

## Demand Estimation Sub-Committee

### Minutes

**Tuesday 01 February 2011**

**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
Cecilia Wynn-Chandra	(CWC)	Corona Energy
Dave Parker	(DP)	EDF Energy
Gareth Lloyd	(GL)	National Grid NTS
Joseph Lloyd	(JL)	xoserve
Leyon Joseph	(LJ)	Scotia Gas Networks
Linda Whitcroft (Transporter Agent)	(LW)	xoserve
Louise Gates (Member)	(LG)	EDF Energy
Louise Hellyer (Member)	(LH)	Total Gas & Power
Mark Perry	(MP)	xoserve
Matthew Jackson (Member)	(MJ)	British Gas
Mo Rezvani (Member)	(MR)	SSE
Sallyann Blackett (Member)	(SB)	E.ON UK
Steve Baker (Alternate)	(SB1)	RWE Npower
Tom Young (Alternate)	(TY)	E.ON UK

Meeting papers are available at [www.gasgovernance.co.uk/desc/010211](http://www.gasgovernance.co.uk/desc/010211)

#### 1. Introduction

BF welcomed all attendees. It was noted that Tom Young was the Alternate for Sarah Palmer, and that Steve Baker was the Alternate for Sally Lewis.

#### 2. Review of Minutes and Actions from the Previous Meeting(s)

##### 2.1 Minutes

The minutes from the previous DESC meeting were accepted.

##### 2.2 Actions

**Action DE0201:** Consider producing a table presenting the 3 year AQ by LDZ by EUC.

**Update:** Completed. **Action closed.**

### 3. Progress of Workplan

#### 3.1 Evaluation of demand model performance for gas year 2009/10: RV and NDM Sample Strands

MP gave a presentation on the Strand 2 analysis, comprising two elements - the Reconciliation Variance (RV) and the NDM Sample consumption - describing the methodologies employed and illustrated with supporting graphs. More detailed explanations had been provided in the supporting documentation, which can be found at: [www.gasgovernance.co.uk/desc/010211](http://www.gasgovernance.co.uk/desc/010211).

##### *RV Analysis*

Reviewing the graph on Slide 6, MJ questioned how much reconciliation was 'missing', and SB asked if it was possible to provide a percentage of reconciliation by month, published in relation to the snapshot. MP agreed to provide the data requested.

**Action DE1101: RV Analysis (Slide 6): Provide a Table of rejection numbers by rejection criteria.**

**Action DE1102: RV Analysis (Slide 6): Provide view of reconciliation data for population at December 2010.**

It was questioned why the energy was allocated evenly and this was briefly discussed. JL reminded that this was only one element of the assessment and that other elements were looked at and taken into account to give the holistic view.

Assessment of the RV analysis concluded that it highlighted a peaky trend of over allocation in the winter and under allocation in the summer. Rejection levels for records were similar to previous years. Pointing out that the available records for the analysis were incomplete, MP stated that the analysis was to be revised in Spring 2011 when more data will be available.

SB observed that these were all weather sensitive areas, which were overly peaky, which suggests the ALPs are not right.

Responding to a question from GL, MP confirmed that Bands 02 and 03 have a less complete picture. JL added that this is looked at throughout the year, and interpretations can change.

##### *NDM Sample Consumption Analysis*

MP described the three models ("as Used", "Best Estimate '09", and "Best Estimate '10") against which would be made a comparison of the % error sample consumption (completed by EUC for all LDZs and by month by LDZ). Graphs illustrated the outcomes and findings were highlighted. MP drew attention to the fact that the supporting document now contains more detail in response to a request from E.ON following the last DESC meeting.

Referring to the Table on Slide 14, MP confirmed that the AQ reductions in Gemini did take account of the Seasonal Normal change. Clarification on the calculations used in the left hand column was then requested.

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**Action DE1103: NDM Sample Consumption Analysis (Slide 14): Clarify the calculations relating to the left hand column of the Table.**

SB questioned the statement that “Winter was generally colder than normal” – against what definition of ‘normal’ was it being measured. MP responded that it was the SN applicable at that time.

Moving on to the graphs illustrating Daily Actual and Deemed Demand (which had been added to the presentation this year) MP confirmed there were no holiday impacts on Band 01B. In relation to Band 02B the exceptions (due to heavy snowfall) were briefly discussed; this helped to explain why the consumption was less than the profile. MP also pointed out that next year the new holiday code rules would have an effect on these charts.

**Results**

The “Best Estimate 09” and “Best Estimate 10” analyses suggested that for bands 01, 05, 06, and 07: under allocation (+ve errors) was present in the winter and over allocation (-ve errors) in the summer. The profile was too flat. However the opposite was true for bands 02, 03, 04, and 0, ie over allocation (+ve errors) in the winter and under allocation (-ve errors) in the summer. The profile was too peaky.

The RV analysis indicated profiles that were too peaky in most LDZs in bands 02 and 03 (and overall below or at the 5% level). It was good in most LDZs (8 or more instances of 13) in bands 04 and 05 (overall slightly too peaky in bands 04 and 05, well below the 5% level).

There appeared to be a mixture of good, too peaky and too flat profiles in bands 06 and 07 (overall too peaky, well below 5% level in band 06, at 5% level in band 07), and a mixed picture in band 08 (overall a little too peaky, well below the 5% level).

**Conclusions**

MP pointed out the limitations, including different, restricted data sets. The RV analysis excludes band 01B and is based on a sub-set of rec data. The NDM sample analysis is based on validated NDM SAMPLE data. Both analyses suffer from small numbers of contributing meter/supply points at the higher consumption bands.

An important point to note was that both approaches, subject to their limitations, suggest only small inaccuracies. There was nothing to indicate that there were any fundamental flaws in the models.

MP added that the Spring 2011 RV analysis is updated to provide better representation.

**3.2 Offtake Measurement Errors – Impact to Scaling Factor (SF)**

MP stated that E.ON UK had asked for additional analysis on the impacts of LDZ measurement errors to the Scaling Factor and briefly outlined the background to the issue. Two significant offtake measurement errors (in different LDZs, both under recording) had resulted in lower Weather Correction Factor (WCF) values and SF values further away from one.

The impact of each error on its respective LDZ was then illustrated, and the difference between the WCF and SF highlighted.

There was a brief discussion relating to how measurement errors were identified, i.e. generally through audits and annual inspections. The Offtake Arrangements Workgroup was the forum through which measurement errors were discussed and addressed. AC commented that there were always a number of 'small' measurement errors due to many and varied reasons, but recently there appeared to have been a spate of Significant Measurement Errors the nature of each due to a different cause. Impacts varied. Transporters were addressing the causes of each error and putting in place appropriate remedies, as well trying to establish whether such errors could be identified earlier each time.

BF observed that Modification 0335 was attempting to address some of the financial impacts on cash flow that could result from measurement errors. LW added that the proposer was considering amending this following recent feedback.

It was suggested that some of the analysis produced for DESC might be potentially useful in assisting the earlier identification of some errors, although this might be down to a question of interpretation, and should any 'blip' be identified as a possibility that something was not quite right AC thought that narrowing down potential areas for investigation might prove problematic. The timing of the availability of much analysis may be retrospective and therefore perhaps of little value in this respect.

SB observed there is already a level of 'incorrectness' in the profile and this can be exacerbated which might then provoke a reassessment to see if any measurement errors might be responsible. An analyst may want to 'back something out' if aware that it is skewing the analysis (it may affect the whole of allocation for that period) and affecting the results.

MR suggested producing some options for how to adjust this and agree a way forward.

**Action DE1105: Consider in future analysis making appropriate adjustments for known Significant LDZ Measurement Errors.**

BF added that Modification 0355 would be discussed from an energy balancing perspective at the Distribution Workgroup.

### **3.3 Investigation into $[1 + (DAF*WCF)]$ constraint**

MP stated that E.ON UK had asked for additional analysis on how to improve the Scaling Factor behaviour, and briefly outlined the background of an area where xoserve had identified a potential improvement, summarising the analysis and illustrating the findings with tables and graphs.

Currently the constraint in Gemini is set to 0.3 and has been for as long as Demand Attribution has been running. No analytical reason had yet been discovered as to why the constraint was set at 0.3, and the effects of setting it at a lower level (0.01) had been examined and analysed.

*Conclusions*

The revised average SF showed a slight improvement (i.e. was closer to one) in a majority of LDZs on all days of the week and over the summer period, compared to the actual average SF in 2009/10.

There was a more noticeable improvement in revised average SF on warm days where current  $[1+(DAF*WCF)]$  constraint was reached for the more weather sensitive EUCs.

Results of monthly RMS values of SF showed a slight overall improvement in 5 months of the year, with the other 7 months remaining the same.

Although the improvement in SF was relatively small, there were no days where the revised SF was further away from one than the actual SF.

MP observed that on this basis lowering the constraint appeared to offer a way to make a quick improvement in this area, and could be implemented next time the interface file was loaded for gas year 2011/12.

MP confirmed that 0.01 was the lowest value that could be input to Gemini.

BF then asked DESC to consider lowering the  $[1+(DAF*WCF)]$  constraint applied in future gas years (via the relevant Gemini interface file).

DESC gave its approval of making the change to 0.01.

### **3.4 Approach for Spring 2011 Analysis**

MP reported that following the publication of the draft approach for Spring 2011 modelling in December last year, xoserve had received no comments and it was therefore the intention to move forward with this approach.

SB interjected that E.ON UK had withheld agreement to the modelling approach last year; those issues still remain and the same reservations still exist in relation to this approach. Nothing would be raised this year that was not raised last year. Noting this, MP responded that he would reassess the comments received the previous year and respond to SB.

#### **Action DE1106: Respond to E.ON UK's comments relating to the Spring Approach.**

MP then explained that the main change from 2010 modeling would be seen in the revision of holiday codes applied to the Christmas/New Year period (as previously agreed at DESC in November 2010). In general the principles were similar to the 2010 modeling approach:

- Determining Summer Reductions and Cut-Offs
- Weekend and holiday effects included
- Appropriateness of EUC bandings investigated
- Fallback position available as with previous years
- Model smoothing continuation – using the approach previously agreed at November 2009 DESC (to be reviewed again Autumn this year )

MJ asked if it was still appropriate to look at Band 01 as a single band, given last year's AQ movements. MP pointed out that a small number of non-

domestic sites are included in some modeling, and that the splitting or extending of Bands had been considered in previous years. MJ suggested carrying out analysis on separate AQs within that Band could be of benefit.

In broader discussion it was noted that EUC definitions have to relate to AQ sizings; these can be created or split as required if appropriate. Population numbers are monitored. DESC can propose a new banding or split if appropriate for the Small NDM EUCs. It was also pointed out that any changes to Band 01 affects UK Link processes, etc – it was possible to implement changes but not necessarily quickly or easily.

Returning to the presentation, MP added that appropriate Bands 7 and 8 consumption and/or WAR bands aggregations will be recommended if sample numbers were too low. Band 01 would be modelled as a single band (0 to 73.2 MWh). Aggregate NDM demand data would be used in calculation of DAFs to be based on historical demand as used in the previous two years.

Publication would be via the xoserve extranet (UK Link Documentation) and include supporting files. An early preview of key files (10 June) might be possible should DESC accept the Technical Forum proposals that would be put forward on 03 June 2011

SB requested repetition of the analysis looking at splitting the Band be added to the Workplan and would like a review of the percentage of I & C sites also put in (there was a chance this might have gone up this year). A request for cold weather analysis was raised last year.

MP was happy to receive further suggestions if Shippers were able to give consideration and elucidate what might be required. These suggestions could then be collated for DESC's consideration/prioritisation.

**Action DE1107: Inform DESC of all suggested Workplan ideas for the Autumn for DESC's consideration and prioritisation.**

MP then outlined the DESC schedule for 2011. LW suggested that going forward a December meeting might be beneficial to focus on the Spring Approach.

#### *DESC Schedule for 2011*

<i>DATE</i>	<i>Venue/Time</i>	<i>Agenda</i>
01 February 2011	10:30 at 31 Homer Rd, Solihull B91 3LT	Evaluation of Algorithm Performance: Strands 2 & 3 - RV & NDM Sample data  Spring 2011 Approach
03 June 2011	10:00 at ENA, 52 Horseferry Road, London SW1P 2AF	Technical Forum – Consultation on proposed revision of EUC definitions and demand models  Followed by DESC meeting

29 July 2011 (if required)	10:30 at 31 Homer Rd, Solihull B91 3LT	Response to representations
08 November 2011	10:00 at ENA, 52 Horseferry Road, London SW1P	Evaluation of NDM Sampling Sizes Evaluation of Algorithm Performance: Strand 1 - SF & WCF

### 3.5 Royal Bank Holiday (Friday 29 April 2011)

MP explained that the Royal Bank Holiday announced for Friday 29 April 2011 had been notified after the loading of the system interface files for the current gas year. In the EUC modeling process 29 April 2011 was defined as a holiday (Code 6) in the current gas year as it falls within the Easter holiday period.

This will mean for those EUC models where holiday codes are used there will be some reduction in attributed demand from the normal Monday to Thursday level. As the profiles must retain their overall value (eg ALP must add up to 365) it is not possible to amend the profile for one day without impacting surrounding days.

Preliminary analysis suggests it would be technically feasible to amend the ALPs over the gas days in the Easter/May day holiday period (20 April to 08 May 2011). However, at this juncture xoserve did not recommend updating the systems for this one gas day for the following reasons:

- the models over the Easter and May day holiday period will not reflect the smoothed model outputs.
- There is no precedent for amending the ALP values mid year and the full system implications of attempting a change are not known.
- ALPs in Gas Year 2001/02 were not amended to take account of the additional Golden Jubilee bank holiday that occurred in June 2002.

A brief discussion followed. DP asked what was the effect on the Scaling Factors in relation to the Golden Jubilee in 2002 and the days either side of that. MP agreed to find out, circulate the analysis and seek views on further actions.

LW pointed out that if there was to be any analysis or change made then this would need to be done within the next month and a teleconference might be required to discuss the details.

**Action DE1108: Royal Bank Holiday: Review Scaling Factors over the Golden Jubilee period (June 2002) and report back to DESC members as soon as possible.**

#### 4. **NDM Sample update**

LW presented an update on the datarecorder replacement programme (AMR equipment installation). The installation programme had been completed as per schedule, but replacements were required due to terminations.

Sample sites had been 'lost' for a number of reasons, but the primary reason was because the End user had refused permission. In seeking to remove/recover equipment access issues had also been encountered and xoserve was writing to End users stressing the safety issues and the reasons for removal of equipment from site.

Sample sizes were still adequate for purposes.

Referring to meter exchanges, LW pointed out there was still a problem if a Shipper did not send in the RGMA flows in a timely manner as this impacts on the ability of xoserve to use the data. Shippers were concerned to understand if they were underperforming in comparison with their peers, and wanted to know who in their organisations received the Monthly Demand Estimation Sample Report. LW responded that Shippers could have individual feedback on performance in relation to meter exchanges and contact names. It would also be useful to be able to discuss with a Shipper what had happened to equipment that had gone missing from particular sites in their ownership.

**Action DE1109: NDM Sample: Contact individual Shippers regarding 'lost' AMR equipment relating to sites in their ownership.**

**Action DE1110: NDM Sample: Write to DESC Members advising each of the name(s) of the recipient(s) within their organisation of the Monthly Demand Estimation Sample Report.**

#### 5. **Any Other Business**

##### **5.1 Modification 0331**

SB reported that progress was being made very slowly, with the legal text currently under consideration. It was hoped to complete the Workgroup Report during the Distribution Workgroup teleconference meeting on 10 February 2011. SB encouraged parties to submit any further comments either to her or to their Distribution Workgroup representative in advance of the meeting, so that the Modification could be progressed into the consultation phase as soon as possible.

##### **5.2 Modification 0330**

MR reported that this had been discussed at the last Distribution Workgroup; a redrafting of a paragraph had been requested and progress was slow. He remarked that it would have been useful to receive comments for addressing earlier in the process.

#### 6. **Date of Next Meeting/Diary Planning**

The Demand Estimation Technical Workstream will take place at 10:00 on 03 June 2011, at the Energy Networks Association (ENA), 52 Horseferry Road, London SW1P 2AF. A meeting of the Demand Estimation Sub-Committee will follow this.



**Action Log: UNC Demand Estimation Sub Committee**

Action Ref*	Meeting Date(s)	Minute Ref	Action	Owner	Status Update
<b>DE0201</b>	05/02/10	3.1	Consider producing a Table presenting the 3-year AQ by LDZ by EUC.	xoserve (LW/MP)	<b>Closed</b>
<b>DE1101</b>	01/02/11	3.1	RV Analysis (Slide 6): Provide a Table of rejection numbers by rejection criteria.	xoserve (MP/JL)	
<b>DE1102</b>	01/02/11	3.1	RV Analysis (Slide 6): Provide view of reconciliation data for population at December 2010.	xoserve (MP/JL)	
<b>DE1103</b>	01/02/11	3.1	NDM Sample Consumption Analysis (Slide 14): Clarify the calculations relating to the left hand column of the Table.	xoserve (MP/JL)	
<b>DE1104</b>	01/02/11	3.1	NDM Sample Consumption Analysis (Slides 15 and 16): Confirm what CWV and SNCWV versions were used in producing these Slides.	xoserve (MP/JL)	
<b>DE1105</b>	01/02/11	3.2	Consider in future analysis making appropriate adjustments for known Significant LDZ Measurement Errors.	xoserve (MP/JL)	
<b>DE1106</b>	01/02/11	3.4	Respond to E.ON's comments relating to the Spring Approach.	xoserve (MP/JL)	
<b>DE1107</b>	01/02/11	3.4	Inform DESC of all suggested Workplan ideas for the Autumn for DESC's consideration and prioritisation.	xoserve (MP/JL)	
<b>DE1108</b>	01/02/11	3.5	Royal Bank Holiday: Review Scaling Factors over the Golden Jubilee period (June 2002) and report back to DESC members as soon as possible.	xoserve (MP/JL)	<b>As soon as possible</b>

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<b>Action Ref*</b>	<b>Meeting Date(s)</b>	<b>Minute Ref</b>	<b>Action</b>	<b>Owner</b>	<b>Status Update</b>
<b>DE1109</b>	01/02/11	4.0	NDM Sample: Contact individual Shippers regarding 'lost' AMR equipment relating to sites in their ownership.	xoserve (MP/JL)	
<b>DE1110</b>	01/02/11	4.0	NDM Sample: Write to DESC Members advising each of the name(s) of the recipient(s) within their organisation of the Monthly Demand Estimation Sample Report.	xoserve (MP/JL)	