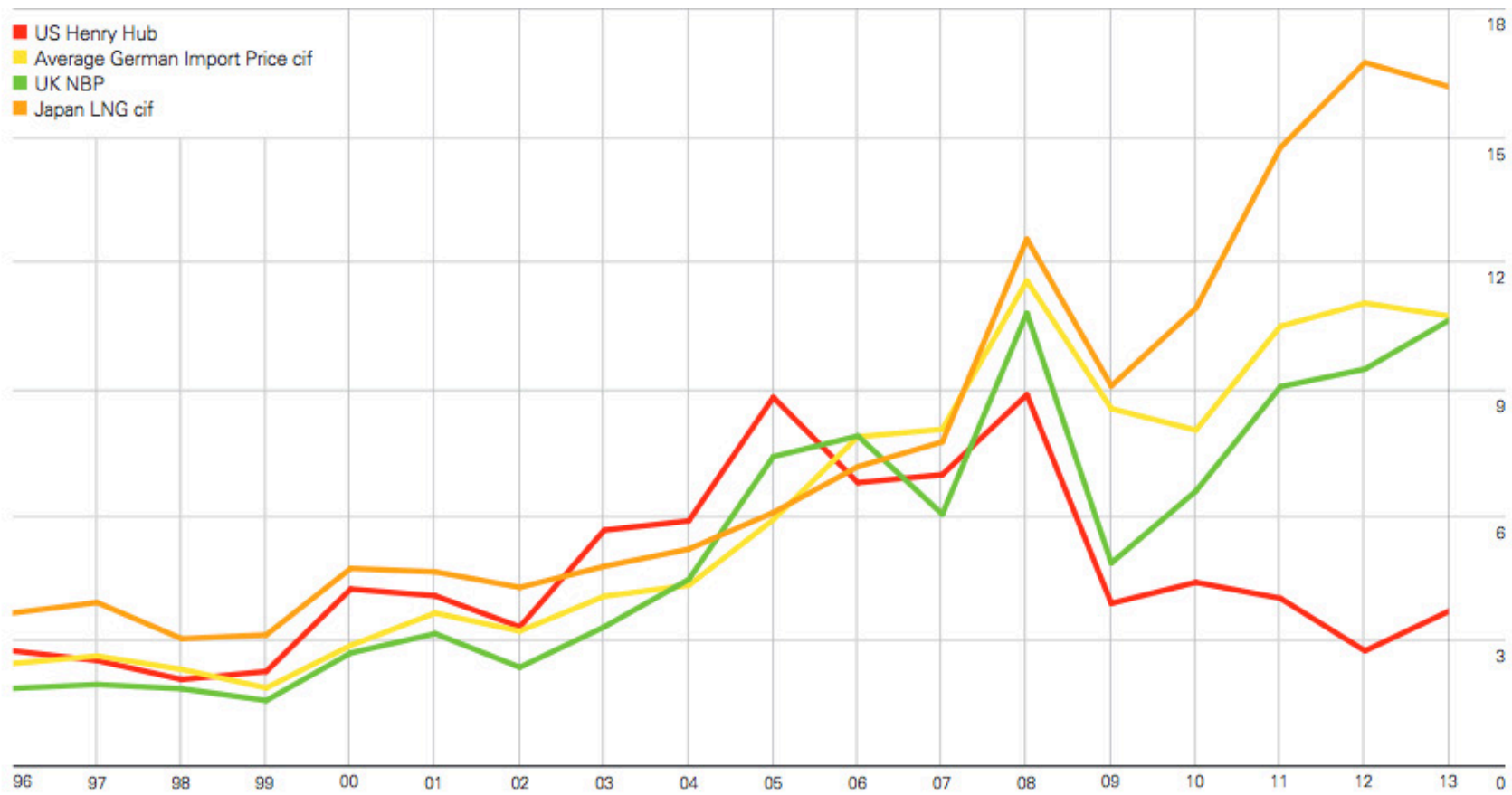


# Shale gas leads US natural gas growth to 2040



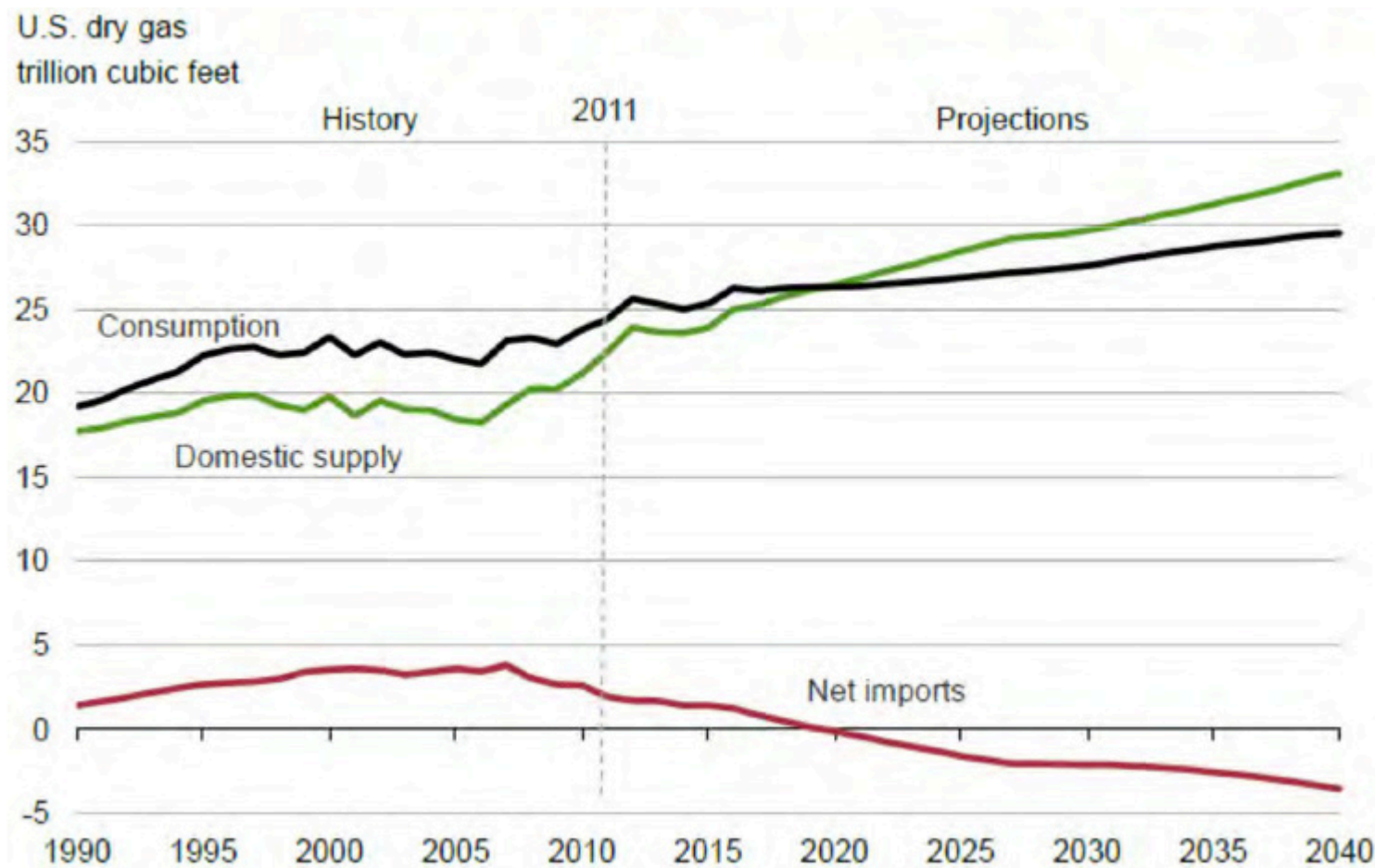
Source : IEA Annual Energy Outlook 2013

# Natural Gas Prices by Region 1996-2013



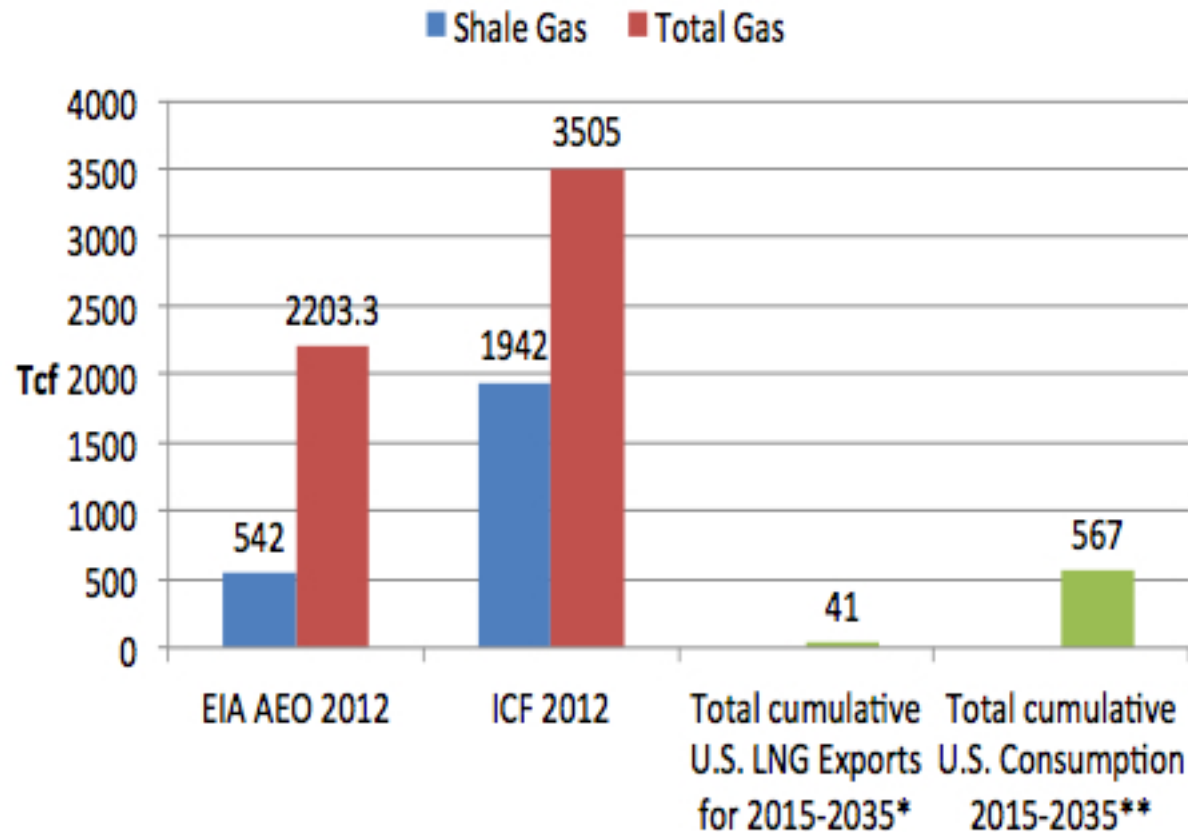
Source : BP Statistical Review 2014

# US gas production grows faster than consumption



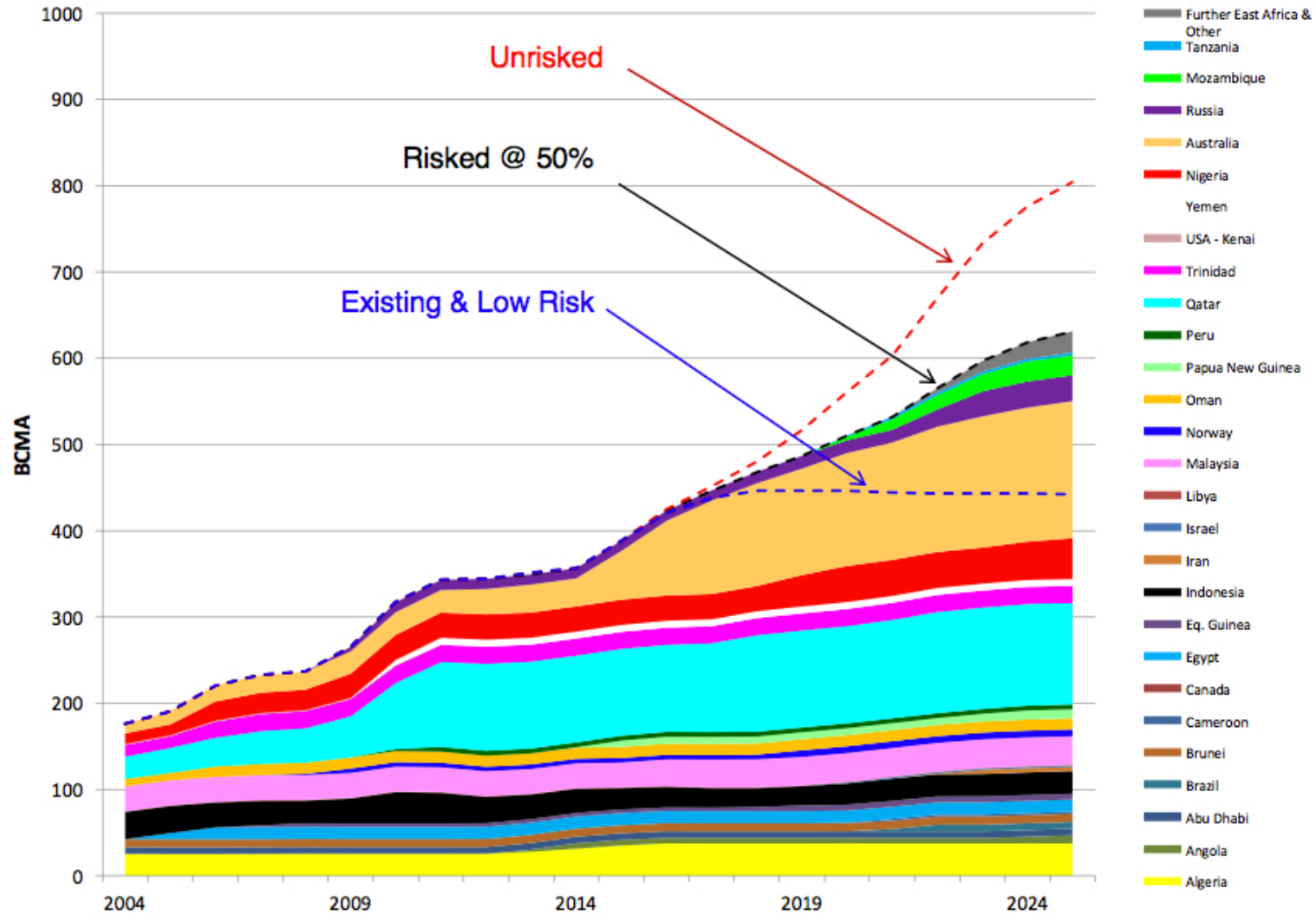
Source : IEA Annual Energy Outlook 2013

# US LNG exports for 2015-2035: less than 2 % of reserves and 8 % of US cumulated gas consumption

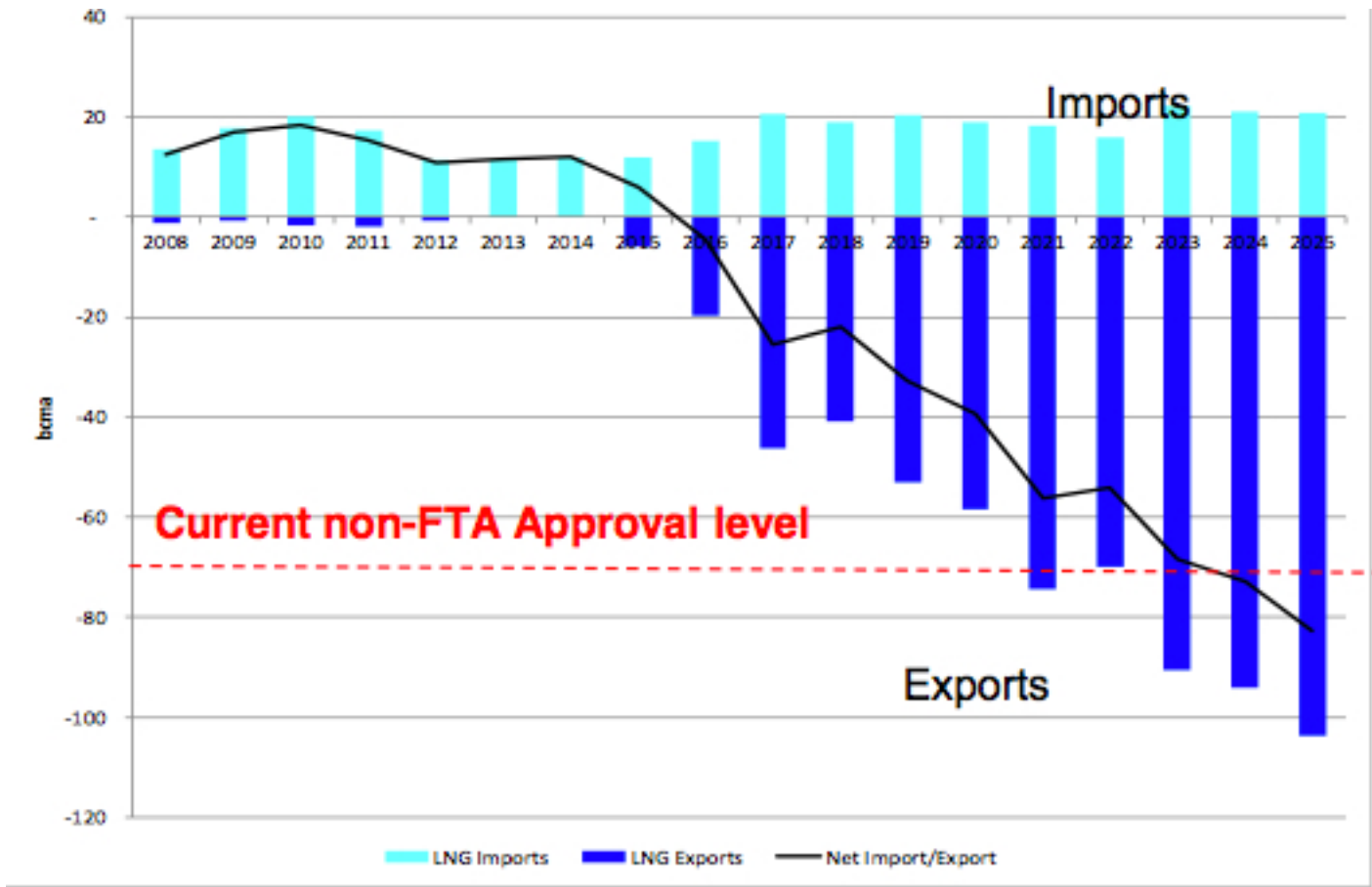


Source : API

# LNG Supply (Excluding North America)

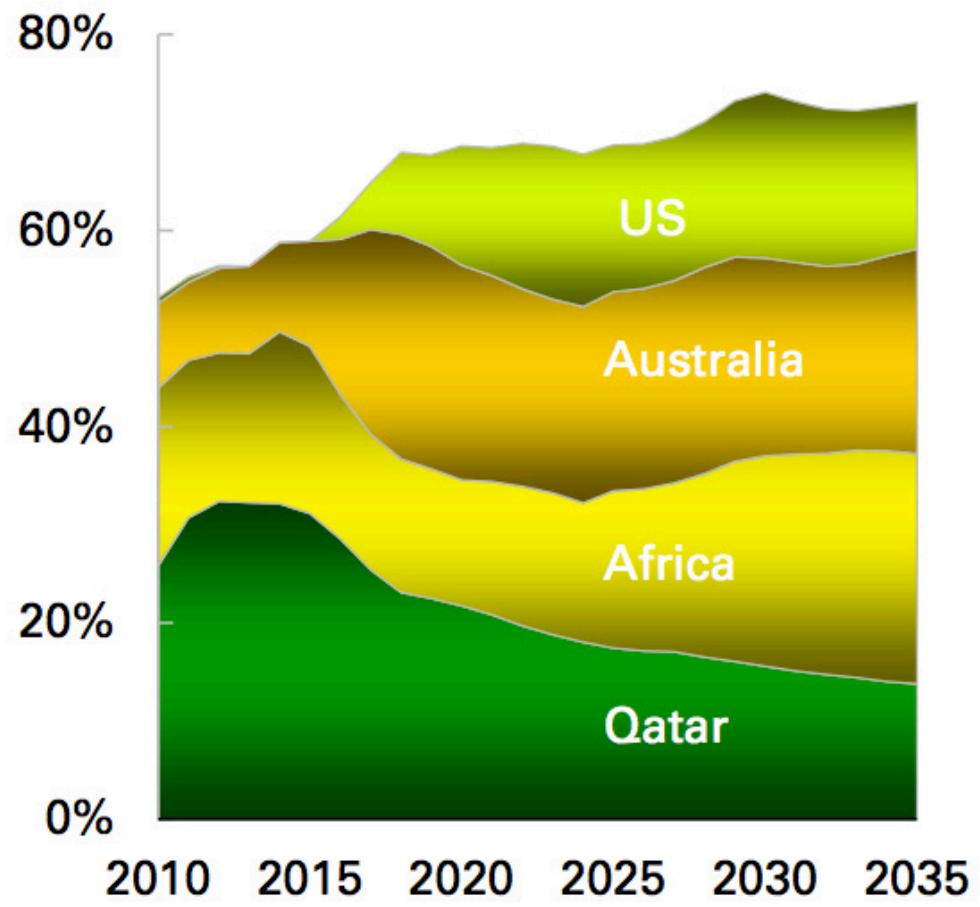


# North American LNG Imports and Exports to 2025



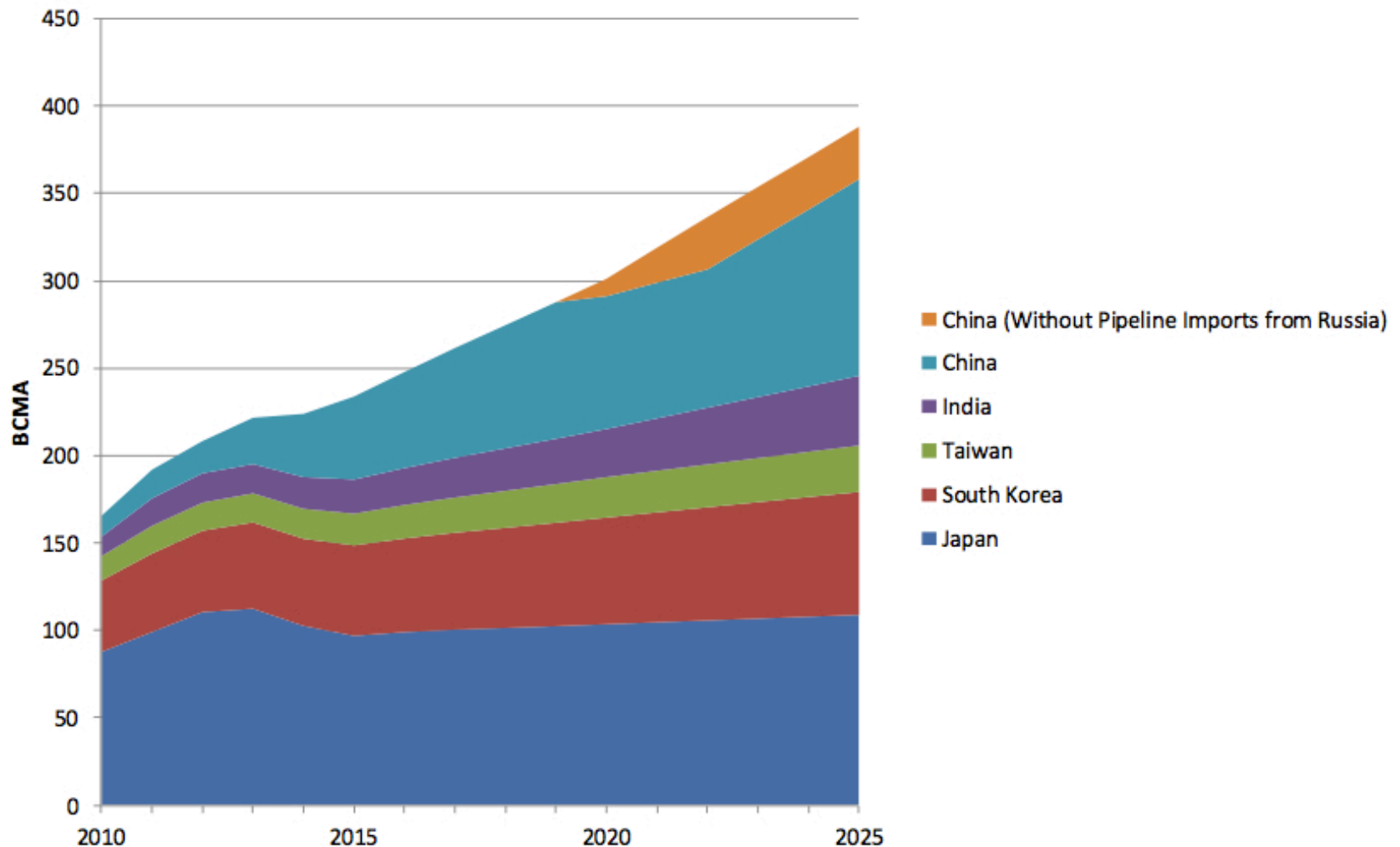


# Share of Global LNG Trade

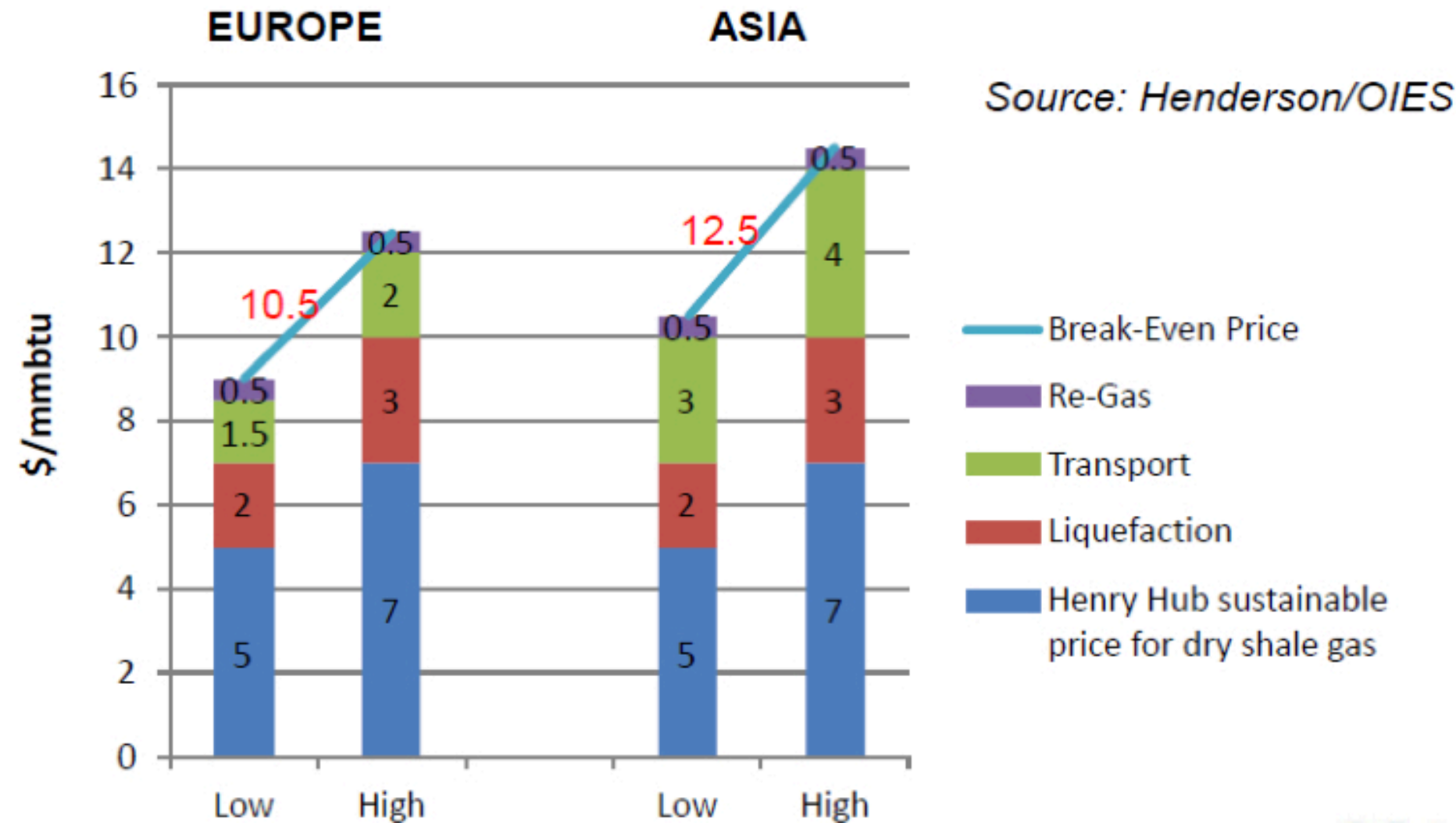


Source : BP Energy Outlook 2035

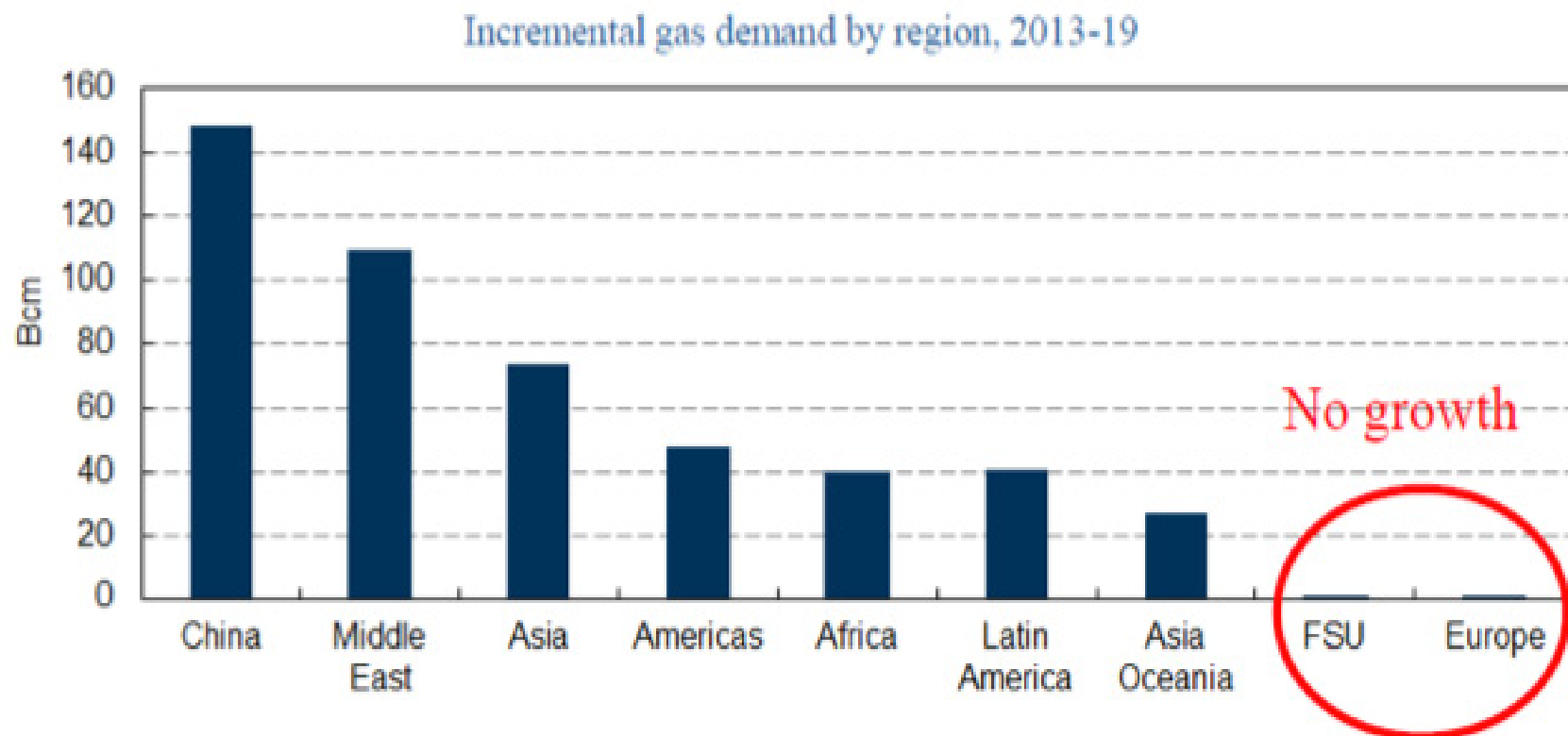
# Asian LNG Demand (Japan, Korea, Taiwan, India, China)



# Break-even Destination Market Prices for US LNG to Europe and Asia

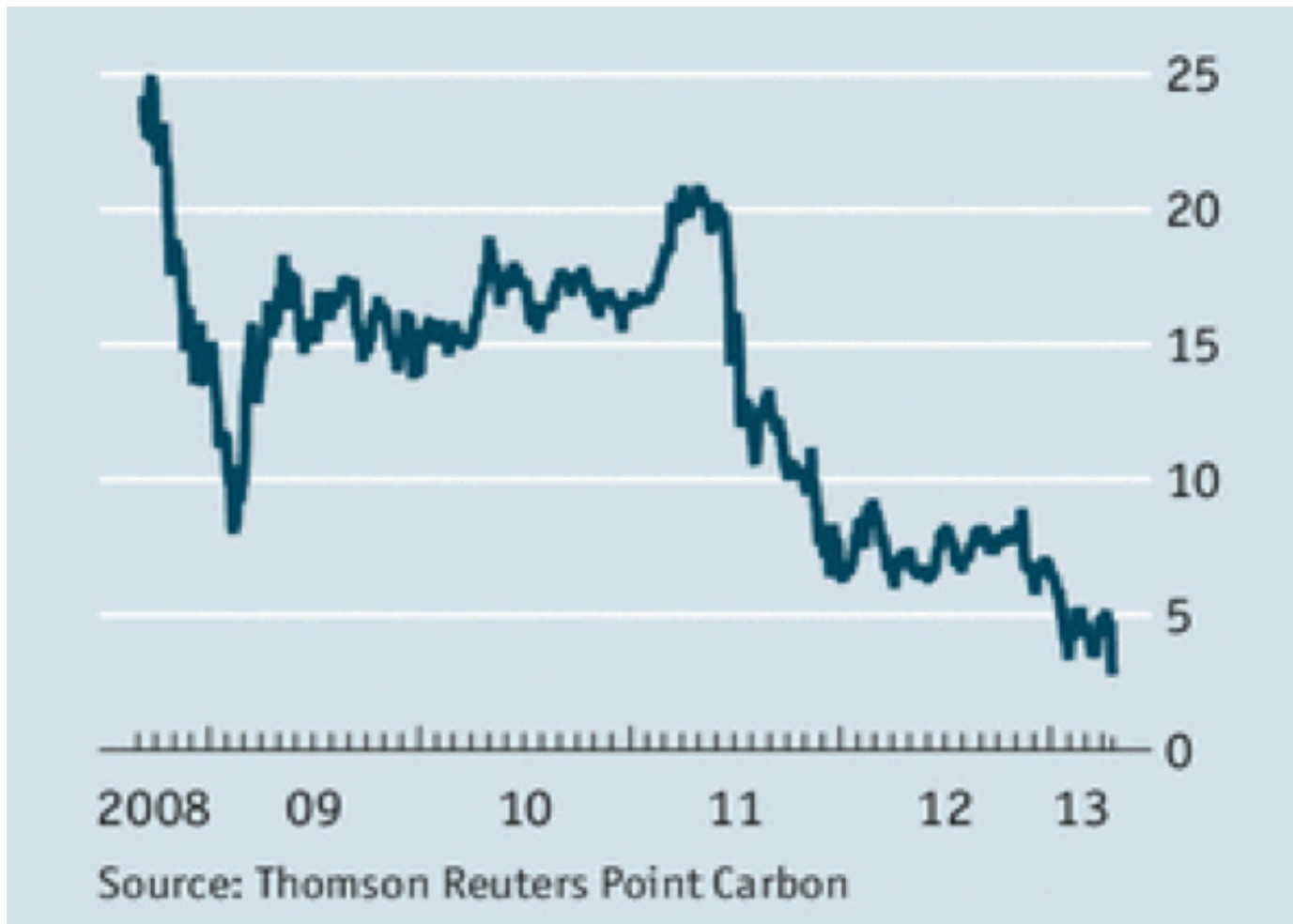


# EU's energy policy for Europe is a deterrent for new LNG import projects

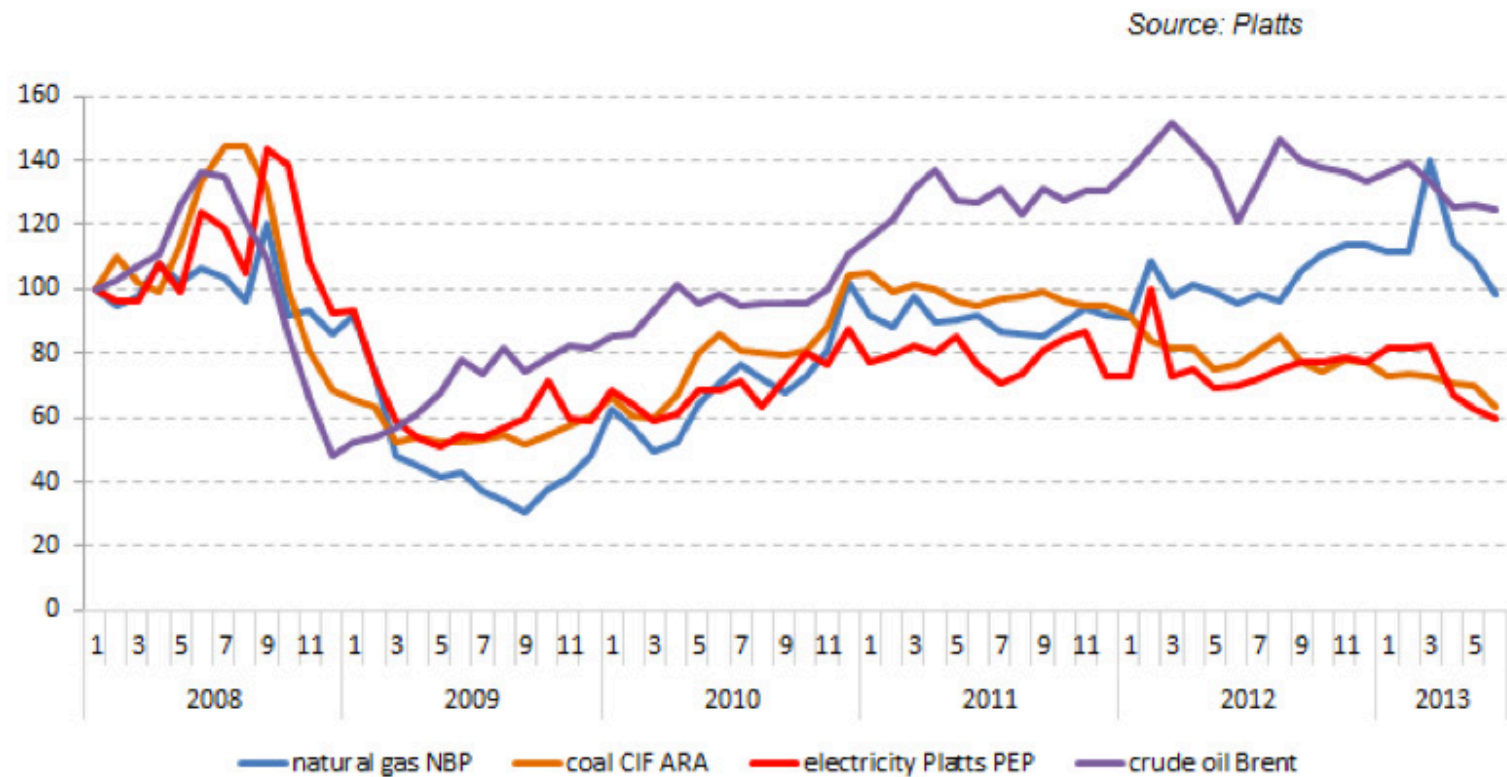


Source : IEA

# The EU ETS system and the collapse of CO2 price

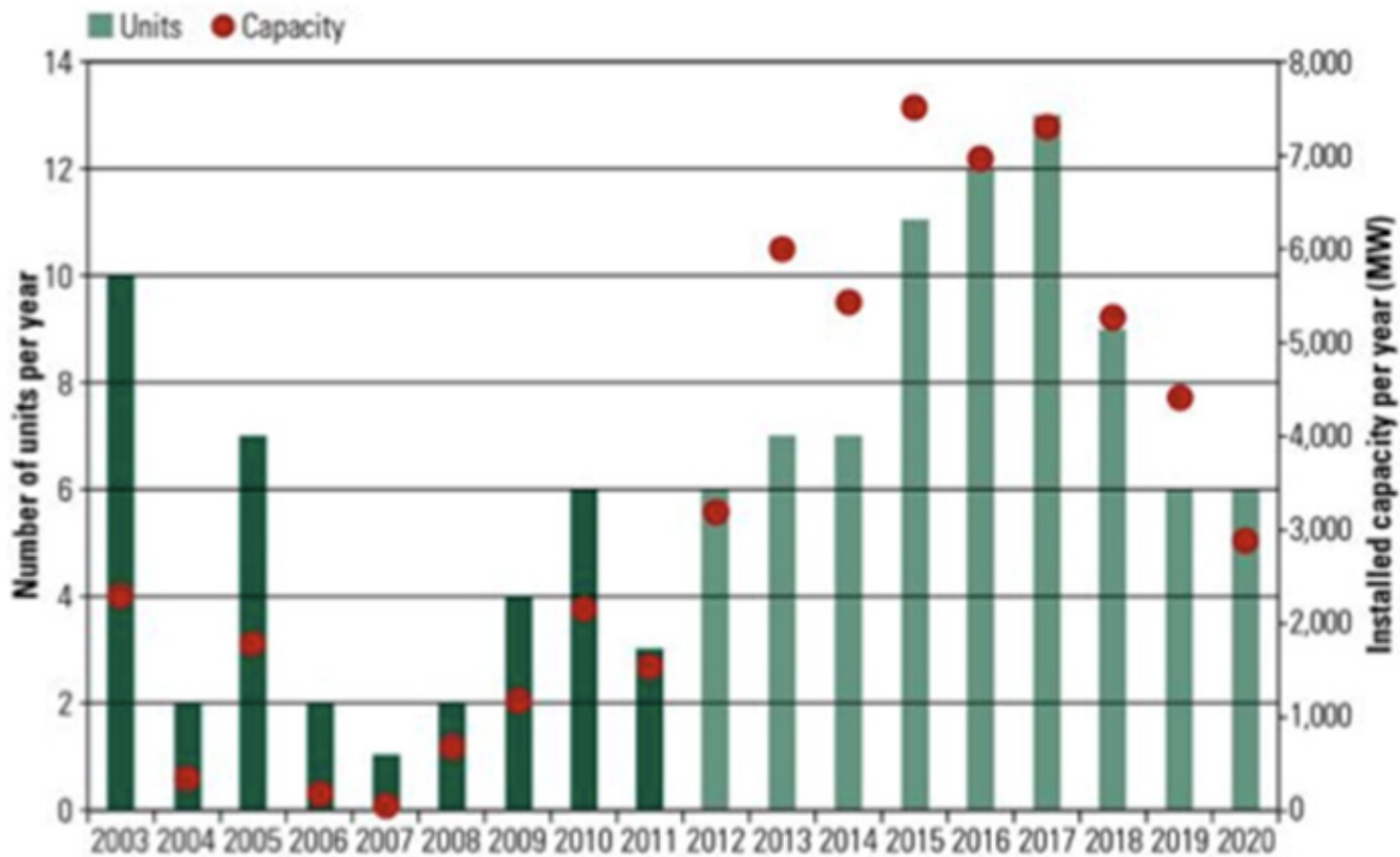


# Price indices for oil, gas, coal and electricity in the EU 2008-2013



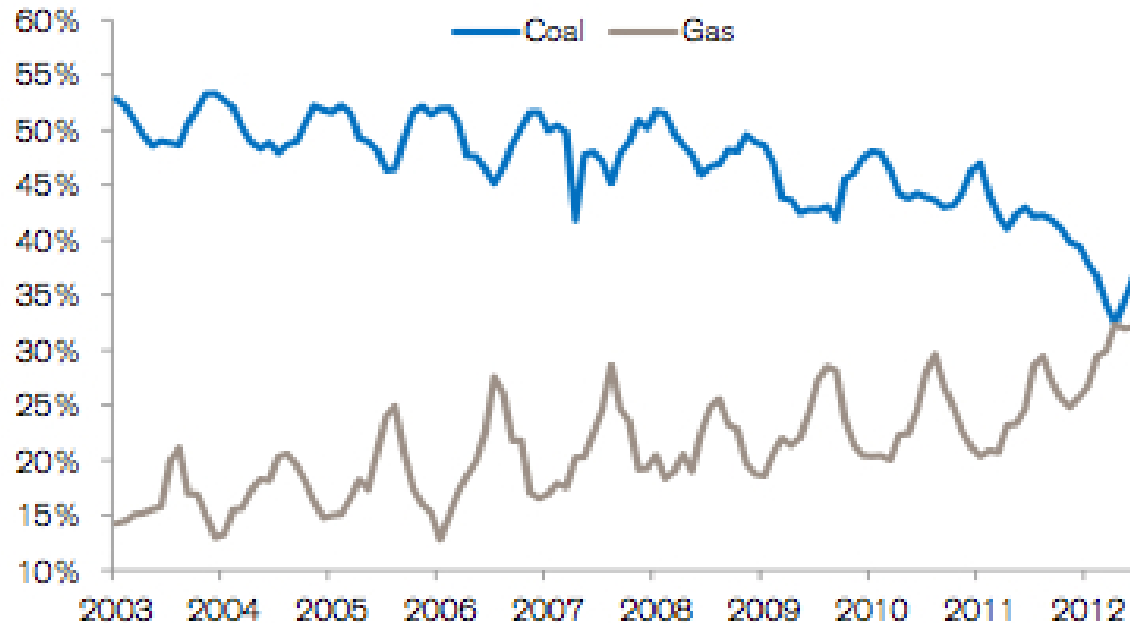
Source : EU Commission

# New coal-fired power capacities in Europe



Source: Ecoprog GmbH.

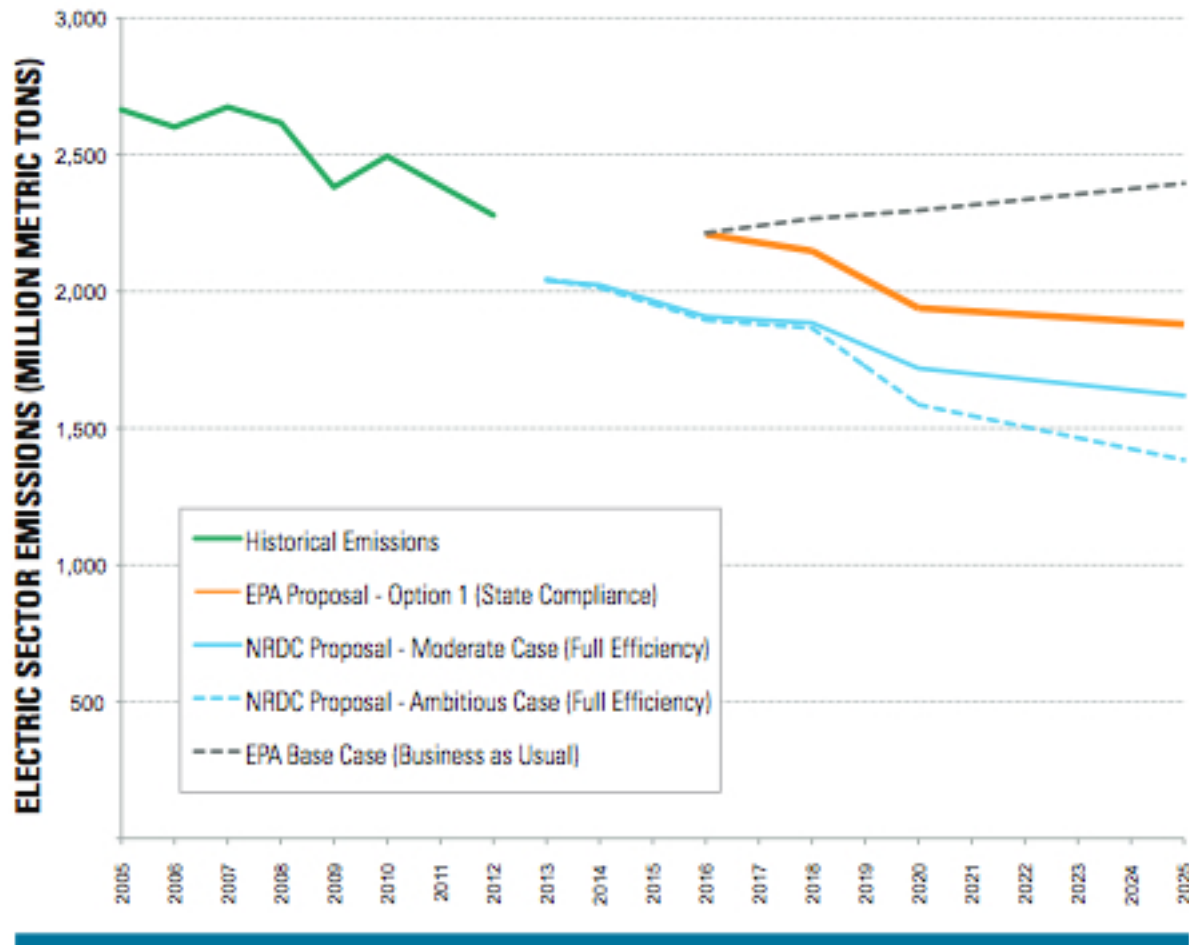
# Coal has fallen below 35 % of the US power generation mix



Source : IEA 2013



# CO2 Emissions trend in US Power Generation (metric ton)



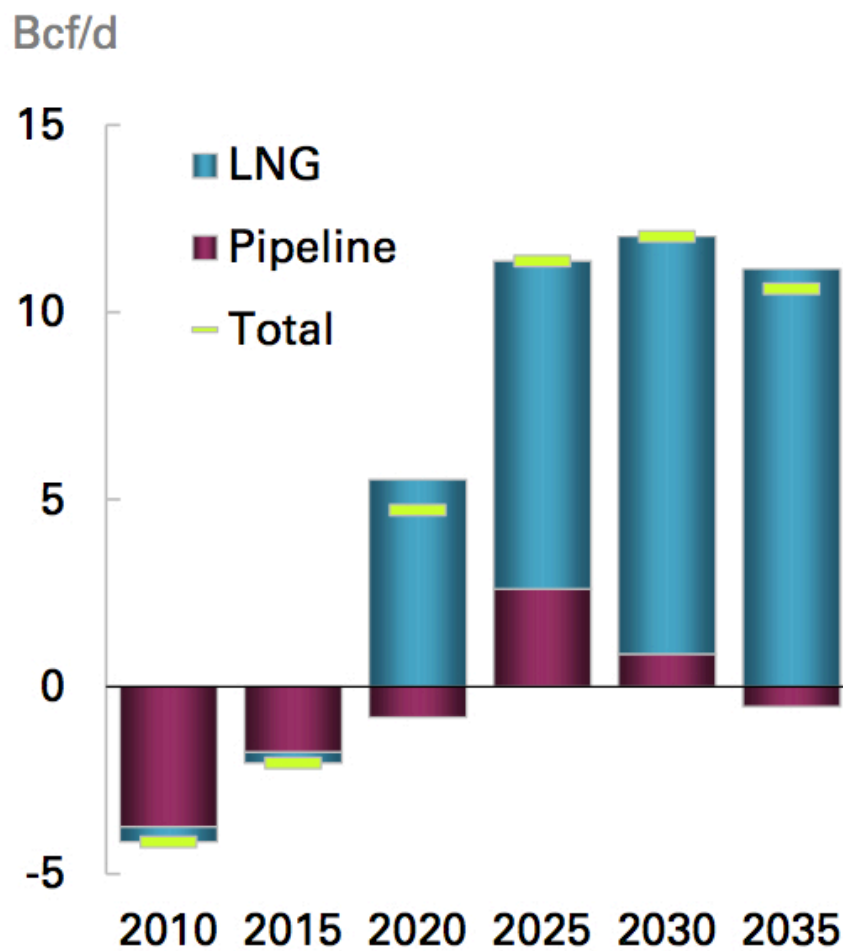
Source : NRDC 2014

# The UK Emissions Performance Standards (EPS) Energy Bill 2012 - 2013

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- **EPS requires that any new coal fired power plant demonstrate CCS on at least 300 MW of the proposed generating capacity**
- **Sets a CO<sub>2</sub> emission limit at 450 g/kWh until 2045**
- **Guarantees stability of emission regulation until 2045 (grandfathering)**
- **EPS complements the economic signals provided by the Carbon Floor Price and, when applicable, the feed-in electricity purchase tariff with Contract for Difference (CFD)**
- **EPS gives incentives to « Good Quality » CHPs, by discounting the volumes of CO<sub>2</sub> saved in the heat production by displacing other fossil fuels**

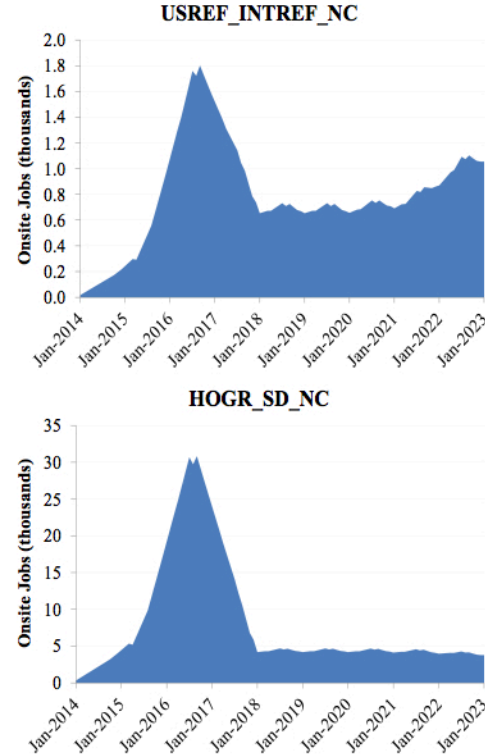
# US Natural Gas Exports Outlook



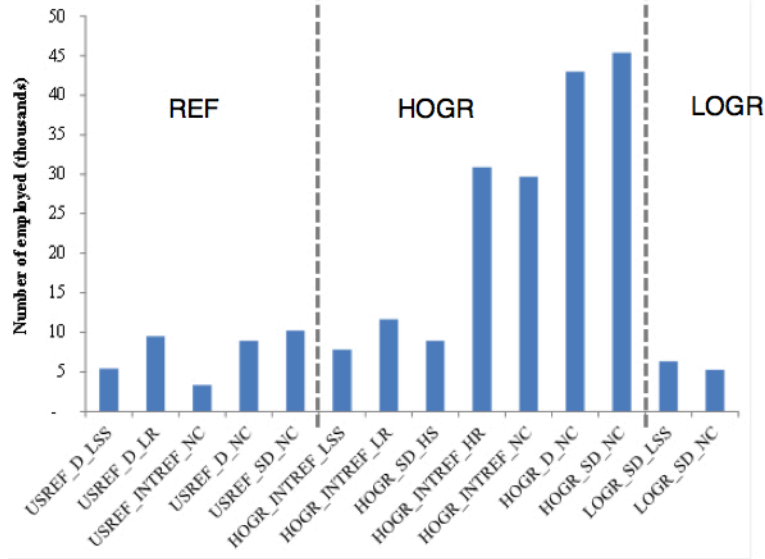
Source : BP Energy Outlook to 2035

# The benefits of LNG exports on Employment

## Onsite Employment Could Be Substantial



## LNG Exports Can Contribute to Near Term Reductions in Unemployment (2013-2018)



Source : NERA May 2014

# 2015 World Gas Conference



26<sup>th</sup>

WORLD GAS CONFERENCE  
PARIS FRANCE  
1 - 5 june 2015

