

Public

P375 'Metering behind the Boundary Point'

Asset Metering

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ELEXON

Agenda

1 Introduction: Who Elexon are and what we do

2 How did Asset Metering come about?

3 What is the problem we're trying to solve?

4 What were the considerations for the P375 solution?

5 What has P375 come up with for metering?

6 Where are we now in the process?

ELEXON – a quick refresher

Code Manager/Market Operator
providing key energy market infrastructure



Code
Administration



Code
Operation



Policy
Delivery Support

ELEXON – trusted, reliable independent market experts

We serve

470 Market
Participants

26 Distributors

94 Non-physical Traders

128 Generators

177 Suppliers

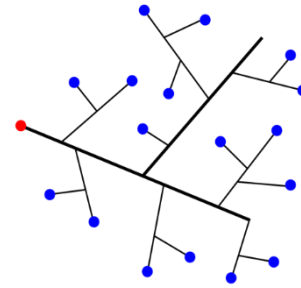
We also calculate, collect & distribute payments to CFD generators
and Capacity Market providers



ELEXON's leadership and expertise in the industry transformation



**Wider
Access:
Opening up
Balancing
Mechanism**



**Contributing to
DNO to DSO
transition**



**Proposing solutions
to the consolidation
and simplification of
the energy codes**



**Opening up
Supplier
Hub**



**Unlocking the benefits of
Smart Meters
via MHHS TOM Design**



**Building up Digital
Platform to serve
new needs**

How did Asset Metering come about?

BSC Modification P344 – ‘Project TERRE’

1

Align the Balancing and Settlement Code (BSC) with the European Balancing Project TERRE (Trans European Replacement Reserves Exchange) requirements

2

This is currently done through the Settlement of Secondary BM Units using SVA Boundary Point Metering Systems



The P344 workgroup raised an issue with being able to provide a Balancing Service but this not being visible at the Boundary Point

**Issue
70**

BSC Modification P375 – ‘Metering behind the Boundary point’

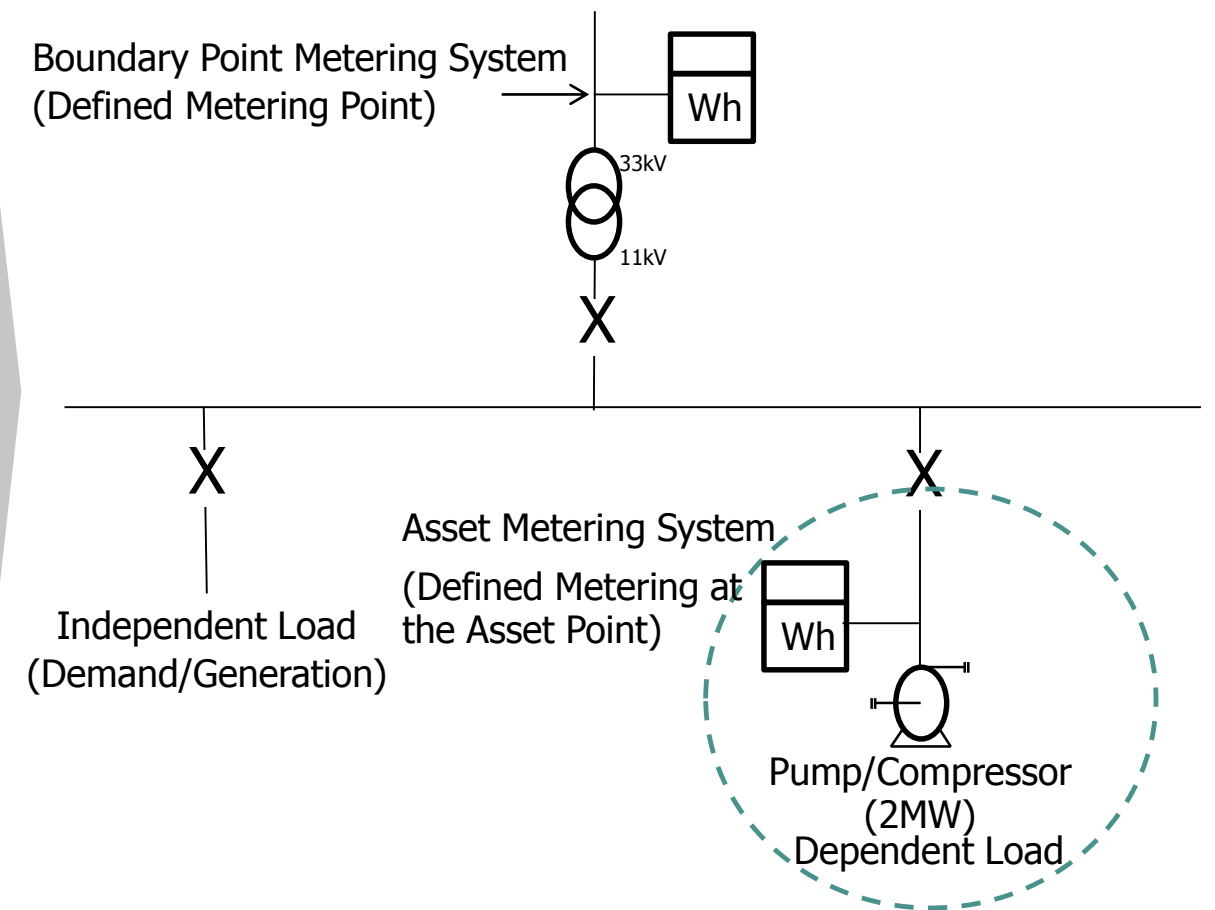
The proposal is to allow the Settlement of Secondary BM Units using metering behind the site Boundary Point i.e. Asset Metering

What is the problem we're trying to solve?

Demonstrating delivery of a Balancing Service

- The Pump/Compressor delivers a Balancing Service by reducing import by 2MW
- At the same time a process starts on another part of the site using 1.5MW
- Boundary Meter will only show 0.5MW delivered
- How can we demonstrate that a Balancing Service of 2MW was delivered?
- By installing metering at the Asset
- Metered Volumes from the Asset will be submitted under an Asset Metering System ID (AMSID)

EXAMPLE



What were the considerations for the P375 solution?



✓ You get rewarded for what you produced or reduced

✓ Balance Risk Appetite and cost

✓ Comparable to existing equivalent requirements

✓ Workgroup included EV charging companies, Data Aggregators, current BSC Parties (e.g. Supplier, HHDC)

What has P375 come up with for metering?

The modification process for P375 resulted in a number of operational outcomes for metering

1 Code of Practice (CoP) 11 was developed for P375

2 Three categories of Asset Meter Types were created



BSC approved Half Hourly Meters/Outstations



Operational Meters



Metering devices embedded within a product

3

BSC approved Half Hourly Meters/Outstations go through a Compliance and Protocol Approval Test

This will be extended to Asset Meters in Code of Practice 11

The current process for Half Hourly Meters/Outstations is in BSCP601 - Metering Protocol Approval and Compliance Testing

For all categories data has to be submitted in a 30 minute Settlement Period format e.g. through a system solution linked to the Asset Meter

What is P375 proposing for accuracy?

The BSC Metering Codes of Practice use a Risk Based approach

Table 1: Summary of BSC CoP accuracy requirements (1, 2, 3, 5 and 10 only) and Asset Metering Type equivalent

CoP	Asset Meter Type	Range	Voltage Transformer	Current Transformer	Meter	Overall Accuracy**
1	1	>100MVA	0.2	0.2s	0.2s	±0.5%
2	2	>10MVA & ≤100MVA	0.5	0.2s	0.5s	±1.0%
3	3	>1MW* & ≤10MVA	1.0	0.5	1.0	±1.5%
5	4	Up to 1MW*	1.0	0.5	2.0	±1.5%
10	5	≤ 100kW	N/A	0.5	2.0	-3.5% to +2.5%

* 1MW relates to Maximum Demand. MVA figures refer to the Rated Capacity of the Circuit

** Only Overall Accuracy limit shown for 100% Rated Current at Unity Power Factor shown for simplicity

What is P375 proposing for accuracy? (2)

How are Asset Meters categorised in CoP11?

Table 2: CoP 11 is split into five types of Asset Metering:

Asset Meter Type	Range
1	Metering of circuits rated greater than 100MVA
2	Metering of circuits not exceeding 100MVA
3	Metering of circuits not exceeding 10MVA
4	Metering of energy transfers with a maximum demand of up to (and including) 1MW
5	Metering embedded within another device for energy transfers with a maximum demand of up to (and including) 100kW

The accuracy requirements specified are equivalent to existing Regulatory requirements:

- BSC Metering Codes of Practice
- Sub 100kW Metering requirements (Electricity Act)

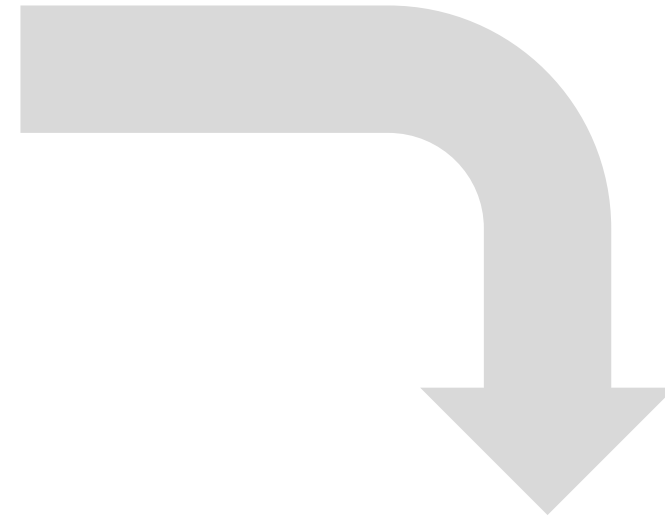
How will data be submitted?



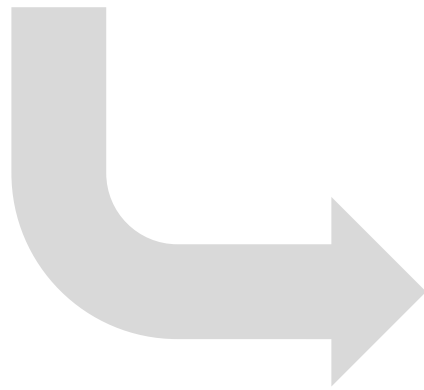
Asset Meter



**Half Hourly Data Collector
(HHDC) System**



**Supplier Volume Allocation
Agent (SVAA)**



**Data Aggregator/
Virtual Lead Party System**



Where are we now in the process?

Current progress

- Legal text to be drafted
- Consultation to be published

Consultation on P375 to be published in late January 2020



Please have a look and provide your comments



Keep an eye on the Modifications area of the [ELEXON website for P375](#)

Information and insight available:

1

Training: regular introductory sessions; market entry support; bespoke advisory sessions

2

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