



## **UIG Task Force Issue 12.2 – Standard Conversion Factor**

UIG Workgroup 26 February 2019

# Background

- All sites under 732,000 AQ should have a single industry standard *conversion factor* specified in legislation (also referred to as a *Correction Factor*)
- Standard factor of 1.02264 accounts for an assumed average temperature and altitude
- Warmer gas will have a greater metered volume than cooler gas
- Gas at higher altitude will have a greater metered volume than gas at a low altitude – the AUGE\* assesses the impact of altitude to be negligible compared to temperature<sup>1</sup>

\*AUGE = Allocation of Unidentified Gas Expert

<sup>1</sup> = Presentation at 12/10/18 UNCC meeting

# Impacts of standard temperature in Conversion Factor on UIG

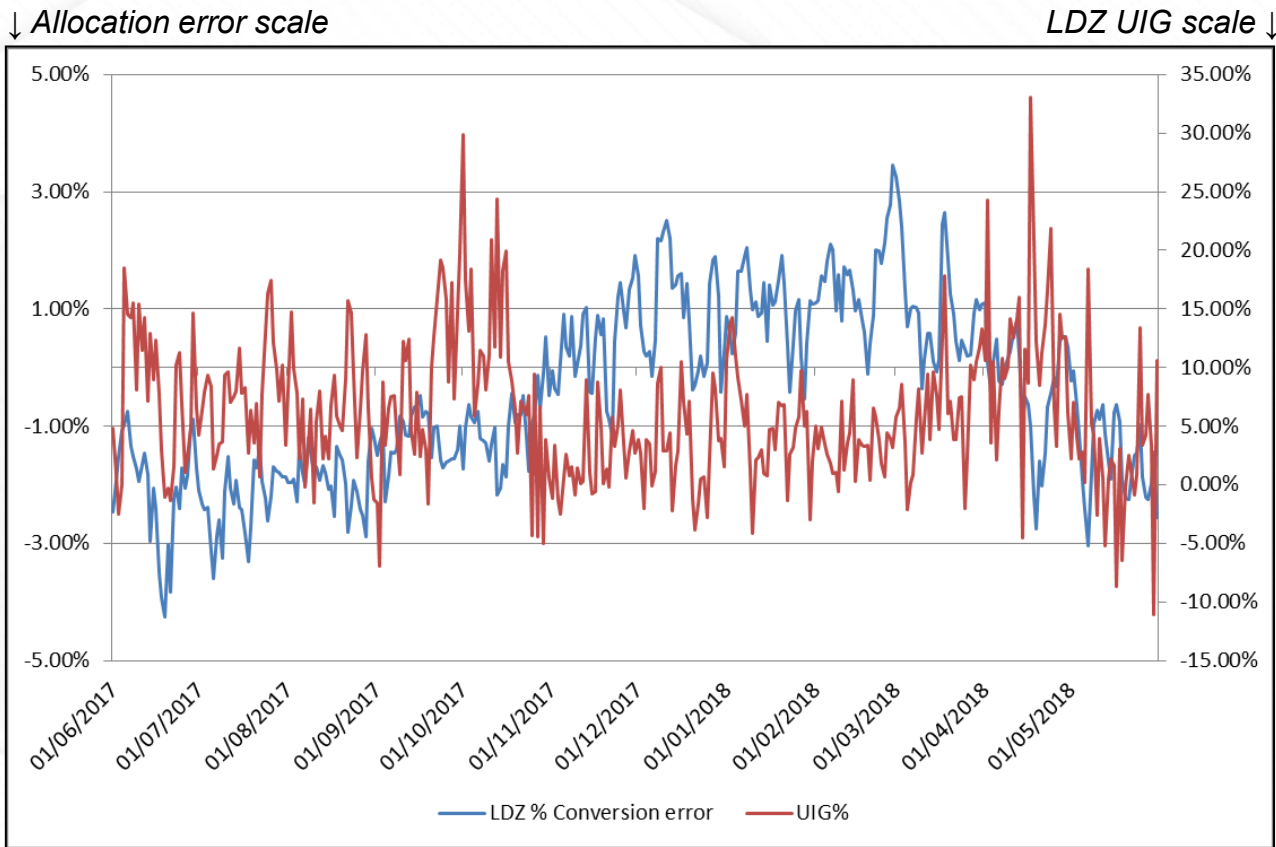
## 1. NDM Profiles

- NDM Profiles are based on reactions of the NDM Sample to weather
- Demand from the NDM Sample in EUCs 01 to 03 is corrected at standard CF – demand is understated when colder, overstated when warmer
- This in turn understates NDM Allocation in winter, overstates in summer
- This could be contributing to the general trend of positive UIG in winter and low/negative UIG in summer (as seen in pre-Nexus simulations)
- *Simulation of allocation error on next slide*

# Estimated daily % error in WM LDZ Allocation – temperature only – compared to daily LDZ UIG

## Notes

- Based on WM LDZ air temps only for first year post-Nexus
- Impacts will be very different depending on actual weather
- Also impacted by location of gas meter – heated room/ unheated location e.g. cellar or garage/ outside location – sheltered or exposed – sunny or shaded
- Depending on flow rate, gas takes on more of ambient temp, less impact of ground temp
- No widespread available info on temps of gas at point of metering



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## 2. Meter Point Reconciliation

- When meter readings are received, cold weather demands are understated, warm weather demands are overstated
- Gives an incorrect seasonal shape
- UIG impacts from NDM Allocation for EUCs 01 to 03 will persist after meter point reconciliation, especially for sites which are read monthly

# Impacts of standard temperature in Conversion Factor on UIG


## 3. NDM Annual Quantities

- Analysis suggested that the annual impact is non-zero and slightly positive
- This is highly dependent on the weather and the considerations noted on **Slide 4**
- Any impacts on AQs would also flow into subsequent NDM Allocation

## Options to Address the Finding

- Options were summarised and presented at UIG Workgroup (Task Force meeting) on 28 Jan
- No strong support for any options
- Further detail and analysis on the options set out in supporting spreadsheet published for this meeting:
  - “Iss 12.2 Options Analysis”
- Summary of options on following four slides

# Options to address finding 12.2 (1 of 4)

No.	Option	Likelihood of success	Implementation lead times
1.	No action (“Do Nothing” option) or Park	Very low	N/A
2. 	Use actual LDZ temperatures to convert consumptions used to develop the NDM Profiles (ALPs and DAFs) – to be further refined at DESC forum	Medium – improves daily allocation but does not correct calculation of metered energy or AQ	Short/medium – pending DESC review
3.	Influencing strategy to amend Thermal Energy Regulations	Unknown?	Probably long?
4.	Add a new LDZ level factor to the volume-to-energy conversion formula to account for the net difference in energy. The factor could either be a fixed value reviewed periodically, or calculated daily using actual LDZ weather	Medium to high	Long. Would require a UNC Modification proposal and significant system changes.





# Options to address finding 12.2 (2 of 4)

No.	Option	Likelihood of success	Implementation lead times
5.	Amend AUGÉ process to re-distribute UIG based on estimated impacts of conversion factors (forecast basis)	Medium/high – depending on actual weather for the year	Medium – requires governance changes but probably no system changes
6.	Mod to introduce retrospective adjustment to allocations based on actual weather for the year	Medium/high – depending on methodology applied	Long – UNC Mod and system changes
7.	Introduce an LDZ level conversion factor (permanent/per year/per month)	Low to medium – depending on whether annual/monthly	Long – UNC Mod and system changes
8.	Amend UNC/legislation to require site specific conversion for every site	Low to medium due to scale of workload	Medium/long – creation of capability only – Long for actual CF updates

See also spreadsheet “Iss 12.2. Options Analysis”

# Options to Address Finding 12.2 (3 of 4)

No.	Option	Likelihood of success	Implementation lead times
9.	<b><i>Suggested by Shipper:</i></b> Create a new category of Energy, treated similarly to Shrinkage, where a percentage of daily throughput is allocated as a Correction Factor error. The percentage of energy would be set at LDZ level based on daily profiled seasonal normal (SN) temps, and then retrospectively trued-up based on the actual LDZ temps. This option would reduce volatility and the shippers' trading exposure (except where temps are a long way from SN)	<b><i>Shipper assessment:</i></b> Medium-High. Would reflect daily profiled temperature effect, applied to aggregate consumption profile (rather than individual sites' usage profiles). Would need to assess if any changes required to DNs' RIIO arrangements to make it an allowable cost	Long. Would require a UNC modification and changes to CDSP systems, and potentially changes to CDSP Billing processes to incorporate the new energy type

# Options to Address Finding 12.2 (4 of 4)

No.	Option	Likelihood of success	Implementation lead times
10.	<b><i>Suggested at UIG Workgroup:</i></b> Adjust LDZ daily gas inputs to use standard correction. (Would create energy gains/losses between NTS and LDZs which would need to be funded)	Medium. Would reduce daily UIG caused by this issue, but there would still be differences between actual temps at the meters and the standard temp used in the CF. Would create UIG at sites with a specific CF or with a converter fitted.	Long. Would require a UNC modification and changes to GT/CDSP systems, and potentially changes to GT billing to recover the energy differences

## Next steps

- Consideration of options
- Selection of option(s) for further development
- Industry parties required to sponsor any UNC Mods or DSC Change Proposals

The image features a stylized white house outline with a triangular roof and a rectangular body divided into five vertical sections, resembling window panes. The 'xserve' logo is centered within the house. The logo consists of a blue 'x' formed by two overlapping chevrons, followed by the word 'serve' in a blue sans-serif font. The entire graphic is set against a background with a light blue diagonal line pattern, framed by a dark blue top bar and a light blue bottom bar.

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