

## P375 'Settlement of Secondary BM Units using metering at the asset'

To settle Secondary Balancing Mechanism (BM) Units using metering equipment behind the defined Boundary Point for Balancing Services (known as 'behind the Meter'), rather than settling using Metering Equipment at the Boundary Point as per current BSC obligations. This allows balancing-related services on site to be separated from imbalance-related activities, more accurately reflecting the balancing-energy volumes provided by the Balancing Service Provider (BSP).



ELEXON recommends P375 is progressed to the Assessment Procedure for an assessment by a Workgroup

This Modification is expected to impact:

- Virtual Lead Parties
- Half Hourly Data Aggregators
- ELEXON
- Half Hourly Meter Operator Agents

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## About This Document

This document is an Initial Written Assessment (IWA), which ELEXON will present to the BSC Panel on 13 December 2018. The Panel will consider the recommendations and agree how to progress P375.

There are two parts to this document:

- This is the main document. It provides details of the Modification Proposal, an assessment of the potential impacts and a recommendation of how the Modification should progress, including the Workgroup's proposed membership and Terms of Reference.
- Attachment A contains the P375 Proposal Form.



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# 1 Why Change?

## What is the issue?

The BSC currently only allows metering at the defined Boundary Point to be used for Settlement purposes. However, with the future ability for consumers to participate in the BM and other alternative balancing products, which will be settled under the BSC framework, there is a need to allow Settlement from metering behind the Boundary Point at the asset which is delivering the Balancing Service. This Issue arose through the development of the Project TERRE arrangements through BSC [Modification Proposal P344 'Project TERRE implementation into GB market arrangements'](#), but may become relevant to other Balancing Services in the future.

The need to allow Settlement from metering behind the Boundary Point is due to the desire to further reduce any potential (either perceived or due to operational reasons) barriers to entry to participate in balancing products.

## Background, detail of the issue and current BSC Obligations

### P344 'Project TERRE'

P344 (scheduled for implementation in February 2019) aligns the BSC with the European Balancing Project TERRE (Trans European Replacement Reserves Exchange) requirements (scheduled to go live in the operational balancing environment from November 2019). As part of this alignment, new types of BSC Party, termed Virtual Lead Party (VLP), and BM Units, termed Secondary BM Units, were created as a way for customers to participate in TERRE and the Balancing Mechanism without relying on their Supplier. This will be achieved by separating the roles of Balancing Services Provider (BSP), which in this case would be a VLP and Balancing Responsible Parties (BRPs), which in this case would be the Supplier.

### Obligations of Parties in relation to Exports and Imports

BSC Section K 'Classification and Registration of Metering Systems and BM Units' 1.2 sets out current obligations of Parties in relation to Exports and Imports relevant to this proposal. It defines that Exports are an Active Export, which is a flow of Active Energy at any instant in time from any Plant or Apparatus (not comprising part of the Total System) of that Party to the Plant or Apparatus (comprising part of the Total System); and Imports are Active Import, which is a flow of Active Energy at any instant in time to any Plant or Apparatus (not comprising part of the Total System) of that Party the Plant or Apparatus (comprising part of the Total System) of a Party; . It also defines who is responsible for these flows and requires that they are separately measured at 'Boundary Points' to the 'Total System' (both defined in BSC Section X, Annex X-1 'General Glossary').

### Which flows of electricity need to be measured for Settlement purposes?

BSC Section L 'Metering' 2 of the BSC requires the quantities of electricity (i.e. Active Energy, and where relevant, Reactive Energy) Exported or Imported at a Boundary Point to the Total System, or flowing between Systems at Systems Connection Points, to be measured (and recorded) by Metering Equipment. The Metering Equipment must:



### What is Replacement Reserve?

Replacement Reserve (RR) products are Pan-European balancing energy products with a >15 minute lead time.



### What is a 'Boundary Point' under the BSC?

A Boundary Point (BP) is defined in Section X, Annex X-1 as a point at which any Plant or Apparatus, that does not form part of the Total System, is connected to the Total System.



### What is the 'Total System' under the BSC?

The Total System is comprised of the following Systems:

- the Transmission System;
- each Offshore Transmission System User Assets (OTSUA)7 ; and
- each Distribution System.

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- comply with the relevant metering Code of Practice (CoP) for the circuit capacity/demand;
- be commissioned in accordance with CoP4 'Commissioning of measurement transformers for Settlement purposes'; and
- for Metering Equipment that is to be registered in the Central Meter Registration Service (CMRS) as a Central Volume Allocation (CVA) Metering System, undergo a proving test in accordance with BSC Procedure 02 (BSCP02) 'Proving Test Requirements for Central Volume Allocation Metering Systems'.

### **Where are measurements required to be made for Settlements purposes?**

Appendix A of each Half Hourly CoP (i.e. CoPs 1<sup>1</sup>, 2<sup>2</sup>, 3<sup>3</sup> and 5<sup>4</sup>) sets out the points at which measurements of Imports and Export flows of electricity between Systems at Systems Connection Points need to be made. These are called the Defined Metering Points.

The solution developed by the P344 Workgroup relies on all Balancing Services provided by VLPs (consumers participating directly or through an independent aggregator) being settled on metering at the site Boundary Point in accordance with the current BSC Obligations. The Workgroup acknowledged that consumer sites, unlike current BM participants, often have a combination of assets, with some being capable of delivering Balancing Services and some that are not.

Therefore, if an asset on site is providing balancing services, and there are also other independent actions on site unrelated to balancing services, the metering at the site Boundary Point may not accurately reflect the Balancing Services volumes the VLP delivered.

### **Data Submission by Lead Party**

Lead Parties are required to ensure that Dynamic Data Set items for a relevant BM Unit are sent to National Grid Electricity System Operator (ESO) in accordance with the Grid Code. The data in the Dynamic Data Set includes the following data:

- Run-Up Rates;
- Run-Down Rates;
- Notice to Deviate from Zero;
- Notice to Deliver Offers and Bids;
- Minimum Zero and Non-Zero Times;
- Maximum Delivery Volume and associated Maximum Delivery Period; and

<sup>1</sup> The Metering of Circuits with a Rated Capacity Exceeding 100MVA for Settlement Purposes

<sup>2</sup> The Metering of Circuits with a Rated Capacity not Exceeding 100MVA for Settlement Purposes

<sup>3</sup> The Metering of Circuits with a Rated Capacity not Exceeding 10MVA for Settlement Purposes

<sup>4</sup> The Metering of Energy Transfers with Max Demand of up to (and including) 1MW for Settlement Purposes.



#### **What is a Lead Party?**

A Lead Party means, in relation to a BM Unit, the Party registered or to be registered in respect of the BM Unit pursuant to Section K3

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- Stable Export and Import Limits.

This data may be changed by the Lead Party as is provided for in the Grid Code. To the extent required in the Grid Code, Lead Parties are required to submit Maximum Export Limits (MEL) and Maximum Import Limits (MIL) in relation to a relevant BM Unit to the ESO. This data may be changed in accordance with the Grid Code.

### Final Physical Notification Data

Where relevant (i.e. if the BM Unit is above a certain de-minimis size, or participates in the BM), the Lead Party is required to submit Physical Notification (PN) Data for that BM Unit in accordance with the Grid Code. The Final Physical Notification (FPN) Data is the Physical Notification Data prevailing at Gate Closure. The data submitted to National Grid for each Settlement Period must be such that the Final Physical Notification Data comprises one or more pairs of "from" and "to" MW levels and associated times. As a minimum, there must be a "from" time and level at the start of the Settlement Period and a "to" time and level at the end of the Settlement Period. Exports are expressed as positive numbers and imports as negative numbers.

To participate in TERRE it is necessary to submit a FPN. This currently relates to the Boundary Meter. The FPN is the same as used for dispatch of the unit by the National Grid control room and Settlement.

### Balancing Mechanism Bid Offer Submission

Where FPN Data is established for a BM Unit, the Lead Party may submit one or more Bid-Offer Pairs in relation to a Settlement Period. These must be submitted by Gate Closure to National Grid. Each Bid-Offer Pair must comprise:

- a 'from' MW level at the start of the Settlement Period and a 'to' MW level at the end of the Settlement Period (which must be the same as the 'from' level); and
- (an Offer Price and a Bid Price (which cannot be greater than the Offer Price) and a Bid-Offer Pair Number.

### Determination of Accepted Bid-Offer Volume

The quantity of each Bid-Offer Pair that a particular Acceptance is determined to have 'accepted' at any instant in time is called the Accepted Bid-Offer Volume. Because of the way in which the BM operates, (i.e. because it is "firm for National Grid" and once an Acceptance has created an Accepted Bid-Offer Volume it cannot be undone except by creating a further Accepted Bid-Offer Volume) the Accepted Bid Offer Volume for each Acceptance must be determined sequentially based on the time at which each Acceptance was issued (the Bid-Offer Acceptance Time). Thus, each Acceptance is processed in turn, starting with the Acceptance with the earliest Acceptance time.

The Period FPN represents the MWh of energy that the BM Unit would have imported or exported in the Settlement Period had its operation followed its FPN within the Settlement Period.

The Period Expected Metered Volume is the sum of the Period FPN and the Period BM Unit Balancing Services Volume for a BM Unit in a particular Settlement Period. This represents the energy that the BM Unit would have imported or exported in the Settlement Period



### What is a Gate Closure?

Gate Closure is a point one hour prior to the start of a Settlement Period. This is the point by which BSC Parties must submit information to National Grid regarding their planned production or consumption in a Settlement Period. After Gate Closure, Parties are expected to adhere to the physical data submitted to the Electricity System Operator before Gate Closure. They should only deviate from this position at the instruction of the Electricity System Operator.

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had its operation followed its FPN adjusted for Accepted Bids, Offers and Applicable Balancing Services within that Settlement Period.

### **How are FPN's used in Settlement**

The FPN's create the starting position for Accepted Bids and Volumes and are used to calculate Non Delivery.

### **Non-Delivery Rule and Calculations**

The FPN determines the Expected Meter Volumes which feeds into the calculation of Non Delivered Volumes.

If the FPN does not reflect actual metered volumes at the point of measurement the VLP will incur charges, even if volumes delivered were as expected. The inverse may happen where a VLP may not incur non delivery charges if even delivery according to Instructions was not fully achieved.

### **FPN's and VLP's**

The potentially complex composition of consumer sites and assets within the sites can make it difficult for VLPs to post accurate FPNs. While the P344 Workgroup acknowledged this issue, it was agreed that it could not be addressed within the limited timescale to ensure compliance with the European Electricity Balancing Guideline (EB GL).

As noted earlier an inaccurate FPN may lead to incorrect Trading Charges but also create problems for the ESO in Balancing the System efficiently as the submission of the FPN informs the SO of what a site will be doing and changes the site will make.

### **Imbalance activities and Balancing activities**

Imbalances (Electricity Balancing Market) 'Imbalance' in the EU Internal Electricity Market most commonly means deviations between generation, consumption and commercial transactions of balance responsible parties (BRPs) within a given imbalance Settlement Period.

Balancing Service providers submit balancing service bids to the National Grid ESO, which are procured by the ESO in price order to secure the system balance.

Balancing Services are the services that the ESO needs to procure in order to operate the transmission system. The Transmission Licence defines Balancing Services as:

- Ancillary Services;
- Offers and Bids made in the balancing mechanism; and
- other services available to the licensee which serve to assist the licensee in co-ordinating and directing the flow of electricity onto and over the GB transmission system in accordance with the Act or the standard conditions and/or in doing so efficiently and economically, but shall not include anything provided by another

transmission licensee pursuant to the System Operator – Transmission Owner Code (STC).

The solution developed by the P344 Workgroup allows customers' (or independent aggregators acting on their behalf) Balancing-related activities to be separated out from Imbalance-related activities (where previously the BSC required a single party to be responsible for both):

Imbalance-related activities broadly correspond to the role of BRP as defined in the EB GL. These activities remain the responsibility of the customer's Supplier, even if the customer has contracted separately with an independent aggregator. BSC processes that relate to this role include:

- Contract notification;
- Responsibility for all Energy Imbalances relating to the customer (with the exception of those arising from non-delivery of a balancing action by the independent aggregator, which the Supplier is protected from through a process of imbalance adjustment); and
- Accounting for Residual Cashflow Reallocation Cashflow (RCRC).

Balancing-related activities broadly correspond to the role of "Balancing Services Party" (BSP) as defined in the EB GL. The P344 solution allows these activities to be undertaken by a VLP, which may be the customer themselves or an independent aggregator acting on their behalf. BSC processes that relate to this role include:

- the calculation of bid and offer volumes for each BM Unit;
- the payment of the bid and offer volumes to BSC Parties; and
- the recovery of the costs of balancing from the ESO.

However, although the P344 solution separates out the cash flows relating to these two roles, it does not do the same for the metering. It requires that metered data from the Supplier's Settlement metering (located at the Boundary Point, and logically associated with Imbalance-related activities) should also be used to verify delivery of acceptances issued to the Secondary BM Unit (which is a Balancing-related activity). Completely separating the two roles would require a mechanism by which the VLP could install its own Settlement metering, located at an appropriate place to measure the volume of balancing energy provided, which may be close to the Asset delivering the service. Such metering is sometimes referred to as 'Behind the Meter' or 'Behind the Settlement Meter', because it is installed within a customer site, behind the Settlement Meter installed by the Supplier at the Boundary Point (for purposes of Imbalance Settlement).

### Site complexities and Ancillary Services

Ancillary Services are those services described in Connection Condition 8 of the Grid Code and are services procured from Authorised Electricity Operators (AEOs) or persons that make interconnector transfers. These services can be mandatory or commercial in nature. They are not procured from electricity consumers. They are split into System services such as Frequency and Reactive power and Commercial for example STOR. 'Behind the Meter' metering is already used for most non-BM services, like Short Term Operating Reserve (STOR).



#### What is Residual Cashflow Reallocation Cashflow (RCRC)

For all Settlement Periods, the Total residual Cashflow (TRC) is calculated as being the sum of all energy imbalance charges across all parties and accounts. This value represents the total amount of money to be redistributed (or collected) via the Residual Cashflow Reallocation cashflow (RCRC)

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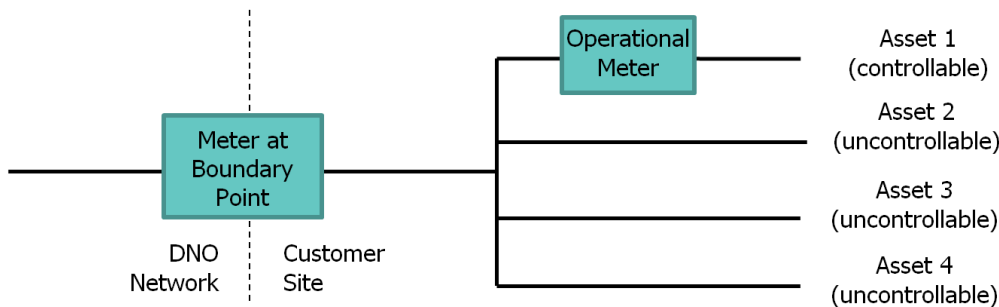
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The P344 solution facilitates participation in TERRE and the BM for end-users, either on their own or through an independent aggregator. Unlike traditional power stations, customer sites are often complex and contain assets capable of participating in Balancing activities (like RR and the BM) as well other equipment that is inflexible or operates independently of the asset delivering the Balancing Service. Many industrial sites have large consumption requirements as well as generation and often these are operated entirely separately.

For example, a waste water treatment site may have significant pumping load that must run to schedule as well as a Combined Heat and Power (CHP) generator. The site may be able to modulate the CHP output in response to an instruction in the BM, but an unrelated step change in the pumping load could negate, or double, the CHP output at the settlement boundary. In the P344 solution the VLP would need to know the pumping change was going to happen and reflect that in the FPN. This can be difficult as often the VLP only has access to the schedule for the asset providing balancing services. Also, the Settlement Boundary Meter is the responsibility of the Supplier, and therefore an independent VLP often does not have access to the metering data at the boundary. If the VLP creates an inaccurate FPN, they could be liable for non-delivery volumes on balancing services volumes that were actually delivered, or conversely, avoid charges they are due to pay for failures which were masked by independent loads.

The diagram below illustrates how uncontrollable demand will affect flows at the Boundary Point. Currently the FPN for Settlement and Dispatch is based on flows at the Boundary Point.



Allowing VLPs to use more appropriate metering closer to the asset delivering the Balancing Service would mean more customers with complex sites will be able to participate in TERRE and the Balancing Mechanism, as it effectively cuts out the uncontrollable demand. The PN (which turns into the FPN) will relate to Asset 1 rather than Asset 1 plus 2, 3 and 4.



### What is STOR?

Short Term Operating Reserve (STOR) is a balancing product whereby generation or demand can be amended by at least 3MW (can be aggregated with a collection of smaller sites). The participants providing the service to National Grid may be Balancing Mechanism (BM) or non-BM and connected to either the distribution or Transmission System.



## 2 Solution

### Proposed solution

The proposed solution is to amend the BSC to allow Secondary BM Units to be settled at a Settlement quality Meter at a point behind the Boundary Point Meter.

It is important that the solution creates checks to ensure the delivery being measured is 'real' while balancing the proportional 'risk' of these metering systems being used in Settlement.

The solution aims to be as similar as possible to existing boundary metering processes to ensure the solution is equitable for Parties and require less intrusive system changes for Parties.

### Metering Standards

Because the metering for Secondary BM Units will be used for Settlement, it has been proposed that they should adhere to the same standards as Metering Equipment currently used under the BSC. The Proposer has suggested that the standards should be based on the BSC Codes of Practice (CoPs), if a direct reference to the CoPs is not appropriate as determined by the Workgroup.

Learning from the rigidity of the Capacity Market (CM) approved metering solutions, metering for Secondary BM Units should also be subject to rules similar the Metering Dispensation rules covered in BSCP601. This is particularly important for sites where existing balancing services metering (for example STOR operational metering) is of an equal or higher accuracy standard than required by the CoPs. In such circumstances it would not make sense to require the site to install new CoP-compliant metering. Because of non-BM balancing services and the Capacity Market, a lot of high-quality sub-metering already exists on sites that could potentially be used for Settlement at sites participating in TERRE and the BM from December 2019.

### Line Losses

Losses should be dealt with in a similar manner to the Method used for Settlement Meters. The Line Loss Factors (LLFs) calculated by Distribution System Operators (DSOs) through existing BSC processes should be used at the correct voltage level for the metering.

### Meter Registration and Data

VLPs will need the ability to appoint BSC Qualified Agents, similar to the process by which Qualified Party Agents are appointed at the Boundary Point. Specifically, VLPs would need to appoint a qualified Meter Operator Agent (MOA) and Data Collector (DC). Half Hourly Data Aggregators (HHDAs) will be required to submit Half Hourly (HH) metered volume data for Supplier Volume Allocation (SVA) Metering System Numbers associated with Secondary BM Units to Settlement. Settlement would use this data and the registration data to calculate an aggregated volume for each Secondary BM Unit, in order to facilitate settlement of TERRE Activations and BM instructions. This is a similar process to the one by which HHDAs submit metered data for Metering Systems in Capacity Market Units (CM Units) to the Electricity Market Reform (EMR) settlement process.

To facilitate this, the behind the Meter Metering Systems would be assigned a 13-digit identifier, similar to the pseudo Metering System Identifiers (MSIDs) some DCs already assign to sub-metering for site monitoring purposes. Like difference metering, these sub-metering IDs would be associated with the boundary MSID(s). These Meter IDs would be stored in a central register maintained by ELEXON, where the association with site Boundary Meters would also be kept. The LLFs discussed in the previous section would be assigned at the time of registration and based on the voltage level the metering is installed at.

A change of VLP processes, based on the change of Supplier process, will be established. A change of VLP process for the boundary Settlement Meters has already been established as part of the P344 solution, so this P375 solution will seek to align the metering change of VLP process timescales with those already established.

## Assurance and Independence of Assets

It is important for the legitimacy of consumer participation in Balancing Services markets that there are appropriate checks in place to ensure the portion of the consumer site being metered by the VLP is truly independent of the unmetered portion. An independent metering point is one that captures any consumption that is related to the balancing service delivery, like the electrical load often associated with generator running.

For example, metering for a generator would need to capture any parasitic load. Alternatively, on a site that contains two water pumps, turning one off could cause the other to switch on (either because their control systems were directly linked, or because the reduction in water flow could cause the second pump to start). These two pumps would not be independent of each other, and it would not be acceptable to register one of the two as an asset in a Secondary BM Unit (because any action it took would potentially be undone by the other). Either both pumps, or neither pumps would need to be included in the Secondary BM Unit.

As part of the metering registration process, VLPs will be asked to obtain and keep evidence (including single line diagrams if appropriate) of the independence of the Balancing Services volumes delivered at the asset level metering point behind the Boundary Point metering. The VLP must be able to produce these records if required for Performance Assurance purposes.

## Asset Independence

A possible method of verification of independence would be to do a statistical analysis of the impact of the Balancing Services delivered on the Boundary Point metering. While the volume delivered by the Secondary BM Unit will not always be the same as the change on the Boundary Point metering, it should be verifiable through an analysis over several instances of delivery. The monitoring and assurance processes for behind the Boundary Point metering should be similar to that for Boundary Point metering and should be proportional to the effect on the System. Using statistical methods for spot checking as part of the Performance Assurance process could be appropriate. The Workgroup should discuss what, if any, statistical methods are appropriate. It is possible that one, or more, of the methods developed or investigated by [P376 'Utilising a Baseline Methodology to set Physical Notifications for Settlement of Applicable Balancing Services'](#) could be used.



### What is a parasitic load?

Parasitic loads are electrical loads which contribute to the generator's ability to create energy like compressors or oil pumps.

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## The Risk Evaluation Register

The [Risk Evaluation Register \(RER\)](#) would be updated to reflect any changes to Settlement Risks. This would then drive changes to the Risk Operating Plan (ROP), which sets out what Performance Assurance Techniques (PATs) can and have been applied to each Settlement Risk identified in the RER.

## Trading Disputes

Metering at the asset level behind the defined Boundary Point should be treated the same as Settlement Metering under the Trading Disputes process.

## Applicable BSC Objectives

The Modification will have a positive impact on Applicable BSC Objective (b) as it will further reduce any potential (either perceived or due to operational reasons) barriers to entry for Independent Aggregators and consumers to balancing products and markets such as TERRE and the BM. This will increase the options available to National Grid when balancing the System, thus leading to more efficient and economic balancing actions being procured.

There is also a positive impact on Objective (c) because the change encourages more participation in the market, increases competition. It must be ensured that the solution is implemented in a cost-effective manner to preserve the positive effects of increased competition.

Finally, there is also a positive impact on Objective (e). The TERRE solution must allow for the participation of consumers (or independent aggregators acting on their behalf) in TERRE, which it currently does. However, this proposed change will further reduce any potential (either perceived or due to operational reasons) barriers to entry to participate in balancing products, including TERRE and the BM.

The Proposer suggests that P375 is neutral against Applicable BSC Objectives (a), (d), (f) and (g).

## Implementation approach

This Modification is dependent on the implementation of P344 Project TERRE, which is scheduled to be fully implemented in the BSC in November 2019. Ideally this Modification would be implemented at the same time, but it is unlikely there will be sufficient time to implement this Modification simultaneously. The next available BSC Release should therefore be sought following Authority decision, allowing for any lead time for implementation of changes to Systems identified during the Assessment Phase.

The Proposer suggests an implementation date of April 2020, following TERRE go-live, but in consideration of the timescales required to progress this proposal.



### What are the Applicable BSC Objectives?

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System

(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements

(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]

(f) Implementing and administering the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation

(g) Compliance with the Transmission Losses Principle

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### 3 Areas to Consider

#### Impacts

Consumers will be impacted as they will be able to participate in TERRE and the BM if they wish to do so, and this Modification removes a possible perceived or operational barrier to entry for them to participate in these products. Changes to be made to the BSC to facilitate this will include:

- A change to VLP process;
- A register of asset metering to be created and maintained by ELEXON;
- Amendments to Settlement data flow processes as new data flows will need to be created for the new metering; and
- Amendments to the Codes of Practice and metering dispensation processes will probably be required, but this should be explored further by the workgroup.

MOAs and HHDAs will also be impacted as they will need to be able to install, register and maintain the new Meters and establish relationships with VLPs as opposed to Suppliers. The DTN processes will also be affected as new data flows will need to be established.

National Grid as the National Electricity Transmission System Operator (NETSO) is seeking to widen future access to the BM and potentially extend the scope of services that a Secondary BM Unit can provide. Therefore this Modification may ultimately positively impact a greater range of market participants than those initially providing Replacement reserve (RR) volumes through the TERRE product.

#### Areas to consider

The table below summarises the areas we believe a Modification Workgroup should consider as part of its assessment of P375:

Areas to Consider
What standard of metering will be required? Note any differences between the standards of metering used for other Balancing Services such as STOR (the use of Secondary BM Unit's may be extended further than the use of Replacement Reserve under TERRE).
How would Settlement Performance be established and ensured?
Consider appropriate ways to demonstrate independence of the asset if required? How can we appropriately provide assurance of the impacts of the balancing service on the Total System?
How will pseudo MPANs be registered and linked to the asset and how will these MPANs be subsequently be linked to the Settlement Meter?
Is the solution, or can it be future proofed against potential future Industry developments, for example domestic assets providing Balancing Services or operating in the Balancing Mechanism.
What changes are needed to BSC documents, systems and processes to support P375 and what are the related costs and lead times?
Are there any Alternative Modifications?
Should P375 be progressed as a Self-Governance Modification?
Does P375 better facilitate the Applicable BSC Objectives compared to the current baseline?

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## 4 Proposed Progression

### Self-Governance

The proposer believes that since P375 Modification is likely to have a material effect on Self-governance criterion (a)(ii) related to competition by reducing a perceived or operational barrier to entry for some consumers to participate in the TERRE and the BM, it should not be progressed as a Self-Governance Modification.

### Requested Next Steps

This Modification should:

- be assessed by a Workgroup and submitted into the Assessment Procedure

### Workgroup membership

We recommend that P375 Workgroup members have knowledge of the following areas:

- Codes of Practice (CoP);
- Balancing Services;
- Knowledge of BSC Settlement calculations and in particular Imbalance Volumes;
- Demand Side Response (DSR) services;
- The P344 TERRE solution; and
- Baseline Methodologies.

### Timetable

Proposed Progression Timetable for P375	
Event	Date
Initial consideration by Workgroup	W/C 21 January 2019
Further consideration by Workgroup	W/C 18 February 2019
Further consideration by the Workgroup	W/C 15 April 2019
Assessment Procedure Consultation	6 May 2019 – 24 May 2019
Workgroup consideration of Consultation responses	W/C 3 June 2019
Assessment Report presented to Panel	11 July 2019
Report Phase Consultation	15 July 2019 – 26 July 2019
Draft Modification Report presented to Panel	8 August 2019
Final Modification Report submitted to Authority	9 August 2019



#### What is the Self-Governance Criteria?

A Modification that, if implemented:

(a) is unlikely to have a material effect on:  
(i) existing or future electricity consumers; and  
(ii) competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity; and  
(iii) the operation of the national electricity transmission system; and  
(iv) matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and  
(v) the Code's governance procedures or modification procedures; and

(b) is unlikely to discriminate between different classes of Parties.

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## 5 Likely Impacts

### Impact on BSC Parties and Party Agents

Party/Party Agent	Potential Impact
BSC Parties	Once introduced, VLPs will be impacted as they will be required under P344 to allocate delivered volumes to MSID Pairs using a fair and accurate process. This process will need to be adjusted to take into account that flows may relate to the Operational Meter and not the Boundary Meter. FPN's will be required to be based on flows at the Operational Meter and not the Boundary Meter.
MOAs	MOAs will be impacted as they may be required to install, Commission, test and maintain, and rectify faults in respect of new SVA Metering Equipment based at the asset. The COPS will impact on the above.
HHDAs	VLPs will be required to submit HH Delivered Volume data to the SVAA for MSID Pairs associated with SBMUs. The SVAA will use the Delivered Volume data and the Metered Volume data received from the HHDA to allocate the Delivered Volumes to individual MSIDs in SBMUs. With new Operational Metering data submitted by the VLP will be based on Boundary Point data, or Asset Data or a combination. The same applies for HHDA's.

### Impact on Transmission Company

We expect minimal systems impacts on the Transmission Company. The metering data will come from an operational Meter as opposed to the Settlement Meter, but this will be similar to other Balancing Services such as STOR.

### Impact on BSCCo

Area of ELEXON	Potential Impact
Metering	Changes will be required to implement this Modification.
Performance Assurance	
Market Entry	

### Impact on BSC Systems and processes

BSC System/Process	Potential Impact
CDCA	Changes will be required to implement this Modification.
CRA	
FAA	
SAA	

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Impact on BSC Systems and processes	
BSC System/Process	Potential Impact
SVAA	
TAAMT	

Impact on Code	
Code Section	Potential Impact
Section K 'Classification and Registration of Metering Systems and BM Units'	Changes will be required to implement this Modification.
Section Q 'Balancing Mechanism Activities'	
Section T 'Settlement and Trading Charges'	

Impact on Core Industry Documents and other documents	
Document	Potential Impact
Connection and Use of System Code	Changes may be required to implement this Modification. We will liaise with potentially impacted Codes
Grid Code	
Master Registration Agreement	

Impact on Code Subsidiary Documents	
CSD	Potential Impact
BSCP70 'CVA Qualification Testing for Parties and Party Agents'	Changes will be required to implement this Modification. The P375 Workgroup will determine whether it wishes for these documents to be developed as part of the Modification Assessment Procedure, or as part of the Implementation phase.
BSCP503 'Half Hourly Data Aggregation for SVA Metering Systems Registered in SMRS'	
BSCP508 'Supplier Volume Allocation Agent'	
BSCP601 'Metering Protocol Approval and Compliance Testing'	
Central Data Collection Agent (CDCA) Service Description (SD)	



Impact on Code Subsidiary Documents	
CSD	Potential Impact
CDCA User Requirements Specification (URS)	
Central Registration Agent (CRA) SD	
CRA URS	
Funds Administration Agent (FAA) SD	
FAA URS	
Settlement Administration Agent (SAA) SD	
SAA URS	

Impact on other Configurable Items	
Configurable Item	Potential Impact
We expect a number of CI's will require amending which will be confirmed once the solution has been devised.	Changes will be required to implement this Modification.

**Impact on Consumers**

The change would allow more, and a greater variety of consumers to participate in the BM and TERRE through the VLP route, which would likely increase competition in these markets. There will therefore be benefits for consumers.

## 6 Recommendations

We invite the Panel to:

- **AGREE** that P375 progresses to the Assessment Procedure;
- **AGREE** the proposed Assessment Procedure timetable;
- **AGREE** the proposed membership for the P375 Workgroup; and
- **AGREE** the Workgroup's Terms of Reference.

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## Appendix 1: Glossary & References

### Acronyms

Acronyms used in this document are listed in the table below.

Acronym	
Acronym	Definition
AEOs	Authorised Electricity Operators
BM	Balancing Mechanism
BRPs	Balancing Responsible Parties
BSC	Balancing and Settlement Code
BSCCo	Balancing and Settlement Code Company
BSP	Balancing Service Provider
CHP	Combined Heat and Power
CoPs	Codes of Practice
CSD	Code Subsidiary Documents
CMRS	Central Meter Registration Service
CVA	Central Volume Allocation
DSO	Distribution System Operators
DTN	Data Transfer Network
ESO	Electricity System Operator
FPN	Final Physical Notification
HHDA	Half Hourly Data Aggregator
IDs	Identifications
IWA	Initial Written Assessment
LLFs	Line Loss Factor
MOA	Meter Operator Agent
MEL	Maximum Export Limits
MIL	Maximum Import Limits
MPANs	Meter Point Administration Number
MSID	Metering System Identifier
PATs	Performance Assurance Techniques
RCRC	Residual Cashflow Reallocation Cashflow
SAA	Settlement Administration Agent
STC	System Operator – Transmission Owner Code
STOR	Short Term Operating Reserve
SVAA	Supplier Volume Allocation Agent
TAAMT	Technical Assurance Agent Management Tool

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Acronym	
Acronym	Definition
TERRE	Trans-European Replacement Reserve Exchange
VLPs	Virtual Lead Parties

## External links

A summary of all hyperlinks used in this document are listed in the table below.

All external documents and URL links listed are correct as of the date of this document.

External Links		
Page(s)	Description	URL
3	BSC Modification P344 'Project TERRE implementation into GB market arrangements'	<a href="https://www.elexon.co.uk/mod-proposal/p344/">https://www.elexon.co.uk/mod-proposal/p344/</a>
10	BSC Modification P376 'Utilising a Baseline Methodology to set Physical Notifications for Settlement of Applicable Balancing Services'	<a href="https://www.elexon.co.uk/mod-proposal/p376/">https://www.elexon.co.uk/mod-proposal/p376/</a>
11	The Risk Evaluation Register	<a href="https://www.elexon.co.uk/reference/performance-assurance/performance-assurance-processes/">https://www.elexon.co.uk/reference/performance-assurance/performance-assurance-processes/</a>