

Review of NDM Algorithm Update

DESC Technical Workgroup

28/04/2021

The logo for Xserve, featuring a stylized 'X' composed of blue and light blue geometric shapes, followed by the word 'serve' in a light blue sans-serif font.

Provided by:

The logo for Correlia, consisting of two overlapping circles, one blue and one yellow, followed by the word 'correlia' in a dark blue sans-serif font.

correlia

Background – DESC Obligation

- The main DESC obligations are defined in Section H of UNC
- Paragraph 2.2.1 describes the current formula for determining Supply Meter Point Demand, which is used daily in Gemini for NDM Nominations and Allocations
 - $\text{Supply Meter Point Demand}_t = (\text{AQ}/365) * \text{ALP}_t * (1 + [\text{DAF}_t * \text{WCF}_t])$
- This formula 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”
- The UNC obligation to review every 3 years is new and has not been carried out formally since its introduction. At the end of September 2020 a third complete Gas Year under the new regime concluded i.e. Gas Years 2017/18, 2018/19 and 2019/20

Background – UNC Workgroup 0754R

- Analysis completed by the UIG Task Force focussed on the performance of the NDM Algorithm and provided findings which suggest an approach which utilises 'Machine Learning' could offer improvements to the daily estimation of NDM demand
- As a result of the above, a proposal to establish a UNC Workgroup to investigate advanced analytical approaches was approved by UNC Modification Panel on 18th February 2021
- The key rationale for establishing the Workgroup:
 - Supports DESC's UNC obligation to review the NDM Algorithm
 - UIG Task Force findings will be explored and progressed
 - Clear industry support for investigating advanced analytical approaches following recent industry consultation
 - A Workgroup maintains focus and increases visibility across the industry, whilst DESC performs its core functions of preparing profiles for the next Gas Year
 - Improved NDM Allocation will result in a reduction in UIG volatility and subsequent Meter Point reconciliation/UIG volumes

UNC Workgroup 0754R: Update 1

- The first Workgroup meeting took place on [23rd March](#)
- As this was the first 'kick-off' meeting, the presentation material and subsequent discussions mainly focused on the background and rationale, scope and suggested areas to investigate, slide pack available [here](#)
- DESC shall continue to be updated of progress at future meetings and of any subsequent conclusions and recommendations. The next meeting is scheduled for [12th May](#)

- The main headlines from the first meeting were:
 - The statement describing the scope was asked to be amended to allow other ideas, outside of advanced analytics, for improving NDM modelling to be explored
 - Workgroup attendees agreed to provide advice and/or data to support the analysis where they could, however it was made clear that significant industry resource would not be available to the Workgroup and that the bulk of the analysis should be performed by the CDSP (Correla on behalf of Xoserve) in order to maintain impartiality
 - As a result Correla took away an action to provide an indication of the resources needed (time, data, costs) to explore some of the suggested areas to investigate
 - The Workgroup were asked to review the UIG Task Force recommendations in advance of the next meeting
 - Minutes available [here](#)

Thank you

