Demand Estimation Sub Committee

NDM Algorithms Update - Gas Year 2023/24
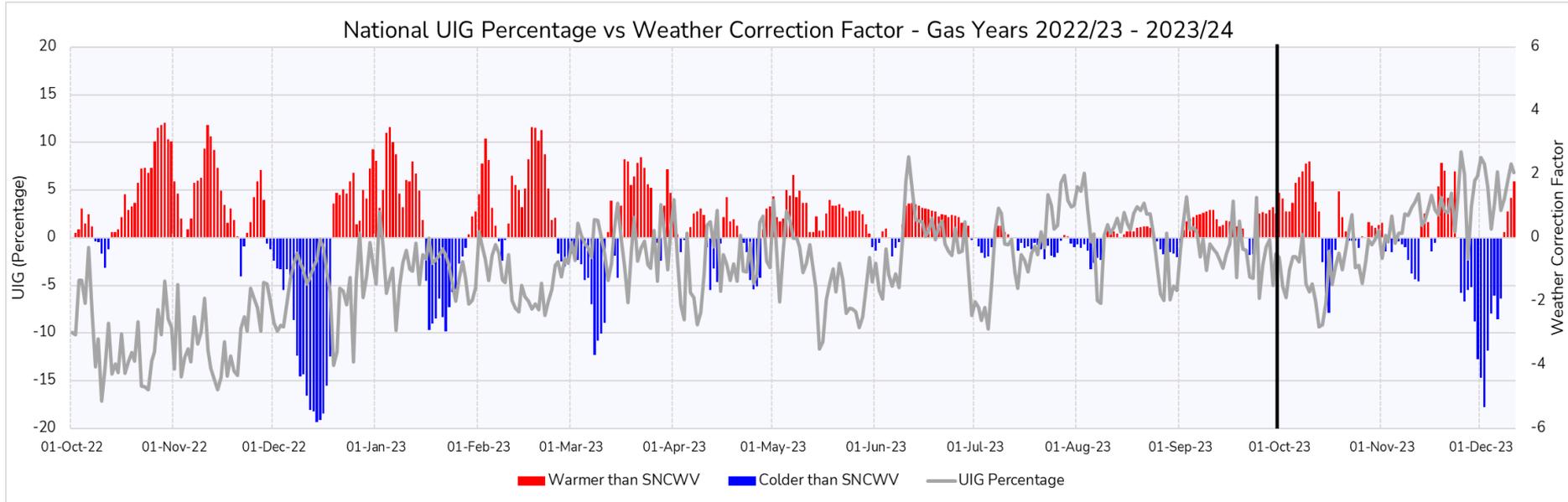## 19 December 2023

Background

- During the second half of Gas Year 2021/22 a trend was evident of 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 recently confirmed (October 2023) the topic should **continue** to be kept as a standard agenda item during Gas Year 2022/23 so the levels could be monitored and discussed

Objective

- Review latest Unidentified Gas (UIG) levels and trends for Gas Year 2023/24 and any other related data items e.g. Annual Quantities (AQs)

Analysis – Gas Year 2023/24: UIG Review

National UIG Percentage vs Weather Correction Factor - Gas Years 2022/23 - 2023/24

Legend: Warmer than SNCWV | Colder than SNCWV | UIG Percentage

- Negative Unidentified Gas (UIG) observed during the first nine months of Gas Year 2022/23 did not continue at the same levels during the summer months

- Gas Year 2023/24 started with mainly negative UIG but has switched to positive during November 23 and this has also continued into December 2023

- There remains evidence of an overallocation of Non-Daily Metered (NDM) demand in the early part of the Gas Year given there were instances of negative UIG at D+5 and decreasing average AQs month on month (see next slide)

4

Analysis – Gas Year 2022/23: AQ Trends
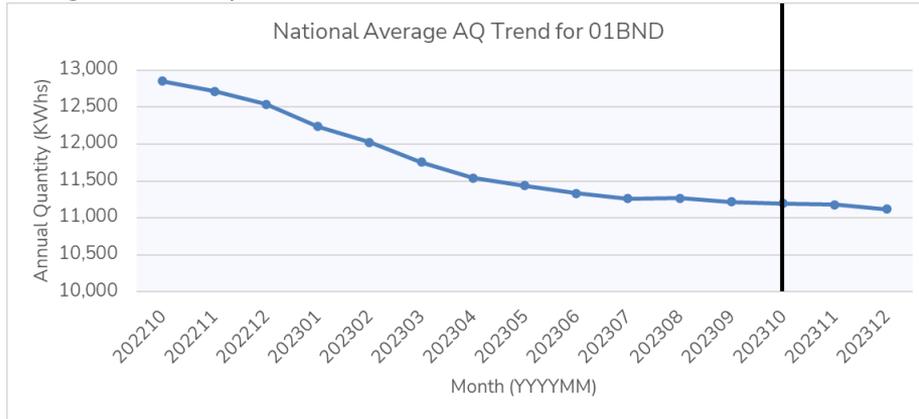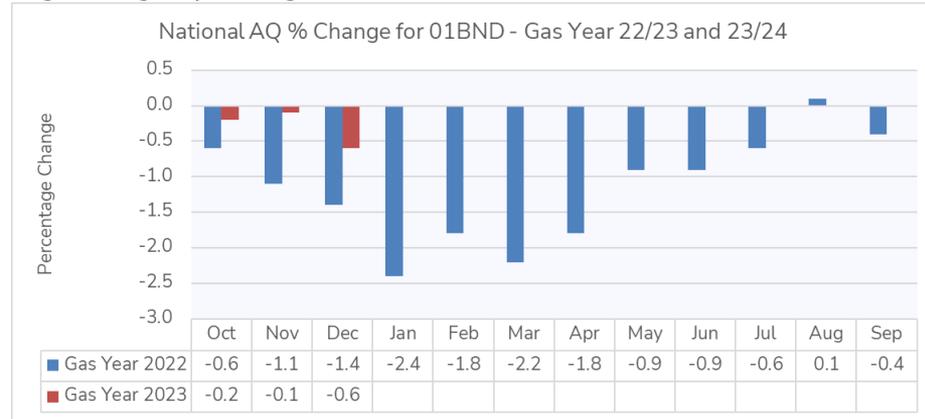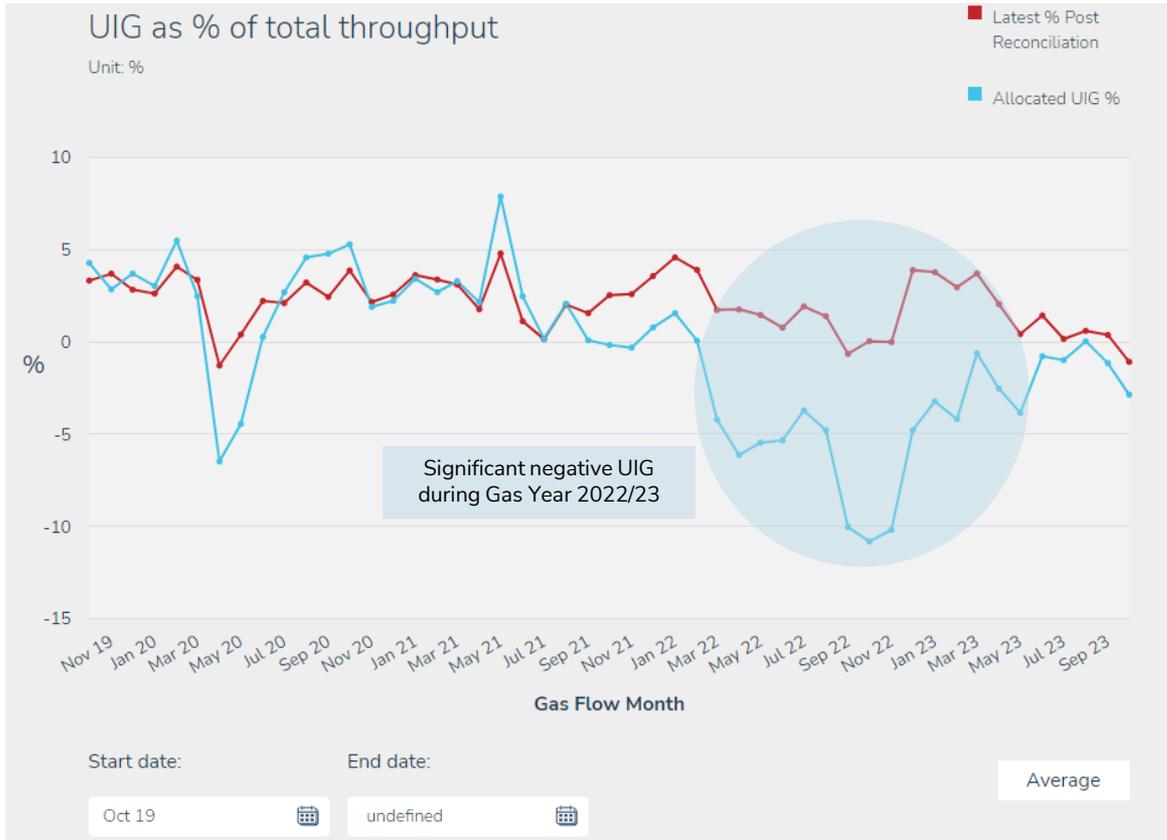
Fig.1 Domestic AQ Trend

National Average AQ Trend for 01BND

Fig.2 Average AQ % Change

National AQ % Change for 01BND - Gas Year 22/23 and 23/24

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Gas Year 2022	-0.6	-1.1	-1.4	-2.4	-1.8	-2.2	-1.8	-0.9	-0.9	-0.6	0.1	-0.4
Gas Year 2023	-0.2	-0.1	-0.6									

- Gas Year 2023/24 the average AQ for Band 1 Domestic Non-Prepayment ("01BND") EUC continues to show a flatter trend when compared to the start of Gas Year 2022/23, however has still seen nearly a 1% decrease

- For Gas Year 2023/23 Band 1 Domestic Non-Prepayment ("01BND") saw the average AQ decline by -14%, Band 1 Domestic Prepayment ("01BPD") decline by -18% and Band 1 I&C Non-Prepayment ("01BNI") decline by -5%

- During this period of uncertainty with 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

UIG as % of total throughput
Unit: %

- Latest % Post Reconciliation
- Allocated UIG %

Significant negative UIG during Gas Year 2022/23

Gas Flow Month

Start date: Oct 19
End date: undefined

Average

- Meter Point Reconciliations processed on the Amendment Invoice (AMS) continue to generate credit reconciliations and therefore debits to UIG (see Reconciliation by Month Report for more detail)

- Shaded area on chart 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 (up to and incl. September Amendment Invoice)

Conclusions

- Average UIG (%) for Gas Year 2022/23 reduced from its initial high in October and November and continued to run at negative values overall until around May.

- During the summer months average UIG levelled off around 0%, however during the 'non-heating period' there may have been less opportunity to exhibit conservational changes in demand use

- NDM Algorithm Performance for Gas Year 2022/23 is being reported at DESC today and will include a strand of analysis dedicated to UIG levels and trends

- Early indications are that we shouldn't expect to see the levels of negative UIG this Winter as we did last year. This is because AQs have reduced so significantly

- November averaged 2.7% and this trend is continuing in December (currently averaging 5.1% up to Gas Day 07/12/2023)

Month	Avg. UIG (%)	Month	Avg. UIG (%)
Oct'22	-10.7	Oct'23	-3.1
Nov'22	-10.5	Nov'23	2.7
Dec'22	-5.2	Dec'23	
Jan'23	-3.37	Jan'24	
Feb'23	-4.3	Feb'24	
Mar'23	-0.84	Mar'24	
Apr'23	-2.68	Apr'24	
May'23	-4.13	May'24	
Jun'23	-0.56	Jun'24	
Jul'23	-0.88	Jul'24	
Aug'23	0.09	Aug'24	
Sep'23	-0.54	Sep'24	