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# Towards a zero-carbon power sector - the role of CCS in the UK

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# The threat of new coal

- Coal is now *the* litmus test of UK, and EU, credibility on climate change
- Some 70GW of new coal capacity is planned across Europe (most in Germany – 31GW)
- At least 9.6GW of new coal planned in UK
- Major threat to carbon targets and renewables delivery, mounting public and political pressure
- Until recently, Government policy was:  
“The ETS and capture readiness are all you need....”



# Turner has changed the game

A portrait of a middle-aged man with short, graying hair and glasses, smiling broadly. He is wearing a dark suit jacket, a light blue shirt, and a patterned tie. The background is a blurred indoor setting with warm lighting.

“Any feasible path to a 80% reduction by 2050 will require the almost total decarbonisation of electricity generation by 2030”

“There is a strong case for buttressing the carbon price lever by establishing a clear and publicly stated expectation that coal-fired power stations will not be able to generate unabated beyond the early 2020s”

# Clear need for regulatory framework

- **Only two credible options meet the “Turner test”:**
  - An absolutely binding deadline for full-scale CCS to be retrofitted (by 2020?) or else plant closes
  - An emissions performance standard
- **Key features of an effective EPS**
  - Introduce *now* for all new plant at 300-350gCO<sub>2</sub>/kWh – achievable by gas with heat recovery
  - Tapered over time to ensure full CCS on new plant by early 2020s (including gas)
  - Apply to existing plant from early 2020s

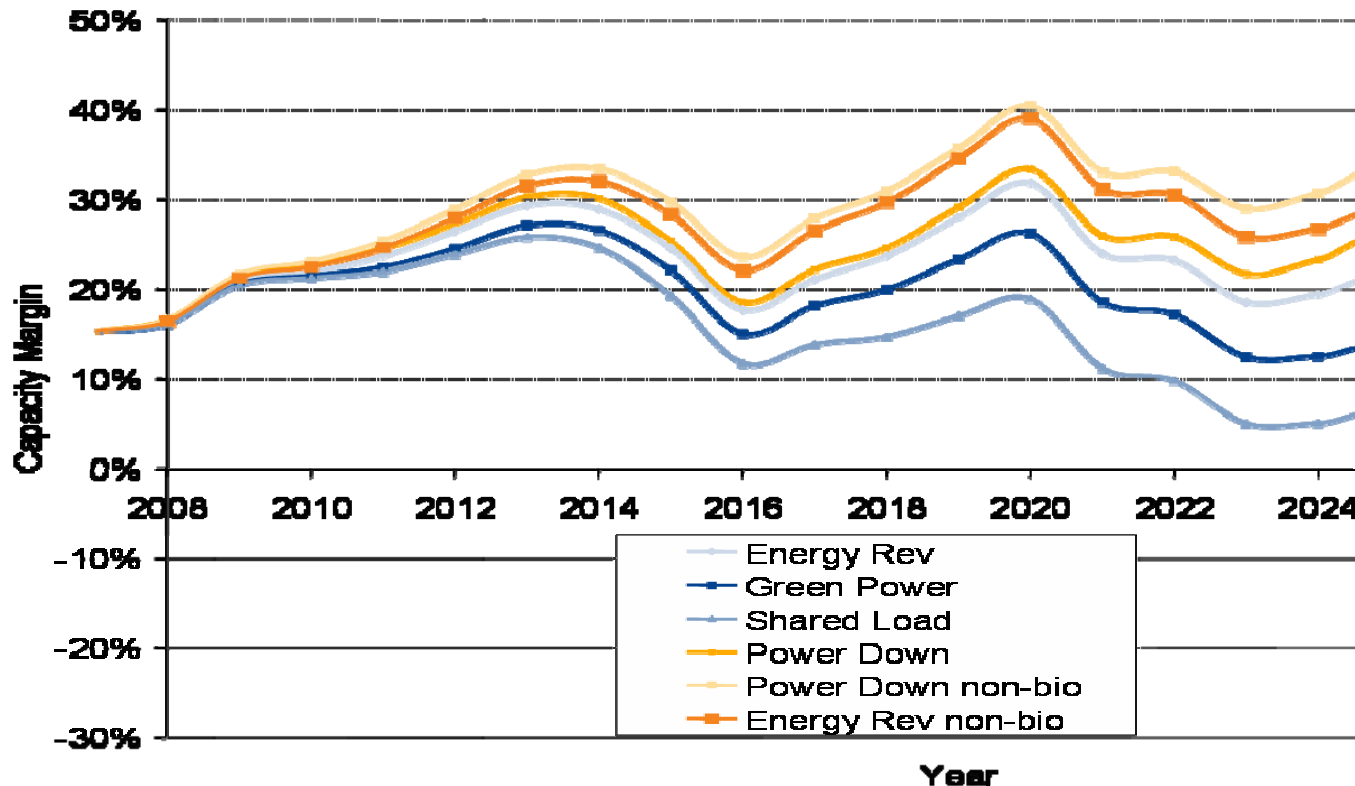


# Getting real on deployment

- Problems with CCS competition – delays, scale, exclusion of pre-combustion capture
- Small-scale demonstration with business as usual coal investments → the CCS “figleaf”
- A more strategic approach is needed:
  - Focus on “carbon hotspots”
  - Scale and diversity – pre-combustion, retrofits to existing plant, industrial installations?
- Financing – options include EU demonstration funding, fiscal stimulus package, fossil levy...
- A regulatory “pull” will ensure a better sharing of risk between public and private sectors



# There is more to life than coal....



- Poyry (pre-recession) found “little or no need for large-scale investment in conventional baseload technology in the period up to 2020” if renewables target is met

# Towards a credible energy roadmap

- Prioritise delivery of *existing* energy efficiency and renewables targets for 2020
- Invest in new grid infrastructure (UK and European)
- Clear regulatory framework to support the EU ETS – an emissions performance standard for new plant
- A strategic approach to CCS demonstration and deployment – focusing on scale, technology mix and carbon hotspots
- A credible approach to financing, with sharing of risk

