

Operational Performance

12 October 2005

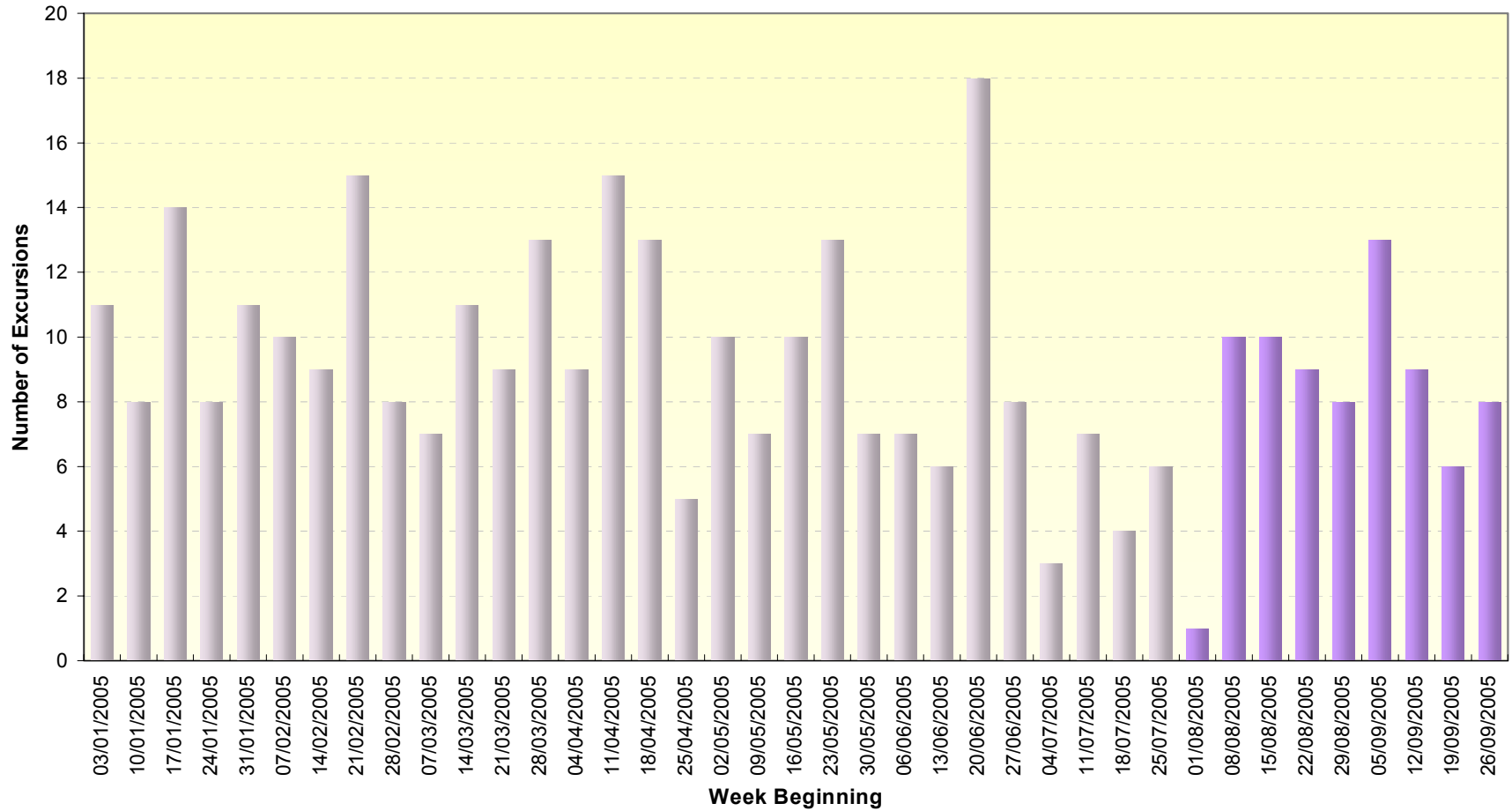
Richard Price

Operations and Trading

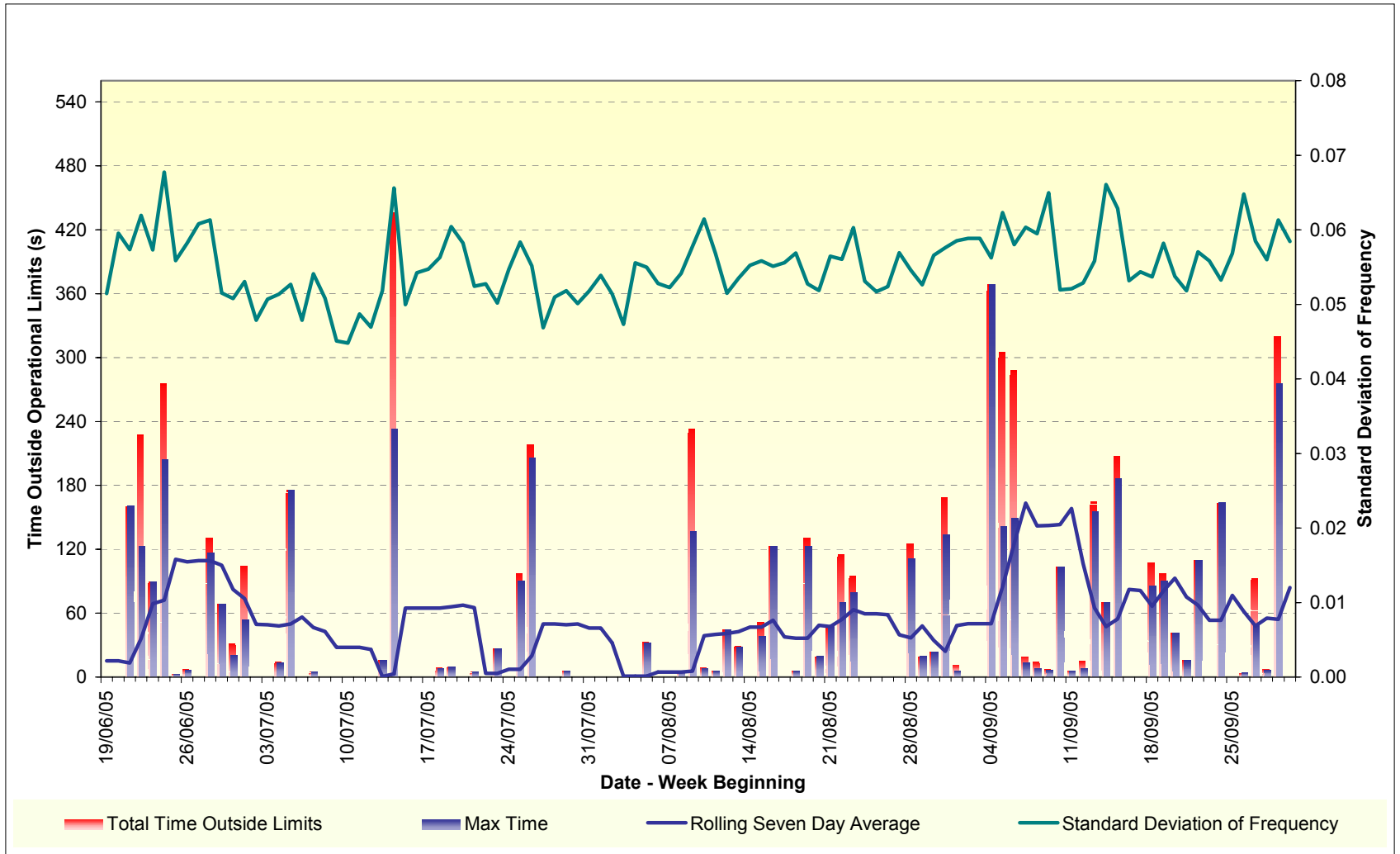
Agenda

- ◆ Frequency Performance
- ◆ Other Operational Performance
- ◆ Generator Performance
- ◆ Reactive despatch monitoring
- ◆ Events: Partial Eclipse, JET pulses
- ◆ BPS beyond the wall issues
- ◆ August livemeeting feedback

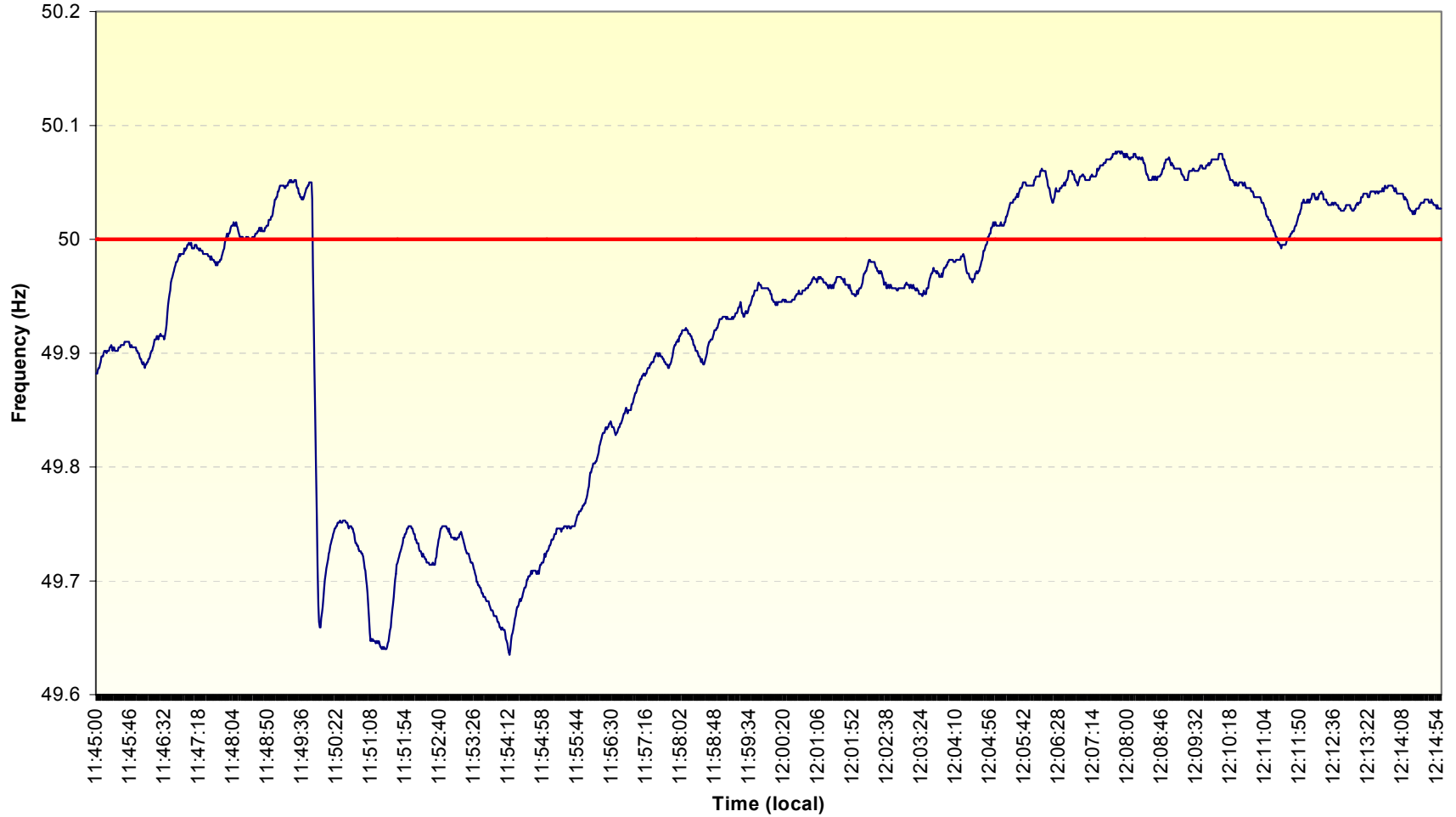
Frequency Performance Weekly Excursions



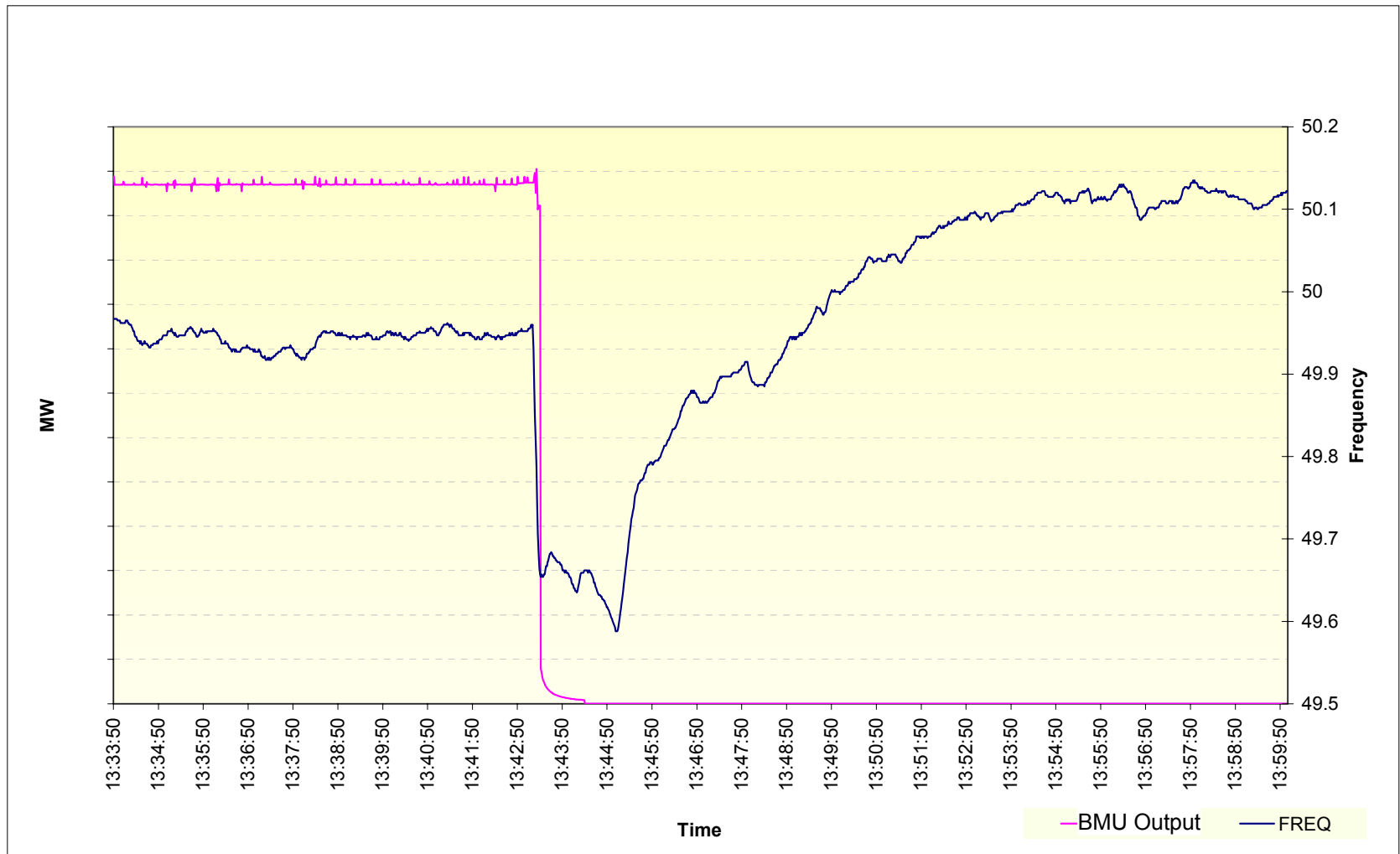
Daily Frequency Performance



Frequency after generation loss - 4 September



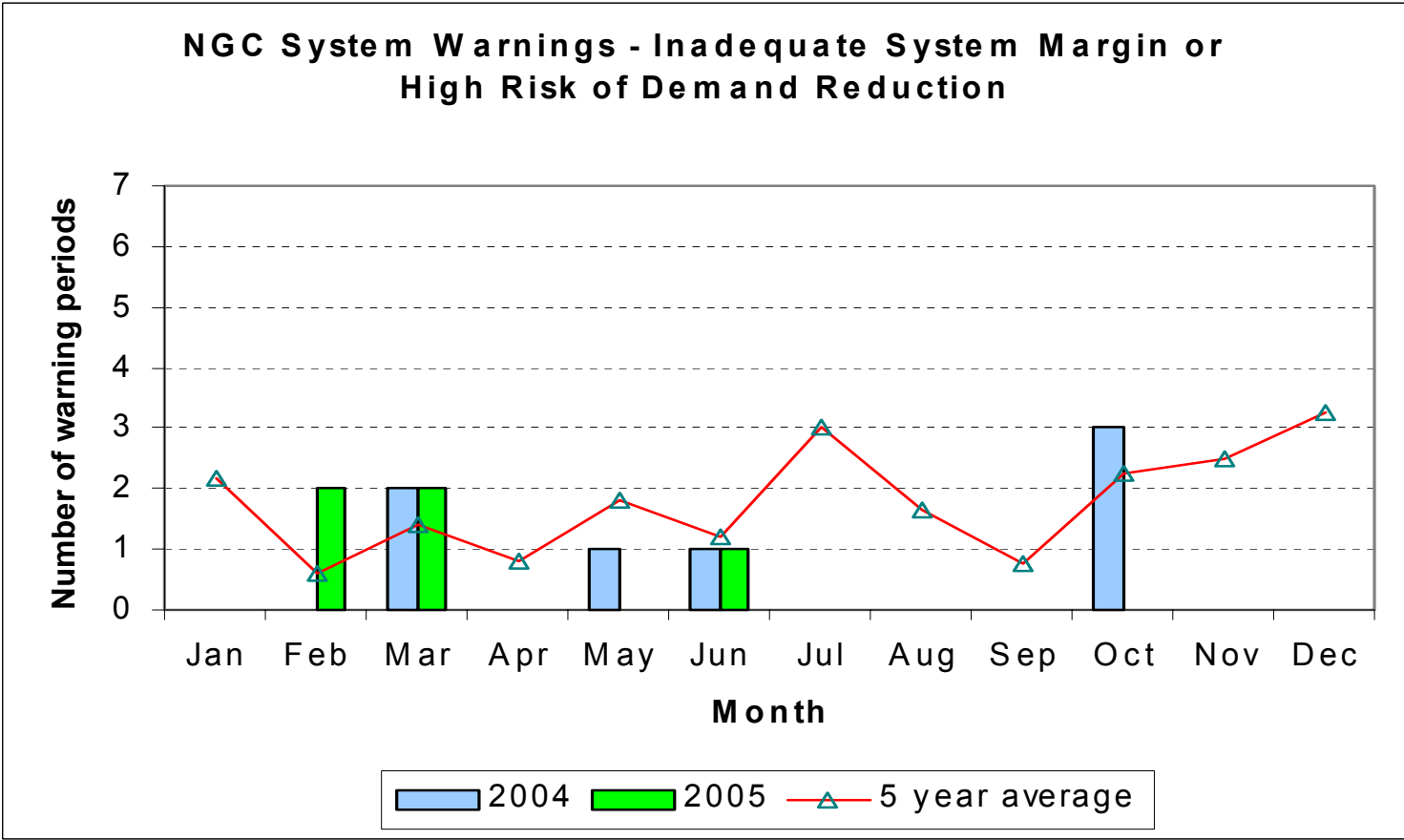
Frequency after generation loss - 4 October



Other Operational Performance

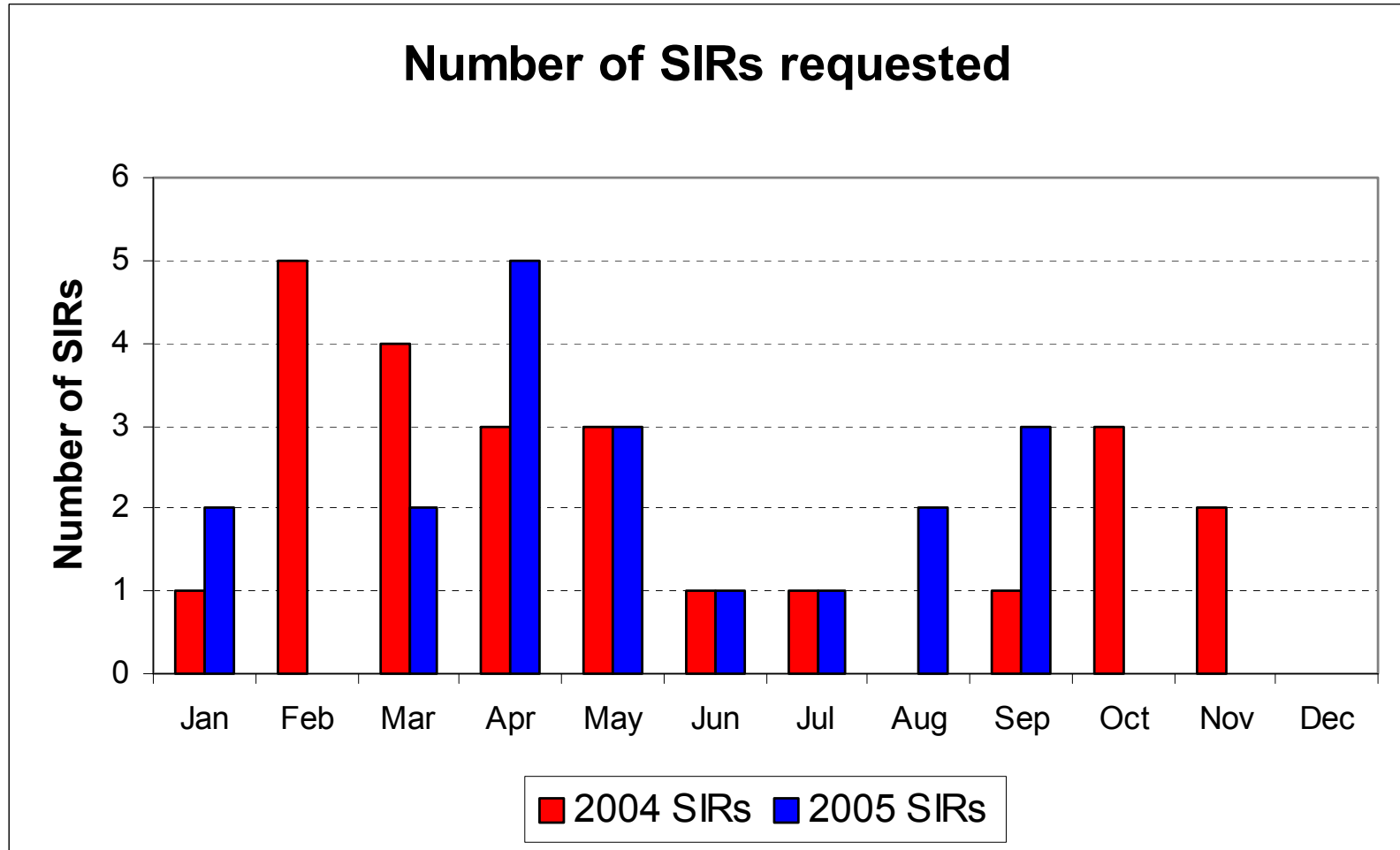
- ◆ Two SIRs in August, three in September, none in October so far.
- ◆ 19 so far in 2005 - same as 2004 up to end of September.
- ◆ 12 PGBTs agreed since last forum. 2 in August (both Buys) and 10 in September (all Sells). All 12 were agreed for system reasons (BSAD="N").
- ◆ No System Warnings issued since the last Forum (previous one was 29 June).

System Warnings



Generator Performance

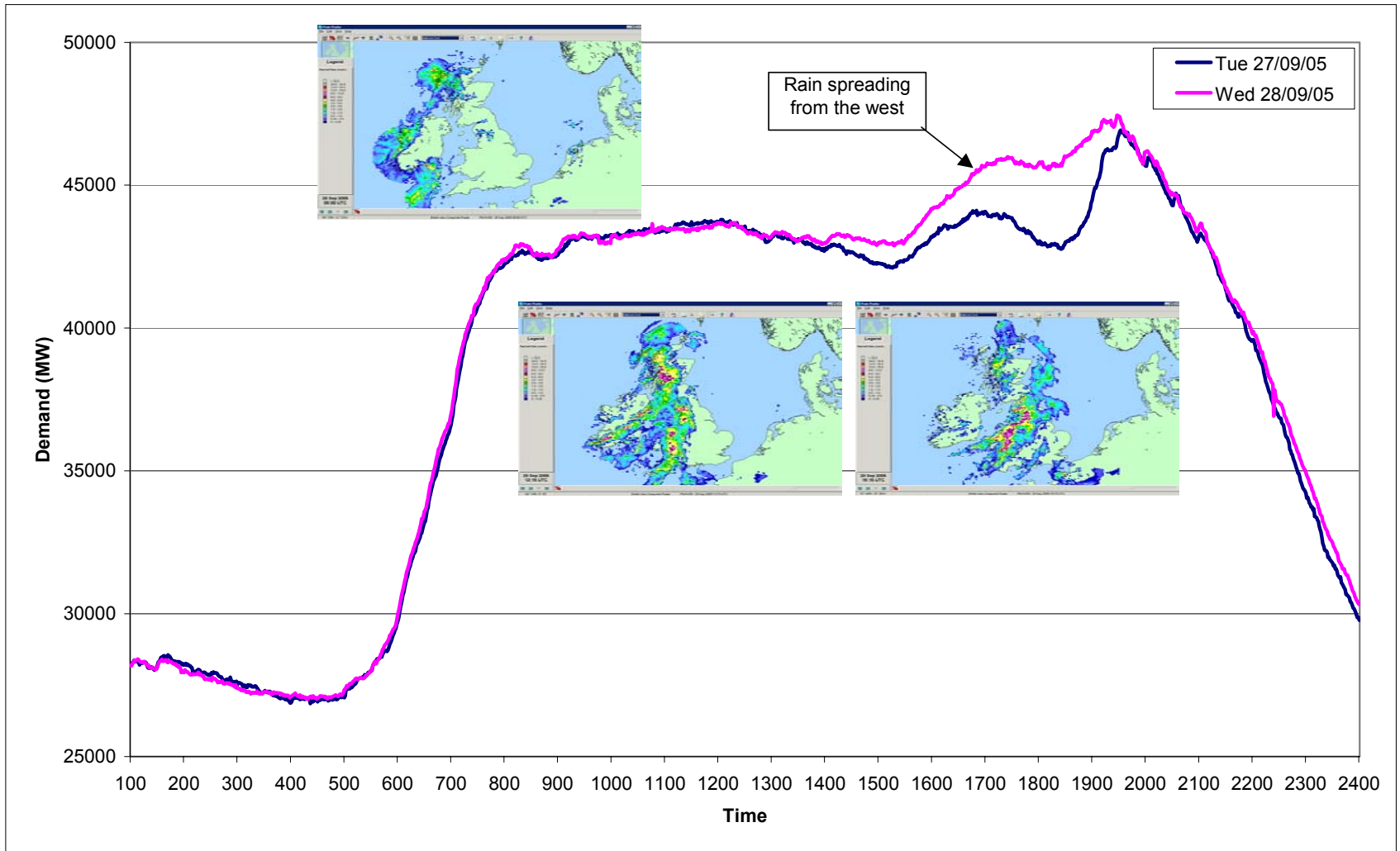
SIR performance



Reactive Power Monitoring

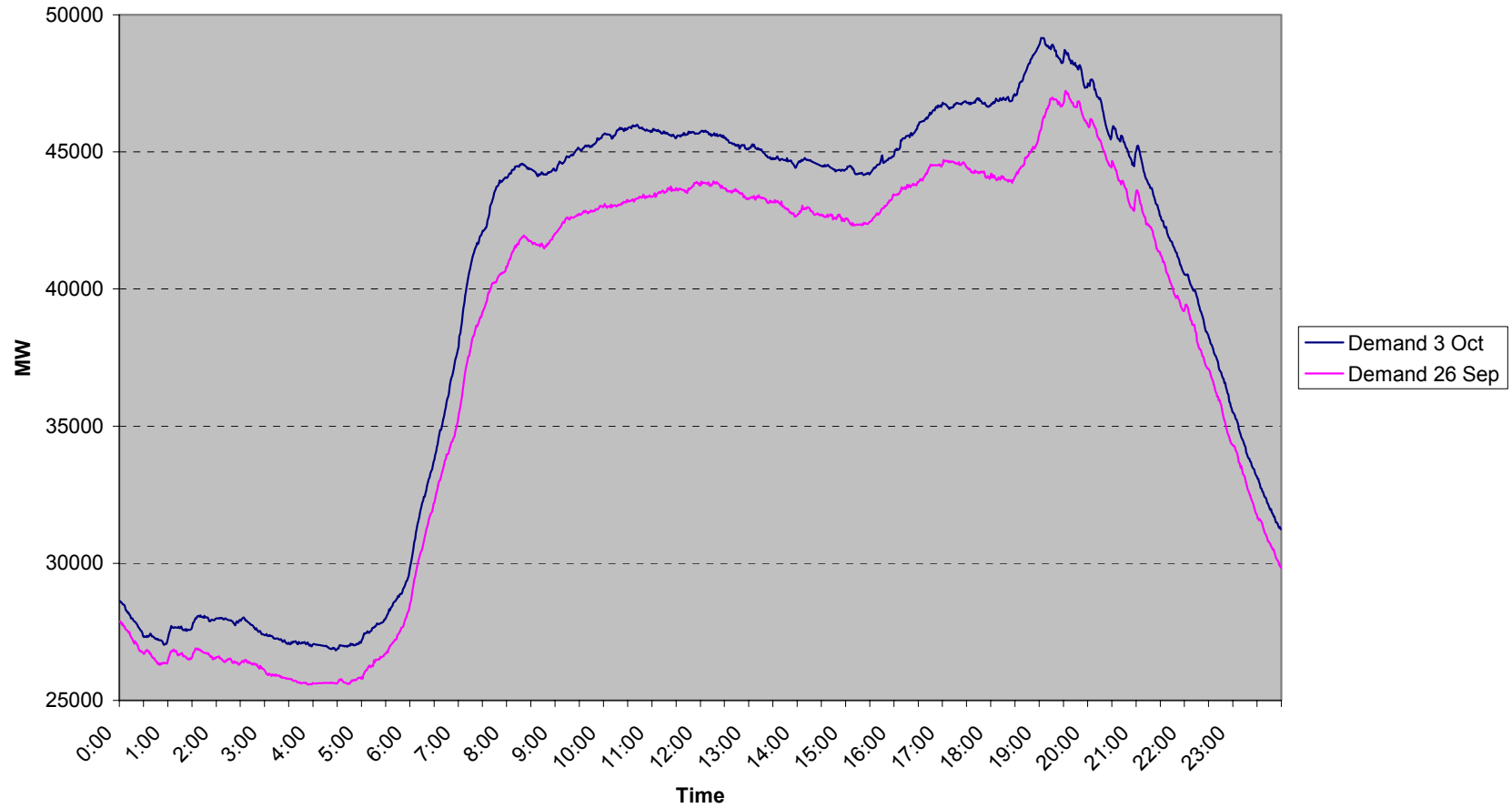
- ◆ Accurate compliance with reactive despatch instructions is important to help us manage the system voltage profile and hence ensure security of supply.
- ◆ In April 2005 we started reviewing delivery on reactive despatch instructions.
- ◆ Initial indications suggest that a number of instructions result in non-compliant delivery.
- ◆ Investigations are ongoing and our intention is to approach individual providers by March 2006 to discuss specific issues.

Demand shape changes with illumination

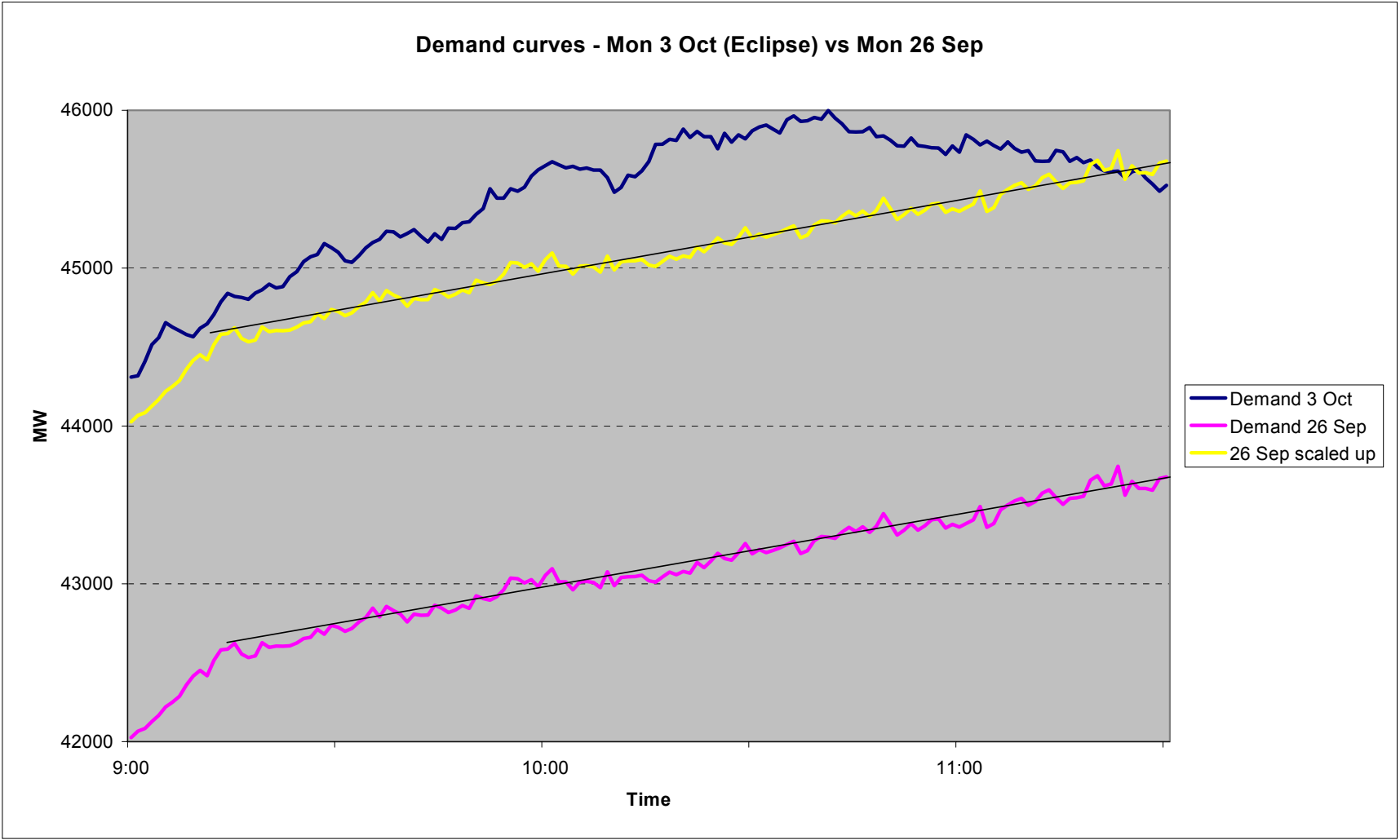


Partial Eclipse - Mon 3 Oct

Demand curves - Mon 3 Oct (Eclipse) vs Mon 26 Sep



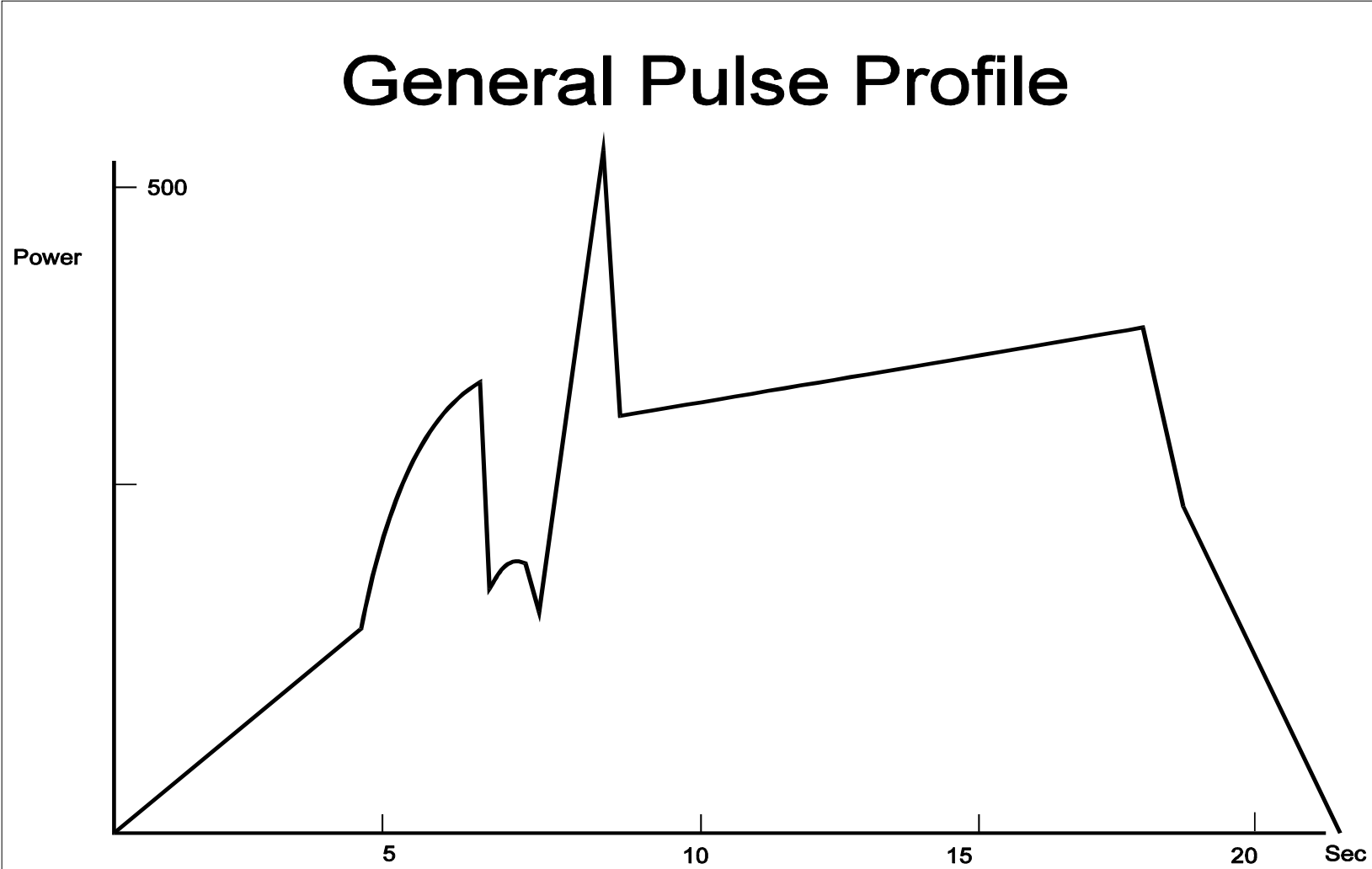
Morning period



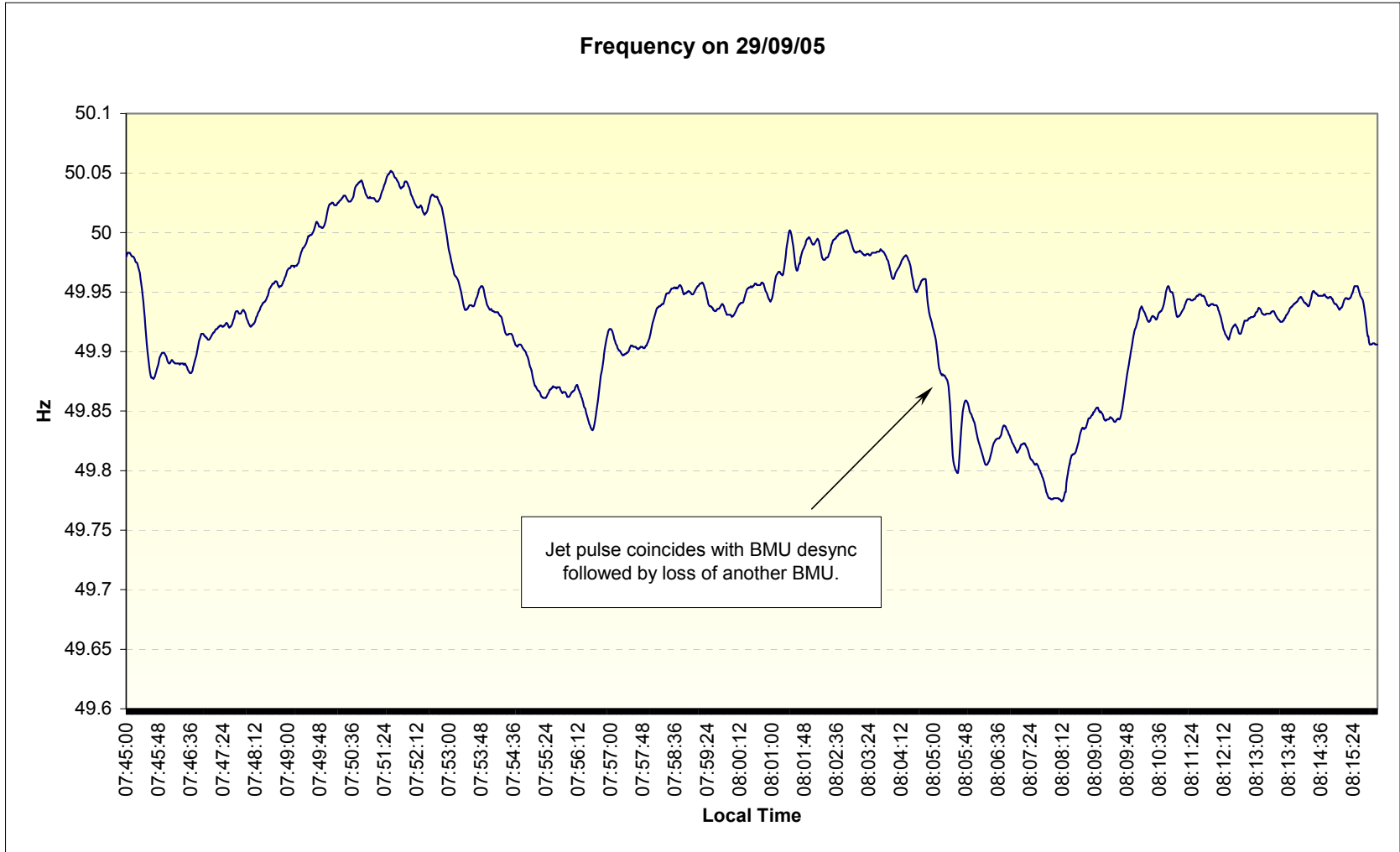
Culham JET Pulses

- ◆ The **Joint European Torus (JET)** is the world's largest nuclear fusion research facility.
- ◆ It is situated at Culham near Didcot, Oxfordshire and is run as a collaboration between all European fusion organisations and with the participation of scientists from around the globe.
- ◆ As part of the experiments carried out, demand “pulses” are taken from the grid of up to 575MW at a time.
- ◆ Pulses can be inhibited by NG in specific circumstances e.g. During System Warning periods, TV pickup periods, emergency conditions (Low Freq, system disruption), and light load periods.
- ◆ Occasionally, JET may pulse during a TV pickup or coincident with a generation loss.
- ◆ This can cause an unexpected low frequency excursion.

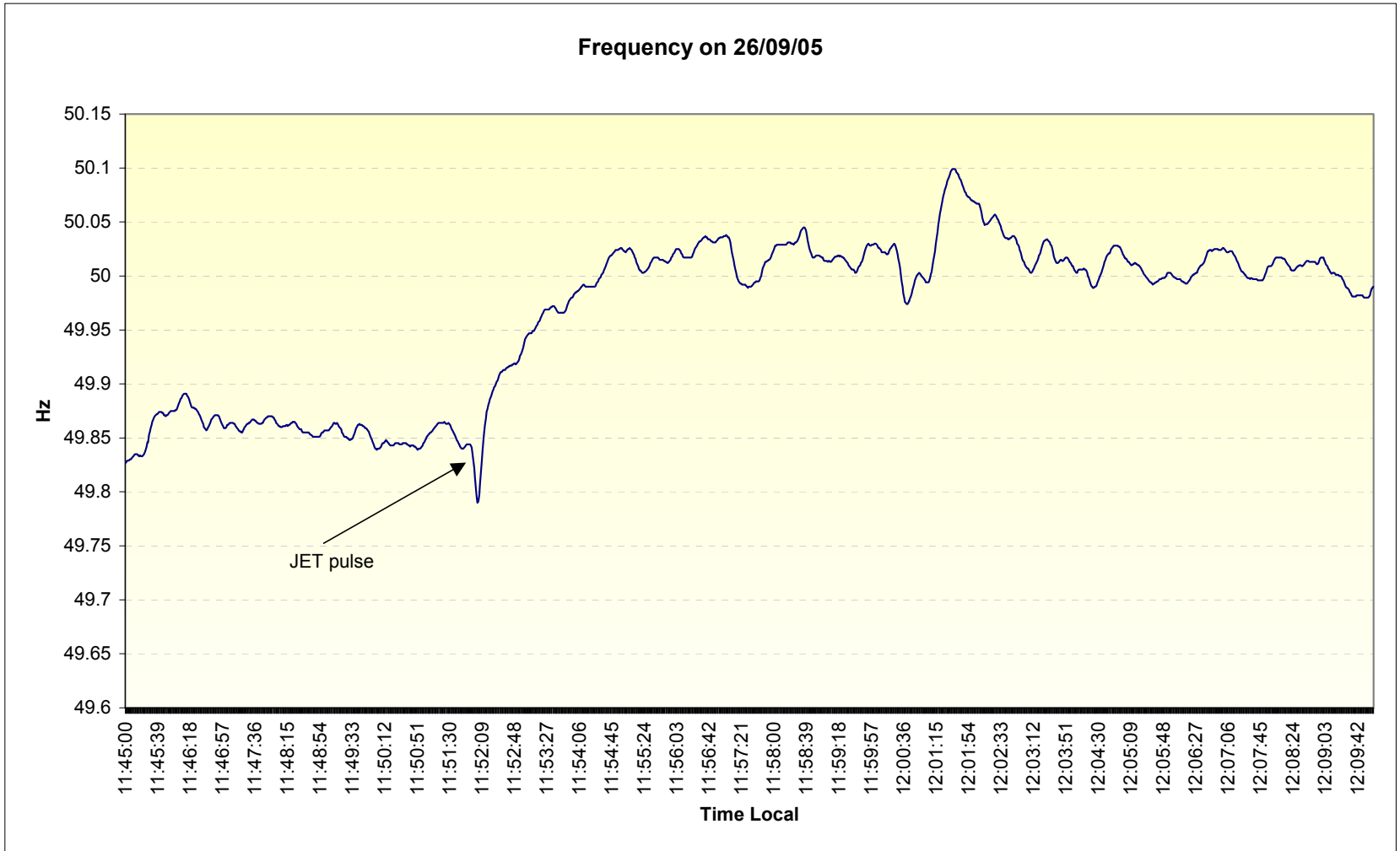
JET pulse



Effect of JET pulse on frequency



Trace for 26 Sep



BPS - Beyond the Wall

- ◆ BPS section 8 covers situations where BOAs need to be taken beyond the end of the current BM window (the wall).
- ◆ Our intention to take such a BOA is normally communicated to the relevant party. The choice of BOA will be based on the latest submitted dynamic and price data.
- ◆ It is assumed that this data will remain as submitted for all anticipated BOA timescales.
- ◆ Normally subsequent BOAs will return a BMU to its PN position in line with the submitted dynamics.
- ◆ Recently, there have been a few occasions where prices have changed after the initial BOA has been issued.
- ◆ We reserve the right not to issue further BOAs to return to PN if relevant data changes beyond the wall.

Livemeeting feedback

- ◆ **Around 50 people participated in the first Livemeeting interim forum on 3 August.**
- ◆ **Generally very positive feedback received and worthwhile savings in participants' travelling and time. Estimate 4000 miles saved.**
- ◆ **Some useful learning points for December:**
 - ◆ Sound quality needs to be improved for presenters - we are addressing this and we will use radio microphones next time.
 - ◆ Some individual IT issues; these were only reported by one or two participants and we believe they relate to specific IT setups.
 - ◆ Q+A session. Some participants were unsure whether the format discouraged participation. Difficult to be sure, because the interim forum was not designed to have a full Q+A session like the full day forum and we wouldn't necessarily expect so many questions.
- ◆ **Overall, the feedback indicated that people were supportive of this approach. The intention is therefore to continue with the livemeetings for interim forums (Dec 05 & Apr/Aug/Dec 06).**

Summary

- ◆ Continuing good frequency and BMU performance since last forum
- ◆ Reactive despatch concerns
- ◆ Effect of JET pulses on frequency
- ◆ Some issues relating to Beyond the Wall BOAs
- ◆ Another livemeeting on 7 December

Any questions?