

# Offtake Meter Performance Report – 2021/22

Wales & West Utilities  
July 2022



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# Offtake Meter Performance

Wales & West Utilities operates and maintains several 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 31st July 2022.

## Requirements

1. Number and magnitude of Meter Error reports
2. Copy of Regulatory Reporting Pack Meter Error report.
3. 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 at 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

No meter errors for the period of April 2021 to March 2022 were reported.

### 2. Regulatory Reporting Pack Meter Error Report

The following table 1 shows the RIIO-GD1 performance RRP 2021/2022 report for offtake meters energy contribution within the networks operated and maintained by Wales & West Utilities.

LDZ	SW	WN	WS	Network Total
<b>Total Energy (GWh)</b>	29818	6621	21118	57557
<b>Abs Error (GWh)</b>	0.000	0.000	0.000	0.000
<b>% Error</b>	0.000%	0.000%	0.000%	0.000%

Table 1 - Meter Error RRP Report

### 3. Annual ME2 Meter Validations

ME2 maintenance activities for the period April 2021 to March 2022 as shown in Table 2.

#### Validation Summary

33 individual metering streams were inspected and tested following the ME2 Maintenance 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.

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Table 2 – Summary of ME2 Meter Validations – April 2021 to March 2022

Site Name	LDZ	Meter Type	Open Meter Error Report's	Last Validation End Date	Validation Start Date	Validation End Date	Started within 12 months of last?	Reconciliation Required?	Comments
Aylesbeare (MUA)	SW	Ultrasonic		10/02/2021	15/02/2022	24/02/2022	Overdue	No	Slight delay in starting validation due to scheduling constraints.
Aylesbeare (MUB)	SW	Ultrasonic		10/02/2021	15/02/2022	24/02/2022	Overdue	No	Slight delay in starting validation due to scheduling constraints.
Choakford (MRA)	SW	Turbine		22/03/2021	07/03/2022	25/03/2022	Yes	No	
Choakford (MRB)	SW	Turbine		22/03/2021	07/03/2022	25/03/2022	Yes	No	
Cirencester (MRA)	SW	Turbine		18/06/2020	07/06/2021	09/06/2021	Yes	No	
Cirencester (MRB)	SW	Turbine		18/06/2020	07/06/2021	09/06/2021	Yes	No	
Coffinswell (MRA)	SW	Turbine		14/09/2020	28/06/2021	30/06/2021	Yes	No	
Coffinswell (MRB)	SW	Turbine		14/09/2020	28/06/2021	30/06/2021	Yes	No	
Dowlais (MUA)	WS	Ultrasonic		24/06/2020	03/08/2021	06/08/2021	Overdue	No	Slight delay in starting validation

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									due to scheduling constraints.
Dowlais (MUB)	WS	Ultrasonic		24/06/2020	03/08/2021	06/08/2021	Overdue	No	Slight delay in starting validation due to scheduling constraints.
Dyffryn Clydach (MRA)	WS	Ultrasonic		10/07/2020	05/07/2021	15/07/2021	Yes	No	
Dyffryn Clydach (MRB)	WS	Ultrasonic		10/07/2020	05/07/2021	15/07/2021	Yes	No	
Easton Grey (MUA)	SW	Ultrasonic		12/03/2021	07/03/2022	09/03/2022	Yes	No	
Easton Grey (MUB)	SW	Ultrasonic		12/03/2021	07/03/2022	09/03/2022	Yes	No	
Evesham (MRA)	SW	Turbine		24/04/2020	26/04/2021	12/05/2021	Overdue	No	Slight delay in starting validation due to scheduling constraints.
Evesham (MRB)	SW	Turbine		24/04/2020	26/04/2021	12/05/2021	Overdue	No	Slight delay in starting validation due to scheduling constraints.

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Site Name	LDZ	Meter Type	Open Meter Error Report's	Last Validation End Date	Validation Start Date	Validation End Date	Started within 12 months of last?	Reconciliation Required?	Comments
Fiddington (MUA)	SW	Ultrasonic		26/08/2020	18/08/2021	19/08/2021	Yes	No	
Fiddington (MUB)	SW	Ultrasonic		26/08/2020	18/08/2021	19/08/2021	Yes	No	
Gilwern (MUA)	WS	Ultrasonic		01/06/2020	11/05/2021	12/05/2021	Yes	No	
Gilwern (MUB)	WS	Ultrasonic		01/06/2020	11/05/2021	12/05/2021	Yes	No	
Ilchester (MUA)	SW	Ultrasonic		27/05/2020	17/05/2021	27/05/2021	Yes	No	
Ilchester (MUB)	SW	Ultrasonic		27/05/2020	17/05/2021	27/05/2021	Yes	No	
Kenn (MRA)	SW	Turbine		23/09/2020	19/07/2021	21/08/2021	Yes	No	
Kenn (MRB)	SW	Turbine		23/09/2020	19/07/2021	21/08/2021	Yes	No	
Littleton Drew (MRA)	SW	Turbine		08/07/2020	13/07/2021	14/07/2021	Overdue	No	Slight delay in starting validation due to scheduling constraints.
Maelor (MUA)	WN	Ultrasonic		26/10/2020	14/10/2021	21/10/2021	Yes	No	
Maelor (MUB)	WN	Ultrasonic		26/10/2020	14/10/2021	21/10/2021	Yes	No	
Pucklechurch (MRA)	SW	Turbine		13/10/2020	04/10/2021	21/10/2021	Yes	No	



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Site Name	LDZ	Meter Type	Open Meter Error Report's	Last Validation End Date	Validation Start Date	Validation End Date	Started within 12 months of last?	Reconciliation Required?	Comments
Pucklechurch (MRB)	SW	Turbine		13/10/2020	04/10/2021	21/10/2021	Yes	No	
Ross (SW) (MRA)	SW	Turbine		15/05/2020	13/05/2021	19/05/2021	Yes	No	
Ross (SW) (MRB)	SW	Turbine		15/05/2020	13/05/2021	19/05/2021	Yes	No	
Seabank (MUA)	SW	Ultrasonic		17/09/2020	31/08/2021	03/09/2021	Yes	No	
Seabank (MUB)	SW	Ultrasonic		17/09/2020	31/08/2021	03/09/2021	Yes	No	