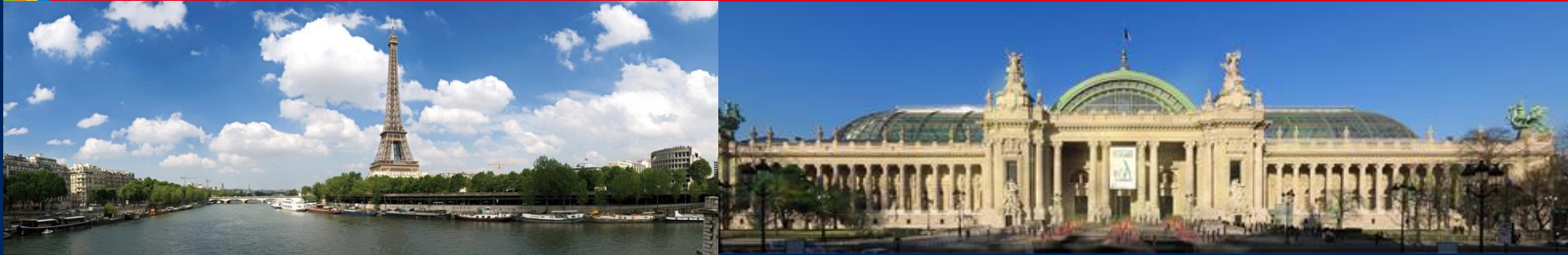


26th World Gas Conference

1 – 5 June 2015 – Paris, France



THEMATIC SESSION (PGC C-2): IMPLICATIONS OF DEVELOPING UNCONVENTIONAL GAS

The Re-emergence of Convergence: The Next Decade for the Global Gas Markets

Al Escher

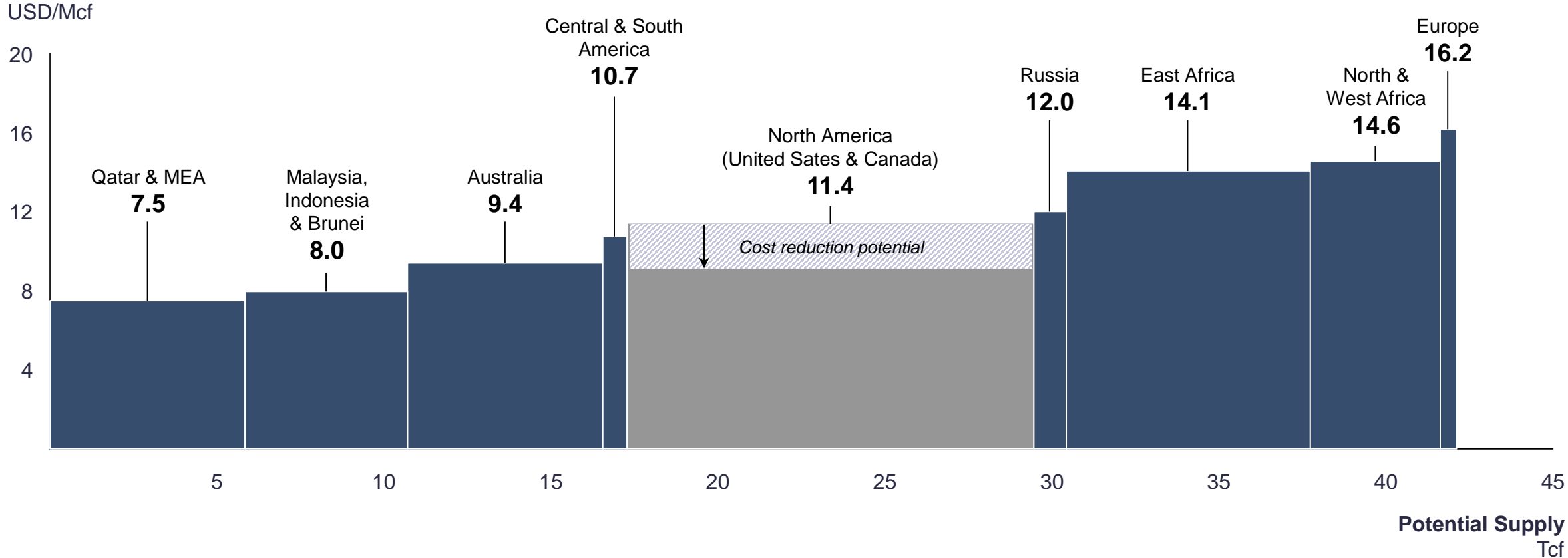
SBC | Schlumberger Business Consulting



Shale gas from the United States & Canada is globally cost competitive...

LNG LANDED COST IN JAPAN VS. EXPECTED GLOBAL CAPACITY BY COUNTRY

USD per Million cubic feet (USD/Mcf); 2025 Potential Supply in Trillion Cubic Feet (Tcf)



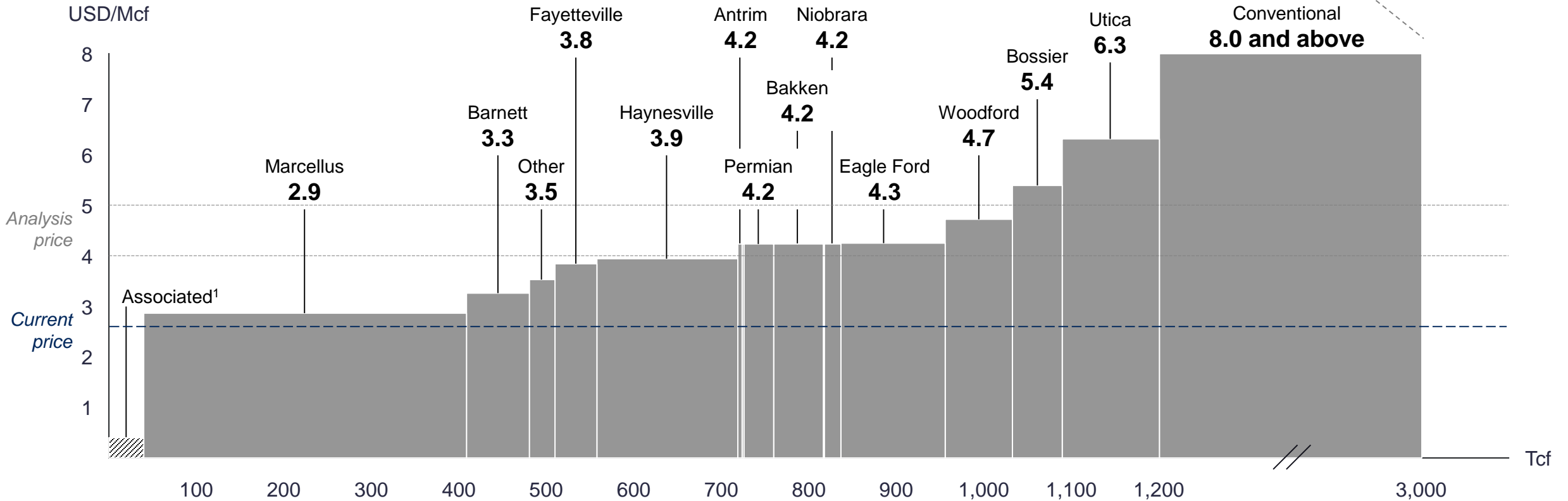
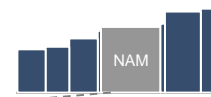
Notes: Landed cost estimates are based on averages across any country, individual projects within any country may have better or worse economics than average. North American Natural Gas Cost is based on internal and external breakeven analysis (\$4.4/Mcf). This is largely industry consensus view of the Street. Most contracts assume \$5/MMBtu over the long term. All other costs are based on external estimates. Cost overruns could lead to higher liquefaction costs than assumed e.g. East Africa and Australia

Source: IHS CERA, US Department of Energy (DOE); US Energy Information Administration (EIA); International Energy Agency (IEA); SBC Analysis

...and there is a lot of it

UNITED STATES NATURAL GAS SUPPLY (2015-2025)

USD per Million cubic feet (USD/Mcf); Trillion cubic feet (Tcf)



2015-2025 Estimated US cumulative demand (~300 Tcf)

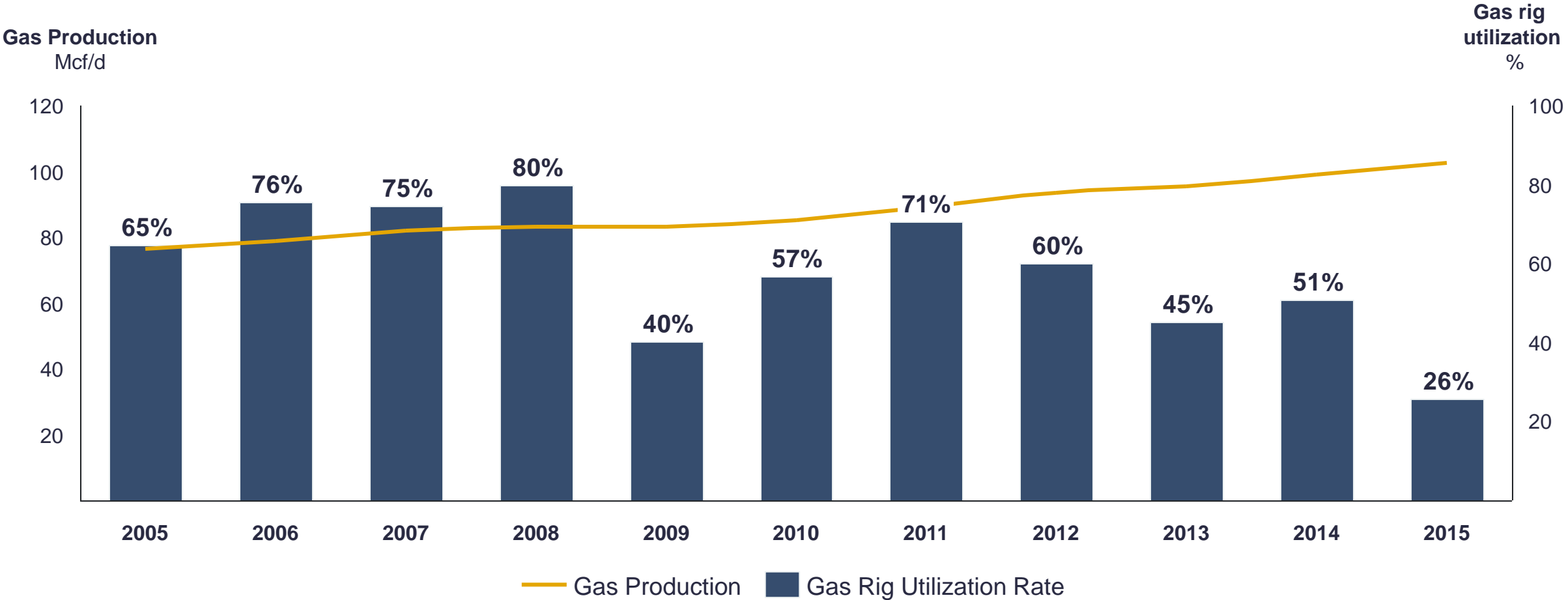
1: Considers 12% of an average estimated production of 30 Tcf per year from 2015 to 2025

Source: IHS CERA; Hart Energy; Credit Suisse First Boston (CSFB); MS, Canadian Imperial Bank of Commerce (CIBC); International Energy Agency (IEA) World Energy Outlook 2014; SBC Analysis

North American gas production is increasing, and could be increasing even faster

NORTH AMERICA GAS PRODUCTION AND GAS RIG UTILIZATION RATE¹

Million cubic feet per day (Mcf/d); Percentage (%); 2005-2015

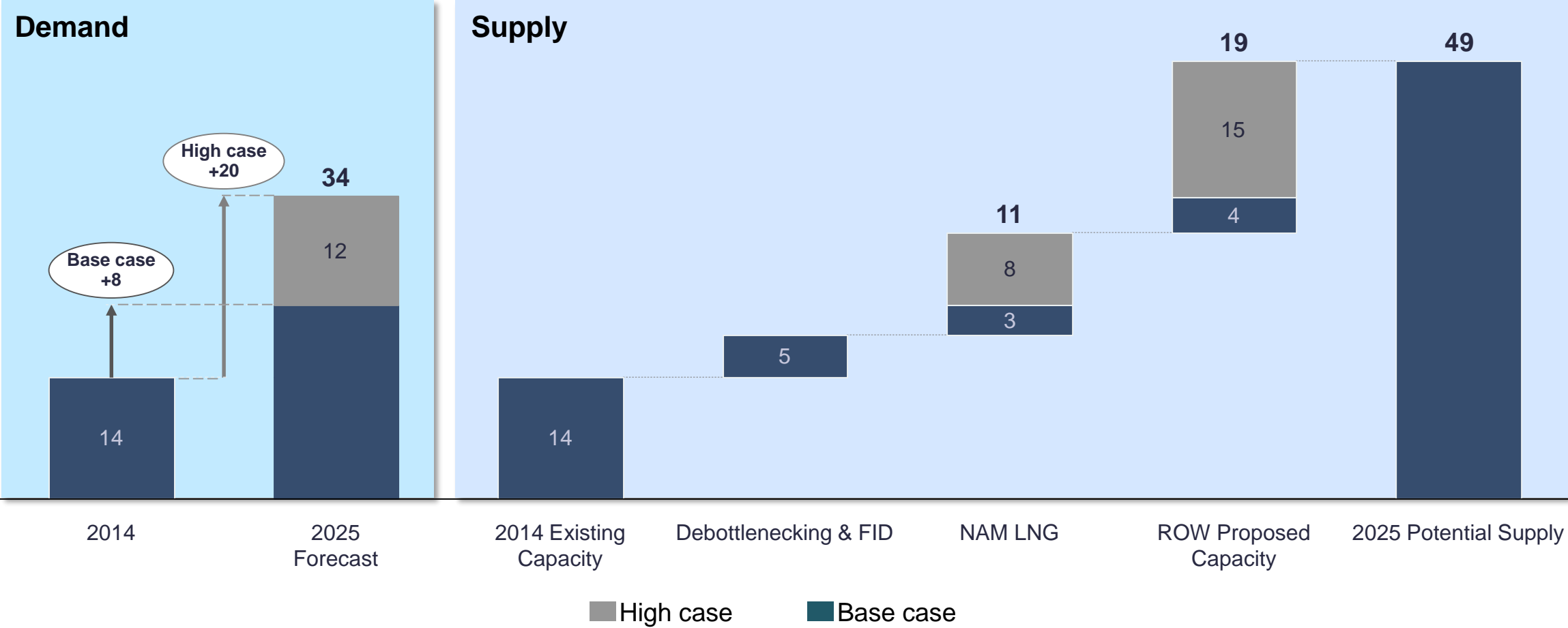


1: (Active gas rigs weekly average) / (Gas rigs capacity); Gas rig capacity calculated as (NAM maximum active rigs) – (NAM weekly average active oil rigs)
Source: Baker Hughes North America Rotary Rig Count as of May 1st, 2015; Rystad; SBC Analysis

LNG demand and supply comparison, 2014 vs. 2025

LNG DEMAND AND SUPPLY COMPARISON, 2014 VS. 2025

Trillion cubic feet per year (Tcf/year)

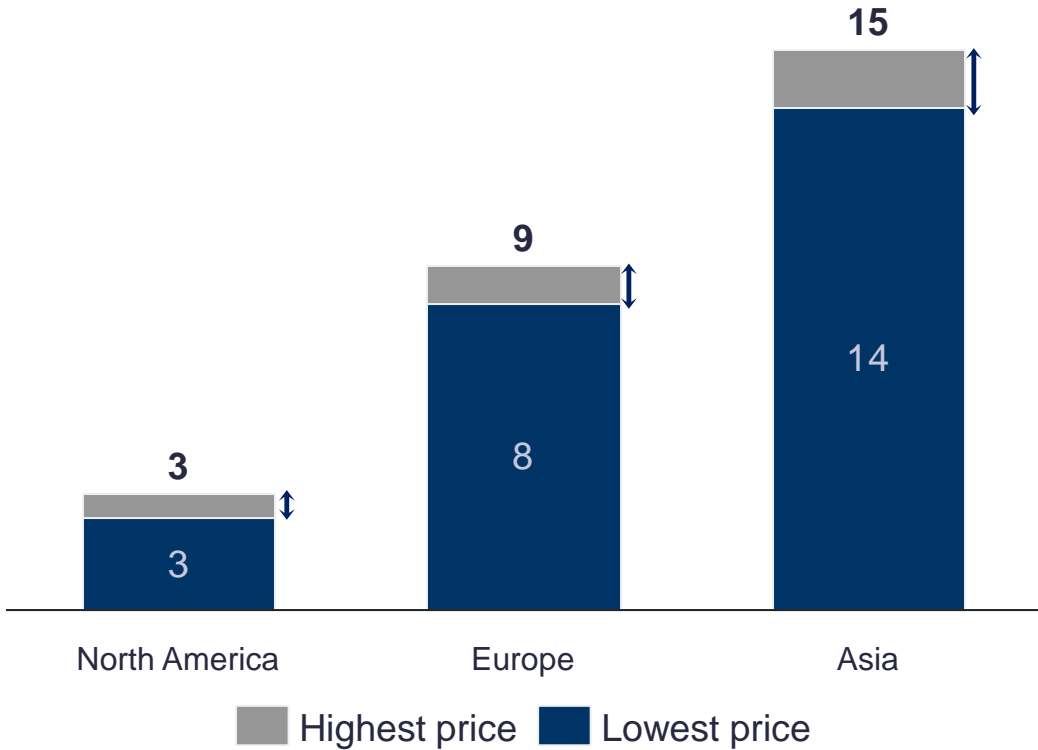


Source: IHS; International Energy Agency (IEA); Wood Mackenzie; SBC analysis

It is hard to see how this does not lead to globally linked gas markets by 2025, or before

H1 2015 – GAS SPOT PRICES

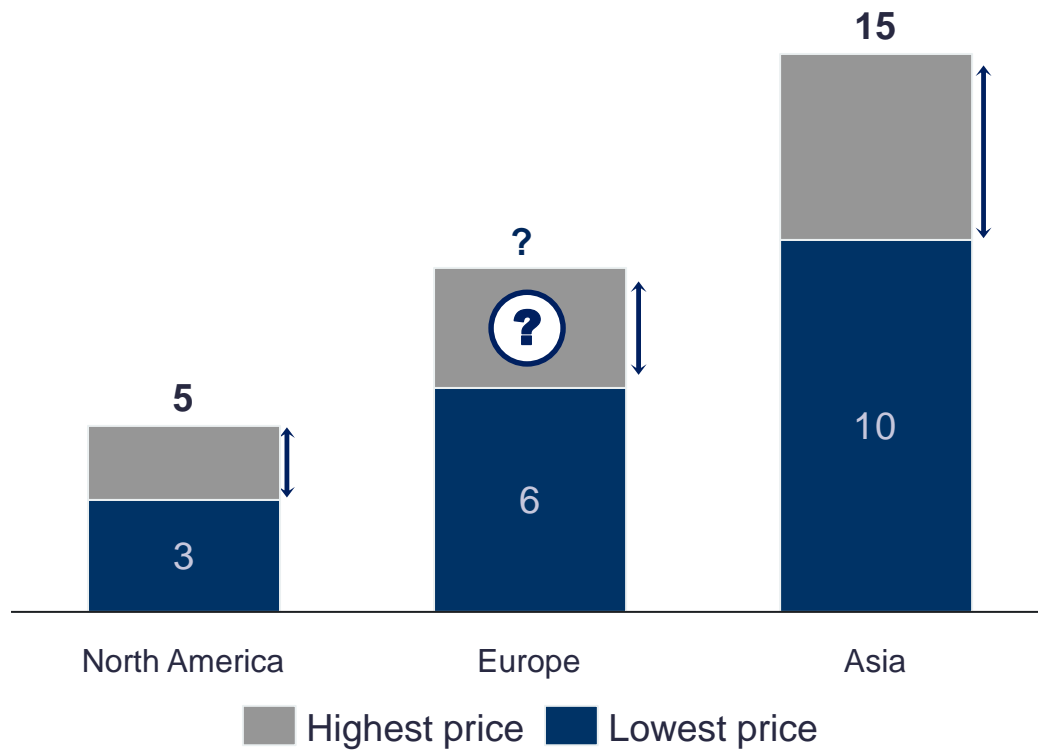
USD/MBtu



FUTURE – GAS SPOT PRICES

USD/MBtu

FOR DISCUSSION



Source: North America: Henry Hub Natural Gas Spot price, EIA (minimum April - maximum January); Asia: Japan Liquefied Natural Gas Import price, World Bank (minimum March - maximum January); Europe: European Union Natural Gas Import price, from World Bank (minimum March - maximum January)