
UNC Demand Estimation Sub-committee
Technical Work Group Minutes
Friday 20 April 2012
via Teleconference

Attendees (via Teleconference)

Mark Perry (Chair)	(MP)	Xoserve
Fiona Cottam (notes)	(FC)	Xoserve
Jason Blackmore	(JB)	British Gas
Joseph Lloyd	(JL)	Xoserve
Louise Gates	(LG)	EDF Energy
Paul Tuxworth	(PT)	National Grid NTS
Richard Pomroy	(RP)	Wales & West Utilities
Sallyann Blackett	(SB)	E.ON UK
Tony Davey	(TD)	SSE

*Meeting papers will be made available on the UKLink Documentation site
(www.xoserveextranet.com/uklinkdocs/default.asp)*

1. Introduction

MP welcomed all to the first meeting of the DESC Technical Work Group (TWG). He explained that he would be running through the presentation that had previously been issued to all TWG members. The presentation was cross-referenced to three supporting spreadsheets, which would be referred to at the appropriate stage in the discussions.

MP gave a brief overview of the purpose of Demand Estimation and the recent changes to roles and responsibilities. Xoserve had reviewed the existing demand estimation timetable and identified areas where TWG could get involved. In the first year this would be mainly to give greater transparency of the process.

He also re-capped on the 2012 timetable, highlighting that this meeting was the first checkpoint in the process with the TWG. Agreement was needed at this meeting on data aggregations and WAR Band definitions, in order to be able to progress to the single year modelling stage.

2. Summary of Validated Sample Data

MP explained that the data collection period was now aligned for both AMR (Automated Meter Reading) equipment and Dataloggers, namely 1 April 2011 to 31 March 2012 for this year's analysis. In reviewing the detailed spreadsheet of results (TW_A_SAMPLE_VAL_SUMM_V1_200412.xls) MP highlighted that the validated AMR sample had increased to 3,830, of which 2,996 were Domestic. The sample had returned to higher numbers, following the impact of losses during the roll-out of AMR in place of datarecorders.

SB noted that an increased number of AMR sites had been rejected due to spikes (even though the overall sample size has also increased) and was concerned that the algorithms might not respond adequately to cold weather if too many strong reactions to weather were being removed. MP replied that the spike criteria for AMR were unchanged from last year and that there had not been time for an in-depth investigation. The Workgroup agreed that a “Wish List” of potential adhoc analysis activities should be started, which might be included in the Autumn work programme.

Action TW0401: Xoserve to set up a log of possible activities for the Autumn analysis and to add “investigation of appropriateness of data spike rejection rules used in Spring data validation” to the list.

MP drew attention to the datalogger population for Small NDM, which had seen a reduction, due to increased validation failures. This had been partly mitigated by an increase in the read spike tolerance, whereby a dataset would be rejected if an individual summer day was more than 13 times the summer average (compared to 10 times last year).

SB questioned why 13 had been selected and MP replied that it was intended to account for the shorter “summer” period in this year’s analysis (April to September, compared with March to September last year). Dropping out a colder month would give lower average demand. As Bands 2 to 4 were generally less weather sensitive than Band 1, it was not felt appropriate to take the tolerance up to 15, since that was the level applied to Band 1.

SB asked whether the average summer values for the two years had been compared. MP replied that a quick decision had been taken to be able to move on with data validation. SB felt that such an analysis would be a quick task, and requested that it be performed retrospectively, but without holding up the next stage of the process.

Action TW0402: Xoserve to calculate average values for summer consumption for the Small NDM Sample for the 2011/12 data compared to the 2010/11 data to determine whether the change to the read spike tolerance was appropriate and report back to the Group.

MP reviewed sample sizes for Large NDM, highlighting a slight improvement in the sample size, mainly due to interruptible sites becoming firm and being available to boost the NDM sample. SB questioned whether Xoserve were happy that these former interruptible sites would behave like NDM sites and would be suitable for use in the Modelling. MP replied that there had been no interruption in the analysis period and FC added that the vast majority of former interruptible sites had no facility to interrupt or alternative fuel sources and should really have been firm throughout.

3. Small NDM Data Analysis Proposals

MP introduced the next section of the presentation highlighting that Small NDM accounts for over 87% of the current connected load. MP then led the group through a review of each of the small NDM EUC Bands in turn, referring to the spreadsheet TW_B_SAMPLE_POP_SMALL_V1_200412.xls, and reaching the following agreements:

- Band 1 – no issues with the sample sizes, only the usual NW/WN aggregation required
- Band 2 – no issues with the sample sizes, only the usual NW/WN aggregation required

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- Band 3 – the usual NW/WN aggregation will be run, plus a WS/SW aggregation will be run in parallel to an individual analysis, as the WS sample is low again this year
 - Band 4 – no issues with the sample sizes, only the usual NW/WN aggregation required

MP explained the traditional break-point analysis which assessed whether certain EUCs could be sub-divided (e.g. into 2 at the mid-point). FC questioned whether this analysis was still worthwhile as Xoserve had previously advised DESC that it would not be safe to amend EUC boundaries without proper impact assessment and testing. This could not be done in time for October 2012, so no changes would result from this investigation. The Workgroup agreed that this investigation was too limited and of no value for this year.

PT suggested that a review of the large NDM Consumption and WAR Band definitions in the autumn might be fruitful, given the small proportion of supply points covered by large NDM EUCs.

The Workgroup asked Xoserve to add “Investigation of EUC Consumption Band and WAR Band definitions” to the log of possible activities for the Autumn analysis.

Action TW0403: Xoserve to add “Investigation of EUC Consumption Band and WAR Band definitions” to the log of possible activities for the Autumn analysis.

3.1. Small NDM WAR Band Analysis

MP gave an overview of the background to WAR (Winter Annual Ratio) Bands. The spreadsheet TW_B_SAMPLE_POP_SMALL_V1_200412.xls set out various options for the boundaries of the WAR Bands, which must be set afresh each year, based on the previous winter. The aim is to achieve a 20:30:30:20 split of sample sites across the four Bands, and to bias towards the lower Bands where the relationships to weather tend to be weaker.

The proposed LDZ aggregations were agreed. After some discussion the meeting agreed to limits of 0.42-0.51-0.63 for Small NDM, which had been proposed by E.ON in correspondence before the meeting.

4. Large NDM Data Analysis Proposals

MP introduced the next section of the presentation highlighting that Large NDM accounts for around 12% of the current connected load. MP then led the group through a review of each of the large NDM EUC Bands in turn, referring to spreadsheet TW_C_SAMPLE_POP_LARGE_V1_200412.xls, reaching the following agreements:

- Band 5 – Individual LDZ analysis, except for the usual NW/WN aggregation required
- Band 6 – Individual LDZ analysis, except for the usual NW/WN aggregation required
- Band 7 – insufficient sample size, run both a 5-LDZ group and 4-LDZ group aggregation in parallel and compare results
- Band 8 – insufficient sample size, run both a 4-LDZ group and 3-LDZ group aggregation in parallel and compare results
- Band 9 – national aggregation

4.1. Large NDM WAR Band Analysis

MP then led the group through a review of the WAR Band proposals for each large NDM EUC Band in turn, referring to spreadsheet

TW_C_SAMPLE_POP_LARGE_V1_200412.xls, reaching the following agreements:

- Band 5 – Proposed thresholds of 0.38-0.46-0.56 with a 5-LDZ group aggregation
- Band 6 – Proposed thresholds of 0.33-0.41-0.51 with a 3-LDZ group aggregation
- Band 7 – Proposed thresholds of 0.32-0.36-0.45 with a national aggregation
- Band 8 – Proposed thresholds of 0.32-0.35-0.44 with a national aggregation

In reviewing the process for discussing and setting WAR Band limits, the meeting asked whether for future years, the TWG members could be provided with the list of actual meter points and their WAR ratios, to help them trial alternative proposals for WAR Band limits.

5. Conclusions

FC re-capped on the agreed outcomes of the meeting and advised that she would issue brief minutes of the discussions, via Joint Office Website.

MP advised that the agreements gained meant that Xoserve could now commence work on the single year EUC modelling. Xoserve might need to call on TWG members to assist with decision-making.

6. Diary Planning

The next TWG meeting is scheduled for 23 May, at which the outcomes of the single year modelling would be reviewed, prior to model smoothing. Xoserve would try to incorporate members' feedback from today's meeting into the presentation of results at the next meeting.

Action Log: Demand Estimation Sub-committee – Technical Work Group

Action Ref*	Meeting Date(s)	Minute Ref	Action	Owner	Status Update
TW0401	20/04/12	2.0	Xoserve to set up a log of possible activities for the Autumn analysis and to add "investigation of appropriateness of data spike rejection rules used in Spring data validation" to the list.	Xoserve (FC/MP)	

Action Ref*	Meeting Date(s)	Minute Ref	Action	Owner	Status Update
TW0402	20/04/12	2.0	Xoserve to calculate average values for summer consumption for the Small NDM Sample for the 2011/12 data compared to the 2010/11 data to determine whether the change to the read spike tolerance was appropriate and report back to the Group.	Xoserve (FC/MP)	
TW0403	20/04/12	3.0	Xoserve to add "Investigation of EUC Consumption Band and WAR Band definitions" to the log of possible activities for the Autumn analysis.	Xoserve (FC/MP)	