

**Demand Estimation Sub-Committee Minutes**  
**Wednesday 22 July 2020**  
**Via Microsoft Teams**

<b>Attendees</b>		
Lorraine O'Shaughnessy (Chair)	(LOS)	Joint Office
Maitrayee Bhowmick-Jewkes (Secretary)	(MBJ)	Joint Office
<b>Shipper Members</b>		
John Jones	(JJ)	ScottishPower
Louise Hellyer	(LH)	Total Gas & Power
Mark Jones	(MJ)	SSE
Sarah Palmer	(SP)	EON(Alternate to Anupa Purewal)
Zoe Ireland	(ZI)	British Gas
<b>Transporter Members</b>		
Paul O'Toole	(PO)	Northern Gas Networks (Alternate to Smitha Coughlan)
Sanjeev Loi	(SL)	Cadent
<b>Observers</b>		
Fiona Cottam	(FC)	Xoserve (Alternate to Dave Mitchell)
Martin Attwood	(MA)	Xoserve
Mike Maguire	(MM)	Xoserve
Jason Blackmore	(JB)	Gas Analytics
Joseph Lloyd	(JL)	Xoserve
Josh Mallet	(JM)	Npower
Precious Patterson	(PP)	Ceres Energy
Shiv Singh	(SS)	Cadent
Simon Bissett	(SB)	Xoserve
Simon Geddes	(SG)	National Grid ESO

Copies of papers are available at: [www.gasgovernance.co.uk/desc/220720](http://www.gasgovernance.co.uk/desc/220720)

**1. Introduction and Status Review**

Lorraine O'Shaughnessy (LOS) welcomed everyone to the meeting and confirmed the meeting was quorate.

**1.1. Apologies for Absence**

Smitha Coughlan

Emma Buckton

Anupa Purewal

Dave Mitchell

## 1.2. Note of Alternates

Paul O'Toole for Smitha Coughlan

Fiona Cottam for Dave Mitchell

Sarah Palmer for Anupa Purewal

## 1.3. Approval of Minutes (DESC 06 July 2020)

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

## 1.4. Approval of Late Papers

There were no late papers to approve.

## 1.5. Review of Actions DESCs Outstanding

**Action 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:** Xoserve confirmed this update will be provided under the agenda item 2.1. **Closed**

**Action 0701:** CDSP (MP) to publish version 2 of the EUC Demand Models and Gas Demand Profiles for wider industry consultation.

**Update:** JL confirmed action has now been completed. **Closed**

**Action 0702:** CDSP (MP) to investigate into possible reasons why Northern EUC ratios tend to be greater than 1 and other LDZs are not.

**Update** MM advised that an update will be provided under agenda item 3. **Closed**

**Action 0703:** DESC to review the Stratification Approach paper published on 29 May 2020. Direct any questions to JB.

**Update:** JB advised that he had not received any feedback and any further development should be considered under the future workplan. **Closed**

## 2. 2020/21 NDM Algorithms

### 2.1. Review Industry Representations

Martin Atwood (MA) introduced this by providing a brief background following the review of the 2020/21 NDM Algorithms providing an update on EUCs and Demand Model Lifecycles and a high-level view of the Demand Estimation timetable for 2020 along with the key checkpoints noting that the next milestone is uploading the Gas Profiles on Gemini and SAP by 15 August.

MA explained the final objective of the "Model Application" phase is for TWG, DESC and the industry to review the Derived Factors (ALPs, DAFs and PLFs) and approve the final versions to be used in Gemini and SAP-ISU for the new Gas Year. He asked the Committee to:

- Review any industry representations raised on the proposals for Gas Year 2020/21
- Formally approve the proposals
- Confirm remaining activities in relation to these proposals for the remainder of the year

As no industry representations had been received, Joseph Lloyd (JL) asked the Committee for approval of the proposals for Gas Year 2020/21. LOS took a formal vote and unanimous approval was received and JL confirmed Xoserve would publish the approved Gas Demand Profiles for 2020/21.

MA added he wanted to acknowledge the effective collaboration between DESC, TWG and Xoserve to finalise these profiles in spite of the challenges this year as a result of COVID-19 and the changes to working arrangements.

#### Next Steps:

The next steps were also confirmed:

- Week commencing 20 July 2020:

- Xoserve (on behalf of DESC) will inform the wider industry and Ofgem that the profiles are now formally approved
  - The Non Daily Metered (NDM) Algorithms Booklet (summary of the end to end modelling process) will be published
  - Week commencing 3 August 2020:
3. Xoserve to publish the final proposals to the industry and submit interface files to key systems (no later than 15 August)

**Seasonal Normal Review update (including update on action 0201)**

Mike Maguire (MM) provided an update on Seasonal Normal Review. He confirmed that further to the approval of the NDM gas profiles for 2020/21 (under agenda item 2.1), he would be providing the final values of EUC ratios for all LDZ EUC combinations in this meeting and provide a reminder of the remaining activities under Seasonal Normal Review due to be completed in 2020.

EUC Ratios:

MM advised these values are very similar to the previous values discussed as there have been minimal changes made to them. The EUC Ratios for Bands 1 to 9 were presented.

Action 0702:

MM informed the Committee that at the DESC meeting on 6 July, an explanation was sought regarding why Northern EUC ratios tend to be greater than 1 and other LDZs are not. Xoserve took an action to review this (Action 0702). MM presented the findings from Xoserve's investigation. The findings concluded that:

- EUC Ratios are calculated as the ratio of the  $\sum \text{SND}_t$  (Seasonal Normal demand for day t) from the new Demand model with the  $\sum \text{SND}_t$  from the existing Demand model.
- Due to the nature of the SND calculation, it is difficult to pinpoint exactly what causes the observed trend of Northern (NO) LDZ exhibiting EUC ratios > 1.000. Some of this trend may be explained by the changing of the CWV parameters which in turn modify the underlying structure of the CWV. The cold weather upturn threshold appears to have an influence on LDZ NO's CWV more than any other which could explain some of the variation in the EUC ratios. Some of the differences in the CWV characteristics are mitigated with similar changes in the SNCWV, hence why the majority of values still fall very close to a value of 1.000.

The Committee was satisfied that the explanation was sufficient, and this action was closed. Further information on this action can be found on the meeting page (link above).

Next Steps:

MM further confirmed the next steps for the Seasonal Normal Review will be:

- The Final EUC Ratio values will be published on the secure area of Xoserve's website, alongside the other Seasonal Normal Review 2020 supporting files: *18.NDM Profiling and Capacity Estimation Algorithms /2020-21 Gas Year / 5. Seasonal Normal 2020.*
- Revised WAALPs for all EUCs using new ALPs, DAFs, CWVs, and SNCWVs to support AQ calculations in September 2020 will be produced and published.
- Seasonal Normal Ratios will be applied to any Supply Meter Points which fail to calculate an AQ in September 2020. This will ensure that effective 1st October 2020, all Supply Meter Points will be on a consistent Seasonal Normal basis.

He confirmed that all DESC activities for the 2020 Seasonal Normal Review have now been completed.

Louise Hellyer (LH) asked that as AQs will be impacted by COVID-19, which months are being used for the Seasonal Normal calculations. JL explained that the modelling excluded dates between 23rd and 31st March 2020 and was also smoothed with the two previous years modelling. This minimised any COVID-19 impacts in the ratio calculations.

#### 4. Weather Station Review

MM presented an update on the UK Weather Stations advising that this review is carried out every 12 months with DESC to address any issues in relation to future use in the Demand Estimation process. He added that there was not any major change in the update provided in 2019, except for the addition of one new station at Durham. Further points to note were:

- From Gas Day 01st October 2020 onwards, LDZ SW will no longer be using bias adjustments for Yeovilton Weather station. Data will be sourced directly from Yeovilton to be used in the calculation of CWVs, as has been the process for the calculation of SNCWVs
- Although Precipitation currently does not form part of the CWV calculation, CDSP is receiving precipitation data in anticipation of future analysis.
- All weather stations currently have capability to record precipitation with the exception of Southampton Oceanographic Institute (LDZ SO). On advice of Xoserve's Weather Service Provider, 'Middle Wallop' is currently being used as an alternative.

LH asked if a summary of weather stations used for all weather variables can be published by Xoserve for information. MM advised her that it will be included in the NDM Algorithm booklet under section 11. LH further queried if the weather stations used to obtain precipitation data will be included. She was advised that it is not currently considered in the booklet but can be found elsewhere. JL added this was because the CWV does not currently include any precipitation effects. Xoserve agreed to include reference to the weather stations currently being used to obtain precipitation data in the 2020/21 NDM algorithms booklet.

**New Action 0704:** Xoserve (MM) to include reference to weather stations used to obtain precipitation data in the NDM Algorithms booklet.

#### 5. Review of NDM Algorithm (UNC H 2.2.2)

Fiona Cottam (FC) presented a review of the NDM algorithm, highlighting DESC's obligation under UNC Section H obligation 2.2.2 to review the Supply Meter Point Demand Formula or the NDM algorithm and consider next steps.

##### Background:

- Under UNC Section H, paragraph 2.2.1, the current formula for calculating the Supply Meter Point Demand is set out.
- This is used daily in Gemini for NDM Nominations and Allocations
- It became effective from 1st June 2017 following the implementation of UNC Modification 0432 (Project Nexus – Gas Demand Estimation, Allocation, Settlement and Reconciliation Reform)
- Paragraph 2.2.2 was added as part of the 0432 updates to Section H and states the following: "The operation of the formula in paragraph 2.2.1 shall be reviewed by the Committee [DESC] every three (3) years".
- A review has not been carried out since this obligation was introduced and at the end of September 2020 a third complete Gas Year under the new regime will have been completed.
- The current formula is now a stand-alone 'bottom up' estimate of NDM demand and is no longer the balancing figure (a role now taken up by Unidentified Gas (UiG)), meaning its accuracy/performance is more open to scrutiny and review.

- Analysis completed by the UiG Task Force has focused on the performance of the NDM algorithm and has provided findings which suggest an approach which utilises 'Machine Learning' could offer improvements to the daily estimation of NDM demand.

FC asked the Committee to consider how to approach this review and reminded them that an action from the DESC meeting on 27 April stated:

*“DESC and DESC TWG members to consider and feedback to Xoserve any suggestions on the NDM Demand approach document ahead of the July DESC meetings”*

She added that as no representations or feedback had been received from DESC members until now, Xoserve have put forward some recommendations for the Committee to consider on how this review can be progressed.

Recommendations:

- Xoserve's Demand Estimation team could possibly include this topic in their 2020 Adhoc Work Plan, but it would require collaborative effort across the industry.
- A draft document setting out the framework for the review would need to include:
  - Approach/Methodology
  - Success Criteria
  - Identify Key Stakeholders
  - Timescales
  - Defined industry Engagement / Consultation

FC asked DESC members for their views on how a wider industry engagement could be facilitated regarding their appetite for changing the algorithm vs the benefits of carrying out this review, given the potential implications to core systems.

Sarah Palmer (SP) commented that it may be too early to do this work as the Seasonal Normal Review including the use of Solar is being implemented from October 2020. FC accepted this challenge and formally asked DESC whether they would like Xoserve to undertake this review or whether they agreed with SP's view. She added Xoserve would only have the capacity to carry out this work in the Autumn/Winter period, therefore if they were not tasked to do this in 2020, the work would have to wait until Autumn 2021 before it could be started.

LH commented the Committee should be reviewing this, and it could be added to the Ad hoc Workplan and it's priority could be decided at a later time. JL added that this was Xoserve's view as well.

LOS advised that DESC can review who would carry out the work or where this work would fall once it is added to the workplan.

## **6. Ad-hoc Work Plan**

JL presented an overview of the Ad-hoc Work Plan with a view to agree the work plan for Autumn 2020 / Winter 2021. This includes any standard items performed every year and ad-hoc work arising out of discussions at DESC or DESC TWG.

JL gave an update on the progress made on the priorities identified last year (2019/20). He noted that although not all of the work identified on the workplan were achieved, the key priority items were i.e. Seasonal Normal Review deliverables and the new EUC Demand Modelling system had been completed.

The following work was noted as having been completed:

- Algorithm Performance for Gas Year 2018/19
- Modelling Approach 2020 preparations (for Gas Year 2020/21)
- Seasonal Normal Review 2020
- Replace all existing EUC modelling systems in order to be able to provide a more flexible service to DESC during next year's process

The following work will be carried forward:

- The introduction of MOD654 has seen a large increase in the volumes of sample data and the number of parties submitting it for modelling purposes.
- Introduction of new weather variables / contract will also require the team to design/build a process for handling in the new solution •

Xoserve noted that the Standard Workplan could include the following work for consideration in Autumn/Winter 2020/21:

- Algorithm Performance for Gas Year 2019/20
  - Produce reviews of all 3 strands of analysis, as agreed by DESC (will need some discussion given impacts of COVID-19 on second half of gas year)
- Modelling Approach 2021 preparations (for Gas Year 2021/22)
  - Approach document approved, model re-runs and updates to modelling systems
  - Possible changes to improve validation of sample composition (Action 0203)
- Seasonal Normal Review 2020
  - Support remaining implementation activities ahead of 1st October 2020 effective date i.e. calculation of historical WAALPs and overseeing CWV calculations in UK Link
- Model Smoothing Methodology Review
  - Assess whether continued use of model smoothing is appropriate (last reviewed 2018)
- Review of NDM Algorithm (UNC H Ref 2.2.2)
  - Every 3 years, DESC are required to review the current NDM Algorithm

Xoserve noted there were some additional areas which could be reviewed in this year's workplan as well as outstanding work from previous years. Their final recommendations to the Committee for the Autumn/Winter 2020/21 Workplan were presented to the Committee for feedback. Their recommendations included the following areas of work:

- Algorithm Performance for Gas Year 2019/20
- Modelling Approach 2021 preparations (for Gas Year 2021/22)
- Seasonal Normal Review 2020 (completion of remaining activities)
- Support NDM Algorithm Review
- Upgrades to CDSP's systems for handling and validating sample data submissions and managing weather data
- Model Smoothing Methodology Review
- Review of current Holiday code rules (Adhoc Work plan item)

Jason Blackmore (JB) noted that he had not received any feedback from the industry or DESC regarding his paper in relation to the *Modelling Approach 2021* preparations. JL confirmed that the industry and the Committee had reviewed the papers however no decision had been taken on how this work could be progressed. LOS asked if this area should be included in future DESC meeting agendas. She was advised by JL that Xoserve would review this work themselves to see if they could include it under their ad hoc work and if they could not do so they would bring it back to DESC for further discussions.

SP supported the *Review of current Holiday code rules* work. However, was concerned about undertaking the *NDM Algorithm Review* at this time. She clarified that she did not think this work was unnecessary but questioned whether it was essential to do this immediately. She asked whether gathering additional 'machine learning' outputs would not be better.

LH noted that a number of work areas recommended by Xoserve needed to be undertaken. Particularly, she noted the *Seasonal Normal Review*, *NDM Algorithm Review* and *Holiday Code Rules Review* should be carried out.

Zoe Ireland (ZI) added that a number of these topics may have significant impacts from COVID-19 as in a few years, when making these calculations they would be unable to use the data during the COVID-19 period. She asked whether work should be undertaken to review this and rectify this issue now. JL clarified that Xoserve are currently working on rectifying this problem. It will be added to the December DESC meeting agenda and Xoserve hope to share the modelling approaches on how they aim to progress this item.

Some further discussions took place around the impact of COVID-19 on portfolios. LH noted that she would prefer if the data for AQ calculations were shown as the normal figure and organisations would adjust from that position. Paul O’Toole (PO) agreed with this view for the Seasonal Normal Review.

LOS confirmed that in light of no further views from the Committee, the Ad Hoc Workplan would include the recommendations put forward by Xoserve. JL advised that a further review of this may be necessary at the next meeting in October and an additional placeholder for a meeting should be put in place for November, which can be confirmed at the October meeting.

**7. DESC Related Modification/Change Updates**

MM provided an update on the below change:

XRN5047 - *Seasonal Normal Review* has been successfully implemented on 11 July.

**8. Communication of Key Messages**

Xoserve confirmed the agreements regarding the approval of the NDM algorithm, the Seasonal Normal Ratios and the Ad hoc Workplan 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>

**9. Any Other Business**

**9.1 Review of Survey – prior to circulation after the meeting.**

Simon Bissett (SB) informed the Committee that Xoserve are seeking feedback on their key performance metrics. He will send out a survey after this meeting to the attendees and requested them to provide their views on Xoserve’s performance. He added this is the first survey being circulated and henceforth they will be sent out bi-annually. He further confirmed Xoserve will send out the surveys directly. LOS if the intention is to share the feedback to DESC ad SB confirmed that any feedback received will be discussed at the next DESC meeting.

**10. 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 05 October 2020	TBC	Standard agenda, plus <ul style="list-style-type: none"> <li>• NDM Sample Update</li> <li>• Seasonal Normal Review Update</li> </ul>
Potential November Placeholder Meeting	TBC	<ul style="list-style-type: none"> <li>• Ad Hoc Workplan</li> </ul>
10:00 Monday 07 December 2020	TBC	Standard agenda, plus <ul style="list-style-type: none"> <li>• Evaluation of Algorithm Performance for Gas Year 2019/20</li> <li>• Modelling Approach – Spring 2021</li> </ul>

**Action Table (as of 22 July 2020)**

DESC Actions					
Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update

<b>DESC 0704</b>	22/07/20	4.0	Weather Station Review Xoserve (MM) to include precipitation stations in the NDM Algorithms booklet.	Xoserve (MM)	<b>Pending</b>
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