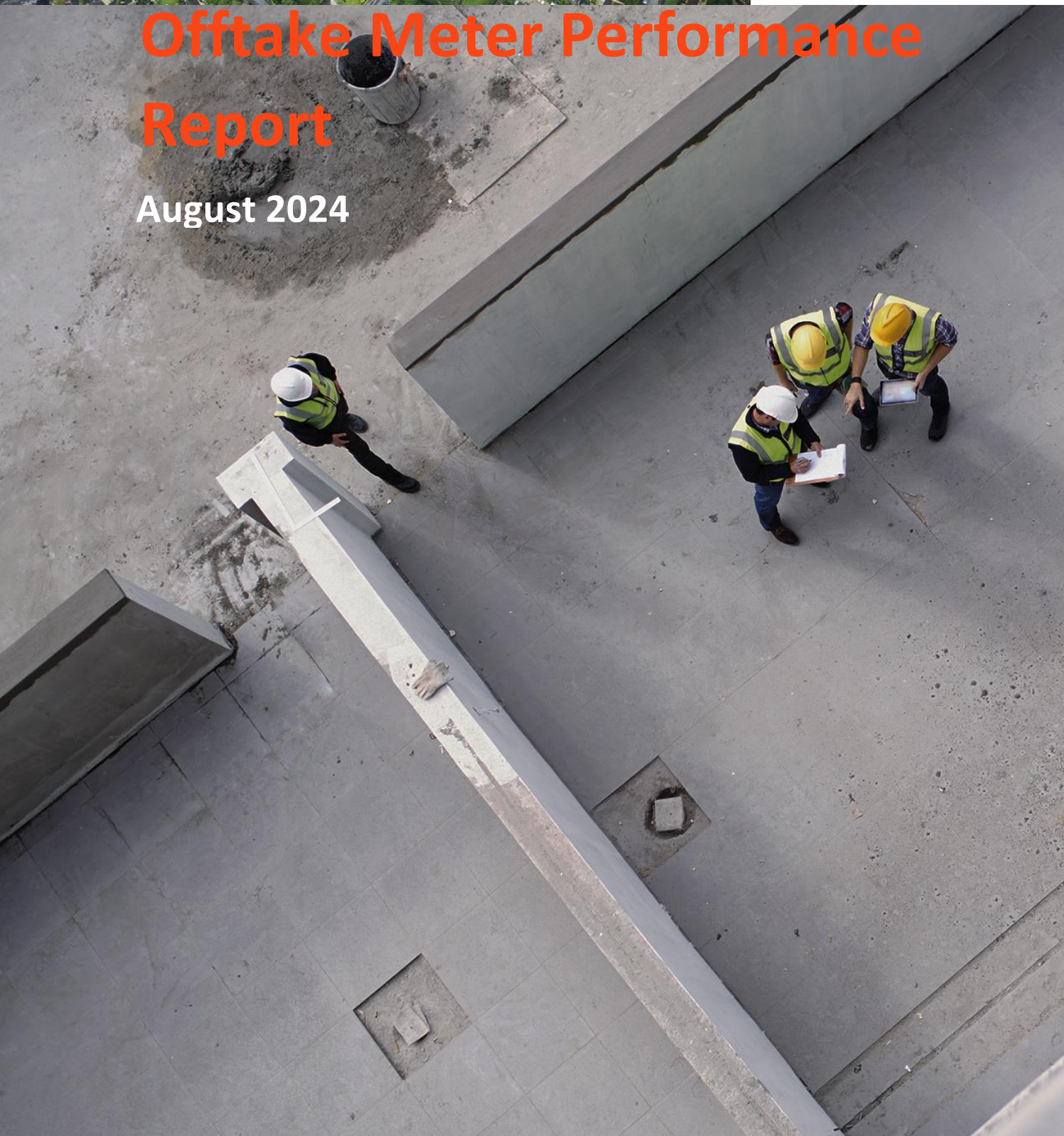




Offtake Meter Performance Report

August 2024



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 August 2024.

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

4 Meter errors for the period of August 2023 to July 2024 were reported.

Table 1 – Summary of Meter Error Reports – Aug 2023 to July 2024

Offtake	LDZ	Downstream Transporter	Significance Low <30GWH Medium >=30<50GWh High >=50GWh	Declared volume of error (MCM)	Estimated quantity of error (GWh)	Discovered	Error First Notified
Great Wilbraham MTA	EA	Cadent Gas Limited – DN	Low	0.414873665	0.037086	18/10/2023	29/09/2023
Weston Point MTB	NW	Cadent Gas Limited - DN (NW)	Low	Null	Null	11/08/2023	11/08/2023
Atherstone MRB	WM	Cadent Gas Limited – DN (WM)	Low	0.034	0.003	19/10/2023	24/10/2023
Alrewas WM MTA/MTB Combined	WM	Cadent Gas Limited – DN (WM)	Low	Null	Null	13/11/2023	13/11/2023

2. Annual ME2 Meter Validations

ME2 Metering Validation activities for the period August 2023 to July 2024 as shown in Table 2.

ME2 Metering Validation Summary

72 individual metering streams were inspected and tested following the ME2 Metering Validation Work Procedure. 7 metering streams were started outside of the 12-month validation window, either due to scheduling constraints or where other work prevented it.

Table 2 – Summary of ME2 Meter Validations – Aug 2023 to July 2024

Site Name	Meter Stream	LDZ	Meter Type	Open Meter Error Reports	Last Validation End Date	Validation Start Date	Validation End Date	Started within 12 months of last?	Reconciliation required?	Comments
ALREWAS EM	MTD	WM	OP	Y	26/05/2023	07/05/2024	10/05/2024	Y	N	
ALREWAS WM	MTA	WM	OP		18/05/2023	13/05/2024	20/05/2024	Y		
ALREWAS WM	MTB	EM	OP		18/05/2023	13/05/2024	20/05/2024	Y		
ASPLEY	MTA	WM	OP		26/05/2023	20/05/2024	24/05/2024	Y		
ATHERSTONE	MT1	WM	TURB	Y	10/02/2023	05/02/2024	09/02/2024	Y	Y	
ATHERSTONE	MT2	WM	TURB		10/02/2023	05/02/2024	09/02/2024	Y		
AUDLEY NW	MTC	NW	OP		28/04/2023	09/04/2024	12/04/2024	Y		
AUDLEY WM	MTE	WM	OP		28/04/2023	21/04/2024	30/04/2024	Y		
AUDLEY WM	MTD	WM	OP		28/04/2023	21/04/2024	30/04/2024	Y		
AUSTREY	MO1	WM	OP		08/09/2023	01/07/2024	04/07/2024	Y		
BACTON	MT1	EofE-EA	TURB		23/02/2023	21/02/2024	27/02/2024	Y		
BLABY	MO1	EofE-EM	OP		21/10/2022	16/10/2023	20/10/2023	Y		
BLACKROD	MTA	NW	OP		09/06/2023	03/06/2024	07/06/2024	Y		
BLACKROD	MTB	NW	OP		09/06/2023	03/06/2024	07/06/2024	Y		
BLYBOROUGH	MTA	EofE-EM	OP		15/05/2023	07/05/2024	13/05/2024	Y		
BRACKNELL	MO1	NL	OP		17/01/2023	08/01/2024	12/01/2024	Y		
BRISLEY	MRA	EofE-EA	TURB		05/05/2023	29/04/2024	02/05/2024	Y		
BRISLEY	MRB	EofE-EA	TURB		05/05/2023	29/04/2024	02/05/2024	Y		
CALDECOTT	MO1	EofE-EM	OP		17/02/2023	12/02/2024	16/02/2024	Y		
DROINTON	MT1	EofE-EM	USM		28/11/2022	20/11/2023	24/11/2023	Y		
DROINTON	MT2	EofE-EM	USM		28/11/2022	20/11/2023	24/11/2023	Y		
DUNSTALL GREEN	MRA	NL	TURB		07/06/2023	16/11/2023	29/11/2023	Y		Latest ME2 Validation completed as part of site MSU upgrade.
ECCLESTON	MTA	NW	OP		05/04/2023	02/04/2024	04/04/2024	Y		
GOSBERTON	MTA	EofE-EM	OP		16/06/2023	10/06/2024	18/06/2024	Y		
GREAT WILBRAHAM	MO1	EofE-EA	OP	Y	16/09/2022	11/09/2023	15/09/2023	Y	N	
HOLMES CHAPEL	MTA	NW	OP		22/06/2023	17/06/2024	19/06/2024	Y		
HORNDON	MTA	NL	OP		15/06/2023	28/05/2024	05/06/2024	Y		
HYDES PASTURES	MO1	WM	OP		12/07/2023	04/03/2024	14/03/2024	Y		

Site Name	Meter Stream	LDZ	Meter Type	Open Meter Error Reports	Last Validation End Date	Validation Start Date	Validation End Date	Started within 12 months of last?	Reconciliation required?	Comments
KIRKSTEAD	MRA	EofE-EM	TURB		26/05/2023	19/05/2024	24/05/2024	Y		
KIRKSTEAD	MRB	EofE-EM	TURB		26/05/2023	19/05/2024	24/05/2024	Y		
LEAMINGTON	MT1	WM	TURB		20/01/2023	22/01/2024	25/01/2024	N		ME2 Started 2 days after anniversary date as this fell on a weekend.
LEAMINGTON	MT2	WM	TURB		20/01/2023	22/01/2024	25/01/2024	N		
LOWER QUINTON	MT1	WM	USM		06/06/2023	08/01/2024	12/01/2024	Y		
LOWER QUINTON	MT2	WM	USM		06/06/2023	08/01/2024	12/01/2024	Y		
LUPTON	MTA	NW	OP		18/05/2023	13/05/2024	15/05/2024	Y		
LUXBOROUGH LANE	MTA	NL	OP		25/05/2023	01/05/2024	16/05/2024	Y		
LUXBOROUGH LANE	MTB	NL	OP		25/05/2023	01/05/2024	16/05/2024	Y		
MALPAS	MT1	NW	TURB		01/02/2023	29/01/2024	31/01/2024	Y		
MARKET HARBOROUGH	MO1	EofE-EM	OP		17/03/2023	18/03/2024	25/03/2024	N		ME2 Started 1 day after anniversary date as this fell on a weekend.
MATCHING GREEN	MO1	EofE-EA	OP		23/03/2023	29/11/2023	30/11/2023	Y		Latest ME2 Validation completed as part of site MSU upgrade.
MICKLE TRAFFORD	MTA	NW	OP		06/07/2023	01/07/2024	03/07/2024	Y		
MILWICH	MTA	WM	OP		22/06/2023	13/06/2024	13/06/2024	Y		
PARTINGTON	MO1	NW	OP		09/03/2023	04/03/2024	06/03/2024	Y		
PETERBOROUGH EYE OFFTAKE MO1	MO1	EofE-EA	OP		14/10/2022	02/10/2023	11/10/2023	Y		
PETERBOROUGH EYE OFFTAKE MO2	Mo2	EofE-EA	OP		14/10/2022	02/10/2023	11/10/2023	Y		
PETERS GREEN 1 ASCOT/HEDGERLEY	MTA	NL	USM		25/08/2022	07/08/2023	11/08/2023	Y		
PETERS GREEN 1 ASCOT/HEDGERLEY	MTB	NL	USM		25/08/2022	07/08/2023	11/08/2023	Y		
PETERS GREEN 2 SOUTH MIMMS	MTC	NL	OP		21/04/2023	15/04/2024	18/04/2024	Y		
PETERS GREEN 2 SOUTH MIMMS	MTD	NL	OP		21/04/2023	15/04/2024	18/04/2024	Y		
ROSS	MO1	WM	OP		13/12/2022	11/09/2023	15/09/2023	Y		
ROUDHAM HEATH	MO1	EofE-EA	OP		17/03/2023	11/03/2024	15/03/2024	Y		

Site Name	Meter Stream	LDZ	Meter Type	Open Meter Error Reports	Last Validation End Date	Validation Start Date	Validation End Date	Started within 12 months of last?	Reconciliation required?	Comments
ROYSTON	MT1	EofE-EA	TURB		20/10/2022	16/10/2023	19/10/2023	Y		
ROYSTON	MT2	EofE-EA	TURB		20/10/2022	16/10/2023	19/10/2023	Y		
RUGBY	MO1	WM	OP		07/10/2022	09/10/2023	12/10/2023	N		ME2 Started 2 days after anniversary date as this fell on a weekend.
SAMLESBURY	MTA	NW	OP		20/07/2023	15/07/2024	17/07/2024	Y		
SILK WILLOUGHBY	MT1	EofE-EM	USM		16/09/2022	18/09/2023	22/09/2023	N		ME2 Started 2 days after anniversary date as this fell on a weekend.
SILK WILLOUGHBY	MT2	EofE-EM	USM		16/09/2022	18/09/2023	22/09/2023	N		
STRATFORD-UPON-AVON	MT1	WM	USM		25/09/2023	06/11/2023	08/11/2023	Y		
STRATFORD-UPON-AVON	MT2	WM	USM		25/09/2023	06/11/2023	08/11/2023	Y		
SUTTON BRIDGE	MT1	EofE-EM	TURB		22/08/2022	14/08/2023	18/08/2023	Y		
SUTTON BRIDGE	MT2	EofE-EM	TURB		22/08/2022	14/08/2023	18/08/2023	Y		
THORNTON CURTIS	MTA	EofE-EM	OP		21/04/2023	14/04/2024	19/04/2024	Y		
TUR LANGTON	MTA	EofE-EM	OP		14/07/2023	07/07/2024	24/07/2024	Y		
WALESBY	MT1	EofE-EM	TURB		20/01/2023	15/01/2024	19/01/2024	Y		
WALESBY	MT2	EofE-EM	TURB		20/01/2023	15/01/2024	19/01/2024	Y		
WARBURTON	MTA	NW	OP		27/04/2023	22/04/2024	25/04/2024	Y		
WEST WINCH	MO1	EofE-EA	OP		10/03/2023	04/03/2024	07/03/2024	Y		
WESTON POINT	MO1	NW	OP	Y	17/08/2022	14/08/2023	16/08/2023	Y	N	
WHITWELL	MTA	EofE-EA	OP		09/06/2023	05/06/2024	10/06/2024	Y		
WHITWELL	MTB	EofE-EA	OP		09/06/2023	05/06/2024	10/06/2024	Y		
WINKFIELD NT	MTC	NL	OP		28/06/2023	12/03/2024	20/03/2024	Y		
YELVERTON	MO1	EofE-EA	OP		08/09/2022	18/09/2023	21/09/2023	N		Unable to schedule ME2 until 1 week after anniversary date due to multiple ME2's due including site Metering upgrade project, ME2 plan has been adjusted to avoid this again in future