

Demand Estimation Gas Year 2023/24 Update

September 2023

Dear Customers and Industry Colleagues,

Xoserve would like to share an update regarding the key parameters used in daily demand balancing activities that are due to be refreshed on the commencement of the new Gas Year on 1st October 2023.

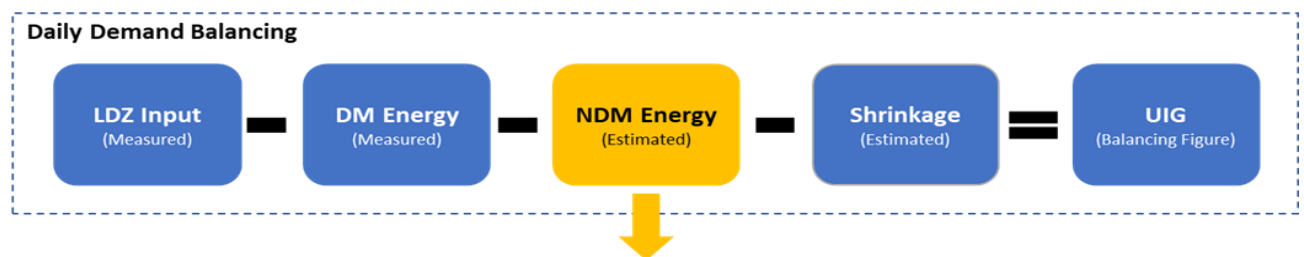
These parameters are:

- **End User Categories (EUCs) and Gas Demand Profiles**
- **Unidentified Gas (UIG) Weighting Factors**

In addition, the article reflects on the observed UIG levels from the current Gas Year (22/23) and the outlook for Gas Year 2023/24 given the ongoing cost of living crisis and its impacts to energy consumption levels.

End User Categories (EUCs) and Gas Demand Profiles – Gas Year 2023/24

Ahead of a new Gas Year, [Demand Estimation Sub Committee \(DESC\)](#) are responsible for overseeing the production of EUCs and Gas Demand Profiles which are needed to support the estimation of Non-Daily Metered (NDM) demand (in the context of daily demand balancing calculations, summarised below:)



The estimation of Non-Daily Metered (NDM) Energy is calculated using an algorithm requiring:

- End User Categories to represent the multiple types of gas consumer groups in the NDM Sector
- Gas Demand Profiles for each EUC, which, along with NDM Energy estimation, are used in AQ Calculation and Transportation Capacity Invoicing processes.

Gas Demand Profiles are represented as:

- **Annual Load Profile (ALP):** a view of the EUC's typical gas consumption profile
- **Daily Adjustment Factor (DAF):** a view of the EUC's typical weather sensitivity reaction
- **Peak Load Factor (PLF):** a view of the EUC's typical reaction to extreme cold weather

Following this year's Demand Modelling process, DESC have **not changed** the underlying approach to how EUCs are defined. The assignment of EUCs to NDM Supply Meter Points will continue to be based on geographical location, kWh boundaries, Winter Consumption, Market Sector Code, Meter Type and Payment Method.

This means the current set of 39 EUCs per Local Distribution Zone (LDZ) will continue for Gas Year 2023/24.

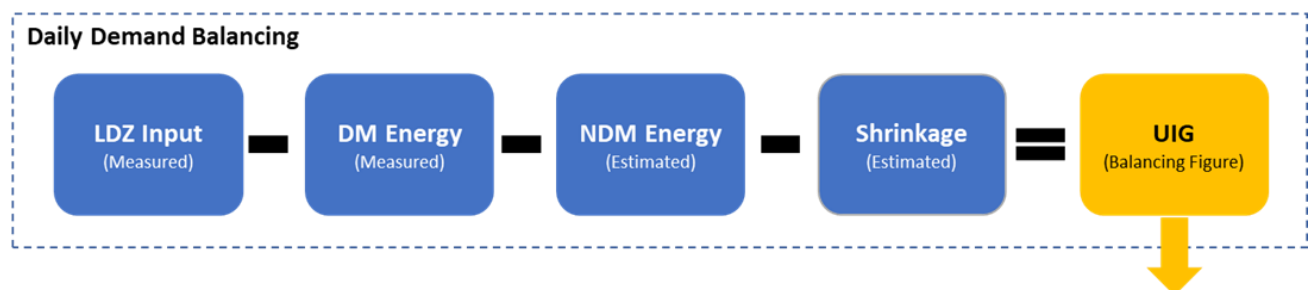
The alphanumeric descriptions associated to the latest EUC definitions, incorporating references to the new Gas Year and latest Winter Annual Ratios (WAR), were shared with Gas Shippers electronically via the .EUC file issued on 24th August 2023. The EUC definitions and Gas Demand Profiles are also available on the secure area on Xoserve.com, explained further on the Demand Estimation webpage [here](#).

Notable items from this year’s Demand Modelling process, which derived the EUCs and Gas Demand Profiles for Gas Year 2023/24, are:

- A continuation of a reduction in domestic gas demand over the weekend period (defined as Friday, Saturday and Sunday) was observed in the latest analysis period. Historically, domestic demand increased over weekends relative to the core ‘Monday to Thursday non-holiday’ model. The combination of the latest demand model and the previous two years (which had also started to display a weekend reduction) resulted in several of the **smoothed** domestic Annual Load Profiles exhibiting a reduction at weekends. Further detail on this topic is available [here](#).
- Gas Year 2023/24 incorporates a **Leap Year**, which means all parameters that are calculated at a daily level include an additional record for 29th February 2024. For example, the files containing ALPs and DAFs have 366 records. This has been reflected in the update of UK Link and Gemini, meaning our daily processes and core systems are ready for the extra Gas Day when it comes around.

A summary of the end-to-end process to create this year’s Gas Demand Profiles is available in Folder 18 of the secure area. Navigate to location: 2023-24 Gas Year / 4 NDM Algorithms Booklet.

Unidentified Gas (UIG) Weighting Factors – Gas Year 2023/24



Each year the AUGE (Allocation of Unidentified Gas Expert) is responsible for consulting with the [AUG Sub Committee](#) and for defining the Unidentified Gas (UIG) Weighting Factors used in the sharing out of UIG in the daily NDM allocation calculations. The UNC Committee gave final approval of the Weighting Factors for Gas Year 2023/24 at an extraordinary April meeting. The AUGE had revised the factors to comply with UNC Modification 0840 (approved 21 April 2023) which specifies that pairs of Weighting Factors by Class and EUC should be equal (e.g. EUC1ND & EUC1PD in Class 4).

The detail behind how the values for Gas Year 2023/24 have been determined is available in the “Final Allocation of Unidentified Gas Statement” available [here](#).

There are two UNC Modifications currently in development, either of which would permanently fix the UIG Weighting Factors and change the allocation of UIG. If either were approved by Ofgem, a revised table could take effect within the coming Gas Year. More details on UNC Modification 0831 and its alternative 0831A can be found [here](#).

Unidentified Gas (UIG) Reflections – Gas Year 2022/23

In last year’s equivalent news article, we suggested that a recent trend of negative UIG, caused by NDM overallocation was highly likely to continue. This outlook was based on the very clear signals in the monthly average Annual Quantity (AQ) figures, which were indicating that ‘enforced conservation’ was significant and only likely to continue at pace as we approached the Winter period (particularly for the domestic sector).

Fig.1 below shows the average AQ during Gas Year 2022/23 for the Domestic Non-Prepayment EUC (“01BND”) and Fig. 2 shows the month-on-month movement in percentage terms.

Fig.1 Domestic AQ Trend:

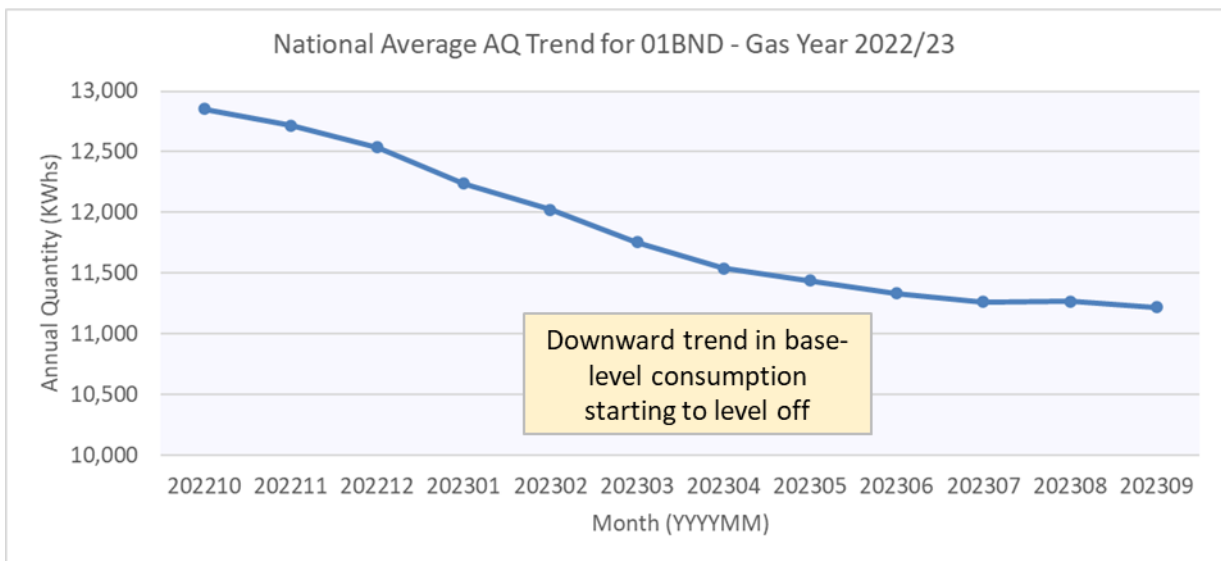
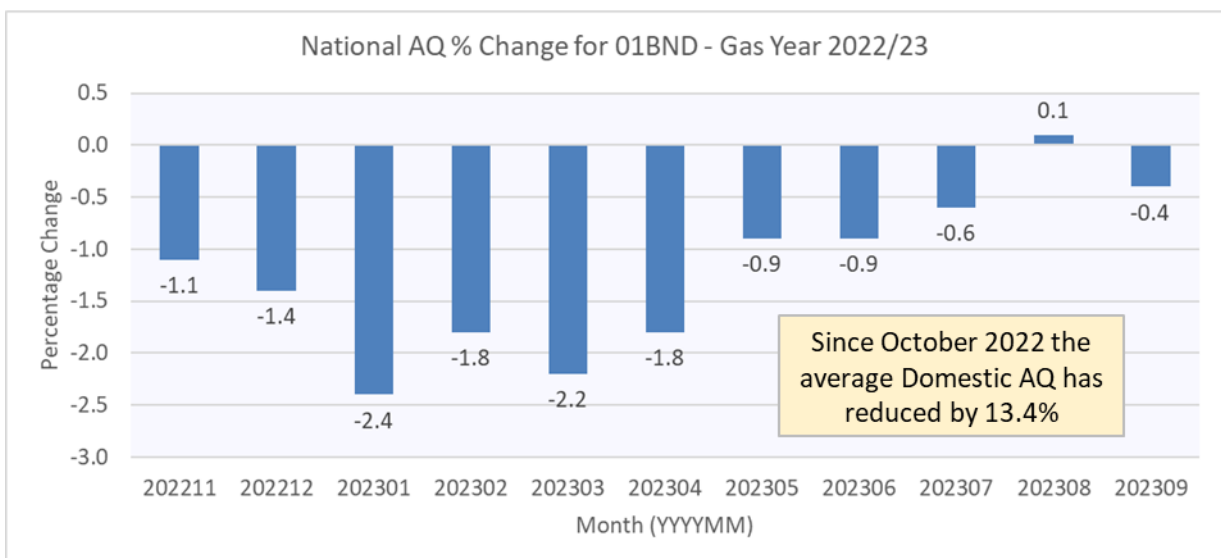


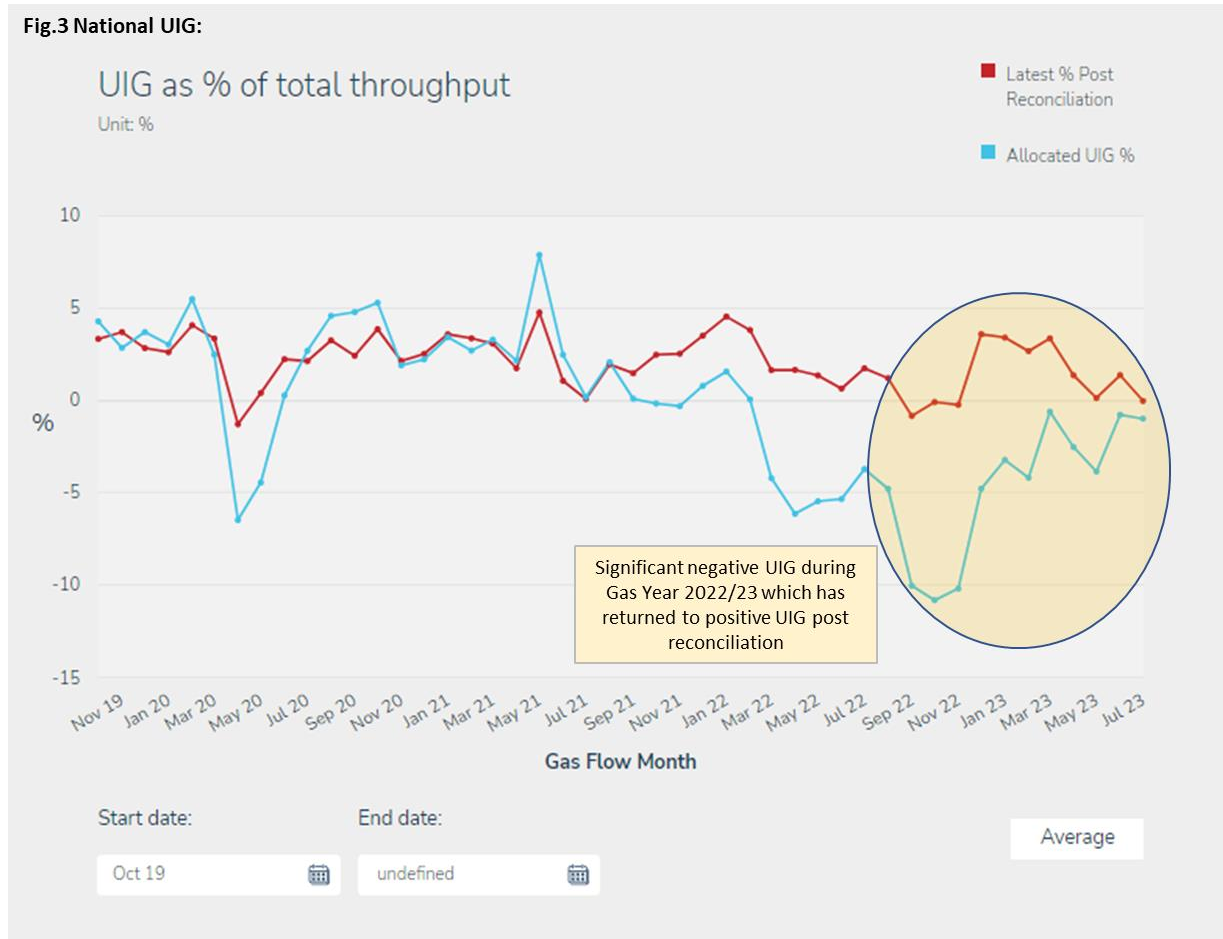
Fig.2 Domestic AQ Movement:



The AQ is a key input to the NDM Algorithm and so the above primarily explains why there has been an overallocation of NDM demand during Gas Year 2022/23 (“01BND” represents c.75% of NDM demand).

Allocation is only a temporary position and so this is corrected once meter point reconciliation occurs.

Fig.3 below shows how the initial UIG allocation has moved post reconciliation for the same period (highlighted), i.e. credits returned on the Amendment Invoice, due to initial overallocation, result in a debit UIG allocation (UGR charge). Chart below also available [here](#).



Demand Estimation Sub Committee (DESC) will be reviewing Gas Year 2022/23 in a lot more detail at its December meeting, which will incorporate a review of UIG trends and levels as one of its strands of analysis.

Unidentified Gas (UIG) Outlook – Gas Year 2023/24

There has clearly been a significant decrease in the base load AQ for the NDM population and the question will be how much additional conservation will happen this Winter, given energy prices are still very high. It is also worth noting that it can take up to 12 months for a change in the consumers consumption to be fully reflected in the AQ. There also remains c.1.7m Supply Points without an updated AQ since before 1st October 2022 (of which the majority are Domestic) and so at the very least when valid reads are received for this dataset you would expect the average AQ to reduce.

The above position indicates that an **over estimation of NDM demand** at Allocation (D+5) is **likely to continue** into the new Gas Year. This will in turn contribute towards **negative UIG continuing** but probably not to the same extent as seen in the last Gas Year.

As with last year, we expect DESC to be including this topic as a regular agenda item in future meetings.

Further Information

For further information please take a look at Xoserve's dedicated web pages relating to the processes discussed in the news article - [Demand Estimation](#) and [Unidentified Gas](#).

If you have any follow up queries for the Demand Estimation Team please raise a Help and Support request [here](#).