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Energy and commodity price benchmarking and market insights

London, Houston, Washington, New York, Portland, Calgary, Santiago, Bogota, Rio de Janeiro, Singapore, Beijing, Tokyo, Sydney, Dubai, Moscow, Astana, Kiev, Porto and Johannesburg

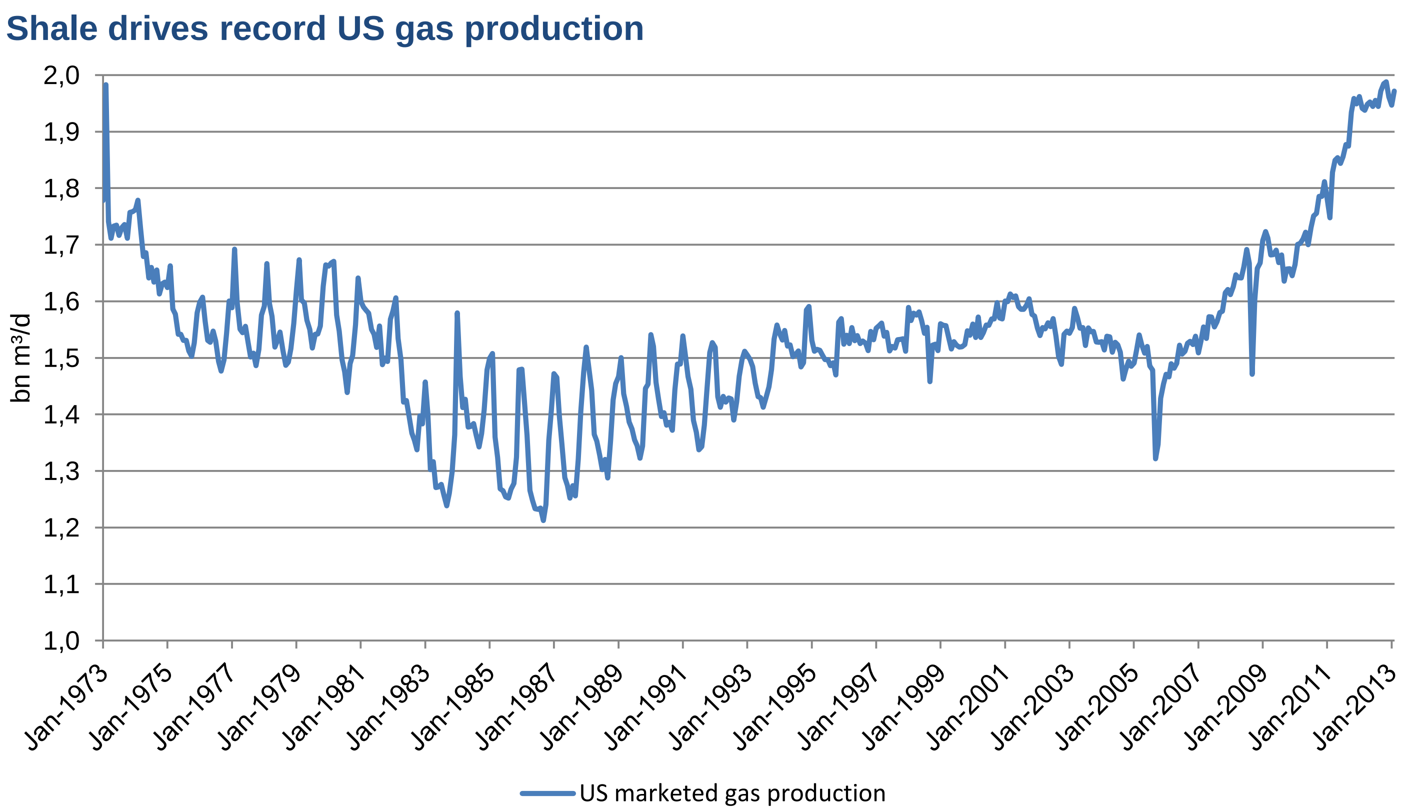
Illuminating the markets

European gas and global LNG

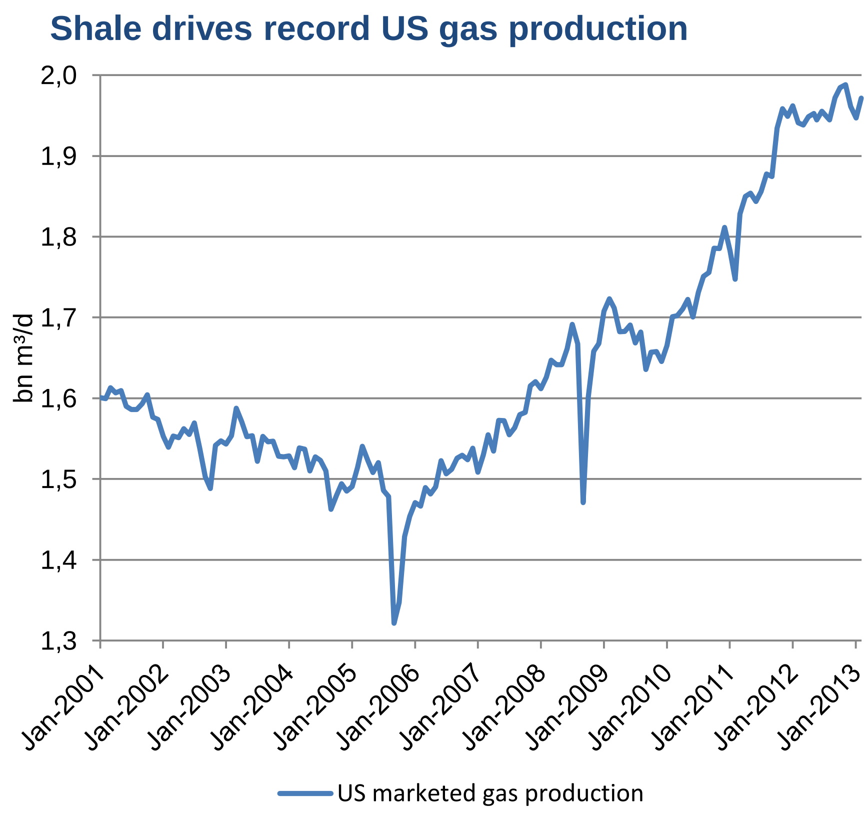
5 June 2013
IFIEC Europe – Brussels

US shale — coal now

US shale — coal now, LNG later?



US shale – coal now, LNG later?



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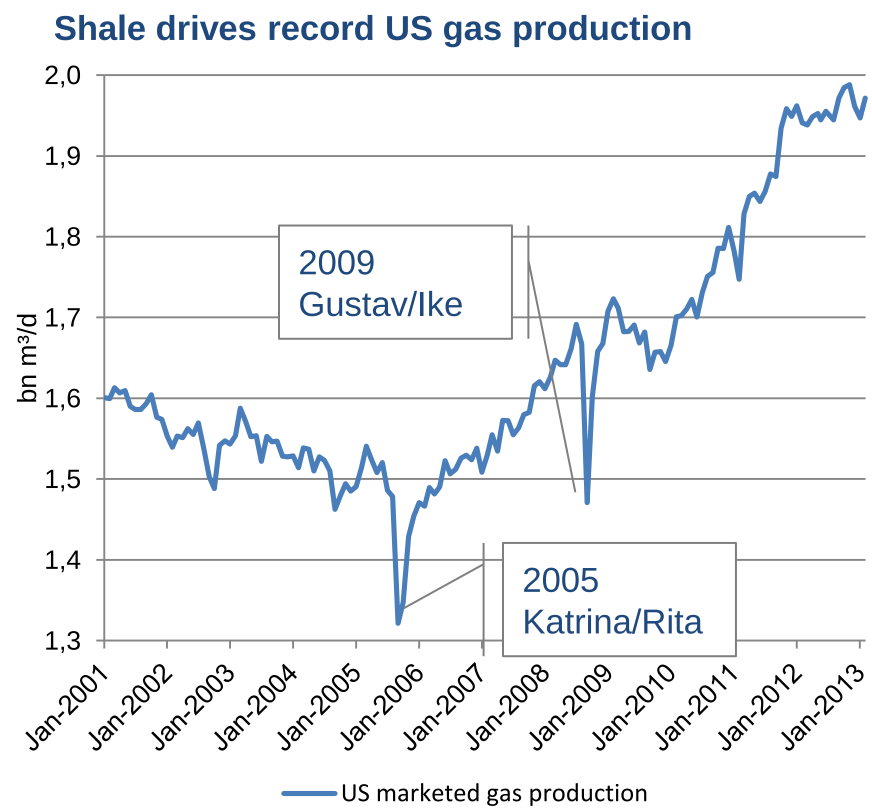
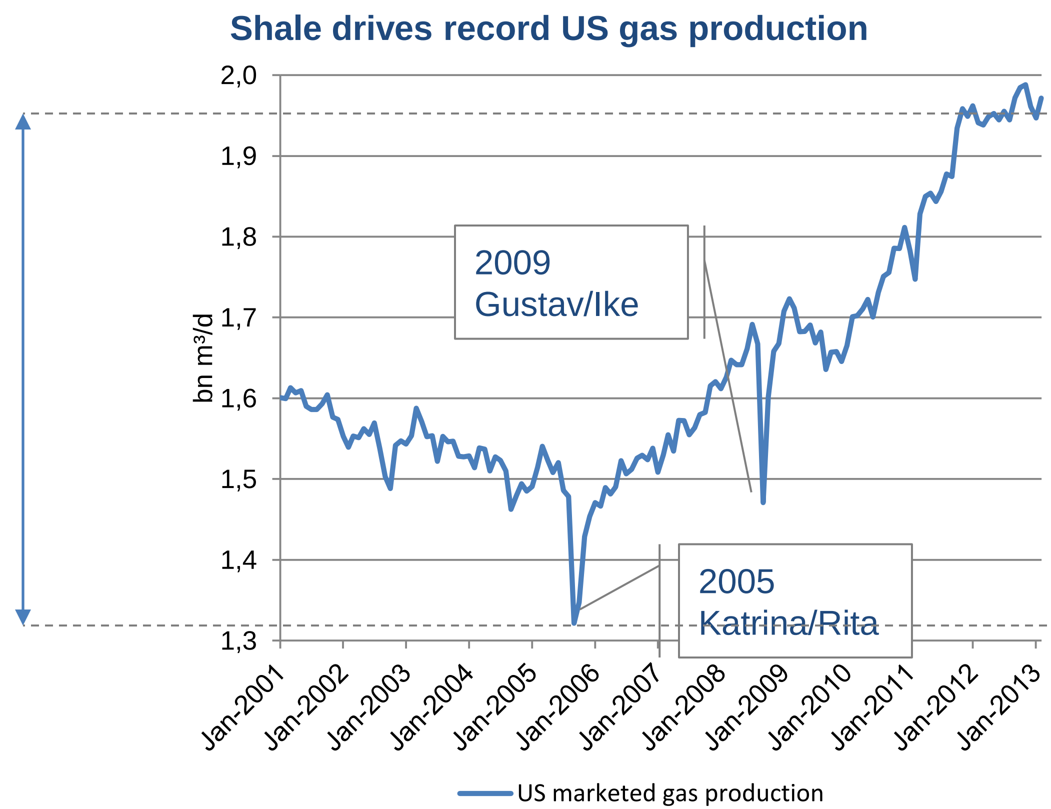
US shale — coal now, LNG later?



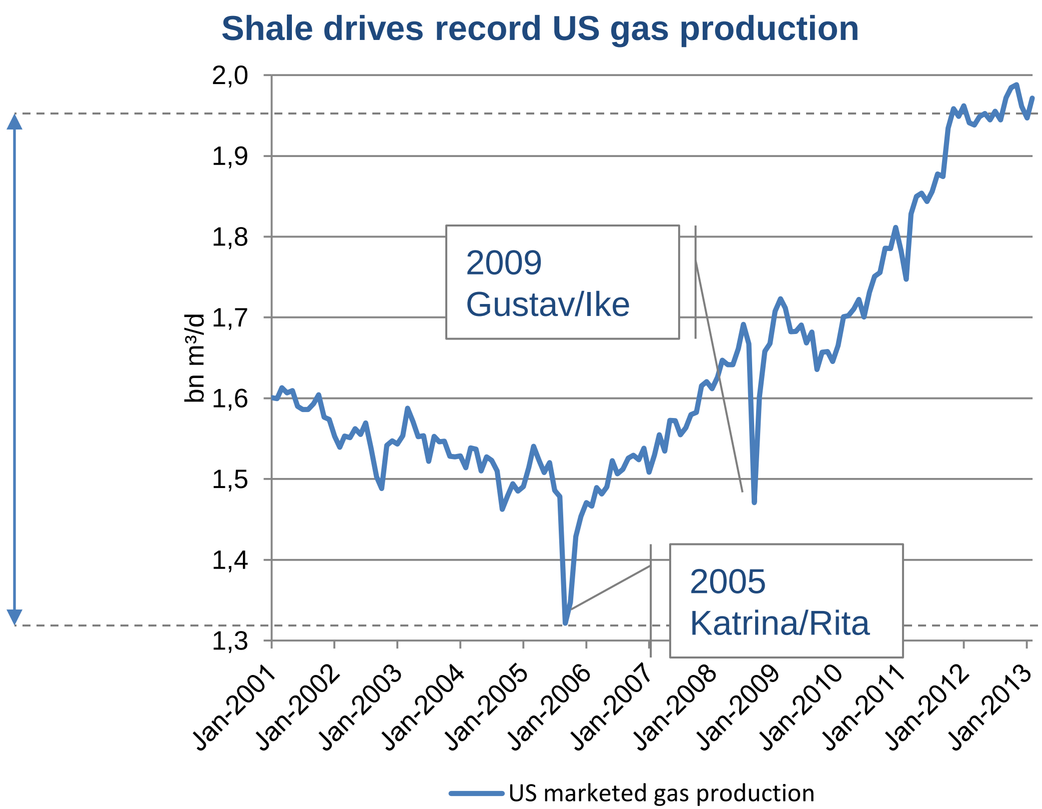
US shale – coal now, LNG later?

+628mn m³/d

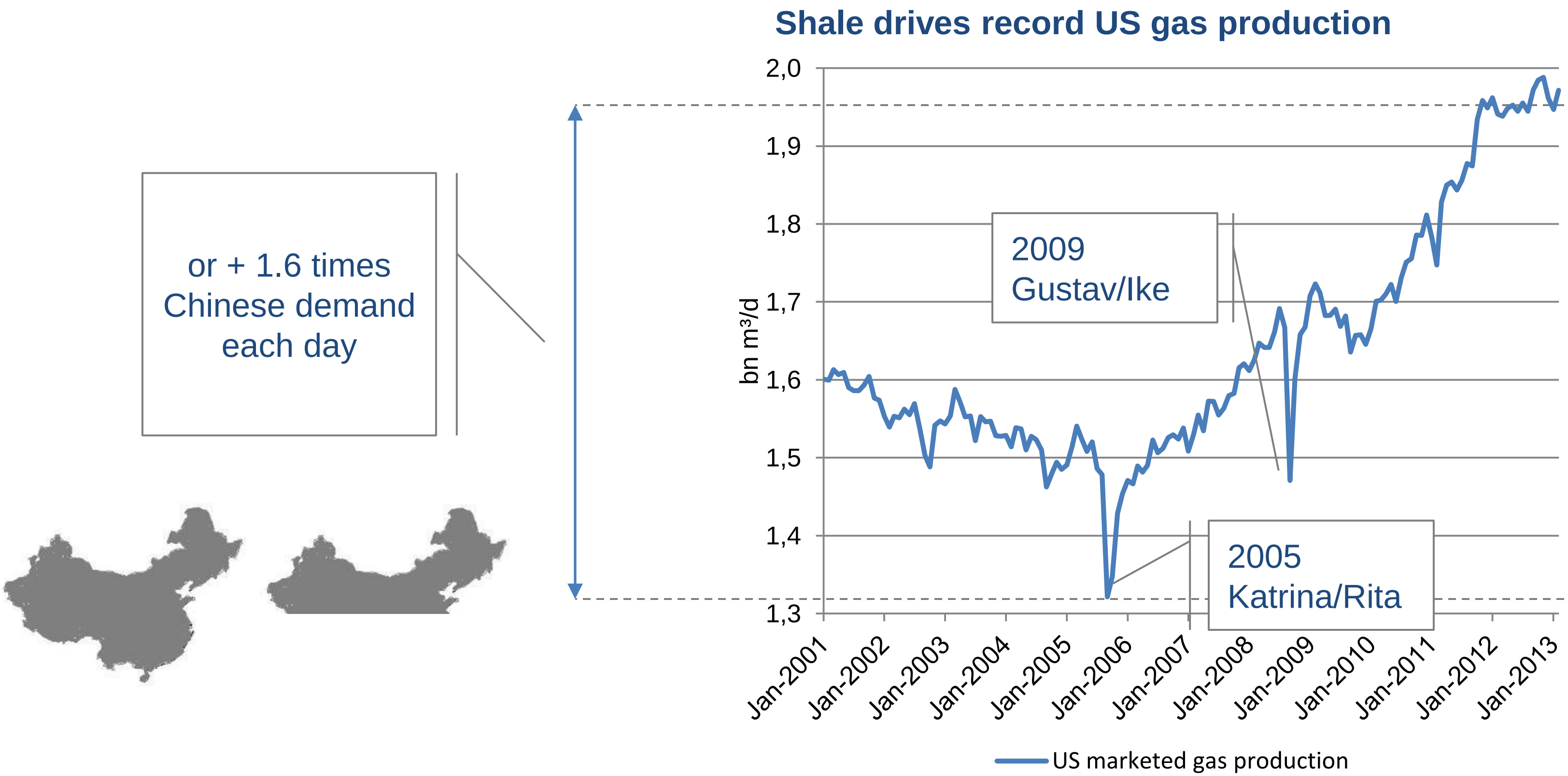


US shale – coal now, LNG later?

or + 2.6 times
UK demand
each day

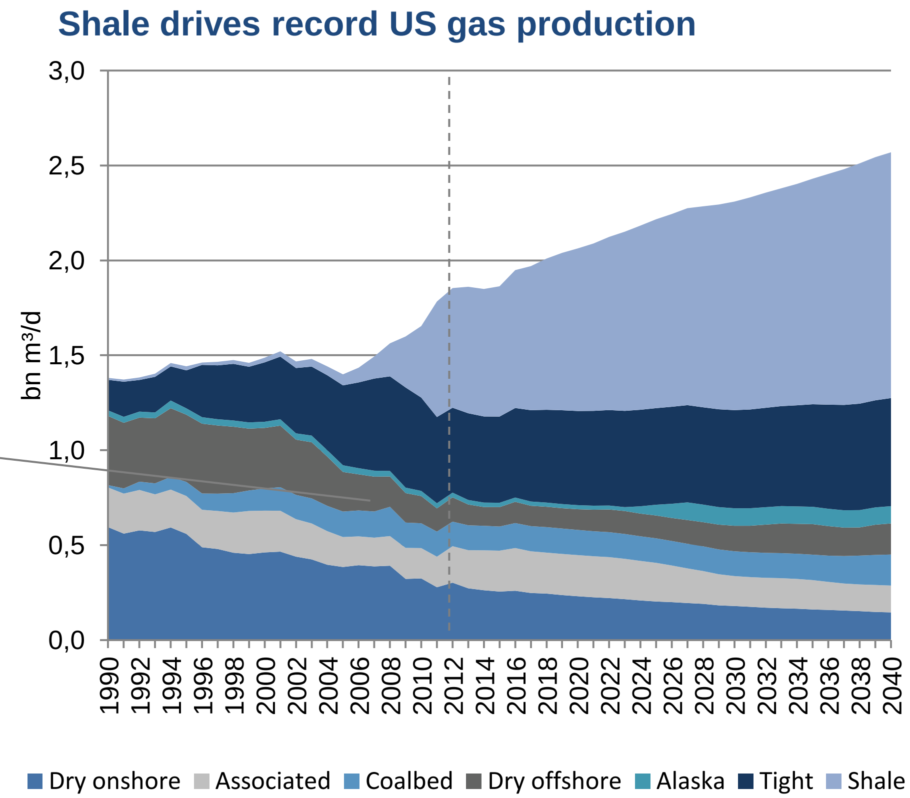


US shale – coal now, LNG later?



US shale — coal now, LNG later?

US production 35pc shale in 2012



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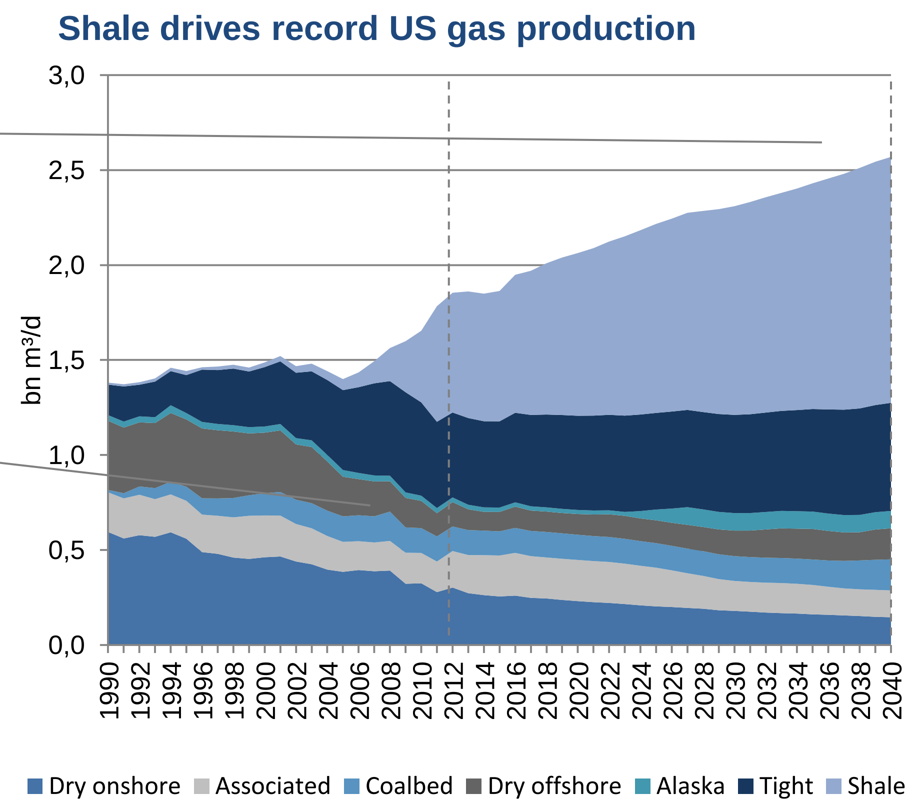
US shale – coal now, LNG later?

US production 50pc shale in 2040

US production 35pc shale in 2012



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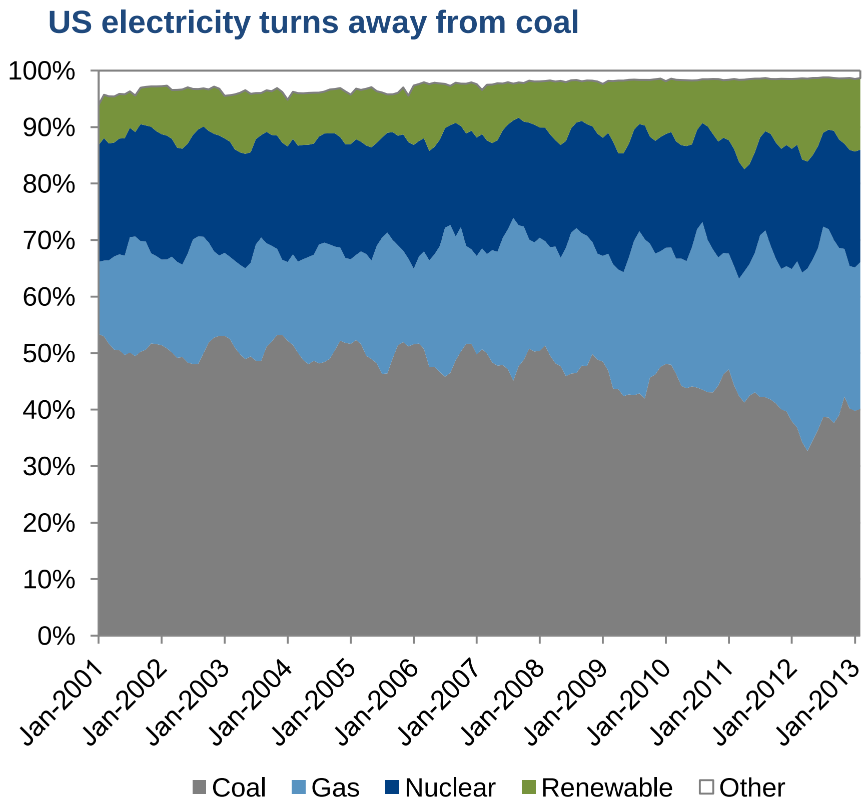
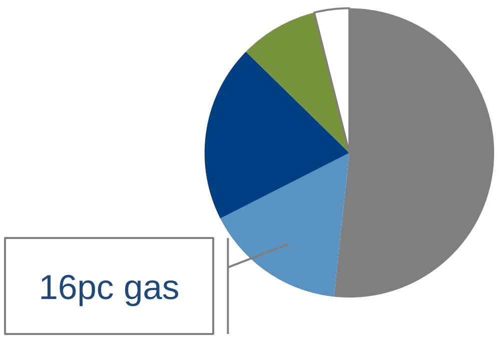
US shale – coal now



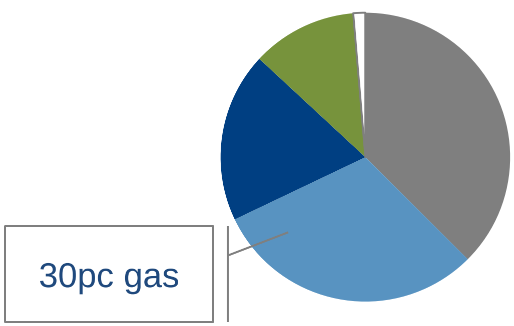
US shale – coal now

2001



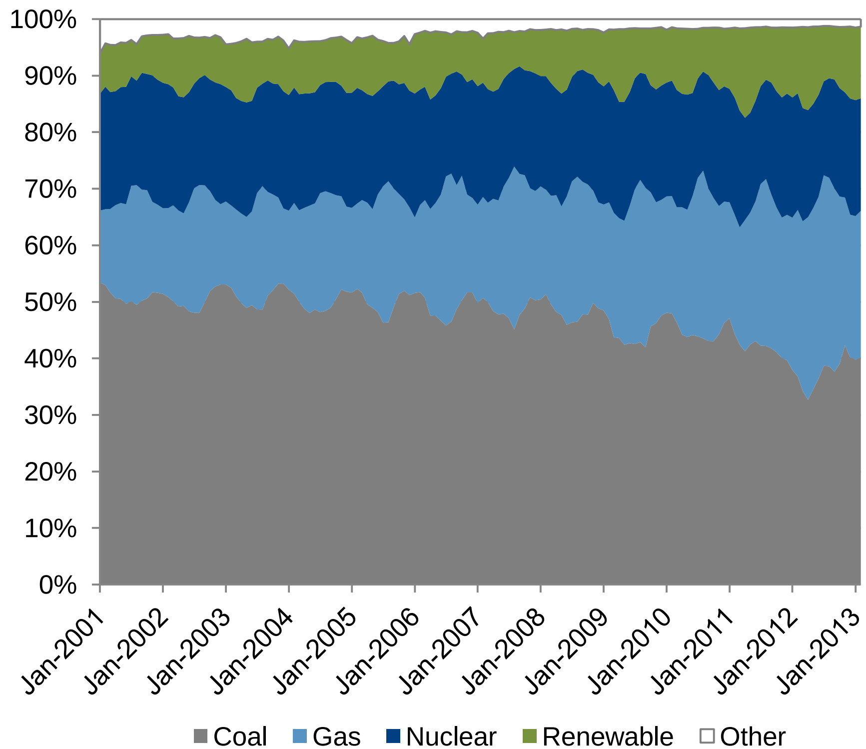
■ Coal ■ Gas ■ Nuclear ■ renewable □ other

2012



■ Coal ■ Gas ■ Nuclear ■ renewable □ other

US electricity turns away from coal



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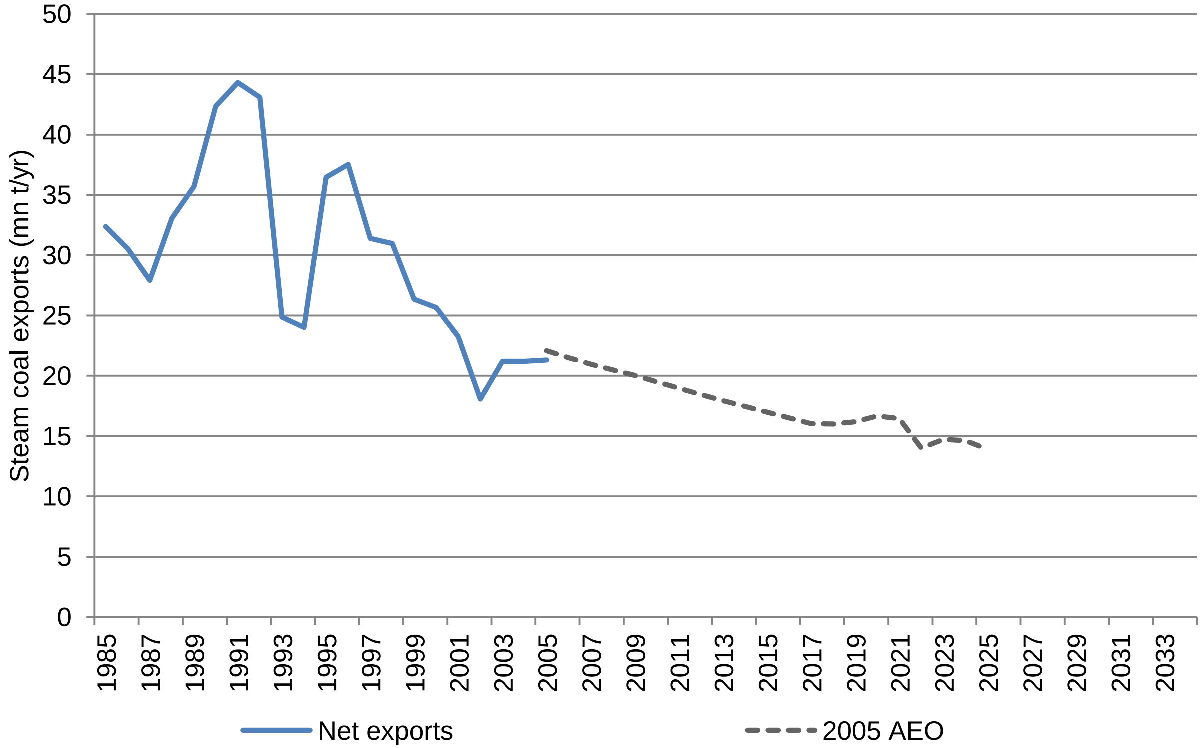
US shale – coal now



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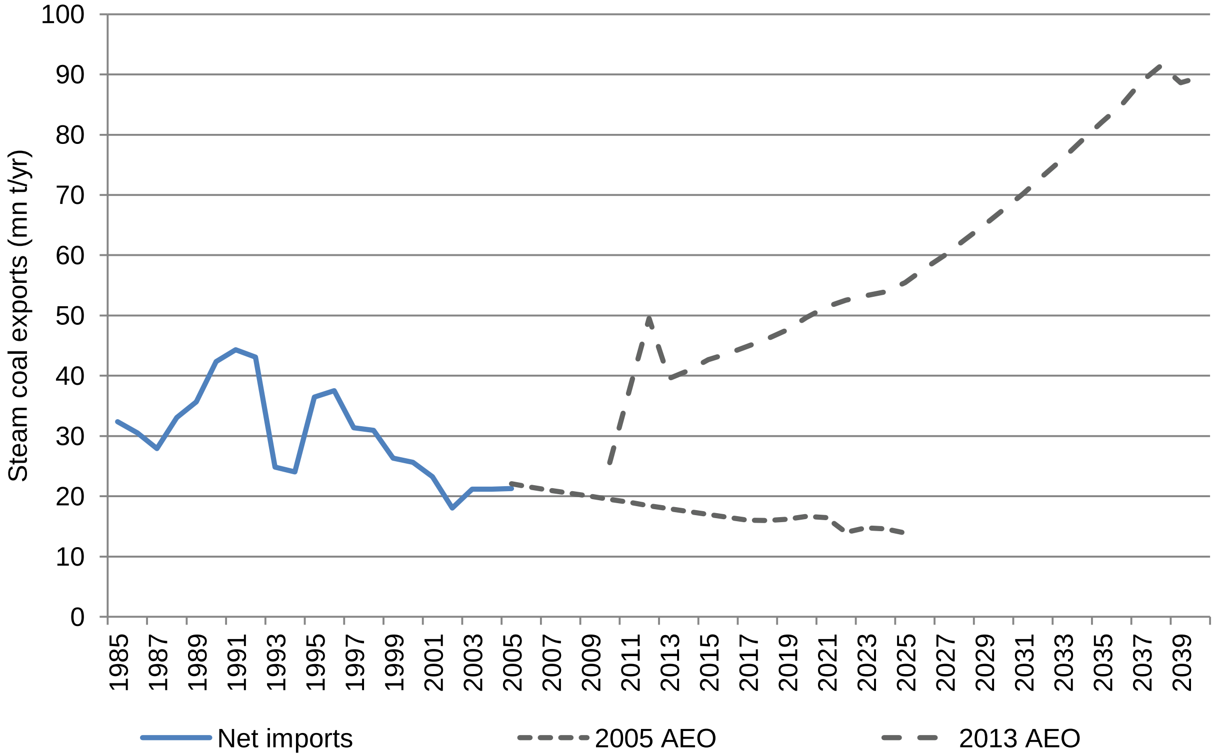

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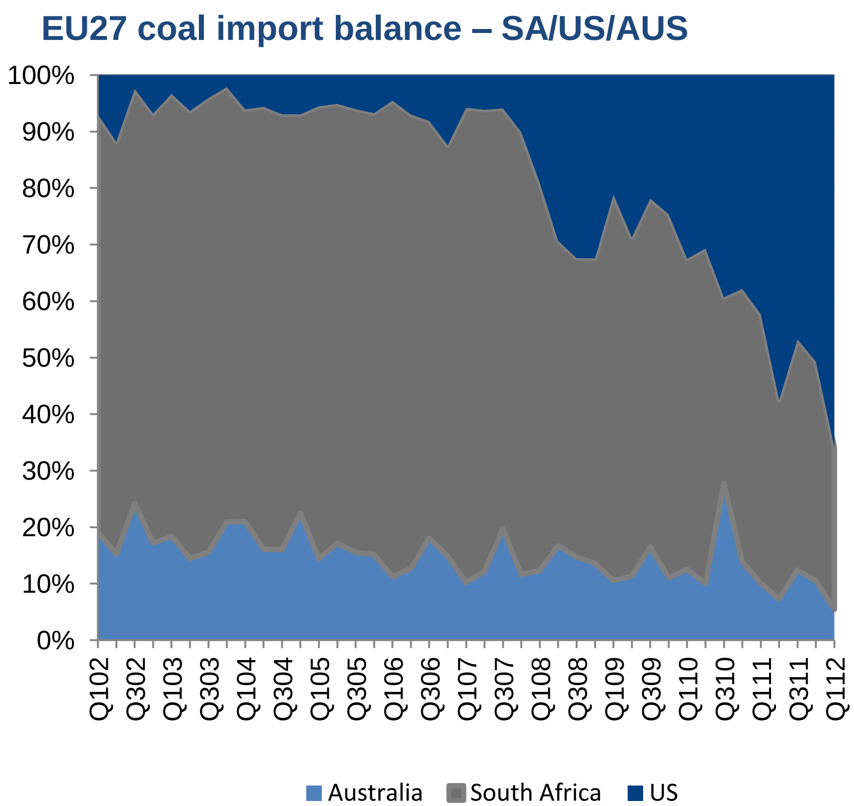
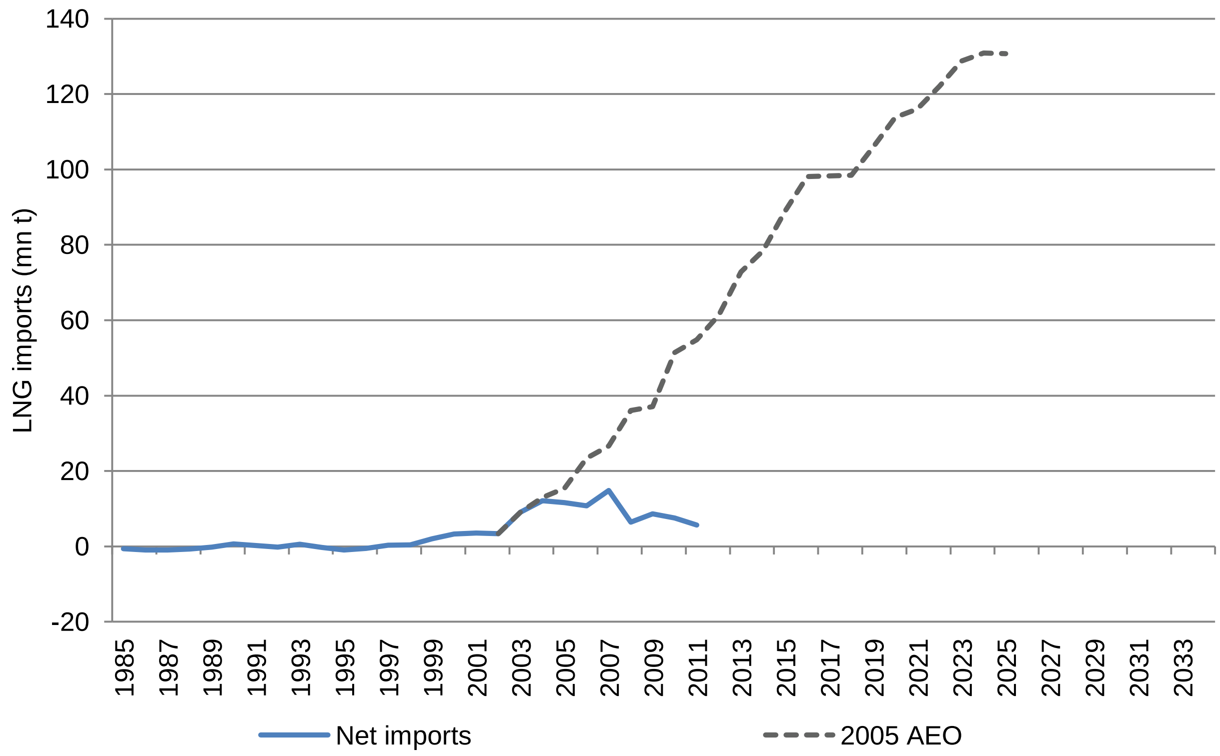


US shale — LNG later?

US once on course for vast imports



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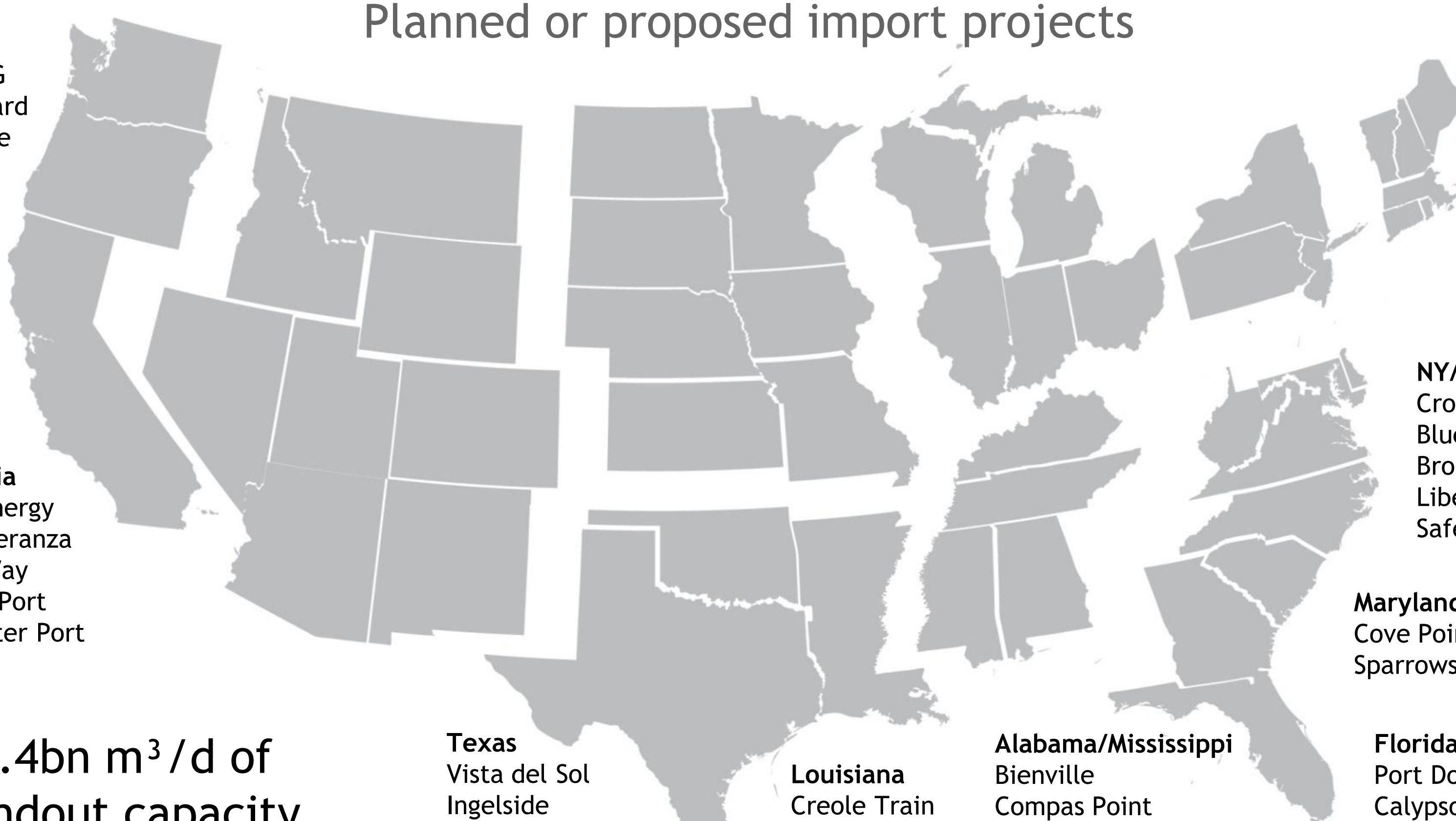
US once on course for vast imports

Planned or proposed import projects



Oregon
Bradwood
Oregon LNG
Portwestward
Jordan Cove

California
Sound Energy
Port Esperanza
Ocean Way
Cabrillo Port
Clearwater Port

New England
Downeast LNG
Quoddy Bay
Calais
Weaver's Cove
Keyspan

NY/NJ
Crown Landing
Blue Ocean
Broadwater
Liberty
Safe Harbor

Maryland
Cove Point II
Sparrows Point

Texas
Vista del Sol
Ingelside
Port Arthur
Port Lavaca
Corpus Christi
Beacon Point

Louisiana
Creole Train
Cameron II
Main Pass
Gulf Landing
Pearl Crossing
Port Pelican

Alabama/Mississippi
Bienville
Compas Point
Casotte Landing
Gulf LNG

Florida/Georgia
Port Dolphin
Calypso
Elba Island III

1.4bn m^3/d of sendout capacity

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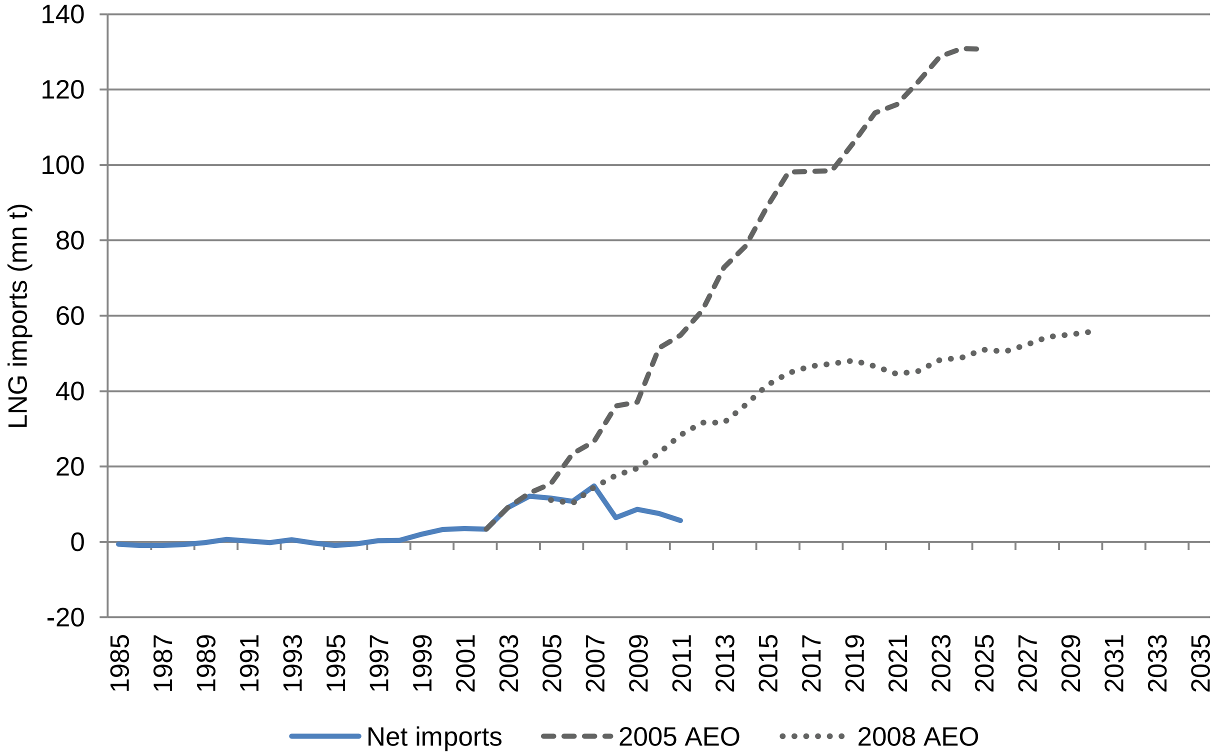
US once on course for vast imports



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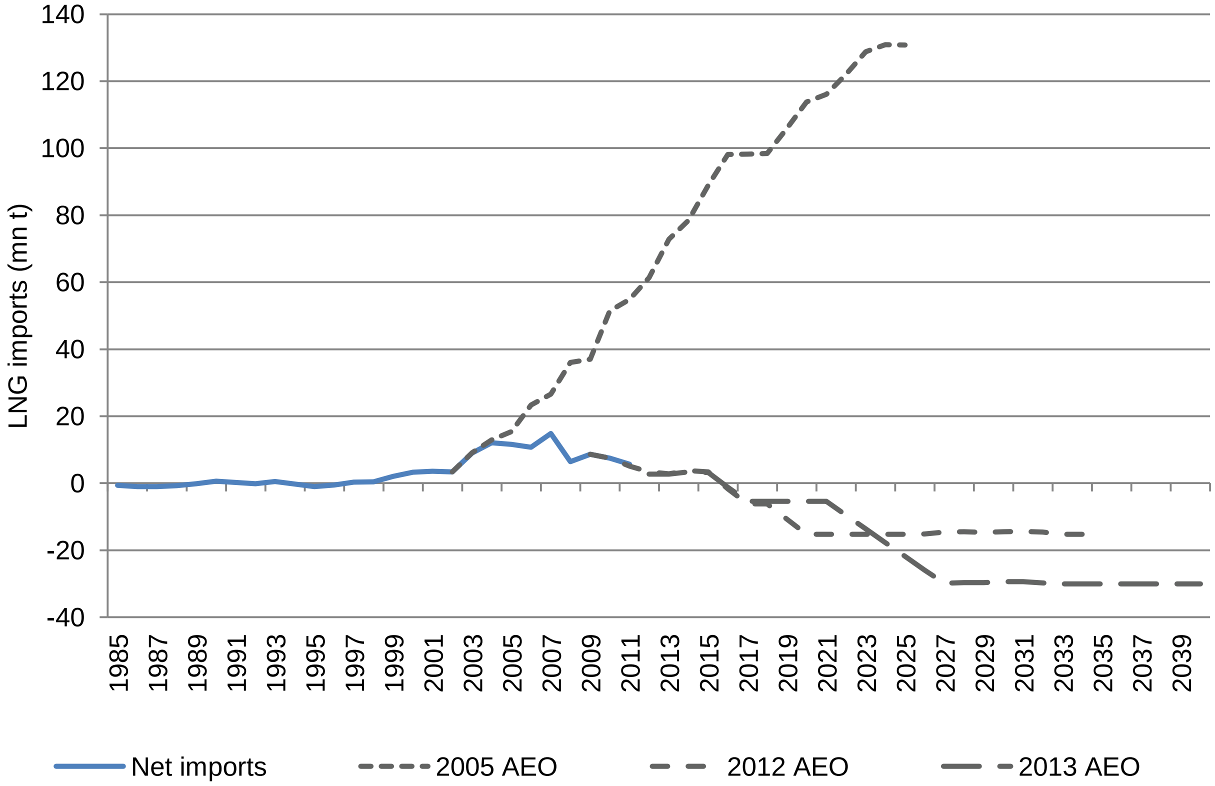
US poised for exports



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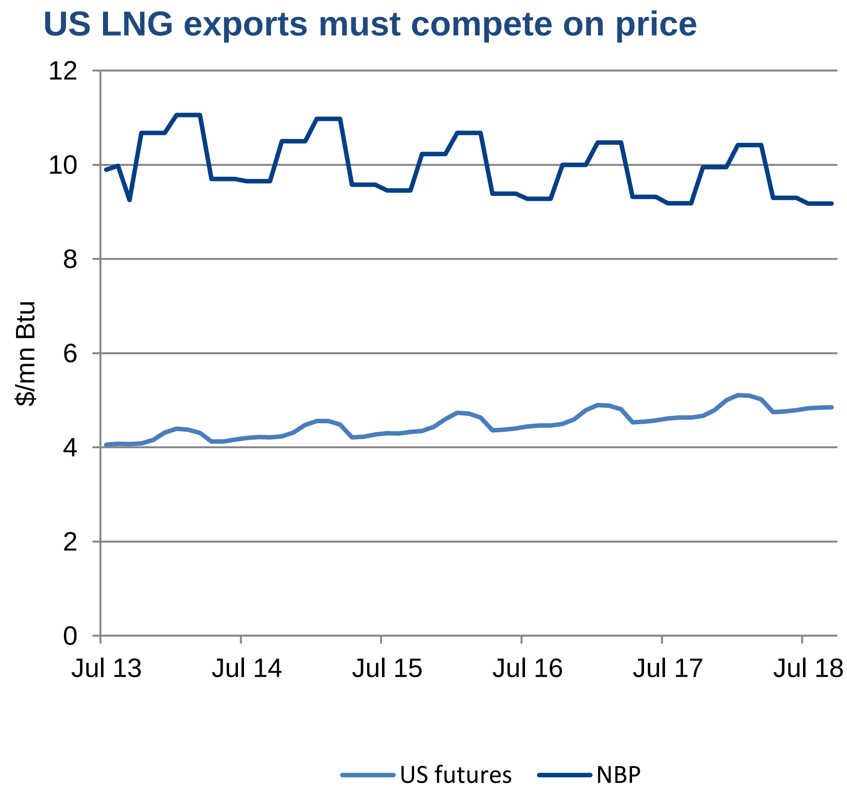
US poised for exports

Planned or proposed export projects

725.3mn m^3/d of liquefaction capacity

US LNG – exports, but at what price?

Exporting US shale, but at what price?



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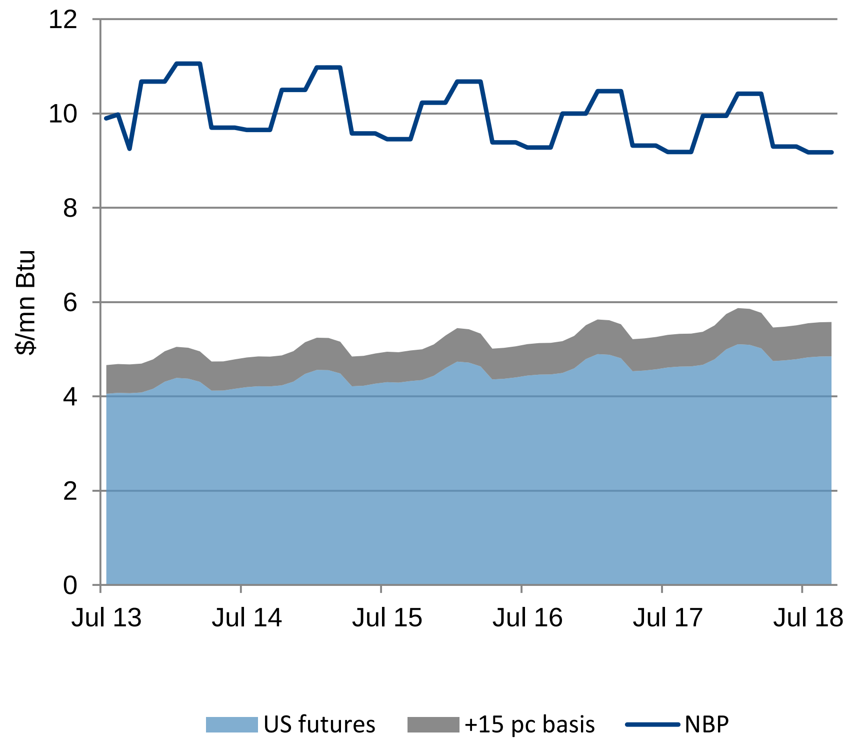
Exporting US shale, but at what price?

115pc Nymex – commodity cost

US LNG exports must compete on price

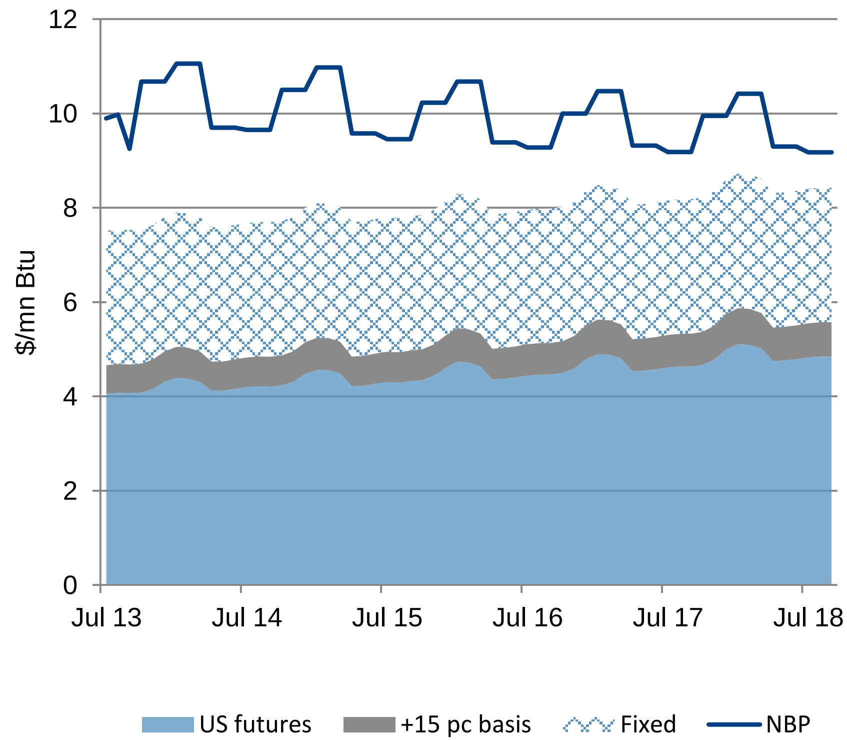


Illuminating the markets

Exporting US shale, but at what price?

115pc Nymex – commodity cost
+$2.85 fixed cost (margin)

US LNG exports must compete on price



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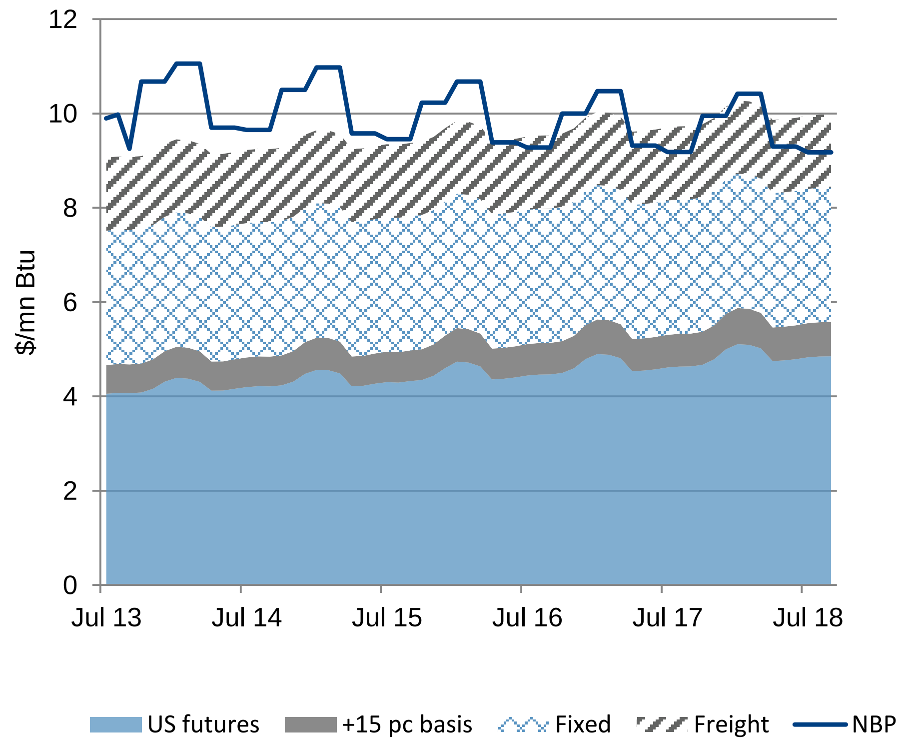
Exporting US shale, but at what price?

115pc Nymex – commodity cost
+$2.85 fixed cost (margin)
+Freight

US LNG exports must compete on price



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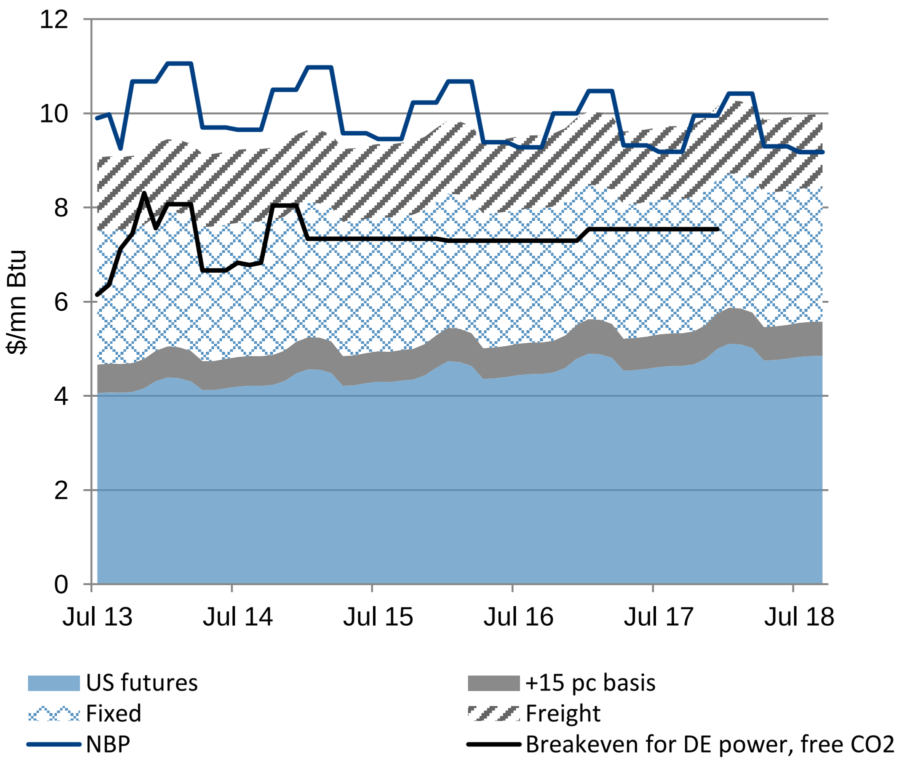

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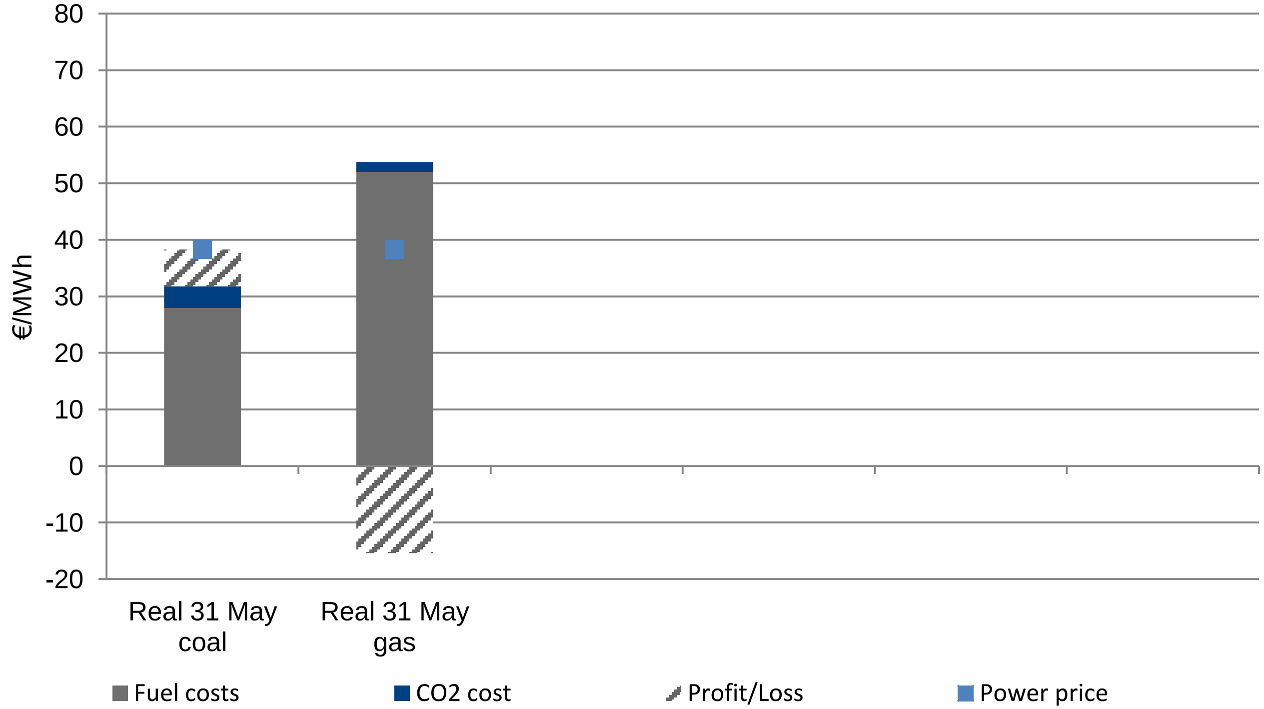
Gas prices and the power sector

Gas prices and the EU power sector

Costs and P/L scenarios 2015



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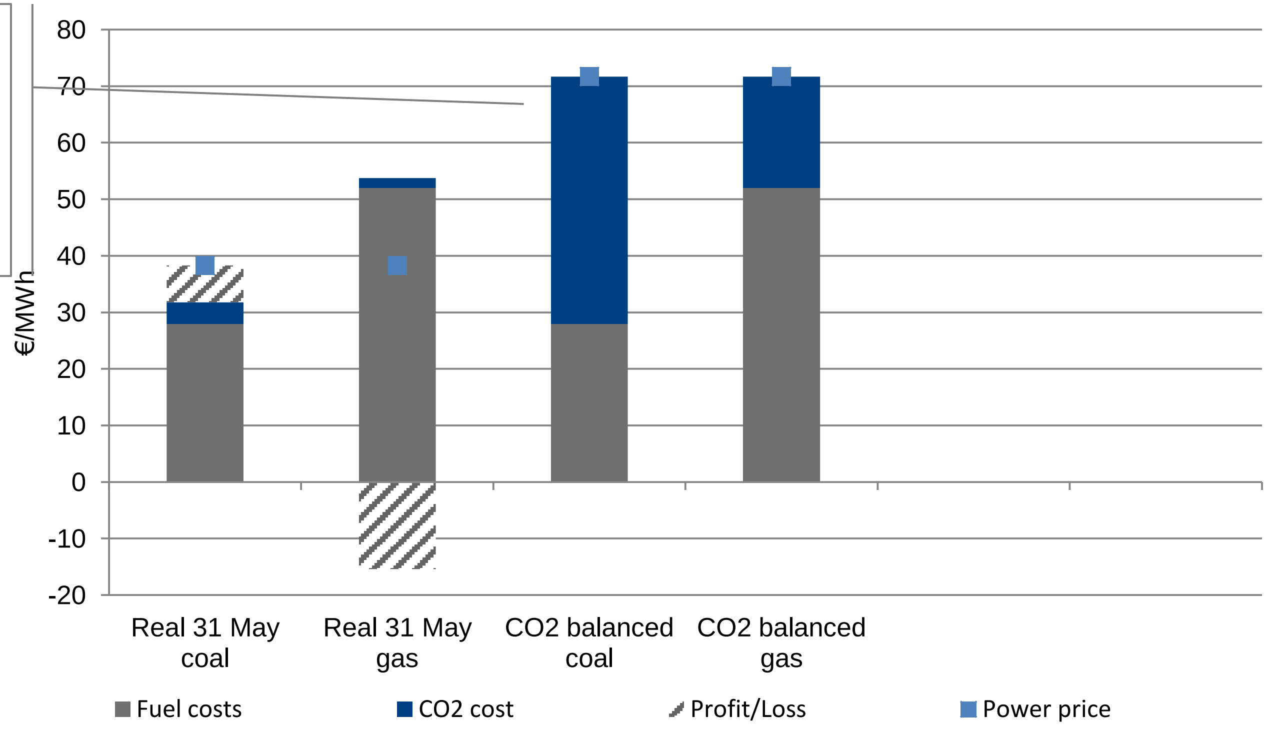
Gas prices and the EU power sector

Implies CO_2 price at €48.75/t
At least 10x higher than current prices

Costs and P/L scenarios 2015



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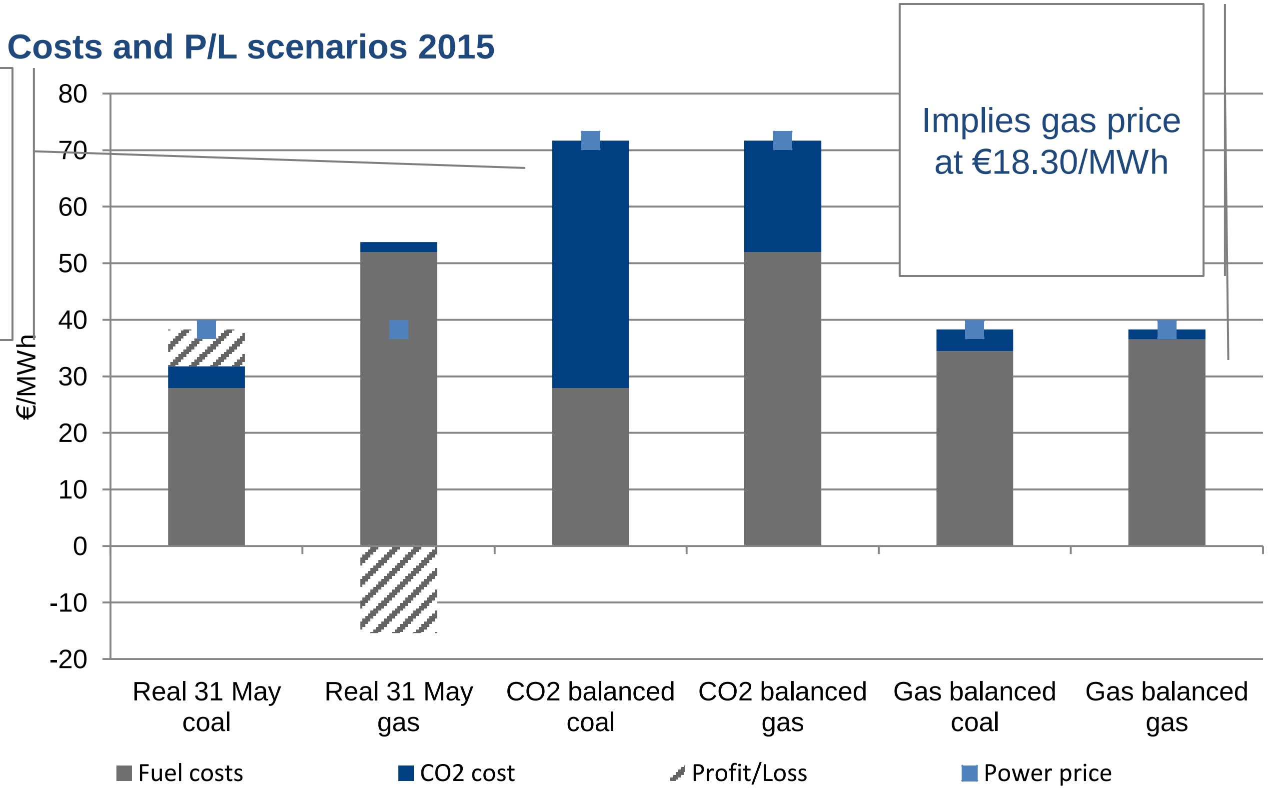
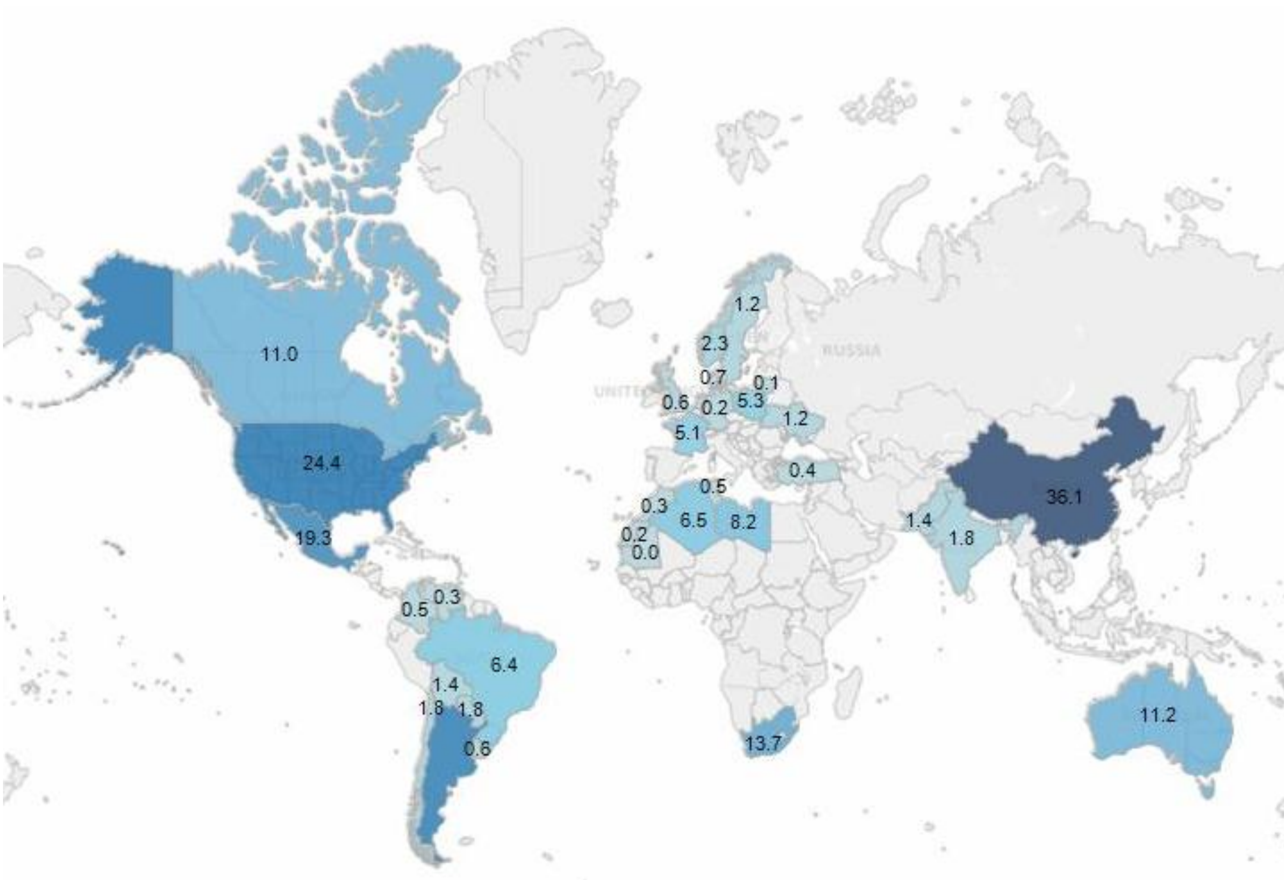


Implies gas price at €18.30/MWh

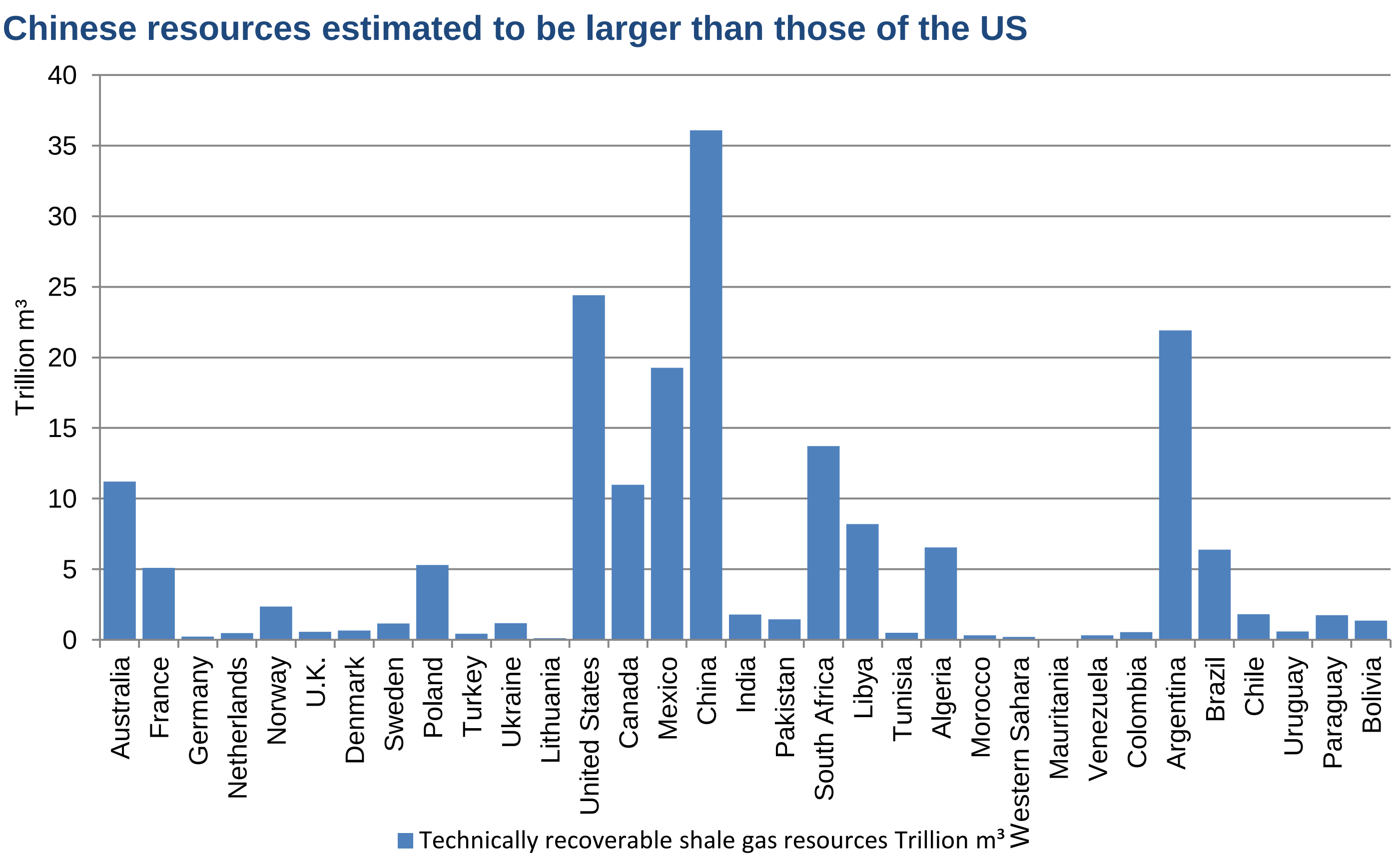
Global shale resources

Global shale resources

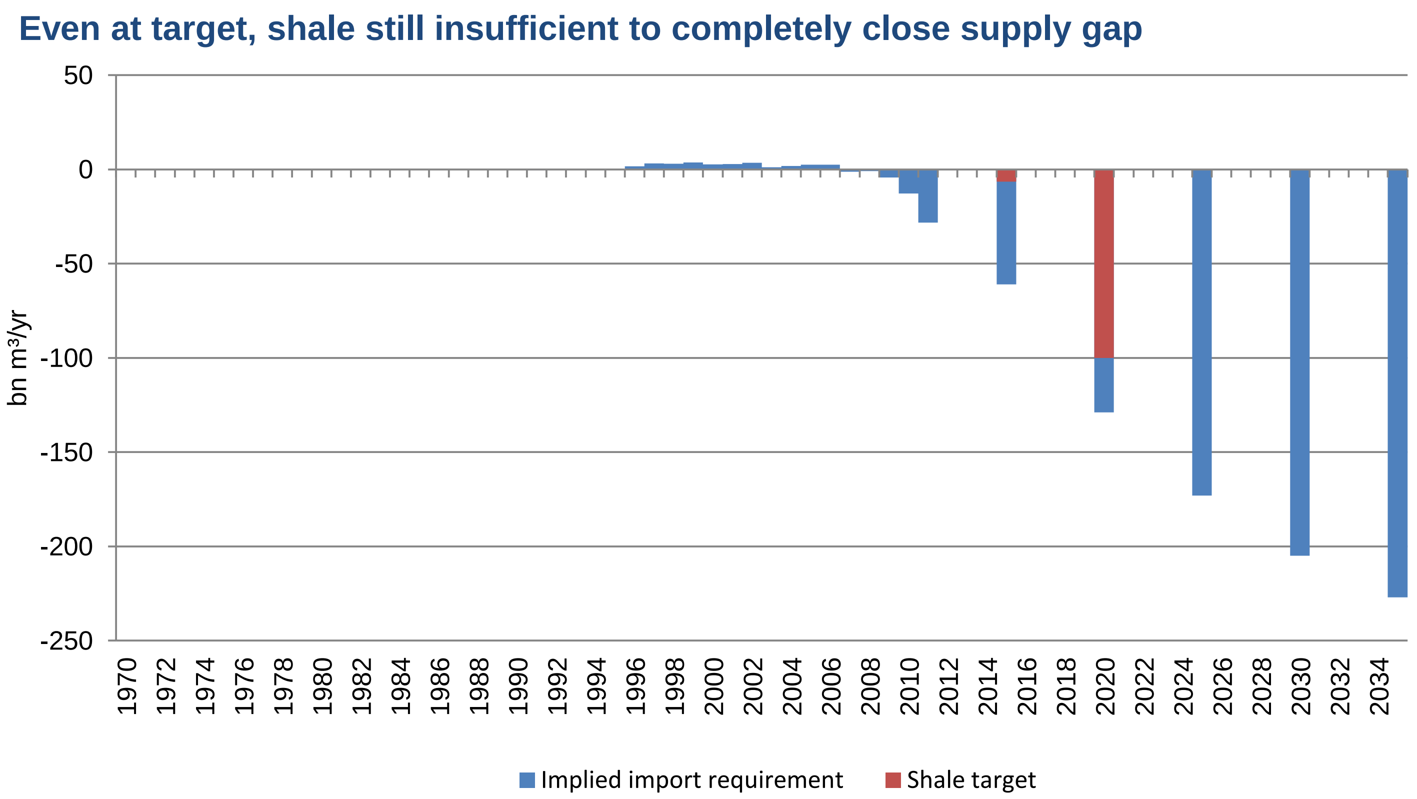


Trillion m³ — EIA – April 2011

Global shale resources



China will still require imports



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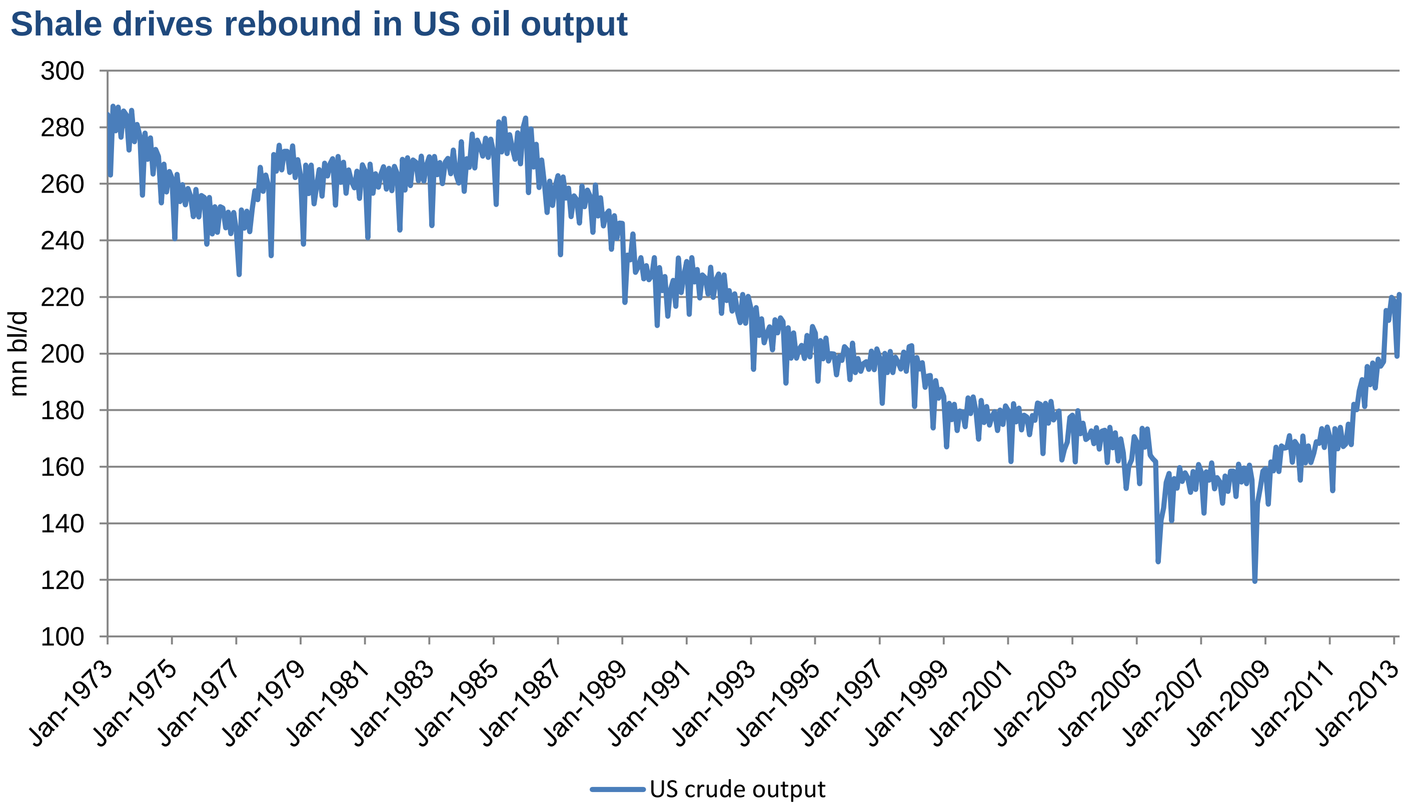
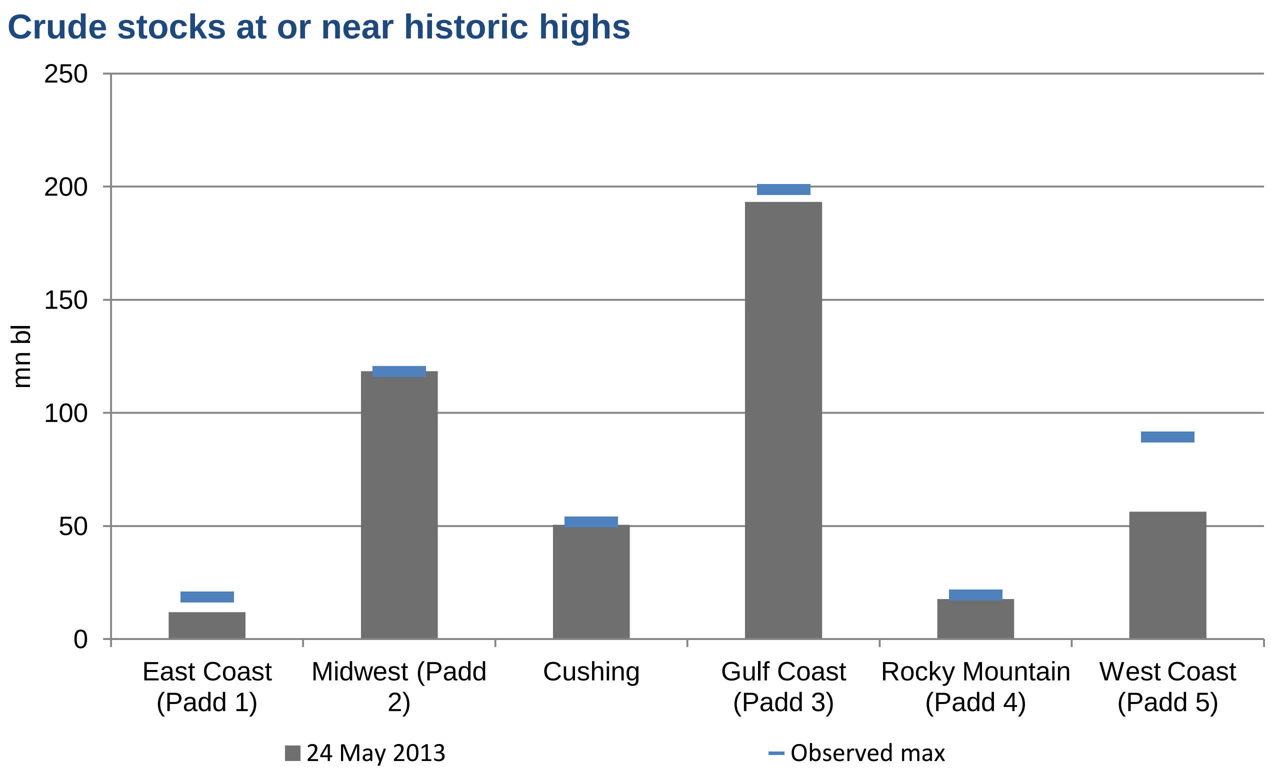
Shale oil – more of the same?

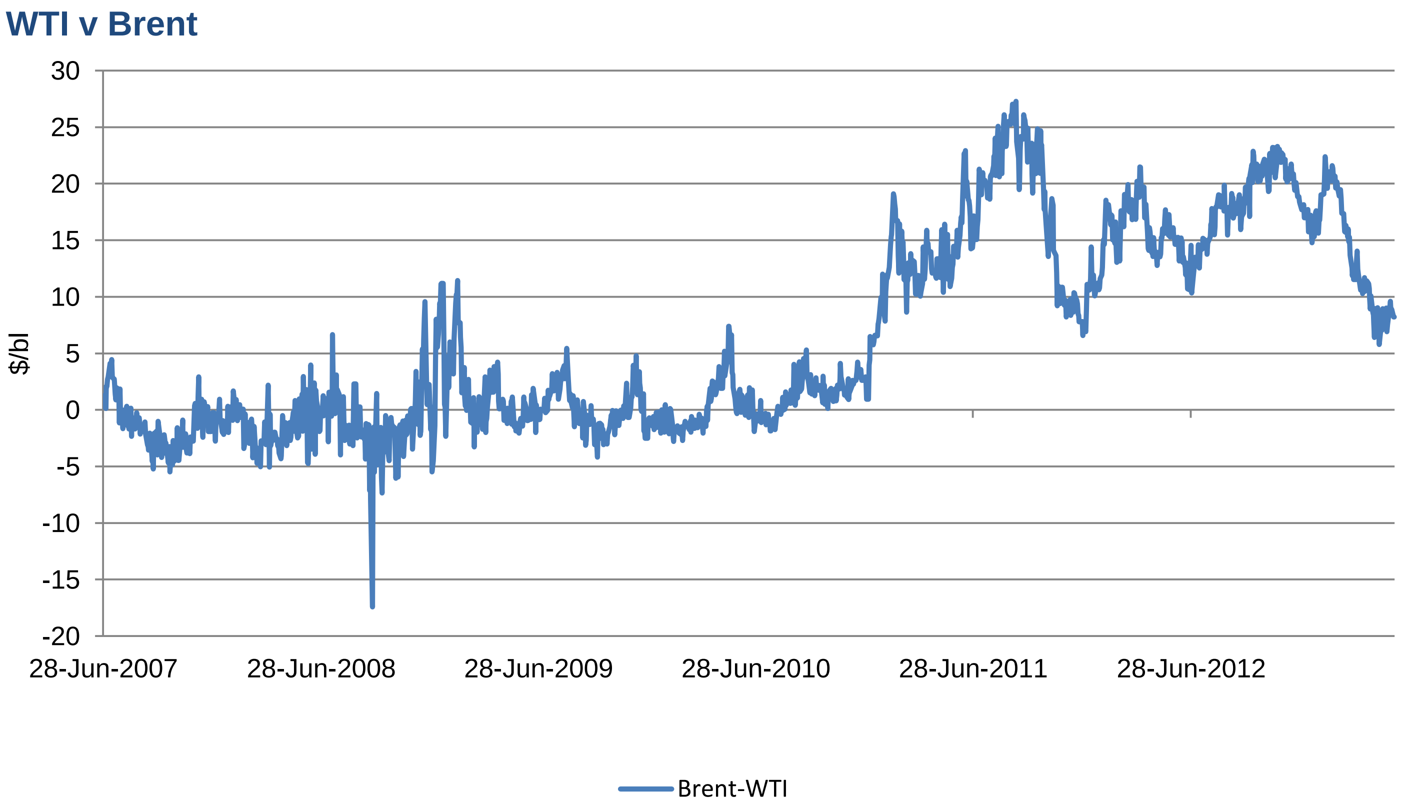
US crude production



US crude stocks



US-North Sea price spreads



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