### **DEMAND ESTIMATION SUB COMMITTEE**

#### **Minutes**

### Tuesday 11 November 2008 Elexon, 350 Euston Road, London NW1 3AW

#### **Attendees**

(JB) Joint Office Bob Fletcher (Chair) Lorna Dupont (Secretary) (LD) Joint Office Emma Emin (EE) EDF Energy (FC) xoserve Fiona Cottam (Transporter Agent) Jonathan Aitken (Member) (JA) RWE npower **Louise Gates** (LG) EDF Energy Mark Perry (MP) xoserve Mo Rezvani (Member) (MR) SSE Paul Tuxworth (PT) National Grid NTS (RG) Total Remi Guerin Sally Lewis (Member) (SL) RWE npower

Sallyann Blackett (Member) (SB) E.ON Steve Taylor (Member) (ST) Centrica

#### 1. Introduction

BF welcomed all attendees and introduced himself as the new Chair of the Demand Estimation Sub Committee, following the retirement of Julian Majdanski.

#### 2. Confirmation of membership

The membership was confirmed and the meeting was declared quorate.

#### 3. Review of minutes and actions from previous meetings

The minutes of the previous meeting (25 July 2008) were accepted and approved.

Outstanding actions were reviewed (see Action Log below).

**Action DE1045:** xoserve to consider carrying out analysis on whether the standard domestic profile is applicable across the whole band.

**Update:** MP gave a presentation in response to this action and explained the analysis carried out to date on Band 1, from which it could be concluded that there were no compelling statistical grounds for altering 0 – 73.2 MWh pa consumption range by applying two sub-bands or four sub-bands. Analysis of an alternative breakpoint over range 0-293 MWh pa (Bands 1 and 2) and the suitability of Domestic and/or I&C models for Bands 01B and 02B will form part of the new Work Plan and this should more particularly address this action. **Action carried forward.** 

**Action DE1049:** xoserve to include the updated RV Analysis within the draft proposals to be published in June, and an analysis of the monthly levels of unreconciled energy is to be presented at a future meeting.

**Update:** MP reported that the updated view of the RV analysis had been included in the NDM Proposals published at the end of June. He then presented and explained the results of the unreconciled energy analysis (October 2008). xoserve confirmed the latest analysis would be presented alongside the RV analysis in future meetings. **Action Closed.** 

**Action DE1051:** Potential changes to DAFS - All to consider and send suggestions by email to xoserve (Fiona.Cottam@xoserve.com).

**Update:** FC reported that no direct suggestions had been received by xoserve. MP recapped on the issues and put forward xoserve's proposed options for changes. Results of the initial analysis and items for consideration were explained. A short discussion ensued.

MP pointed out that the source data would be independent and there would be no reliance on the Networks' view of SND; the DNs had been contacted to review if a UNC Modification Proposal was required and responses were awaited. If consensus was achieved at DESC potentially the method could be adopted into the Spring approach 2009 in readiness for Gas Year 2009/10; a decision will be needed by January's meeting at the latest, but it would be appreciated and helpful if any other suggestions were to be made to xoserve as soon as possible so analysis can be commenced.

MR was confident that the process was quite transparent and appropriate to use. In response to a query from RG, FC confirmed that the performance of the new model would be measured through SFs and RV analysis. It should be seen as the final step of Modification 0204.

There was a short discussion to clarify understanding, and the group agreed that it appeared to present a better option than was currently in use. SB stated that she would like confidence from the DNs responses that a UNC Modification was not required. **Action closed.** 

New Action DE1052: xoserve to confirm with the DNs (by mid December) whether a UNC Modification will be required.

New Action DE1053: Members to put forward any alternative proposals by 1 December and to come to the January meeting ready to make a final decision.

#### 4. Work Plan

# 4.1 Re-evaluation of EUC Definitions: Alternative Breakpoint 0 to 293 MWh pa

MP described the background to the investigation of the alternative breakpoints and explained the methodology used in the analysis. The results were then presented and discussed. For each of the alternative breakpoints the analysis showed degradation in model fit for the majority of the LDZs. It was concluded therefore that there was no benefit in splitting the 0-293 MWh

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pa range either at 30 or 60 MWh pa as there was no indication of significant differences in ILFs or a demonstrable improvement in model fit. In addition modelling the upper sub-band with non domestic only supply points resulted in further degradation to model fit.

MP then recapped on the conclusions from the Autumn 2007 analysis (splitting the 0-73.2 MWh pa range) and reiterated that there was no compelling statistical grounds for altering 0-73.2 MWh pa consumption range by applying two sub-bands. Concluding that a potential statistically better breakpoint for the 0-293 MWh pa range might lie at a value greater than the current breakpoint, some further analysis was carried out on an alternative breakpoint at 100MWh pa.

The results of this were then presented and showed an improvement in model fit for the majority of LDZs. The results and xoserve's conclusions were briefly discussed, highlighting that the analysis was based only on a simple year and might not be sufficient evidence to support a change.

The recommendation to retain the current approach of breakpoint at 73.2 for 0-293 MWh pa band and to review a possible higher breakpoint in future workplans was accepted and agreed by the Members.

## 4.2 NDM Algorithm Performance: SF and WCF analysis for Gas Year 2007/08

MP gave a presentation and explained the basis on which the analysis was performed. The full details of which are available in the supporting document provided on the Joint Office website. Example graphs were displayed and discussed.

Referring to Example 3, SB questioned why on 17 October 2008 NDM allocation was negative. MP responded that it had reverted to a positive position before close out, but SB pointed out that it was at a lower level than might be expected and said that a negative NDM allocation should not be possible. Neither FC nor MP was aware of any particular reason for this anomaly but would investigate further and report back.

# Action DE1054: Investigate the reasons for the negative NDM allocation apparent on 17 October 2008.

#### **Update: Post Meeting Note**

A file transfer into Gemini failed, but was identified, investigated and corrected within the D+5 window. Any remaining omissions will be corrected by Reconciliation.

MP then described the further analysis of the algorithm performance; the results were displayed, explained and briefly discussed. The results for Scaling Factor Values for 2007/08 indicated an improvement in that the SF was above 1, but closer to 1. Further results were displayed and discussed. The results for WCF-EWCF Values in 2007/08 indicated that as a whole some improvement had been noted in relation to the SF but less so with the WCF.

MP concluded by describing and explaining the expected impact of UNC Modification 0204 on Scaling Factor Values 2008/09, and pointed out that

WCF bias can no longer be used to indicate SND error and was not directly linked to SF discrepancies.

There were no further questions.

#### 4.3 Review of Work Plan for 2009

MP summarised the work planned for 2009.

SB asked by when the new Seasonal Normal basis need to be fully agreed. FC replied that the position should be established by June, following discussions with the DNs, and definitely finalised by Christmas DESC would be kept informed throughout the process, with updates provided at each meeting.

#### 5. NDM Sample Update

### 5.1 Re-evaluation of NDM Sampling Sizes

#### Dataloggers >73,200 kWh

MP gave an update on the current sample sizes and reported that there were 541 inactive sites which were being investigated to determine the cause of the inactivity. The available samples across Bands 4 – 8 were currently a total of 1,938 Supply Points below sampling requirements. However, MP was able to report that because of a proactive approach taken by Scotia Gas Networks (SGN), the SGN datalogger numbers had increased, and National Grid Distribution was currently seeking approval for an investment programme to install additional dataloggers. xoserve were in discussions with the other DNs to try and increase their numbers also, but it was increasingly difficult to find appropriate sites particularly in Bands 7 & 8; bearing this in mind the target numbers needed to be reviewed, as even the logging of all available sites might not meet the target level. The question may need to be asked, do we really need differentiation of the higher Bands, or would it be more appropriate to aggregate as this may give better model stability. SB added that it was not sensible to have a sample target number that was greater than the actual population being sampled, but was not convinced that changes to other target numbers were required; she thought that Bands 4 and 5 should be prioritised for the DNs' datalogging focus.

xoserve would continue to review current target numbers in relation to the changing population and report on the sample at each DESC meeting.

#### Datarecorders <73.200 kWh

MP gave an update on the current sample sizes and reported that xoserve was comfortable with the current state; however, any new recorders would need to be targeted towards the lower Bands.

Datarecorder losses (usually associated with a meter exchange) were discussed and what could be done to address the causes.

MR questioned was there a process in place for sub contractors to follow. FC responded that there was educational information for Shippers to use and this was available on the xoserve website under the heading Load Research Project (<a href="https://www.xoserve.com/home\_LRP.asp">www.xoserve.com/home\_LRP.asp</a>).

BF suggested that xoserve consider contacting MAMCoP with a view to using this as a further communication route to emphasise the importance of retaining the equipment at the time a meter is exchanged, etc. FC noted this suggestion.

#### 5.2 Options for the Replacement of Datarecorders

FC gave a short presentation describing the problems and issues with the ageing technology that was currently installed in the smaller sites that were not capable of hosting a datalogger.

xoserve is considering a phased replacement of datarecorders with more advanced AMR technology (this did not mean replacement with Smart Meters as it was not the purpose to change consumers' behaviour and the shippers meter would still be used) and the sampled sites needed to continue to be representative of the population. There was the probability that less data would be lost as AMR was deemed to be a more reliable technology. However, a UNC Modification Proposal would be required to permit the use of Remote Meter Reading Equipment at NDM Sample sites, and this would need the support of DESC and the Networks.

JA observed that smart metering may increase dramatically and the industry would see a distinct change in consumer behaviour; samples should reflect the population and data generated from Smart metering could be obtained from Suppliers. xoserve propose to follow a similar process to datarecorders for installation where its agent approaches consumers directly to discuss attaching AMR equipment.

FC said that it was not so much a recruiting issue, as the sample already covered 4,200 customers, but that these would need to have new equipment attached and any new datastreams would require to be phased in. Currently loss of datastreams means that xoserve must overstock the sample by 10% to compensate; the early warning of problems or loss that would be received from AMR could result in a reduction in data loss and lessen the need to overcompensate.

xoserve was happy with the sites in the sample and the modelling results in Band 1 reflect this success, and xoserve would not want to wind down this source prematurely to obtain Smart reads from Shippers, though Smart reads may need to reflected in the sample as the population increases.

JA commented that drift or churn would be good for the sample and wondered whether the current sample could be changed and still give the same results. FC said that replacements would have to be recruited dependent on movements within new technologies and also because of consumer movement.

Replying to MR, FC confirmed that xoserve on behalf of the DNs owned the data collected. The anonymous raw data could be requested between 01 – 31 May each year.

In response to a question from RG, FC confirmed that xoserve was looking at introducing new equipment but not changing the sample or its size. There

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were no plans for these sites to be part of the Daily Balancing regime; daily NDM data was not used for the algorithm.

There was a broad level of support for the suggestions made by xoserve.

### 6. Modification 218: Amendment to the base period used to define Seasonal Normal weather

SB reported that the Modification Proposal was progressing through the normal process. It had been universally supported by Shippers but not the DNs. Legal text had been requested from Wales and West Utilities and the Proposal was now awaiting Ofgem's determination.

# 7. Modification Proposal 0224: Facilitating the use of AMR in the Daily Metered Elective Regime

FC reported that this proposed an optional elective DM service which if taken up would have an effect on sites currently used for sampling and may force changes in consumption patterns, rendering remaining sites no longer useful for sampling purposes.

Assuming this proposal to be implemented, FC asked was a policy required on the use of DM Elective sites in the NDM Sample, and should removal (physical works of removing existing loggers) and replacement of all DM Elective sites from the NDM Sample be part of the policy and be factored into the costs relating to Modification Proposal 0224.

MR thought that to do as FC suggested was the cleanest way. SB observed that there could be a rapid reduction of sites in Bands 7 and 8 and this could hasten the decision on merging the Bands to avoid degradation of the remaining sample data.

The Members agreed with FC's suggestions in response to a potential implementation of Modification Proposal 0224.

#### 8. Any Other Business

None raised.

#### 9. Date of next meeting

The next meeting will be held at 10:00hrs on Tuesday 20 January 2009, at 31 Homer Road, Solihull B91 3LT.

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

Date	Work Items	Venue	
20 January 2009	Re-evaluation: EUC definitions and Demand	10:00am 31 Homer Road, Solihull	

	Model Performance (RV and NDM Sample strands)  Investigation of suitability "domestic and/or "I&C" models to Bans 01B and 02B  Approach for Spring 2009 analysis  Results of investigation of exploratory CWV revisions	B91 3LT		
05 June 2009	<ul> <li>Technical Forum –         consultation on proposed         revision of EUC definitions         and demand models</li> <li>Seasonal Normal update</li> </ul>	10:00am  Energy Networks Association (ENA), 6 <sup>th</sup> Floor, Dean Bradley House, 52 Horseferry Road, London SW1P 2AF		
24 July 2009 (if required)	Response to representations	10:00am Solihull (venue to be confirmed)		
10 November 2009	<ul> <li>Re-evaluation of NDM Sampling Sizes</li> <li>Re-evaluation of EUC definitions and Demand Model Performance: SF and WCF</li> <li>Re-evaluation of Model smoothing methodology</li> <li>Seasonal Normal update</li> </ul>	10:00am Energy Networks Association (ENA), 6 <sup>th</sup> Floor, Dean Bradley House, 52 Horseferry Road, London SW1P 2AF		
22 December 2009 (if required)	CWV Review: Present revised CWVs for all LDZs	10:00am Solihull (venue to be confirmed)		

### Action Log: UNC Demand Estimation Sub Committee 11 November 2008

Action Ref*	Meeting Date(s)	Minute Ref	Action	Owner**	Status Update
DE1045	08/11/07	3.1	xoserve to consider carrying out analysis on whether the standard domestic profile is applicable across the whole band.	xoserve (FC/MP)	Action carried forward.
DE1049	15/01/08	4.1	xoserve to include the updated RV Analysis within the draft Proposals to be published in June, and an analysis of the monthly levels of unreconciled energy at a future meeting.	xoserve (FC/MP)	Closed
DE1051	25/07/08	5.1	Potential changes to DAFS - All to consider and send suggestions by email to xoserve (Fiona.cottam@xoserve.com).	ALL	Closed
DE1052	11/11/08	3.0	Potential to changes to DAFS: xoserve to confirm with the DNs (by mid December) whether a UNC Modification will be required.	xoserve (FC/MP)	
DE1053	11/11/08	3.0	Potential to changes to DAFS: Members to put forward any alternative proposals by 1 December and to come to the January meeting ready to make a final decision.	ALL	
DE1054	11/11/08	4.2	Investigate the reasons for the negative NDM allocation apparent on 17 October 2008.  Update: Post Meeting Note  A file transfer into Gemini failed, but was identified, investigated and corrected within the D+5 window. Any remaining omissions will be corrected by Reconciliation.	xoserve (FC/MP)	Closed

<sup>\*</sup> TF – Technical Forum (denotes action generated at the annual Technical Forum)

<sup>\*\*</sup> Key to initials of action owner: ALL – all attendees, FC: Fiona Cottam, MP: Mark Perry