

Demand Estimation Sub-Committee Technical Workgroup Minutes
Monday 22 May 2020
Via Microsoft Teams

Attendees

Alan Raper (Chair) (AR) Joint Office

Maitrayee Bhowmick-Jewkes (Secretary) (MBJ) Joint Office

Shipper Representatives

Anupa Purewal (AP) E.ON Energy + DESC Member

Fiona Speak (FS) npower

Zoe Ireland (ZI) British Gas + DESC Member

Transporter Representatives

Emma Buckton (EB) Northern Gas Networks + DESC Member

Shiv Singh (SS) Cadent + DESC Member

Smitha Coughlan (SC) Wales & West Utilities + DESC Member

Xoserve Representatives

Joe Lloyd (JL) Xoserve

Mark Perry (MP) Xoserve

Martin Attwood (MA) Xoserve

Mike Maguire (MM) Xoserve

Simon Bissett (SB) Xoserve

Observers

Emily Short (ES) EDF Energy

Jason Blackmore (JB) Observer

John Jones (JJ) Scottish Power + DESC Member

Mark Linke (ML) British Gas

Neil Crompton (NC) SSE + DESC Member

Copies of papers are available at: <https://www.gasgovernance.co.uk/DESC/220520>

1. Introduction and Status Review

Alan Raper (AR) welcomed everyone to the meeting and confirmed the meeting was quorate.

1.1. Apologies for Absence

None advised.

1.2. Note of Alternates

None Advised.

1.3. Approval of Minutes (27 April 2020)

The minutes from the previous DESC meeting were approved by the DESC members present.

1.4. Review of Actions DESCs Outstanding

Action 0201: CDSP (MM) to provide more information and detail on the calculations in relation to AQ Ratios including the checks undertaken as part of the update on Seasonal Normal Review at the 06 July meeting.

Update: This update will be provided at July meeting. **Carried Forward**

Action 0203: Jason Blackmore (JB) to provide more information on a formal validation check of the Stratification approach for EUC Bands 01 and 02 for discussion at the April meeting.

Update: MP confirmed JB has provided this information to Xoserve. JB suggested that the Technical Workgroup (TWG) should review this information. It was agreed the Joint Office will publish this paper for the TWG to review before the next meeting. **Closed.**

New Action 0501: Joint Office (AR/MBJ) to publish the paper sent by JB on formal validation checks of the Stratification approach for EUC Bands 01 and 02 as well as provide a link to it in the minutes.
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Post Meeting Update: Paper published at: https://www.gasgovernance.co.uk/DESC/220520

Action 0204: DESC members (all) to review the DESC Technical Workgroup membership on the Joint Office website (<https://www.gasgovernance.co.uk/DESC/TWGRepresentatives>) to ensure it is correct and notify Joint Office of any changes that need to be made.

Update: MP advised this action was to ensure the DESC TWG distribution list was up to date and confirmed that the list had now been updated. AR noted that the action may have been to ensure the list of members for the TWG was accurate prior to the UNC re-election process. The TWG confirmed this was correct. **Closed.**

Action 0206: DESC members (all) to review the UNC Section H requirement at paragraph 2.2.2 and consider the approach to this work – to be reviewed before July meeting.

Update: MP said this action is duplicated in action 0404. The TWG agreed to close this action. **Closed.**

0401: DESC TWG to consider Band 1 sample size and ability to model Band 1 Pre-payment Domestic Sites and I&C - EUC Demand Modelling

Update. MP confirmed that this data is necessary for Xoserve to carry out modelling, but the data they have access to at present is not sufficient. He clarified that Xoserve are liaising with Shippers for this information, including contacting the wider Shipper community. TWG confirmed the action can now be closed. **Closed.**

0402: Xoserve/CDSP (SB) to consider what information could be reported to PAC and the ability to obtain additional sample data.

Update: SB clarified that certain additional data is currently reported to PAC, which includes different statistics and comments on individual Shipper reports. AR noted there is nothing further Xoserve can do at present and TWG confirmed the action could be closed. **Closed.**

0403: Xoserve/CDSP (MP) to seek approval from DESC Members to remove the UIG uplift (via correspondence).

Update: MP noted that following the last TWG meeting, an email was sent around to all DESC members seeking approval to remove the UIG uplift. As there had been no rejection of the proposals and two members had been in support, the proposal was approved. **Closed.**

0404: DESC and DESC TWG to consider and feedback to Xoserve any suggestions on the NDM Demand approach document ahead of the July DESC meetings.

Update: MP clarified that this action is in relation to the three-year review of NDM algorithms. It was agreed this would be reviewed in detail in the July DESC meeting and the action is to ensure DESC has sufficient time to provide feedback to Xoserve. MP confirmed that some feedback has already been received, but he welcomed any further comments on this. **Carried Forward.**

2. Review of Single Year Modelling Results – Small and Large NDM (2019/20 data)

Mark Perry (MP) briefly introduced modelling work, advising that the purpose of this meeting is to review the results of the End User Category (EUC) demand modelling using the sample supply meter points presented to TWG on 27th April. The results are split into Small NDM and Large NDM and cover all 39 End User Categories for each LDZ. The analysis period covers some of the COVID-19 lockdown period and therefore the subsequent impact to gas demand has been captured in the initial modelling results. To discount this period, with TWG's agreement, the last week of March 2020 has been removed from the main set of results presented in the Small and Large NDM material.

Introduction (Slide-pack 1)

Joe Lloyd (JL) provided a presentation to introduce the modelling results which gave a background to EUCs and demand modelling. He explained the aim of this meeting was for TWG to:

- Review Gas Demand Modelling results for both Small and Large NDM EUC Bands
- Where more than one set of results has been produced for an EUC, confirm which modelling option should be selected
- Confirm TWG is satisfied with all Gas Demand Models that have been selected for deployment in the next activity, namely Demand Model Smoothing.

JL also explained that the main modelling results which will be presented in the meeting exclude the gas days at the end of March (i.e. 24th to 31st March inclusive) that coincided with the COVID-19 lockdown implemented by the Government.

Results – Small NDM (Slide-pack 2)

Martin Attwood (MA) provided presentation on the results of modelling for Small NDMs. He went on to provide the results of the Modelling Runs agreed at the last TWG meeting along with options for each of them. TWG agreed on the options as noted below as the basis for 2020-2021 Modelling.

Small NDM: Agreed Modelling Runs

Description/Range/EUC	Option 1	Option 2	Preferred Option
Band 1 PPM Domestic 0 to 73.2 MWh pa 01BPD	Individual LDZ analysis (using 'MOD451AV' Profile)	National analysis (using limited current data)	Option 1
Band 1 Non-PPM Domestic 0 to 73.2 MWh pa 01BND	Individual LDZ analysis	n/a	Option 1
Band 1 PPM I&C 0 to 73.2 MWh pa 01BPI	n/a	n/a	No model viable due to lack of data
Band 1 Non-PPM I&C 0 to 73.2 MWh pa 01BNI	Individual LDZ analysis	n/a	Option 1
Band 2 PPM Domestic 73.2 to 293 MWh pa 02BPD	n/a	n/a	No model viable due to lack of data
Band 2 Non-PPM Domestic 73.2 to 293 MWh pa 02BND	2 LDZ Group (SC/NO/NW/WN/NE/EM/WM and EA/NT/SE/WS/SO/SW)	National analysis	Option 1
Band 2 PPM I&C 73.2 to 293 MWh pa 02BPI	n/a	n/a	No model viable due to lack of data
Band 2 Non-PPM I&C 73.2 to 293 MWh pa 02BNI	Individual LDZ analysis	LDZ Wales North (WN) - using WN/NW demands	Option 1 for all LDZs except for LDZ WN (Option 2)
Band 3 293 to 732 MWh pa 03B	Individual LDZ analysis	n/a	Option 1
Band 4 732 to 2,196 MWh pa 04B	Individual LDZ analysis	n/a	Option 1

<p>Band 3 and Band 4 (Combined) 293 to 2196 MWh pa 03W01 to 04; 04W01 to 04</p>	<p>Individual LDZ analysis except for LDZ WN which uses WN/NW demands Agreed WAR Ratios: 0.411; 0.481 and 0.568</p>	<p>n/a</p>	<p>Option 1</p>
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TWG confirmed they were satisfied with the modelling results for Small NDMs presented and were willing to move to Demand Model Smoothing phase next.

Mark Linke (ML) noted that usually Shippers see residual modelling error materialise as unidentified gas (UIG). Before NEXUS, this was represented in modelling using scaling factors but since NEXUS there appears to be a significant bias in the levels of UIG between some LDZs. He asked how Xoserve, as the CDSP, could look to address this. MP clarified that when algorithms were created, DESC removes external influencing and then try to work out the accuracy of the modelling. He added there is always scope for potential for specific inaccuracies to occur in each LDZ, although Xoserve attempts to ensure they detect these variations in their analysis and, additionally, they are looking to improve the modelling with machine learning and the introduction of solar factor

JL explained that Xoserve try to decrease the modelling errors each year but it is difficult to always identify all the factors that cause UIG to be created.

Results – Large NDM (Slide-pack 3)

JL went on to provide a presentation on the modelling results for Large NDMs. This included the results of the Modelling Runs (for Consumption and Winter Annual Ratio (WAR) Bands) agreed at the last TWG meeting along with the options for each of them. TWG agreed on the options as noted below for 2020-2021 Modelling.

Large NDM: Agreed Modelling Runs (Consumption Bands)

Description/Range/EUC	Option 1	Option 2	Preferred Option
Band 5 2,196 to 5,860 MWh pa 05B	Individual LDZ analysis	LDZ WN (using WN/NW demands)	Option 1 for all LDZs except for LDZ WN (Option 2)
Band 6 5,860 to 14,650 MWh pa 06B	Individual LDZ analysis	LDZ WN (using WN/NW demands) LDZ WS (using WS/SW demands)	Option 1 for all LDZs except for LDZ WN and WS (Option 2)
Band 7 and Band 8 (combined) 14,650 to 58,600 MWh pa 07B; 08B	Individual LDZ analysis except for: LDZ WS (using WS/SW demands) LDZ SW (using WS/SW demands) LDZ NT (using NT/EA demands) LDZ WN (using WN/NW demands) LDZ SO (using SE/SO demands) LDZ SE (using SE/SO demands)	n/a	Option 1
Band 9 >58,600 MWh pa 09B	National analysis	n/a	Option 1

Large NDM: Agreed Modelling Runs (WAR Bands)

Description/Range/EUC	Option 1	Option 2	Preferred Option
Band 5 2,196 to 5,860 MWh pa 05 W01 to W04	7 LDZ Group (SC and NO/NE and NW/WN and EM/WM and EA/NT and SE/SO and WS/SW) Agreed WAR Ratios: 0.372; 0.443 and 0.519	5 LDZ Group (SC and NO/NW/WN and NE/EM/WM and EA/NT/SE and WS/SO/SW) Agreed WAR Ratios: 0.372; 0.443 and 0.519	Option 2
Band 6 5,860 to 14,650 MWh pa 06 W01 to W04	3 LDZ Group (SC/NO/NW/WN and NE/EM/WM and EA/NT/SE/WS/SO/SW) Agreed WAR Ratios: 0.336; 0.400 and 0.486	n/a	Option 1
Band 7 and Band 8 (combined) 14,650 to 58,600 MWh pa 07 W01 to W04; 08 W01 to W04	2 LDZ Group (SC/NO/NW/WN/NE/EM/WM and EA/NT/SE/WS/SO/SW) Agreed WAR Ratios: 0.325; 0.360 and 0.428	National analysis Agreed WAR Ratios: 0.325; 0.360 and 0.428	Option 1

TWG was asked if they were satisfied with the Modelling and results presented and if they agreed with the options Xoserve have suggested should be used. AR said it could be presumed that the information and options presented had been accepted in the absence of any comments suggesting otherwise.

MP asked TWG to confirm their agreement to the additional removal of 23rd March as an anomalous COVID-19 related outlier and received their confirmation.

3. Ad-hoc Work Plan

AR confirmed this was a standard agenda item and that there were no additional elements which needed to be discussed.

4. DESC Related Modification/Change Updates

MP noted the below two DESC related changes were to be brought to TWG's attention. These were:

XRN4772 which relates to changes to the CWV formula. MP confirmed this is included in Xoserve's June 2020 release and is on track to be implemented.

XRN5143 which related to the transfer of the NDM sampling obligations from DNs to CDSP. MP confirmed internal work has begun for implementation.

5. Communication of Key Messages

MP confirmed the agreements regarding the options chosen had been captured and would be documented and communicated via the DESC key messages process. The Key Messages will be published at: <https://www.gasgovernance.co.uk/desc/summarykeymessages>

6. Diary Planning

Further details of planned meetings are available at: <https://www.gasgovernance.co.uk/events-calendar/month>

Time / Date	Venue	Workgroup Programme
10:00 Monday 06 July 2020	TBC	Standard agenda, plus <ul style="list-style-type: none"> • 2020/21 NDM Algorithms: Review TWG responses • Seasonal Normal Review update (including update on action 0201)
10:00 Wednesday 22 July 2020	TBC	Standard agenda, plus <ul style="list-style-type: none"> • 2020/21 NDM Algorithms: • Response to Industry Representations • Weather Station Review • Review Adhoc Workplan • Seasonal Normal Review Update
10:00 Monday 05 October 2020	Radcliffe House, Blenheim Court, Warwick Road, Solihull B91 2AA	Standard agenda, plus <ul style="list-style-type: none"> • NDM Sample Update • Seasonal Normal Review Update
10:00 Monday 07 December 2020	Radcliffe House, Blenheim Court, Warwick Road, Solihull B91 2AA	Standard agenda, plus <ul style="list-style-type: none"> • Evaluation of Algorithm Performance for Gas Year 2019/20 • Modelling Approach – Spring 2021

Action Table (as at 22 May 2020)

DESC Actions					
Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
0201	10/02/20	2.0	CDSP (MM) to provide more information and detail on the calculations in relation to AQ Ratios including the checks undertaken as part of the update on Seasonal Normal Review at the 06 July meeting.	CDSP(MM)	Carried Forward
0203	10/02/20	3.0	Jason Blackmore (JB) to provide more information on a formal validation check of the Stratification approach for EUC Bands 01 and 02 for discussion at the April meeting.	Jason Blackmore (JB)	Carried Forward

DESC TWG Actions					
TWG 0404	27/04/20	5.0	DESC and DESC TWG to consider and feedback to Xoserve any suggestions on the NDM Demand approach document ahead of the July DESC meetings.	DESC & DESC TWG	Carried Forward
TWG 0501	22/05/20	1.4	Joint Office (AR/MBJ) to publish the paper sent by JB on formal validation checks of the Stratification approach for EUC Bands 01 and 02 as well as provide a link to it in the minutes.	Joint Office (AR/MBJ)	Pending