

10<sup>th</sup> March 2023

# AUG Sub-Committee Meeting



**engage** 

ELECTRICITY | GAS | INDUSTRY EXPERTS

1. Welcome and recap
2. Changes made since Draft Statement
3. Proposed final Weighting Factors  
(and comparisons)
4. Future considerations and  
assessment process

# Consultation - Recap

The proposed Final AUG Statement for Gas Year 2023 – 2024 has been published

- ▶ The draft AUG Statement was published on 29<sup>th</sup> December 2022 (with minor updates 6<sup>th</sup> and 16<sup>th</sup> January 2023)
- ▶ We consulted on the Weighting Factors and methodology between 31<sup>st</sup> December 2022 to 27<sup>th</sup> January 2023
- ▶ Based on the consultation responses and updated data extracts we have updated our UIG forecasts, our consumption forecast and hence our Weighting Factors
- ▶ The proposed final Statement was published on 3<sup>rd</sup> March 2023
- ▶ These slides provide a summary of the changes from the draft final Statement to the proposed final Statement

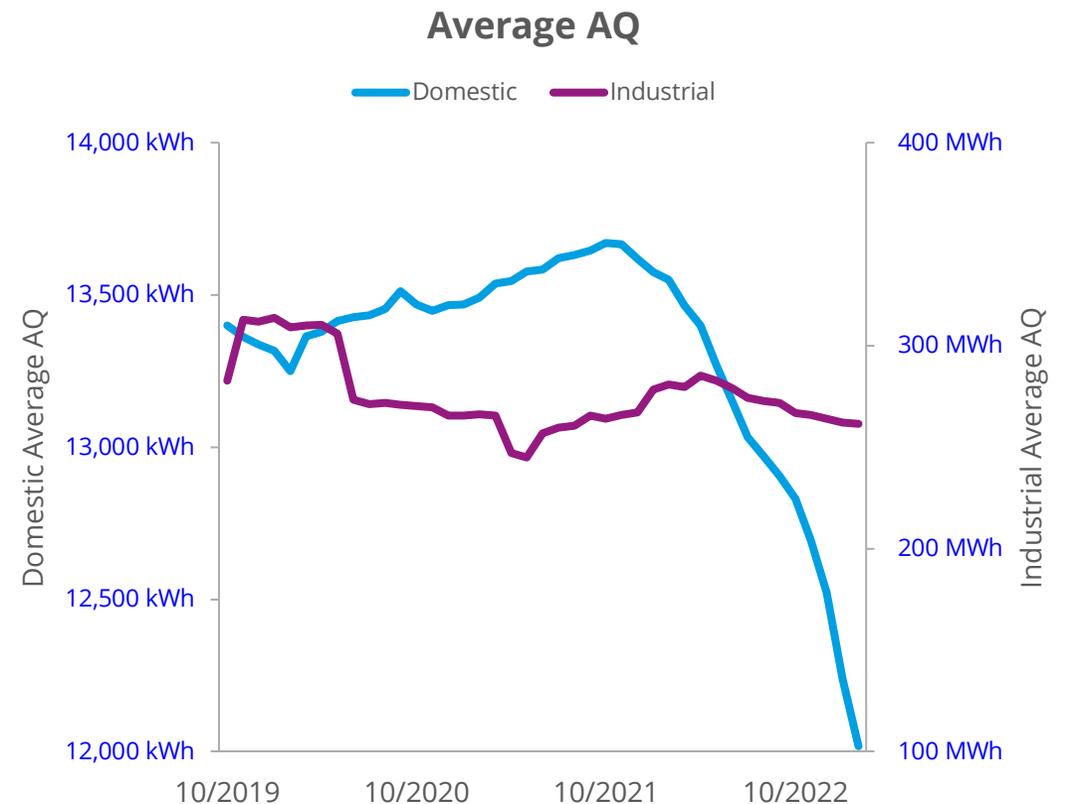
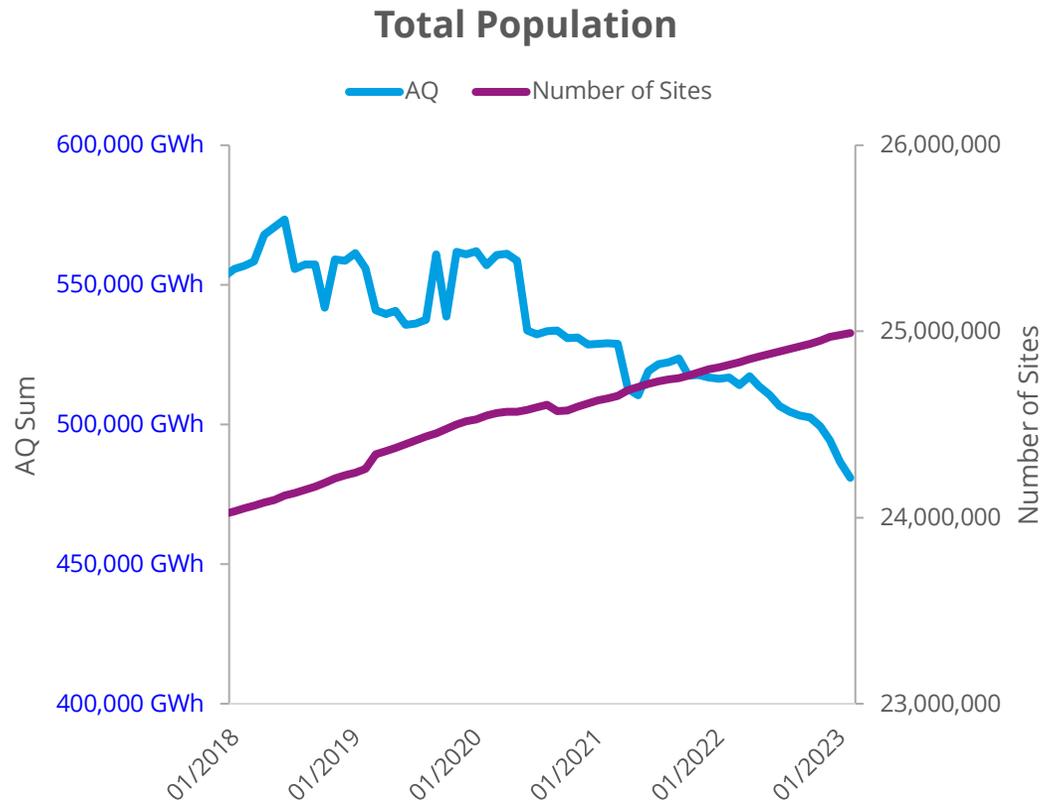
# Updates - Summary

## Updates to draft Statement incorporated in the proposed final AUG Statement

Area	Update
<b>Consumption Forecast</b>	New data shows accelerated drop in consumption, with some impact on estimated UIG and allocation to 1PD.
<b>Refreshed Datasets</b>	Up to date snapshots in a number of areas resulted in immaterial changes to contributors relative to the impact of consumption data.
<b>Weighting Factors</b>	Updated Weighting Factors reflecting the above. We provide comparison between these proposed Final Weighting Factors and the draft Weighting Factors and those for Gas Year 2022 – 2023 later in the slides.
<b>Smart Rollout Theft Investigation</b>	Following receipt of full TRAS data we have been able to write up the investigation into alternative ways to allocate undetected theft to smart meter populations. The investigation did not result in a changed methodology.
<b>Meter Bypass</b>	No further meaningful inputs have been procured and this has been reflected in the text of the Statement.

# Consumption trends

The impact of greater awareness and cost of living (and COVID?) is clear

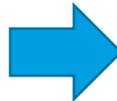


# Consumption Forecast

Forecast consumption reduces in most Matrix Positions vs the draft Statement baseline

## Draft Statement

EUC BAND	CLASS				
	DS	1	2	3	4
1ND	-	-	-	65,372	216,916
1PD	-	-	-	920	13,566
1NI	0	2	2,799	7,867	
1PI	-	-	1	30	
2ND	-	-	287	7,298	
2PD	-	-	3	154	
2NI	-	4	8,978	11,947	
2PI	-	-	5	9	
3	0	19	8,927	10,688	
4	3	195	10,288	12,042	
5	43	236	5,031	8,916	
6	333	1,018	3,339	9,033	
7	1,290	2,467	3,449	8,055	
8	5,668	5,255	2,674	9,556	
9	51,086	132	309	1,895	
				498,106	



## Proposed Final Statement

EUC BAND	CLASS				
	PF	1	2	3	4
1ND	-	-	-	53,623	208,054
1PD	-	-	-	798	10,290
1NI	-	2	2,406	8,076	
1PI	-	-	1	34	
2ND	-	-	224	6,041	
2PD	-	-	3	156	
2NI	-	3	7,685	12,006	
2PI	-	-	4	10	
3	0	29	7,996	10,929	
4	2	316	9,250	11,796	
5	34	222	5,741	8,445	
6	421	1,096	4,009	8,590	
7	920	2,386	3,904	8,065	
8	5,809	4,052	2,590	10,079	
9	50,578	239	295	1,297	
				468,505	

# Proposed Final Weighting Factor Table

- ▶ These Weighting Factors reflect the latest Consumption Forecast, and updated datasets for Dead Sites, Isolated Sites and the No Read population
- ▶ Note that the relative numbers are comparable with previous Statements, but the absolute numbers are not

**Proposed Final Weighting Factors for Gas Year 2023-2024**

		CLASS			
		1	2	3	4
EUC BAND	1ND	54.77	54.77	54.77	87.26
	1PD	180.59	180.59	180.59	609.61
	1NI	5.74	844.42	155.89	615.26
	1PI	47.13	47.13	155.89	615.26
	2ND	73.33	73.48	73.33	145.41
	2PD	60.83	60.83	73.33	145.41
	2NI	5.74	294.31	85.15	297.90
	2PI	85.15	131.76	85.15	297.90
	3	5.74	55.35	47.93	54.72
	4	5.74	57.43	58.67	62.88
	5	5.74	66.28	57.44	61.96
	6	5.74	67.88	55.17	63.76
	7	5.74	69.29	55.09	70.34
	8	5.74	59.76	54.86	57.90
	9	5.74	29.73	26.32	27.73

# Draft Statement Comparison

## Change between proposed Final and draft Statement

		CLASS			
		1	2	3	4
EUC BAND	1ND	0.0%	0.0%	0.0%	0.0%
	1PD	0.0%	0.0%	0.6%	2.2%
	1NI	-0.1%	-1.3%	-0.2%	-0.9%
	1PI	0.0%	0.0%	-0.2%	-0.9%
	2ND	0.0%	0.0%	0.1%	0.3%
	2PD	0.0%	0.0%	0.1%	0.3%
	2NI	0.0%	-0.2%	-0.1%	-0.2%
	2PI	0.0%	0.0%	-0.1%	-0.2%
	3	0.0%	-0.1%	0.0%	0.0%
	4	0.0%	0.0%	0.0%	0.0%
	5	0.0%	0.0%	0.0%	0.0%
	6	0.0%	-0.1%	0.0%	-0.1%
	7	0.0%	-0.1%	-0.1%	-0.1%
	8	0.0%	0.0%	-0.1%	0.0%
9	0.0%	-0.1%	0.0%	-0.1%	

- ▶ 1PD has seen a 24% reduction in its consumption forecast since the draft Statement, leading to a larger relative share of the theft contributor for the Matrix Position
- ▶ 1NI and 1PI Class 4 see increasing consumption in their forecasts so the effect is the reverse – a relatively stable share of the decreased total theft UIG is shared across a growing Matrix Position
- ▶ 1NI Class 2 is an immaterial anomaly due to small number of sites with total UIG rounding to zero

# Year-on-Year Comparison (1)

## UIG as a Percentage of Consumption Forecast

### Gas Year 2022-2023

		CLASS				
		2022-2023	1	2	3	4
EUC BAND	1ND	0.0%	1.4%	1.4%	1.9%	
	1PD	0.0%	0.0%	1.5%	8.8%	
	1NI	0.1%	19.1%	4.0%	17.3%	
	1PI	0.0%	0.0%	4.0%	17.3%	
	2ND	0.0%	0.0%	1.6%	2.9%	
	2PD	0.0%	0.0%	1.6%	2.9%	
	2NI	0.0%	2.3%	1.4%	4.6%	
	2PI	0.0%	0.0%	1.4%	4.6%	
	3	0.0%	1.2%	1.1%	1.2%	
	4	0.1%	1.4%	1.2%	1.3%	
	5	0.1%	1.3%	1.2%	1.3%	
	6	0.1%	1.3%	1.2%	1.6%	
	7	0.1%	1.5%	1.3%	1.4%	
	8	0.1%	1.2%	1.4%	1.1%	
9	0.1%	0.6%	0.5%	0.6%		

### Gas Year 2023-2024

		CLASS				
		2023-2024	1	2	3	4
EUC BAND	1ND	0.0%	0.0%	1.0%	1.7%	
	1PD	0.0%	0.0%	3.5%	11.7%	
	1NI	0.0%	16.2%	3.0%	11.8%	
	1PI	0.0%	0.0%	3.0%	11.8%	
	2ND	0.0%	0.0%	1.4%	2.8%	
	2PD	0.0%	0.0%	1.4%	2.8%	
	2NI	0.0%	5.6%	1.6%	5.7%	
	2PI	0.0%	0.0%	1.6%	5.7%	
	3	0.1%	1.1%	0.9%	1.0%	
	4	0.1%	1.1%	1.1%	1.2%	
	5	0.1%	1.3%	1.1%	1.2%	
	6	0.1%	1.3%	1.1%	1.2%	
	7	0.1%	1.3%	1.1%	1.3%	
	8	0.1%	1.1%	1.1%	1.1%	
9	0.1%	0.6%	0.5%	0.5%		

# Year-on-Year Comparison (2)

## Change between proposed Final for 2023 - 2024 and Final 2022 – 2023 values

- Practically all movements in these percentages are attributable to changes in detected Theft data, due to the high relative proportion of all UIG coming from this contributor, feeding into this a range of consumption reduction rates

		CLASS			
		1	2	3	4
EUC BAND	1ND	0.0%	-1.4%	-0.3%	-0.3%
	1PD	0.0%	0.0%	2.0%	2.9%
	1NI	-0.1%	-2.9%	-1.0%	-5.6%
	1PI	0.0%	0.0%	-1.0%	-5.6%
	2ND	0.0%	0.0%	-0.2%	-0.1%
	2PD	0.0%	0.0%	-0.2%	-0.1%
	2NI	0.0%	3.3%	0.2%	1.1%
	2PI	0.0%	0.0%	0.2%	1.1%
	3	0.1%	-0.2%	-0.2%	-0.2%
	4	0.0%	-0.3%	-0.1%	-0.1%
	5	0.0%	0.0%	-0.1%	-0.1%
	6	0.0%	0.0%	-0.2%	-0.4%
	7	0.0%	-0.1%	-0.3%	-0.1%
	8	0.0%	0.0%	-0.3%	0.1%
9	0.0%	-0.1%	0.0%	-0.1%	

- Matrix Positions in EUC **1PD** have seen an upwards shift, due to a more rapid reduction in consumption compared to the general population, equating in a greater relative theft contribution.
- Matrix Positions in EUC **1ND** have seen a downwards shift, with a relative increase in **1PD**. This is mainly due to movements in the traditional and smart proportions attributed to each of these bands and how much theft is assigned to those populations
- Matrix Positions in EUCs **1NI and 1PI** have seen a downwards shift, with a commensurate upwards movement in **2NI and 2PI**. This is due to movements in the theft proportions driven by our methodology's validation process for thefts EUCs (particularly those before 2019 when the sub-bands were created), along with the shift in the 10-year rolling theft dataset (gaining an extra year of recent data and losing the earliest year)
- For No Read at the Line in the Sand, the refreshed data included a proportionally larger number of industrial sites with no accepted read. This had a very minor impact on pushing more relative UIG towards **2NI and 2PI**
- There have been material changes to UIG calculated for Consumption Meter Errors; and the LDZ Meter Error contributor has been discounted completely. However, the relative scale of these contributors means that there has been no meaningful impact on Weighting Factors

# Total UIG Estimate

## UIG by Contributor and Comparison with 2022-2023 Gas Year

Contributor	2022-2023 Gas Year UIG Volume	Change	2023-2024 Gas Year UIG Volume	Draft Statement Delta
<b>Theft of Gas</b>	7,602 GWh	↓	6,823 GWh	-438 GWh
<b>Average Temperature Assumption</b>	1,220 GWh	↓	1,021 GWh	-68 GWh
<b>Average Pressure Assumption</b>	359 GWh	↓	326 GWh	-19 GWh
<b>No Read at the Line in the Sand</b>	861 GWh	↓	162 GWh	-13 GWh
<b>Incorrect Correction Factors</b>	53 GWh	→	53 GWh	-1 GWh
<b>Unregistered Sites</b>	35 GWh	↑	53 GWh	0 GWh
<b>Isolated Sites</b>	47 GWh	↓	19 GWh	-3 GWh
<b>Dead Sites</b>	-	↑	19 GWh	-1 GWh
<b>IGT Shrinkage</b>	18 GWh	→	19 GWh	0 GWh
<b>Shipperless Sites</b>	26 GWh	↓	17 GWh	0 GWh
<b>Consumption Meter Error</b>	432 GWh	↓	-15 GWh	+6 GWh
<b>Total</b>	<b>10,982 GWh</b>	↓	<b>8,497 GWh</b>	<b>-536 GWh</b>

▶ Total estimated UIG for the 2023-2024 Gas Year is **8,497 GWh**

## To be reviewed in preparing 2024/2025 Weighting Factors

AUGE Action	
<b>23/1</b>	We will review all Matrix Positions for out of the ordinary historical consumption patterns given five full years' data since Project Nexus Implementation Date
<b>23/2</b>	We will continue to work with industry to consider changes to the methodology and approach to determining Weighting Factors in Matrix Positions in EUC Band 01PD, in recognition of the historically increasing differential between these UIG for domestic credit and prepayment customers
<b>22/2d</b>	We will continue to monitor closely any output from other research and analysis being undertaken in the area of energy theft, and specifically the outcome of the current RECCo review
<b>22/4a</b>	We will assess the scaling up of our UIG estimate under contributor '180 – Unfound UIG Contributors'

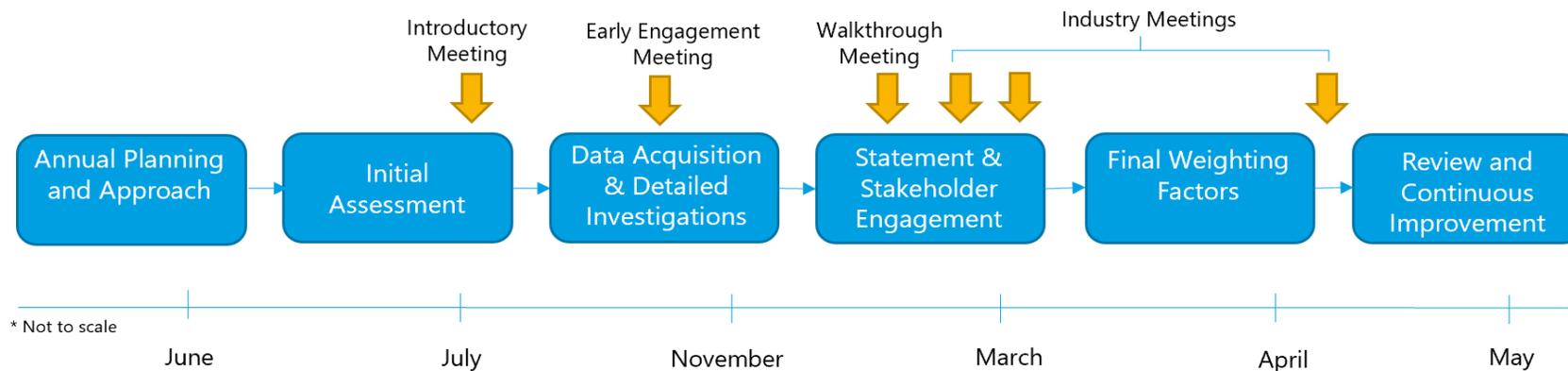
- ▶ First step each year is to consider areas of focus for improving existing methodology
- ▶ This will happen this year in the context of:
  - ▶ Mod 0831
  - ▶ Increasing relative impact of theft contributor
  - ▶ Industry focus on theft prevention and detection
  - ▶ (Mod 0838)
- ▶ Industry views will be more important than ever

## Reminder: last year's outcomes

Contributor ID	Contributor	Score
012	Theft of Gas (Allocation - Quality of Read History)	59
011	Theft of Gas (Allocation - Smart Rollout)	50
140	Meters with By-Pass Fitted	38
200	Dead Sites	32
130	Consumption Adjustments	22
160	Isolated Sites	19
170	Incorrect Meter Technical details on UK Link	18
041	Consumption Meter Errors (Faulty Meter)	18
010	Theft of Gas (Total Theft)	17
042	Consumption Meter Errors (Extremes of Use)	14
070	Average Pressure Assumption	13
180	Unfound Unidentified Gas Contributors	13
120	Meter Exchanges	12
080	Average Temperature Assumption	11
040	Consumption Meter Errors (Inherent Bias)	11
090	No Read at the Line in the Sand	10
150	Meterless Sites	9
100	Incorrect Correction Factors	9
110	CV Shrinkage	5
050	LDZ Meter Errors	4
060	IGT Shrinkage	3
020	Unregistered Sites	2
025	Shipperless Sites	2

# Next Steps

- ▶ The final AUG Statement will be published by 31<sup>st</sup> March 2023 and presented at the 14<sup>th</sup> April AUG Sub-Committee Meeting, prior to consideration at the UNCC Meeting on 20<sup>th</sup> April 2023
- ▶ We will lead a discussion on approach for next AUG year at the 14<sup>th</sup> April AUG Sub-Committee Meeting
- ▶ Engagement with stakeholders will continue throughout the process. We can be contacted at [auge@engage-consulting.co.uk](mailto:auge@engage-consulting.co.uk)



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