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# Rolling AQ – Initial Calculation

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# Background

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- “Rolling AQ” included in Nexus BRDs and implemented on 1<sup>st</sup> June.
- Process is triggered on the 12<sup>th</sup> calendar day of the month utilising valid closed-out readings.
- For June, these will have been submitted from the 1<sup>st</sup> June to the 10<sup>th</sup> calendar day of June.
- Notification files (NRL & NNL) are issued at M-5 business days where M is the first of the following month.
- Effective date for the revised AQ value is the 1<sup>st</sup> of the month (i.e. 1<sup>st</sup> July).
  
- Xoserve has analysed the outcome of the first month’s run of Rolling AQ.

# Rolling AQ MI & Validation Approach

- Rolling AQ functionality is **working as expected**.
- Circa 3.8 million sites have had a new AQ calculated:

Rejection Reason	Description	Count
AQI00001	Insufficient consumption data due to isol.	957
MPQ00029	Backstop Date	2684
CPN00322	Insufficient Consumption to calculate AQ	83920
AQI00005	Revised AQ value failed market breaker tolerance	37292
	<b>No Exception (AQ Calculated)</b>	<b>3711341</b>
<b>Total</b>		<b>3836194</b>

- Pro-active validation has been undertaken to assure the newly created AQ's.
- Auto validation and manual validation is being used to assure this data.

# Failure to Calculate – Market Breakers

- The Market Breaker tolerance has **correctly** prevented miscalculation of a significant percentage of MPRNs.

SSP/LSP	Reason	No of Sites	Current AQ (kWh)	New AQ (kWh)	Difference (kWh)	% Difference
DM	Failed Market Breaker Tolerance	41	2,310,376,889	64,437,005,855	62,126,628,966	2689.03%
LSP	Failed Market Breaker Tolerance	1,068	365,981,204	59,451,026,003	59,085,044,799	16144.28%
SSP	Failed Market Breaker Tolerance	35,948	501,678,379	24,964,639,732	24,462,961,353	4876.22%

# Failure to Calculate - Rejections

SSP/ LSP	Reason	No of Sites	Current AQ (kWh)	New AQ (kWh)	Difference (kWh)	%
LSP	Insufficient Consumption due to Isolation	65	126,415,890	0	N/A	N/A
SSP	Insufficient Consumption due to Isolation	887	9,741,513	0	N/A	N/A
DM	Insufficient Consumption to calculate	11	1,555,478,709	0	N/A	N/A
LSP	Insufficient Consumption to calculate	2,341	1,046,095,148	0	N/A	N/A
SSP	Insufficient Consumption to calculate	79,635	1,008,299,374	0	N/A	N/A
DM	Backstop Date Set	1	117,200,002	0	N/A	N/A
LSP	Backstop Date Set	298	341,299,787	0	N/A	N/A
SSP	Backstop Date Set	2,382	46,714,733	0	N/A	N/A

# Successful Calculations

SSP/L SP	Process Outcome	MPRNs	Current AQ (kWh)	New AQ (kWh)	Difference (kWh)	%
DM	AQ Calculated	766	43,319,511,870	41,017,728,582	-2,301,783,288	-5.31%
LSP	AQ Calculated	113,903	65,540,506,835	62,207,449,844	-3,333,056,991	-5.09%
SSP	AQ Calculated	3,522,029	48,818,100,829	48,066,397,566	-751,703,263	-1.54%

- We have sampled sites where there are swings in AQ, both decreasing the AQ to 1 and large increases in AQ.
- Our analysis to date has identified the main root cause is **incorrect reads accepted into the legacy system** creating either:
  - *Negative volume resulting in an AQ of 1 being calculated*
  - *Large volume resulting in a very large increase in AQ*

# Negative volume resulting in an AQ of 1 being calculated

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- There are a number of sites which have had the AQ calculated as 1
- In some cases this will be expected (vacant sites), however there are a number where there is a large negative read migrated from legacy UK Link which are creating this impact.
- Sites Affected:
  - *SSP: 58,685 MPRNs (74m kwh)*
  - *LSP: 699 MPRNSs (105m kwh)*

# Options for Market Participant Action

- Incorrect AQs can be corrected by market participants via:
  - Read Replacement Functionality (i.e. replace read/read attribute (RTC) that created an incorrect volume)
  - AQ Correction Functionality.
    - Read out of Market Breaker tolerance (e.g. read is correct but rejected because the AQ recorded is incorrect)
    - Theft of Gas
    - New Business
    - Consumer Plant (e.g. shut down or increasing usage)
  - ***If an AQ Correction is accepted, a Backstop Date is applied and therefore an AQ will not re-calculate for at least 9 months.***
  - ***This will mean any Corrections applied between now and 1<sup>st</sup> December 2017 will be the Formula Year AQ for 2018.***
- Both processes only amend AQs prospectively – meaning there is an impact of the erroneous AQ until such time that it is corrected.