

The background of the slide is a dark blue, slightly grainy photograph of an offshore oil rig. The rig is a complex of metal structures, including a central platform and several smaller structures connected by walkways. It is situated in the middle of a body of water, with the horizon visible in the distance. The lighting is somewhat dim, giving the scene a moody, industrial feel.

**Adam Smith Institute Lecture**

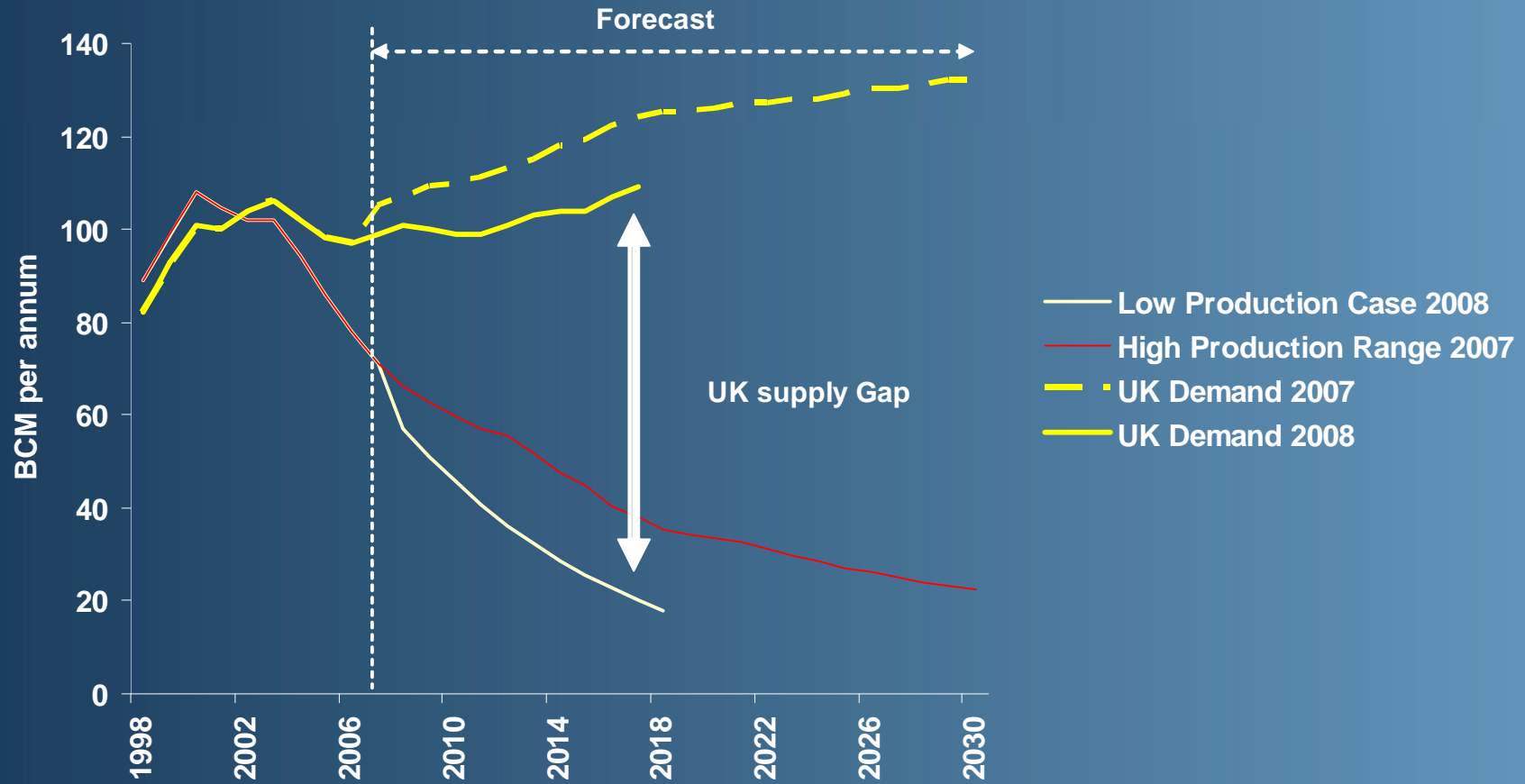
**The Future of Utilities**

**Overcoming Strategic Challenges for UK  
Utilities**

Sam Laidlaw, CEO, Centrica  
17 March 2009

***centrica***

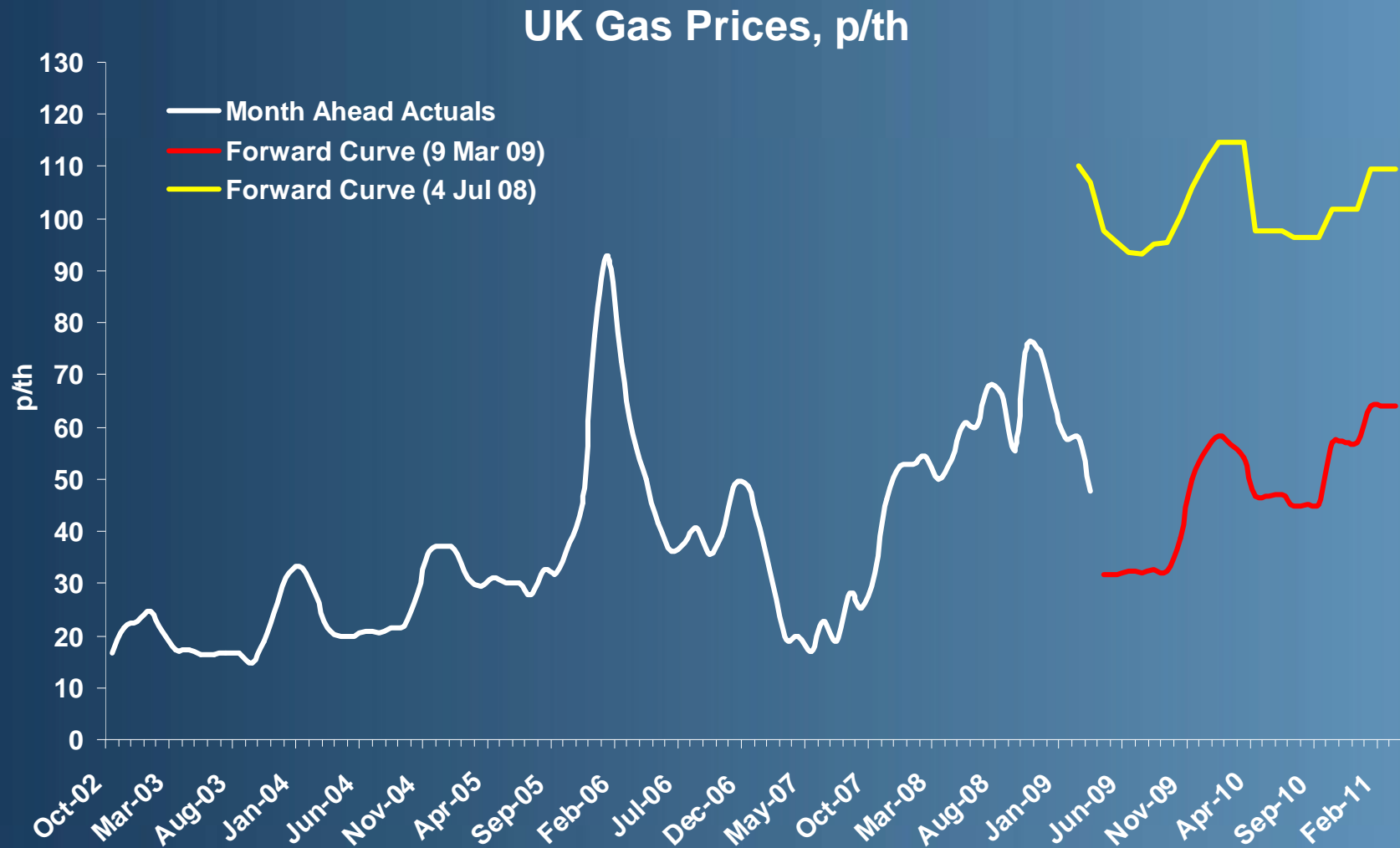
# UK's dependence on imports is increasing



Source:  
National Grid

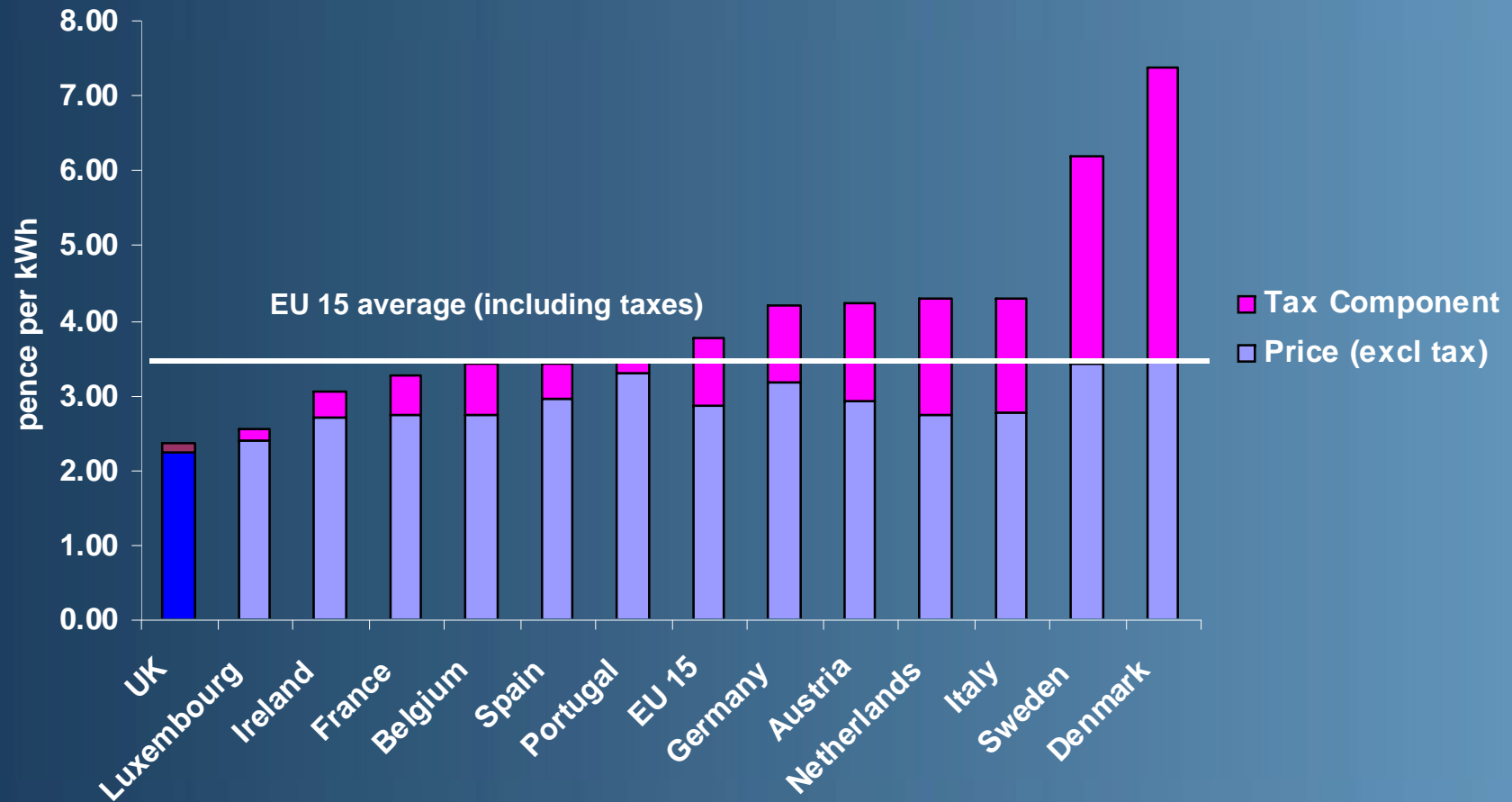
**centrica**

# UK wholesale gas prices

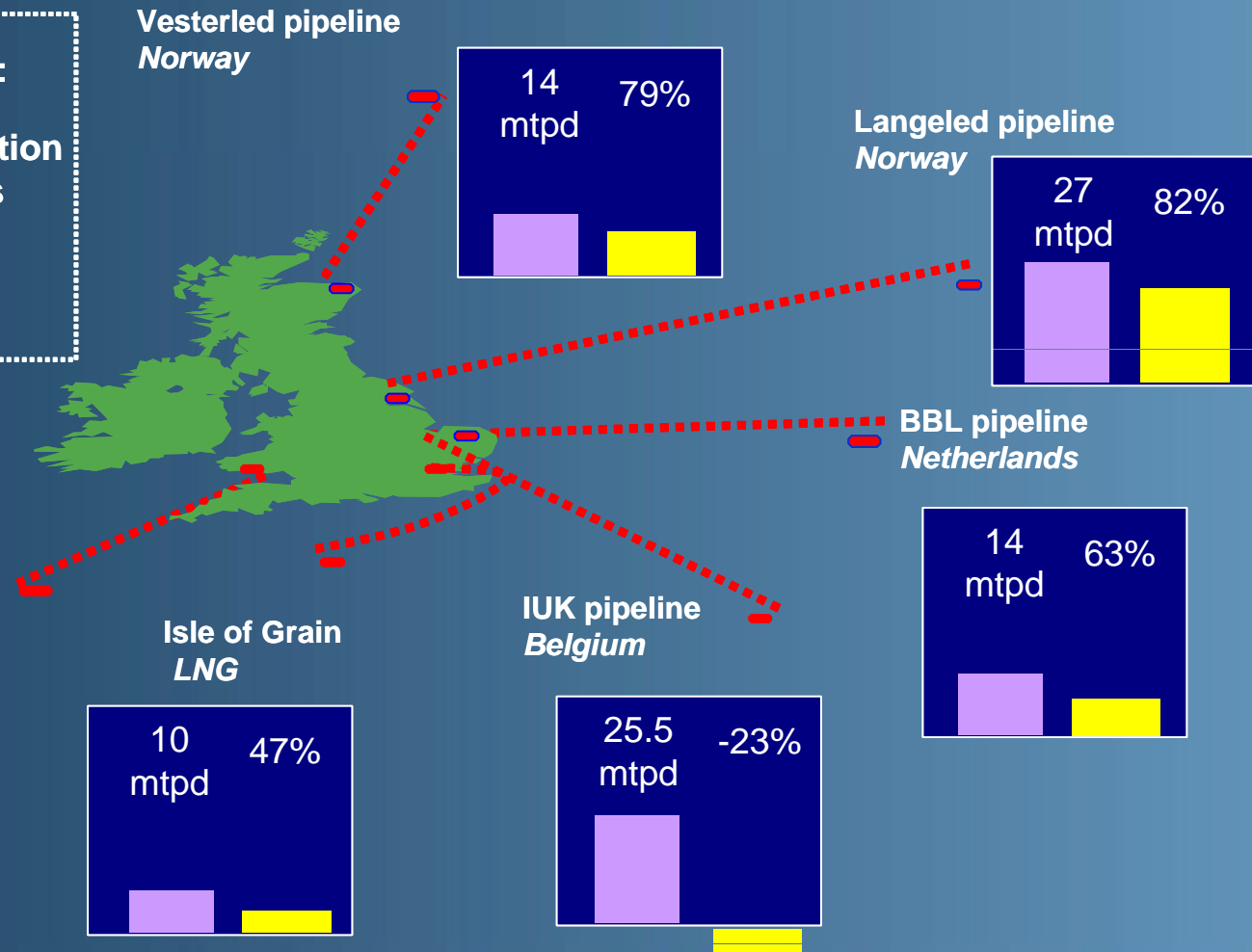
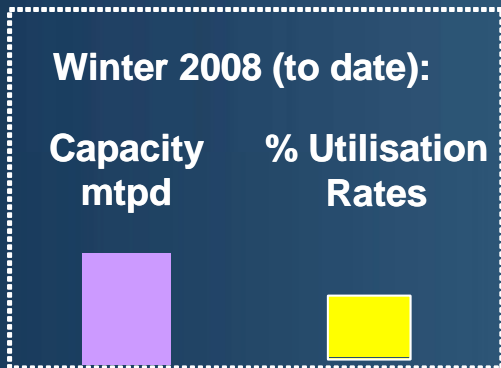


# Competitive markets delivered for UK consumers

## 5 year average domestic gas prices for medium consumers in the EU

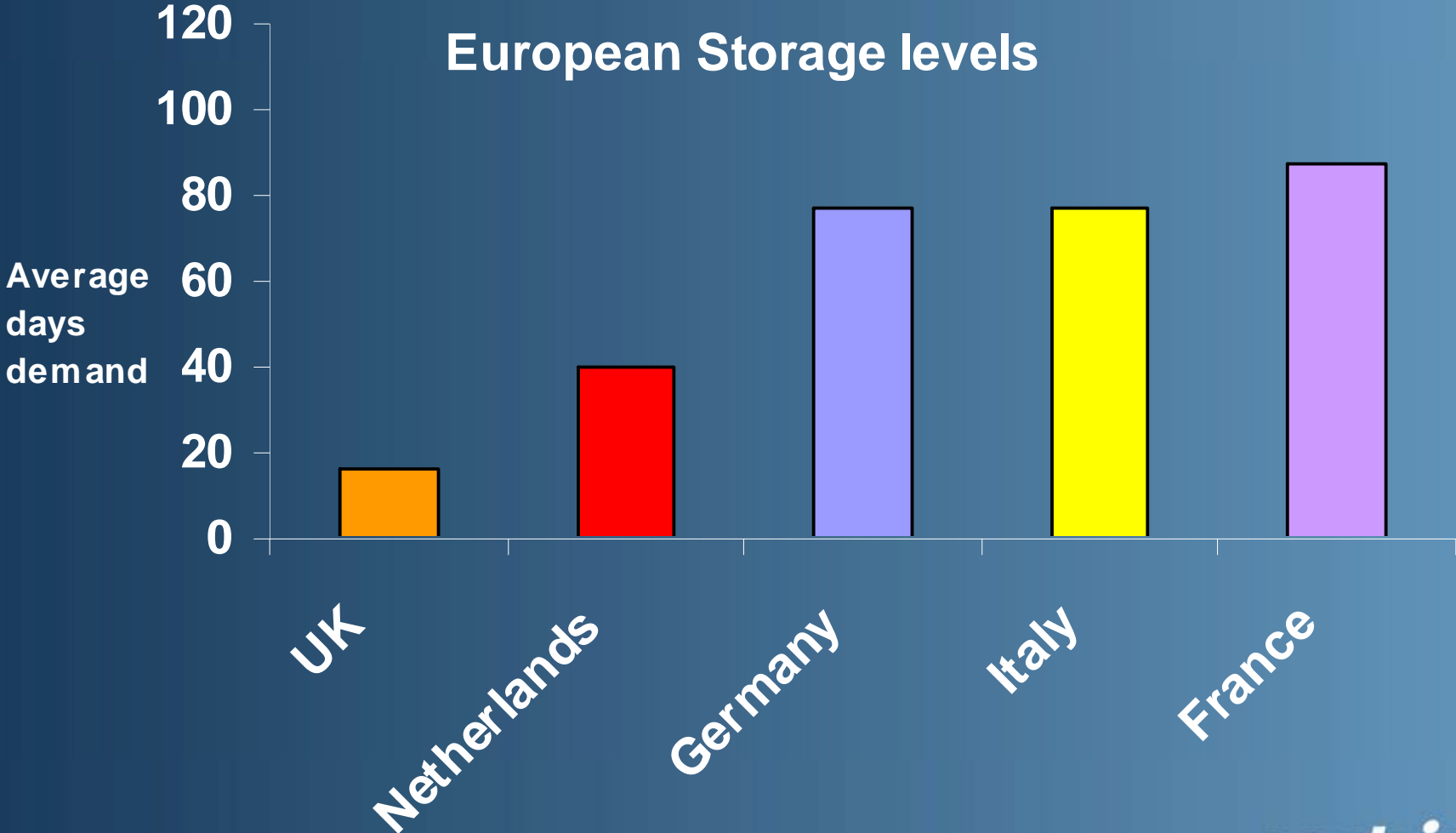


# Significant new investment already in place



But infrastructure does not necessarily bring gas

# UK needs new storage



# We have a long history in LNG

*“What a difference 50 years make...”*



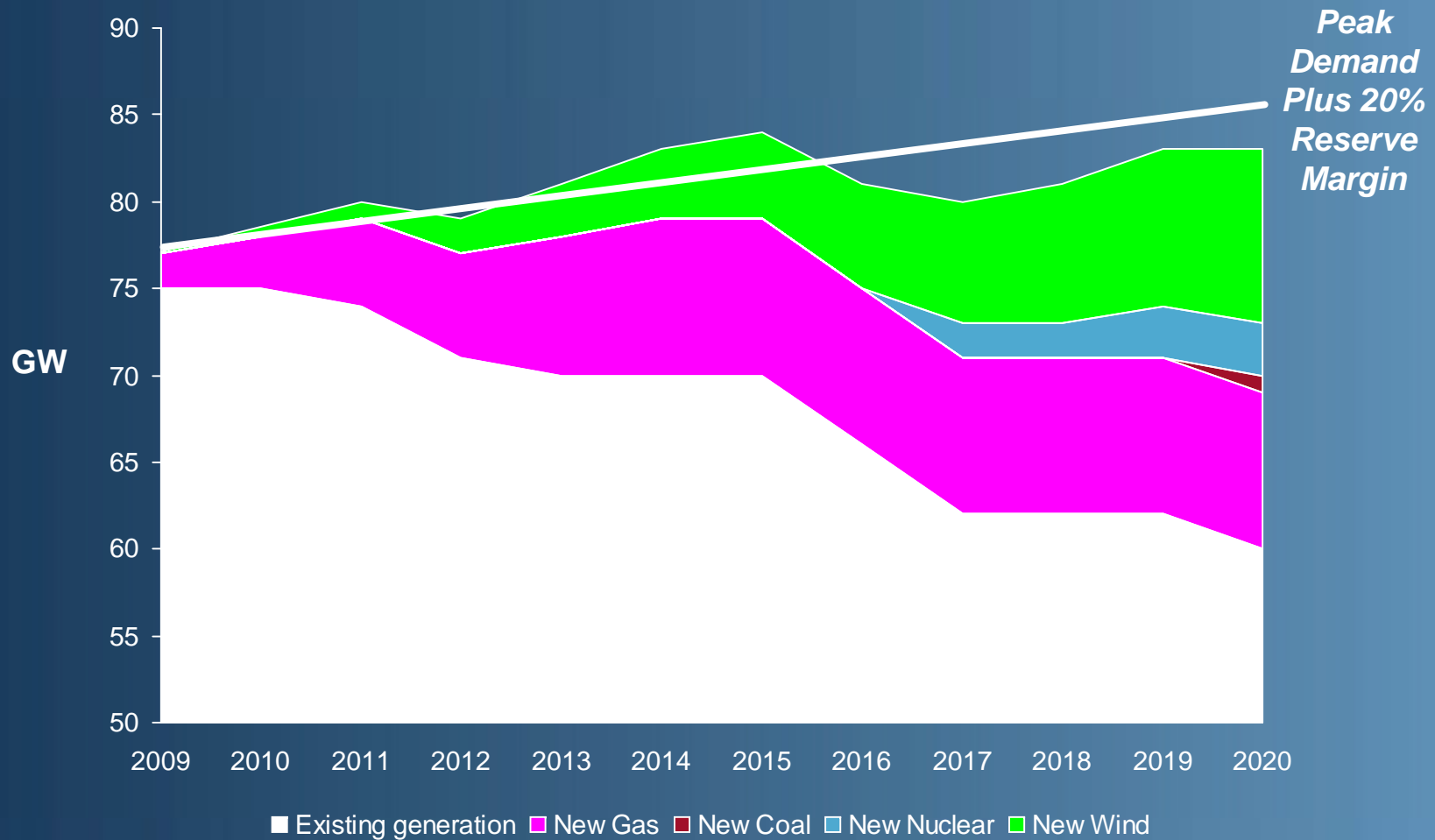
**British Gas Canvey Island LNG  
Terminal January 1959:  
A World First: ‘Methane Pioneer’  
5,000 m<sup>3</sup>**



**British Gas Isle of Grain LNG  
Terminal November 2008:  
A British First: ‘Al Khuwair’  
219,000 m<sup>3</sup>**

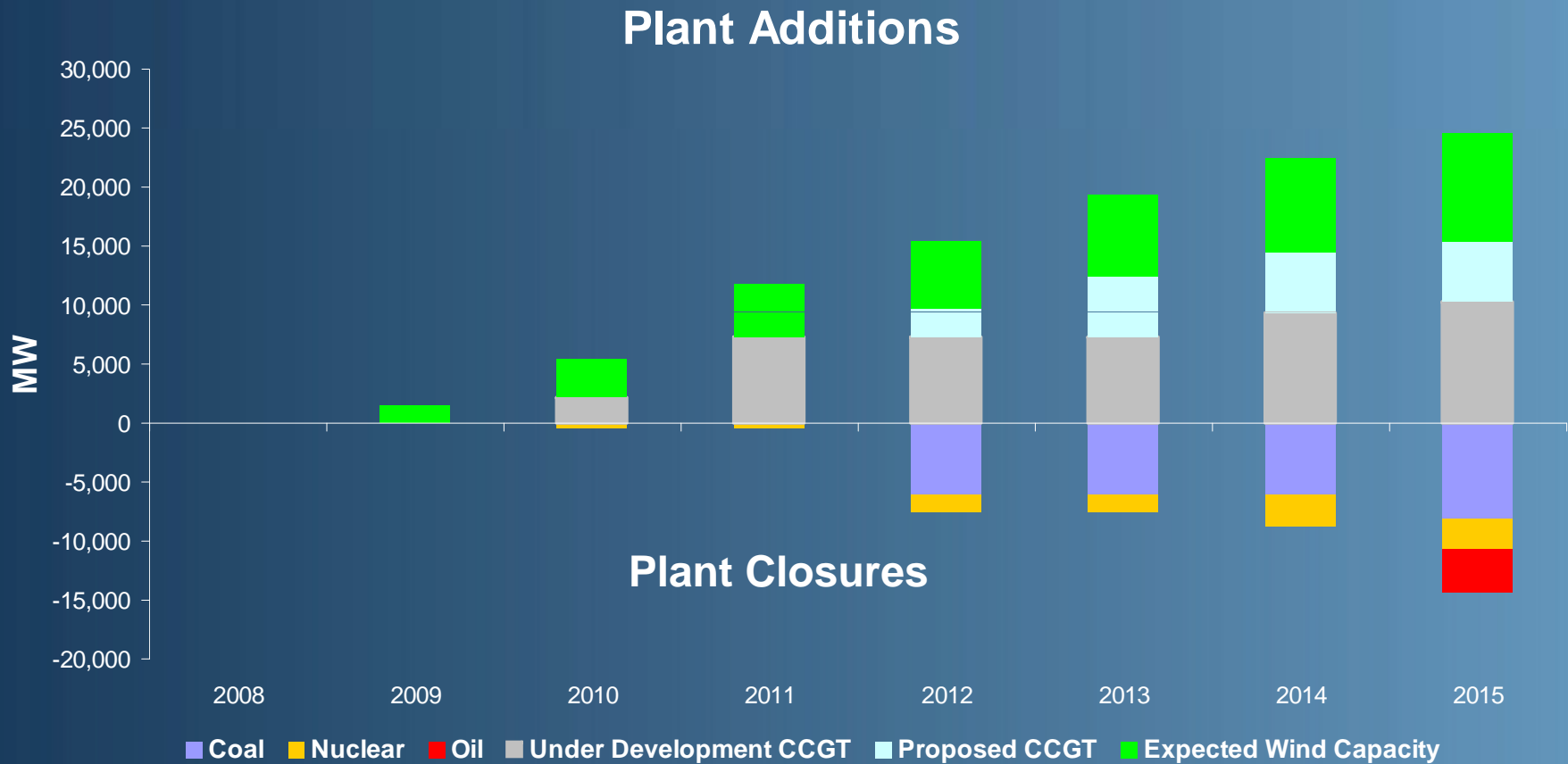
**centrica**

## UK needs £234bn of energy investment - £165bn in power





# Electricity plant closures at high levels up to 2015



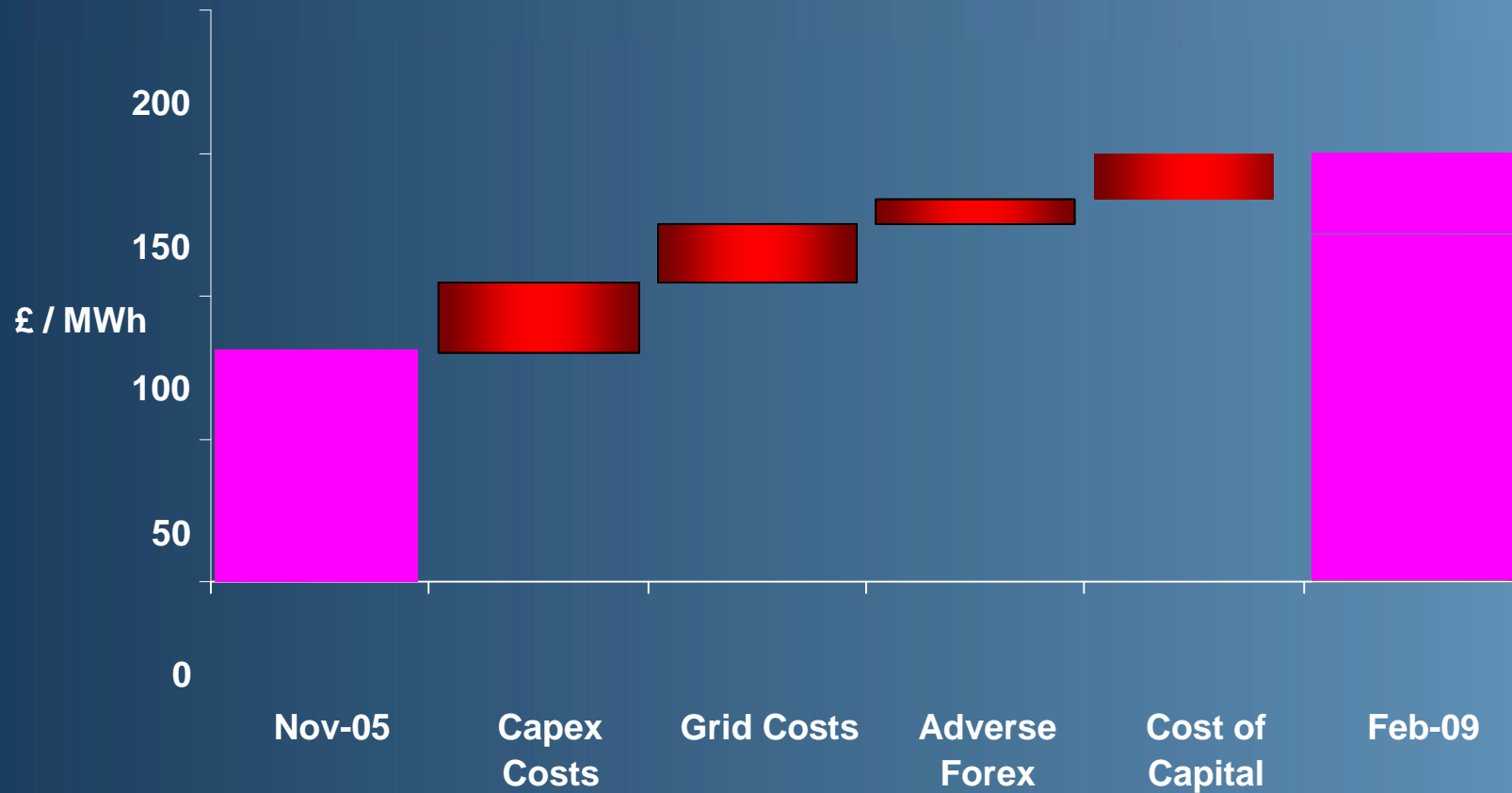
**Market response sufficient to maintain adequate capacity margin**

Source:  
National Grid, Centrica

**centrica**

# Offshore wind economic with 2 ROCs

## Changes in Windfarm Costs



# What does micro-generation mean to customers?

## Power



photovoltaic (PV)



wind turbine

## Heat and Power



stirling engine

## Heat



heat pumps



biomass



solar hot water



solid oxide fuel cells

## Conclusions

1. **UK energy industry facing unprecedented challenges to secure new sources of gas and replace ageing generation fleet**
2. **Market has delivered and will continue to do so however particular challenges require a supportive framework:-**
  - **Gas storage**
  - **Offshore wind**
  - **Smart metering and energy efficiency**