

## **Customer Briefing Note 019**

### **Sub-Meters and Complex Metering**

#### Edge Background

Edge is our flag-ship web-based software solution for retail water and waste services suppliers in the UK.

Edge has been designed and built from first principles to provide a complete “Business in a Box” for both established and new entrant Licensed Providers.

The Edge system allows seamless operations across the UK – in both the Scottish and English markets.

Edge runs on the Microsoft “Azure” cloud platform, and provides unrivalled flexibility, security and availability.

Deployment of Edge is quick and easy, whether you are a new start or the largest water company in the country.

#### Metering Concepts

Water meters are used to measure water consumption on many SPIDs in both the English and Scottish markets.

SPIDs come with many different metering arrangements.

Many SPIDs do not have a meter and these are called “Unmetered”.

The majority of SPIDs have a single meter and these can come in various sizes, ranging from 15mm to 1000mm.

However, many SPIDs, especially those with higher water consumption will have multiple meters. Again, the meters fitted can come in various sizes.

The most complex of metering arrangements is where multiple meters are arranged “in series”, with a Main-meter and one or more Sub-meters.

#### Sub-Meter (Deductive) Arrangements

SPIDs where there are multiple meters in series (Main and Sub-meters) are permitted within the English and Scottish markets.

There can be various configurations, combining Market Meters and Non-Market meters.

Some of these configurations are examined in the following.

##### Single Sub-Meter (Market Meter)

This arrangement is where both the Main and Sub Meters are Market Meters. The arrangement is depicted as shown in Figure 1.

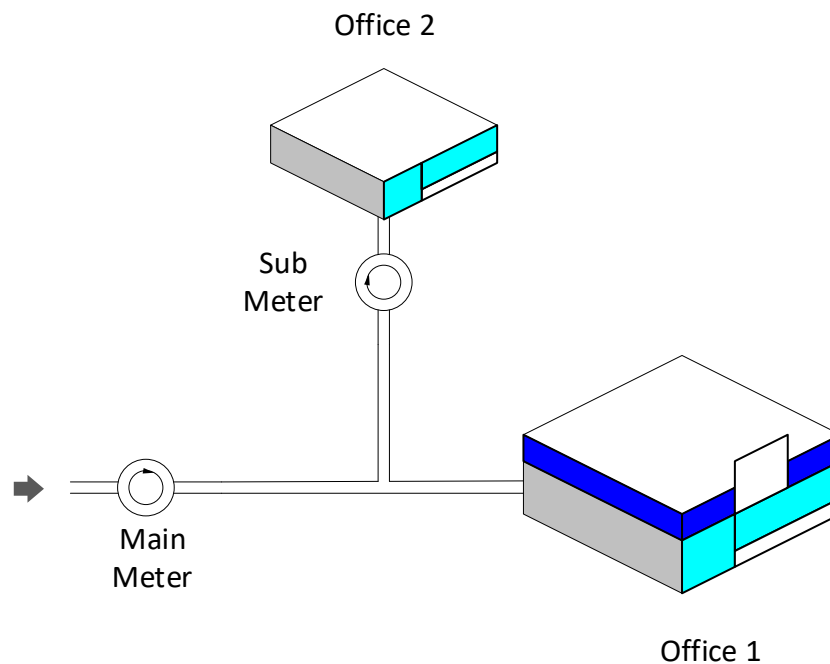


Figure 1 - Main and Sub-Meter

This arrangement of a single Market Main and a single Market Sub meter is fairly commonplace within the market. It is typically found where there is a Shop or an Office that has been sub-divided, with the Market Sub meter feeding a new office or shop.

In this arrangement, we need to calculate the consumption for Office 1 as Main Meter minus Sub Meter. Because we are “deducting” the consumption of the Sub-Meter from the Main-Meter, this is sometime called “Deductive” metering.

In this case, both the Main and Sub Meters are in the Market, so this is a straight forward task.

#### Single Sub-Meter (Non-Market Meter)

This arrangement is where both the Main Meter is a Market Meter but the Sub Meter is a Non-Market Meter. The arrangement is depicted as shown in Figure 2.

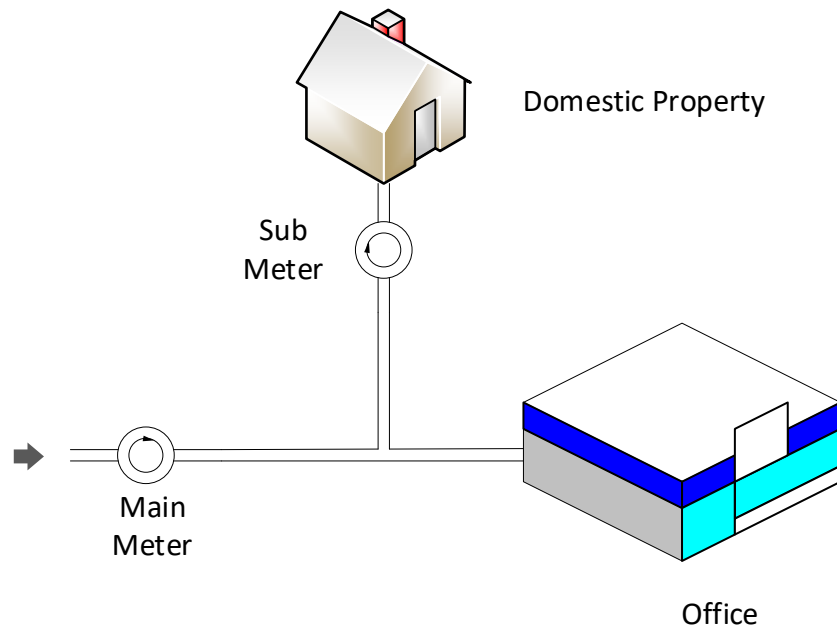


Figure 2 - Market Main with Non-Market Sub Meter

This arrangement of a single Market Main and a single Non-Market Sub-Meter is often found where there is a Shop or an Office that has a domestic property associated with it, for example, a shop with a domestic flat on the upper floor.

Where the Sub-Meter is a Non-Market meter (a Domestic meter) it must still be read by the meter reader and the meter reads must be made available to the Retail LP via market transactions.

Again, we need to calculate the consumption for the Office as Main Meter minus Sub Meter.

#### More Complex Sub-Meter Arrangements

It is of course possible to have many variants of the above. We typically call these “Complex Metering Arrangements”

In Figure 3 we show a Main Meter with two Sub-Meters, one supplying a domestic property and one supplying a second office.

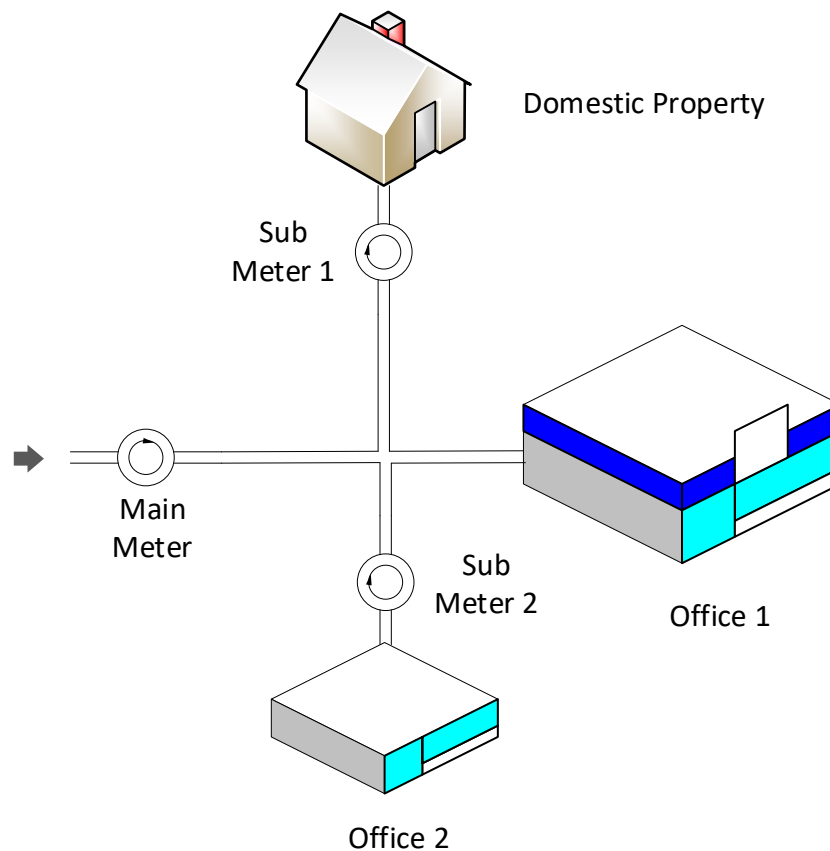


Figure 3 - More Complex Metering Arrangement

Again, the principles of deductive metering are the same. We must deduct the consumption of Sub Meter 1 (Domestic Property) and Sub Meter 2 (Office 2) from the consumption of the Main Meter to calculate the consumption of Office 1.

## Market Data

The Market Data provides all the necessary information to calculate the SPID consumptions within complex metering arrangements.

The MDS files for both Scotland and England identify Main and Sub Meter and the relative associations between the meters.

Also, Market Transactions are used to communicate updates to these metering arrangements to the Market participants.

## Edge and Complex Metering

The Edge solution has been designed to manage the pricing and billing of SPIDs with complex metering arrangements.

## Related Customer Briefing Notes (CBN's)

You may also be interested in these related CBN's

- CBN001: "Edge Overview"
- CBN002: "ADC Billing"
- CBN003: "Volumetric Adjustment"
- CBN004: "Metered Billing"
- CBN005: "Block Tariffs"
- CBN006: "Consolidated Billing"
- CBN007: "Published Tariffs"
- CBN008: "Manual and Automated Billing"
- CBN009: "Bill Output Formats"
- CBN010: "Market Transactions and Data Items"
- CBN011: "Integrated Transaction Management"
- CBN012: "Bitemporal Updates"
- CBN013: "Market Data Set"
- CBN014: "Market Pricing"
- CBN015: "SPID Transfers"
- CBN016: "CRM Module"
- CBN017: "Data Quality"
- CBN018: "Meter Reading Management"
- CBN019: "Sub Meters and Complex Metering"
- CBN020: "Meter Exchange Management"
- CBN021: "Trade Effluent"

## Further Information

If you require further information on any aspect of the Edge solution, please contact us at:

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