



## **Demand Estimation Sub Committee**

2.0 NDM Algorithms Update Gas Year 2022-23

13<sup>th</sup> December 2022

# 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 where the Gas Demand Profiles are now being used

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

Milestone	UNC H Ref	10/21	11/21	12/21	01/22	02/22	03/22	04/22	05/22	06/22	07/22	08/22	09/22
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											✓	

# Objectives

- Topic 1:

Reviewing latest UIG levels/trends for Gas Year 2022/23, following discussion at October's DESC regarding the ongoing issue of NDM overallocation

This relates to **Action 1002** – *“CDSP (PG/MP) to provide further information on 2022/23 NDM Algorithms Update for review in December Meeting”*

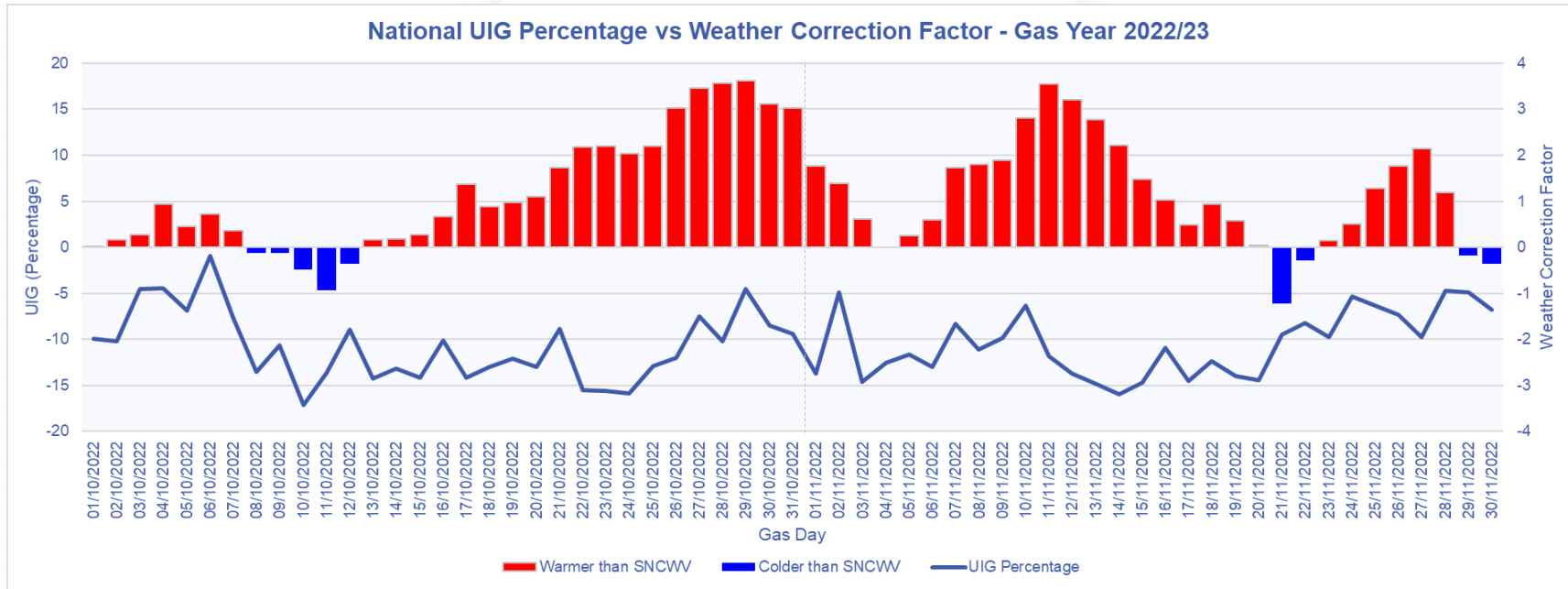
- Topic 2:

Review the announcement of additional Bank Holiday in May 2023 and consider impacts to profiles

# Background – Topic 1: NDM Overallocation

- 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 reviewed at future meetings

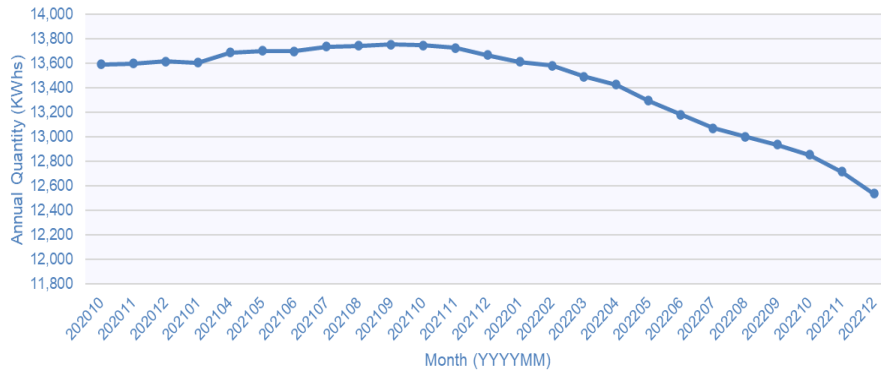
# Analysis – Topic 1: NDM Overallocation – UIG



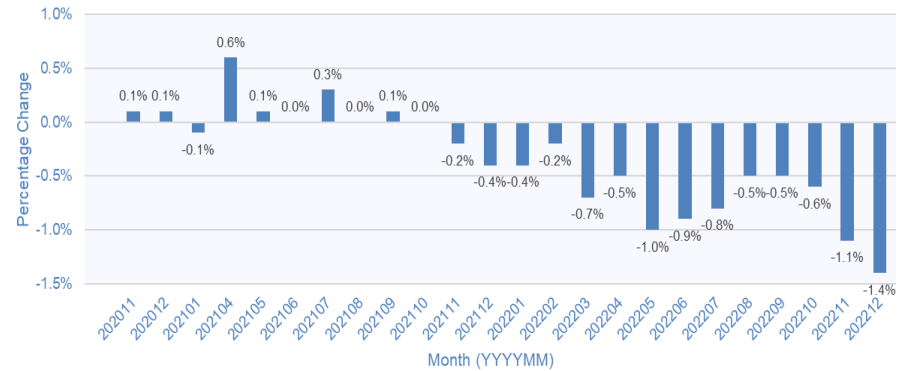
- View of National UIG for current Gas Year along with daily Weather Correction Factor (WCF)
- As expected, consistent level of negative UIG observed due to continued NDM overallocation caused by Aqs running too high (see next slide) and very warm Autumn (e.g 3<sup>rd</sup> warmest October within gas industry records)

# Analysis - Topic 1: NDM Overallocation – AQ Trends

Average Annual Quantity for 01BND - National



Annual Quantity % Change for 01BND - National



- Avg. AQs for Band 1 Domestic Non-Prepayment (“01BND”) continue to decrease every month
- During this extended period of NDM overallocation and negative UIG, the Demand Estimation team shall provide an updated view each month of the latest average AQ data/trends across the EUCs (example charts above) on the [secure area of UK Link Docs](#):

Location: Folder 18. NDM Profiling and Capacity Estimation Algorithms / UIG / Average AQ

# Conclusions - Topic 1: NDM Overallocation

- NDM overallocation (and therefore negative UIG) is likely to continue over Autumn/Winter 22/23, until the industry at least sees AQ levels stabilise
- Since the last DESC meeting, [UNC Modification 0816S](#) – “Update to AQ Correction processes“ has been raised.

This proposes additional eligible causes for AQ correction which might be available in the future

- Assume DESC are happy with its decision from October meeting to maintain focus on the root cause of the NDM over-allocation i.e. Aqs ?
- Topic to be added to agenda of next DESC meeting (March'23) ?



## Background - Topic 2: Additional May Bank Holiday

- On 6<sup>th</sup> November the government announced an additional Bank Holiday on Monday 8<sup>th</sup> May to mark the coronation of King Charles III
- This holiday is in addition to the bank holiday already scheduled for 'May Day' on Monday 1<sup>st</sup> May
- As per DESC's demand modelling approach, the Gas Demand Profiles contain holiday factors for the May Day period, namely Saturday 29<sup>th</sup> April to Monday 1<sup>st</sup> May inclusive
- Without DESC intervention the profiles for Saturday 6<sup>th</sup> to Monday 8<sup>th</sup> May will reflect a 'normal weekend'

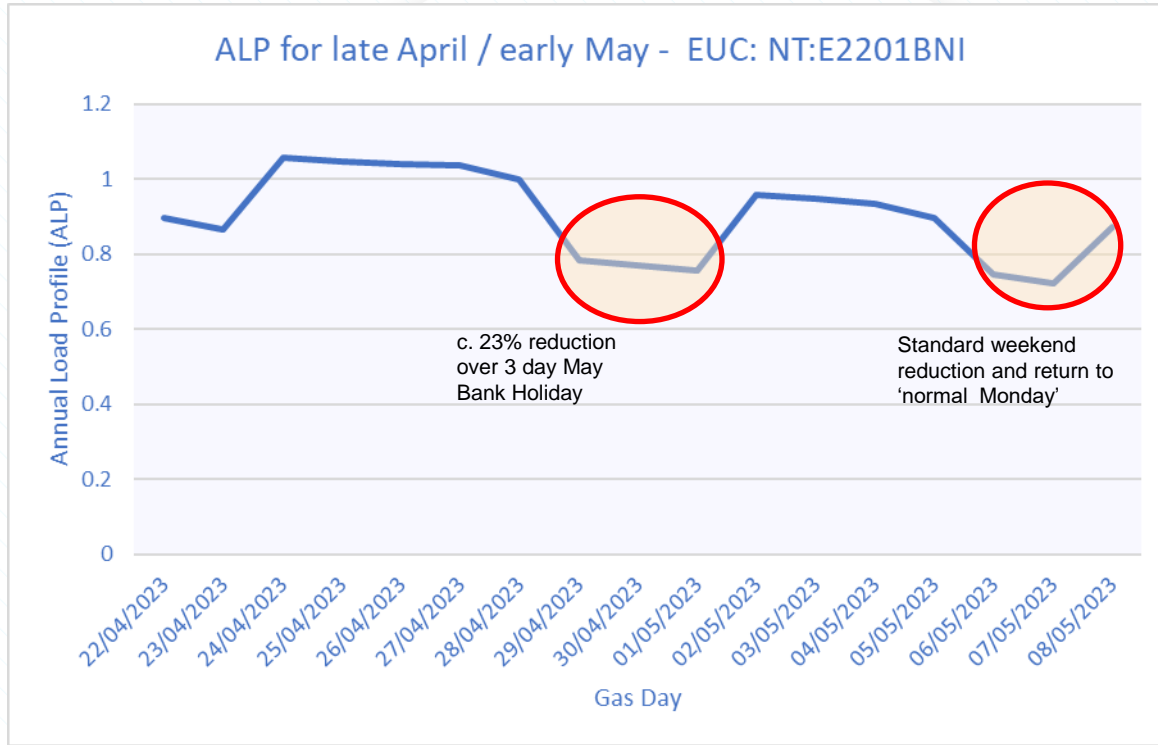
# Analysis – Topic 2: Additional May Bank Holiday

- Rule in Demand Modelling system for first Bank Holiday in May – excluding Domestic EUCs  
**Holiday Code 9:** *“First Bank Holiday in May: Saturday and Sunday immediately prior”*
- For context, table below shows the average Holiday Code Factor for ‘Holiday Code 9’ across the EUC Bands for Gas Year 22/23 (excluding Domestic EUCs and Band 9).

EUC Band	01	02	03	04	05	06	07	08
Avg. Holiday Factor	0.84	0.83	0.80	0.79	0.76	0.70	0.80	0.80

- Based on figures above, typically the Bank Holiday reduction is c.20% over the 3 days
- Reminder: The Holiday Factors are calculated at EUC level and are available in modelling support files – EUCHOL22S.txt and EUCHOL22L.txt

# Analysis – Topic 2: Additional May Bank Holiday



- Current Annual Load Profile for one of the many I&C EUCs – example Band 1 in NT
- Compares bank holiday weekend in early May'23 with the following weekend (now a bank holiday weekend also)

# Conclusions - Topic 2: Additional May Bank Holiday

- In previous instances of additional bank holidays being announced DESC have, where time allows, updated its profiles, e.g VE day in 2020. This was announced ahead of the Gas Year though so we could make amendments during the modelling process
- DESC decided to not amend the profiles for the Queens funeral due to the limited time available and the unique nature of the event
- Possible option for DESC is to apply Holiday Code 9 to the additional bank holiday weekend and re-calculate the Annual Load Profiles (ALPs) and Daily Adjustment Factors (DAFs) for this period? i.e. 6<sup>th</sup> to 8<sup>th</sup> May 2023 (all other values will remain the same)
- This would then require amendments to the profiles within Gemini. For avoidance of doubt, an update to the ALPs and DAFs in UK Link, which are used for calculating AQs and read estimation, is not proposed
- Do DESC agree that the profiles should be amended for the additional May Bank holiday ? And if so are you happy to proceed with the option above ?