



A clean coal power station for the future

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## Topics

1

**Introduction to E.ON & E.ON UK**

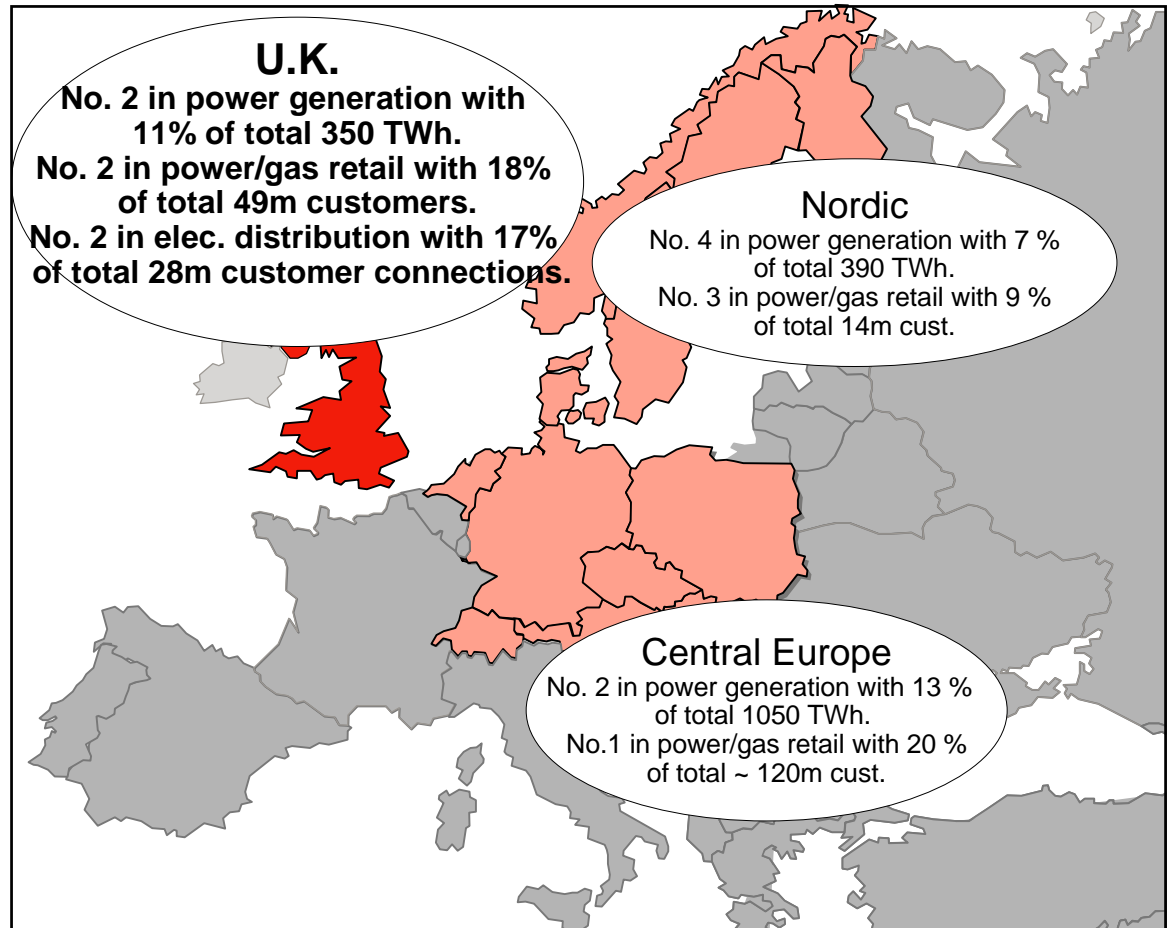
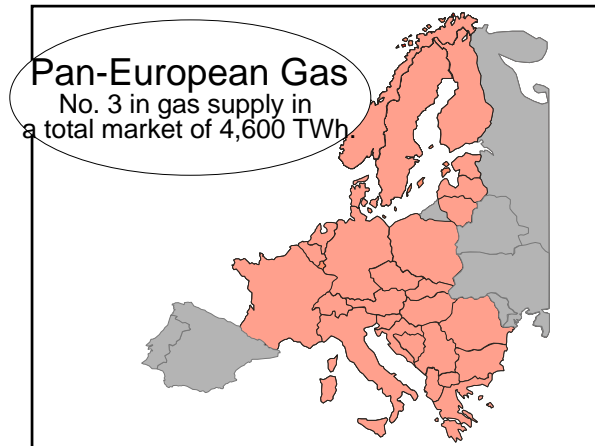
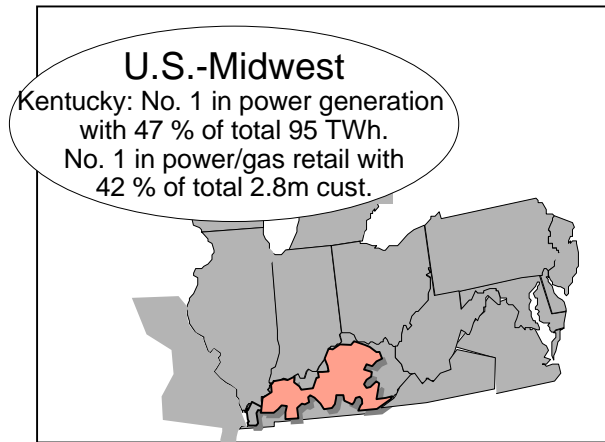
2

Why E.ON UK is planning to build a new clean coal power station

3

Challenges that must be overcome

# E.ON UK forms a major part of E.ON's strategy to be the world's leading power and gas company



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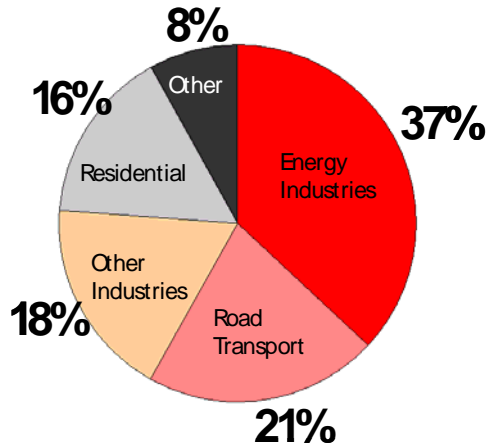
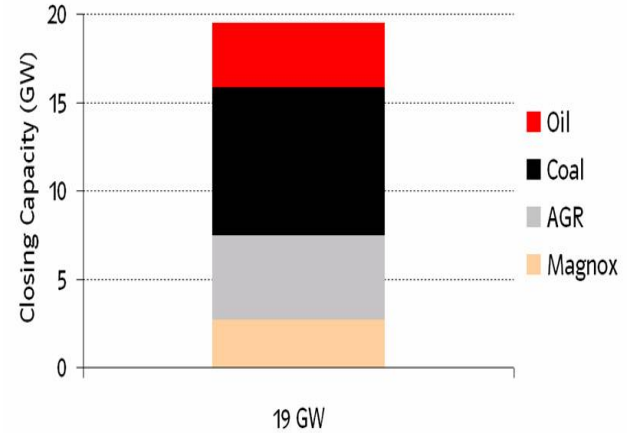
**Why E.ON UK is planning to build a new clean coal power station**

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Challenges that must be overcome

# UK power sector has both environmental and security of supply and challenges...

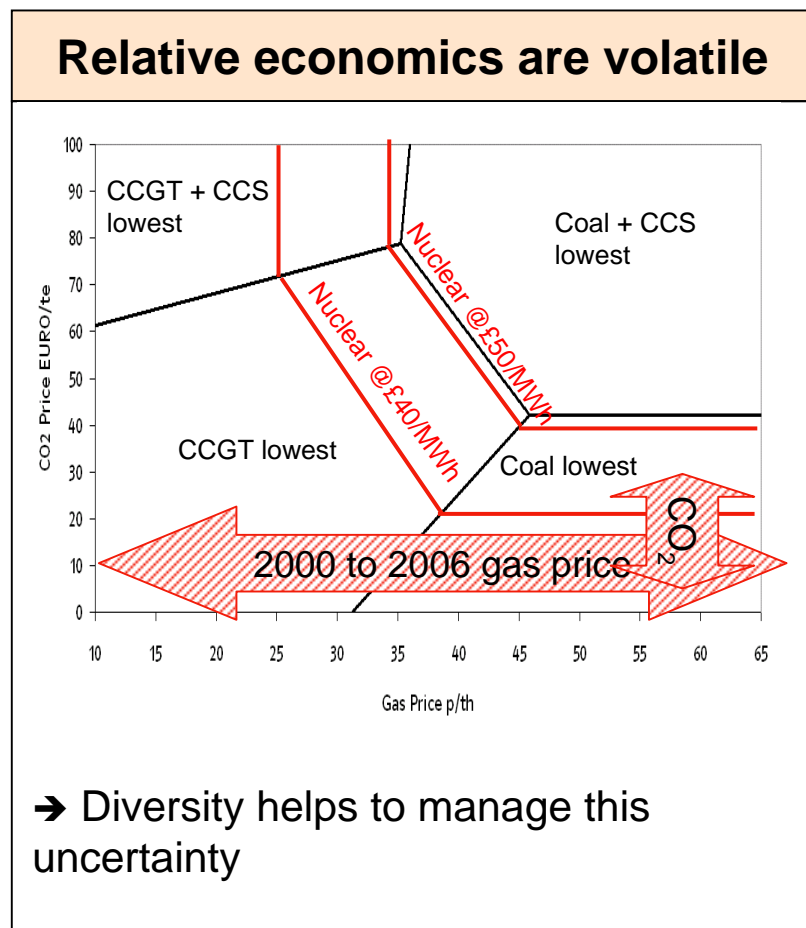
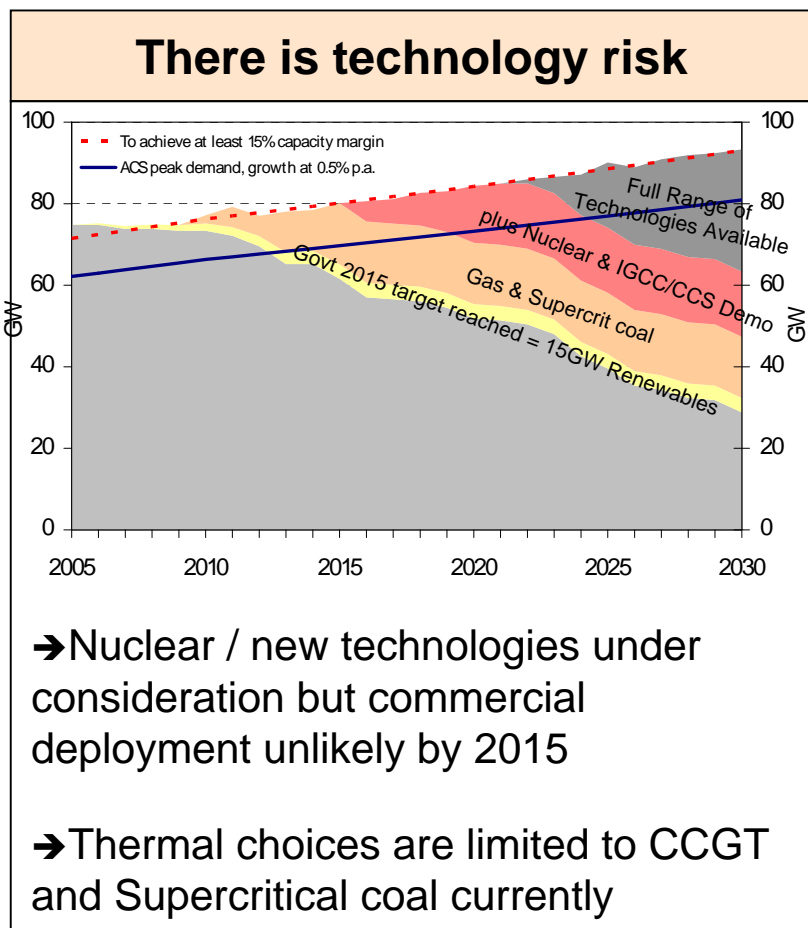
Over the next 10 years about one third of overall capacity will close - coal and oil (LCPD) and nuclear (life expiry)



To hit the UK government's target of reducing carbon emissions by 60% by 2050, the energy sector is likely to shoulder much of the burden

**There are many new build scenarios that have been produced that focus on 2020 and beyond ...**

But we believe that the technology options to 2015 are limited and that the economics are not clear cut



# What are we doing? We are closing old plant and building new

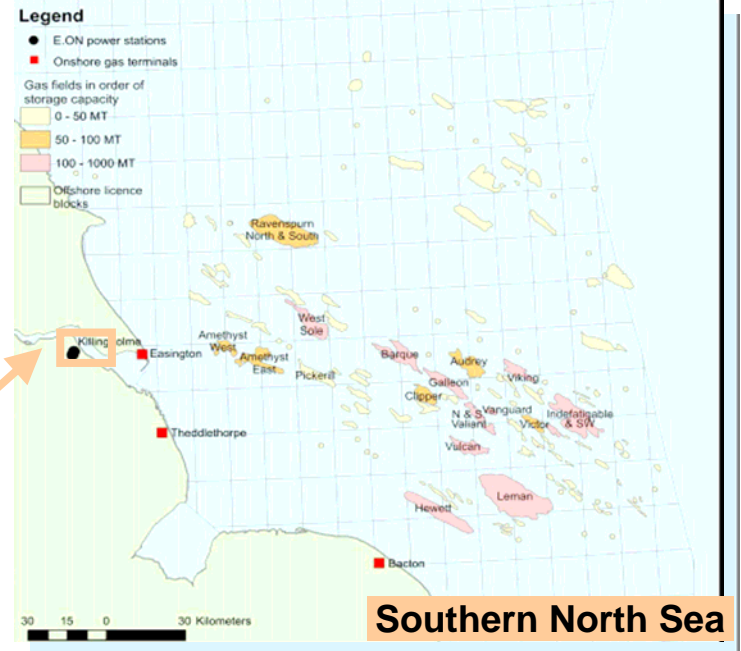
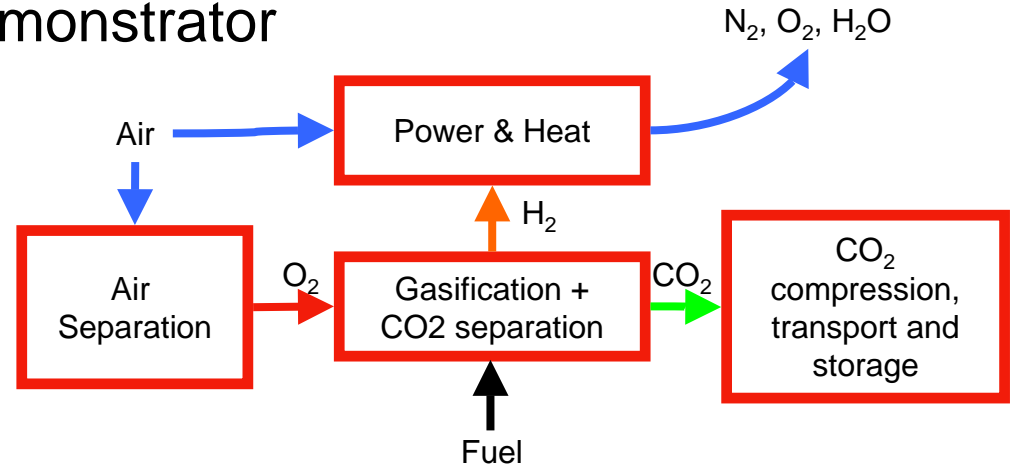


- We are the only UK power company to commit to reducing the carbon intensity of our generation by 2012

## E.ON is investing in the future

- Unlike other generators we are closing old coal fired power stations (Ironbridge and Kingsnorth)
- We are replacing these stations with new, more efficient plant
- We are planning to make our new super-critical coal station carbon capture ready
- We are conducting a feasibility study into a carbon capture demonstrator

# Killingholme carbon capture demonstrator



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**Challenges that must be overcome**

## Challenges we face to make carbon capture a reality

- Technology risk – will it work at commercial scale?
- The legal framework needs to be amended to allow for carbon storage, and to provide clarity on where the long term liability associated with CO<sub>2</sub> storage sits
- Funding may be required to help make the carbon capture demonstration a reality
- There are safety and environmental issues regarding the transportation of liquid CO<sub>2</sub>
- There needs to be commitment to a stable investment framework in the UK
- The UK however has an opportunity to show its leadership in this area and develop technologies that could be of interest globally

## Summary

- **E.ON UK is committed to reducing our carbon intensity:** we do believe in the science of climate change and we do believe that climate change is one of the biggest threats to society
- **The need for new build in the UK is clear:** we have to start now to replace end of life power stations
- **we believe that coal stations do have a role to play:** there *is* a need to increase renewable and distributed generation *and* reduce demand: we are investing in each area but we can't rely on these solutions to meet the UK energy gap over the next decade
- **E.ON UK is closing old plant and building new more efficient, carbon capture ready plant,** and seeking to develop carbon capture technologies – a new clean coal station for Britain, but there are many issues that must be resolved
- **E.ON UK *is* working on how to Change Energy:** delivering low carbon, affordable and sustainable energy to our customers