

Winter to Date – The British Energy View 23 January 2008

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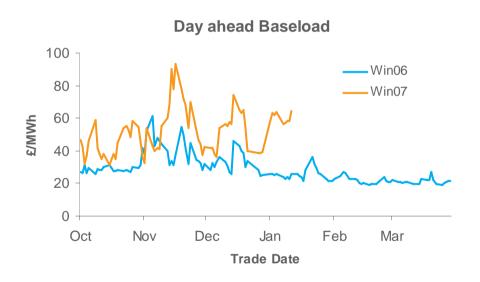
Overview



- > UK prompt power prices
- > Major drivers
 - > Temperature
 - > Generation Margin
 - > Gas
 - > LCPD
- > Looking forward







- Power prices this winter are dramatically different from last winter
- Average winter day-ahead price to date is in excess of £50/MWh compared to just over £30/MWh last year
- > What drivers are causing the difference?
- > Potential candidates include
 - > Temperature
 - > Generation Margin
 - > Fuel prices

Temperature



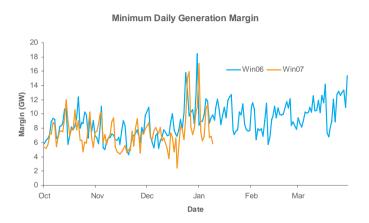
WK Demand Weighted Temperature Midday 30 25 20 15 10 90-to-0 90-to-0

Date

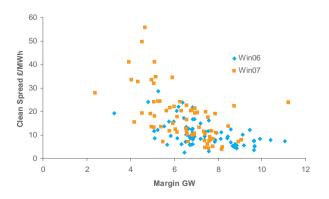
- The average temperature in winter 06-07 was 1.34C above the 1971-2000 seasonal normal
- > The average temperature in winter 07-08 has out-turned 0.08C below the 1971-2000 seasonal normal
- > Will produce a difference in
 - Electricity demand
 - Gas demand

Generation Margin





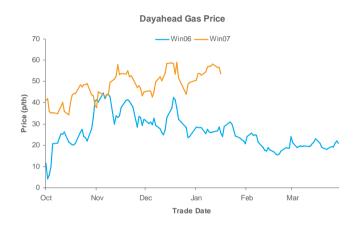
Impact of Margin on Clean Spark Spreak

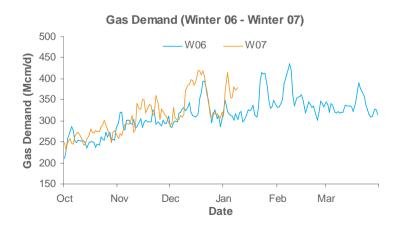


- Margin at peak has been on average 800 MW less this winter than last
 - > Demand on average is up by just over 1.05GW
 - > UK supply is up by over 750 MW
 - French IC flow reduced by around 500 MW
- > Primary driver for change is colder weather
- > Gas remains marginal plant in winter
 - Impact of margin on price can be examined by examining clean spark spread
- Clean spark has averaged £17.75/MWh this winter to date compared to £9.40/MWh for same period last year
 - Generation Margin around 5GW more frequently this winter
 - Clean spark spread more sensitive to tight margins this winter

Spot Gas Prices



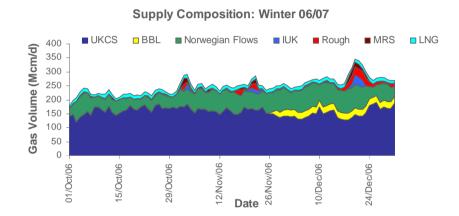


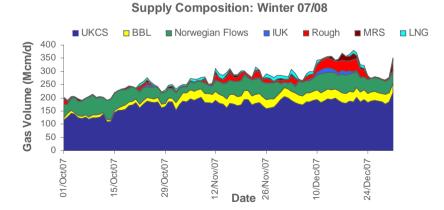


- Spot gas prices averaged 47.7p/th this winter to date compared to 29.6p/th for the same period last year
- Sas prices have consistently traded above the last traded Q4 07 price of 40.5p/th
 - Feature of the gas market across the year, with forward prices underestimating the spot outturn
 - > Will it continue for balance of winter?
- Average demand Win07 to date is 313mcm/day compared to 294mcm/day for same period last year

Gas Supply



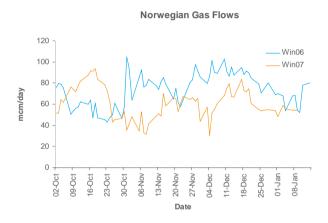




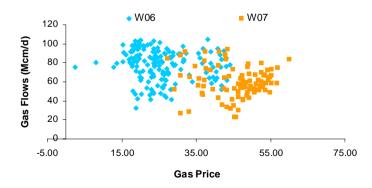
- Increasing uncertainty surrounding the UK's depleting indigenous gas supplies
 - > Problems at Bacton and Barrow
- Low IUK imports despite the significant premium the NBP has over the EBP
 - Continent generally unwilling to release gas from storage in Q4
- > Strong flows through BBL
- Significant withdrawals from UK gas storage to balance supplies (max withdrawals of 45mcm/d)
- Lower Norwegian gas imports and uncertainties surrounding flows
- > Lower LNG imports

Norwegian Gas Flows





Norwegian Gas Flows vs Gas Price

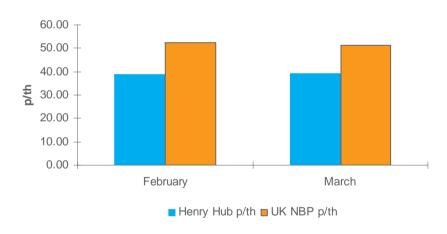


- Commissioning of the Langeled pipeline in Oct 2006 increased potential gas imports into the UK
 - > But gas capacity doesn't necessarily equal gas flows
- Sustained heavy Norwegian gas flows in Win06 despite the fall in prompt prices
 - > Excess UK supply
 - > Day-ahead traded to a low of 4p/th in October 2006
- Imports from both Langeled and St Fergus have been unpredictable this winter
 - > Average flows of 65.7mcm/day in Q4 06 compared with 51mcm/day in Q4 07
- > Delays in Ormen Lange commissioning
 - > Expectation of 20-30mcm/day by end Sept
 - > Output only reached 12mcm/day in Oct 07
 - Flows suspended in Nov 2007 following a gas leak at one of the compressors
- Production at Kvitebjorn was reduced and then subsequently closed in May 2007
 - > Capable of delivering between 18-20mcm/d
 - > Returned last Thursday
- Norwegian oil production reduced
 - Reduction in associated gas production

Global LNG



Henry Hub V's UK NBP Price Differential



- Two new LNG import terminals at Milford Haven due on line this winter have been delayed
 - > South Hook (29mcm/d) and Dragon LNG (16mcm/d)
- UK NBP at a 13p/th premium to the US making it an attractive destination for LNG cargos
- > Isle of Grain terminal was not fully utilised in Q4 07
 - > BP & Sonatrach only delivered 7 cargos this winter
 - > Slots offered to the secondary market were left un-utilised
 - > Last year all slots were utilised despite lower NBP prices
- High Asian demand following earthquake damage to Tepco's 8.2GW Kashiwazaki Kariwa nuclear reactor
 - > Paying a premium to the UK for cargos to be diverted (between \$14-16/MMBtu)
- High European demand for LNG due to low hydro levels
 - > Currently 33.4% full (lowest levels since Nov 2005)



Large Combustion Plant Directive

- LCPD came into force on 1 January
 - > Places environmental constraints on fossil fuelled generation capacity
 - > Must meet emissions targets or 'opt out'
 - Approximately 11GW of plants has opted out and will be restricted in the number of hours they generate
- > Still too early to determine running patterns from opted out plant
- Interesting running for plant where fitting of FGD is delayed
- Aberthaw returned to service this week
 - > Should be no constraints on running for remainder of winter
- > Fiddlers and Ferrybridge running focussed around block 5
 - > Running could be limited until the end of April
- > Rugeley running baseload
 - Is flexibility limited due to low NOx coal?

Drivers on remainder of winter



- > UK Gas Market
 - > Uncertainty surrounding Norwegian gas flows
 - > European demand
 - > LNG imports
- > Coal
 - > Prices are high
 - > Coal plant likely to become marginal towards end of winter driver of power prices
- > Weather
 - > Sustained periods of cold, dry and still weather will affect supply/demand
- > LCPD
 - > How will running patterns for opted out plant develop?