

## Demand Estimation Sub-Committee Technical Workgroup Minutes

### Tuesday 24 April 2018

### via teleconference

#### Attendees

|                             |       |                        |                           |
|-----------------------------|-------|------------------------|---------------------------|
| Bob Fletcher (Chair)        | (BF)  | Joint Office           |                           |
| Mike Berrisford (Secretary) | (MB)  | Joint Office           |                           |
| Anupa Purewal               | (AP)  | E.ON                   | Voting Member             |
| Dean Pearson                | (DP)  | Northern Gas Networks  | Voting Member (alternate) |
| Fiona Cottam                | (FC)  | Xoserve                | Non-Voting                |
| Joseph Lloyd                | (JL)  | Xoserve                | Non-Voting                |
| Louise Hellyer              | (LH)  | Total Gas & Power      | Voting Member             |
| Mandeep Pangli              | (MPn) | Xoserve                | Non-Voting                |
| Martin Attwood              | (MA)  | Xoserve                | Non-Voting                |
| Mark Palmer                 | (MPa) | Orsted                 | Non-Voting                |
| Mark Perry                  | (MP)  | Xoserve                | Non-Voting                |
| Philip Costin               | (PC)  | Xoserve                | Non-Voting                |
| Smitha Coughlan             | (SC)  | Wales & West Utilities | Voting Member (alternate) |
| Teresa Safina               | (TS)  | ScottishPower          | Non-Voting                |

#### Apologies

|                 |      |                        |               |
|-----------------|------|------------------------|---------------|
| Fiona Speak     | (FS) | RWE npower             | Voting Member |
| Joanna Ferguson | (JF) | Northern Gas Networks  | Voting Member |
| Richard Pomroy  | (RP) | Wales & West Utilities | Voting Member |

Copies of papers are available at: <https://www.gasgovernance.co.uk/desc/240418>

#### 1. Introduction and Status Review

Opening the meeting, BF explained that as the last DESC TWG meeting was held in 2017, there would be no previous minutes or actions to review at this meeting, as they have essentially time expired by now.

##### 1.1. Apologies for Absence

Please refer to the above table.

##### 1.2. Note of Alternates

Dean Pearson for Joanna Ferguson and Smitha Coughlan for Richard Pomroy.

##### 1.3. Approval of Minutes

None.

#### 2. Spring Analysis – Phase 1: Data Validation and Aggregations:

Opening discussions, MP highlighted that Xoserve had issued three supporting Excel spreadsheet documents<sup>1</sup> via email (to specific DESC TWG Members) prior to the meeting, which whilst not for general publication on the Joint Office web site meeting page (because they remain 'a work in progress'), would be utilised in conjunction with the '*Data Validation and Aggregations – Spring 2018*' presentation, which has been published prior to the meeting.

Attention focused on the 'Demand Estimation: Pre-Payment Data' slide 13, during which MP confirmed that Xoserve did not receive any daily data which is required to produce meaningful demand models, in its absence a set of periodic reads was provided by a third party, MP described the approach taken with this data, including needing a minimum of 50 reads and applying the principles used for MOD451, in order to undertake a realistic modelling exercise

When asked, those in attendance suggested that it is the pre-payment model that causes them the most concerns, and agreed that there might be benefit in utilising historical pre-payment data for comparison purposes. The consensus was to undertake the (pre-payment) modelling runs and thereafter validate the data at the next checkpoint in the process.

During a review of the '*Demand Estimation: Summary of Validated Data*' slide 15, MP noted the reduction of 309 Domestic supply points before explaining that the 2,783 Non-Domestic and 1,962 Pre-Payment supply point figures are new additional data items. MP then made reference to the first of the three supporting Excel spreadsheet sheets (*TW\_A\_SAMPLE\_VAL\_SUMM\_240418.xlsx*), and proceeded to provide a short resume of the background to each tab, as follows:

A.1 – Small NDM Supply Points: 0 to 293 MWh pa (Bands 1 to 2)

This represents an early view of the validation results.

A.2 – Small NDM Supply Points: 73.2 to 2196 MWh pa (Bands 1 to 4)

This represents an early view of the validation results that are also summarised in Section 1 of the NDM Algorithms booklet.

MP pointed out the big boost in the numbers due to the provision of the additional data.

A.3 – Large NDM Supply Points: >2196 MWh pa (Bands 5 and above)

This represents an early view of the validation results that are also summarised in Section 1 of the NDM Algorithms booklet.

MP highlighted that the smaller decrease in numbers witnessed reflected the impact of the additional data.

A.4 – Small NDM Pre-Payment Supply Points: 0 to 293 MWh pa (Bands 1 to 2)

This represents an early view of the validation results that are also summarised in Section 1 of the NDM Algorithms booklet.

Moving back to the presentation, attention focused on the '*Xoserve Managed Sample (Band 1 Domestic)*' slide 16, whereupon MP highlighted the Spring 2018 daily read provision fall of 14.93%. Furthermore, the headline statement is that sample losses due to the SMART metering programme, are not sustainable.

When asked whether or not the Band 1 data included non domestic supply points, MP explained that it does not and that previously Xoserve have added a percentage to the numbers in order to refine the modelling, although it should be noted that this did inadvertently cause some weekend related skewing of the data. MP advised that obtaining data from 3<sup>rd</sup> party domestic providers is difficult.

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<sup>1</sup> The three accompanying Excel spreadsheets provided ahead of the meeting and thereafter utilised during discussions on item 2. above, are entitled: *TW\_A\_SAMPLE\_VAL\_SUMM\_240418.xlsx*; *TW\_B\_SAMPLE\_POP\_SMALL\_240418.xlsx*, and *TW\_C\_SAMPLE\_POP\_LARGE\_240418.xlsx* respectively.

Focusing on the 'Small NDM (<2,196MWh pa)' slide 17, BF wondered whether or not UNC Modification 0654 'Mandating the provision of NDM sample data' provisions would potentially impact on this data. Responding, FC suggested that whilst there is potentially a direct impact, it is not necessarily an immediate one and is heavily dependent upon when the modification is implemented and the associated data lag involved thereafter. The aim would be to utilise the data for analysis after 2019.

Continuing through the presentation, discussions then alighted on the 'Small NDM Consumption Bands: Review of data' slide 20, with MP referencing the second of the three supporting Excel spread sheets (*TW\_B\_SAMPLE\_POP\_SMALL\_240418.xlsx*), and proceeded to provide a short resume of the background to each tab, as follows:

B.1 – Small NDM Supply Points: 0 to 73.2 MWh pa (Band 1) Prepayment Meters

This represents just one Shipper's data with a clear North / South split evident. In noting the low number of supply points for the SO and SW LDz' (35 and 44 supply points respectively), FC enquired whether or not the DESC TWG want to go with these, or look to utilise aggregated values, however TWG agreed to proceed with the ideal individual LDZ analysis for this model.

It was noted that there are no issues with the sample numbers.

B.2 – Small NDM Supply Points: 0 to 73.2 MWh pa (Band 1) with a MSC of D

Utilises Domestic only supply point data and reflects the impact of SMART metering programme, with the expectation that the sample size will reduce even further.

It was noted that there are no issues with the sample numbers for this years modelling.

B.3 – Small NDM Supply Points: 0 to 73.2 MWh pa (Band 1) with a MSC of 1

Reflects Band 1 AQ market sector code I (I&C's).

It was noted that there are no issues with the sample numbers.

B.4 – Small NDM Supply Points: 73.2 to 293 MWh pa (Band 2) Prepayment Meters

It was noted that there are sample size issues involved, with questions around the actual number of supply points (550).

Based on a sample size of 3, the model is not viable.

B.5 – Small NDM Supply Points: 73.2 to 293 MWh pa (Band 2) and MSC of D

It was noted that there are sample size issues involved, although there is an opportunity to undertake a geographical splitting exercise (i.e. 2x or 3x LDZ grouping based approach).

When asked whether any of the LDZ act in a similar manner to one another, MP remarked that weather sensitivity related differences can exist. FC explained that Xoserve have historically tried to find a sensible LDZ sample balance in order to provide realistic modelling.

MP then suggested that one option would be to utilise a Northern (67) / Southern (53) split for the modelling, which the DESC TWG agreed was a good idea.

It was agreed to utilise a National + 2x LDZ split for modelling purposes.

B.6 – Small NDM Supply Points: 73.2 to 293 MWh pa (Band 2) and MSC of 1

It was noted that there are no issues with the sample numbers.

B.7 – Small NDM Supply Points: 293 to 732 MWh pa (Band 3)

It was noted that there are no issues with the sample numbers.

B.8 – Small NDM Supply Points: 732 to 2196 MWh pa (Band 4)

It was noted that there are no issues with the sample numbers.

Moving back to the presentation, attention focused on the 'WAR Band basics' slide 24, whereupon MP highlighted the WAR band limits of 20%, 30% 30% and 20% (target %) splits of sample numbers on a national basis.

MP referenced the user toolset provided alongside the Excel spread sheets that enables parties to run their own modelling runs.

MP then focused attention on the 'Small NDM WAR Bands: Review of data' slide 25, referencing the final table in the (*TW\_B\_SAMPLE\_POP\_SMALL\_240418.xlsx*) spread sheet, as follows:

#### B.9 – Small NDM Supply Points: 732 to 2196 MWh pa (Band 4)

It was noted that there are no issues with the sample numbers and that it has not been necessary to combine Wales and the South West LDZs this time in order to have a sound basis for modelling purpose.

When asked whether or not anyone has a better set of data, or an alternative suggestion, AP advised that E.ON had tried the modelling tool and come up with similar figures.

It was agreed to use the Xoserve recommendation.

MP then handed over to his colleague JL to provide an overview of Section 4 (slides 26 through to 31) of the presentation.

JL drew attention to the last bullet point on the 'Large NDM (>2,196 MWh pa)' slide 27.

During a discussion on the 'Large NDM Consumption Bands: Review of data' slide 29, JL made reference the third Excel spread sheet (*TW\_C\_SAMPLE\_POP\_LARGE\_240418.xlsx*), and proceeded to provide a short resume of the background to each tab, as follows:

#### C.1 – Large NDM Supply Points: 2196 to 5860 MWh pa (Band 5)

It was noted that there are no issues with the sample numbers, with the WS LDZ total now above the 'target' of a minimum of 30 supply points in the sample.

#### C.2 – Large NDM Supply Points: 5860 to 14650 MWh pa (Band 6)

It was noted that whilst on the whole there are no issues with the sample numbers, the WS LDZ total (21) for the number of Firm supply points, is below the 'target' of 30 supply points.

JL then went on to provide a background behind the Xoserve recommendation to utilise two modelling runs. When asked, the consensus of the TWG was that this is a sensible approach. It was pointed out that whilst a figure of 21 is not ideal, it does represent a reasonable percentage of the 45 NDM supply points for the LDZ concerned.

When asked why it is felt that the WS and SW combined LDZ split is the preferred option, FC explained how the geographical and population diversity aspects result in this being a 'good fit'.

#### C.3 – Large NDM Supply Points: 14650 to 58600 MWh pa (Bands 7 & 8)

It was noted that whilst on the whole there are no issues with the sample numbers, there are concerns around the WS, NT, SE and SOs LDZ total (19, 27, 19 and 17 respectively) for the number of Firm supply points, which is below the 'target' of 30 supply points. However, once again it was noted that these figures still display a reasonable percentage of their respective NDM supply points (35, 52, 41 and 48 respectively) for the LDZs concerned.

When asked whether or not the NT figures should be kept in for the modelling run, or excluded, the consensus was to include it.

When asked why the NE LDZ figures show 64 Firm supply points and only 49 NDM supply points, MP explained how DM/NDM meter points are split for modelling purposes. FC also pointed out that the same data validation is applied to DMs as well.

It was agreed to go with the Xoserve recommendation and have two modelling runs.

#### C.4 – Large NDM Supply Points: >58600 MWh pa (Band 9)

It was noted that due to a sample size issue, individual LDZ analysis is not feasible.

When asked whether or not there might be benefit in doing a North/South split based approach, JL advised that this would not really help matters. FC also suggested that it is questionable whether or not running two models would be a benefit, especially when there are only 16 sites involved and this is effectively a 'transition' model

It was agreed to go with the Xoserve recommendation and just undertake one National modelling run.

#### C.5 – Large NDM Supply Points: 2196 to 5860 MWh pa – WAR Bands (Band 5)

It was noted that Xoserve have displayed their best view of the WAR Band Ratio Thresholds, and reminded TWG of the email issued the previous week which explained that this data contained a 'floating point' error within the WAR Band Decision spreadsheet.

When asked, LH explained that she had run the modelling tool that has not highlighted any weaknesses in the Xoserve recommendations.

It was agreed to go with the Xoserve recommendation for the modelling run.

#### C.6 – Large NDM Supply Points: 5860 to 14650 MWh pa – WAR Bands (Band 6)

It was noted that Xoserve have displayed their best view of the WAR Band Ratio Thresholds.

When asked, no one had an alternative option to put forward.

It was agreed to go with the Xoserve recommendation for the modelling run, utilising the same level of grouping as last year).

#### C.7 – Large NDM Supply Points: 14650 to 58600 MWh pa – WAR Bands (Bands 7 & 8)

It was noted that Xoserve have displayed their best view of the WAR Band Ratio Thresholds.

When asked, no one had an alternative option to put forward.

It was agreed to go with the Xoserve recommendation for the modelling run.

JL then handed over to his colleague MP to continue the overview of Section 4 (slides 32 and 33) of the presentation.

In reviewing the 'Meeting Summary' slide 33, MP summarised the discussions as all Xoserve recommendations accepted, with the addition of an extra modelling run for the Domestic Band 2 (i.e. now involving both a National and 2x LDZ group split modelling runs). It was also noted that there is no viable modelling run for the pre-payment Band 2.

LH suggested, and the DESC TWG parties in attendance agreed, that it might be beneficial to flag to the industry that the year on year sample size reductions are a concern – had the extra data not been provided, we would have been in a more serious position this year.

### **3. Next Steps**

Xoserve to commence single year modelling run now all the definitions for this years EUC models have been agreed and Xoserve to contact DESC TWG parties for prompt decisions on the modelling analysis 'grey' areas of concern, where identified.

DESC TWG to review and validate the modelling run outcomes at the May 2018 meeting.

### **4. Any Other Business**

None.

### **5. Diary Planning**

Further details of planned meetings are available at: [www.gasgovernance.co.uk/Diary](http://www.gasgovernance.co.uk/Diary)

Workgroup meetings will take place as follows:

| Time / Date | Venue | Workgroup Programme |
|-------------|-------|---------------------|
|-------------|-------|---------------------|

|                              |   |   |
|------------------------------|---|---|
| 10:00 Tuesday<br>15 May 2018 | Joint Office, Solihull –<br>venue details to be<br>confirmed. | Standard agenda items. <ul style="list-style-type: none"><li>• Validate modelling runs based on<br/>aggregations/WAR band definitions</li></ul> |
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