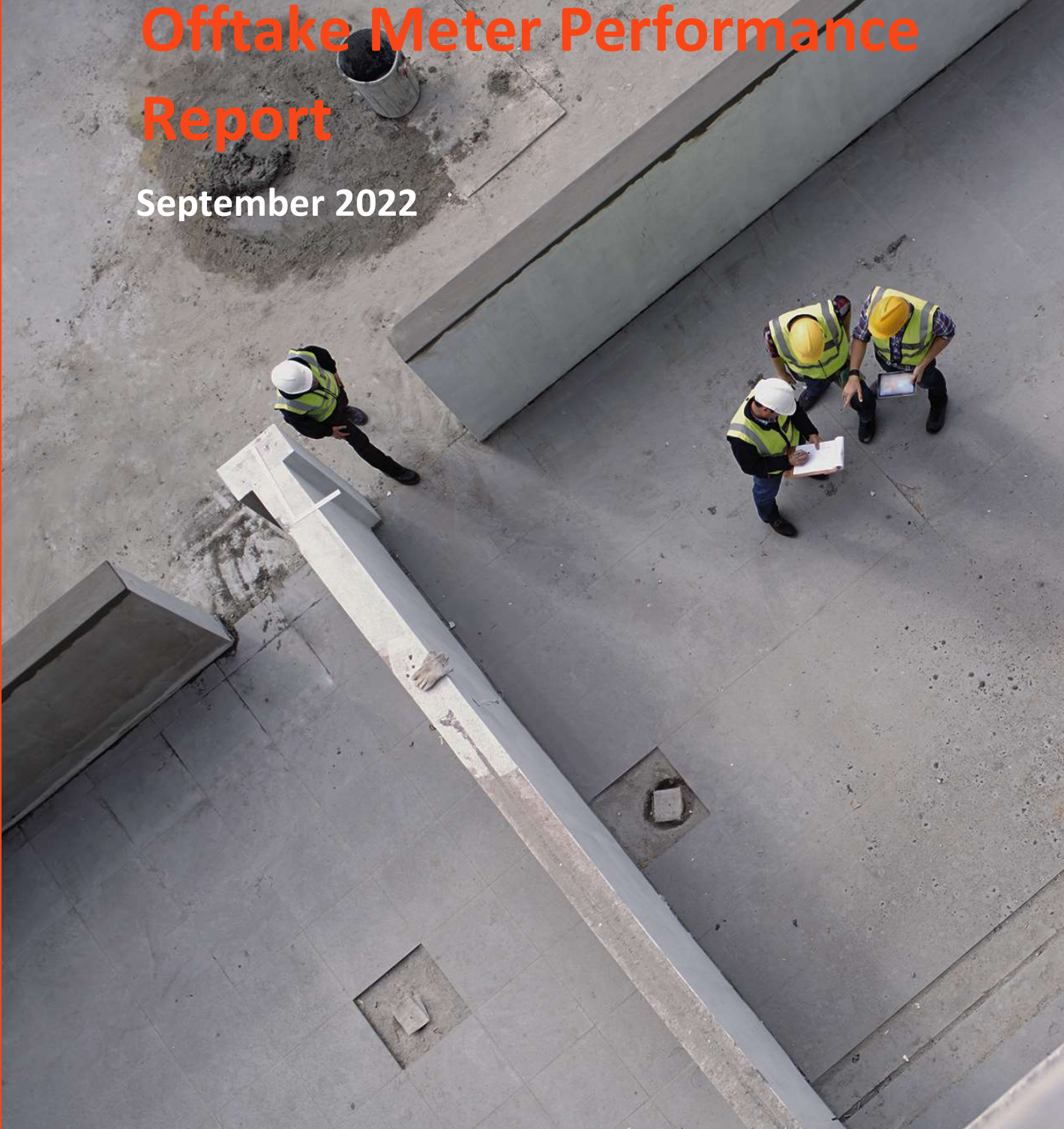




Offtake Meter Performance Report

September 2022



Offtake Meter Performance

Cadent operates and maintains a number of exit points from the National Grid where offtake flow is measured and validated in accordance with the UNC and The Gas (Calculation of Thermal Energy) Regulations.

Report to the Performance Assurance Committee September 2022.

Requirements

1. Number and magnitude of Meter Error reports
2. Annual ME2 Meter Validation report.

Introduction

This document has been written to demonstrate that instrumentation and equipment associated with measurement systems for the calculation of mass, volume or energy flow rate of gas are functioning correctly. The ME2 Part 3 Work Procedure for Flow Weighted Average Calorific Value (FWACV) Offtakes is used to ensure metering equipment at the offtakes are validated and maintained correctly, thus ensuring that the complete metering system continues to perform within the uncertainty requirements.

ME2 Part 3 - FWACV Offtakes

The ME2 Part 3 Work Procedure sets out a number of tests and calibrations designed to ensure all aspects of flow metering such as flow computers, pressures and temperatures are setup and working within tolerances.

All sites must be validated annually with a maximum interval of twelve (12) months between validations.

Meter Errors

The Offtake Arrangements Document (OAD) requires the Offtake metering Measurement Equipment to be operating within its “Permitted Range” as indicated in the site specific “Supplemental Agreement”. If the Measurement Equipment is found to be operating outside its Permitted Range or with a systematic bias it is classed to be a “Fault”.

The Measurement Error Notification Guidelines only require the notification of faults which are likely to result in a systematic bias to the measured quantity. They do not cover faults associated with equipment operating outside its permitted range when the mismeasurement is of a random nature.

Systematic bias is deemed to be a bias resulting from the measurement system, leading on average to biases in measurement which results in measured values being systematically too high or too low.

Reconciliation

On identification of a possible meter error the Distribution Network is required to supply corrected readings for reconciliation only when the fault identified has a systematic bias of over 0.1% of the total offtake flow during the period of the error. These corrected readings are supplied as part of the “Measurement Error Report (MER)” or the “Significant Measurement Error Report (SMER)”, where a SMER will be an error estimated to exceed 50 GWh.

Null Reports

Should the magnitude of the total error be calculated to be less than 0.1% of the total offtake flow during the period of the meter error then no reconciliation will be made for any day within the error duration and a null report written.

Requirements

1. Meter Error Reports

6 meter errors were first notified to the Joint office of Gas Transporters in the period of August 2021 to July 2022.

Site	Size of Error (GWh)	Size of Error (MSm ³)	Reconciliation required	Open/Closed
Thornton Curtis MTA	790 (estimated)	TBC	Y	Open
Dunstall Green MRA	Null	Null	N	Closed
Bracknell MTA	Null	Null	N	Closed
Atherstone MRA/MRB Combined	Null	Null	N	Closed
Leamington MRA/MRB Combined	Null	Null	N	Closed
Lower Quinton UMB	0.276	0.026	Y	Open

Table 1 - Meter Errors August 2021 to July 2022

2. Annual ME2 Meter Validations

ME2 maintenance activities completed in the period August 2021 to July 2022 are shown in Table 2.

Maintenance Summary

72 individual metering streams were validated in accordance with the ME2 Maintenance Work Procedure. 18 metering streams were started outside of the 12-month validation window, either due to scheduling constraints or where other work prevented it, however in all 18 cases these were started within the anniversary month.

Table 2 – Summary of ME2 Meter Validations – Aug 2021 to July 2022

Site Name		LDZ	Meter Type	Open Meter Error Reports	Last Validation End Date	Validation Start Date	Validation End Date	Started within 12 months of last end date?	Reconciliation required?	Comments
ALREWAS EM	MTD	WM	OP		27/05/2021	03/05/2022	13/05/2022	Y		
ALREWAS WM	MTA	WM	OP		13/05/2021	09/05/2022	26/05/2022	Y		
ALREWAS WM	MTB	EM	OP		13/05/2021	09/05/2022	26/05/2022	Y		
ASPLEY	MTA	WM	OP		07/06/2021	23/05/2022	27/05/2022	Y		
ATHERSTONE	MT1	WM	TURB		08/02/2021	07/02/2022	14/02/2022	Y		
ATHERSTONE	MT2	WM	TURB		08/02/2021	07/02/2022	14/02/2022	Y		
AUDLEY NW	MTC	NW	OP		13/05/2021	25/04/2022	29/04/2022	Y		
AUDLEY WM	MTE	WM	OP		21/05/2021	04/04/2022	08/04/2022	Y		
AUDLEY WM	MTD	WM	OP		21/05/2021	04/04/2022	08/04/2022	Y		
AUSTREY	MO1	WM	OP		14/09/2020	13/09/2021	17/09/2021	Y		
BACTON	MT1	EofE-EA	TURB		26/02/2021	21/02/2022	25/02/2022	Y		
BLABY	MO1	EofE-EM	OP		09/10/2020	25/10/2021	29/10/2021	N		Started within anniversary month
BLACKROD	MTA	NW	OP		18/06/2021	12/06/2022	17/06/2022	Y		
BLACKROD	MTB	NW	OP		18/06/2021	12/06/2022	17/06/2022	Y		
BLYBOROUGH	MTA	EofE-EM	OP		28/05/2021	23/05/2022	31/05/2022	Y		
BRACKNELL	MO1	NL	OP		26/01/2021	17/01/2022	24/01/2022	Y		
BRISLEY	MRA	EofE-EA	TURB		20/05/2021	17/05/2022	27/05/2022	Y		
BRISLEY	MRB	EofE-EA	TURB		20/05/2021	17/05/2022	27/05/2022	Y		
CALDECOTT	MO1	EofE-EM	OP		19/05/2021	14/02/2022	18/02/2022	Y		
DROINTON	MT1	EofE-EM	USM		13/11/2020	22/11/2021	26/11/2021	N		Started within anniversary month
DROINTON	MT2	EofE-EM	USM		13/11/2020	22/11/2021	26/11/2021	N		Started within anniversary month
DUNSTALL GREEN	MRA	NL	TURB		25/06/2021	06/06/2022	13/06/2022	Y		
ECCLESTON	MTA	NW	OP		26/05/2021	04/04/2022	07/04/2022	Y		

GOSBERTON	MTA	EofE-EM	OP		11/06/2021	20/06/2022	27/06/2022	N		Started within anniversary month
GREAT WILBRAHAM	MO1	EofE-EA	OP		17/09/2020	13/09/2021	17/09/2021	Y		
HOLMES CHAPEL	MTA	NW	OP		23/06/2021	20/06/2022	23/06/2022	Y		
HORNDON	MTA	NL	OP		11/06/2021	06/06/2022	14/06/2022	Y		
HYDES PASTURES	MO1	WM	OP		17/05/2021	07/03/2022	11/03/2022	Y		
KIRKSTEAD	MRA	EofE-EM	TURB		17/05/2021	17/05/2022	23/05/2022	Y		
KIRKSTEAD	MRB	EofE-EM	TURB		17/05/2021	17/05/2022	23/05/2022	Y		
LEAMINGTON	MT1	WM	TURB		22/01/2021	24/01/2022	28/01/2022	N		Started within anniversary month
LEAMINGTON	MT2	WM	TURB		22/01/2021	24/01/2022	28/01/2022	N		Started within anniversary month
LOWER QUINTON	MT1	WM	USM		08/01/2021	11/01/2022	16/01/2022	N		Started within anniversary month
LOWER QUINTON	MT2	WM	USM		08/01/2021	11/01/2022	16/01/2022	N		Started within anniversary month
LUPTON	MTA	NW	OP		03/06/2021	30/05/2022	01/06/2022	Y		
LUXBOROUGH LANE	MTA	NL	OP		19/05/2021	03/05/2022	18/05/2022	Y		
LUXBOROUGH LANE	MTB	NL	OP		19/05/2021	03/05/2022	18/05/2022	Y		
MALPAS	MT1	NW	TURB		03/02/2021	31/01/2022	02/02/2022	Y		
MARKET HARBOROUGH	MO1	EofE-EM	OP		19/03/2021	21/03/2022	28/03/2022	N		Started within anniversary month
MATCHING GREEN	MO1	EofE-EA	OP		14/05/2021	23/03/2022	25/03/2022	Y		
MICKLE TRAFFORD	MTA	NW	OP		07/07/2021	04/07/2022	07/07/2022	Y		
MILWICH	MTA	WM	OP		18/06/2021	07/06/2022	30/06/2022	Y		
PARTINGTON	MO1	NW	OP		25/05/2021	07/03/2022	10/03/2022	Y		
PETERBOROUGH EYE OFFTAKE MO1	MO1	EofE-EA	OP		08/10/2020	04/10/2021	07/10/2021	Y		
PETERBOROUGH EYE OFFTAKE MO2	Mo2	EofE-EA	OP		08/10/2020	04/10/2021	07/10/2021	Y		
PETERS GREEN 1 ASCOT/HEDGERLEY	MTA	NL	USM		23/10/2020	11/10/2021	15/10/2021	Y		

PETERS GREEN 1 ASCOT/HEDGERLEY	MTB	NL	USM		23/10/2020	11/10/2021	15/10/2021	Y		
PETERS GREEN 2 SOUTH MIMMS	MTC	NL	OP		24/05/2021	26/04/2022	12/07/2022	Y		
PETERS GREEN 2 SOUTH MIMMS	MTD	NL	OP		24/05/2021	26/04/2022	12/07/2022	Y		
ROSS	MO1	WM	OP		15/09/2020	01/09/2021	01/08/2022	Y		
ROUDHAM HEATH	MO1	EofE-EA	OP		11/05/2021	14/03/2022	18/03/2022	Y		
ROYSTON	MT1	EofE-EA	TURB		19/10/2020	18/10/2021	20/10/2021	Y		
ROYSTON	MT2	EofE-EA	TURB		19/10/2020	18/10/2021	20/10/2021	Y		
RUGBY	MO1	WM	OP		13/11/2020	05/10/2021	14/10/2021	Y		
SAMLESBURY	MTA	NW	OP		21/07/2021	18/07/2022	10/08/2022	Y		
SILK WILLOUGHBY	MT1	EofE-EM	USM		10/09/2020	13/09/2021	17/09/2021	N		Started within anniversary month
SILK WILLOUGHBY	MT2	EofE-EM	USM		10/09/2020	13/09/2021	17/09/2021	N		Started within anniversary month
STRATFORD-UPON- AVON	MT1	WM	USM		19/02/2021	21/02/2022	25/02/2022	N		Started within anniversary month
STRATFORD-UPON- AVON	MT2	WM	USM		19/02/2021	21/02/2022	25/02/2022	N		Started within anniversary month
SUTTON BRIDGE	MT1	EofE-EM	TURB		23/10/2020	23/08/2021	27/08/2021	Y		
SUTTON BRIDGE	MT2	EofE-EM	TURB		23/10/2020	23/08/2021	27/08/2021	Y		
THORNTON CURTIS	MTA	EofE-EM	OP		20/05/2021	19/04/2022	25/04/2022	Y		
TUR LANGTON	MTA	EofE-EM	OP		16/07/2021	14/07/2022	20/07/2022	Y		
WALESBY	MT1	EofE-EM	TURB		22/01/2021	24/01/2022	28/01/2022	N		Started within anniversary month
WALESBY	MT2	EofE-EM	TURB		22/01/2021	24/01/2022	28/01/2022	N		Started within anniversary month
WARBURTON	MTA	NW	OP		10/06/2021	25/04/2022	28/04/2022	Y		
WEST WINCH	MO1	EofE-EA	OP		04/03/2021	07/03/2022	11/03/2022	N		Started within anniversary month
WESTON POINT	MO1	NW	OP		19/08/2020	16/08/2021	18/08/2021	Y		

WHITWELL	MTA	EofE-EA	OP		10/06/2021	28/06/2022	01/07/2022	N		Started within anniversary month
WHITWELL	MTB	EofE-EA	OP		10/06/2021	28/06/2022	01/07/2022	N		Started within anniversary month
WINKFIELD NT	MTC	NL	OP		22/06/2021	20/06/2022	28/06/2022	Y		
YELVERTON	MO1	EofE-EA	OP		24/09/2020	22/09/2021	27/09/2021	Y		