

FEBRUARY 23 - GEMSERV

# MEASUREMENT ERROR REGISTER ANALYSIS

14<sup>TH</sup> FEBRUARY 2023

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**Gemserv**

MAKING THINGS THAT MATTER WORK BETTER

# MEASUREMENT ERROR REPORT ANALYSIS



Offtake Year	National Grid	Cadent	No of Meters	NGN	No of Meters	SGN	No of Meters	WWU	No of Meters	Total
2018	0	2		0		1		0		3
2019	0	3		1		0		0		4
2020	0	3	107 (87)	0	41 (41)	1	44 (39)	0	33 (33)	4
2021	0	5		0		0		1		6
2022	0	5		0		0		0		5
TOTAL	0	18		1		2		1		22
	National Grid	Cadent	% of total	NGN	% of total	SGN	% of total	WWU	% of total	Incidents
LAST 5 YRS	0	18	81.82%	1	4.55%	2	9.09%	1	4.55%	22
LAST 3 YRS	0	13	86.67%	0	0.00%	1	6.67%	1	6.67%	15

- Data contained within the Measurement Error Register (MER) 31 January 2023 was utilised to compile high level analysis of incidents from 2018 – 2022
- The number of instances per calendar year for each GT has been captured, instance years have been classified using the value 'First Gas Day where Error Present' (where correctly populated with a valid date value within MER)
- The overall number of meters per GT has also been provided for reference purposes with Offtake Meters provided in brackets

# MEASUREMENT ERROR REPORT ANALYSIS



	National Grid	Cadent	% of total	NGN	% of total	SGN	% of total	WWU	% of total	Incidents
LAST 5 YRS	0	18	81.82%	1	4.55%	2	9.09%	1	4.55%	22
LAST 3 YRS	0	13	86.67%	0	0.00%	1	6.67%	1	6.67%	15

- High level analysis detailing number of instances for the period 2018 – 2022 (5 years) and 2020 – 2022 (3 years) has been captured
- The % of total column indicates the percentage of total instance volume for both periods by GT
- Over a 5 year period Cadent has reported 18 instances compared with 2 instances for SGN and 1 instance for both NGN and WWU, in the last 3 year period this stands at 13 (Cadent), 1 (SGN), 1 (WWU) and 0 (NGN)
- The % total attributed to Cadent is 81.82% (5 years) and 86.67% (3 years)
- MER Error description data suggests issues were encountered by Cadent relating to flow computer errors and USM (Ultrasonic Meter) errors over the 5 year period



# MEASUREMENT ERROR REPORT ANALYSIS



Cadent								
Total of Meters (31/01/2023):								
107								
Site Type		Meter Type		EA	EM	NT	NW	WM
Inter LDZ Transfer	10	Insertion DP Device	2	0	0	2	0	0
		Insertion Turbine Device	1	0	0	0	0	1
		Orifice	2	0	0	1	0	1
		System	1	0	0	0	0	1
		Turbine	4	0	1	1	0	2
Site Type		Meter Type		EA	EM	NT	NW	WM
Network Entry	10	Rotary Displacement	9	3	3	0	2	1
		Turbine	1	1	0	0	0	0
Site Type		Meter Type		EA	EM	NT	NW	WM
Offtake	87	Orifice	46	9	8	8	11	10
		System	18	4	6	3	1	4
		Turbine	19	5	9	0	1	4
		Ultrasonic	4	0	2	0	0	2

- Site Type and Meter Type data has been captured per GT to gauge current asset portfolio
- Cadent appear to retain a high volume of Orifice Offtake meters of which accounted for a high proportion of incidents between 2007 – 2009
- Data within the 'Lookup Table for Offtake Data' tab within the MER does not appear to have changed since May 2021

# ■ SUMMARY & NEXT STEPS



## SUMMARY:

- A presentation was compiled in May 2021 by Gemserv of which detailed the MER Offtake Error position at the time of publication
- Topics such as the replacement of Orifice Plate meters and the potential introduction of more regular inspection or ad hoc checks were discussed as potential mitigations
- There have been several incidents since this date of which are attributed to Cadent and clarity is sought as to the latest measures in place to mitigate the risk of further offtake errors occurring



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