

Cutting hedges



To hedge or not to hedge?



YES =>

- Financial certainty for future years

NO =>

- How good is the hedge?
 - “The only perfect hedge is in a Japanese garden”
- How much does it cost to hedge?

Financial certainty



2010:

Need for certainty!

- Utilities = Power stations
 - Fossil generation very profitable – and volatile!
 - Need certainty for huge renewables & gas investment plans

2014:

Yeah, whatever...

- Utilities = Renewables, Upstream Gas, power stations
 - Divestment, Nuclear closures
 - Fossil generation not very profitable (or volatile)
 - ✦ Huge oversupply from falling electricity consumption and renewables
 - ✦ UK darks hit by coal tax
 - ✦ Italy darks hit by solar, plus fall in gas TTF premium

How good is the hedge? (1)



2010

- Japanese garden
 - Sell base-load for coal
 - Sell peak for gas
- Calendar liquidity great!
- Hedging Year+2 is easy...

2014

- Oversupply from falling demand and new renewables
- Only value for coal is winter peaks
 - Calendar base/peaks don't work!
 - Hard to hedge past next season...
- Only value for gas is days with no wind / no sun...
 - Hard to hedge past day-ahead

How good is the hedge? (2)



- **2011 German nuclear phase-out**
 - Now have a hedge and no asset!
- **2012 UK Carbon support price**
 - Now have a hedge... but lost money because carbon costs up and not passed into the hedged power price.
- **What else!?**
 - Emissions performance standards for coal?
 - Carbon tax?
 - Coal phase out?!?

Hedging costs



2010

- All OTC
 - No cash requirement

2014: Regulation increases costs

- MIFID2/EMIR force exchange-trading
 - Fixed cash margin
 - Variable cash margin
- Triple whammy
 - Power, Coal/Gas, Carbon
 - €billions in cash for fossil hedging!

How far to hedge?

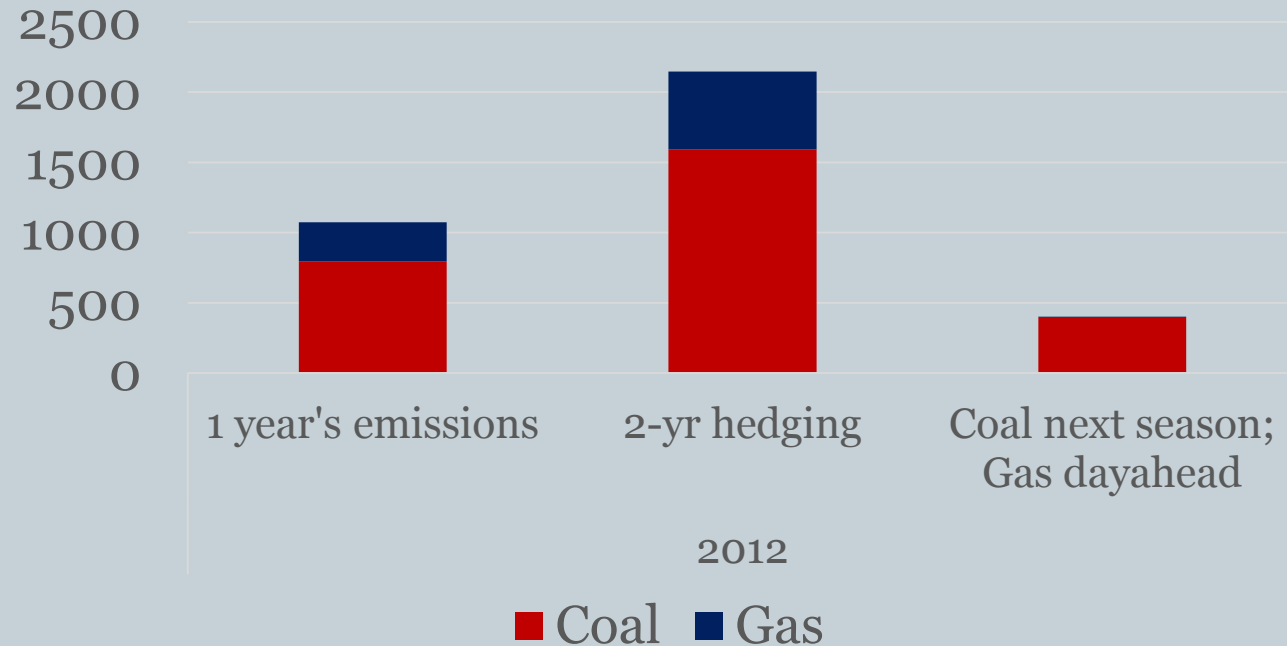


- Nuclear, hydro – as far as you can!
 - Good liquidity in Calendar baseload; low hedging cost
 - But... no carbon hedging required!
 - Even negative carbon hedging?!?
- Coal – past next season?
 - Financial certainty preferred, but not needed
 - Low asset value to hedge, low volatility
 - High cash cost of hedging (power+carbon+coal)
 - Risk of regulation
 - **Poor liquidity on Quarters/Peaks!**
- Gas – past day-ahead?!
 - No asset value to hedge?!?

Some perspective on numbers...



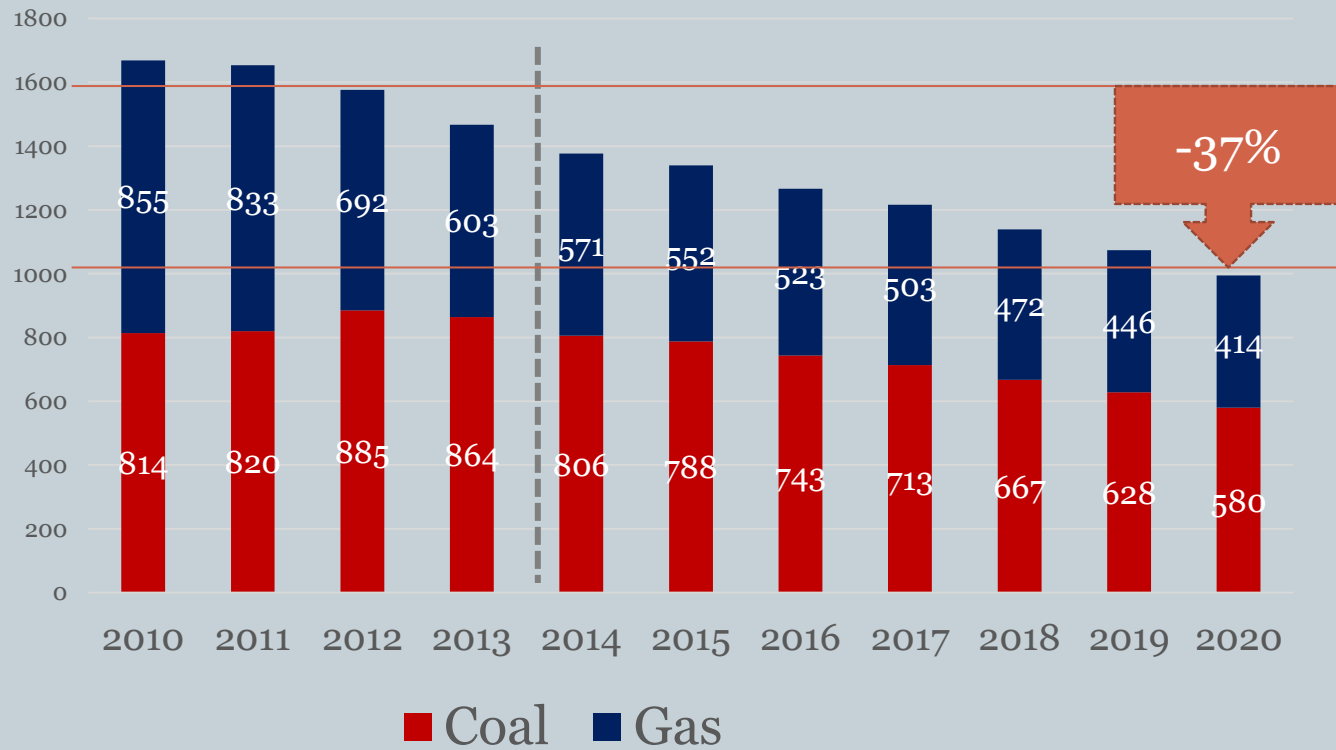
Emissions hedging, mt



Falling fossil demand



Sandbag forecast, TWh



Some perspective on numbers...

