

Winter Outlook 2009/10

DSWG 27 October 2009 - Gary Dolphin



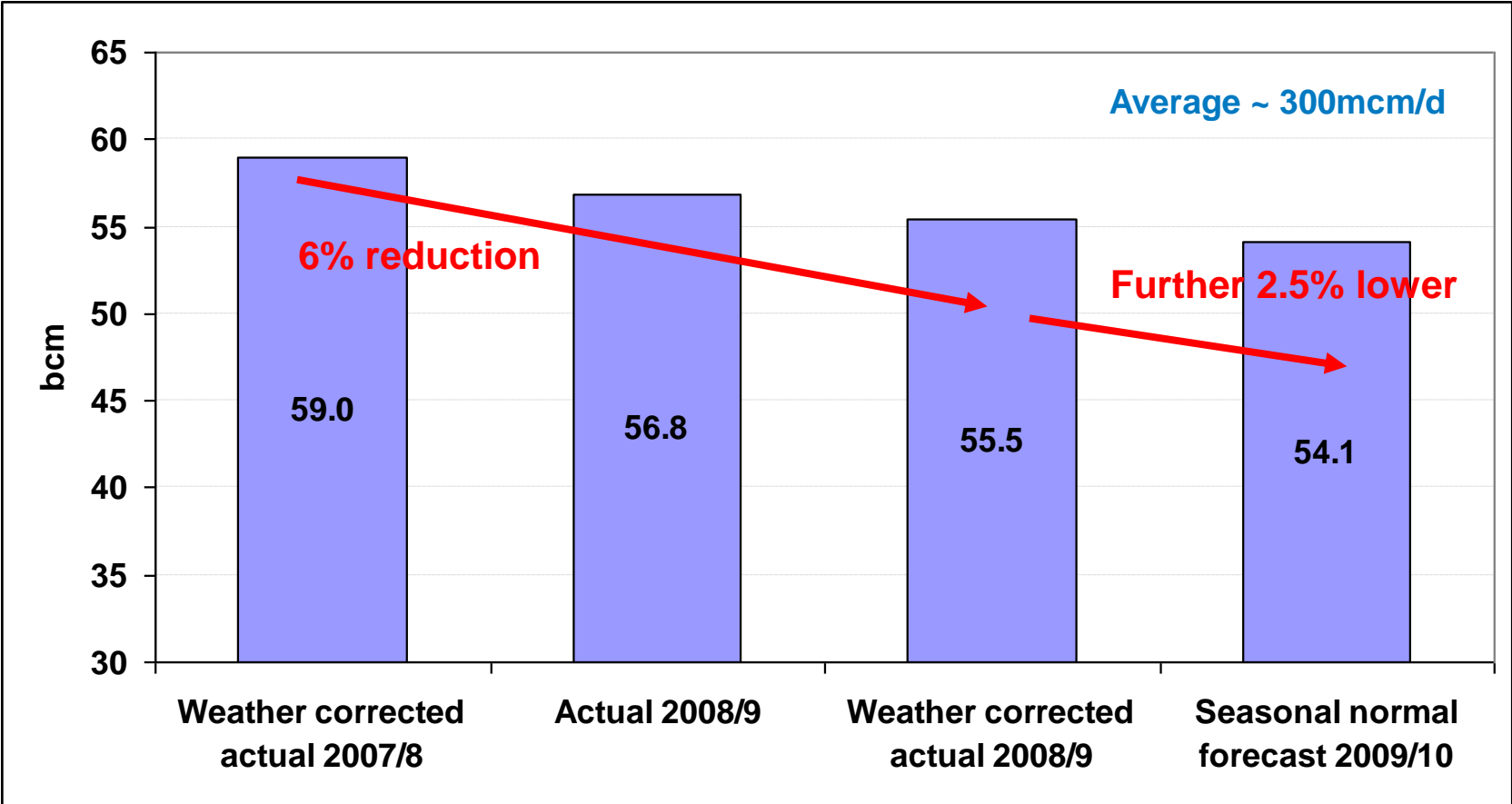
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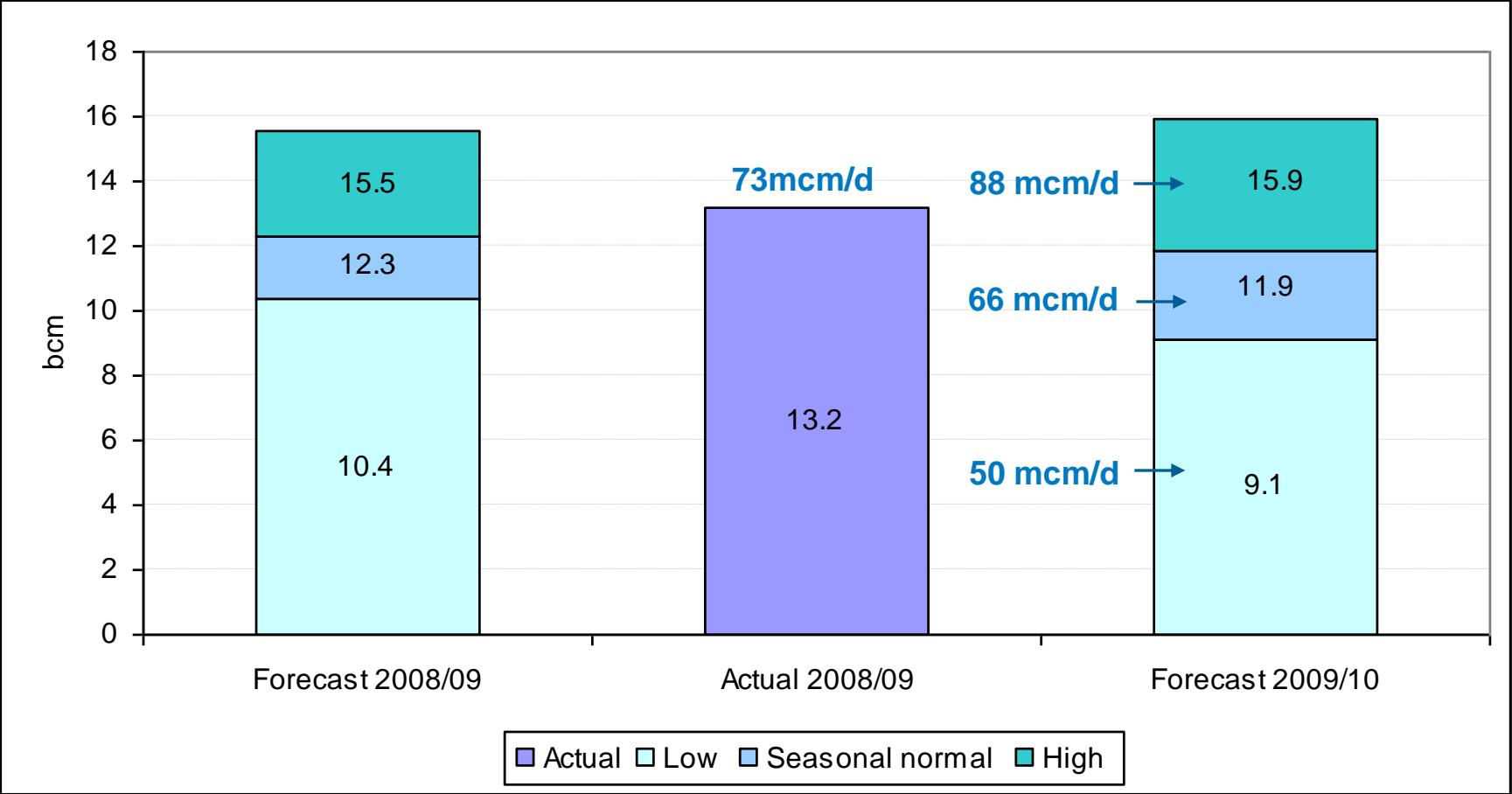
Met Office Sept 09 – Early indications for winter 2009/10

- ◆ Rainfall: Signals slightly favour near or above average rainfall over much of Northern Europe, including the UK
- ◆ Temperature: Preliminary indications of near or above average temperatures over much of Europe including the UK
- ◆ Winter 2009/10 likely to be milder than last year for the UK, with a 1 in 7 chance of a cold winter
 - ◆ Weather series: 1971-2000
- ◆ Main forecast for Winter 2009/10 will be issued in November by Met office

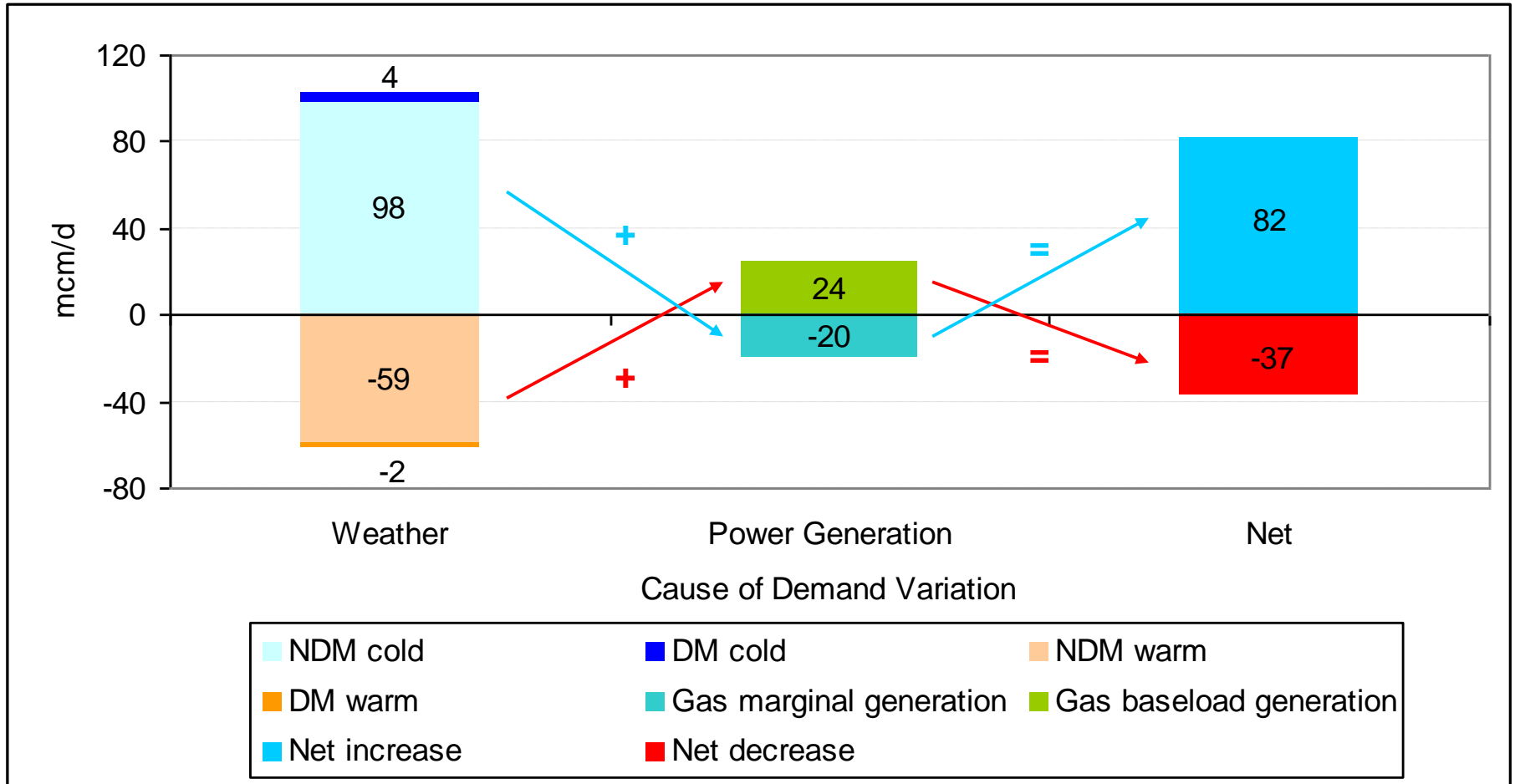
Total UK winter gas demand



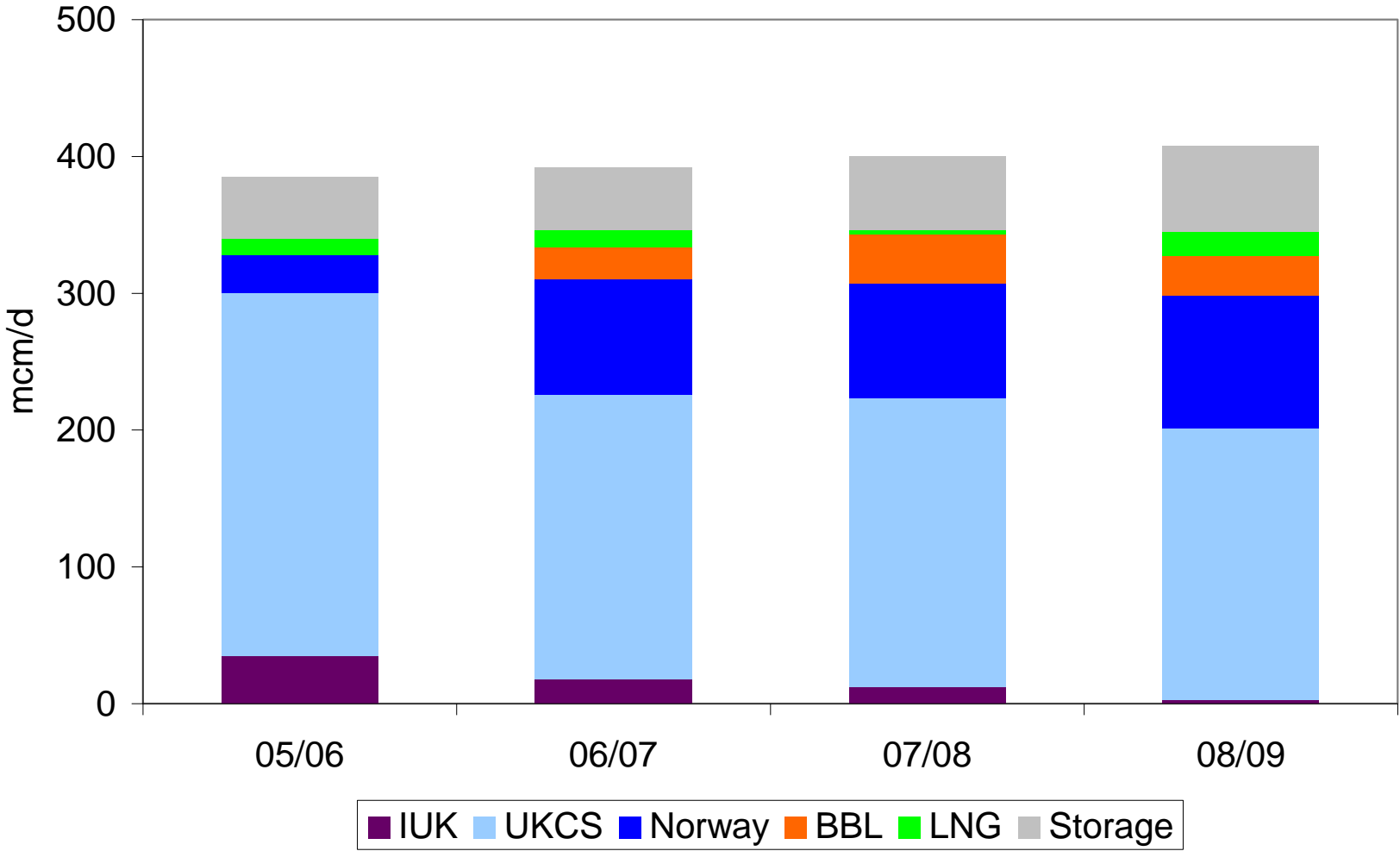
2009/10 forecast power generation



Possible variation in daily gas demand



Supply makeup, top 20 days

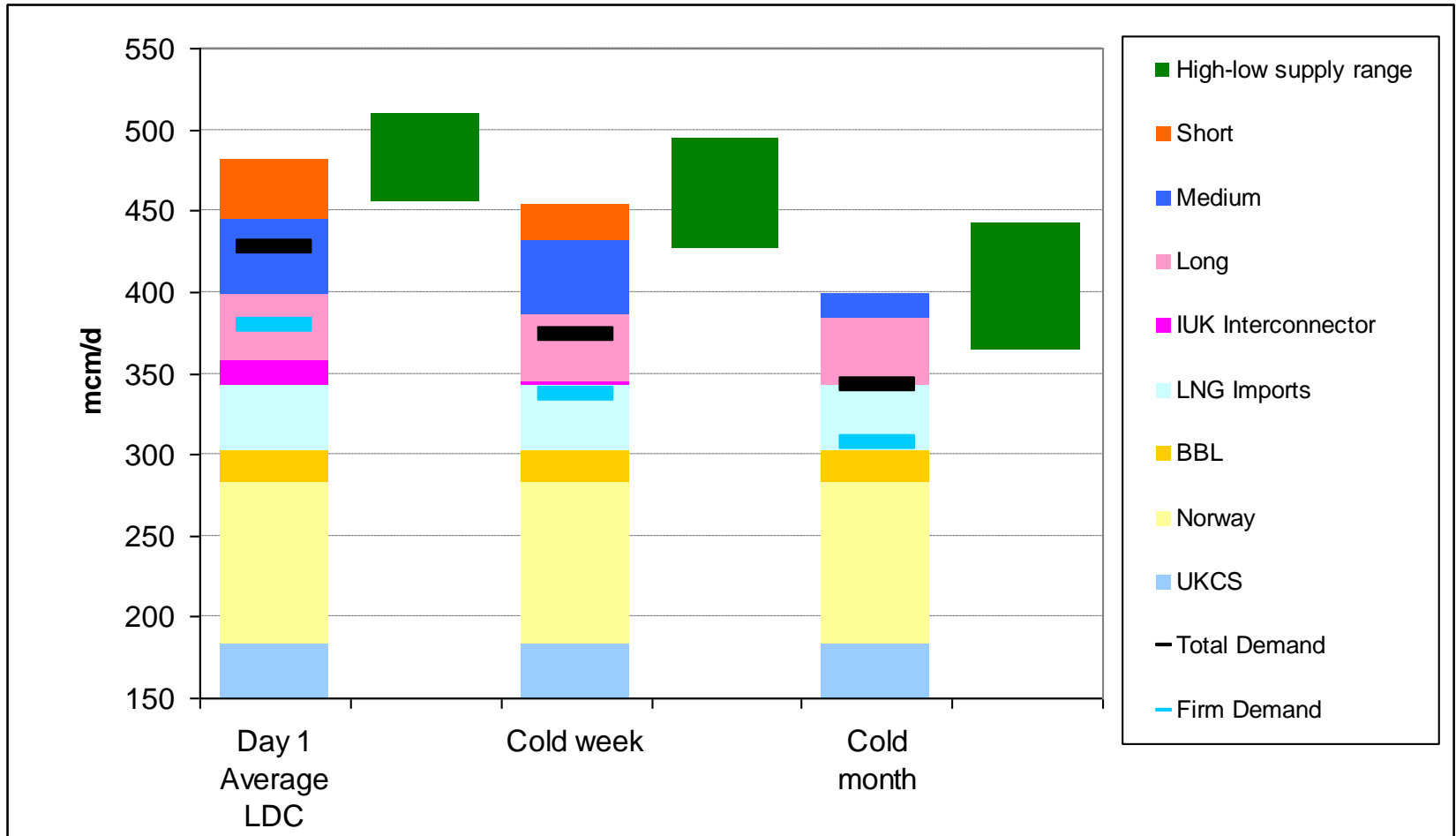


Historic (highest 20 demand days) & forecast supplies

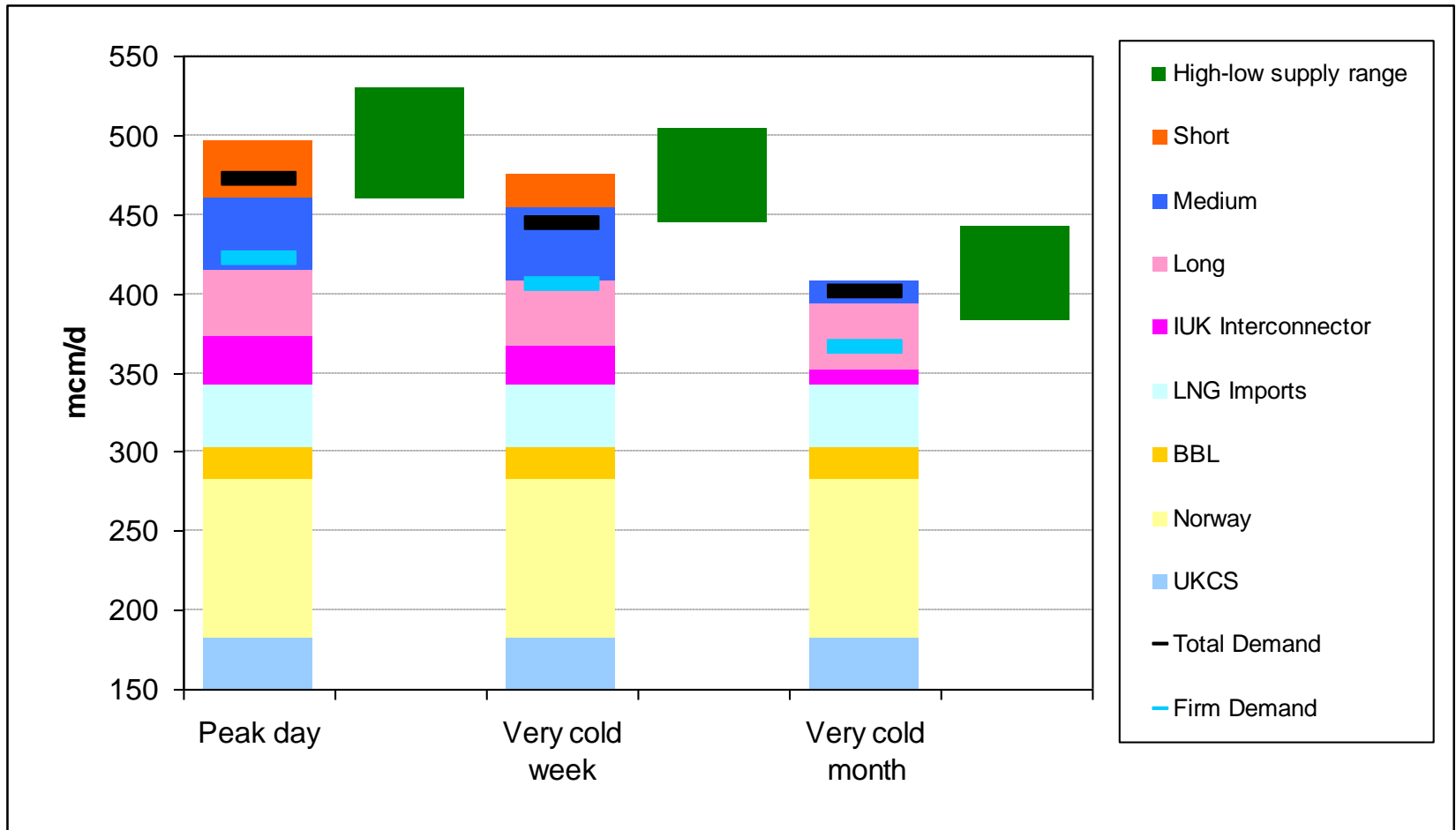
(mcm/d)	2005/6	2006/7	2007/8	2008/9	2009/10
UKCS	265	208	211	198	183
Norway	29	84	84	97	100
BBL		24	36	29	20
LNG	12	12	3	18	40
Total NSS^[1] (ex IUK)	305	329	335	341	343
IUK	35	18	12	3	0-30
Total NSS	341	347	347	344	331 - 386
Storage	45	46	54	63	124
Supply = Demand	386	392	401	407	

[1] NSS = Non Storage Supply

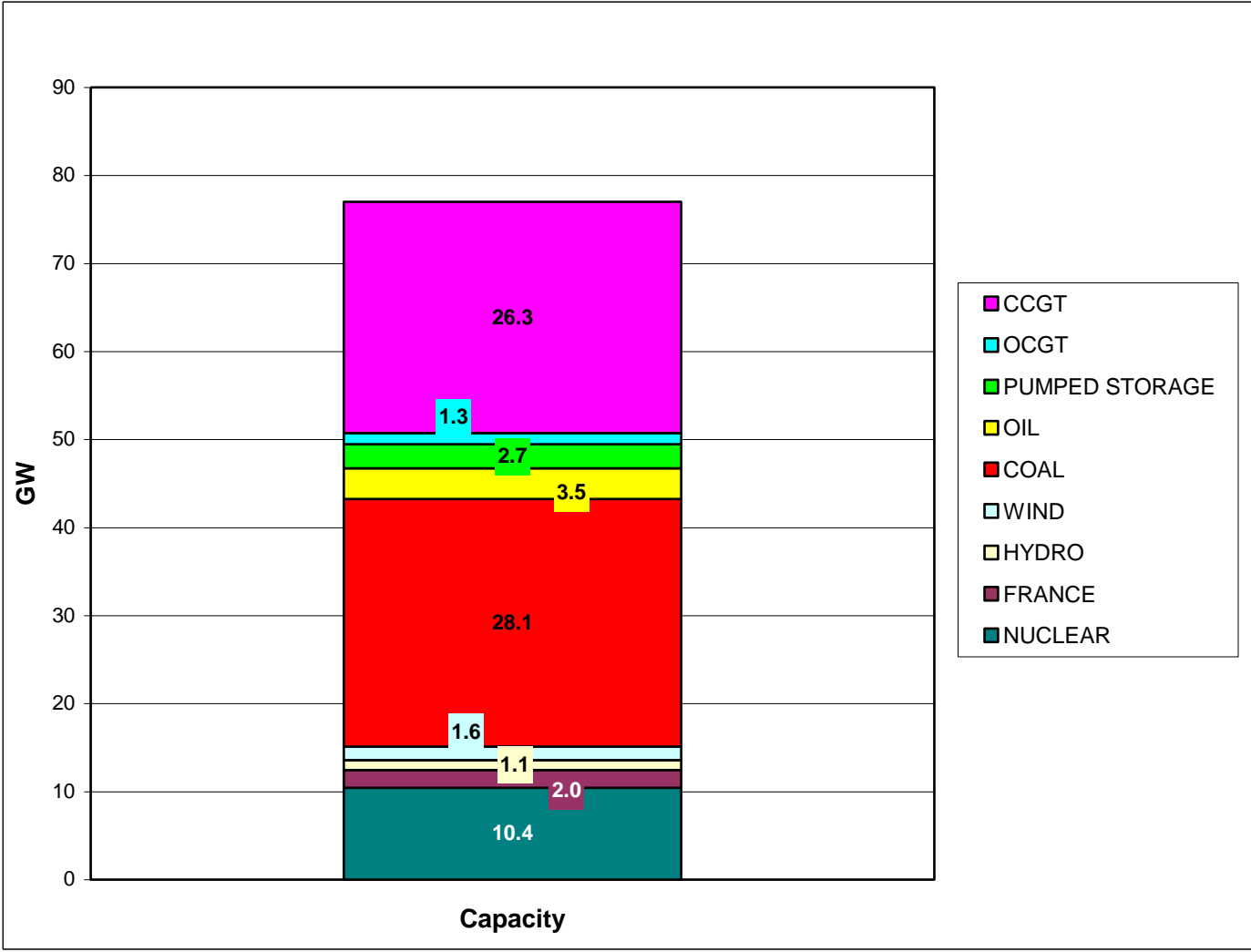
Average Conditions



Severe Conditions (1 in 50 winter)



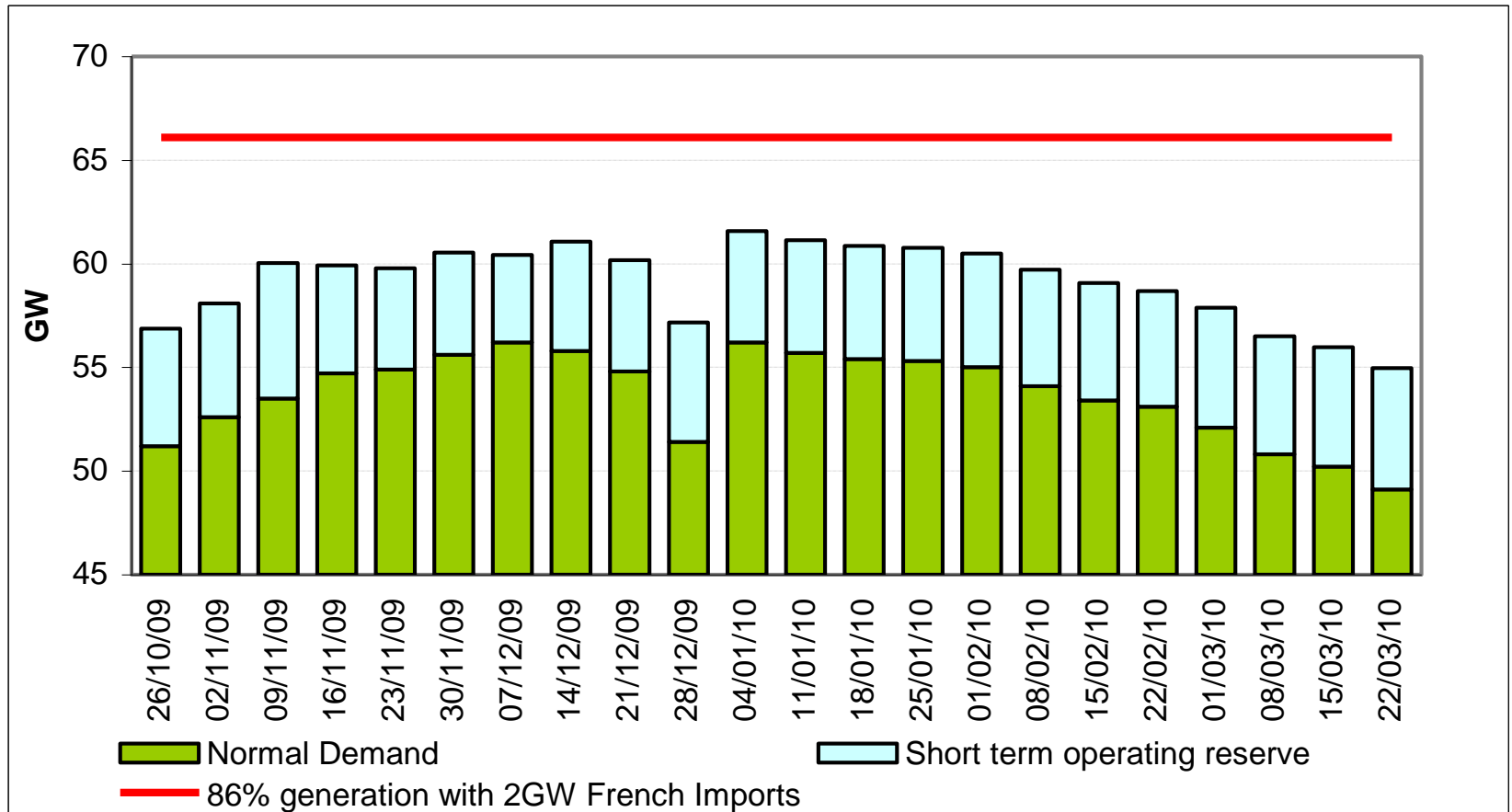
Generation Capacity Operational View



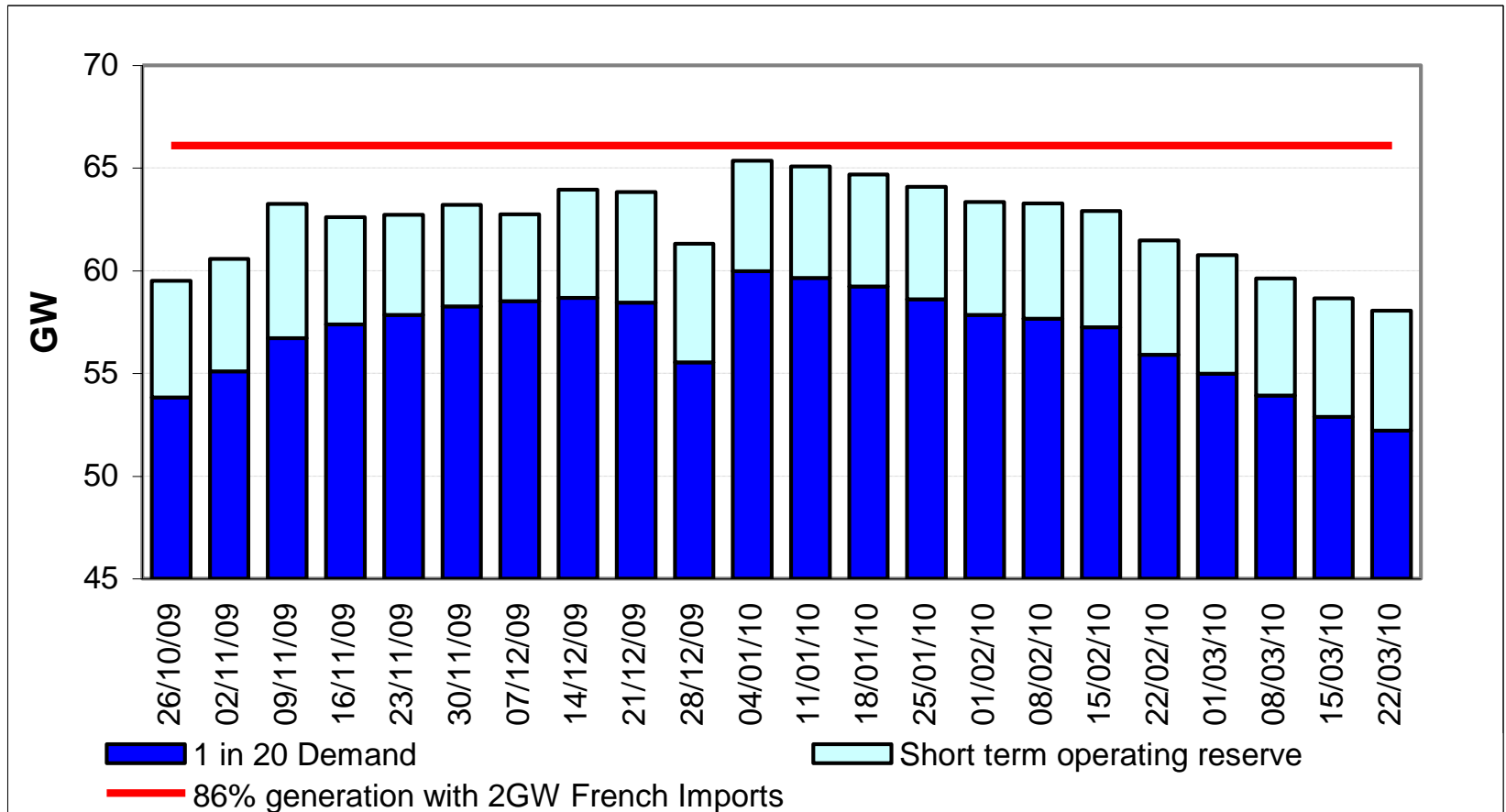
Generation Availability Assumptions

Power Station Type	Full Metered Capacity (GW)	Assumed Availability	Assumed Availability (GW)
Nuclear	10.4	80%	8.4
French Interconnector	2.0	100%	2.0
Hydro generation	1.1	80%	0.9
Wind generation	1.6	27%	0.4
Coal	28.1	85%	23.9
Oil	3.5	95%	3.3
Pumped storage	2.7	95%	2.6
OCGT	1.3	80%	1.0
CCGT	26.3	90%	23.6
Total	77.0		66.1
Overall availability		86%	

Normal demand and assumed generation availability



1 in 20 demand and assumed generation availability



Summary for Gas & Electricity

- ◆ Met Office: Winter 2009/10 likely to be milder than last year for the UK, with a 1 in 7 chance of a cold winter
- ◆ Forecast gas demand (weather corrected) 2.5% lower, on top of 6% reduction last winter. ACS Electricity demand for 2009/10 is expected to be about 5% lower than pre-recession (2007/08) winter
- ◆ Forecast non storage gas supply similar to last winter with more upside, notably through LNG. Forecasts generation supply also similar to last winter with possible upside through new CCGTs and more wind
- ◆ The overall gas & electricity demand / supply balance for winter looks relatively comfortable at this stage, operational margin for peak ACS demand is 15%
 - ◆ Shocks / unexpected events / cold weather could change this comfort level
- ◆ Economics of coal vs gas for base load generation are marginal but coal expected to be used at higher demand (prices)
- ◆ Gas for CCGTs continues to provide flex for electricity market and potentially a market response for gas
- ◆ **Events happen!**