DEMAND ESTIMATION SUB COMMITTEE

Minutes

Wednesday 23 September 2009

31 Homer Road, Solihull, B91 3LT

Attendees

Bob Fletcher (Chair)	(BF)	Joint Office
Lorna Dupont (Secretary)	(LD)	Joint Office
Alison Chamberlain	(AC)	National Grid Distribution
Dean Johnson (Transporter Agent)	(DJ)	xoserve
Gavin Stather (Alternate)	(GS)	ScottishPower
James Richards	(JR)	Centrica
Jonathan Aitken (Member)	(JA)	RWE npower
Julie Cleret	(JC)	EDF Energy
Louise Gates	(LG)	EDF Energy
Louise Hellyer	(LH)	Total Gas & Power
Mark Jones	(MJ)	SSE
Mark Linke	(ML)	Centrica
Mark Perry	(MP)	xoserve
Matthew Jackson (Alternate)	(MJ1)	British Gas
Matthew Pollard	(MP1)	EDF Energy
Richard Pomroy	(RP)	Wales & West Utilities
Richard Robinson	(RR)	TPA Solutions
Russell Somerville	(RS)	Northern Gas Networks
Sally Lewis (Member)	(SL)	RWE Npower
Sallyann Blackett (Member)	(SB)	E.ON
Simon Geen	(SG)	National Grid NTS
Steve Thompson	(ST)	National Grid NTS

1. Introduction

BF welcomed all attendees.

2. Confirmation of Membership

2.1 Membership and alternates

The membership was confirmed and the meeting was declared quorate.

3. Review of Minutes and Actions from the Previous Meeting

3.1 Minutes

The minutes from the meeting held on 24 July 2009 were accepted.

3.2 Actions

Outstanding actions were reviewed (see Action Log below).

Action DE1068: xoserve to consider and discuss with the Transporters possible amendments to the consultation process, and report back at November meeting.

Update: Discussions ongoing. **Action carried forward**

Action DE1069: xoserve to clarify to E.ON the process/contacts to use to raise DM Allocation errors.

Update: Clarified. **Action closed**

4. Seasonal Normal Review Update

DJ reported that relevant material had been sent out at the end of August, and that today's presentation would be a distillation that covered the main approach and key points, together with the Transporters' responses to feedback received from Shippers (E.ON and EDF Energy).

xoserve was now aware of additional concerns regarding the proposed approach, and this meeting was an opportunity to clarify everyone's understanding, in an effort to reach a conclusion and consensus as to which approach to use going forward.

4.1 Application of EP2 in derivation of SNCWV

MP gave a presentation summarising the material issued in August The principles for applying EP2 data to derivation of SNCWV were outlined and it was demonstrated how the EP2 output data would be applied to the SNCWV calculation.

The data required for the CWV formula included hourly smoothed average temperatures for the forecast period of 2008 to 2018, and the hourly smoothed average wind speeds for the base period of 1971 – 2006 (36 years).

JA was concerned that the data may potentially be being misrepresented and went on to describe his understanding of how the model worked, using 15 years historical data and looking 15 years forward. SG pointed out that different bits of EP2 data came from a variety of sources/methodologies.

The features of the EP2 output, and how they were derived, were then described. A summary of the analysis of SNCWVs using EP2 data only and an alternative method was then explained and the figures presented in tabular form.

SB questioned the daily figures which seemed to be excessively cold, colder than the last 4 years. Her own calculations for the WM LDZ gave a figure of 0.39. In SB's experience, she would not expect the SN to come out as colder, and therefore had concerns relating to the calculations used by xoserve. MP explained how xoserve had made the calculations.

Referring to the Met Office data, SB commented that potentially the data was being skewed by using the same increment for all the base period average years, and that less emphasis should be put on the wind factor. DJ was not aware that these increments were available. (SAB had obtained illustrative charts from the Met Office.) xoserve recognised the concerns and the use of increments had been discussed with the Transporters, as xoserve was keen to use data as effectively as possible; increments were not part of the data provided to it and xoserve was therefore only able to use the data it already possessed.

SB said that the wind issue was more of a problem with historical data; EP2 shows that the maximums were increasing more rapidly than the minimums. There were some flaws with using some of the averages. Season shapes were also changing. JA agreed that EP2 was not perfect but felt it was the best of the options that had been presented, and gave a better representation of the last 10 years. Applying the average temperature and wind speeds to create a CWV is a lot closer to what was originally proposed, but using SN for the next 5 years that cold was not good.

It was observed that there was very little difference between the averages of base periods of EP2 and other previously data. The warming influence in EP2 is a big difference. Increments give more consistency for other work.

SB commented that a common base set of data that could be applied across the whole industry would be advantageous. This was an opportunity to provide a base set of data that was available and transparent to all parties for allocation and demand estimation purposes, not just Transporters. However, it was pointed out that there was a risk that parties may use it and still go outside of it for other purposes, and that it may not be consistent with internal methodologies. Demand estimation had knock-on effects, and data could be used in much wider areas with significant impacts.

SB confirmed that there had been agreement at the Project Board that EP2 data would be made available to all UNC signatories. SG pointed out that this was not the raw historic data, but a derived data set. SB thought this would be useful to parties not currently in possession of such data, and gives a reasonable view of SN.

MP then went on to explain the results using EP2 data only and the proposed approach in deriving SNCWV. The analysis was then presented in tabular form for WM LDZ. The effects of the wind chill and the lag term were briefly discussed.

A graph depicting the calculated CWV using gas industry history only (1971 – 2006) was presented. SB had tried to replicate this, with different results, and acknowledged there were some flaws in the EP2 data. DJ was concerned that SB's replication had indicated differences. SB believed that there would be understatement of wind speed and that SNET would be reshaped. It was apparent that CWV is sensitive to order. JA added that his calculations gave better residuals over the last 10 years around the red line.

It was noted that historically the understatement of wind speed has been a big issue, but might not retain its significance going forward. Over the last few years SFs have had to change massively at that point in the process. This suggested that there has been too much allocation over the summer. The SF

has to compensate for flaws in the formula and is more noticeable at some points. It was commented that CWV is quite an involved and complex formula and it was often hard to understand the intricacies and interactions.

MP then summarised the impacts of using EP2 data only in deriving SNCWV. Using EP2 temperature increments added to averaged EP2 base period history means that the CWV will not be appropriately computed, ie the wind chill effect will be smaller, thus producing warmer CWVs than necessary. The wind chill effect is incorrectly computed (warmer than it should be) all through the year (winter and summer) but to a proportionately greater extent in the summer. The result is that seasonal normal based ALP profiles for EUCs will be much lower that they should be in the summer and correspondingly peakier in the winter. It is important that any 'warming' of the SNCWV is due to the EP2 temperature increments and not the method of calculation.

The proposed approach was therefore to apply EP2-WP8 temperature increments to individual years of gas industry data (36 years) to get 36 different incremented daily temperature streams for each target forecast year (eg 2012/13). Wind speed data will be actual wind speeds for each of the gas industry base period days (no increments specified by EP2-WP8 for wind speed). It was also proposed to compute 36 different CWVs for each future day and average to a single value, and to smooth the computed CWV profile to remove excessive day-to-day variation in CWV profile but also ensure the same area under SNCWV curve, and the retention of similar bumps and kinks shown in the corresponding EP2-WP8 temperature profile.

MP then addressed the points raised in the feedback received from the two Shippers, E.ON and EDF Energy.

SB questioned why the issues identified by xoserve had not been raised previously, when xoserve had been considering how to apply the EP2 data. DJ responded that given the time constraints attendant on this process xoserve had been keen to illustrate as soon as possible to Shippers how the approach could work, and was not conversant with Shippers' concerns at that time. SB commented that EP2 gives a clear methodology, and that specific data not being available to use 'off the shelf' is of secondary importance. DJ observed that with hindsight the consultation process for the review could be done differently. It has been a learning process for all in the industry and if repeated greater consideration could be given to what was thought to be required at an earlier stage. DJ also stated that consideration could have been given by the EP2 project team as to possible issues with applying EP2 to gas demand modelling / Demand Estimation. These learning points would be taken through to any future SN Review. SB added that it had not been realised how sensitive certain parameters were to the order in which they are done or applied.

DJ pointed out that if the increments were available three months ago xoserve could have assessed all three approaches, but the data was still not going to be available for another month. More analysis would mean going through a further review and consultation phase which time does not permit.

The timetable for the work required to be carried out over the next few months was displayed. It had not been anticipated that SNs would still not have been agreed by this point. xoserve had been unable to prepare because it was still

unsure of the basis to be used. The workload was already significant in order to accomplish all necessary tasks by March 2010, and any further analysis on the additional Met Office data would inevitably put key parts of the current Demand Estimation and also AQ Review work at risk.

xoserve was concerned about the perceived differences in expectations and results obtained by E.ON's calculations and if time permitted would compare and discuss further outside of this meeting.

Further comments and views on the approach were sought.

SB said that a significant shift from what is currently seen should be expected, but it ought to end up with an average which gives as much chance of it being warmer as colder, which was not the case at present.

Looking back to the graph, MP asked was it the expectation that it would be somewhere between the two lines? SB believed that it may be quite close to the bottom line (3600). SG commented that the way the base period temperature is calculated gives the difference between the two methodologies; applying increments to the gas industry history would be the xoserve approach. Under EP2 a warming element was applied to SN and the methodology was differently applied. This gives a small difference but because it is derived slightly differently the mathematical difference is quite large. Skewed across 36 years would give a significantly bigger difference.

There were seen to be flaws with both approaches, but less with the slightly understating of the wind impact using the EP2 data.

RP was concerned about making more changes than necessary without fully understanding the impacts, and supported the xoserve approach. SB pointed out that UNC allowed the Transporters to change SN as often as they liked, but that 5 year periods were deemed to be appropriate.

BF asked the Shippers for their views.

JA echoed E.ON's view and was very uncomfortable with xoserve's proposal. It was colder than he would like and in comparison to the original proposal. He agreed it was not the ideal solution. However, external research on climate change and using data without any modification will become more of an issue, and the straight EP2 application is the better approach. GS, MJ and ML also agreed with this view, and ML pointed out that calculations for LDZs other than WM may also give different shapes/impacts.

To continue with the current approach was not seen to be an option. SG referred to other analyses performed (UKSIP 2020s, based on emissions) which gave the same level of warming as with EP2 data, but cautioned against going too warm.

JA asked if the CWV data was already calculated could xoserve provide to Shippers a full set of SNCWV results for all LDZs, so that they could look at the residuals of recent history and see which represents the best way forward; it was very difficult to quantify anything without the actual numbers. DJ did state that xoserve had concerns that a decision regard the approach had to be agreed quickly and was concerned with what additional analysis could be done in the timescales now available.

Action DE1070: xoserve to consider if it is possible to provide Shippers a full set of SNCWV results for all LDZs for review.

The Transporters present were then asked for their views.

AC (National Grid Distribution) said that her main concern would be to make sure any position taken was a defendable one, and was prepared to go with Shippers' view if that was the majority view. RS (Northern Gas Networks) held a similar view.

It was clear from the views put forward by those Shippers and Transporters present that a consensus could not be reached at this meeting.

As not all Transporters were present at the meeting, xoserve will discuss the outcome of today's meeting with all the Transporters at a meeting at the beginning of next week.

It was agreed that a further DESC meeting would be arranged for Friday 02 October 2009, to continue the discussions and in an effort to reach a consensus on the way forward.

5. Any Other Business

None raised.

6. Date of the next meeting

The meeting is scheduled to take place at 10:00 on Friday 02 October 2009, at 31 Homer Road, Solihull B91 3LT.

Dates for other 2009 scheduled meetings are set out below, together with the topics expected to be covered.

Date	***Work Items***	***Venue***
02 October 2009	Seasonal Normal Review	10:00am 31 Homer Road, Solihull B91 3LT
10 November 2009	1) Re-evaluation of NDM Sampling sizes; re-evaluation of Model smoothing methodology 2) Re-evaluation of EUC definitions and Demand Model Performance: Scaling Factor and Weather Correction Factor 3) Review of demand attribution to EUC models newly with/without	10:00am Energy Networks Association, Dean Bradley House, 52 Horseferry Road, London SW1P 2AF

	cutoffs in 2008/09 4) Seasonal Normal Review update	
22 December 2009	CWV Review: Present revised CWVs for all LDZs	10:00am 31 Homer Road, Solihull B91 3LT

Action Log: UNC Demand Estimation Sub Committee 23 September 2009

Action Ref*	Meeting Date(s)	Minute Ref	Action	Owner**	Status Update
DE1068	24/07/09	4.0	xoserve to consider and discuss with the Transporters possible amendments to the consultation process, and report back at November's meeting.	xoserve (DJ/MP)	**Carried forward**
DE1069	24/07/09	7.2	xoserve to clarify to E.On the process/contacts to use to raise DM Allocation errors.	xoserve (DJ/MP)	**Closed**
DE1070	23/09/09	4.1	xoserve to consider if it is possible to provide Shippers a full set of SNCWV results for all LDZs for review.	xoserve (DJ/MP)	**Pending**

* TF – Technical Forum

** Key to initials of action owner:
ALL: all present, MP: Mark Perry, DJ: Dean Johnson; BF = Bob Fletcher; LD =Lorna Dupont