

Customer Briefing Note 004

Metered Billing

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.

Multiple Meter 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 handling of Multiple Meters in the Edge system mirrors the approach used by the market operators for Water Settlement charges.

Pricing and Billing of Metered SPID's

The pricing and billing of metered SPIDs is very similar in both England and Scotland. There are two types of charge to be considered;

- Fixed Charges
- Volumetric Charges

Fixed Charges

Fixed charges, as the name suggests are fixed for the SPID over a given period. Often the Fixed Charge is related to the size of the meter or meters and these can be considered as Meter Based Fixed Charges. In Scotland, all Fixed Charges are Meter Based.

In England, many Fixed Charges are Meter Based but there are also other types of Fixed Charge, such as SPID Based Fixed Charges.

Meter Based Fixed Charges are generally related to the size of the meter or meters. Figure 1 shows an extract of the Scottish Default Retail Water Tariff, and this demonstrates the principle.

Tariff	Meter Description	Meter Lower limit (mm)	Meter Upper limit (mm)	Charge Rate (£/Year)
Default	20mm or Smaller	1.00	20.00	£142.91
Default	21-30mm	21.00	30.00	£425.00
Default	31-40mm	31.00	40.00	£1203.00
Default	41-50mm	41.00	50.00	£2673.00
Default	51-80mm	51.00	80.00	£6961.00
Default	81-100mm	81.00	100.00	£16839.00
Default	101-150mm	101.00	150.00	£47381.00
Default	151-200mm	151.00	200.00	£103266.00
Default	201-250mm	201.00	250.00	£187095.00

Figure 1 – Scottish Fixed Water Retail Tariff

Here we can see that a 20mm meter will be charged £142.91 per year.

However, a 200mm meter will be charged £103,266.00 per year.

It is possible that a SPID could have both a 20mm meter and a 200mm meter. In this case the two Fixed Charges would be added together and the Water Fixed Charge for the SPID would be £103,408.91 per year.

The same charging principle applies to Waste Fixed Charges.

Variable Charges

Variable Water and Waste charging is different, since it is related to the quantity of water that is consumed at the SPID (the Consumption).

Again, it is useful to refer to an extract of the Scottish Default Retail Water Tariff to demonstrate how Volumetric Charges are calculated. See Figure 2.

Tariff	Lower Volume Threshold (m3)	Upper Volume Threshold (m3)	Charge Rate (£/m3)
Default	0.00	25.00	£2.1442
Default	25.00	100000.00	£0.8042
Default	100000.00	250000.00	£0.6879
Default	250000.00	1000000.00	£0.6627
Default	1000000.00	10000000.00	£0.4913

Figure 2 – Scottish Volumetric Water Retail Tariff

This Volumetric Tariff is an example of a “Reducing Block” tariff. Please refer to CBN005 for more information on “Block Tariffs”.

Single Meter Variable Charge

Where a SPID has a single meter, then the Volumetric Charge calculation is quite simple. We will demonstrate with an example.

- First meter read on 1st April is 5m3
- Second meter read on 30th April is 20m3

Therefore, the Consumption of the SPID during April is 20m3 – 5m3 = 15m3

Assuming that the SPID consumption sits in the first tariff band (£2.1442/m3) then the volumetric water charge for April will be:

$$15\text{m}^3 \times £2.1442/\text{m}^3 = £32.16$$

Note that we will explore what happens when the Consumption breaches a Tariff Band in CBN005 - “Block Tariffs”.

Multiple Meter Variable Charge

Where a SPID has multiple meters (2 or more), then the Volumetric Charge calculation is a little more complex, but not too much so.

In this scenario we add the consumptions for each of the meters together, and then we apply the same charging logic.

Again we will demonstrate with an example, assuming that the SPID has two meters:

Meter 1

- First meter read on 1st April is 5m³
- Second meter read on 30th April is 20m³

Meter 2

- First meter read on 1st April is 25m³
- Second meter read on 30th April is 30m³

Therefore, the Consumption of the SPID during April is

$$(20\text{m}^3 - 5\text{m}^3) + (30\text{m}^3 - 25\text{m}^3)$$

$$15\text{m}^3 + 5\text{m}^3 = 20\text{m}^3$$

Assuming that the SPID consumption sits in the first tariff band (£2.1442/m³) then the volumetric water charge for April will be:

$$20\text{m}^3 \times £2.1442/\text{m}^3 = £42.88$$

The same charging principle applies to Waste Volumetric Charges.

Note that we will explore what happens when the Consumption breaches a Tariff Band in CBN005 - "Block Tariffs".

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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