NSW-ACT Retail Gas Market High/Low Tolerance Test — Worked Example

Attachment 1 of the Retail Market Procedures (NSW/ACT) prescribe that AEMO must publish a High/Low Tolerance test for meter readings in the field.

The following High/Low Tolerance limits are utilised during the course of meter readings in the field.

Current NSW/ACT Reading Tolerance Limits

MJ Limit	Low 1 %	High 1 %
0	-75	+300
500	-75	+300
1500	-65	+300
2000	-65	+300
3000	-65	+240
4000	-55	+220
5500	-55	+210
8000	-55	+190
10000	-55	+180
20000	-65	+165
30000	-65	+160
50000	-65	+155
99999	-65	+150

Example

Assume a supply point with a Base Load of 50MJ per day, Temperature Sensitivity Factor of 65MJ per EDD, average Heating Value of 38.6 and Volume Correction Factor of 1.0109. There are 91 days in the current billing period and we have recorded 400 EDDs

Date	Reading (m^3)	Flow (m^3)	Energy (MJ
1 Mar 2016	7560	104	4,014.4
1 June 2016	7868	308	11,888.8
1 Sep 2016	?		?

STEP 1 Calculate the point estimate, based on the BL and TSF for this supply point:
Estimated Consumption = 50 * 91 + 65 * 400 = 30,550MJ

STEP 2 Apply the parameters of -65% and +160% (30,000 MJ Limit) to calculate the High and Low Consumption limits:
High Consumption Limit = (1+1.6) * 30,550 = 79,430MJ
Low Consumption Limit = (1-0.65) * 30,550 = 10,692MJ

STEP 3 Divide the High and Low Consumption limits by the Heating Value and Volume Correction Factor (VCF) to arrive at corresponding flows (m3):
High Flow Limit = 79,430 ÷ 38.6 ÷ 1.0109 = 2,036m3
Low Flow Limit = 10,692 ÷ 38.6 ÷ 1.0109 = 274m3

STEP 4 Add the High and Low Flow Limits to the previous index reading:
High Index Limit = 7,868 + 2,036 = 9,904m3
Low Index Limit = 7,868 + 274 = 8,142m3
In this example, the High expected reading will be 9904 and the Low will be set at 8142.
Any reading that is outside this range will cause the Portable Data Entry (PDE) to emit a warning sound to the meter reader. If the meter reader keys in the same index value and meter number, the number will be stored but with a flag to indicate that it has failed the Hi/Lo test.