



delivered by  correla

Demand Estimation Sub Committee

NDM Algorithms Update - Gas Year 2022/23

05 July 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 for GY 22/23 Profiles: 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											✓		

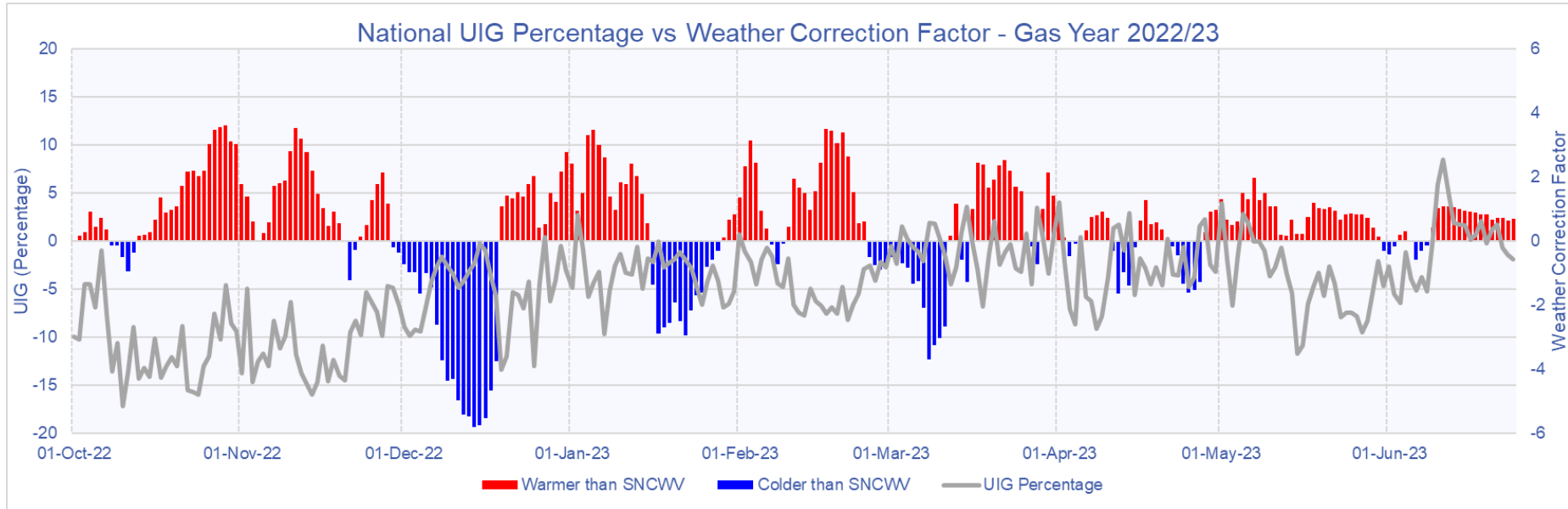
Background

- 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 5th October 2022 meeting DESC concluded that this was not the correct approach and focus should be on the root cause i.e. AQ and not the demand profiles
- DESC agreed the topic should be kept as a standard agenda item during the current Gas Year so the levels could be monitored and discussed

Objective

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

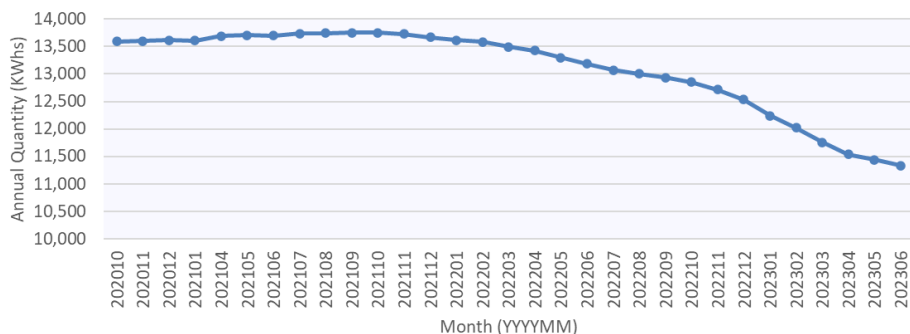
Analysis – Gas Year 2022/23: UIG Review



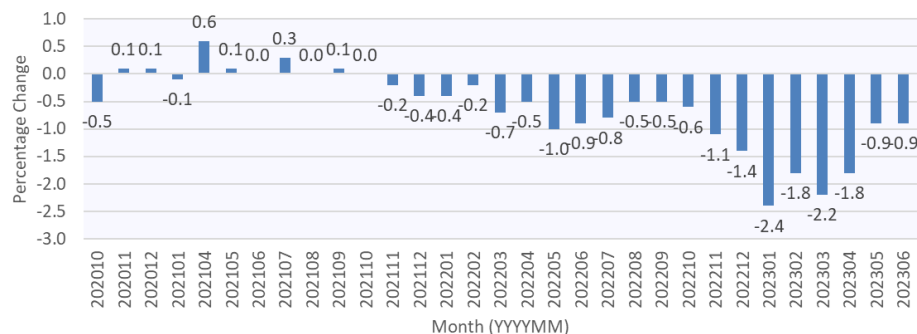
- Unidentified Gas (UIG) levels during Gas Year 2022/23 continue to mainly be negative due to overallocation of Non-Daily Metered (NDM) demand, though some positive UIG has been observed in June 2023
- NDM overallocation continues to be caused, predominantly, by AQt not reflecting latest end consumer behaviour/reactions (as shown on slide 7)

Analysis – Gas Year 2022/23: AQ Trends

Average Annual Quantity for 01BND - National

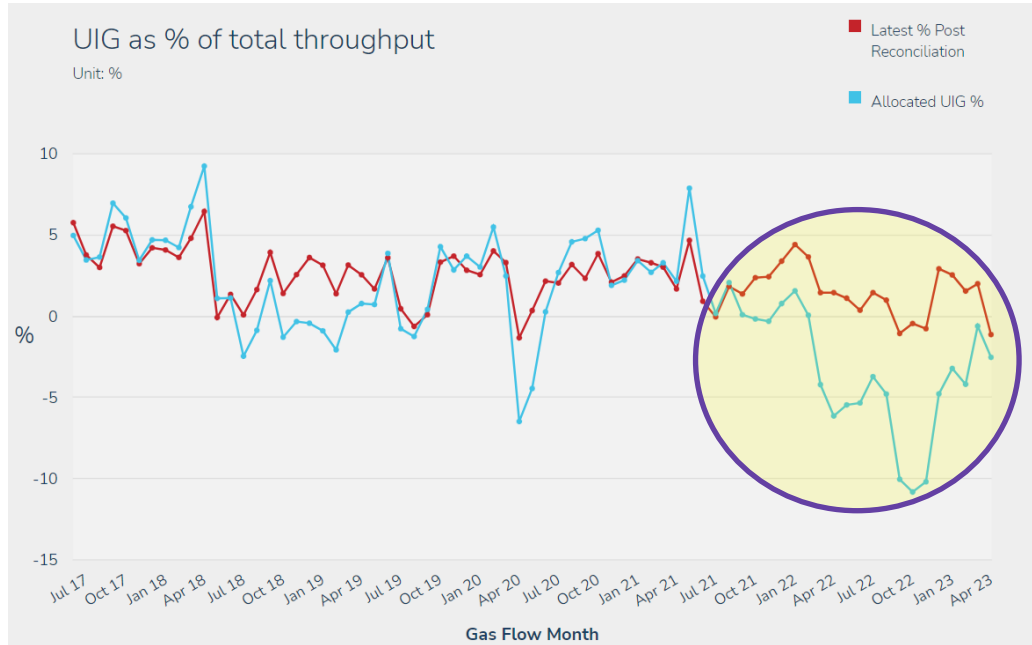


Annual Quantity % Change for 01BND - National



- Average AQs for Band 1 Domestic Non-Prepayment (“01BND”) continue to decrease, although have slowed down in recent months - see charts above
- Since March 2022 the average “01BND” EUC AQ has **declined by c.18%**, real figure is likely to be more given there are c.2.4m Supply Meter Points (9.7% of NDM population) with an AQ Effective Date pre October 2022
- Larger decreases still notable for Domestic Prepayment (“01BPD”) EUC which showed a 1.3% decrease in June
- I&C Non-Prepayment (“01BNI”) EUC also showed a decrease in Average AQ of 0.3% in June
- 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:

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](#) (upto and incl. March Amendment Invoice)

Conclusions

- Average UIG (%) for current Gas Year has reduced from its initial high in October and November although continues to run at negative values overall
- AQt 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
- DESC will continue to discuss this topic for the remaining meetings of this Gas Year

Month	Avg. UIG (%)
Oct'22	-10.70
Nov'22	-10.50
Dec'22	-5.20
Jan'23	-3.37
Feb'23	-4.30
Mar'23	-0.84
Apr'23	-2.68
May'23	-4.13