UNC Read Validation Tolerances – Class 3 & 4

DWG – July 2023

Background

- Discussion at April 2023 CoMC meeting on the observed increase in meter readings rejected due to them failing the 'inner tolerance' validation check
- It was noted that where meter readings are rejected, Shippers need to re-send the reads with the override flag in the file which is adding handling costs, greater complexity, and risk to the reads
- CDSP validates all meter readings received using tolerance checks against the site's AQ to ensure invalid reads are not accepted and used for AQ calculations & reconciliation processes (Class 3 & 4 MPRNs)
- Analysis was undertaken on meter readings rejected for breaching the inner tolerance validation and no override flag provided with the meter reading (MRE01029)
- The findings were presented at May CoMC

Next slide: summary of findings

Challenges with the current Tolerances

- As more and more sites become monthly read the validations will typically apply to 1 month's consumption and not 12
- Domestic and small industrial/commercial sites tend to be very weather sensitive
- Even under seasonal normal conditions a winter month's consumption can be 10 times that of a summer month
- Typical winter consumption for a Smaller Supply Point is around 180% x AQ each day
- A tolerance of 150% of AQ per day will cause a "normal" winter usage to fail inner tolerance every time
- Failed reads need to be submitted with the Override flag to be accepted

Next slide: CoMC Outcomes

Outcomes from May 2023 CoMC

- CoMC agreed that a Change Proposal should be raised to amend the read tolerances
- XRN5651: Updates to Class 3 and 4 Inner Tolerance Ranges used in Meter Read validation process, was raised and presented to June ChMC
- ChMC approved the change into the development stage of the change process
- The Change Proposal asks the CDSP to provide analytical data that would support Shippers in determining the revised tolerance values that should be defined within the UNC Validation Rules and consequently utilised by Shippers and within CDSP systems

Current Class 4 Read Validation Tolerances

Lower AQ Band (kWh)	Upper AQ Band (kWh)	Tolerances where read will be accepted	Tolerances where a Read will be Accepted if Submitted within Override Flag (Inner Tolerance)	Outer Tolerance Where Read will be Rejected (Market Breaker)
1	1	0% - 2,000,000% of AQ/365 x no. of days	2,000,001% - 7,000,000 % of AQ/365 x no. of days	> 7,000,000% of AQ/365 x no. of days
2	100	0% - 20,000% of AQ/365 x no. of days	20,001% - 45,000 % of AQ/365 x no. of days	> 45,000% of AQ/365 x no. of days
101	200	0% - 10,000% of AQ/365 x no. of days	10,001% - 25,000% of AQ/365 x no. of days	> 25,000% of AQ/365 x no. of days
201	500	0% - 4,000% of AQ/365 x no. of days	4,001% - 55,000 % of AQ/365 x no. of days	> 55,000% of AQ/365 x no. of days
501	1,000	0% - 2,000% of AQ/365 x no. of days	2,001% - 25,000 % of AQ/365 x no. of days	> 25,000 % of AQ/365 x no. of days
1,001	5,000	0% - 400% of AQ/365 x no. of days	401% - 7,000 % of AQ/365 x no. of days	> 7,000% of AQ/365 x no. of days
5,001	10,000	0% - 200% of AQ/365 x no. of days	201% - 2,000 % of AQ/365 x no. of days	> 2,000% of AQ/365 x no. of days
10,001	20,000	0% - 150% of AQ/365 x no. of days	151% - 1,100 % of AQ/365 x no. of days	> 1,100% of AQ/365 x no. of days
20,001	73,200	0% - 300% of AQ/365 x no. of days	301% - 1,100 % of AQ/365 x no. of days	> 1,100% of AQ/365 x no. of days
73,201	732,000	0% - 250% of AQ/365 x no. of days	251% - 1,000 % of AQ/365 x no. of days	> 1,000% of AQ/365 x no. of days
732,001	2,196,000	0% - 200% of AQ/365 x no. of days	201% - 1,000% of AQ/365 x no. of days	> 1,000% of AQ/365 x no. of days

200% tolerance may be too low during extreme cold spells

150% tolerance is too low for monthly read sites in a “normal” winter

Approach to the Suggested Tolerances

- We compared current tolerances to highest daily gas allocations for that AQ Band under Seasonal Normal conditions (i.e. the ALP – Annual Load Profile)
- Suggest setting tolerances to highest daily allocations plus c. 50% extra allowance for cold weather – otherwise a cold snap would trigger surge in failures
- Recommend we take account of the high WAR (Winter:Annual Ratio) Band EUCs so they are not disadvantaged
- Not proposing a change to the outer tolerances as they are intended to protect individual Shipper and industry from excessive energy calculations
- Not proposing to change the tolerances on the largest EUC Bands as small read errors on these sites could be very significant

Comparison of Highest Daily Usage to Tolerances

EUC Band	AQ Range (kWh)	Highest individual Annual Load Profile (ALP)	Equivalent % of AQ consumed per day	Current Tolerance as a % of AQ consumed per day
01	1 - 73,200	2.06	206%	200% (5-10k sub-band) 150% (10-20k sub-band)
02	73,200-293,000	1.94	194%	250%
03	293k-732k	1.87 – “Bucket EUC” 2.47 – WAR Band 04	187% 247%	250%
04	732k-2,196k	1.85 – “Bucket EUC” 2.47 – WAR Band 04	185% 247%	200%

Lower AQ Band (kWh)	Upper AQ Band (kWh)	Tolerances where read will be accepted (% of AQ/365 x no. of days)	Tolerances Override Flag required (% of AQ/365 x no. of days)	Outer Tolerance Where Read will be Rejected (% of AQ/365 x no. of days)
1	1	0% - 2,000,000%	2,000,001% - 7,000,000 %	> 7,000,000%
2	100	0% - 20,000%	20,001% - 45,000 %	> 45,000%
101	200	0% - 10,000%	10,001% - 25,000%	> 25,000%
201	500	0% - 4,000%	4,001% - 55,000 %	> 55,000%
501	1,000	0% - 2,000%	2,001% - 25,000 %	> 25,000 %
1,001	5,000	0% - 400%	401% - 7,000 %	> 7,000%
5,001	10,000	0% - ~~200%~~ **250%**	~~201%~~ **251%** - 2,000 %	> 2,000%
10,001	20,000	0% - ~~150%~~ **250%**	~~151%~~ **251%** - 1,100 %	> 1,100%
20,001	73,200	0% - 300%	301% - 1,100 %	> 1,100%
73,201	732,000	0% - ~~250%~~ **300%**	~~251%~~ **301%** - 1,000 %	> 1,000%
732,001	2,196,000	0% - ~~200%~~ **250%**	~~201%~~ **251%** - 1,000 %	> 1,000%
2,196,001	29,300,000	0% - 150%	151% - 700 %	> 700%
29,300,001	58,600,000	0% - 100%	101% - 400 %	> 400%
58,600,001	And above	0% - 100%	101% - 350 %	> 350%

Suggested updates to the Tolerances

Further considerations

- We can't determine the scale of any increase in accepted reads as we don't know how many reads are currently not sent in by Shippers nor what actual weather we will see
- Tolerances need to strike a balance between:
  - Achievement of meter read submission obligations, keeping AQs up to date
  - Risk of allowing more erroneous reads/excessive volumes through into settlement – impact on individual reconciliations/AQs and on LDZ Unidentified Gas (UIG)
- Tolerances can be kept under review and updated again in future

Next Steps

- **Receive views** at July DWG on the proposals

- The intention is to **seek UNCC approval** of the updated Tolerances Ranges set out within the UNC Validation Rules at the August meeting

- Based on approval at UNCC, implement the agreed changes to the Tolerance Ranges under XRN 5651

For the avoidance of doubt, it is anticipated that this change can be delivered within a Minor Release and the target implementation date would be September / October 2023. This must still be assessed and confirmed.


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