

<b>BSC Modification Proposal Form</b>	At what stage is this document in the process?
<h1>P386</h1> <h2>'Clarifications to the P344 'Project TERRE' legal text'</h2>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid #ccc; padding: 5px; border-radius: 10px; text-align: center;">01</div> <div>Modification</div> <div style="border: 1px solid #ccc; padding: 5px; border-radius: 10px; text-align: center;">02</div> <div>Workgroup Report</div> <div style="border: 1px solid #ccc; padding: 5px; border-radius: 10px; text-align: center;">03</div> <div>Draft Modification Report</div> <div style="border: 1px solid #ccc; padding: 5px; border-radius: 10px; text-align: center;">04</div> <div>Final Modification Report</div> </div>
<b>Purpose of Modification:</b>	
	<p>A number of opportunities to add clarity have been identified within the P344 'Project TERRE' legal text, alongside the correction of manifest errors. This Modification will ensure that the legal text accurately reflects the P344 Workgroup's intended solution, as approved by the BSC Panel and the Authority and as detailed in the P344 Business Requirements documentation.</p>
	<p>The Proposer recommends that this Modification should:</p> <ul style="list-style-type: none"> <li>• be a Self-Governance Modification Proposal</li> <li>• be sent directly into the Report Phase</li> </ul> <p>This Modification will be presented by the Proposer to the BSC Panel on 9 May 2019. The Panel will consider the Proposer's recommendation and determine how best to progress the Modification.</p>
	<p>Low Impact: BSC Parties ELEXON</p>

## Contents

<b>1 Summary</b>	<b>3</b>
<b>2 Governance</b>	<b>3</b>
<b>3 Why Change?</b>	<b>4</b>
<b>4 Code Specific Matters</b>	<b>6</b>
<b>5 Solution</b>	<b>7</b>
<b>6 Impacts &amp; Other Considerations</b>	<b>12</b>
<b>7 Relevant Objectives</b>	<b>14</b>
<b>8 Implementation Approach</b>	<b>15</b>
<b>9 Legal Text</b>	<b>15</b>
<b>10 Recommendations</b>	<b>15</b>



Any questions?

Contact:

Danielle Pettitt



Danielle.Pettitt@elexon.co.uk



0207 380 4314



Proposer:  
NGESO



Grahame.Neale@nationalgrid.com



07787 261 242

## Timetable

The Proposer recommends the following timetable:

Initial Written Assessment	9 May 2019
Report Phase Consultation	13 May 2019 – 31 May 2019
Draft Modification Report presented to Panel	13 June 2019
Final Modification Report published	18 June 2019

## 1 Summary

### What is the issue?

The [P344 'Project TERRE implementation into GB market arrangements'](#) legal text was implemented on 28 February 2019 as part of the February 2019 BSC Release, with the go-live date for the balancing product scheduled for December 2019.

This Modification will ensure that the legal text accurately reflects the P344 Workgroup's intended solution, as approved by the BSC Panel and the Authority, as detailed in the P344 Business Requirements. The scope for the P344 legal text was substantial, with 88 BSC documents impacted, therefore a number of opportunities to add clarity, as well as correct manifest errors that do not align with the Workgroups intention.

### What is the proposed solution?

Clarifications will be made to the P344 legal text to ensure clarity and alignment with the Workgroup intentions as reflected in the Workgroup agreed business requirements. Please see Section five of this paper for details on these amendments.

P386 will not impact any BSC Central Systems or processes. This is because the P344 solution is well understood and the errors and ambiguity that exist in the legal text have not been reflected in the system requirements or design documents. P386 will potentially impact Parties who have already begun to model their calculations on the current Section T drafting. Further understanding of this should be verified in the Modification consultation.

## 2 Governance

### Justification for proposed progression

The Proposer requests that this Modification be progressed as a Self-Governance Modification as this Modification is supporting the P344 solution. This Modification does not require any changes to the solution ELEXON is implementing, we are expecting a minor impact on Market Participants who have already begun to model their calculations on the current Section T drafting. However, further understanding of this should be verified in the Modification consultation. Therefore, P386 does not have a detrimental material effect on the following criteria:

- (i) Existing or future electricity consumers;
- (ii) Competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity;
- (iii) The operation of the national electricity transmission system;
- (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.

At this time we **do not believe** this proposal, if sent directly to the Report Phase, should be treated as Urgent.

## Requested Next Steps

We believe that the solution to this Modification is self-evident as P386 is aligning the P344 ‘Project TERRE’ legal text more accurately with the views of the Workgroup, and can therefore be progressed straight to the **Report Phase**.

The Draft Modification report will be presented to the BSC Panel no later than **13 June 2019**, with a subsequent view to implementing the required changes (if approved) on **7 November 2019**, as part of the November 2019 BSC Release.

## 3 Why Change?

### Background

This Modification is needed to provide clarity to the P344 solution that was implemented on 28 February 2019, as part of the February 2019 BSC Release. Whilst the documentation was implemented, only the provisions relating to Market Entry and registrations are currently active. The product go live is scheduled for December 2019, when all BSC obligations will become active. Therefore, P386 should be implemented before December 2019 to provide clarity as soon as is possible and ensure the BSC accurately reflects the P344 Workgroup solution that is being implemented.

### P344 ‘Project TERRE implementation into GB market arrangements’

Project TERRE (Trans European Reserves Exchange) was developed by a group of European Transmission System Operators (TSOs). National Grid ESO participated on behalf of Great Britain (GB). Project TERRE will implement a new Replacement Reserve balancing product. Project TERRE will fulfil incoming legal requirements on TSOs included in the European Electricity Balancing Guideline (EB GL). The EB GL requires those TSOs that use Replacement Reserve (RR)<sup>1</sup> to implement and make operational a new European platform for the exchange of energy.

The EB GL came into force on 18 December 2017, and the legal deadline for National Grid to utilise the TERRE platform for GB balancing of RR products will be December 2019 subject to intermediary proceeding.

### P344 Solution

P344 aligned the BSC with the European Balancing Project TERRE requirements. This was in order to allow the implementation of the project at national level and be compliant with the first portion of obligations in the European Network Codes (ENCs).

National Grid worked in collaboration with the Department for Business, Energy and Industrial Strategy (BEIS), Ofgem and ELEXON on deciding the GB implementation approach to obligations stemming from the EB GL. The outcome of these discussions was that the GB implementation approach to the EB GL

---

<sup>1</sup> Replacement Reserves (RR) are formally defined within the legally-binding European ‘Guideline on System Operation’ ([Commission Regulation \(EU\) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation](#)).

requirements seek to maximise the exchange or cross border (XB) products in a manner that is proportionate to, and recognises the specific need of GB balancing.

## **What is the issue?**

P344 went live in February 2019, as this was a substantial change, with 88 BSC documents impacted, manifest errors that did not accurately reflect the Workgroup's intentions were contained in the legal text. This Modification proposes to correct these errors, as well as provide clarification on some areas in time for December 2019, when the TERRE product will go live, and all BSC obligations become active.

The corrections and updates will ensure that the P386 solution supports the already implemented P344 legal text.

## 4 Code Specific Matters

### Technical Skillsets

We propose that this Modification be submitted directly to the Report Phase and so Workgroup members are not required. However, should the Panel decide to submit this Modification to the Assessment Procedure, the following skill sets and knowledge would be required:

- P344 solution

### Reference Documents

[P344 Project TERRE Documents.](#)

## 5 Solution

### Proposed Solution

The proposed solution to deliver P386 includes:

P386 Proposed solution		
BSC Section	Type of Change	Description
J3.9.5	Manifest Error	Amended to clarify that VLPs (like other BSC Parties) are not able to benefit from the J3.9 provisions relating to Derogations (which are intended only for Party Agents).
K8.1.2	Clarification	Amended to clarify that only Half Hourly Metering Systems (as opposed to Non Half Hourly Metering Systems) can be registered in Secondary BM Unit.
K8.1.4	Clarification	Amended to include additional detail of the existing K8.1.3 requirement that Secondary BM Units can be classified as Production or Consumption.
Q4.3.2	Clarification	Added a reference to the specific Grid Code section (B4.5) that governs the submission of specific GC obligation omitted
S10.2.1 – 10.2.3	Clarification	Clarify that Metering Systems included in MSID Pairs must be Half Hourly Metering Systems. Consequential change from K8.1.2 (see above).
S11.2.3(d)	Manifest Error	Corrected to refer to BSC Procedure BSCP507 ('Supplier Volume Allocation Standing Data Changes) rather than BSCP508.
Annex S-2, 7.2.4 and 7.2.5	Manifest Error	Amend algebra to include correct subscripts
T1.2.2	Manifest Error	Corrected to refer to (i) to (vii) rather than (i) to (v).
T3.4.2A	Clarification	Algebra amended to bring it in line with the intent of P344 business requirement 20.1 (from the Final Modification Report), and deliver the intent of the solution. The business requirement includes a check that: $\begin{cases} \text{Acceptance Volume MW value} < \\ \text{RR Schedule MW value} \end{cases}$ and the algebra has been amended to clarify that the MW values referred to are the

		deviation from the baseline, not the absolute level of the instruction.
T3.18.1	Clarification	Clarify that $DSP^j_{it}(t)$ is to be defaulted to $DSP^{j-1}_{it}(t)$
4.2A.1	Manifest Error	Remove unnecessary 'and' (typo)
T4.3B.4	Manifest Error	Removed $TLM_{ij}$ from the calculation of $QSD_{ij 2}$ , in order to avoid this volume being adjusted twice for transmission losses.
T4.4.2(a) T4.4.3(a)	Manifest Error	Amended to correctly balance the brackets.
T4.5.1	Clarification	Amended to clarify that Credited Energy Volume ( $QCE_{iaj}$ ) is required in relation to Primary BM Units only.
T4.6.1	Clarification	Amended to clarify that Account Credited Energy Volume ( $QACE_{aj}$ ) includes volumes for Primary BM Units only.
T4.6.4	Manifest Error	Amended to include Virtual Balancing Accounts
T4.7.1	Clarification	Amended to clarify that Energy Imbalance Cashflow is required for Virtual Balancing Accounts, as per P344 business requirements.
T4.8.3 – 6 T4.8.11	Clarification	Clarification that accepted offer ranked set includes DSPO and IOD (as specified in 4.8.3)
T4.8.7 – 10 T4.8.12	Clarification	Clarification that accepted bid ranked set includes DSPB and IBD (as specified in 4.8.7)
T4.8.17-18 T4.8.20-21	Clarification	Brackets added around data item names.
Annex X-1	Clarification	Add 'Half Hourly' to MSID Pair description
Annex X-2	Manifest Error	Add acronym (RRAPj) for Replacement Reserve Action Price, which was omitted in error.
Annex X-2	Manifest Error	Add acronym (RRAUSBj) for Replacement Reserve Aggregated Unpriced System Buy Action, which was omitted in error.
Annex X-2	Manifest Error	Add acronym (RRAUSSj) for Replacement Reserve Aggregated Unpriced System Sell Action, which was omitted in error.

Section C	Clarification	Replace references to Transmission Company with NETSO
Section F		
Section H		
Section Q		
Section S Annex S-2		
Section T		
Section X Annex X-1		
Section X Annex X-2		

### Double Accounting of Transmission Losses in the Approved P344 Solution

As described above we are correcting a manifest error in T4.3B.4 to remove Transmission Loss Multiplier (TLM<sub>ij</sub>) from the calculation of Period Secondary BM Unit Supplier Delivered Volume (QSD<sub>ij2</sub>), in order to avoid this volume being adjusted twice for transmission losses. This is because BSC Section T4.3B.4 was introduced by Modification P344, and calculates the Period Secondary BM Unit Supplier Delivered Volume (QSD<sub>ij2</sub>) i.e. the energy delivered by a Secondary BM Unit as a result of receiving an acceptance from National Grid. As part of this calculation the Transmission Loss Multiplier (TLM<sub>ij</sub>) is applied, to account for transmission losses:

$$QSD_{ij2} = (QSD_{ij} * TLM_{ij}) * SP_{ij2}$$

Unfortunately this leads to double charging of transmission losses, because the TLM<sub>ij</sub> adjustment will be applied again (for a second time) later in the settlement calculation:

- The QSD<sub>ij2</sub> value is aggregated (across all relevant Secondary BM Units) to give a Period Supplier BM Unit Delivered Volume (QBSD<sub>ij</sub>) for each Supplier BM Unit (T4.3B.5).
- The QBSD<sub>ij</sub> value is included in the value of QBS<sub>ij</sub> for the Supplier BM Unit (BSC Section T4.3.2). Note that none of the other quantities included in QBS<sub>ij</sub> have yet been adjusted for transmission losses (and therefore QBS<sub>ij</sub> is a mixture of adjusted and non-adjusted values).
- The QBS<sub>ij</sub> value is then multiplied by TLM<sub>ij</sub> and aggregated across all of the Supplier's BM Units, to give the Account Period Balancing Services Volume (QABS<sub>aj</sub>) – see T4.6.2. At this point the element of QBS<sub>ij</sub> that came from QBSD<sub>ij</sub> has had TLM<sub>ij</sub> applied to it twice (double-correcting for transmission losses).

This was not an intended feature of the P344 solution. There is no reason for any energy volume in settlement to be adjusted for transmission losses twice. To correct the issue, BSC Section T4.3B.4 must be amended to remove the adjustment for transmission losses:

$$QSD_{ij2} = (QSD_{ij} * TLM_{ij}) * SP_{ij2}$$

### Bids Offers Acceptance (BOA) and RR interaction

We have amended T3.4.2A for clarification purposes to align with the Business Requirements for P344. P344 business requirement BR20 (developed by the P344 Workgroup) is intended to ensure that Settlement works appropriately when an RR Schedule (derived from the results of the TERRE auction) is

in the same direction (up or down) but larger in magnitude than a previously-issued BOA. For example, consider a scenario in which:

- The Final Physical Notification (FPN) is 40 MW
- The BM Unit receives a 100 MW RR Activation (and associated RR Schedule) increasing its output from 40 MW to 140 MW)
- A 60 MW Bid Offer Acceptance (BOA) is issued to the BM Unit, before it receives the results of the Auction, increasing its output from 40 MW to 100 MW

In this situation, BR20 requires that the RR Activation should take precedence in Settlement (so the BM Unit is paid for increasing its output at the TERRE auction price, not the Offer Price).

The above scenario is handled correctly by the P344 legal text, but other scenarios are not. For BR20 to work correctly in all cases, the magnitude of the BOA and the RR Schedule (used in testing whether the BR20 applies) must be calculated from the correct baseline (i.e. the Final Physical Notification, as modified by any previous instructions). The P344 legal text does not do this, but instead uses the absolute magnitude of the acceptance (i.e. measured from a baseline of zero). The following scenario illustrates the problem:

- The Final Physical Notification (FPN) is 80 MW
- The BM Unit receives a 40 MW downwards RR Activation (and associated RR Schedule) decreasing its output from 80 MW to 40 MW
- A 70 MW Bid Acceptance is issued to the BM Unit, before it receives the results of the Auction, decreasing its output from 80 MW to 10 MW

In this case the intent of the Workgroup is that the Lead Party should pay for the 40 MW RR Activation at the TERRE Clearing Price, and the additional 30 MW of Bid Acceptance at the Bid Price. However, because the Bid takes the BM Unit to 10 MW (which is smaller in magnitude than the 40 MW level of the RR Schedule), the current legal text would entirely disregard the Bid i.e. the only payment would be for the 40 MW RR Activation. The revised legal text resolves this issue by measuring the size of a BOA or RR Schedule based on its difference from the baseline (not the absolute level to which the BM Unit was despatched), in order to achieve the intent of the Workgroup.

### **Virtual Balancing Accounts**

BSC Section 4.7.1 has been amended to clarify that Energy Imbalance Cashflow is required for Virtual Balancing Accounts, as per the P344 business requirements. The intent of the P344 Workgroup (as documented in the Business Requirements and Modification Report) is that Virtual Lead Parties (VLPs) should be exposed to Imbalance Charges on any Bid Offer Acceptance or RR Activation that they do not deliver (in the same way that a Supplier or Generator would be). BSC Section T4.6.3 has therefore been amended to calculate an Imbalance Volume for Virtual Balancing Accounts as well as Energy Accounts. Unfortunately the same change was not made to the calculation of Energy Imbalance Charges in T4.7.1. This Modification includes Virtual Balancing Accounts in T4.7.1, in order to provide clarity that VLPs are subject to Imbalance Charges (on non-delivered volumes).

## P369 ‘National Grid Legal Separation’

On the 1 April 2019 a new Electricity System Operator (ESO) entity (NGESO) was established within the National Grid (NG) Group that is legally separate from the transmission owner, NG Electricity Transmission (NGET). The separation has allowed the new ESO to play a more proactive role in managing an increasingly flexible electricity system that can realise benefits for consumers. The formal separation of the system operator functions from NGET’s licence will come into effect on 1 April 2019.

The Modification [P369 ‘National Grid Legal Separation’](#) introduced a definition for the term ‘National Electricity Transmission System Operator’ and abbreviation ‘NETSO’ to refer to the entity named National Grid Electricity System Operator Limited. Therefore, we have taken the opportunity in this Modification to amend reference to the Transmission Company and replace them with NETSO in sections:

- Section C
- Section F
- Section H
- Section Q
- Section S Annex S-2
- Section T
- Section X Annex X-1
- Section X Annex X-2

## 6 Impacts & Other Considerations

### Impacts

This is a mostly administrative change to rectify errors within the P344 legal text. Further, adding clarity will assist BSC Parties in their understanding of the TERRE / Wider Access processes. Some of the clarifications to Section T relate to the P344 changes that our service provider is currently making to the Settlement Administration Agent (SAA) system. No re-work to the system design will be needed, because the Modification is aligning the legal text with the ELEXON service provider's design. In most cases this was because the intent of P344 was already clear to the ELEXON service provider from the P344 business requirements and legal text. In the specific case of the clarification to Section T4.3B.4 it was because ELEXON requested the service provider to include the clarification in their design in order to avoid a manifest error in Imbalance Charges. None of the clarifications introduced by this Modification have other impacts and they are not thought to impact ELEXON processes in any way.

P386 will have an impact on ELEXON (as the BSC Company (BSCCo)) as the required changes to the BSC, and other documents (e.g. guidance) will need to be amended and implemented.

We do not expect P386 to impact on any other BSC participant as the Modification is correcting and clarifying wording in the already approved P344 solution. The proposed legal text for this Modification does not impact participant obligations. All of the proposed changes are of a housekeeping nature, except the changes to Section T, as detailed above. There is a risk that a party has modelled the calculations based on the current Section T drafting, which are not correct and they will therefore be required to amend this. This understanding should be verified via the Modification consultation(s).

### BSC Documentation Impacts

The solution will require changes to the following BSC Sections:

- Section C – [BSCCo and its Subsidiaries](#)
- Section F – [Modification Procedures](#)
- Section H - [General](#)
- Section J – [Party Agents and Qualification Under the Code](#)
- Section K – [Classification and Registration of Metering Systems and BM Units](#)
- Section Q – [Balancing Services Activities](#)
- Section S – [Supplier Volume Allocation](#)
- Section S, Annex S-2 – [Supplier Volume Allocation Rules](#)
- Section T – [Settlement and Trading charges](#)
- Section X1 – [General Glossary](#)
- Section X2 – [Technical Glossary](#)

### Does this modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

We do not believe P386 will impact any of the open SCRs. P386 will have no impact on Settlement or wider industry operations. As such, we request that this Modification be exempt from the SCR process.

It is not envisaged that this Modification will impact other significant industry change projects.

## **Consumer Impacts**

Day to day operation of Balancing and Settlement will be unaffected, so there will be no impact on the consumer.

## **Environmental Impacts**

Day to day operation of Balancing and Settlement will be unaffected, so there will be no impact on the consumer.

## 7 Relevant Objectives

Impact of the Modification on the Relevant Objectives:	
Relevant Objective	Identified impact
a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence	Neutral
(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System	Neutral
(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	Neutral
(d) Promoting efficiency in the implementation of the balancing and settlement arrangements	<b>Positive</b>
(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]	Neutral
(f) Implementing and administrating the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation	Neutral
(g) Compliance with the Transmission Losses Principle	Neutral

This Modification will better facilitate Applicable BSC **objective (d)** as it will promote efficiency in the implementation of the balancing and settlement arrangements by adding clarity to the P344 solution. This will enable P344 to be implemented accurately, and accurately reflect the Workgroups intentions and expectations.

## 8 Implementation Approach

Implementation of this Modification should be on **7 November 2019**, as part of the BSC November Release. This will allow clarifications to be made to the P344 solution, before the TERRE product will go live, and all BSC obligations become active.

## 9 Legal Text

### Text Commentary

Proposed changes to BSC Sections have been drafted by ELEXON. The proposed text will provide clarification by amending some of the wording in the P344 solution and can be found in section five of this paper.

## 10 Recommendations

### Proposer's Recommendation to the BSC Panel

The BSC Panel is invited to:

- Agree that P386 be progressed as a Self-Governance Proposal; and
- Agree that P386 be sent directly into the Report Phase.