Demand Estimation Sub Committee

Provision of NDM sample data (UNC MOD654S)

December 2020

Overview

- Due to the number of sites in the current sample dwindling, MOD654 was raised in April 2018 and implemented (as MOD654S) in March 2019

- This modification made it mandatory for all shippers with a portfolio greater than 25,000 sites to submit daily gas consumption to Xoserve

- This was then added to Section H of the Uniform Network Code under header 1.6 NDM Sampling

Objective:

- This presentation aims to be a reference point for the industry to use to meet their obligations brought about by modification 0654S.

Background

- NDM population (c.24m) requires a methodology for estimating daily and peak gas demand in order to support several key industry processes - this process is referred to as Demand Estimation

- A sample of the NDM population is used to derive the parameters used in the NDM demand allocation formula. In recent years the numbers available from traditional sources have depleted significantly.

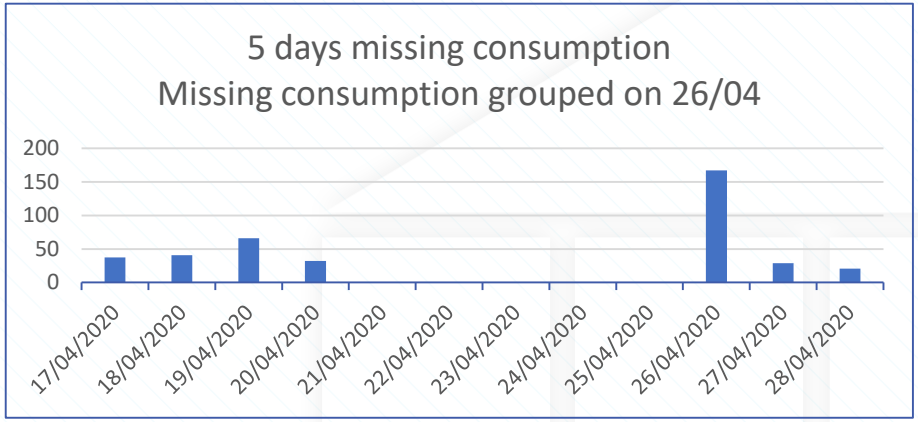
- UNC allows Transporters to acquire NDM sample data from third parties and, following an impact assessment which was presented at a meeting on 17th November 2015, DESC members approved the future use of third party supplied NDM sample data, starting with the Spring 2016 analysis.

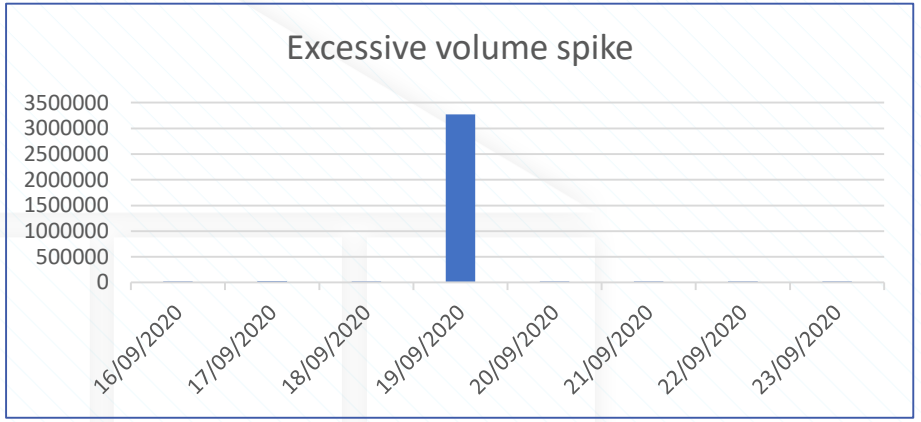
- Following successful use of voluntary supplied data, UNC modification 0654S introduced an obligation for the provision of regular NDM sample data from shippers to the Central Data Services Provider (CDSP) with effect from 1st March 2019.

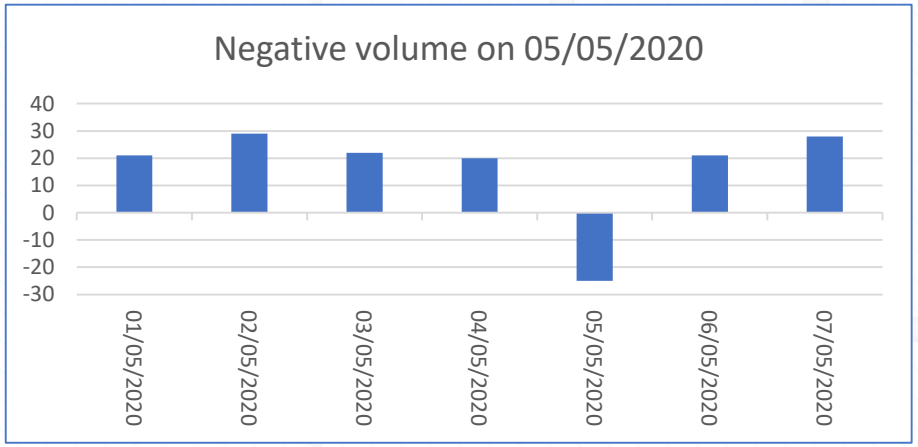
Requirements Prior to Submission

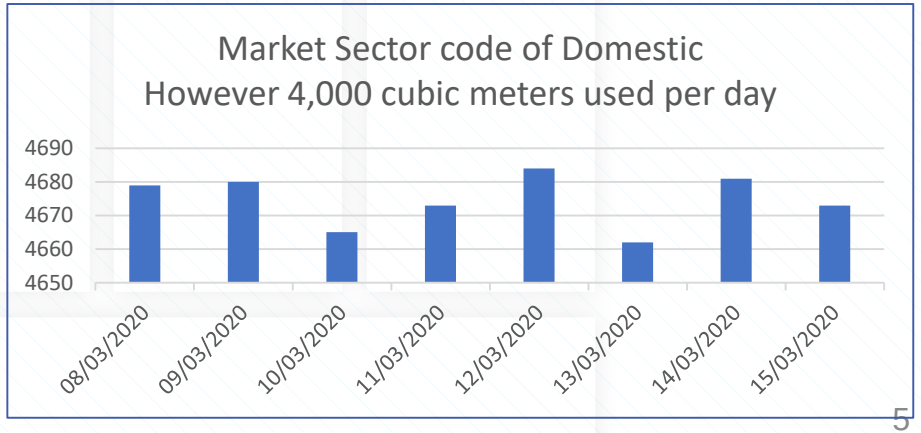
- If you are an eligible party, we need you to send daily gas consumption data in the format as defined here
- Prior to submitting to Xoserve please ensure the data is quality checked as you know your data / systems better than us
- Common data issues that we see are:
  - Negative volumes
  - Volume spikes
  - Large numbers of consecutive missing volumes
  - Consumption grouped to a single day
  - Duplicates
  - Gas day submitted not meter read day
  - Incorrect file format
  - Incorrect Market Sector Code on UK Link
- Some of the above issues are easy to identify and remove when there are single supply point issues, however where the errors are more subtle and systematic it can become a bigger issue when the data is aggregated for several thousand supply points

Examples of Errors Received









Xoserve Checks

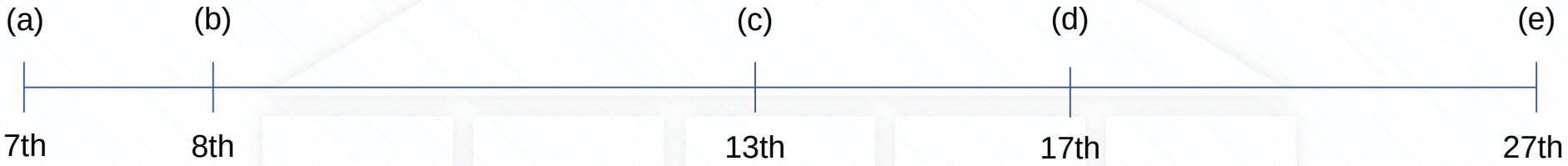
- Validation of the data is performed by the DE team which includes:
  - Correct file format
  - Is the MPR valid on UK Link
  - Consecutive zeros
  - Missing read dates
  - Comparison to AQ

- It is essential that only quality data is passed through to the demand modelling and algorithm performance strands and it is only data that is deemed useable that will be reported as 'successful' to Performance Assurance Committee (PAC)

- Due to the timetable we have to work with there is often not a large window to perform our checks, therefore we need the data errors removed before your file is sent to Xoserve.

Timeline

*Below shows an example timeline for the April 2020 submission



a) Shipper submits data to Xoserve by the 5th Business Day of month
b) Xoserve performs high level validation checks
c) All data is combined and validated
d) Fully validated counts sent to Joint Office prior to meeting
e) Fully validated counts presented at DESC

During this same window we also have to validate the Xoserve managed sample data and the data received from the Networks

**Please note, all data submissions are expected to be monthly unless you have notified Xoserve otherwise, as per Section H 1.6.13

What does it mean if data issues are not spotted?

- The models we produce will be less accurate
- Less accurate demand models mean less accurate NDM allocation and therefore more reconciliation. This also means greater levels and volatility of UIG
- The lessons we learn from algorithm performance may not be correct meaning we could make changes to the demand models which are based on data errors as opposed to genuine behaviour changes
- The models which produce the estimated view of peak gas demand could be less accurate meaning the physical capacity planning is not sufficient

Conclusions

- The implementation of MOD654S has meant that Xoserve has started to receive data submissions from 35+ different parties
- To help us manage the increase, we are in the process of building a new system for receiving, handling and validating the data
- As a result of this, it is essential that the data is received in the correct file format and has been checked for data errors
- These stricter checks will mean that we can’t be as flexible, so more submissions could be rejected and PAC notified that your data was unusable.
- We need to work together to ensure that the EUC demand models we produce benefit the whole industry and are as accurate as possible