

System Flexibility Workshop - 24th June 2009

Ofgem, Millbank, London

National Grid NTS Meeting Notes

Introduction

The purpose of this note is to provide National Grid NTS' view of the discussion held at the above meeting, summarise the feedback received from industry and clarify the areas agreed for further investigation.

Feedback on these meeting notes and the areas to be investigated would be welcome. Please direct comments to Phil Hobbins – philip.hobbins@uk.ngrid.com, tel: 01926 653432.

Main Messages

The meeting recognised that:

- A range of factors have the potential to generate a requirement for investment in the NTS to accommodate greater demands for flexibility going forward. The meeting was supportive of National Grid NTS undertaking a process of data gathering and analysis of relevant indicators in order to investigate the issue, with an update back to industry in September;
- In the LNG case study, the Transporting Britain's Energy (TBE) forecast growth in LNG as a share of UK supplies does not necessarily equate with continued intermittent / variable LNG inputs experienced to date and may therefore not generate an increased requirement for system flexibility;
- Electricity market interaction case studies should include a scenario focused on a nearer term than 2020 (2015 suggested) that could be based on a view of installed wind generation informed by the current GB queue, in addition to the scenario presented which assumed that the Government's renewables targets will be met;
- More data was requested about how electricity wind scenarios map across to gas demand changes and how CCGT gas demand varies with output. (eg. to what extent is gas take required to keep turbines spinning even when operating at very low electricity generation levels). NB. We would particularly appreciate information in this area to help assess this aspect of CCGT behaviour;
- It would be useful to understand the frequency of use of the current system management tools;

- Residual balancing activity by National Grid NTS is a key indicator of the use of system flexibility, and attendees requested data to be provided on patterns of historical utilisation;
- Wherever possible, indicators should be tracked historically since 2002/3 (when Review Group 0513 investigated the gas balancing regime) and where possible look forward as far as 2015;
- Ability to manage flexibility requirements within-day is of most concern for National Grid NTS, however, 'day on day' variability can also present operational challenges, for example if flow direction change through network compression facilities was required. In either case, accurate and timely information is one of the most important factors for National Grid NTS in managing system operation and scheduling plant;
- From a diurnal perspective it would be useful to understand the amount of flexibility that is available in each zone and how much flexibility is being utilised;
- Ofgem intend to publish a consultation on system flexibility by mid July. Consultation questions have not yet been finalised but headline areas likely to be:
 - Adequacy of National Grid NTS current system management tools in the future
 - Seek views on the merits of additional information release by National Grid NTS for Winter 2009/10
 - Seek views on longer term issues and potential consequences for system flexibility;
- Shippers are not necessarily in a good position to challenge National Grid NTS' assertions regarding how the system might behave in certain circumstances;
- Poyry intend to release an abridged public version of their report into the implications of intermittency on the electricity system. Poyry are also interested in investigating the impacts of intermittent sources of electricity generation on the gas system.

Indicators to be Investigated

1. CCGT gas demand correlation with electricity output.
2. Relationship between electricity system demand and CCGT gas demand.
3. Wind generation patterns.
4. Frequency of residual balancing and capacity actions since 2003, including linkages to significant regime and operational changes over the period.
5. Gas supply variability, including a forward looking assessment out to 2015 with a particular focus on LNG inputs.
6. Gas demand variability.
7. Linepack usage:
 - for the system as a whole
 - by groups (eg. beach, storage, CCGTs, DNs).
8. DN flexibility bookings and usage.
9. Scenario of growth in wind generation to 2015 and its impact on gas demand. (based on current GB queue, renewables targets not necessarily met).
10. Potential future flexibility usage.