

# Winter 2006/07 Consultation Report

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27 September 2006

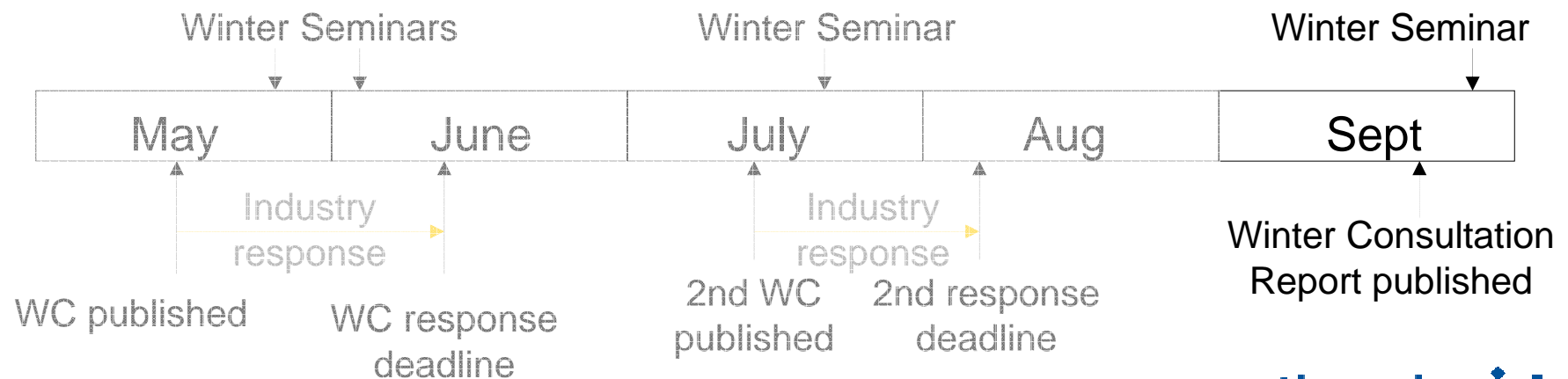
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# Winter Consultation process

- ◆ National Grid's information necessarily incomplete; **industry feedback crucial**
  - ◆ 35 market participants submitted written responses
  - ◆ Ofgem winter seminars
  - ◆ Bilateral meetings



# Market overview

## Gas demand forecasts

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- ◆ 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

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

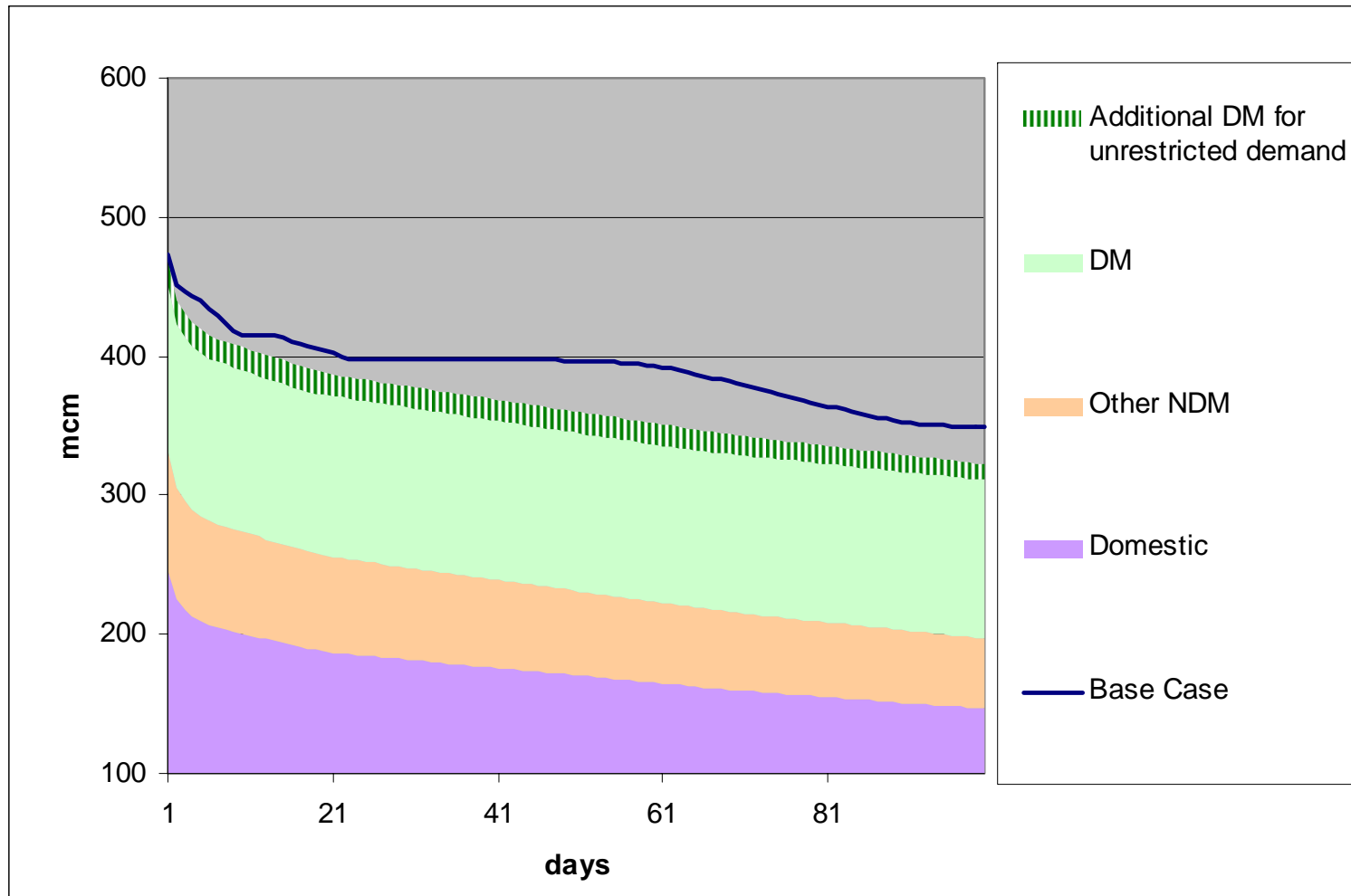
## Electricity background

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- ◆ 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

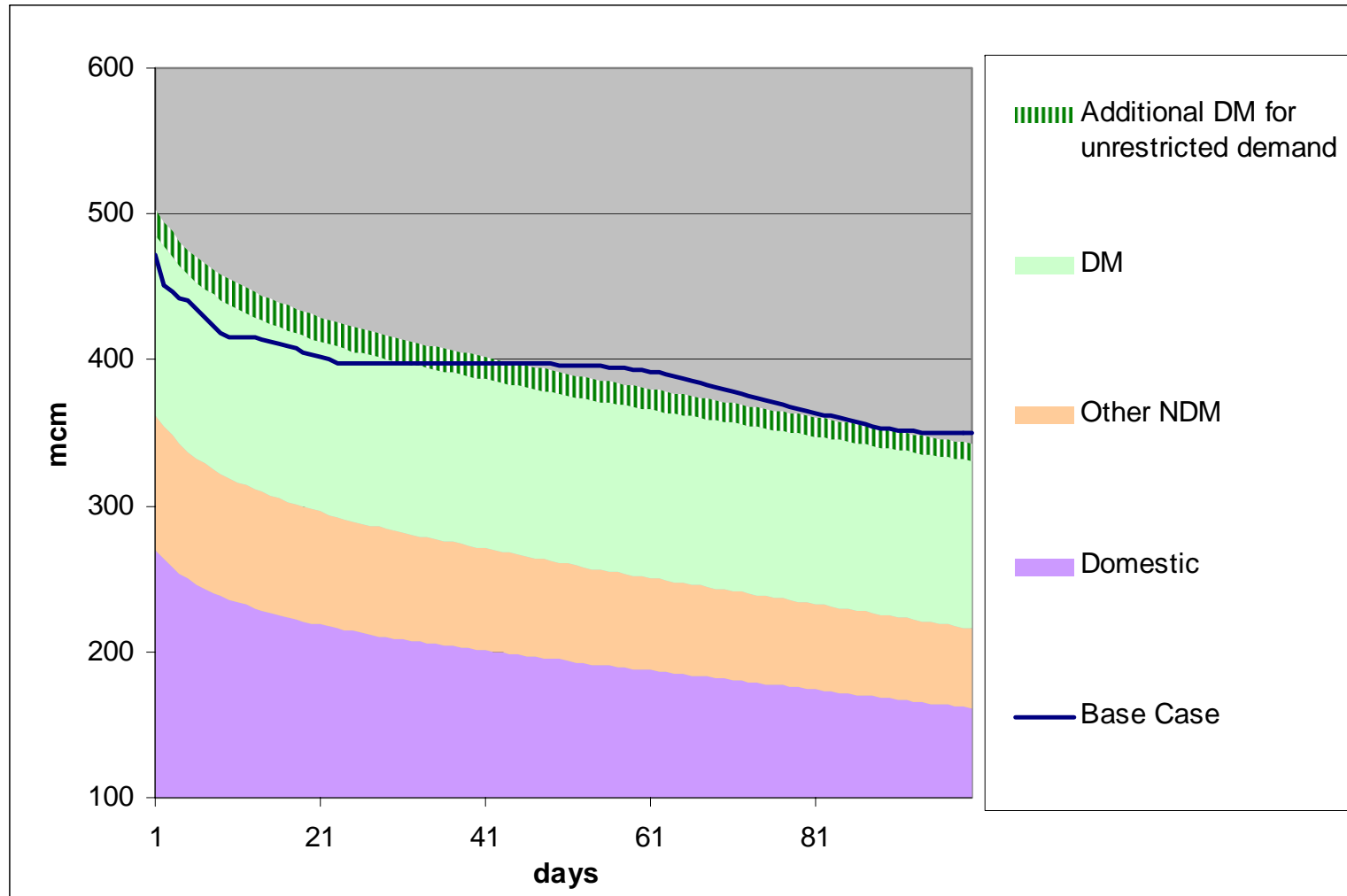
# Illustrative supply-demand position

## Average load duration curve for winter 2006/07



# Illustrative supply-demand position

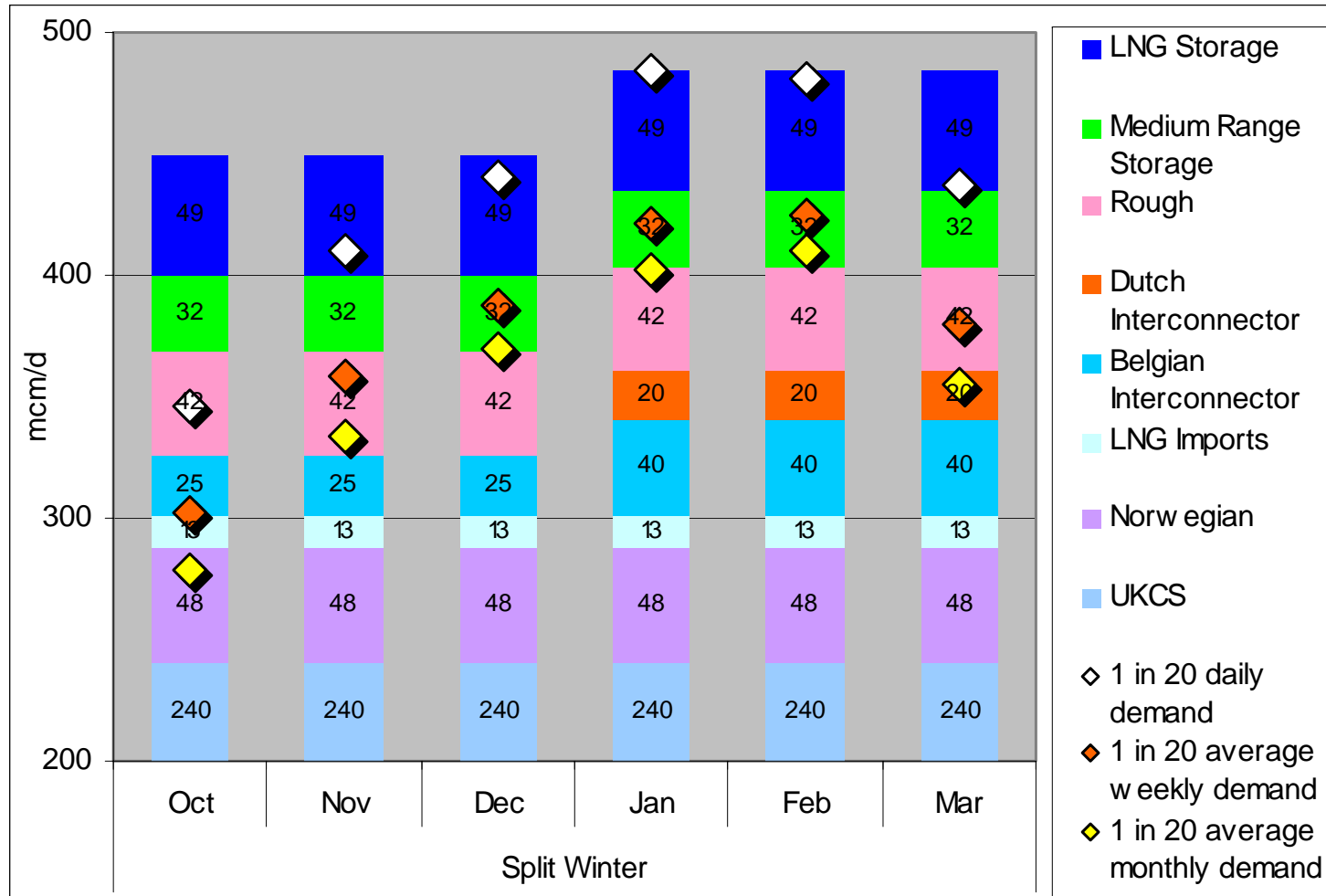
## 1 in 10 cold load duration curve for winter 2006/07





# Illustrative supply-demand position

## Monthly cold spell analysis



# Demand response requirements

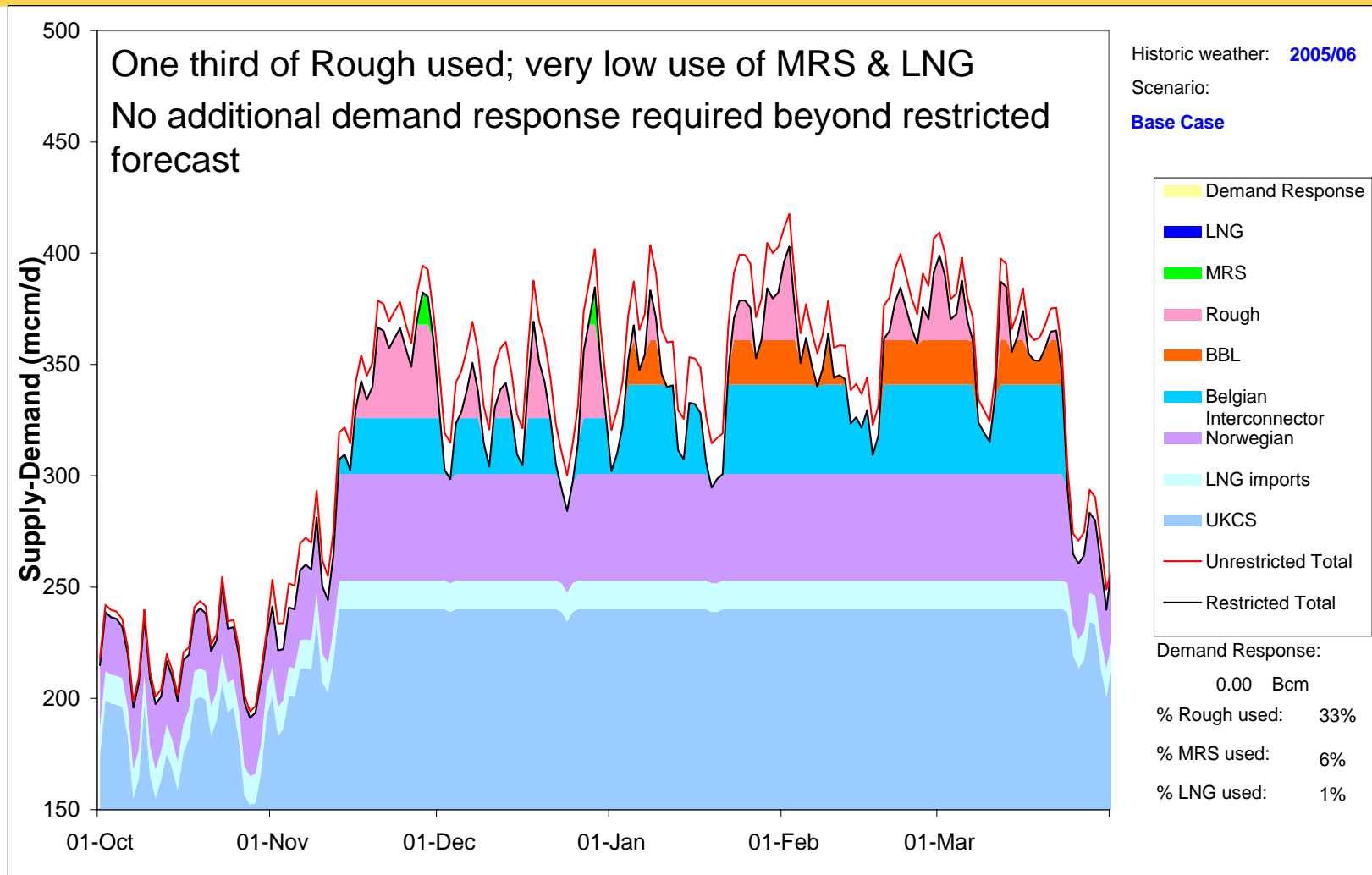
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	Average	1 in 10 cold	1 in 50 cold
<b>Base case: total demand response required (restricted)</b>	<b>0.0</b>	<b>0.4</b>	<b>1.3</b>
<b>Base case: total demand response required (unrestricted)</b>	<b>0.0</b>	<b>1.0</b>	<b>2.4</b>

All figures in bcm

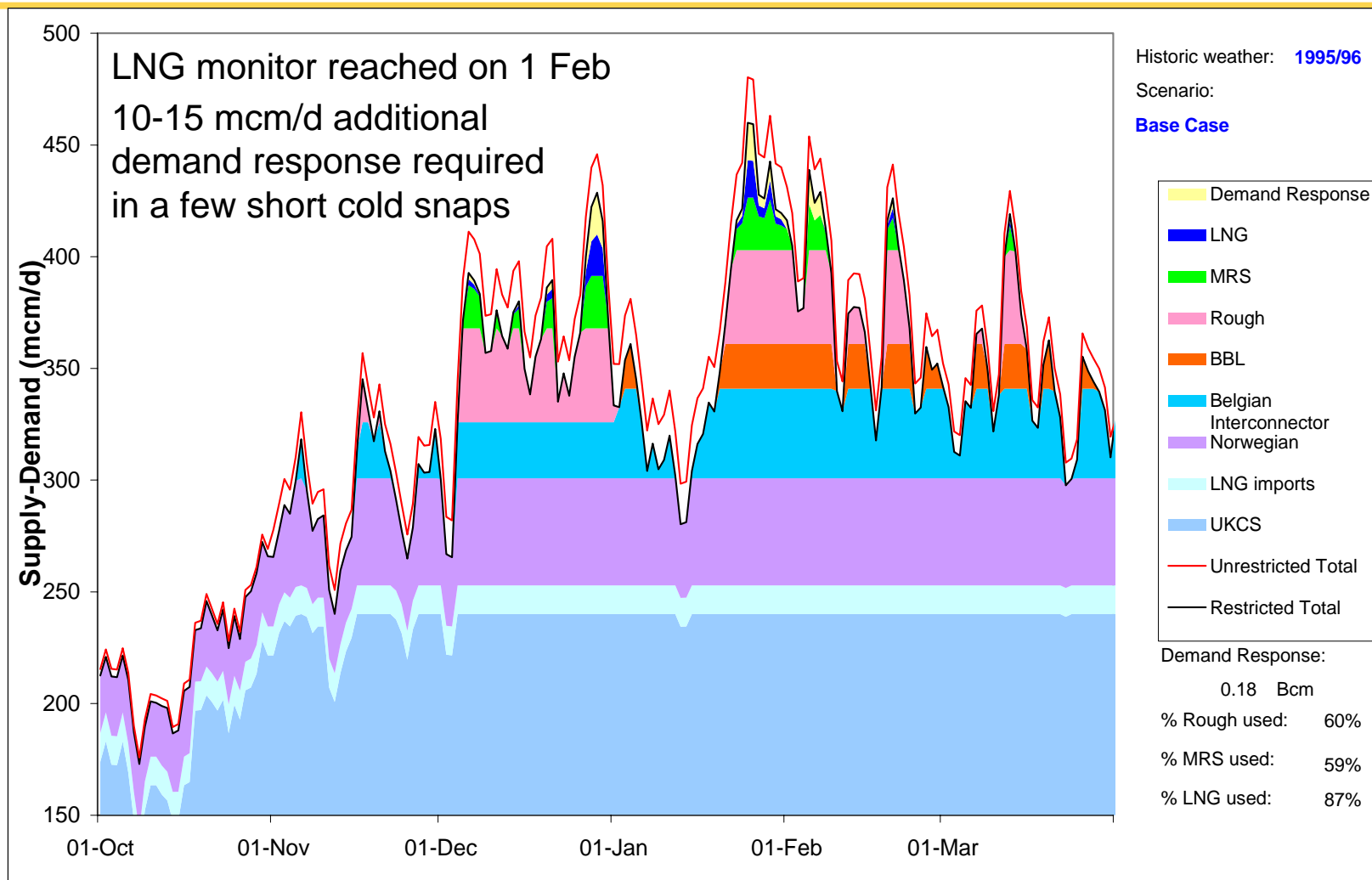
# Winter simulation analysis

## If the weather is like it was in 2005/06



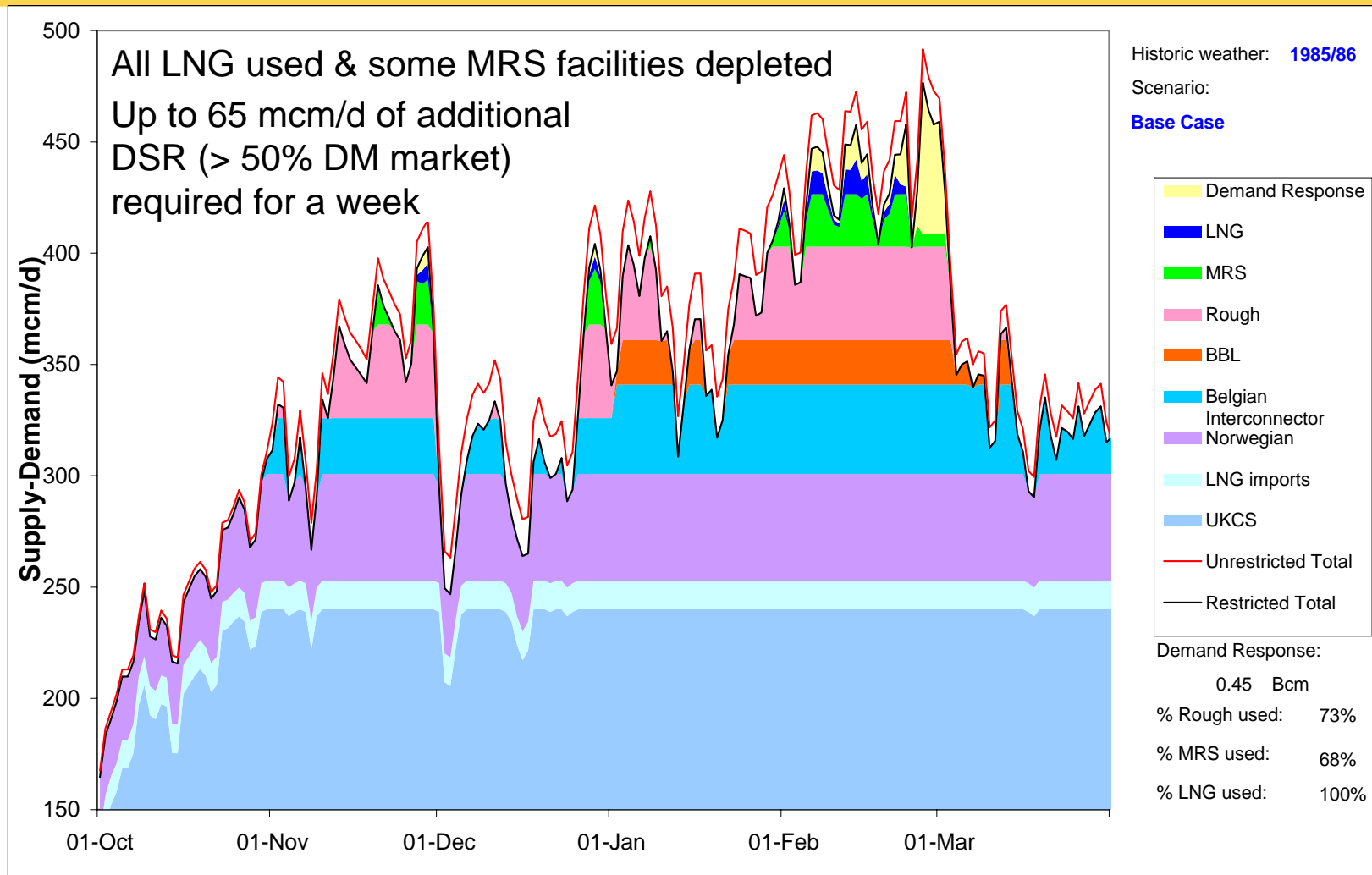
# Winter simulation analysis

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



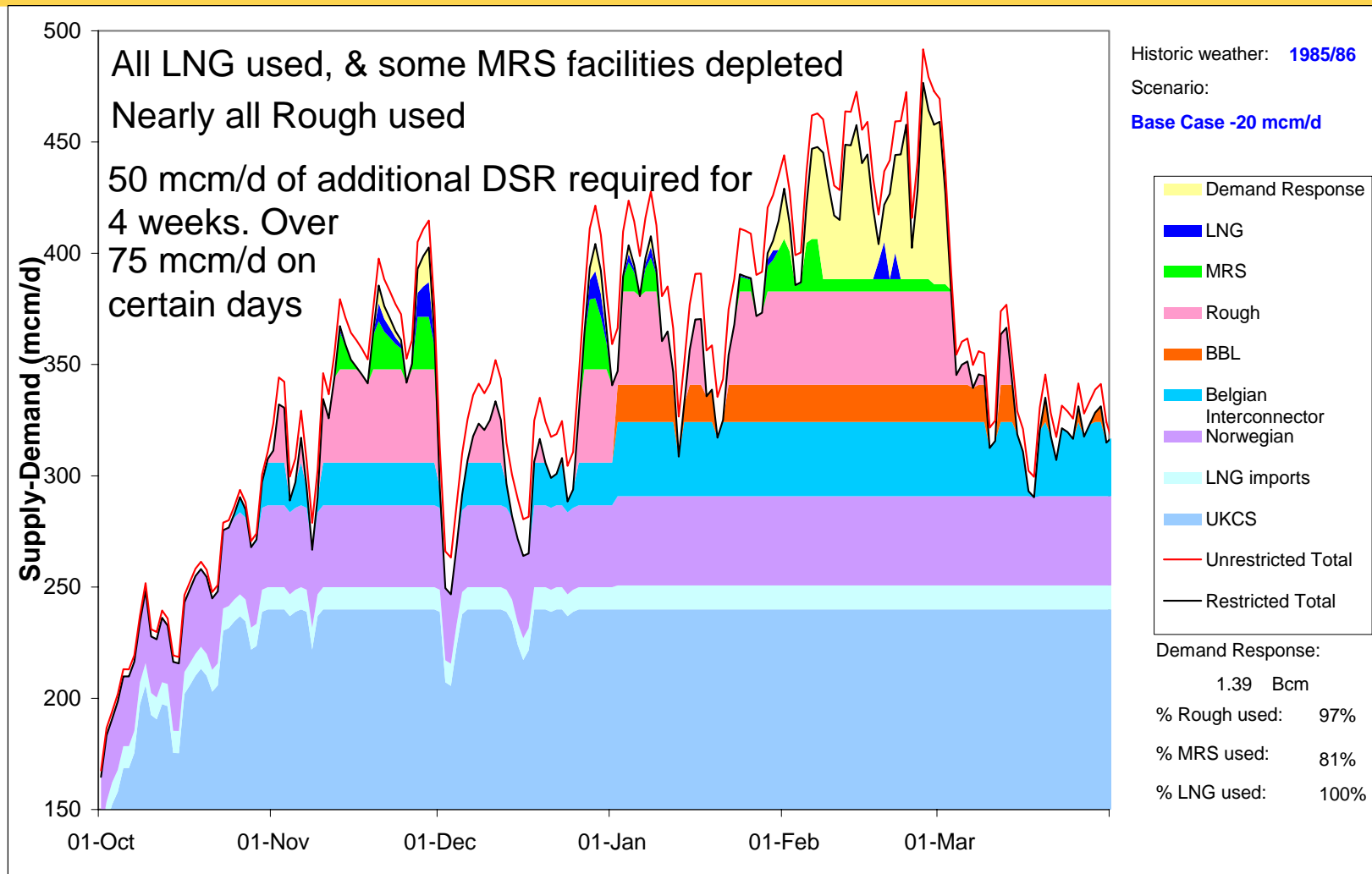
# Winter simulation analysis

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



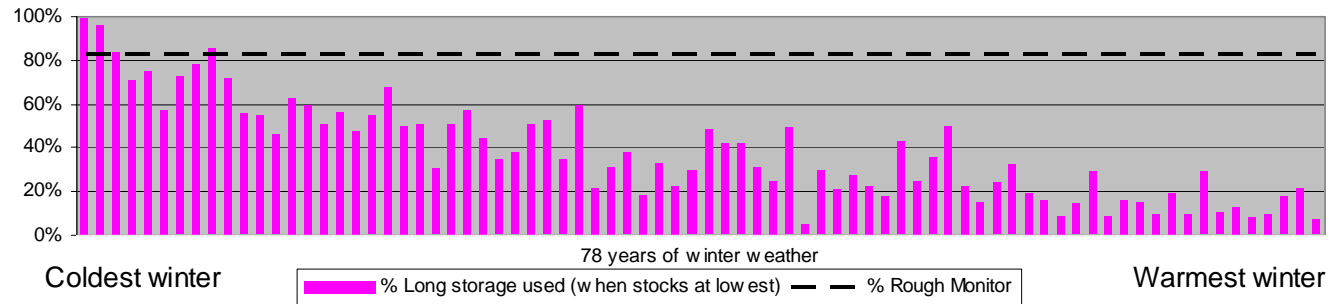
# Winter simulation analysis

## 1985/86 with 20 mcm/d less supply

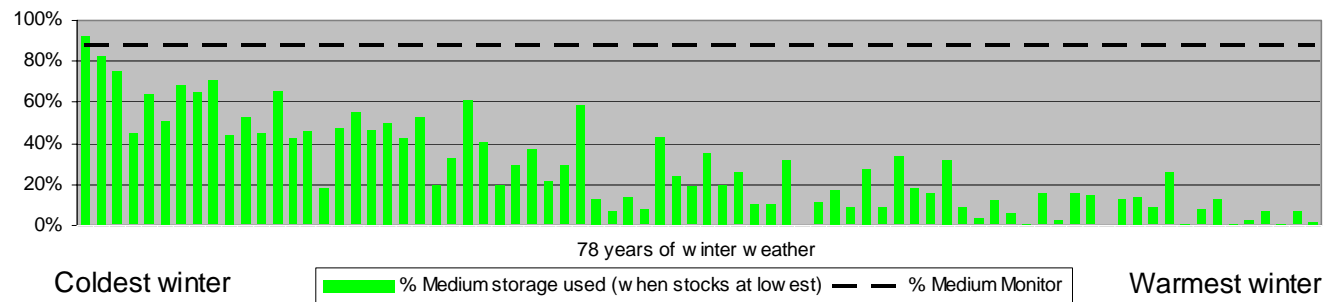


# Winter simulation analysis

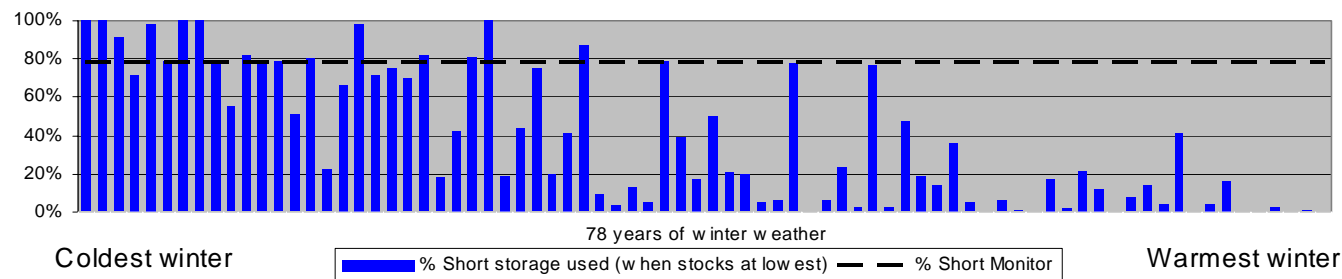
## Gas storage



LRS  
(i.e. Rough)



MRS

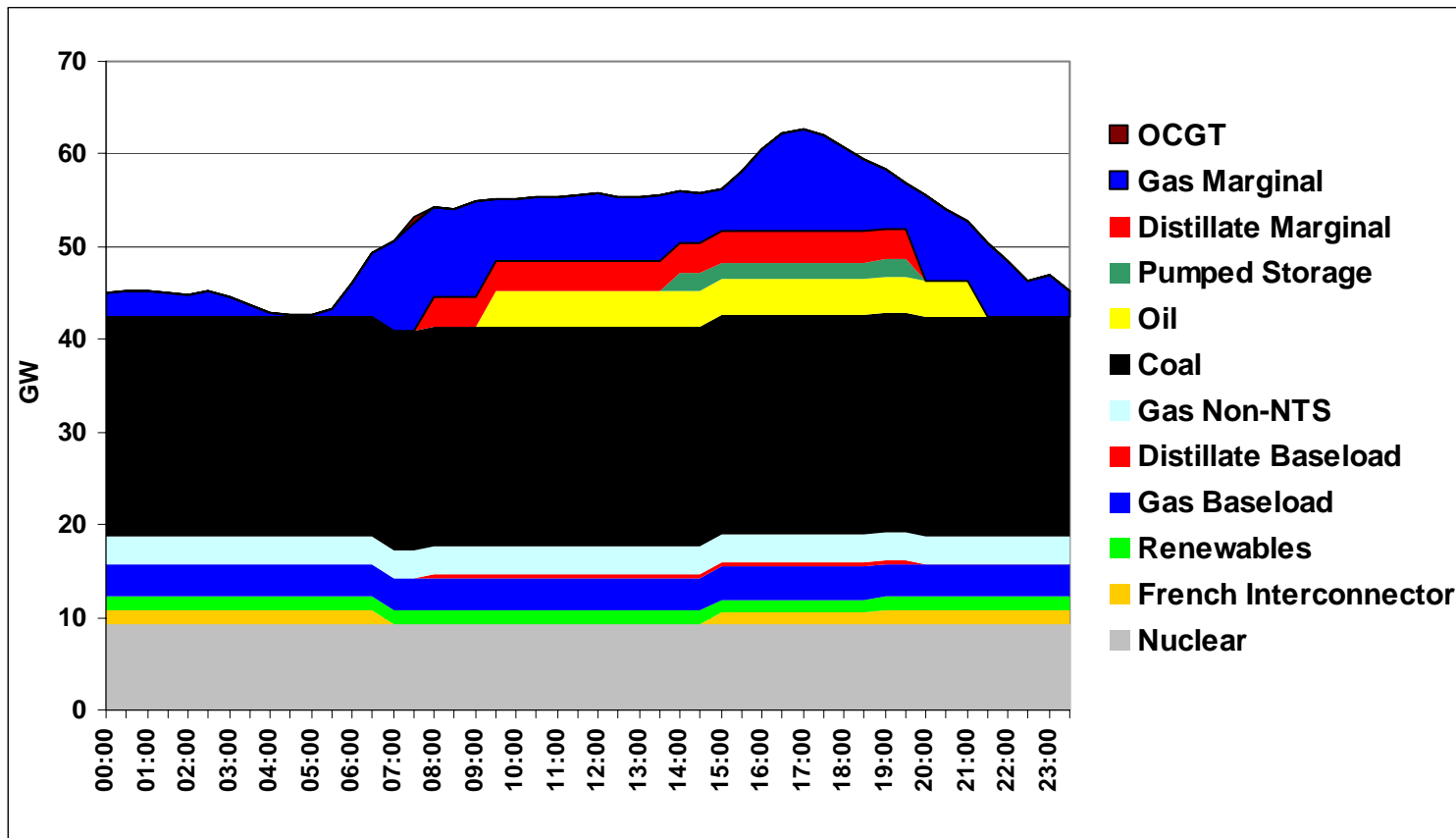


SRS  
(i.e. LNG)

# Interaction between gas & electricity markets

## Simulated generation profile

- ◆ Modelling assumptions & assumed availabilities revised based on consultation responses & further analysis





# Interaction between gas & electricity markets

## Potential CCGT contribution to demand response requirements

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

	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

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- ◆ 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

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- ◆ 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
- ◆ Information available throughout the winter via our website