

Storage Monitors - Winter 2007 / 2008

Update for Ops Forum November 2007

Monitor Determination

- ◆ Monitors are calculated from assumptions of daily supply and demand potential:
 - ◆ Demand: 1 in 50 load duration curve
 - ◆ Supply: potential maximum 'baseload' supplies plus storage stock duration & daily deliverability
- ◆ NG's assumptions of supply & demand are made using the 'winter consultation' outputs, then validated and reassessed throughout the course of the winter...

... requirements for winter 07/8 were published 27th September

....updates monthly to this forum and the [daily report]

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November Update

- ◆ Our estimates of Norwegian flows suggest they have on occasion exceeded 90mcm/day.
- ◆ BBL flows have also exceeded forecast.
- ◆ IUK imports have been modest in line with the levels of demand we have experienced to date.
- ◆ Press reports indicate that LNG through Dragon are due in 2008 rather than Q4 2007.
 - ◆ To remain prudent we are excluding 20mcm/d from our Winter supply assessment.
- ◆ Winter supply assessment remains the same with the exception of a reduction in LNG imports of 20mcm/d. As this is accounted for in the use of the supply risk allowance the safety monitor levels remain unchanged.

Further information

'Safety Monitor Update – November 2007'

...can be found at

<http://www.nationalgrid.com/uk/Gas/Data/News/>

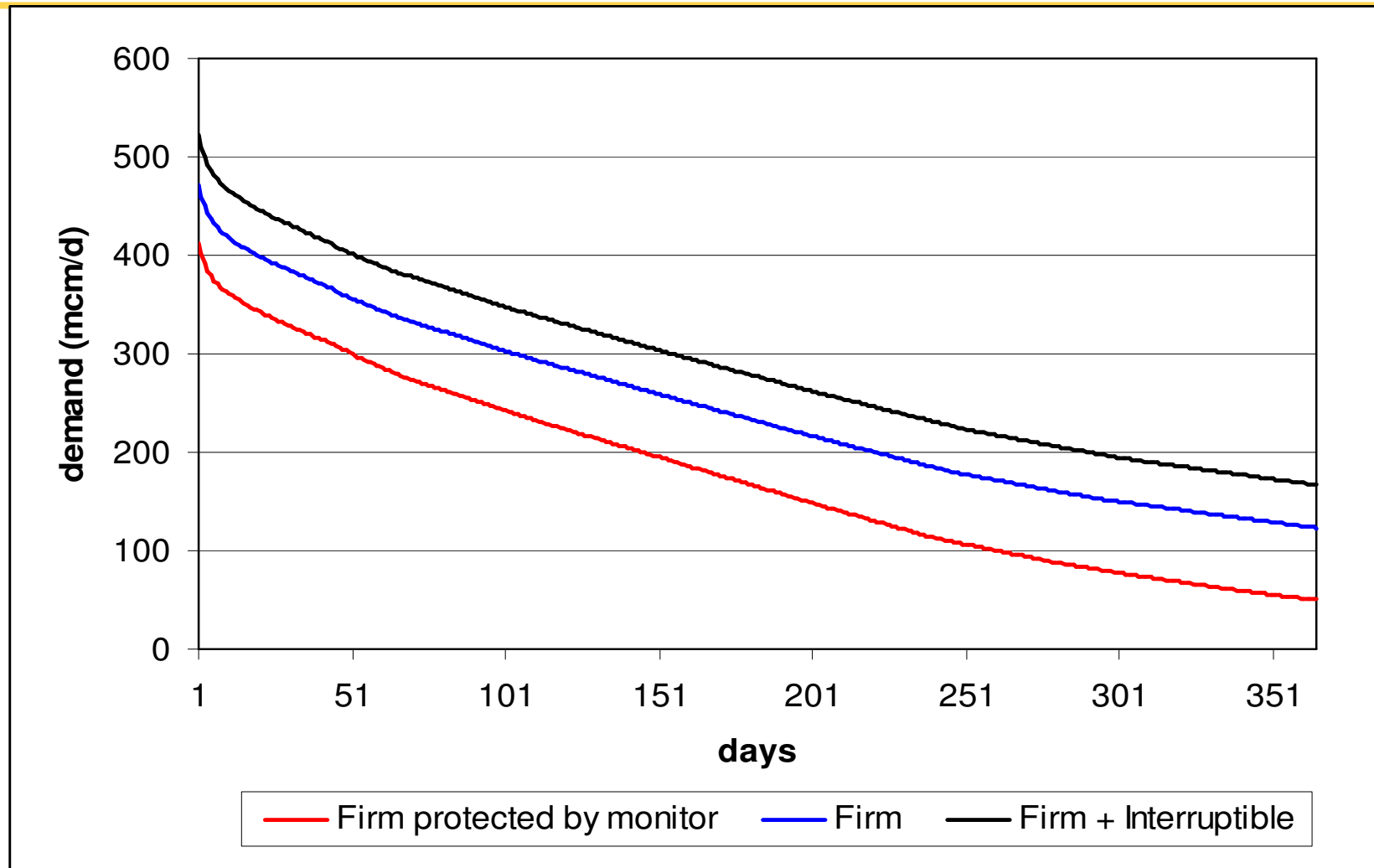
Background

- ◆ Storage Monitors were introduced in 2004 replacing the original '96 based 'Top Up' regime
- ◆ Two Monitors exist:
- ◆ Mandatory:
 - ◆ Safety monitors define the level of storage that must be reserved for a 1 in 50 winter to maintain safe control of operations
 - ◆ Those consumers who can't be safely and timely isolated from the relevant transporters network -'protected by isolation'
- ◆ Optional:
 - ◆ Firm gas monitors represent the storage levels required to support all firm demand
 - ◆ All firm consumers for whom transportation capacity is physically available.

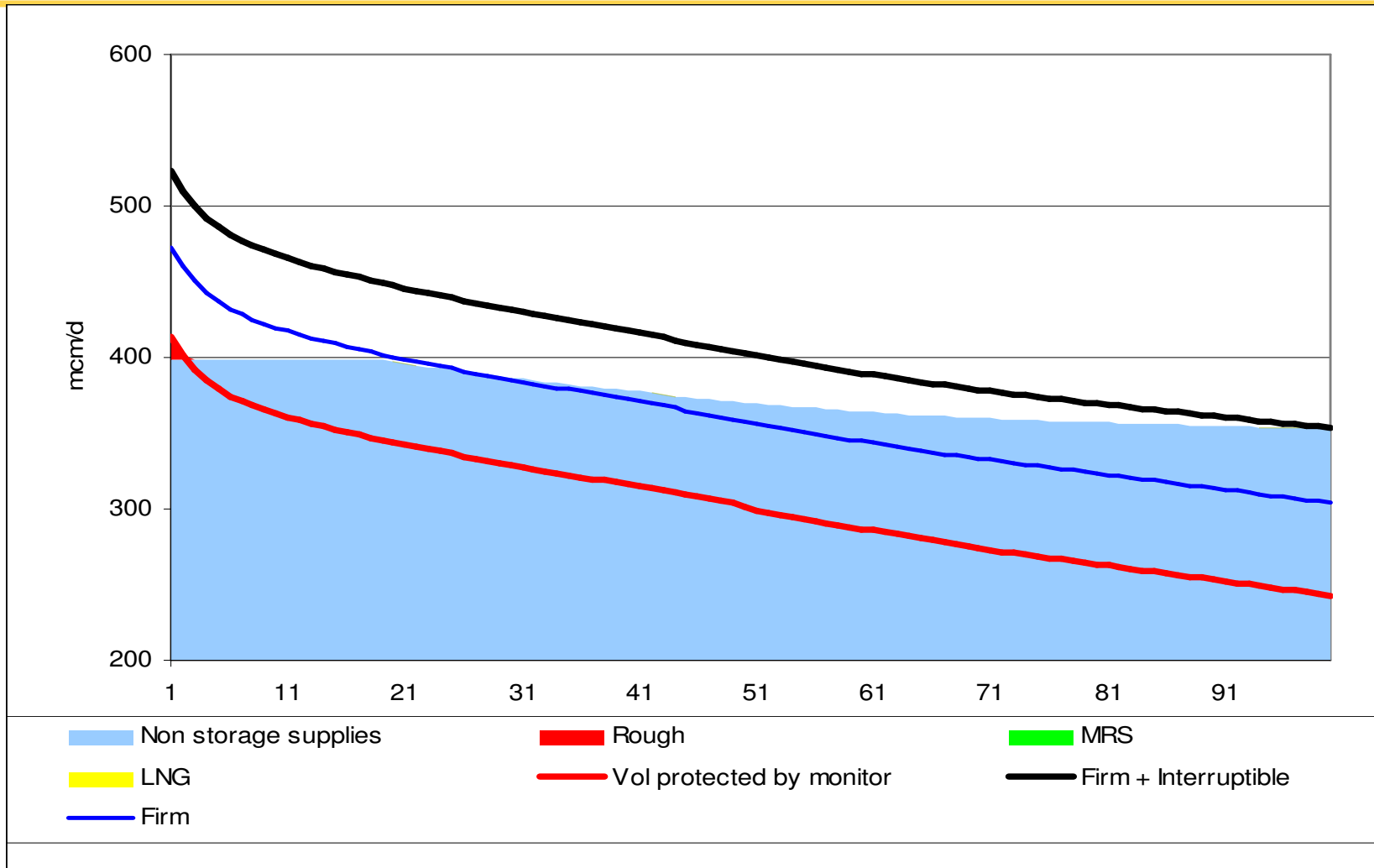
Safety Monitors

- ◆ Designed to ensure public safety not provide security of supply to firm consumers.
- ◆ Ensure transporters (NTS & DNs) can maintain safe control of operations by limiting 1 in 50 demands to the supply envisaged to be available
 - ◆ Protect consumers by isolation
 - ◆ Protect consumers by 'reserving' stored supply
- ◆ Monitors are detailed in NG Safety Cases and agreed with HSE
- ◆ The Monitor regime was reviewed through UNC review groups during 2006 – no change occurred

1 in 50 Load Duration



1 in 50 Load Duration V's supply = monitor



Initial Safety Monitor Requirement 07/08

Storage Type	Assumed Storage Capacity ¹ (GWh)	Space Requirement (GWh)	Space Requirement (%)
Long duration (Rough)	35,295	530	1.5%
Medium duration (MRS)	8,233	0	-
Short duration (LNG)	1,939	0	-
Total	45,467	530	1.2%

¹ Excludes OM & SIU stocks

Monitor Trigger

- ◆ Storage stocks checked daily against monitor levels.
- ◆ Gas Balancing Alert:
 - ◆ supplies adjusted for ‘unreserved’ storage, or that able to flow without compromising safety monitors
- ◆ GS(M)R Stage 1 Emergency
 - ◆ Countering storage withdrawals that would otherwise compromise the ‘Gas reserve’