
14th International Gas and Electricity Summit
What is the future for gas?
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21 October 2009
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Recent experience

From Boom …	… to Bust
• Growing demand	• Falling demand
• Higher prices	• Excess supply
• Strong levels of investment	• Lower spot prices
	• Pullback in investment

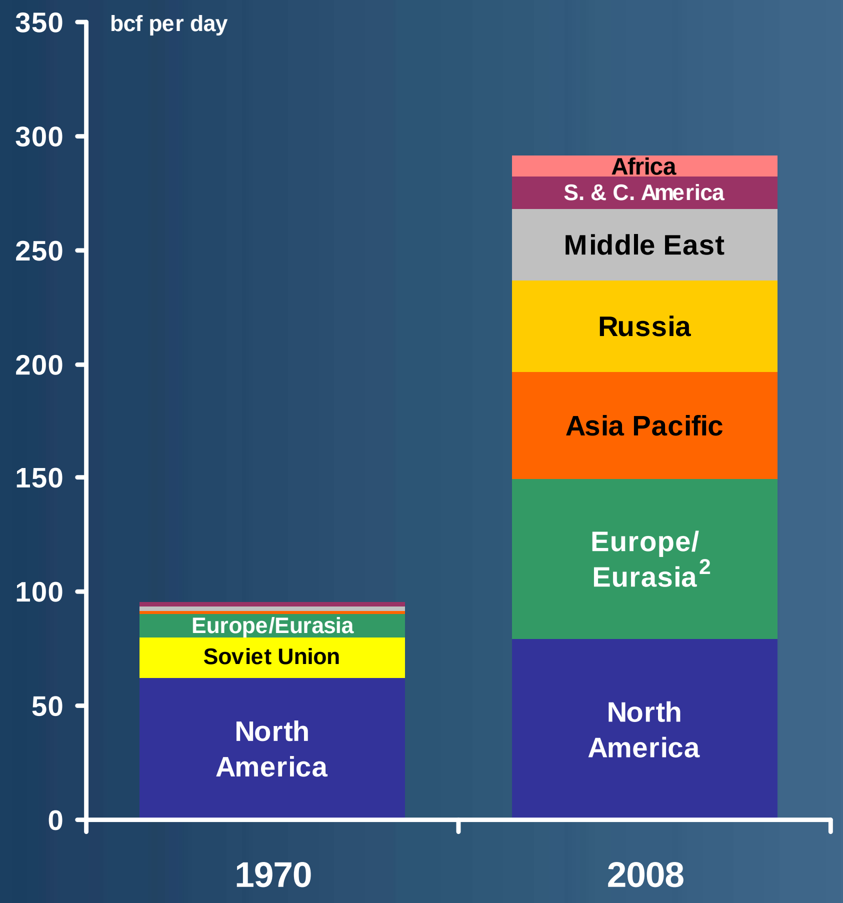
What a difference 50 years makes

British Gas Canvey Island LNG Terminal January 1959:
A World First: ‘Methane Pioneer’
5,000 m^3

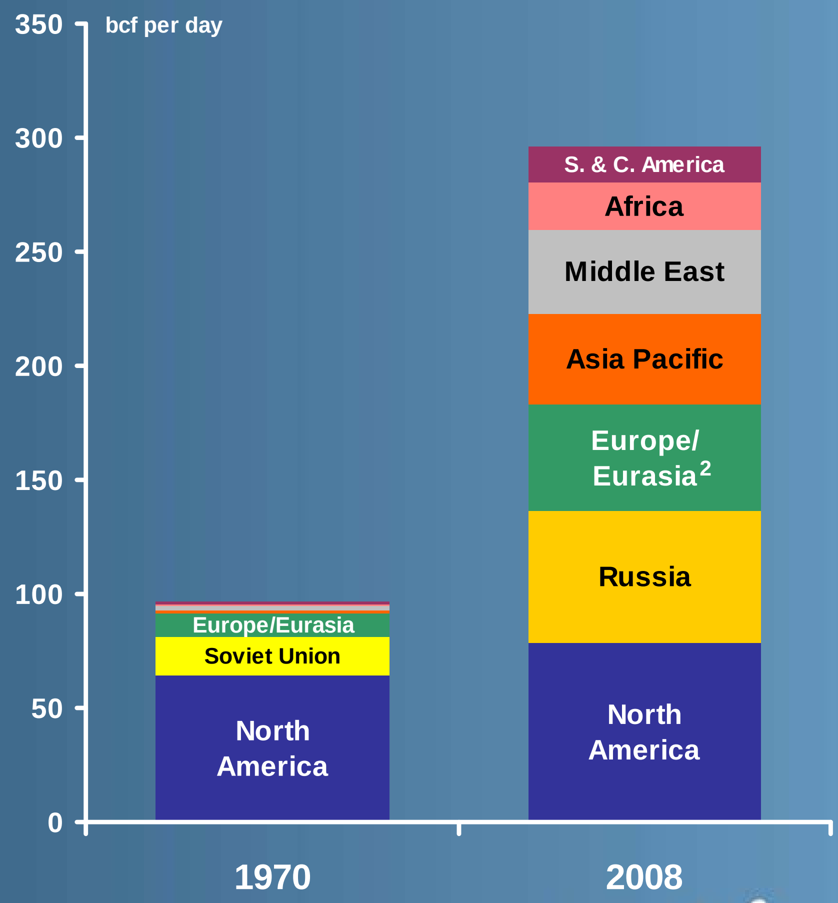
British Gas Isle of Grain LNG Terminal November 2008:
A British First: ‘Al Khuwair’
216,000 m^3

Globalisation of gas in the last 40 years

Global Gas Demand



Global Gas Supply[1]



1: Production. 2: Excludes Russia
Source: BP Statistical Review of World Energy 2009

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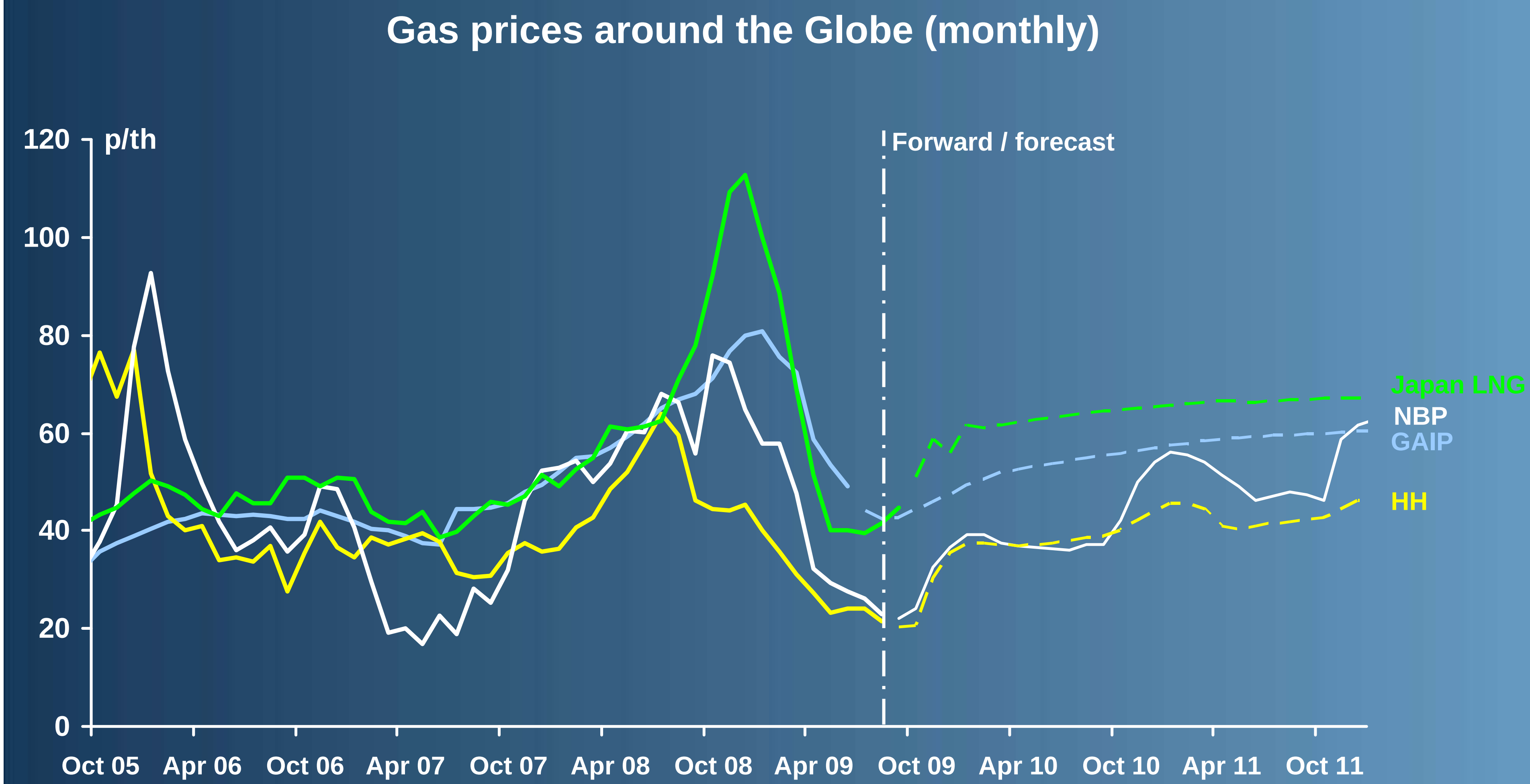
Some signs of convergence but regional factors still influence price



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The future of gas is uncertain – inflexion point

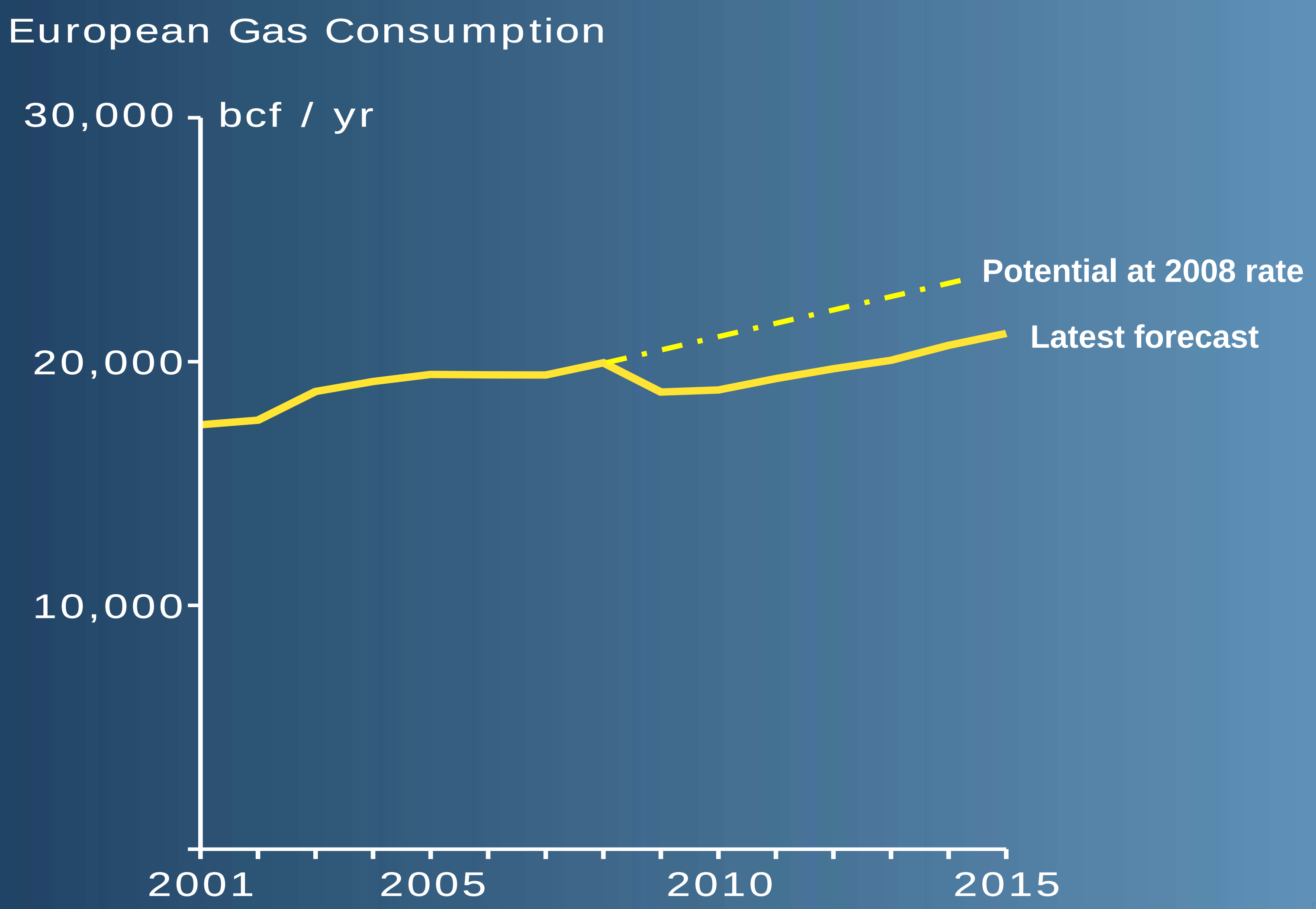
Scenario 1 "Do Nothing"

- **Gas seen as unreliable**
- **Renewed calls for energy independence**
- **A continuing push toward renewable electricity**
- **Nuclear renaissance**
- **CCS investment**
- **More energy efficiency**

Scenario 2 "Partnership"

- **Gas key part of the solution to climate change**
  - Switching from coal to gas generation
  - Back-up for wind generation
  - Technology driving combined heat and power in homes and businesses
- **New relationships being forged between "demand holders" and "resource holders" to meet the challenges of energy security and climate change**
  - Different partnerships along the value chain
  - New forms of co-investment

Scenario 1: Major fall in gas consumption in 2009, if unaddressed will take years to recover



Source: CERA

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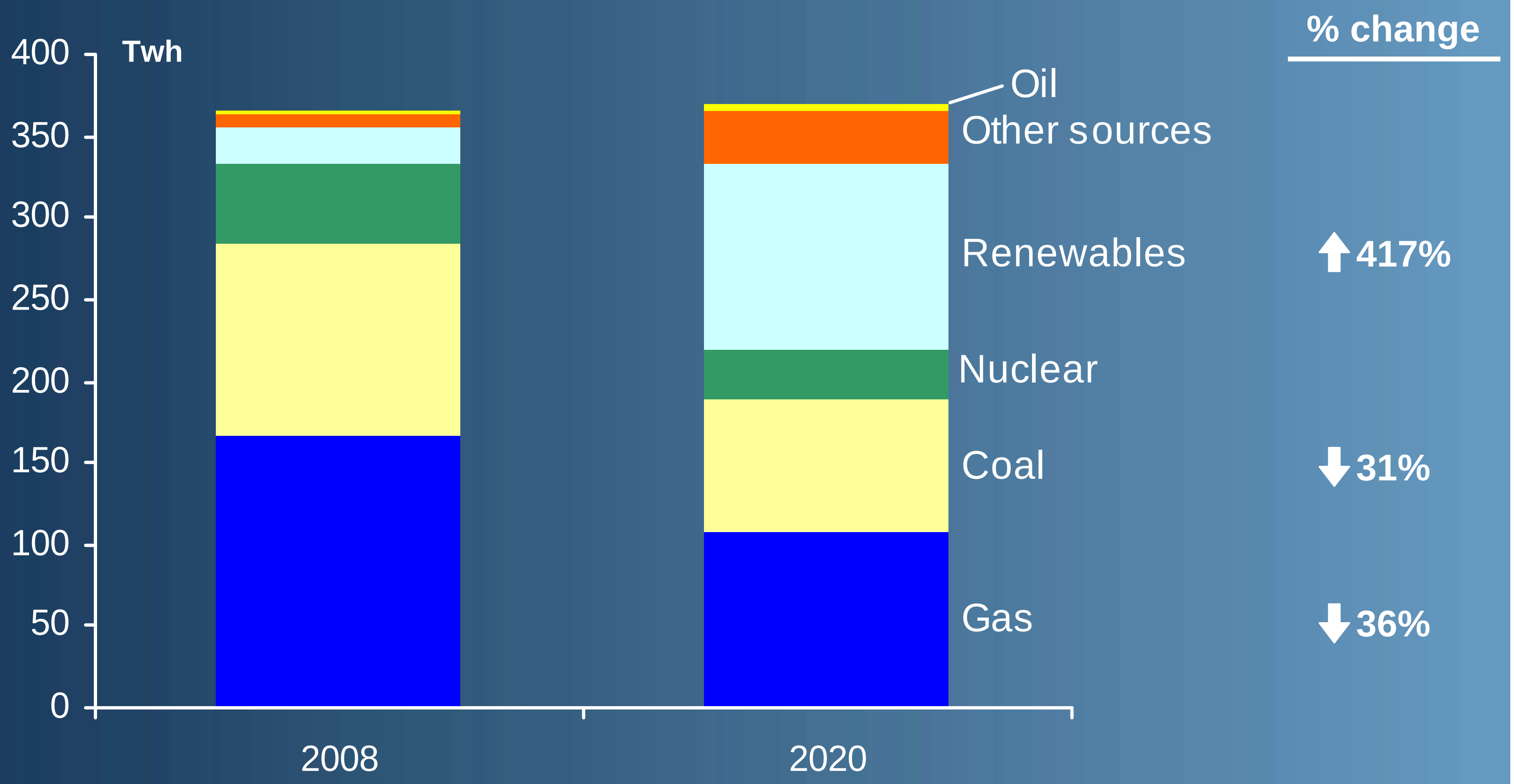
Scenario 1: Governments promoting investment in less carbon intensive generation (away from gas)

Potential generating output if UK government targets met



Source: Low Carbon Transition Plan

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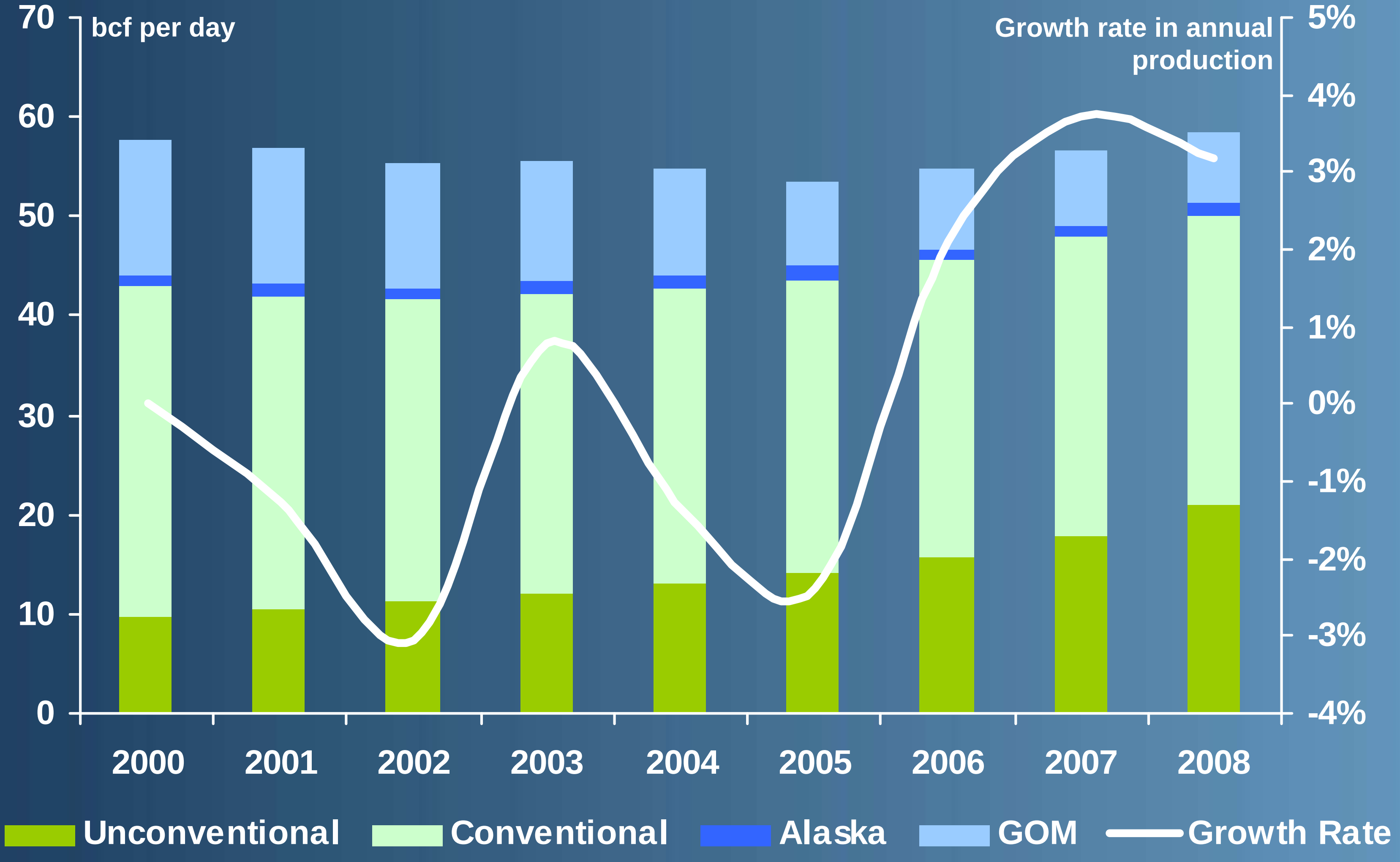
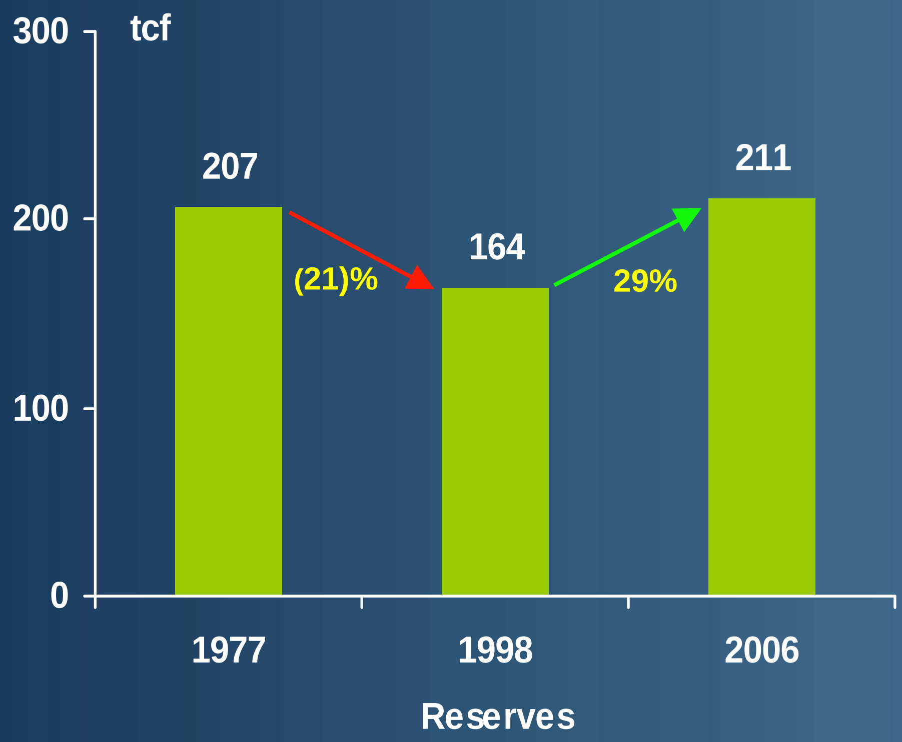
Scenario 1: Energy independence means investment in local sources, above foreign imported gas (1 of 2)



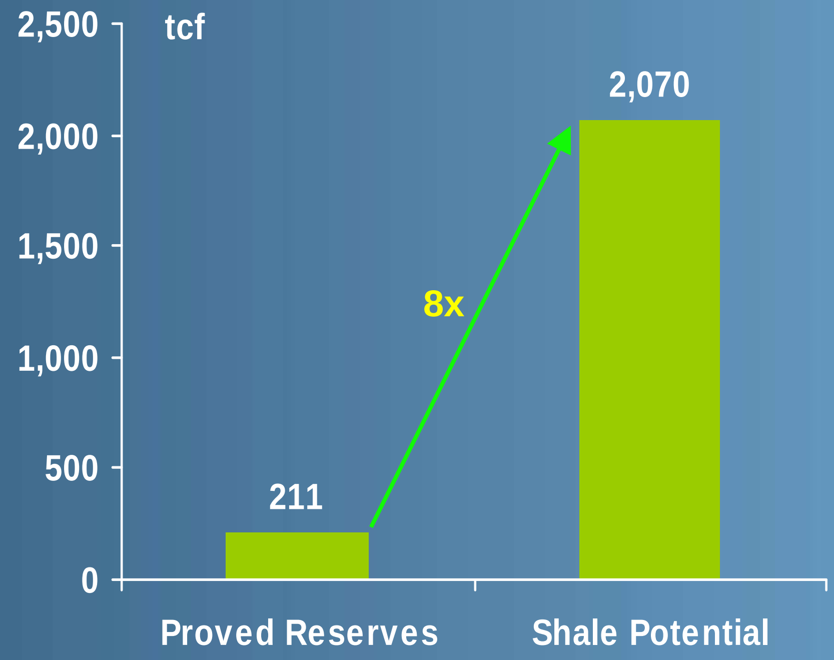
Source: PFC Energy "Strategic Opportunities in North America Gas"

Scenario 1: Energy independence means investment in local sources, above foreign imported gas (2 of 2)

US Gas Supply Reserves



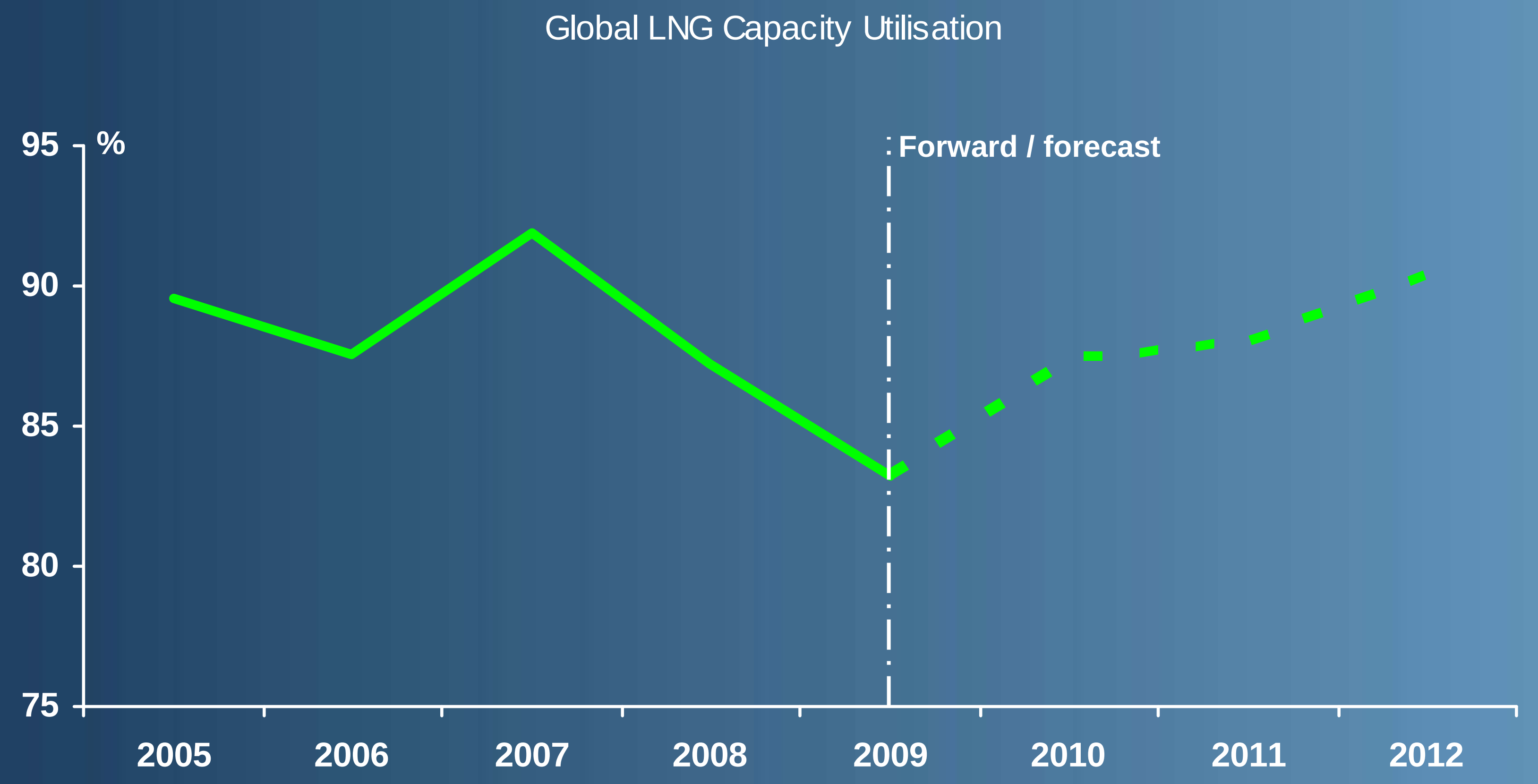
Unconventional Gas Reserves[1]



1: 2006

Source: EIA, Potential Gas Committee (PGC), "U.S. Natural Gas Gross Withdrawals and Production"

Scenario 1: These factors, plus increased capacity, has led to an LNG supply overhang



Source: CERA

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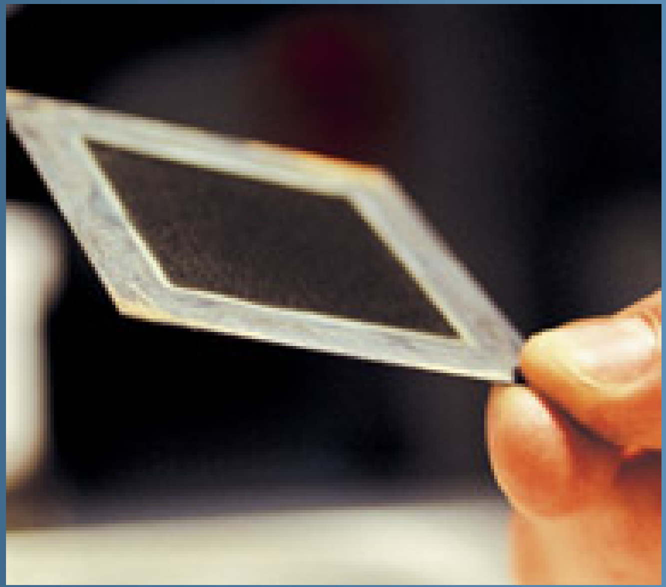
Scenario 2: Technology can power an increase in gas and lower CO2 emissions

Distributed Generation - Heat and Power

Stirling Engine



Solid Oxide Fuel Cells

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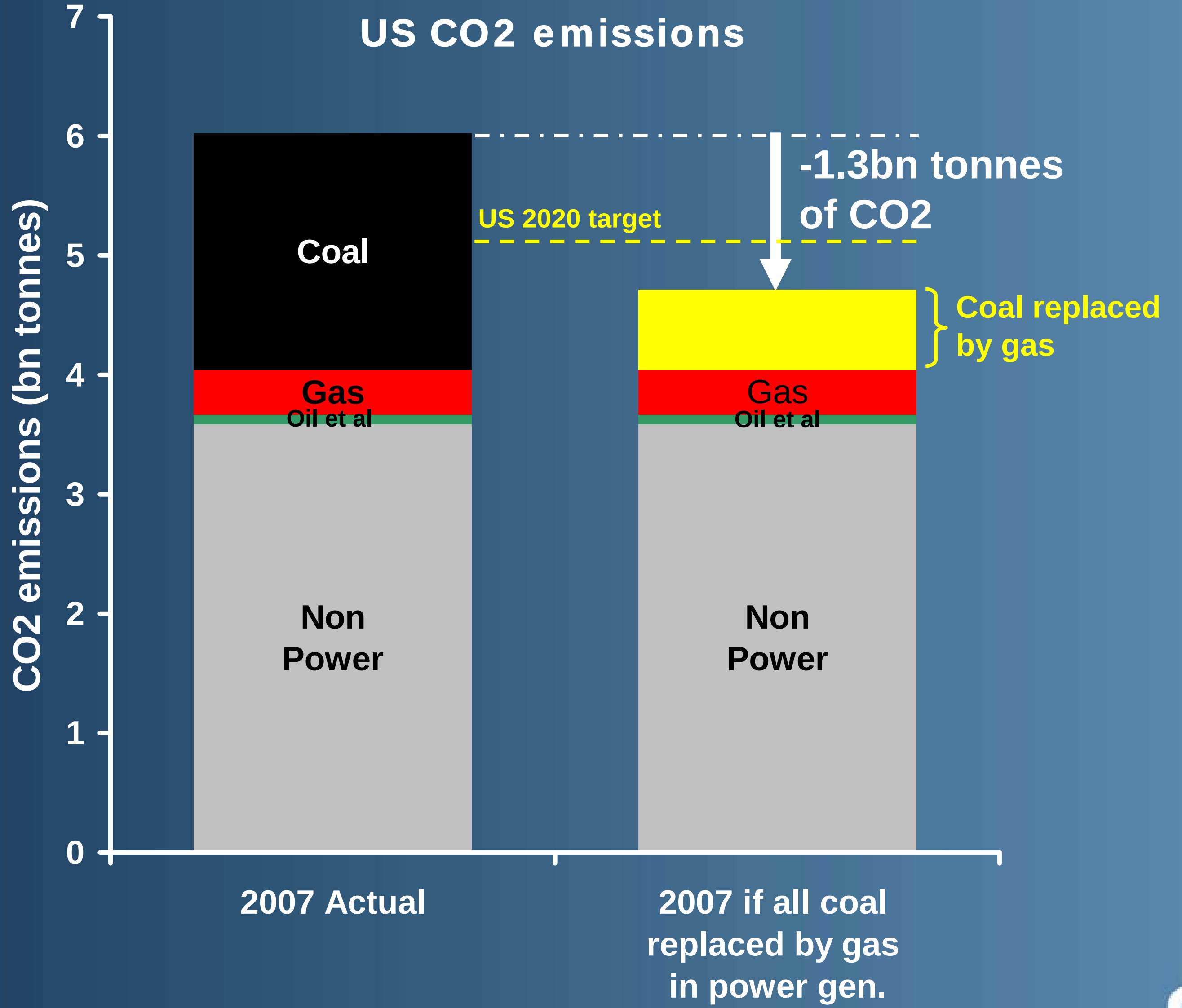
Scenario 2: Replacing coal generation with gas could deliver US' CO2 reduction target



Source: Energy Information Administration. CO2 emissions are from all sectors, not just power generation

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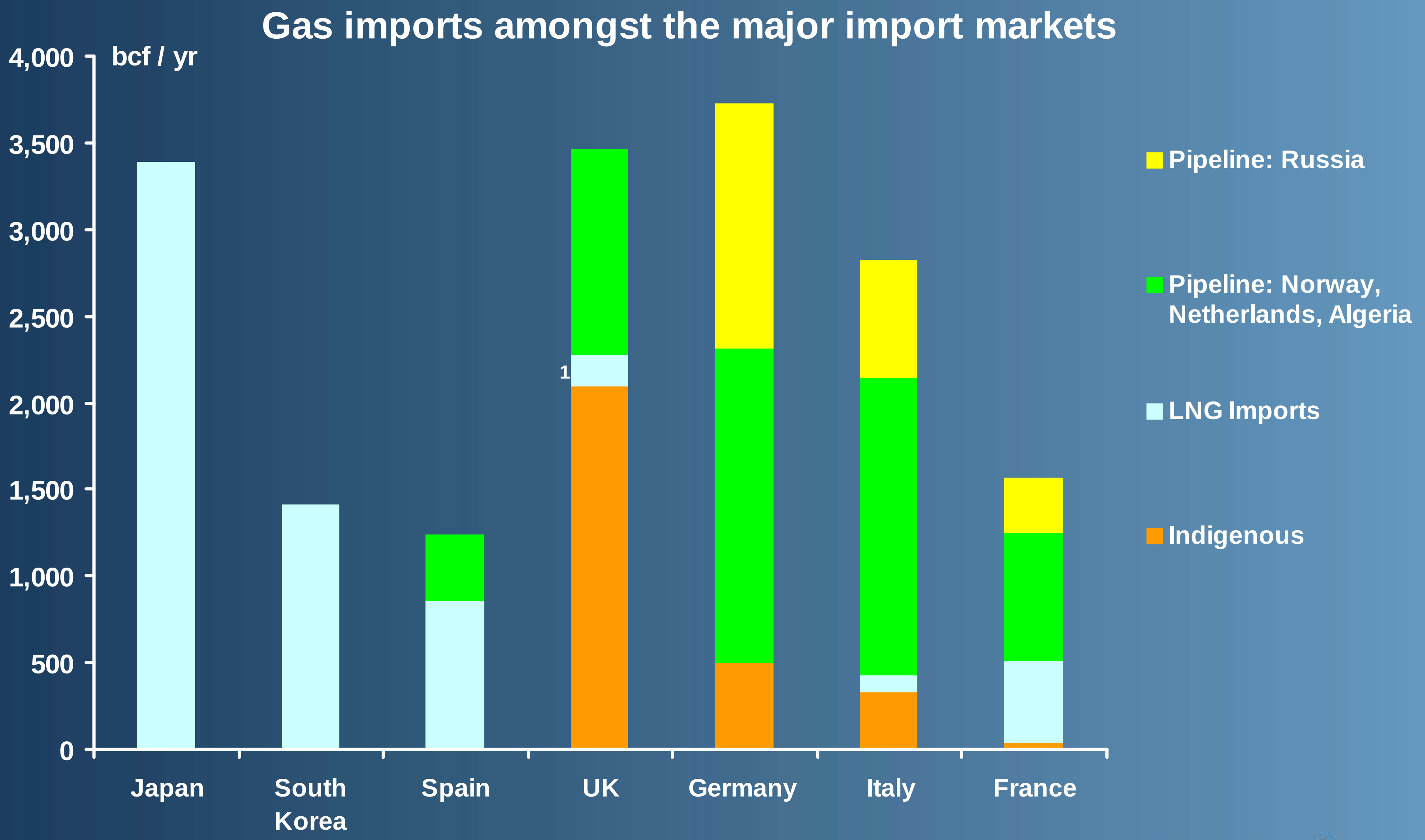
Major markets for gas will remain import dependent, developing these markets requires stronger partnership



1: UK LNG import data is for 2009 YTD (spot cargos only)
Source: Waterbourne 2008

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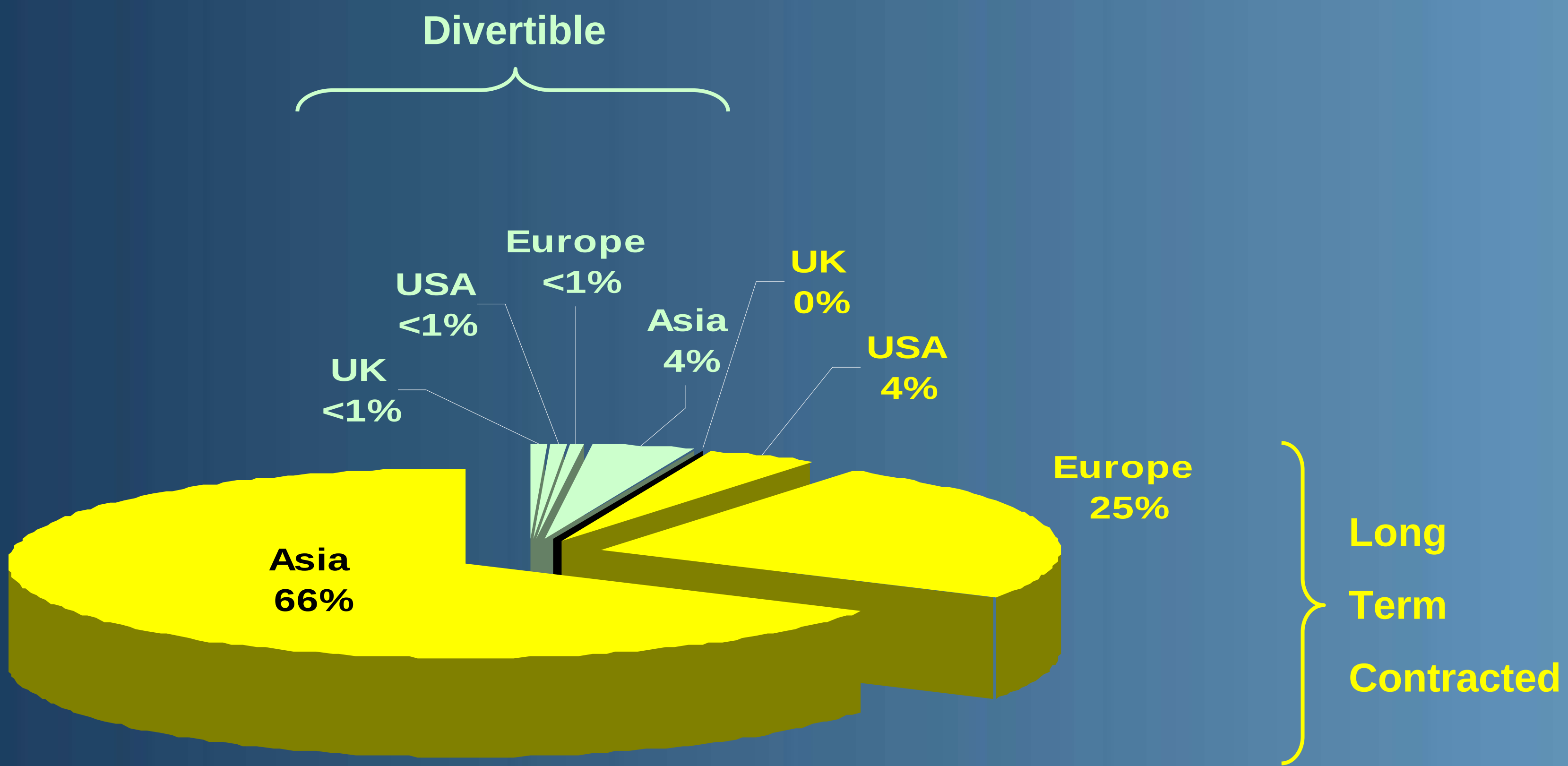
Co-dependency of supply and demand key to develop global LNG infrastructure



Source: Waterbourne

Conclusion

"Demand holders" and "Resource holders" have to decide whether gas will be the fuel of the 21st century

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