



delivered by  correla

Demand Estimation Sub Committee

NDM Algorithms Update - Gas Year 2022/23

26 April 2023

Overview



- An overview of the Demand Estimation process and output can be found [here](#)
- Annual modelling cycle of activities are represented in diagram opposite
- This presentation relates to the “Demand Estimation” phase of the Demand Model cycle

CDSP / DESC Obligations and Timetable: October 2021 to September 2022

Milestone	UNC H Ref	2021			2022									
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
DESC Membership confirmed	1.12	✓												
NDM Sampling: Data Collection and Validation	1.6	✓						✓						
NDM Algorithm Performance for Gas Year 2021/22	1.8			✓									✓	
DESC Adhoc Workplan	1.7	✓		✓			✓							
DESC Modelling Approach – EUCs and Demand Models	1.7			✓			✓							
Single Year EUC Demand Modelling	1.7								✓					
Model Smoothing and Draft Gas Demand Profiles	1.7									✓				
Industry Consultation	1.8									✓	✓			
Gas Demand Profiles finalised and Core systems updated	1.9											✓		

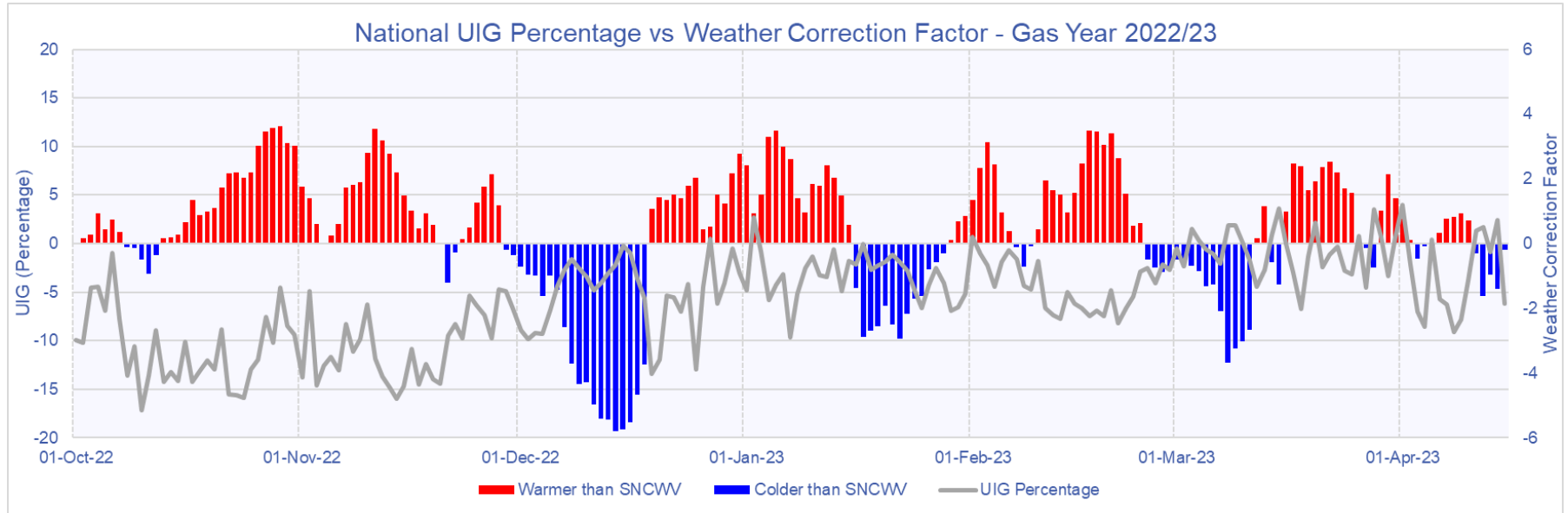
Background

- During Gas Year 2021/22 there was a significant overallocation of NDM demand by the Demand Estimation process
- This had been caused predominantly by AQs not reflecting the latest 'base level demand', due to the step change in behaviour caused by increase in wholesale gas prices
- At the start of Gas Year 2022/23 and ahead of the upcoming winter, DESC discussed potential options to mitigate the NDM over allocation, including applying factors to the Annual Load Profile (ALP)
- At the October meeting DESC concluded that this was not the correct approach and focus should be on the root cause i.e. AQ, however agreed it should be kept as a standard agenda item during the current Gas Year

Objective

- Review latest UIG levels/trends for Gas Year 2022/23 and any other related data items e.g. Annual Quantities (AQs)

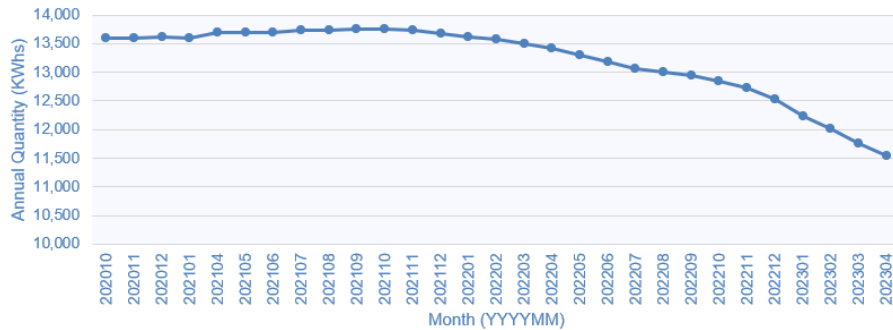
Analysis – Gas Year 2022/23: UIG Review



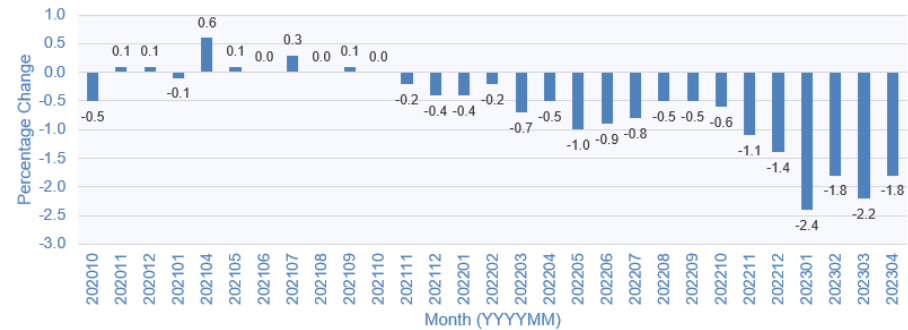
- Unidentified Gas (UIG) levels during Gas Year 2022/23 continue to be negative due to overallocation of Non-Daily Metered (NDM) demand
- NDM overallocation continues to be caused, predominantly, by AQt not reflecting latest end consumer behaviour/reactions (as shown on slide 7)

Analysis – Gas Year 2022/23: AQ Trends

Average Annual Quantity for 01BND - National



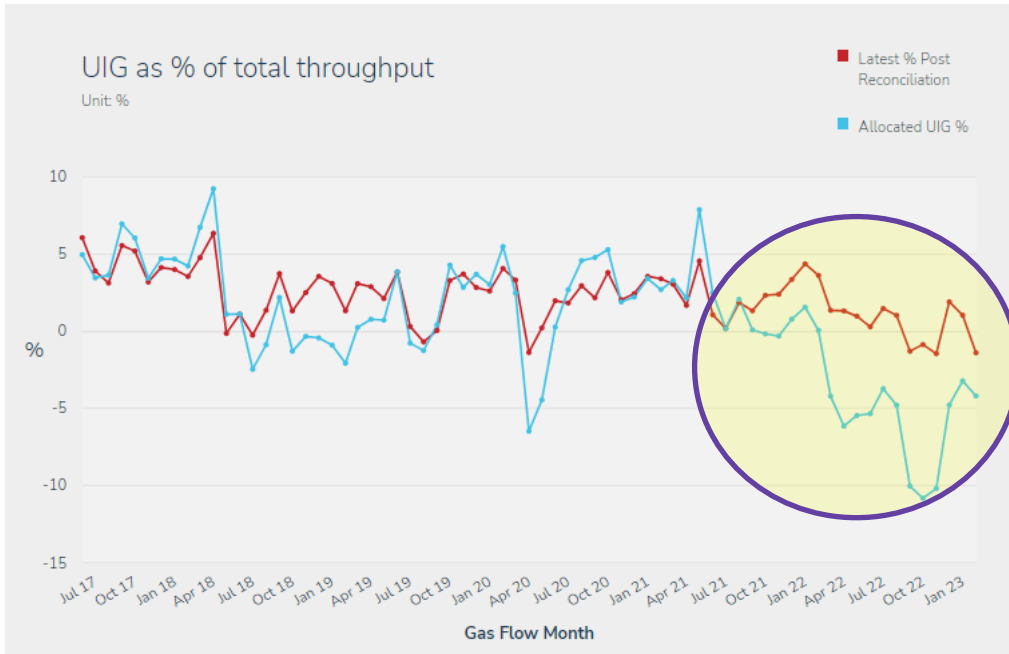
Annual Quantity % Change for 01BND - National



- Average AQs for Band 1 Domestic Non-Prepayment (“01BND”) continue to decrease every month with no sign of levels ‘flattening off’
- Over the past 12 months (May 22 to Apr 23) the average AQ has **declined by 15%**, real figure is likely to be more given there are c.3m Supply Meter Points (12% of NDM population) with an AQ Effective Date pre October 2022
- Similar results notable for recent months in Domestic Prepayment (“01BPD”) and I&C Non-Prepayment (“01BNI”) EUCs
- Note: During this period of NDM overallocation / Negative UIG, the Demand Estimation team continue to provide the industry a view of the latest Average AQ data/trends following each monthly calculations of Rolling AQs – Location:

Folder 18. NDM Profiling and Capacity Estimation Algorithms / UIG / Average AQ on secure area of [UK Link Docs](#)

Analysis – Gas Year 2022/23: Post Reconciliation



- Meter Point Reconciliations processed on the Amendment Invoice (AMS) continue to generate large credit reconciliations and therefore debits to UIG (see [Reconciliation by Month Report](#) for more detail)
- Shaded area on chart above highlights this for the past 12 months: UIG at Allocation (D+5) (blue line) and Estimated view of UIG% post reconciliation (red line) – link to online chart [here](#)

Conclusions

- Average UIG (%) for current Gas Year has been generally declining each month (see table opposite)
- AQs reducing in NDM market will be contributing towards this, i.e. becoming more reflective of current demand levels
- However, the NDM Algorithm is still including a significant amount of AQ which is based on 'out of date behaviour' and so overallocation and negative UIG should still be expected going forwards
- We expect evidence of this behavioural change to be evident in this year's Demand Modelling process when producing draft profiles for Gas Year 2023/24
- DESC will continue to discuss this topic for the remaining meetings of this Gas Year

Month	Avg. UIG (%)
Oct'22	-10.7
Nov'22	-10.5
Dec'22	-5.2
Jan'23	-3.37
Feb'23	-4.3
Mar'23	-0.84