

2006/07 Winter Outlook

Simon Griew, Operational Strategy Manager

13 October 2006

Contents

- ◆ Market overview
- ◆ Illustrative supply-demand position
- ◆ Demand response requirements
- ◆ Winter simulation analysis
- ◆ Interaction between gas & electricity markets
- ◆ Within-winter reporting
- ◆ Summary

Market overview

Gas demand forecasts

- ◆ Gas demand forecasts are materially lower than those produced in 2005
- ◆ They reflect high prices & the experience of last winter
- ◆ 2% year-on-year decline expected in the domestic market
- ◆ Consumer behaviour in very cold weather is uncertain
- ◆ Revised Daily Metered forecast takes account of response to high spot prices
- ◆ Consultation respondents generally endorsed the demand forecasts as an appropriate planning basis
- ◆ Forecast suggests similar levels of gas demand to last winter given the same weather

Market overview

Gas supply base case

- ◆ Base case represents balanced view of industry expectations
- ◆ Significant uncertainty remains – not a confident prediction
- ◆ Better than 2005/06 outturn, particularly in 2nd half of winter

	2005/06 Base Case Assumptions	2006/07 Base Case Assumptions	
		Oct - Dec	Jan - Mar
UKCS	269	240	240
Norway	33	48	48
IUK	42 (revised to 30)	25	40
BBL	N/A	0	20
LNG imports	13	13	13
Total	357	326	361

All figures in mcm/d

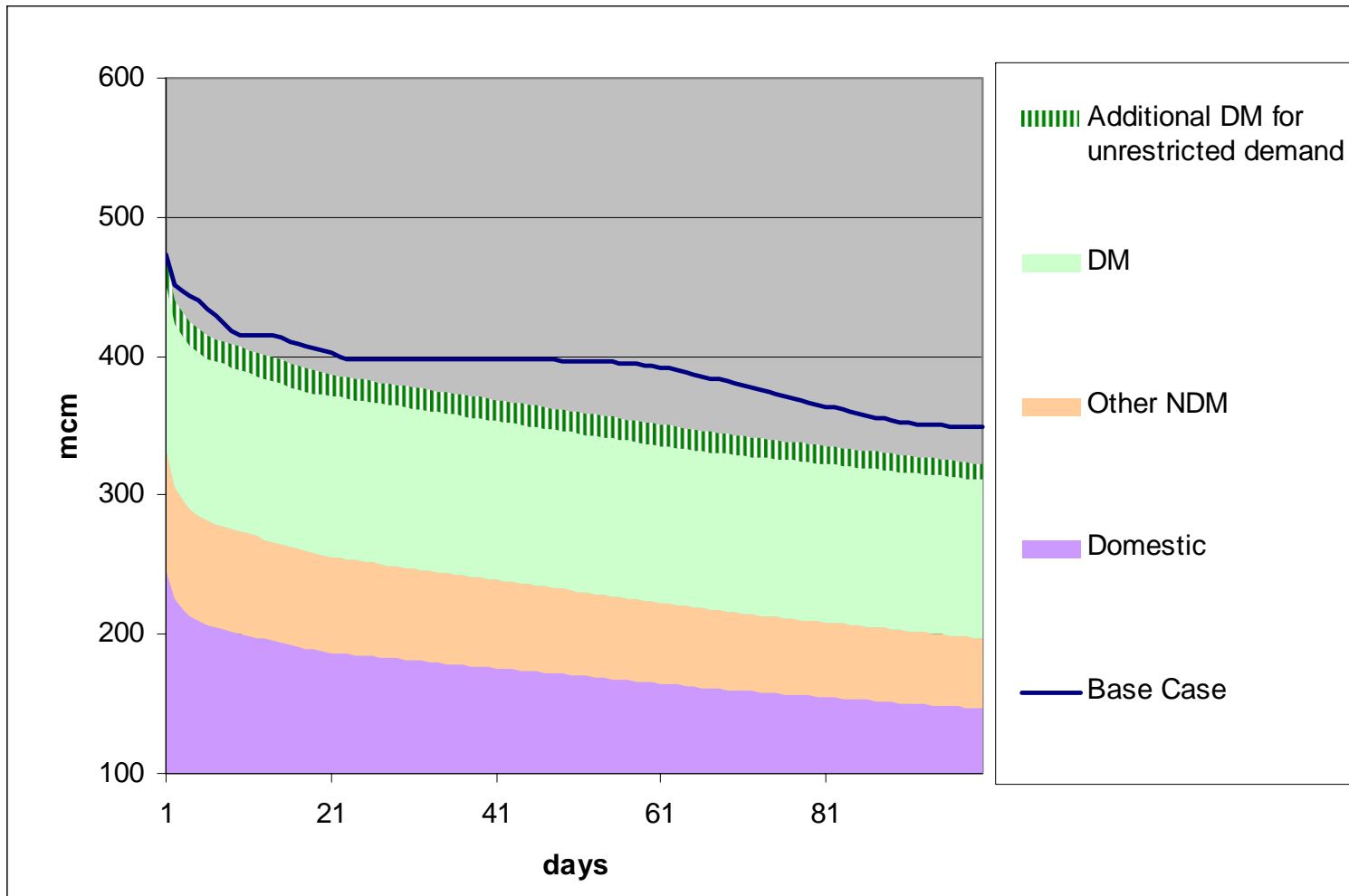
Market overview

Electricity background

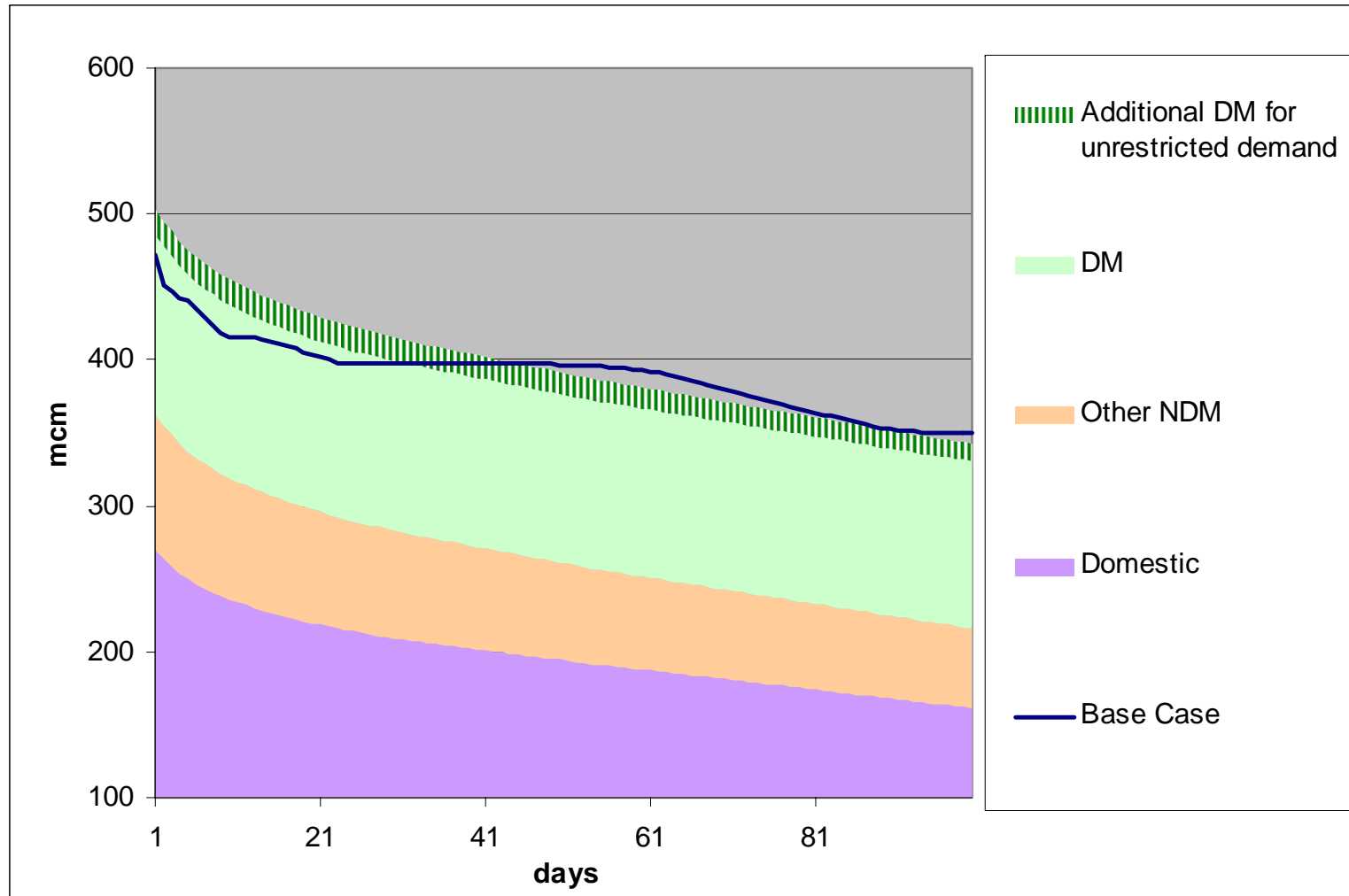
- ◆ Electricity less uncertain than gas
- ◆ Headline plant margin is 22%
- ◆ Two nuclear stations (900 MW) to close on 31 December
 - ◆ Dungeness A & Sizewell A
- ◆ Margin similar to last winter
 - ◆ adequate provided level of plant breakdowns is not unusually high...
 - ◆ ...& sufficient availability of CCGTs
- ◆ Like last winter, coal generation likely to operate at baseload & gas to provide marginal capacity

Illustrative supply-demand position

Average load duration curve for winter 2006/07

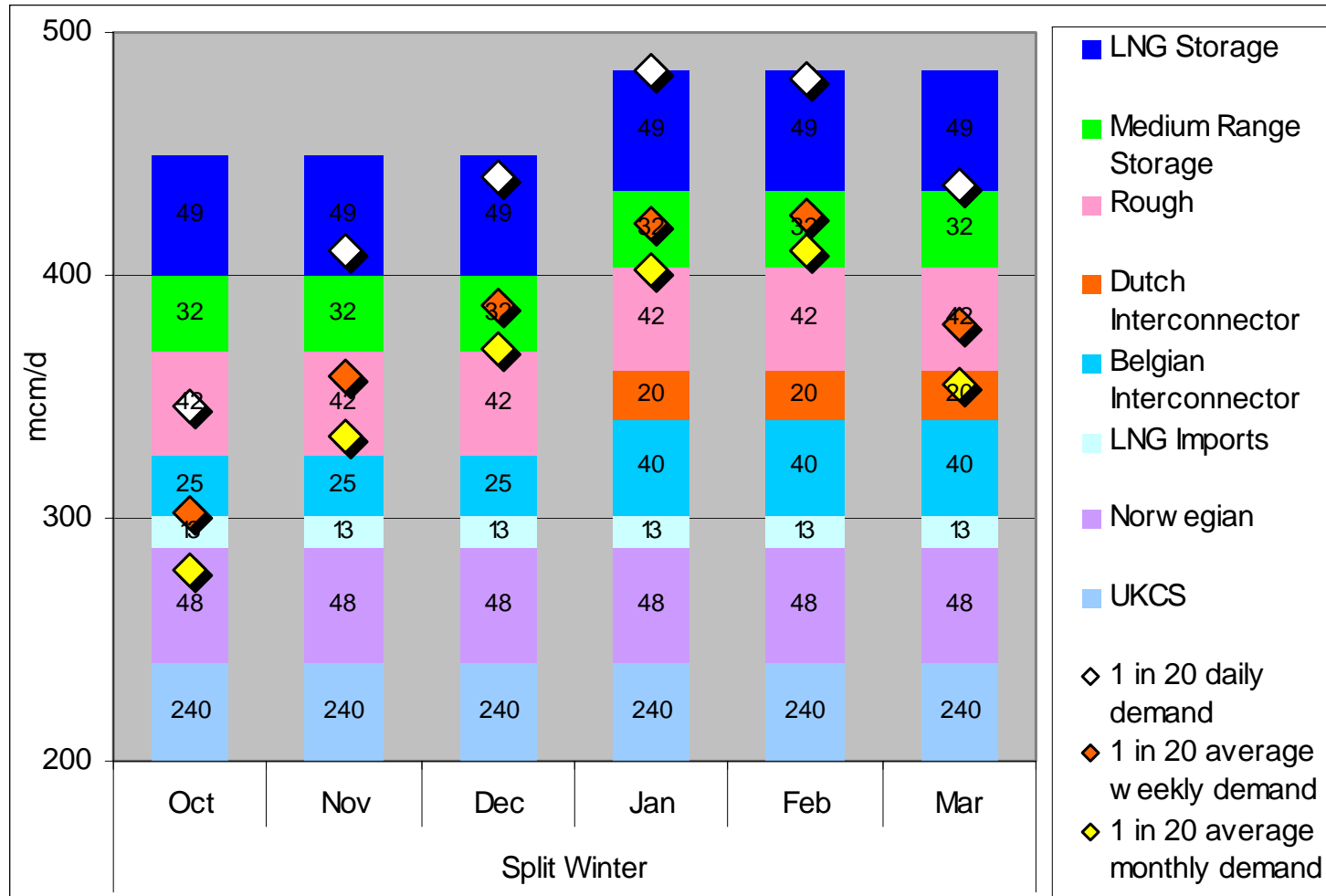


Illustrative supply-demand position 1 in 10 cold load duration curve for winter 2006/07



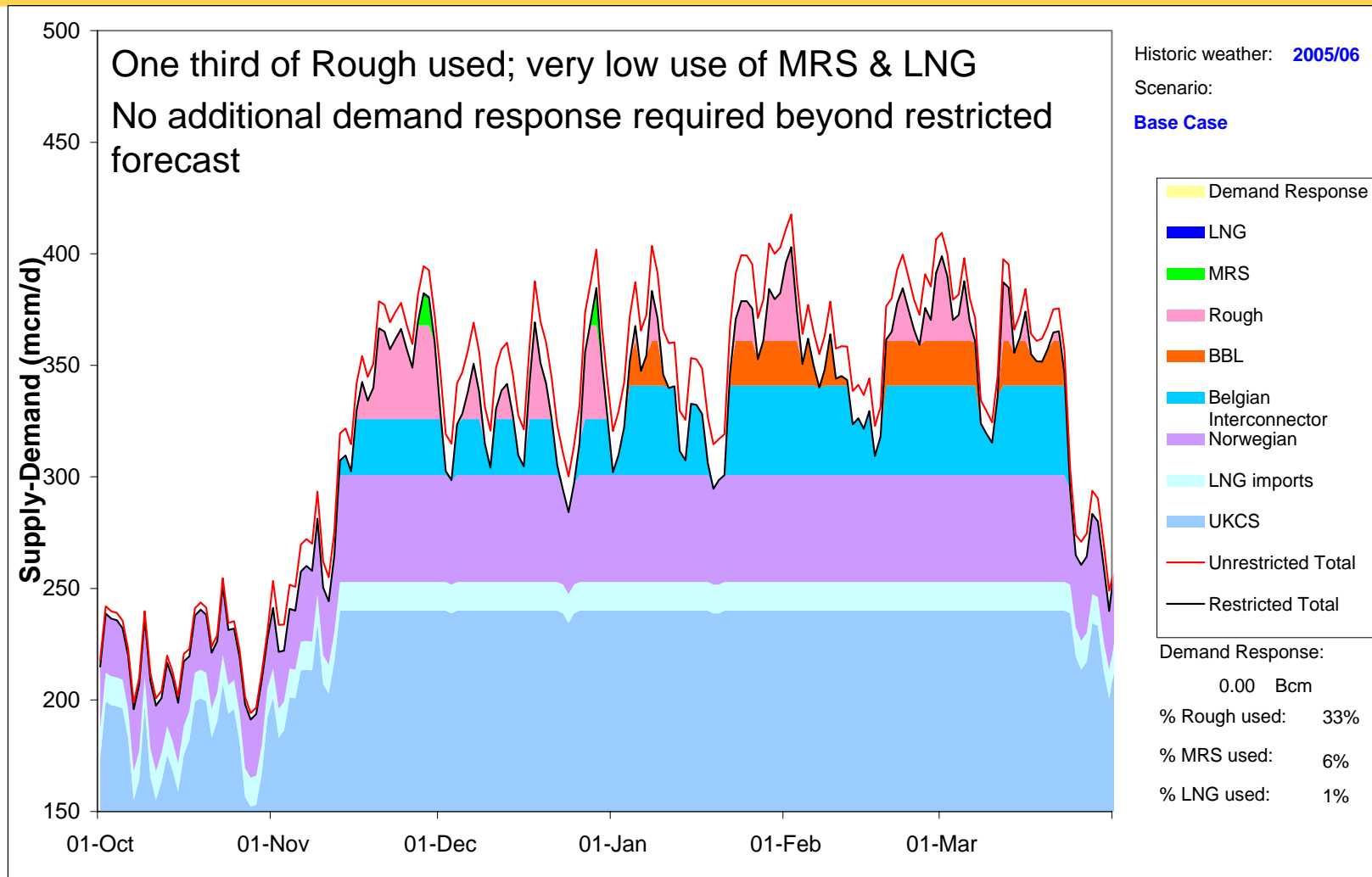
Illustrative supply-demand position

Monthly cold spell analysis

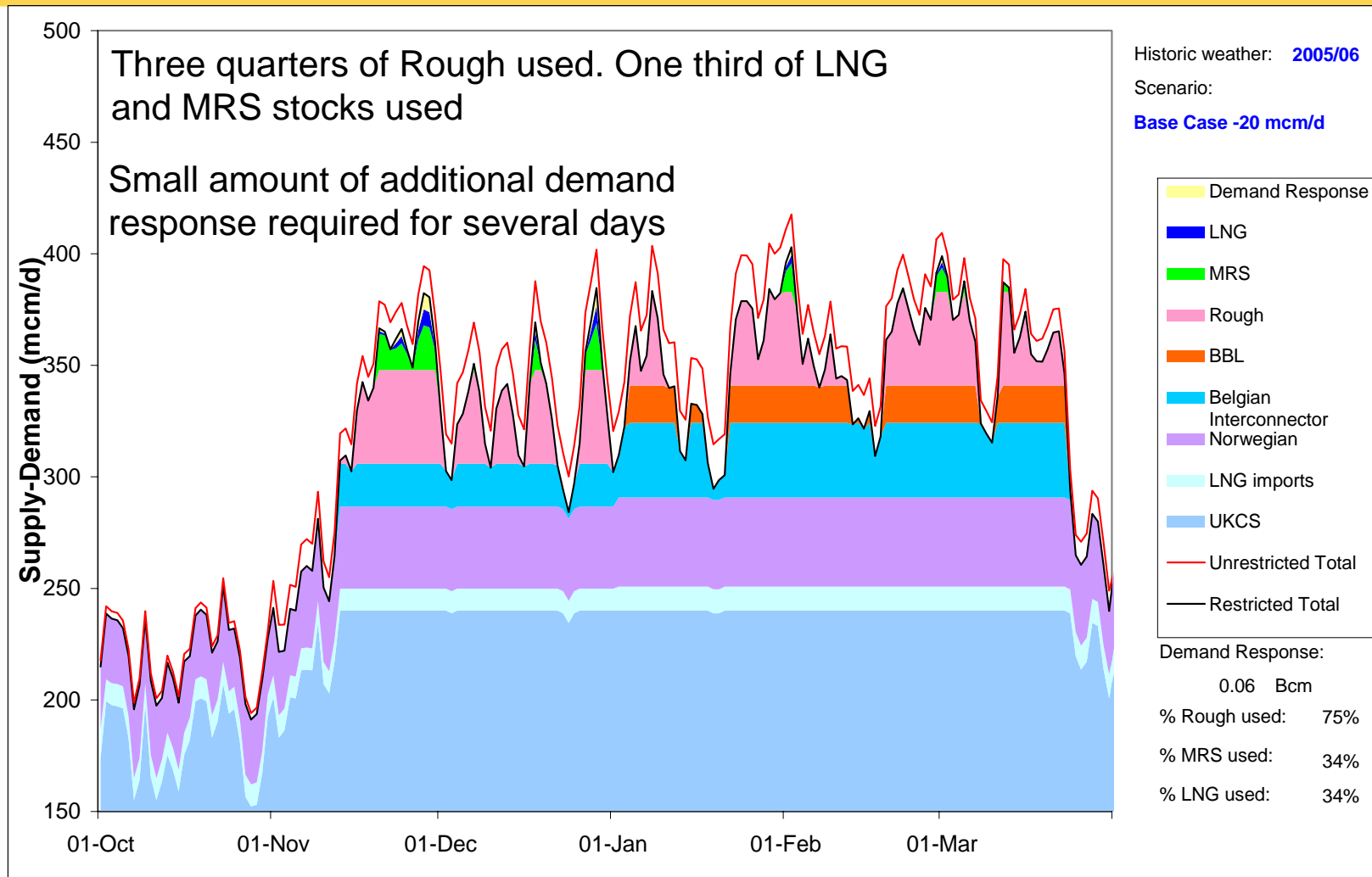


Winter simulation analysis

If the weather is like it was in 2005/06

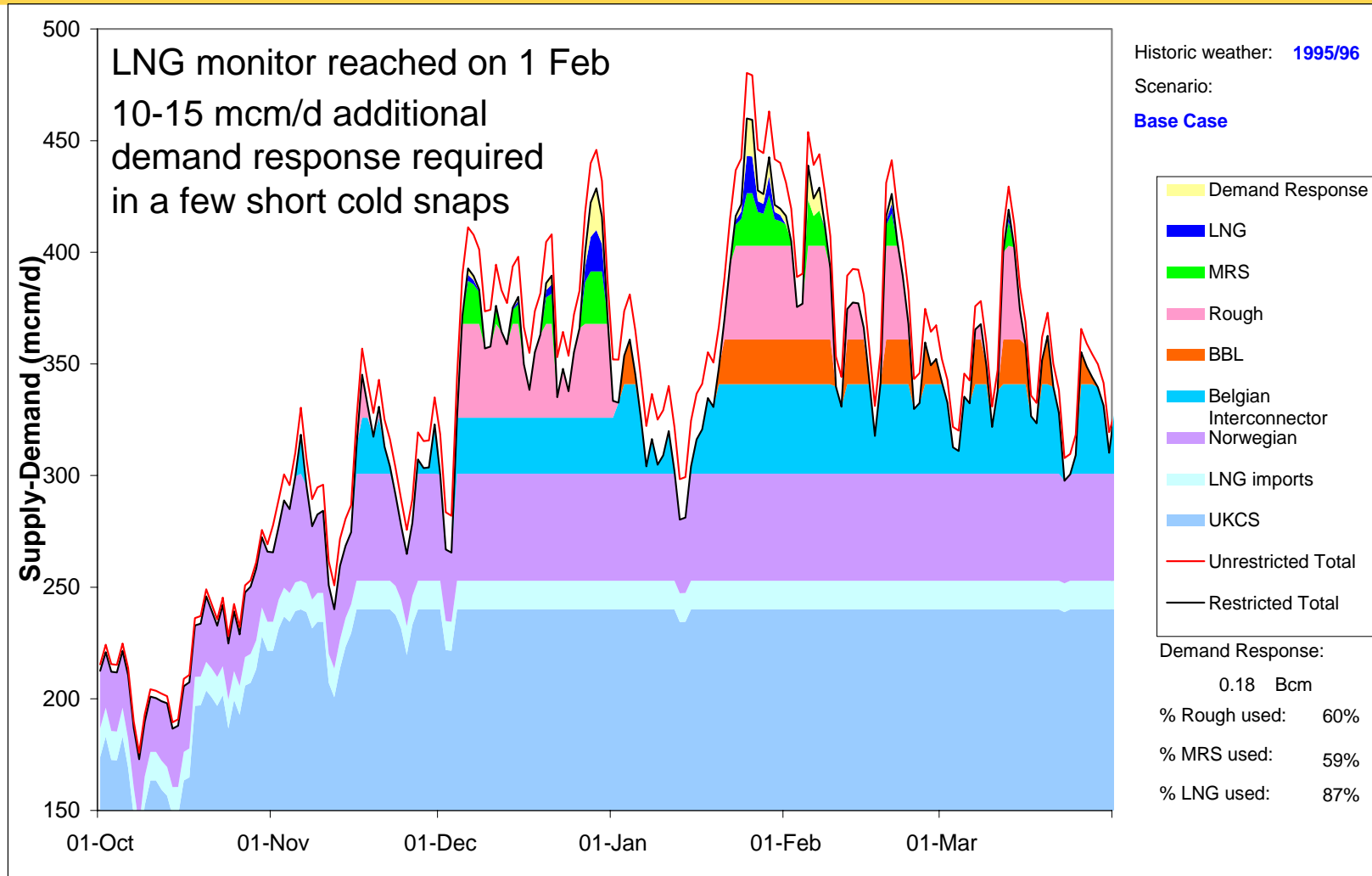


Winter simulation analysis 2005/06 with 20 mcm/d less supply



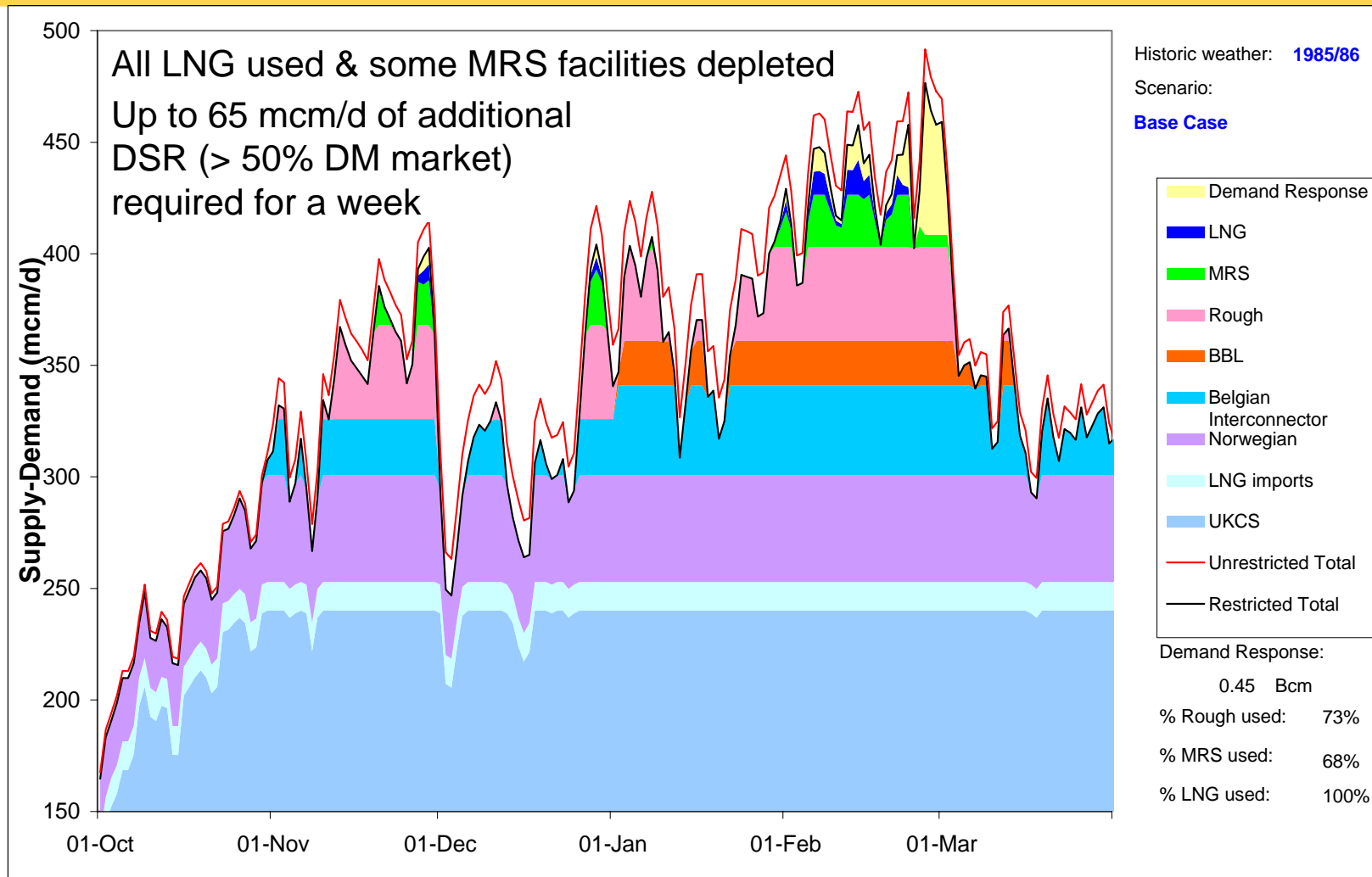
Winter simulation analysis

If it is fairly cold: 1995/96 (2nd worst since 1986/87)



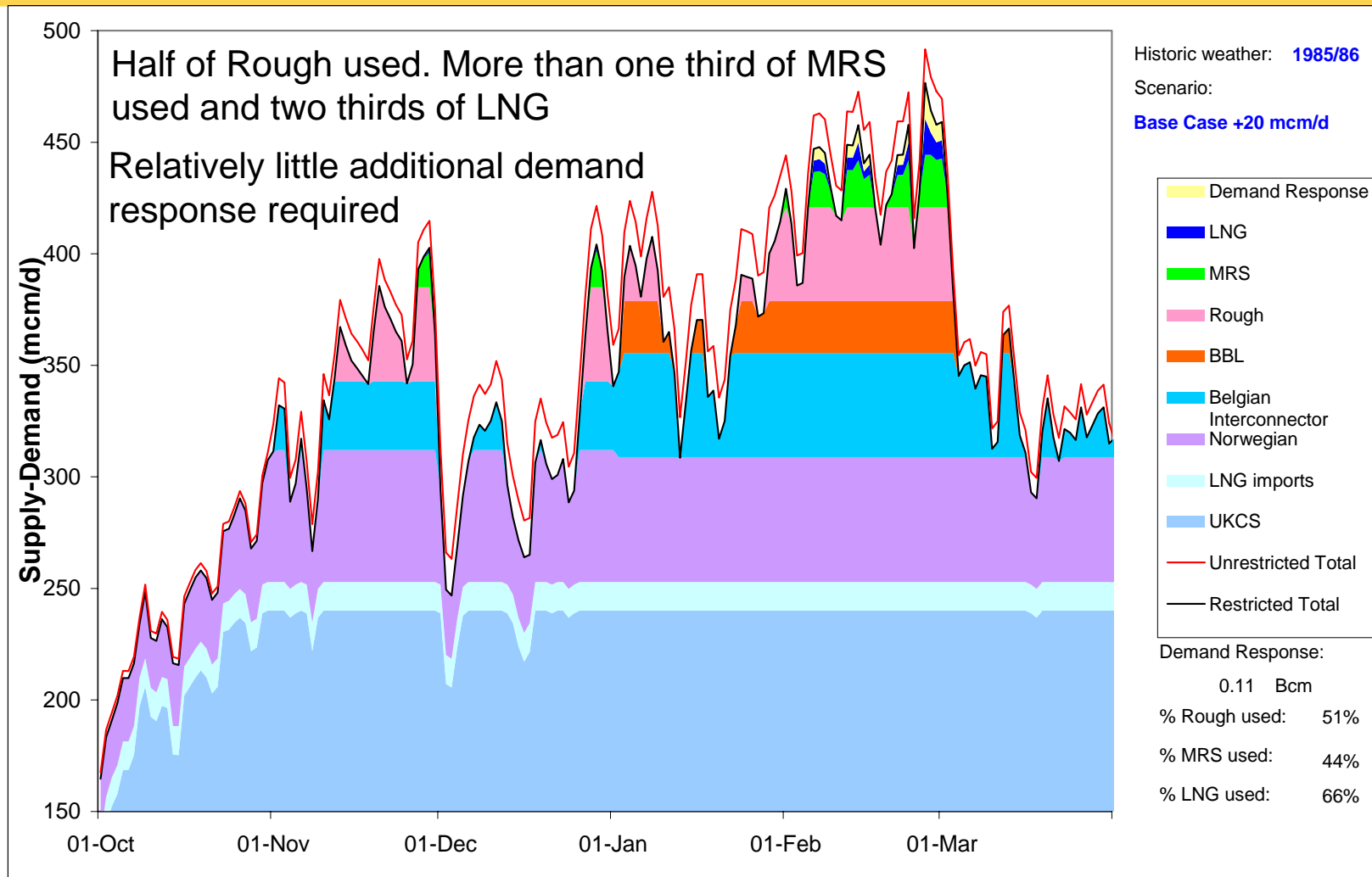
Winter simulation analysis

If it is very cold: 1985/86 (1 in 10)

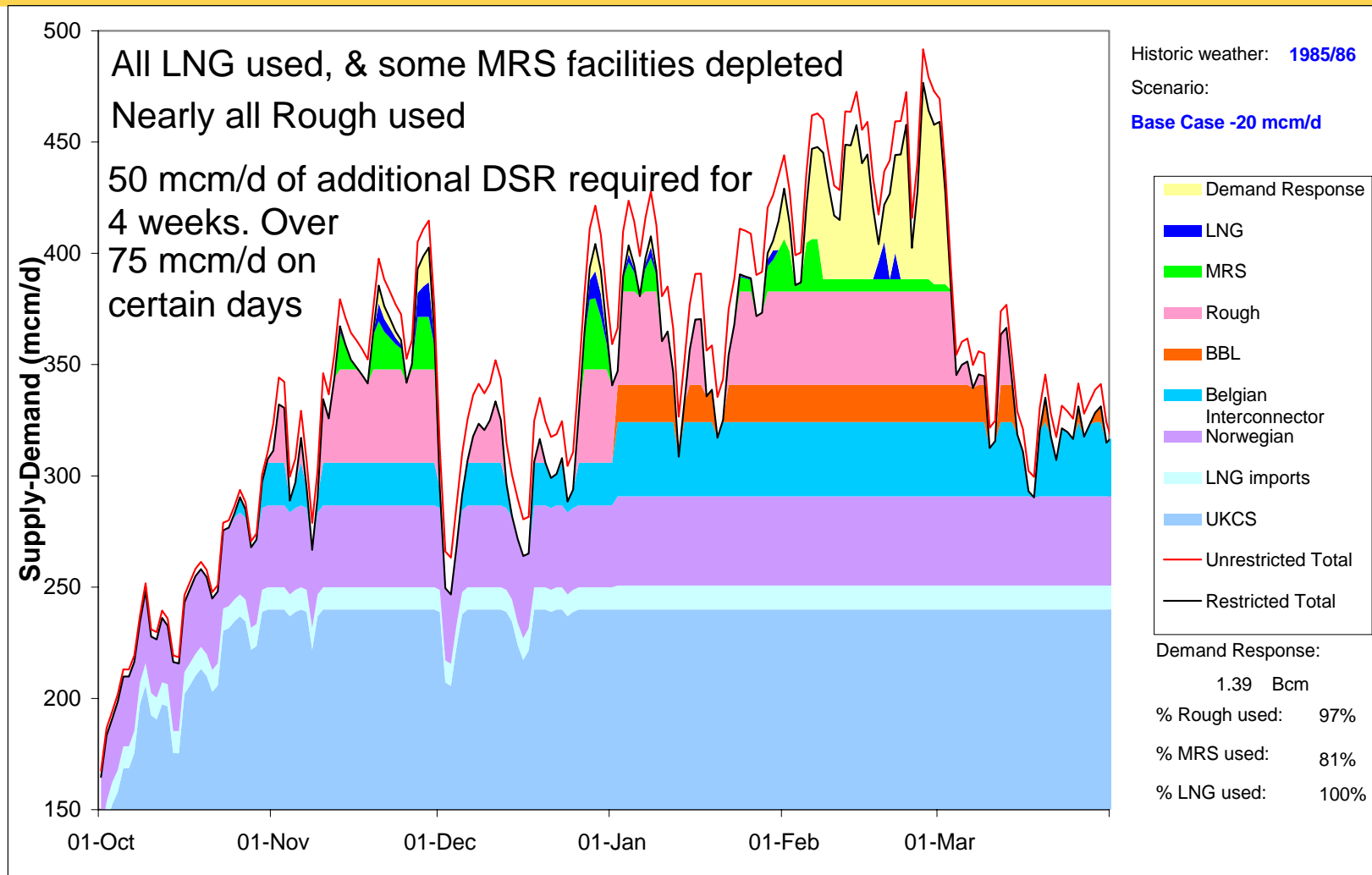


Winter simulation analysis

1985/86 with 20 mcm/d more supply

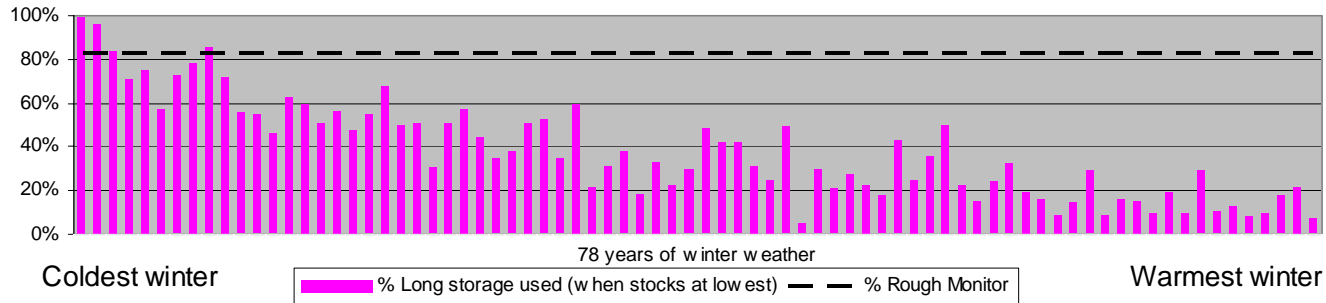


Winter simulation analysis 1985/86 with 20 mcm/d less supply

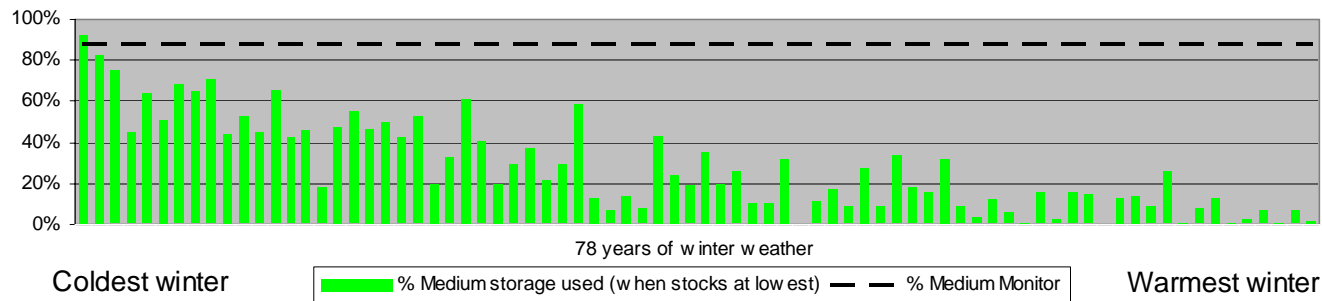


Winter simulation analysis

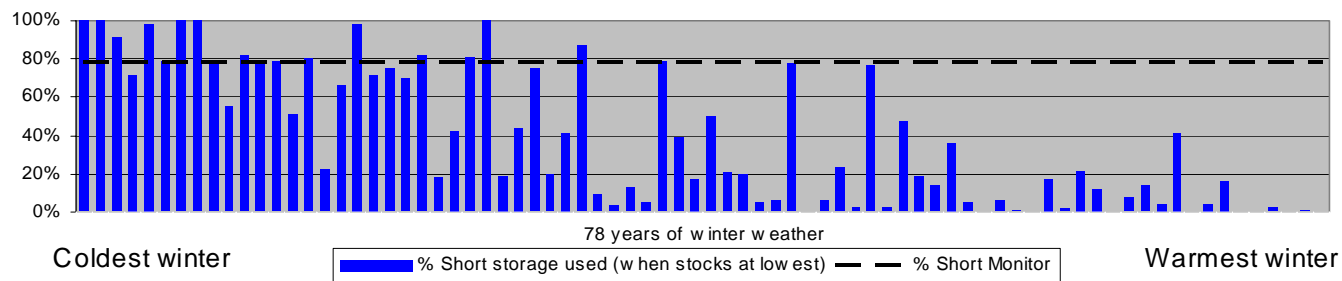
Gas storage



LRS
(i.e. Rough)



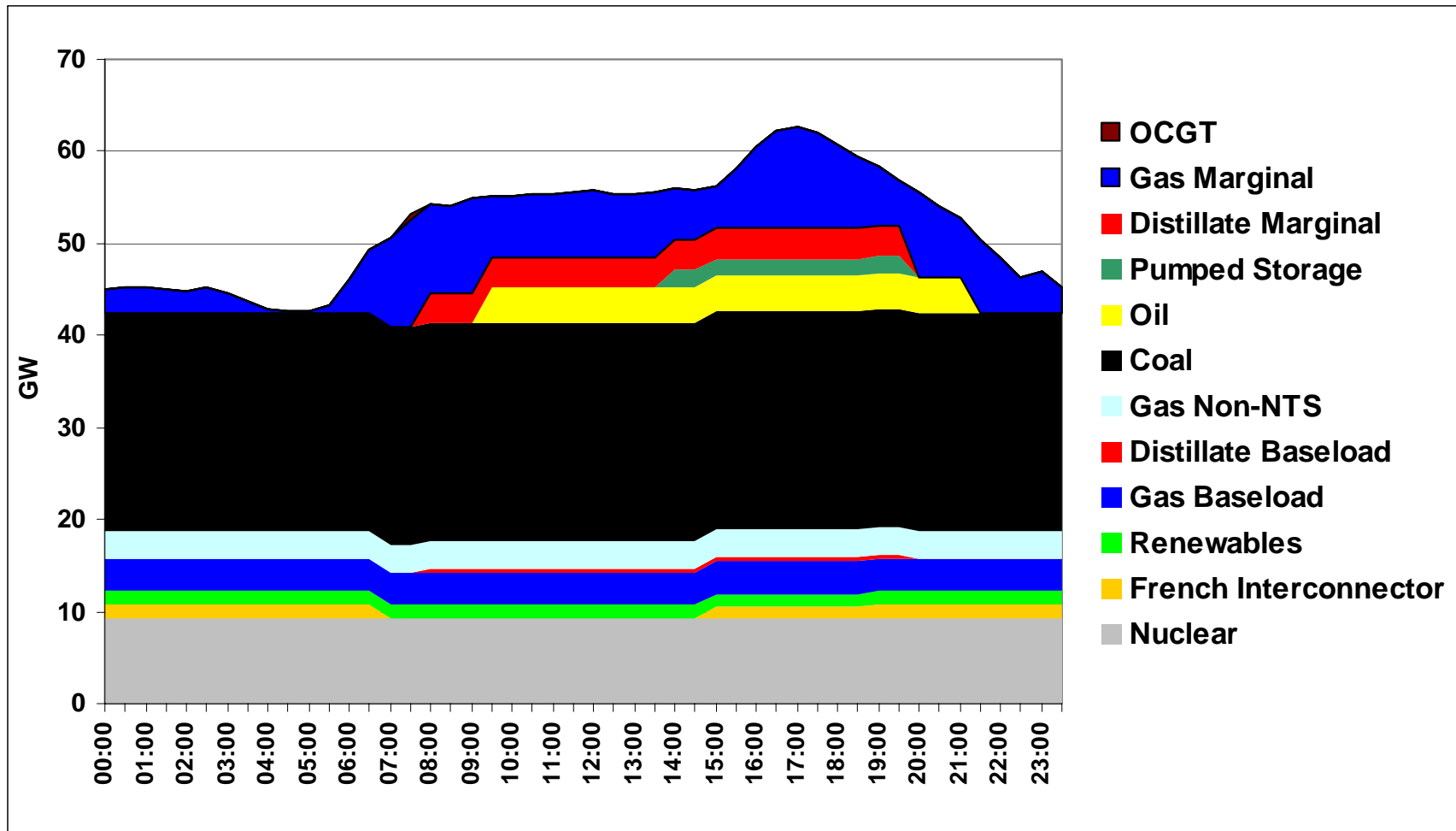
MRS



SRS
(i.e. LNG)

Interaction between gas & electricity markets

Simulated generation profile



Interaction between gas & electricity markets

Potential CCGT demand response

- ◆ Restricted demand forecast assumes material level of CCGT response, consistent with 2005/06 experience
- ◆ Relatively little further contribution available from CCGTs

	Average	1 in 10 cold	1 in 50 cold
Required	0.0	0.4	1.3
Potential CCGT	0.0	0.2	0.3
Non-CCGT	0.0	0.2	1.0

All figures in bcm

Within-winter reporting

- ◆ Improvements to the National Grid website, e.g.:
 - ◆ Near real-time sub-terminal flow information
 - ◆ D-2 to D-5 demand forecast
 - ◆ GBA trigger level to be shown
 - ◆ Easier to use menu structure & navigation system
 - ◆ More comprehensive help facility
 - ◆ Historical SND information available
 - ◆ Price information in p/therm

Summary

- ◆ Gas demand; forecasts materially lower than those produced in 2005
- ◆ Gas supply; positive developments have been reported in relation to new infrastructure projects, however, uncertainty remains regarding utilisation rates
- ◆ Electricity market; less uncertain. Coal generation expected to operate at baseload with gas providing marginal capacity
- ◆ Weather remains key determinant
 - ◆ Little / no demand-side response required in an average / mild winter
 - ◆ Sufficient gas to maintain supplies to NDM market in a 1 in 50 cold winter, but significant demand-side response likely to be required from DM customers in these circumstances
- ◆ Information available throughout the winter via our website www.nationalgrid.com/uk/