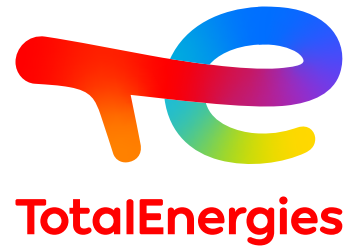


Unidentified Gas (UIG)



UIG:

Unidentified Gas (UIG) (previously known as Unallocated Gas UAG) is now a significant and growing cost within your billed rates. UIG is the balancing factor that pays for the missing gas that cannot be allocated at a given time. The UIG is made up of many things including theft, profiling errors and meter insensitivities and costs will fluctuate depending on the Wholesale gas commodity price.

How is UIG shared out? And why is it so expensive at the moment?

How UIG is shared out is fairly complicated there are 60 weighting factors, and every site uses one of those based on their supply point category (SPC options 1-4), their AQ and if they are Domestic and or prepayment. As a general rule of thumb SPC 4 have higher UIG rates and UIG rates decrease as sites increase in AQ. Due to the complex share out and how this is billed to shippers there are challenges working out an exact cost for any customer at any point in time.

The allocation of Unidentified Gas Expert (AUGE) works out these factors each year but the exact value per matrix position for a day will be dependent on actual throughput volumes both industry and by matrix position. TGP use all information at hand to estimate what we believe the final UIG % will be after all reconciliations have been processed. This is then utilised within the pricing at contract or TPT depending on contract type to create a £ value we expect for the customer for the period.

Annual UIG cost = AQ * UIG% * Price/100

Example:

Small spc4 site:

$$60,000 * 17.3% * 26.8 / 100 = £2,787$$

Larger SPC4 site

$$10,000,000 * 2% * 26.8 / 100 = £53,707$$

The price element is driven by the current market prices for the relevant period, at this time this is highly volatile and has reached record highs. The UIG % can change year to year but for 2022/23 we are not seeing much movement from 2021/22.

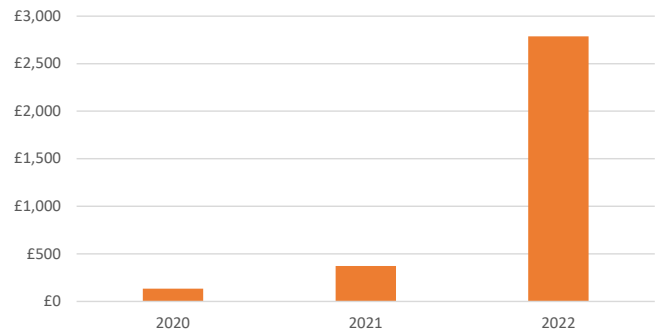


Figure 1: Small AQ Annual UIG cost (60,000)

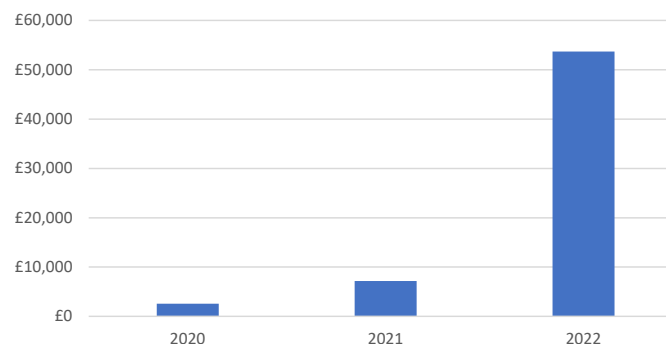


Figure 2: Large AQ Annual UIG Cost (10,000,000)

In the above two figures you can see the significant impact market price has on UIG. They use the same 2 example AQ's and UIG% but a pp kWh price more reflective of September in 2020 (1.26) and 2021 (3.55). Please note the different scale on the two graphs but the same trend.

Why is market price used for the cost of UIG?

UIG is an extra volume that suppliers are expected to purchase, but they don't know what that day's volume will be in advance. The daily value can vary significantly day to day.

Shippers and suppliers get very short notice of what the value will be, so use the day ahead and within day market to purchase the UIG gas which is needed to ensure the system is balance. If they did not, they would have to pay the relevant SMP (system margin price) price in cashout. The first estimate they get of what it will be is the day before, but it will then change within day as well.

When looking forwards at what UIG costs would be, the forward market is the best proxy.

How is Industry UIG % calculated?

Since Nexus went live in June 2017, UIG has been the balancing factor within the gas industry, i.e. gas that cannot be allocated on any given day to an end consumer.

$$\text{UIG} = \text{Total LDZ Energy} - \text{DM Energy} - \text{NDM Energy} - \text{Shrinkage}$$

UIG = Unidentified Gas

LDZ = Local Distribution Zone

DM = Daily Metered, Supply Point Class 1 & 2

NDM = Non-Daily Metered, Supply point Class 3 & 4

Shrinkage = A fixed energy figure for Gas lost from the transportation network, calculated by Network operators.

UIG is made up of many things, including the largest component - theft of gas, as well as errors in profiling and meter sensitivities. It is highly variable day to day but generally settles down as a greater proportion of meters are read and reconciliations are processed and is quite consistent once day to day variations are taken out.

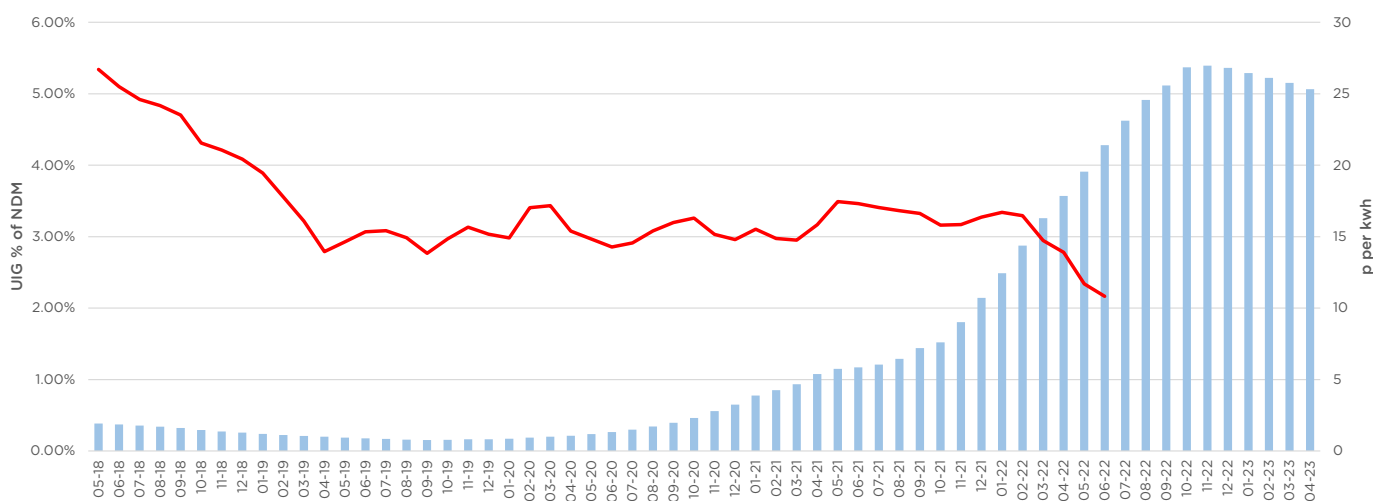


Figure 3: Industry Rolling 12 month UIG as % of NDM Demand with

Why has UIG been negative at Allocation?

At allocation UIG has been generally lower in 2022 than previous years. What this indicates is that in general the NDM algorithm is giving more volume to NDM sites than they need. A key driver is likely to be AQ's not reflecting current consumption. AQ's can take a while to respond to changes in consumption and it may be that people are reacting to higher prices by lowering consumption. Figure 3 shows that these negative values turn positive through reconciliation. It also shows that after reconciliation and smoothing over the year the industry UIG ends up around 3% of NDM demand. Figure 3 also has bars showing the trend of market prices as a 12 month flat average (forward facing), which demonstrate the very significant increases we have seen. Currently there is an expected peak this winter but as a forecast forward prices will change.

Allocation refers to how much gas is allocated to a site on day for NDM (SPC 3 & 4) sites this is based on a standard formula and AQ's. Obviously, this is unlikely to be exactly what the site uses. A sites meter reads are then used to adjust their volume to what the meter read volumes show, this is called reconciliation and is done as an industry not just shipper by shipper.

What is going on in the Industry at the moment??

The Annual process is starting again in September ready for the values for use in October 2023. TotalEnergies actively engage in this process through out the year. These drive the weighting factors for UIG and therefore the % used in the formula. They can not make any impact onto the market price.

Review Group UNC781 Review of the UIG Process: Closed

This review group had wide discussions on the whole UIG methodology, with both radical changes and minor tweaks discussed. As a review group nothing is actually changed based off these meetings and to date we have not yet seen any Modifications raised.

UNC 782: Creation of an Independent AUGE Assurer: Withdrawn

This MOD was withdrawn by the proposer in April 2022 as they felt that with Xoserve taking on the role of AUGE Auditor that most of the concerns raise in the MOD were addressed in a more timely manor.