

# Data Logging

Yorkshire Water's Policy

October 2021



YorkshireWater

# Contents

1.	Introduction.....	2
2.	Aim.....	2
3.	Principles .....	2
4.	Responsibilities .....	3
5.	Safety Requirements .....	6
6.	Standard Data Cable Installation .....	6
7.	Non-Standard Data Cable Installation.....	7
8.	Access to Wholesaler Logger Data .....	7
9.	Application Process.....	9
10.	Meter Exchanges.....	11
11.	No data or flat-lining logger.....	12
12.	Non-loggable meters .....	13
13.	Charges.....	14
14.	Limitation of Liability .....	14
15.	References .....	16
16.	Contact details .....	16
17.	Review date / version control .....	17

## 1. Introduction

Since the retail market opened in April 2017, non-household customers who are typically business customers, public sector organisations and charities, have been able to choose their water Retailer.

Retailers provide billing services for water and waste water, read meters and handle enquiries and complaints. Wholesalers (also known as water companies) look after the pipe work and take care of the water supply and removal of waste water.

## 2. Aim

The aims of this policy are to:

- provide Retailers, non-household customers (customers) or third-party organisations (the applicant) with clear guidance on how to connect data logging equipment to a Yorkshire Water meter.
- provide Retailers, customers, or the applicant with clear guidance on how to obtain data from a Yorkshire Water data logger.
- outlines Yorkshire Water's Terms and Conditions for data logging.
- ensure a consistent approach is followed within Yorkshire Water's operational area.

## 3. Principles

- 3.1 Data logging includes any connection to a data logger; building / energy management system; secondary dosing system; out-reader / scan counter; or a Retailer's automated meter reading device (AMR / AMI).
- 3.2 Monitoring water usage can assist in reducing waste by promoting more efficient use of water. Smart technology now allows businesses

to monitor and get data on water usage at regular intervals. This can help identify abnormal or unusual usage such as a leaks or identify areas where savings can be made.

- 3.3 The majority of new water meters are capable of providing a pulsed output however some digital meters may not be compatible with data logging equipment.
- 3.4 Older meters may not have a pulsed output and may need to be exchanged.
- 3.5 A pulse unit (also known as a pulsed output or pulsed connection) and a splitter / repeater may be required in order to connect to the meter.
- 3.6 The meter, any AMR / AMI devices and the chamber, cover and any associated pipework and fittings are the property of Yorkshire Water. This excludes any devices fitted by Retailers for reading purposes.
- 3.7 We do not permit the use of Accredited Entities for any activity on our meters which are defined within this policy i.e., attaching a data cable. This is to ensure Yorkshire Water assets are maintained, and equipment is installed to allow visual readings to be obtained.
- 3.8 The terms outlined in this policy do not affect any potential liabilities for damage caused to a customer's property as set out in Yorkshire Water's statutory duties or customers' rights.

## **4. Responsibilities**

### **4.1 Applicant responsibility**

- 4.1.1 In order to connect any monitoring equipment to the meter, an application should be made for a data logging cable to be fitted (see Section 9 Application Process).

- 4.1.2 The applicant will own and be responsible for the maintenance of the data logging equipment including the removal and refitting of any such equipment.
- 4.1.3 Any data logging equipment installed on a Yorkshire Water meter must be clearly labelled with a contact name and telephone number.
- 4.1.4 The applicant must not remove or interfere with any data logging equipment or AMR / AMI devices they find attached to the meter.
- 4.1.5 No alterations may be made to the meter chamber. The applicant is liable for any damage caused to the meter, associated pipework, fittings, meter chamber or Yorkshire Water logger, as a result of installing data logging equipment. Equipment must not be installed where it will interfere with ability to visually read the meter.
- 4.1.6 If the applicant wishes to connect to a building management system or dosing system that requires a voltage, then a barrier relay or resistor or Negative Positive Negative (NPN) / Positive Negative Positive (PNP) transistor must be fitted, at the applicant's expense.
- 4.1.7 Meter chambers are likely to be flooded at any time due to rainfall / ground water levels or other causes. All data logging equipment should be IP68 rated (able to be submersed in water).
- 4.1.8 Devices fitted in waterlogged chambers or under heavy meter lids are less likely to be able to transmit data. An above the ground housing unit is recommended in such instances.
- 4.1.9 The applicant should provide a photo of the completed installation if requested to do so.
- 4.1.10 The applicant should notify us when they cease to be contracted to the customer and when their logger is permanently removed.

## **4.2 Wholesaler responsibility**

- 4.2.1 Yorkshire Water is responsible for the maintenance of its operational data logging equipment, ensuring that it is clearly labelled with contact details.
- 4.2.2 We may install data logging equipment for operational leakage monitoring purposes. We may fit an operational logger on either a permanent or temporary basis. Where there is insufficient room to fit a second data logger within the chamber, we will provide a quote for data sharing from our logger, or a quote will be provided for a non-standard installation.
- 4.2.3 We will install a data logging cable to provide a second pulsed output connection onto which the applicant can connect their data logging equipment.
- 4.2.4 We provide a twelve (12) month warranty and repair service on data cables from the date of installation. If a data logging cable fails outside the warranty period, an application should be made for a replacement cable and a charge will apply.
- 4.2.5 We reserve the right to disconnect any data logging equipment where it interferes with the reading of meters or affects the performance of radio devices or leakage loggers. We will provide evidence of the issue caused and will, where possible, try and resolve this with the owner / installer of the data logger. If the issue cannot be resolved we will provide twenty two (22) business days notification in advance of disconnection, where the owner of the equipment is known. In certain operational circumstances e.g. a leaking meter, it may not be possible to give advanced notice.
- 4.2.6 Yorkshire Water cannot provide technical advice or recommend any type of data logging equipment.

## **5. Safety Requirements**

- 5.1 We will allow entry into the meter chamber for the purposes of accessing data logging equipment, provided the installer complies with this policy. The installer must ensure they comply with applicable health and safety legislation and have the appropriate technical competencies, including confined space entry where required.
- 5.2 Water meters are generally housed in an external meter chamber. These may be a confined space which is substantially enclosed (though not always entirely), and where serious injury can occur from hazardous substances or conditions (e.g. lack of oxygen). Under domestic law (the Health and Safety at Work etc. Act 1974) employers are responsible for ensuring the safety of their employees and others. This responsibility is reinforced by the Confined Spaces Regulations 1997. Individuals involved in installing data logging equipment shall therefore have the appropriate competencies.
- 5.3 Any work on or near the highway must comply with the New Roads and Street Works Act (NRSWA) 1991 and the Traffic Management Act (TMA) 2004 and the latest edition of the Safety at Street Works & Road Works Code of Practice (Red Book).
- 5.4 Yorkshire Water's mandatory minimum safety requirements are detailed on the reverse of the 'Data Logging Connection Request Form' and 'Data Logging Cable Replacement-Query Form'. The applicant is responsible for ensuring these are adopted and complied with when connecting any device containing Lithium based cell(s) or batteries to any Yorkshire Water Asset.

## **6. Standard Data Cable Installation**

- 6.1 We will install a data logging cable to provide a primary and secondary pulsed output. The primary output will be for Yorkshire Water's data logging equipment and the secondary output will be for the applicant's data logging equipment.

- 6.2 Only one additional logger can be attached to the meter. Where two external parties wish to connect to the same meter the customer must confirm in writing which takes preference.
- 6.3 We will charge a fee per meter to install a data logging cable. This covers the following:
- processing of the application;
  - site visit and meter survey at the eligible premises (Monday to Friday only, during office hours);
  - selecting the appropriate data cable based on the meter manufacturer, model, and age.

## **7. Non-Standard Data Cable Installation**

- 7.1 Where a non-standard installation is required a quote will be provided. This can be where one or more of the following applies:
- the meter does not have a pulsed output connection and requires exchanging (see Section 12 Non-loggable Meters)
  - excavation work is needed
  - meter chamber modifications are needed e.g. to create a cable conduit
  - an above ground housing unit is required where it is deemed that data logging equipment cannot be fitted safely
  - work is necessary to gain access to the meter on the eligible premise, i.e. materials stored on top of the chamber; vegetation covering chamber
- 7.2 The applicant shall be bound by any decision regarding the most technically appropriate and cost-effective solution.

## **8. Access to Wholesaler Logger Data**

- 8.1 Where Yorkshire Water has an operational data logger attached to a meter, applicants may apply for access to this data without the need to purchase their own data logging equipment. Applicants can apply



for access over a 12-month period or a one off snapshot over a specified timeframe.

8.2 A letter of authority must be provided where the applicant is not the current Retailer.

### **8.3 Access to 12-month data**

8.3.1 We will make data available to applicants for a set charge, per meter per annum, subject to approval of the application. Data will be provided at a minimum of Day+1 at 15 minute intervals. (See Section 13 Charges).

8.3.2 The applicant will be provided with login details for an account within an online portal where they will be able to view and download data for a 12 month period. This will include access to historical data depending on how long the logger has been in situ.

8.3.3 After the 12 month period has lapsed applicants will be required to reapply to ensure their access to data continues and a further annual charge will apply.

### **8.4 Access to a one-off snapshot of data**

8.4.1 We will provide data for a timeframe specified by the applicant for a set charge per meter, subject to approval of the application. (See Section 13 Charges)

8.4.2 The applicant will be provided with a data extract in CSV format or a flow profile screenshot via email, subject to it being available for the period requested. We cannot guarantee data completeness for the period requested by the applicant.

8.4.3 Where a meter already has a pre-existing non-Wholesaler logger fitted, we may ask the logger owner to share data with us, subject to the permission of the customer.

8.4.4 We reserve the right to remove the Wholesaler data logger at any time and cannot guarantee that data will be available for the full duration of the term requested by the applicant. We will provide

twenty two (22) business days' notice in advance of removing a logger, where a data sharing arrangement is in place.

- 8.4.5 We cannot be held liable for any loss of data or data access due to failure of the meter, logging equipment, mobile network, or systems provider or due to issues accessing the meter. The applicant should contact Yorkshire Water via the details provided in Section 16 of this policy to notify us of any issues.
- 8.4.6 We cannot guarantee the accuracy of Wholesaler logger data nor be held liable for inaccurate data. Meter readings shall remain prima facie evidence of usage.
- 8.4.7 We are not obliged to interpret or explain any aspect of the data provided.
- 8.4.8 The applicant must notify Yorkshire Water if they are no longer contracted on behalf of the customer so that data sharing arrangements can be terminated.
- 8.4.9 Yorkshire Water will investigate a non-functioning wholesale data logger or data flat-lining issue within twenty two (22) business days of being notified.

## **9. Application Process**

- 9.1 The applicant should complete the 'Data Logging Connection Request Form' and submit to: [datalogging@yorkshirewater.co.uk](mailto:datalogging@yorkshirewater.co.uk). We will require a signed Letter of Authority from the customer, where the applicant is not the current Retailer.
- 9.2 The applicant must supply details of the data logging equipment which is to be fitted to the meter.
- 9.3 A separate application is required for each individual meter unless there are multiple meters at the same address. Bulk applications may be accepted via spreadsheet, by prior agreement.

- 9.4 The applicant may wish to have the meter hardwired to their building management system (BMS) or to take a pulse from the meter in order to install a dosing system or to connect to an out-reader. The applicant should select this option on the 'Data Logging Connection Request Form'
- 9.5 The initial application may be refused or returned to the applicant for resubmission where the form is not completed in full or contains insufficient information.
- 9.6 On receipt of the application we will provide a quote for a data cable installation which will be valid for 90 days. We will provide a response within five (5) business days of a completed application.
- 9.7 Once the quote is accepted, we will visit the eligible premises to undertake the survey and install the data cable where possible. This will be completed within twenty two (22) business days from the quote being accepted.
- 9.8 Where the survey identifies that a non-standard installation is required, we will inform the applicant of our findings.
- 9.9 If the pulsed output connection cannot be fitted due to an issue that Yorkshire Water needs to rectify then arrangements will be made to carry out rectification work before the data cable is fitted. Examples include but not exclusive to:
- the meter is leaking;
  - the chamber is damaged or flooded;
  - the meter is buried.
- 9.10 If the applicant decides not to proceed with the non-standard installation, the Logger Cable Installation Aborted Visit charge will be payable. (See Section 13 Charges)
- 9.11 If the applicant decides to proceed with the non-standard installation, we will carry out the work by prior arrangement with the applicant, or the customer.

- 9.12 We will confirm once the data cable is fitted and ready for the logger to be connected and we will provide a meter reading. This meter reading will also be added to the Central Market Operating System (CMOS) (where applicable).
- 9.13 We will not check signal strength within the chamber as part of a standard or non-standard data cable installation and we accept no liability for the failure of any applicant's data logging equipment.

## **10. Meter Exchanges**

- 10.1 We reserve the right to exchange the meter at any time in accordance with Operational Terms Part B Metering.
- 10.2 If the applicant does not remove their data logging prior to exchange it will be left in the meter chamber.
- 10.3 We will reconnect any existing data logger within twenty two (22) business days of the meter exchange, provided the meter is compatible. The wiring up of loggers is not standard and we may not have the experience of the equipment to be re-attached. We will notify the owner of the logger if we are unable to reconnect it.
- 10.4 If the meter is exchanged within twelve (12) months of the data logging cable being installed and the cable is incompatible with the new meter, we will replace the data logging cable free of charge. We will not be liable for any charges, costs or losses incurred by the applicant in relation to procuring or installing new data logging equipment.
- 10.5 Where we have removed a logger, for reasons including but not limited to meter exchange or disconnection for non-payment, we will not be responsible for any damage or loss of the logging equipment left in the chamber. However, if evidence is provided that negligence or breach of statutory duty by Yorkshire Water or its Contractor has resulted in the loss of a logger, we will reimburse reasonable costs to

the owner of the logger. We may offer to replace the logger on a like for like basis. This will only apply where we have previously been notified that a logger has been installed on the meter.

- 10.6 We will update CMOS (where applicable) with the new meter details within two (2) business days of the exchange taking place. We will also endeavour to notify the logger owner of the new meter details.

## **11. No data or flat-lining logger**

- 11.1 Where no data or flat lining occurs, this could be as a result of a faulty meter, faulty data logging cable, faulty pulse unit or splitter, faulty logging equipment. The applicant is responsible for checking the cause of the fault.
- 11.2 Where it has been confirmed that the meter is damaged the Retailer should submit a B5 market form. A third party/ customer should notify us directly per the contact details in Section 16 of this policy.
- 11.3 If data logging equipment cannot be fitted due to a leaking meter, buried meter or damaged meter chamber the Retailer should submit a B5 market form. A third party/ customer should notify us directly per the contact details in Section 16 of this policy.
- 11.4 Where we have received notification from a third party, we will ensure that the Retailer is notified of any action required by raising the relevant market form (B5W- Damaged Meter Exchange).
- 11.5 If the checks made by the applicant suggest the data logging cable, pulse unit or splitter is at fault the applicant will be required to complete and submit a 'Data Logging Cable Replacement-Query Form' which can be located on the Yorkshire Water website in Business pages.
- 11.6 In those instances where we are called out to a no data / flat lining fault and we subsequently find the data logging cable, splitter or

pulse unit is functioning correctly, the Logger Cable Investigation fee will be payable by the applicant. (See Section 13 Charges)

- 11.7 In chambers that are prone to waterlogging, data cables can be subject to water ingress if not sealed correctly. It should be standard practice to protect wiring connections and for equipment to be attached to the wall of the chamber where possible.

## **12. Non-loggable meters**

- 12.1 Where a meter is >15 years old and is not compatible for logging purposes we will not charge for the meter exchange. We will raise the relevant market form to notify the Retailer of the exchange (B10W-Proactive Meter Exchange)
- 12.2 Where a meter is <15 years old and is not loggable (e.g. damaged pulse connection point but meter is still recording) a charge will be made for the meter to be exchanged (unless the meter is due for periodic / proactive exchange within 6 months).
- 12.3 The Retailer will be asked to submit a B7 market form so that a quote can be provided for the meter exchange. A third party will be provided with a quote, and we will raise the relevant market form to notify the Retailer of the exchange (B10W).
- 12.4 Once the quote has been accepted, we will arrange for the meter to be exchanged. When the exchange has been completed, we will arrange for the data logger cable to be fitted.

## 13. Charges

Any charges related to the services outlined in this document can be found in the latest Yorkshire Water Wholesale Charges Scheme (Non-Primary Charges Section G: Metering Services), available on the Yorkshire Water website:

<https://www.yorkshirewater.com/business/wholesale-charges/>

## 14. Limitation of Liability

- 14.1 No terms or conditions endorsed upon, delivered with, or contained in the applicants purchase order, confirmation order specification or other documents will form part of this agreement.
- 14.2 Yorkshire Water will not warrant or give product, design or safety review approval or certification to any device provided by or used by the applicant. For the avoidance of doubt all safety design responsibility assessment and liability for the device(s) remains with the applicant.
- 14.3 If applicants are found to be in breach of this policy, Yorkshire Water may take enforcement action. The purpose of enforcement is to ensure that preventative or remedial action is taken to secure compliance with our policy, market codes and associated regulation.
- 14.4 Except in respect of death or personal injury caused by Yorkshire Water's negligence, we accept no liability which any applicant may incur through its use of the connection, including inaccurate, interrupted, or incomplete flow data, irrespective of the outcome of the request for permission and howsoever such liabilities may have been incurred.
- 14.5 The applicant shall indemnify and keep indemnified, defend and hold harmless Yorkshire Water, it's officers, directors, employees, agents, successors and assigns, from any and all losses that a court finally awards or that is agreed in a settlement approved by the

applicant, incurred or suffered by or made against any of them to the extent resulting directly or indirectly from, or connected in any way with any of the matters listed below (whether or not such losses were foreseeable at the date of entering into these conditions):

- All losses awarded against Yorkshire Water arising out of or in respect of, or caused or contributed to by the services, the applicant's equipment and / or the applicant's breach of these conditions
- Any act or omission (including negligence, wilful default, or dishonesty) of the applicant and / or any applicant's personnel
- Any death of or personal injury to any employees, agents, sub-contractors or other persons of the applicant or Yorkshire Water or to any third party, to the extent caused by any act, omission, or default of the applicant and / or any applicant's personnel



## 15. References

- Wholesale-Retail Code Part 1: Objectives, Principles and Definitions.
- Wholesale-Retail Code Part 3: Operational Terms- Part B Metering Section D- Data Loggers (or similar devices for data capture and transmission) fitted on meters.
- Yorkshire Water Wholesale Charges Scheme (Non-Primary Charges Section G: Metering Services).
- New Roads and Street Works act 1991
- Traffic Management Act 2004
- Health and Safety at Work Act 1974
- Safety at Street Works & Road Works Code of Practice
- Yorkshire Water Accredited Entity Scheme – Code of Practice Scopes and Addendum

This policy is aligned to the following Retail Wholesale Group (RWG) Guides see <https://www.yorkshirewater.com/business/alignment-to-rwg-guidance/>

## 16. Contact details

Please contact 0333 230 9226 or [datalogging@yorkshirewater.co.uk](mailto:datalogging@yorkshirewater.co.uk). Further information please refer to the Data Logging section on the Business Pages of the Yorkshire Water website.

## 17. Review date / version control

<b>Document Control Ref:</b>	YW DL-004
<b>Document Custodian:</b>	Wholesale Market Services Team
<b>Review Period:</b>	Every 2 years (or following significant change)

### Document Approval

Meter Reading Contract Manager <b>Document Owner (Author)</b>	Head of Wholesale Market Services <b>Document Approval Manager</b>
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### Document Revision History

Version	Date	Amendment Details
1	Mar-17	New Policy
2	Jun-18	Name changed from Data Logger to Data Logging. Policy updated to match the new non primary charges. Removed repetition & made it easier to understand. Removed the Permission to Connect form – instead the applicant signs to confirm they comply with our policy and safety requirements. Moved the safety requirements for lithium batteries onto the back of the application form. Added the requirement for a letter of uthorization from the customer. Added a new data cable replacement request form.
3	Apr-20	Refreshed to include new service offering for sharing of flow data and to align to RWG guidance.
4	Oct-21	Refreshed to new brand. Re-aligned to RWG guidance. Customer's definition includes New Appointment and Variation market (NAV)

# Thank you

For more information contact:

Data Logging Team  
[datalogging@yorkshirewater.com](mailto:datalogging@yorkshirewater.com)