

# Alrewas EM MTD Meter Error

## Executive Summary

### Site Information

Alrewas EM Offtake supplies gas to the East Midlands LDZ. The metering system comprises of a standard single stream orifice plate with a maximum station flowrate of 16 million scm/day.

### Cause

On 23/02/2021 the plate was removed for inspection and was found to have been installed in the incorrect orientation (bevelled edge facing upstream). The plate was subsequently changed with the new plate being inserted with the correct orientation.

Subsequent investigation found that on 20/05/2020 the orifice plate was changed as part of an ME/2 annual validation. A review of the photographs shows that the plate that was removed on this date was also in the incorrect orientation. A review of the photographs from the previous ME/2 annual validation on 23/05/2019 shows that the plate prior to this date was correctly installed. Therefore, the period in which the meter was in error was between 23/05/2019 and 23/02/2021.

Aside from the orientation being incorrect the plate was properly aligned within the carrier and fully inserted into the flow stream.

### Error Evaluation

Initial studies undertaken by our metering technical consultants indicate a high likelihood the error will be in excess of the 50GWh Significant Measurement Error threshold.

Through submission of the Measurement Error Notification on 26/02/2021 as per the Uniform Network Code (UNC), it is assumed that the meter error will be defined through expert determination in accordance with the process agreed for a Significant Measurement Error.

The error incurred is expected to be consistent and once the initial error is calculated for each plate, the subsequent analysis should be undertaken through a standard desktop reconciliation.

Many publications exist for this scenario and it is anticipated that these will guide and inform the error determination process.

## **Next Steps**

Appoint Independent Technical Expert in accordance with Joint Office Measurement Error Notification Guidelines, following Offtake Workstream meeting.

Complete the detailed incident investigation that is currently being undertaken to determine the root causes of the incident.

Complete verification that all other Orifice Plate installations are correct at all Offtakes managed by the Network.