

5.0 NDM Sample Update

Demand Estimation Sub Committee
14/12/2021

The logo for Xserve, featuring the word "Xserve" in a blue sans-serif font. The "X" is stylized with a blue and light blue geometric design.

Provided by:

The logo for Correla, featuring two overlapping circles, one blue and one yellow, followed by the word "correla" in a bold, dark blue sans-serif font.

correla

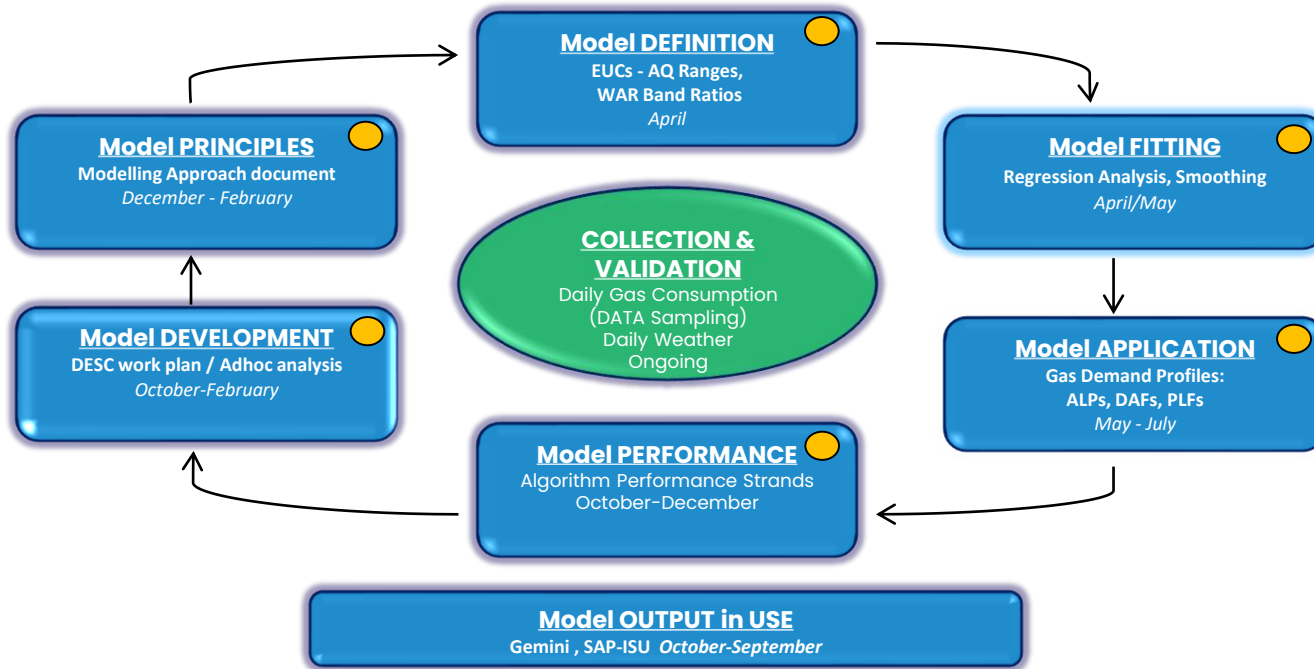
Contents

- Section 1: Overview, Background and Objective
- Section 2: Update
- Section 3: Conclusions



Section 1: Overview, Background and Objective

NDM Sample: Overview



DESC / TWG Checkpoint

NDM Sample: Background

- The Demand Estimation Team are responsible for ensuring there is a representative sample of the NDM population available for:
 - EUC demand modelling and
 - Reviewing demand model performance (Strand 3)
- Traditionally the sample has been sourced from:
 - Xoserve managed sample (Bands 1 and 2) and
 - Transporters managed sample (Bands 2-8)
- In recent years, following MOD654S the sample has been boosted by the submission of sampling data from Shippers

NDM Sample: Objective

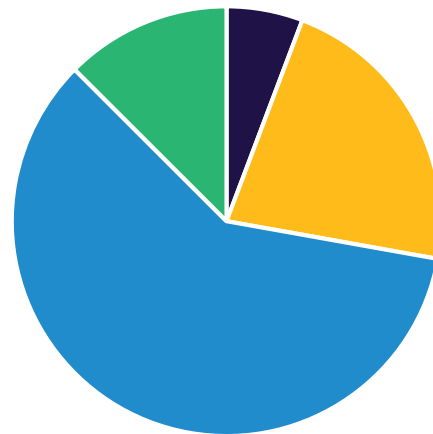
- To provide DESC with a current view of the Demand Estimation sample ahead of next year's Demand Modelling process and provide any relevant updates
- Summarise the quality of data received from MOD654s
- Provide an update on a new source of data
- Provide an update on the Xoserve Managed Sample

Section 2: Update

Sample Breakdown (Strand 3 Analysis)

- The chart on the right shows the breakdown of meter points by source that passed validation
- Xoserve managed sample now a minor contributing source
- As with previous years, we did not receive sufficient PPM data (27 passed validation across all EUCs)
- However, for the first time in this process we have managed to use class 3 data in UK Link (3,481 meter points passed validation) and this has been used to assess the MOD451AV profile

Passed Validation Source Breakdown



■ Xoserve ■ Networks ■ Shippers ■ Class 3 PPM



NDM Sample: Data Errors Table

- The table below shows the count for each rejection from all providers, please note that a Meter Point may have more than one rejection

Rejection Reason	Count
HyDeploy	2
Twin Stream	2
Meter Mech Code	5
Flexgen	6
Consecutive Zeros Post Infill	20
09B War Band Fail	37
Scottish Independent	156
More than 30 Infills	296
WAR Band Tolerance Fail	428
AQ vs Calculated Energy Fail	2,265
Day of the Week Error	4,223
Consecutive Zero Fail	4,797
Less than 300 Days	16,402
Winter Missing Reads	17,529
Summer Missing Reads	20,958

- It is imperative that all data is validated and checked before being sent, this will benefit the whole industry as it will result in more accurate profiles

NDM Sample: Data Errors

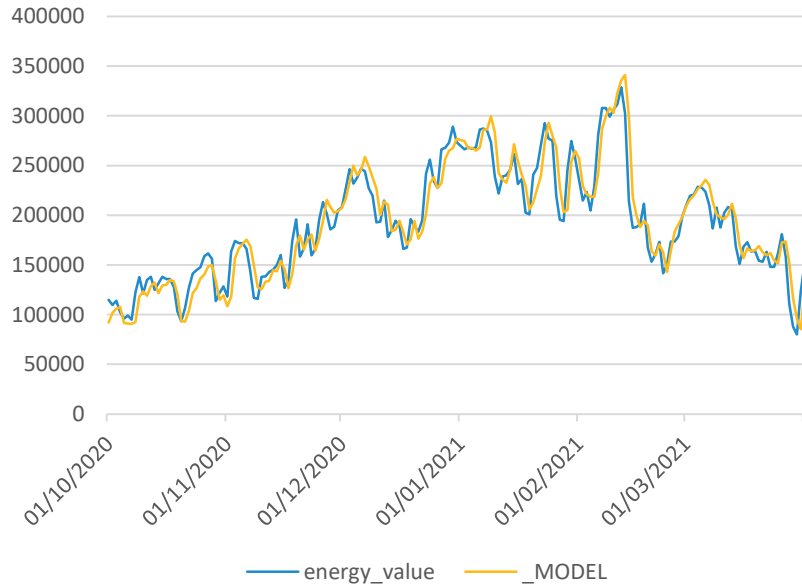
- 'Day of the Week' Error:
 - We have seen an increase in the number of submissions that contain Gas Flow Day rather than Meter Read Day
- The table below shows the number of Meter Points that passed validation but failed the Day of the Week check
 - All were Third Party Provided (Shippers)
 - Data shown is for 01BND which was the EUC impacted the most

EUC	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	Total
01BND	270	277	271	153	280	235	144	167	271	252	230	279	173	3002

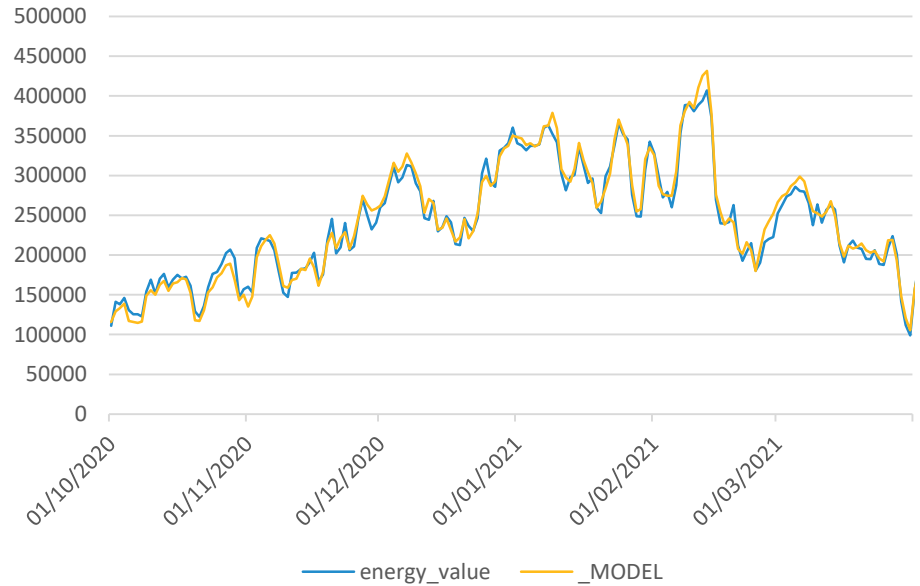
NDM Sample: Data Errors

- It is critical to the success of the demand models that the data provided matches the File Format requirements i.e. Meter Read Date rather than Gas Day
- The graphs below shows the impact on the profile should the Day of the Week ('DoTW') errors remain in the sample vs being removed

DoTW Errors Only (WINTER) – 01BND



DoTW Errors Removed (WINTER) – 01BND



NDM Sample: Xoserve Managed Sample Update

- Historically, Xoserve has obtained their own sample for EUC Bands 1 and 2 using a 3rd party provider for around 4,000 sites
- Over recent years, the introduction of SMART meters has meant this number has dwindled to 1,900 sites (and is expected to continue to reduce further). This is due to the AMR device not being compatible with SMART meters.
- The introduction of MOD654S has sufficiently 'topped up' the data for Bands 1 and 2, and as seen on slide 8 is now the main contributor to the sample.
- The requirement for the Xoserve sample (and the industry costs associated with it) have recently been reviewed. As a result the contract with Technolog will not be renewed beyond April 2022 (when it expires).
- Therefore, Spring 2022 will be the last use of this sampling dataset in the production of EUC demand models.

Section 3: Conclusions

NDM Sample: Conclusions

- Our new sample data handling and validation system allows for regular (monthly) reporting that will take place for all parties submitting data, please review these observations and contact us should any clarification be required
- MOD654S data is still containing a significant number of data errors, please ensure checks are made before submitting
- Class 3 Data has been successfully used in the Sample for this year's Algorithm Performance and has meant that we can test the Pre-Payment models for the first time since they have been introduced. It is proposed that this source will also be used for EUC Demand Model production in 2022
- The contract between Xoserve and Technolog will come to an end in April 2022, this data source will be replaced by Shipper Data from MOD654S submissions.