

Demand Estimation Gas Year 2021/22 Update

September 2021

Dear Customers and Industry Colleagues,

The Demand Estimation Team would like to share with you a summary of this year's annual process of defining the End User Categories (EUCs) and associated Gas Demand Profiles for Gas Year 2021/22 and a reminder about important changes regarding the Unidentified Gas (UIG) Weighting Factors which are also taking effect on 1st October 2021.

End User Categories (EUCs) and Gas Demand Profiles – Gas Year 2021/22

Annually, ahead of a new Gas Year, Demand Estimation Sub Committee (DESC) are responsible for:

- (i) defining the End User Categories (EUCs) required to represent the various types of gas consumer groups in the Non-Daily Metered (NDM) Sector and
- (ii) creating the Gas Demand Profiles which represent those EUCs, for use in NDM Allocation, AQ Calculation and Transportation Capacity Invoicing processes

End User Category Definitions – Gas Year 2021/22

Following updates to the EUC line-up in recent years (e.g. additional categories for Bands 1 and 2 introduced in 2019), DESC agreed that the EUCs for Gas Year 2021/22 should remain unchanged and so the current set of 39 EUCs per LDZ will persist – see Table 1.

The EUC definitions for Gas Year 2021/22 were shared with customers electronically via the .EUC file issued on 24th August 2021.

Table 1 - EUC Summary - Gas Year 2021/22

Consumption Range	Lower AQ Band	Upper AQ Band	Domestic Credit	Domestic Prepayment	I&C Credit	I&C Prepayment	No. of EUCs
01	0	73,200	xx:E2101BND	xx:E2101BPD	xx:E2101BNI	xx:E2101BPI	4
02	73,201	293,000	xx:E2102BND	xx:E2102BPD	xx:E2102BNI	xx:E2102BPI	4

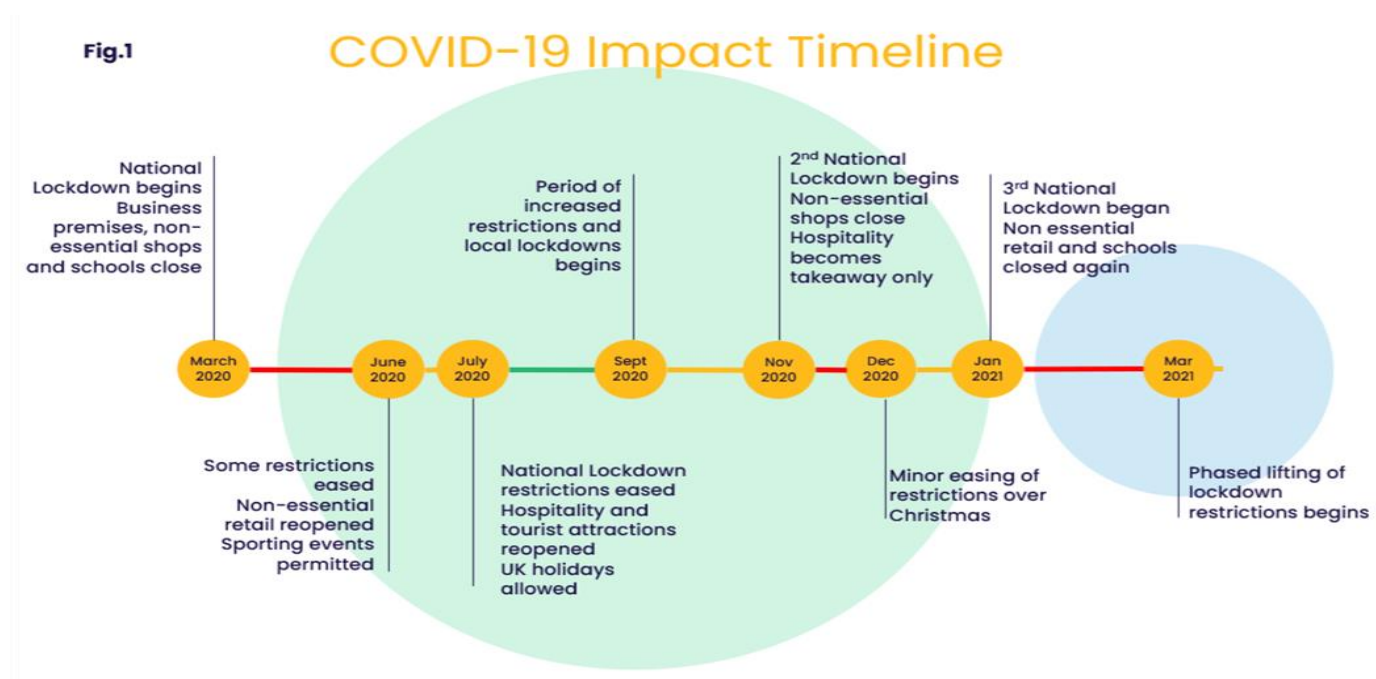
Consumption Range	Lower AQ Band	Upper AQ Band	Bucket Band	WAR Band 1	WAR Band 2	WAR Band 3	WAR Band 4	No. of EUCs
03	293,001	732,000	xx:E2103B	xx:E2103W01	xx:E2103W02	xx:E2103W03	xx:E2103W04	5
04	732,001	2,196,000	xx:E2104B	xx:E2104W01	xx:E2104W02	xx:E2104W03	xx:E2104W04	5
05	2,196,001	5,860,000	xx:E2105B	xx:E2105W01	xx:E2105W02	xx:E2105W03	xx:E2105W04	5
06	5,860,001	14,650,000	xx:E2106B	xx:E2106W01	xx:E2106W02	xx:E2106W03	xx:E2106W04	5
07	14,650,001	29,300,000	xx:E2107B	xx:E2107W01	xx:E2107W02	xx:E2107W03	xx:E2107W04	5
08	29,300,001	58,600,000	xx:E2108B	xx:E2108W01	xx:E2108W02	xx:E2108W03	xx:E2108W04	5
09	58,600,001	-	xx:E2109B	-	-	-	-	1

Note: Band 1 Domestic ("01BND") is the only EUC Demand Model to be refreshed using the latest 12 months analysis period: (1st April 2020 to 31st March 2021)

Gas Demand Profiles 2021/22 – Approach

Each February DESC agree the [approach](#) to be taken for the creation of EUC demand models and profiles for the forthcoming Gas Year. This incorporates the use of daily gas consumption data collected from a sample of consumers across all LDZs for the most recent 12 months (“Analysis Period”). This year the Analysis Period ran from 1st April 2020 to 31st March 2021 and therefore included a period of significant lockdown measures as a result of the COVID-19 pandemic (see Fig.1).

Due to the impacts of these unprecedented events on gas demand, particularly for the Industrial & Commercial (I&C) sector DESC provisionally agreed that it was likely to discard the 2021 results and re-use demand models created from the 2020 modelling process. This would be formally confirmed once all the gas consumption data had been validated and analysed and shared with DESC later in the process.



Key Point:

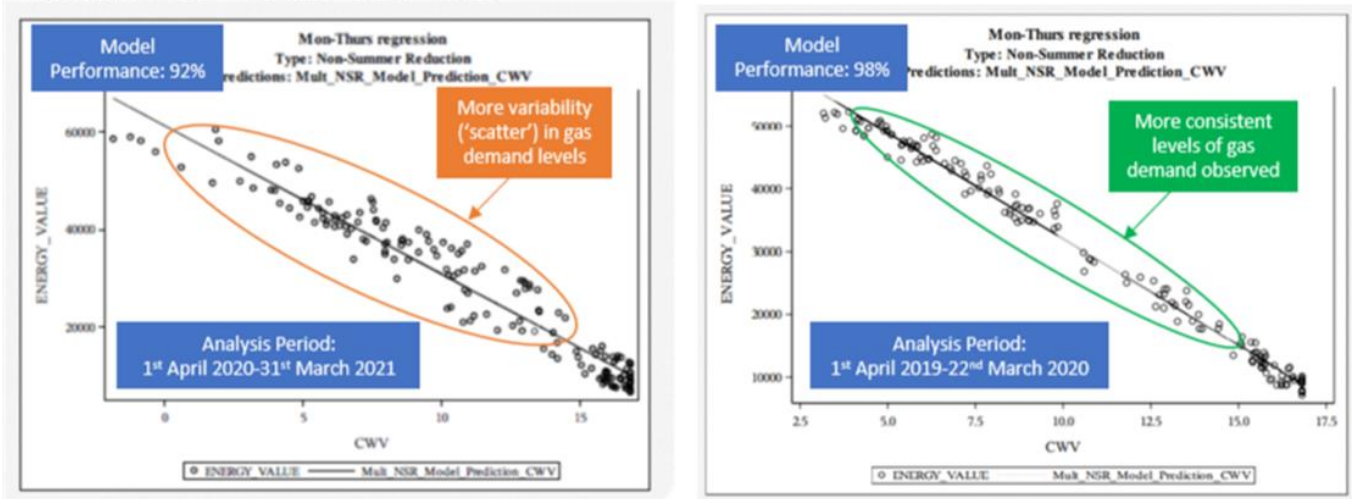
Gas Demand Profiles represent the key output from the Demand Estimation process:

- 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

Gas Demand Profiles 2021/22 – Analysis

In May 2021, the [modelling results](#) for the Analysis Period were reviewed by DESC which confirmed that for the majority of the EUCs the impacts of COVID-19 were considerable with the modelling performance statistics down by several percentage points across all the bands. An example of this is provided below (see Fig.2) for one I&C EUC with a comparison between this year and last year’s modelling results. This was typical for all I&C EUCs.

Fig.2: Band 1 I&C – LDZ: NT – EUC: “01BNI”



In contrast, there were no noticeable COVID-19 impacts observed from the modelling results for the *Band 1 Domestic Credit EUC* (“01BND”) across all LDZs, and they were also in line with previous years.

Gas Demand Profiles 2021/22 – Conclusions

DESC approved the use of the latest Analysis Period demand model for the *Band 1 Domestic Credit EUC* (“01BND”) in the development of the Gas Demand Profiles for Gas Year 2021/22 **BUT** not for all other EUCs (as highlighted in Table 1).

What does this mean?

For all EUCs, except “01BND”, the EUC Demand models from 2020 have been used to create the Gas Year Demand Profiles for Gas Year 2021/22.

This approach still required a process of assurance to ensure the correct application of features such as holiday periods (e.g. different late May Bank Holiday due to Queen’s Platinum Jubilee) and different day of the week pattern (e.g. 1st October 2020 was a Thursday and 1st October 2021 is a Friday).

The Annual Load Profiles (ALPs) and Daily Adjustment Factors (DAFs) will look very similar to the previous Gas Year other than the natural movement in the calendar. The Peak Load Factors (PLFs), although very similar, will not be identical to Gas Year 2020/21 because the number of years used in the cold weather/peak demand simulation will have moved on by one year.

Key Point:

The demand models which have been used for Gas Year 2021/22 for the vast majority of EUCs are unchanged, meaning the COVID-19 impacted period (i.e. Fig.1) is not influencing the new Gas Year’s NDM Allocation processes

Industry Consultation and System Updates

The Industry Consultation for this year's EUC demand modelling process concluded on 22nd July when DESC approved ALL profiles. As required by UNC Section H 1.9.1, Ofgem were then informed that this year's process for deriving Gas Demand Profiles for Gas Year 2021/22 had been completed.

During August and September UK Link and Gemini have been updated with the new values in readiness for their use in various industry processes from 30th September 2021 onwards.

Non-Daily Metered (NDM) Algorithms Booklet

For a more detailed description of the end-to-end process and access to all of the various lower level modelling statistics and parameters which sit behind the final output please refer to the recently published *2021/22 Non-Daily Metered (NDM) Algorithms booklet*.

The NDM Algorithms booklet, alongside the *Modelling Approach document*, represents a formal record of how DESC has fulfilled its annual Uniform Network Code (UNC) obligations of producing Gas Demand Profiles for the benefit of the wider industry.

Both documents are available on our UK Link Secured Documentation area in the following location:

Folder 18: NDM Profiling and Capacity Estimation Algorithms/2021-22 Gas Year

To arrange access to the secured area, please ask your Local Security Officer (LSO) to complete and submit a [Secure Site Access Request Form](#)

Reminder:

All of the obligations of DESC and Xoserve (CDSP) are set out in [UNC Section H](#) and the [Demand Estimation Methodology](#)

Unidentified Gas (UIG) Weighting Factors – Gas Year 2021/22

In addition, on October 1st [UNC Modification 0711](#) “Update of AUG Table to reflect new EUC bands” will become effective. This Modification expands the Table of UIG Weighting Factors to have a separate line for each of the additional Band 01 and 02 End User Categories that were first used in NDM Allocation in October 2019. The way that UIG is shared out on the basis of Weighted Throughput won’t change, but there will more UIG Weighting Factors, and differing Factors within Bands 01 and 02. The Weighting Factors are determined by an independent expert – the AUGE (Allocation of Unidentified Gas Expert).

Ofgem recently rejected [UNC Modification 0758](#) “Temporary extension of AUG Statement creation process” (which sought to re-use the Gas Year 2020/21 factors for 2021/22) so the Factors used for the coming Gas Year will be those developed by the new AUGE. The new table of Weighting Factors can be found on Joint Office website [here](#) and all the material relating to the development of this year’s Factors are on the [Gas Year 2021/22 AUG Statement](#) page.

Further Information

All Gas Demand Profiles for Gas Year 2021/22 are available in our secure UK Link Documentation area: Folder 18: NDM Profiling and Capacity Estimation Algorithms/2021–22 Gas Year. They are also available in the public domain on the Xoserve.com website. Scroll to the bottom of this page [here](#), and look for “Demand Estimation Derived Factors”.

If you have any questions or comments on any aspect of the process for deriving this year’s Gas Demand Profiles, please contact us at xoserve.demand.estimate@xoserve.com.

Kind regards

Mark Perry – Demand Estimation Manager

mark.j.perry@correla.com | 0121 229 2405

Xoserve Website: <http://www.xoserve.com>

Correla Limited

Registered Office: Lansdowne Gate, 65 New Road, Solihull, B91 3DL
Registered in England and Wales. Company No. 13062055. VAT Registration No. Pending