



## Stage 04: Final Modification Report

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

▶ 04 Report Phase

# P297: Receipt and Publication of New and Revised Dynamic Data items

This Modification Proposal seeks to ensure that the Dynamic Data Set in the BSC and published on the Balancing Mechanism Reporting Service reflects the revised Dynamic Data Set that is sent by the Transmission Company.



The BSC Panel recommends **approval** of P297



High Impact:

- Balancing Mechanism Reporting Service (BMRS)
- Transmission Company



Medium Impact:

- ELEXON
- BSC Parties

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## About this Document

This is the P297 Final Modification Report, which ELEXON has submitted to the Authority on behalf of the BSC Panel. It includes a summary of the Workgroup's assessment, the Panel's full views and the responses to both the Workgroup's Assessment Consultation and the Panel's Report Phase Consultation. The Authority will consider this report and will decide whether to approve or reject P297.

There are seven parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, benefits/drawbacks and proposed implementation approach. It also summarises the Workgroup's key views on the areas set by the Panel in its Terms of Reference, and contains details of the Workgroup's membership and full Terms of Reference.
- Attachment A contains the draft redlined changes to the BSC for P297.
- Attachment B contains the draft redlined changes to the NETA IDD Part 1.
- Attachment C contains the draft redlined changes to the NETA IDD Part 2.
- Attachment D contains the full responses to the Workgroup's first Assessment Procedure Consultation.
- Attachment E contains the full responses to the Workgroup's second Assessment Procedure Consultation.
- Attachment F contains the full responses received to the Panel's Report Phase Consultation.



### Any questions?

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**20 March 2014**

**Version 1.0**

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## Why Change?

The Electricity Balancing System (EBS) Group<sup>1</sup> has been progressing changes to the Dynamic Data Set in preparation for EBS go-live in the first quarter of 2015. These changes include the addition of one new Dynamic Data item and revisions to two existing Dynamic Data items.

The Dynamic Data Set is used by the Transmission Company as part of determining which Bids and Offers to accept in the Balancing Mechanism. The data is published on the Balancing Mechanism Reporting Service (BMRS) to help parties understand why particular Bids and Offers have been accepted. Consequently it is important that the Dynamic Data Set detailed in the BSC and published on the BMRS is the same as that submitted to, and used by, the Transmission Company. The changes will align the BSC with changes that have been made, or are in the process of being made, to the Dynamic Parameter<sup>2</sup> set in the Grid Code.

## Solution

P297 proposes to modify BSC Section Q 'Balancing Mechanism Activities', Section V 'Reporting' and Section X: Annex X-2 'Technical Glossary' to include the new Dynamic Data item, as well as modifying the Balancing Mechanism Reporting Agent (BMRA) and Settlement Administration Agent (SAA) systems to enable the Balancing and Settlement Code Company (BSCCo) to receive and publish the new and revised Dynamic Data items from the Transmission Company.

## Impacts & Costs

The changes proposed by P297 may have more of an impact on some BSC Parties than others e.g. TIBCO recipients. Although the interface between the Transmission Company's and the BSCCo's systems does not directly impact BSC Parties, the new and revised Dynamic Data items will affect the relevant TIBCO messages and the BMRS Website.

The central implementation cost of P297 is £132k.

## Implementation

P297 will be implemented on 5 November 2015 as part of the November 2015 BSC Systems Release if an Authority decision is received on or before 16 February 2015.

## Recommendations

The Panel unanimously agrees with the Workgroup's view that P297 would better facilitate Applicable BSC Objective (c) and therefore initially recommends that P297 is approved.

<sup>1</sup> <http://www.nationalgrid.com/uk/Electricity/Codes/gridcode/workinggroups/ElectricityBalancingSystemGroup/>

<sup>2</sup> The data described as Dynamic Parameters are set out in National Grid's Balancing Code 1.A.1.5 - [http://www.nationalgrid.com/NR/rdonlyres/79FE9275-D1FA-47F7-BF2C-E39662106062/58738/20\\_BALANCING\\_CODE\\_1\\_I5R2.pdf](http://www.nationalgrid.com/NR/rdonlyres/79FE9275-D1FA-47F7-BF2C-E39662106062/58738/20_BALANCING_CODE_1_I5R2.pdf)

## 2 Why Change?

### Background

#### What is the Balancing Mechanism Reporting Service?

The Balancing Mechanism Reporting Service (BMRS) is a service provided by the Balancing Mechanism Reporting Agent (BMRA) for publishing and reporting data relating to the balancing mechanism, Settlement and the market in general. This includes data provided by the Transmission Company relating to balancing actions and indicative data relating to Balancing and Settlement, such as indicative data for each Settlement Period shortly after its completion.

Much of the data published on the BMRS is not directly used within Settlement, but its publication helps to facilitate the operation of the GB electricity market.

Market participants can choose to receive the information via a 'high-grade' service for a charge (in accordance with Section D 'BSC Cost Recovery and Participation Charges'), where the information is sent to them directly via a TIBCO<sup>3</sup> feed. Alternatively, they can make use of the BMRS Website<sup>4</sup>, which is freely available to anyone.

#### What is the Electricity Balancing System?

National Grid is replacing the existing Balancing Mechanism (BM) system with a new Electricity Balancing System (EBS), for balancing the real-time electricity supply and demand. The new system is planned to go-live in the second quarter of 2015, and provides new capabilities that could be used in the Great Britain (GB) market if appropriate.

National Grid is aiming for no data or technical changes to be made to the current market participant interfaces<sup>5</sup> at EBS go-live, with market participants being able to start using the new web-technology interfaces<sup>6</sup> from around six months after EBS go-live.

#### What is the Dynamic Data Set?

The market information provided on the BMRS has an important role in promoting effective competition in the generation and supply of electricity. A subset of this information is the Dynamic Data Set<sup>7</sup> used by the Transmission Company as part of determining which Bids and Offers to accept into the balancing mechanism.

The Dynamic Data Set comprises of a set of data items (currently consisting of 10 data items), each of which are defined in the Grid Code. For each relevant BM Unit, the Lead Party needs to ensure that those data items forming part of the Dynamic Data Set are submitted to the Transmission Company in accordance with the provisions of the [Grid Code](#). As part of the development of EBS, the Grid Code Electricity Balancing System Working Group<sup>8</sup> was formed and subsequently developed changes to the Dynamic Data Set.



#### What is the Grid Code?

The Grid Code covers all material technical aspects relating to connections, to and the operation and use of the National Electricity Transmission System; including or, in as far as relevant to the operation and use of the National Electricity Transmission System, the operation of the electric lines and electrical plant connected to it or to a distribution system of any authorised distributor.

<sup>3</sup> Software which provides Parties a mechanism for automated publication of Balancing Mechanism Reporting Agent (BMRA) data to each Parties site.

<sup>4</sup> <http://www.bmreports.com/>

<sup>5</sup> Electronic Data Transfer (EDT) and Electronic Data Logging (EDL)

<sup>6</sup> For market participant data submissions this will be known as EDT\*.

<sup>7</sup> <http://www.elexon.co.uk/glossary/dynamic-data-set/>

<sup>8</sup> <http://www.nationalgrid.com/uk/Electricity/Codes/gridcode/workinggroups/ElectricityBalancingSystemGroup/>

The changes to the Dynamic Data Set arising from the Electricity Balancing System Group that are included in P297 are the revision of two existing Dynamic Data Items<sup>9</sup> and the addition of a new Dynamic Data Item<sup>10</sup>.

## What is the Issue?

In order to ensure that the Dynamic Data Set received by BSCCo and published on the BMRS and SAA fully corresponds to the revised Dynamic Data set in the Grid Code, it is necessary to modify the BSC. In addition, the BMRS and SAA systems require amendment to be able to receive, process and publish the content of the new and revised Dynamic Data items.

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<sup>9</sup> Run-Up Rates (Import and Export) and Run-Down Rate (Import and Export) and Stable Export Limits and Stable Import Limits

<sup>10</sup> Last Time to Cancel Synchronisation

### Proposed Solution

P297 proposes to amend the BSC to reflect the changes in the Dynamic Data Set under the Grid Code.

BSC Section Q 'Balancing Mechanism Activities', Section V 'Reporting' and Section X 'Annex X-2 Technical Glossary' will need to be updated whilst the BMRS and the SAA systems will need to be modified to receive and publish the new and revised Dynamic Data from the Transmission Company.

### Impact on BMRS and SAA

The main impact on the BMRS and SAA systems are the ability to receive and then publish the new and revised Dynamic Data items sent by the Transmission Company.

There will be one new and two revised Dynamic Data items that will be changed as part of the P297 solution which are set out below:

#### NEW Data Item: Last Time to Cancel Synchronisation (LTCS)

This is a new Dynamic Data Parameter which has been recently introduced into the Grid Code, via Grid Code Change Proposal B/12<sup>11</sup>. The data in the table details the proposed content and format of the Dynamic Data as received by National Grid:

Field Name	Description
Unit Name	A valid unit name for which the data is submitted. The participant must have privileges to submit data on this unit.
Effective Time	Time received by National Grid
Last Cancel Time 1	Last Time (in minutes) to Cancel Sync 1. Applies for: $0 < NDZ \leq CS \text{ Break Point (CSBP) } 2$ . VX-1: Must be an integer and between 0 and 60 (inclusive).
CS Break Point 2	Last Time to Cancel Sync/NDZ Breakpoint 2. VX-1: Must be an integer and between 0 and 999 (exclusive).
Last Cancel Time 2	Last Time (in minutes) to Cancel Sync 2. Applies for: $CSBP \ 2 < NDZ \leq CSBP \ 3$ . VX-1: Must be an integer and between 0 and 60 (inclusive).
CS Break Point 3	Last Time to Cancel Sync/NDZ Breakpoint 3. VX-1: Must be an integer and between 0 and 999 (exclusive). VR-2: CSBP 3 must be greater than CSBP 2.

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<sup>11</sup> <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/GC0068/>

Field Name	Description
Last Cancel Time 3	Last Time (in minutes) to Cancel Sync 3. Applies for: NDZ > CSBP 3. VX-1: Must be an integer and between 0 and 60 (inclusive).

Following the receipt of the proposed data by the Transmission Company, below is what will be sent to BMRA:

Field	Format	Units	Comments
BMU Name	Text	—	Name of BM Unit.
Effective Time	Date Time	—	Effective time of the Last Time to Cancel Sync.
Last Cancel Time 1	Integer	Minutes (max 2 digits)	Last Time to Cancel Sync 1. Applies for: $0 < \text{NDZ} \leq \text{CSBP 2}$
CS Break Point 2	Integer	Minutes (max 3 digits)	Last Time to Cancel Sync/NDZ Breakpoint 2.
Last Cancel Time 2	Integer	Minutes (max 2 digits)	Last Time to Cancel Sync 2. Applies for: $\text{CSBP2} < \text{NDZ} \leq \text{CSBP 3}$
CS Break Point 3	Integer	Minutes (max 3 digits)	Last Time to Cancel Sync/NDZ Breakpoint 3.
Last Cancel Time 3	Integer	Minutes (max 2 digits)	Last Time to Cancel Sync 3. Applies for: $\text{NDZ} > \text{CSBP 3}$

It is envisaged that submission will be ad-hoc and infrequent e.g. once a year per BM Unit.

### Publishing the LTCS data

LTCS data will be published on the Dynamic Data tab of the BMRS website in a similar manner to other existing Dynamic Data items. It will also be published on the 'high-grade' service via a TIBCO feed. Following implementation, the new table for this data will be empty of data until such time the LTCS data is sent through to the BMRS for the first time.

### Revised Data Item: Run-Up Rates (Import and Export) and Run-Down Rate (Import and Export)

This will involve enabling the BMRS to accommodate up to ten rates and a reduced minimum rate of 0.02MW/min. A Grid Code change is being progressed in parallel to this Modification Proposal<sup>12</sup>.

The change in the number of Run-Up and Run-Down Rates would increase the maximum number of time and power co-ordinates in a Bid-Offer Acceptance.

<sup>12</sup> Grid Code Review Panel Paper Ref: pp13/04 from the 16 January meeting provides more information on this subject - <http://www.nationalgrid.com/uk/Electricity/Codes/gridcode/reviewpanelinfo/2013/16th+January/>

The table below details the proposed content and format of the Dynamic Data as received by National Grid for Run-Up Rate(s) and Run-Down Rate(s) for both Import and Export. The key changes are underlined in red:

Field Name	Description
Unit Name	A valid unit name for which the data is submitted. The participant must have privileges to submit data on this unit.
Run Rate Type	Valid Run Rate types are "RUN_UP_EXPORT", "RUN_DOWN_EXPORT", "RUN_UP_IMPORT" and "RUN_DOWN_IMPORT". VX-1: Must be one of the valid run rate types.
Effective Time	Time received by National Grid
Rate	Run Rate in MW/minute. <u>Maximum of 10 rates can be submitted.</u> <u>VX-1: Must be between 0.02 and 999.0, with a maximum of 2 decimal places.</u>
Quantity	Elbow value in MW. Maximum of <u>9</u> quantities can be submitted. Rate and quantity are submitted in pairs except the first rate. VX-1: Must be integer between -9999 and +9999. VR-2: If the run rate type is "RUN_UP_EXPORT" or "RUN_DOWN_EXPORT", the quantity must be greater than or equal to 1. VR-3: If the run rate type is "RUN_UP_IMPORT" or "RUN_DOWN_IMPORT", the quantity must be less than or equal to -1. VR-4: The quantities, if not null, must be in increasing order (ex. Q2 > Q1; Q3 > Q2; etc.) for "RUN_UP_EXPORT" and "RUN_UP_IMPORT". VR-5: The quantities, if not null, must be in decreasing order (ex. Q2 < Q1; Q3 < Q2; etc.) for "RUN_DOWN_EXPORT" and "RUN_DOWN_IMPORT".

Following the receipt of the proposed data by the Transmission Company, one report for each Run-Up Rate Export (RURE), Run-Up Rate Import (RURI), Run-Down Rate Export (RDRE) and Run-Down Rate Import (RDRI) will be sent to BMRA, meaning there will be 4 in total. The ability to process an increased number of quantities and elbows will need to be duplicated across all 4. The proposed format for each is as follows:

Field	Format	Units	Comments
BMU Name	Text	—	Name of BM Unit.
Effective Time	Date Time	—	Effective time of the Run Rate.
Rate 1	Numeric	MW/min.	Run rate 1.
Quantity 2	Numeric	MW	Elbow 2.
Rate 2	Numeric	MW/min.	Run rate 2.
Quantity 3	Numeric	MW	Elbow 3.
Rate 3	Numeric	MW/min.	Run rate 3.
<u>Quantity 4</u>	<u>Numeric</u>	<u>MW</u>	<u>Elbow 4.</u>



Field	Format	Units	Comments
<a href="#">Rate 4</a>	<a href="#">Numeric</a>	<a href="#">MW/min.</a>	<a href="#">Run rate 4.</a>
<a href="#">Quantity 5</a>	<a href="#">Numeric</a>	<a href="#">MW</a>	<a href="#">Elbow 5.</a>
<a href="#">Rate 5</a>	<a href="#">Numeric</a>	<a href="#">MW/min.</a>	<a href="#">Run rate 5.</a>
<a href="#">Quantity 6</a>	<a href="#">Numeric</a>	<a href="#">MW</a>	<a href="#">Elbow 6.</a>
<a href="#">Rate 6</a>	<a href="#">Numeric</a>	<a href="#">MW/min.</a>	<a href="#">Run rate 6.</a>
<a href="#">Quantity 7</a>	<a href="#">Numeric</a>	<a href="#">MW</a>	<a href="#">Elbow 7.</a>
<a href="#">Rate 7</a>	<a href="#">Numeric</a>	<a href="#">MW/min.</a>	<a href="#">Run rate 7.</a>
<a href="#">Quantity 8</a>	<a href="#">Numeric</a>	<a href="#">MW</a>	<a href="#">Elbow 8.</a>
<a href="#">Rate 8</a>	<a href="#">Numeric</a>	<a href="#">MW/min.</a>	<a href="#">Run rate 8.</a>
<a href="#">Quantity 9</a>	<a href="#">Numeric</a>	<a href="#">MW</a>	<a href="#">Elbow 9.</a>
<a href="#">Rate 9</a>	<a href="#">Numeric</a>	<a href="#">MW/min.</a>	<a href="#">Run rate 9.</a>
<a href="#">Quantity 10</a>	<a href="#">Numeric</a>	<a href="#">MW</a>	<a href="#">Elbow 10.</a>
<a href="#">Rate 10</a>	<a href="#">Numeric</a>	<a href="#">MW/min.</a>	<a href="#">Run rate 10.</a>

As is the current case with up to three Run-Up rates or Run-Down rates, all ten fields will not always be used, but the functionality needs to be present in case all of them are used. The frequency of each Run-Up Rates, Run-Down Rates and Import and Export will be ad-hoc. However, there may be multiple submissions per day which will mainly be by BM Units that actively participate in the balancing mechanism.

### Publishing the data

The RURE, RURI, RDRE and RDRI tables on the Dynamic Data tab of the BMRS website will be updated to capture the additional data fields (as above). It will also be published on the 'high-grade' service via a TIBCO feed. Following implementation these additional data fields will be blank until such time data is submitted to the BMRS against these additional fields for publication.

### Revised Data Items: Stable Export Limits and Stable Import Limits

This will involve moving from an existing static parameter to time-varying profiles similar to Maximum Export Limit (MEL) and Maximum Import Limit (MIL) data items. It should be noted that the new Stable Export Limits (SEL) and Stable Import Limits (SIL) data will have a similar format to the existing Maximum Export and Import Limits.

The data in the table details the proposed content and format of the Dynamic Data as received by National Grid:

Article I. Field Name	Article II. Description
<ul style="list-style-type: none"> <li>Unit Name</li> </ul>	<ul style="list-style-type: none"> <li>A valid unit name for which the data is submitted. The participant must have privileges to submit data on this unit.</li> </ul>

Article I. Field Name	Article II. Description
<ul style="list-style-type: none"> <li>Start Time</li> </ul>	<ul style="list-style-type: none"> <li>Start time of the Stable limit.</li> <li>VX-1: Must be valid XML time format.</li> <li>VR-2: Must be greater than or equal to the end of the current National Grid system time (rounded down to the minute level (truncate the seconds field)).</li> <li>VR-3: Must fall within the same Operational Day as the header "Date" attribute.</li> <li>VR-4: Start time must be within the current Operational day and next five Operational days.</li> </ul>
<ul style="list-style-type: none"> <li>End Time</li> </ul>	<ul style="list-style-type: none"> <li>End time of the Stable limit and is optional. If it is not submitted, the Stable Limit submission will be open-ended and the End date/time will be stored as NULL in the database.</li> <li>VX-1: If submitted, it must be valid XML time format.</li> <li>VR-2: If submitted, end time must be later than the Start Time.</li> <li>VR-3: If submitted, must fall within the same Operational Day as the header "Date" attribute.</li> <li>VR-4 [Start Time, End Time]: The time range must cover distinct time ranges in a submission.</li> </ul>
<ul style="list-style-type: none"> <li>Limit Type</li> </ul>	<ul style="list-style-type: none"> <li>Valid types are "STABLE_EXPORT", and "STABLE_IMPORT".</li> <li>VX-1: Must be one of the valid Limit types.</li> </ul>
<ul style="list-style-type: none"> <li>From Value</li> </ul>	<ul style="list-style-type: none"> <li>From MW value of the Stable Export/Import.</li> <li>VX-1: Must be an integer between -9999 and +9999.</li> <li>VR-1: If the type is "STABLE_EXPORT", value must be greater than or equal to 0.</li> <li>VR-2: If the type is "STABLE_IMPORT", value must be less than or equal to 0.</li> </ul>
<ul style="list-style-type: none"> <li>To Value</li> </ul>	<ul style="list-style-type: none"> <li>To MW value of the Stable Export/Import.</li> <li>VX-1: Must be an integer between -9999 and +9999.</li> <li>VR-1: If the type is "STABLE_EXPORT", value must be greater than or equal to 0.</li> <li>VR-2: If the type is "STABLE_IMPORT", value must be less than or equal to 0.</li> <li>VR-5 [End Time, To Value]: If the End Time is not submitted (NULL), then the "To Value" must be equal to "From Value".</li> </ul>

Following receipt of the proposed data by the Transmission Company there will be two separate reports; one report for Stable Export Limits and another for Stable Import Limits.

## Stable Export Limit

The proposed format for what will be sent to BMRA by the Transmission Company for SEL is similar in format to that of the existing MEL data, the data fields for SEL being as follows (with the additional fields to the existing static SEL underlined in red):

Field	Format	Units	Comments
BMU Name	Text	—	Name of BM Unit.
Start Time	Date Time	—	Start time of the Export Limit.
From Value	Numeric	MW	Stable Export Limit From value.
<u>End Time</u>	<u>Date Time</u>	<u>—</u>	<u>End time of the Export Limit.</u>
<u>To Value</u>	<u>Numeric</u>	<u>MW</u>	<u>Stable Export Limit To value.</u>
<u>Notification Time</u>	<u>Date Time</u>	<u>—</u>	<u>Includes seconds. It will be the latest date and time of MP submission.</u>
<u>Notification Sequence</u> <sup>13</sup>	<u>Numeric (9 digits)</u>	<u>—</u>	<u>—</u>

The Transmission Company will send the net-position SEL data at gate closure. The Transmission Company will then send the part of any subsequent re-declarations received that is within the Balancing Mechanism window period. The BMRS will use these re-declarations to update the previously published net-position SEL data.

## Stable Import Limit

The proposed format for what will be sent to BMRA by the Transmission Company for SIL is similar in format to that of the existing MIL data, the data fields for SIL being as follows (with the additional fields to the existing static SIL underlined in red):

Field	Format	Units	Comments
BMU Name	Text	—	Name of BM Unit.
Start Time	Date Time	—	Start time of the Import Limit.
From Value	Numeric	MW	Stable Import Limit From value.
<u>End Time</u>	<u>Date Time</u>	<u>—</u>	<u>End time of the Import Limit.</u>
<u>To Value</u>	<u>Numeric</u>	<u>MW</u>	<u>Stable Import Limit To value.</u>
<u>Notification Time</u>	<u>Date Time</u>	<u>—</u>	<u>Includes seconds. It will be the latest date and time of MP submission.</u>
<u>Notification Sequence</u>	<u>Numeric (9 digits)</u>	<u>—</u>	<u>—</u>

The Transmission Company will send the net-position SIL data at gate closure. The Transmission Company will then send the part of any subsequent re-declarations received

<sup>13</sup> As per "sequence number" in the following from NETA IDD Part 2 Section 5.1: "Maximum Import and Export Limit Files can be one of two possible formats: MIL /MEL or MILS/MELS. The MILS and MELS files contain additional information, in the form of a timestamp and a sequence number, which is used to ensure that the data stored and published to parties is correct irrespective of the order in which the data is received. Note: the MEL/MIL format files were operationally discontinued since CP921".

that is within the Balancing Mechanism window period. The BMRS will use these re-declarations to update the previously published net-position SIL data.

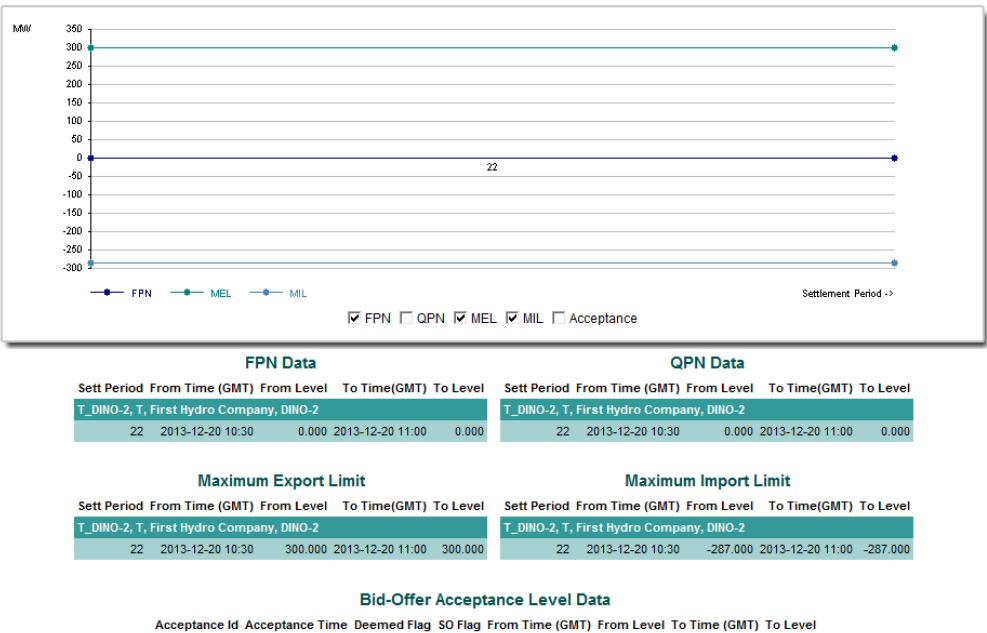
The frequency of SEL and SIL will still be ad-hoc. Some active participants in the balancing mechanism may not resubmit Stable Export Limits and Stable Import Limits from one year to the next. Other participants e.g. multi-shaft Combined Cycle Gas Turbine (CCGT)<sup>14</sup> modules and Cascade Hydro Schemes may submit SEL multiple times within a day.

### Publishing the data

#### BMRS Website

The net position SEL and SIL data will be published in a new table on the Physical Data tab of the BMRS Website<sup>15</sup>. The SEL and SIL tables (as above) will be accessible from the Physical Data search on the BM Unit data page of the website. A cross-reference to the new SEL and SIL tables in the Physical Data tab will be created in the Dynamic Data search on the BM Unit data screen, which will point users to the Physical Data tab for the SEL and SIL data. The SEL and SIL net-position data captured in this new table will be the data submitted from the Implementation date going forwards.

The SEL and SIL net-position data will also be added to the same graph that MEL and MIL data is currently published on as shown below:



### TIBCO message structure

Under the P297 solution, TIBCO messages relating to the new and revised Dynamic Data items will be changing to the new XML format and subsequently will no longer be sent in the current CSV structure. A new TIBCO message will be generated and published for this change. The TIBCO message identifier will be different from the current messages for the Dynamic Data.

<sup>14</sup> A collection of Generating Units (registered as a CCGT Module) comprising one or more Gas Turbine Units (or other gas based engine units) and one or more Steam Units

<sup>15</sup> This is because the other Power vs. Time profiles such as MEL/MIL, FPNs and BOAs are all published on this tab whereas MEL/MIL represents the upper limit of the magnitude of a potential BOA; SEL/SIL represents the lower limit.

The new XML TIBCO message will contain all the data fields for the new and revised Dynamic Data Items.

The format and content of the TIBCO messages covering SEL and SIL will have a similar file format to that of MEL and MIL as per NETA Interface Definition and Design (IDD) Part 1 'Interfaces with BSC Parties and their Agents'. As detailed in section 4, the new XML TIBCO message structure will not start until the proposed November 2015 implementation date. The XML TIBCO messages for SIL and SEL will include any subsequent re-declarations received that are within the Balancing Mechanism window, which will be used to update the previously published data in the net-position table.

### **File Format of revised Dynamic Data Items (applicable to the Transmission Company and ELEXON)**

As well as making changes to the Dynamic Data Set, the file format of the two revised Dynamic Data items will be changed from CSV<sup>16</sup> to XML<sup>17</sup>. Only the new and revised files provided by the Transmission Company, whether in relation to BMRA-I002<sup>18</sup>, BMRA-I003<sup>19</sup> or any other relevant interface requirement, will make use of the XML format. All other existing flows will remain in the CSV format with a provision to change to the XML format at a time when it is efficient to do so.

### **File Format of new Dynamic Data Item Items (applicable to the Transmission Company and ELEXON)**

For the new Dynamic Data item LTCS, this data will be sent from the Transmission Company to the BSCCo in XML format only.

## **BSC Legal Text**

The data items that comprise the Dynamic Data Set are not just found in the Grid Code, but also in BSC Sections Q, V and Section X: Annex X-2. BSC Section Q details the information that the Transmission Company is obligated to send to BSCCo, whilst BSC Section V outlines the data that is reported on the BMRS.

The P297 solution will involve adding the new data item 'Last Time to Cancel Synchronisation' (LTCS) to the existing wording in the Dynamic Data Set in Sections Q and V and to Section X-2 of the BSC. No further revisions to the Dynamic Data set in the BSC are required as the names of the two revised data items are not changing, only the format. The new definition of LTCS and the definitions of all the existing Dynamic Data items in Section X-2 have also been updated to replace the reference to Balancing Code 1 (BC1) with a generic "Grid Code Balancing Codes" as a result of the EBS Grid Code changes<sup>20</sup>.

The proposed redlined changes to the BSC for the P297 solution can be found in Attachment A.

## **NETA IDD Part 1 and NETA IDD Part 2 Redlining**

The format of the changes to the Dynamic Data items is captured in NETA IDD Part 1 and Part 2 'Interfaces to other Service Providers'. The NETA IDD Part 1 and NETA IDD Part 2

<sup>16</sup> Comma Separated Values (simple file format)

<sup>17</sup> eXtensible Markup Language (text data widely used by industry)

<sup>18</sup> (input) Balancing Mechanism Data

<sup>19</sup> (input) System Related Data

<sup>20</sup> <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/GC0068/>

require revisions to capture the changes in the format of the revised Dynamic Data items and to include the new Dynamic Data item.

Note: There will be an impact on the NETA IDD Part 2 spreadsheet as well. The NETA IDD Part 2 spreadsheet is designed to provide reference for files but is mainly used to build the BMRA database tables that store the information being received. However the spreadsheet only captures files that are in the CSV format. The new and revised Dynamic Data item in XML format will not be relevant to this paradigm. Instead, the XML Schema Definition (XSDs) documents will be contained in an additional artefact, such as an addendum or appendix to the current NETA IDD Part 2 spreadsheet. This will need to be created and added to the NETA IDD Part 2 spreadsheet to address this, as part of implementing P297.

The proposed redlined changes to the NETA IDD Part 1 and NETA IDD Part 2 for the P297 solution can be found in Attachments B and C respectively.

### Recommended Implementation Approach

The Workgroup recommends an Implementation Date for P297 of:

- **5 November 2015** as part of the **November 2015 BSC Release** if a decision is received on or before 16 February 2015.

The 16 February 2015 decision by date allows sufficient time following a decision for the changes to be developed and ready to implement. The implementation date will correspond with the point from when the Transmission Company can start sending net-position SEL/SIL data so that it can be published on BMRS.

BSC Parties should also note that under this approach, there will be no parallel running of CSV and XML TIBCO files<sup>21</sup> for the one new Dynamic Data item (LTCS) and six revised Dynamic Data items (SEL, SIL, RURI, RURE, RDRI, RDRE), as these will only start to be sent by the Transmission Company to the BMRA in the new XML format on the November 2015 implementation date. From this point, the new and revised Dynamic Data items will be in provided via TIBCO in XML format only.

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<sup>21</sup> The data provided by the Transmission Company will also switch over to XML.

### Estimated central implementation costs of P297

The total system change costs to amend the BMRA and SAA for P297 is approximately **£132k**.

### Impacts

Impact on BSC Systems and process	
BSC System/Process	Potential impact
BMRS	Updated to receive and publish the new and revised Dynamic Data from the Transmission Company.
SAA	

Impact on BSC Parties and Party Agents
TIBCO messages received by Parties for the two revised Dynamic Data items will change and the new Dynamic Data will be introduced on the implementation date for the P297 solution. When this occurs, the content will differ as shown by the changes detailed in Section 3. There will also be changes to the Dynamic and Physical Tab of the BM Unit data page of the BMRS website as detailed in section 3.

Impact on Transmission Company
The Transmission Company will be obligated to submit the updated Dynamic Data to BSSCo.

Impact on Code	
Code section	Impact
Section Q	Changes will be required to implement the solution which can be found in Attachment A.
Section V	
Section X-2	

Impact on Code Subsidiary Documents	
CSD	Potential impact
NETA IDD Part 1	Changes will be required to implement the solution which can be found in Attachments B and C respectively.
NETA IDD Part 2	

Impact on other Configurable Items
None



The following section provides details on the Workgroup discussions that led to the P297 solution, and responses received to the first and second Assessment Procedure Consultations. You can find the full responses to the Assessment Procedure Consultations in Attachments D and E respectively.

### Solution

#### Removal of Dynamic Data items

In the P297 Modification Proposal the Proposer set out two approaches for capturing the Dynamic Data item changes in the BSC. These two approaches were:

- Remove the complete Dynamic Data Set list from Sections Q and V and instead cross reference the Grid Code; or
- Add the new data items to the Dynamic Data Set in Sections Q and V.

Initially, the Proposer considered that the P297 solution would remove the complete Dynamic Data Set list from Sections Q and V and cross reference the Grid Code. The rationale for this is that it would potentially save future time and effort of raising Modifications to add, amend (if a name change occurred) or remove a Dynamic Data item from the Code. Instead any changes to the Dynamic Data would be captured in the relevant CSDs and progressed via a Change Proposal (CP).

The majority of the Workgroup agreed that this would amount to a significant material change, with some Workgroup members commenting that for ease of reference, having an explicit list in the BSC is an obvious starting point for market participants to go to. Removing the list would cause disruption and would result in parties only having to refer to another document or having to search through a large number of CSDs.

A Workgroup member also expressed the view that if the Dynamic Data Set was removed from the BSC, future changes, if progressed through a CP, may not get the same level of attention that a Modification Proposal receives. This prompted the group to consider that a potential Alternative solution would be required if the P297 solution remained unchanged, which would only add the new Dynamic Data item to the Code rather than removing the list.

The Proposer took on board the concerns of the Workgroup members and agreed to change the solution so that the new Dynamic Data item is added to the Dynamic Data Set listed in Sections Q and V of the BSC. The result of this revision was that no Alternative solution was required to the BSC and therefore did not require any further development.

#### **NEW Data Item – (not included in the P297 solution): Synchronising Interval & De-synchronising Interval at a BM Unit level**

The P297 Modification Proposal form and P297 Initial Written Assessment (IWA), as presented to the Panel on 8 August 2013, included another new Dynamic Data Item in the form of Synchronising Interval & De-synchronising Interval at a BM Unit level. This Dynamic Data Item was removed from the solution for P297 following agreement by the Workgroup and the Proposer. The rationale for this is that this new Dynamic Data item does not currently exist in the Grid Code, nor is it currently in the process of being introduced via a parallel Grid Code Modification. The purpose of P297 is to align the BSC

with the Grid Code. Removing this new Dynamic Data item from the solution, mitigates the risk that the new Dynamic Data item is approved and added to the BSC before it is introduced to the Grid Code. It should be noted that a subsequent Modification would need to be made at a later date once this Dynamic Data item is added to the Grid Code.

### Capacity Mechanism interaction

A Workgroup member highlighted concerns that changes to data items listed in the Code (such as Dynamic Data items), may have an interaction with the Capacity Mechanism work currently being undertaken by the Department of Energy and Climate Change (DECC). The reason being is that DECC is referring to certain definitions and data items that are within the BSC in draft legislation that is being prepared. If the BSC is changed then issues may arise if the areas cross referenced in legislation are no longer present or are moved.

The Group noted that this could have been a potential significant issue for P297. This issue was resolved by the Proposer revising the solution as noted above. The Workgroup member noted that while this potential issue has been resolved by the P297 solution change, there is a potential risk if other changes occur outside of P297.

### Other solutions considered

#### Potential Alternative solution

Since the previous Assessment Procedure Consultation, the original Proposed solution has since been superseded and became a potential Alternative solution which the Group did not pursue. The potential Alternative solution was identical to the proposed solution (as detailed in section 3) with the exception of the form in which SEL and SIL Dynamic Data Items will be received, processed and published as set out below.

#### Revised Data Items: Stable Export Limits and Stable Import Limits

The proposed format for what will be sent to BMRA for [Stable Export Limits](#) is as follows (with additional fields underlined in red):

Field	Format	Units	Comments
BMU Name	Text	—	Name of BM Unit.
Start Time	Date Time	—	Start time of the Export Limit.
From Value	Numeric	MW	Stable Export Limit From value.
<u>End Time</u>	<u>Date Time</u>	<u>—</u>	<u>End time of the Export Limit.</u>
<u>To Value</u>	<u>Numeric</u>	<u>MW</u>	<u>Stable Export Limit To value.</u>

The proposed format for what will be sent to BMRA for [Stable Import Limits](#) is as follows (with additional fields underlined in red):

Field	Format	Units	Comments
BMU Name	Text	—	Name of BM Unit.
Start Time	Date Time	—	Start time of the Import Limit.
From Value	Numeric	MW	Stable Import Limit From value.
<u>End Time</u>	<u>Date Time</u>	<u>—</u>	<u>End time of the Import Limit.</u>
<u>To Value</u>	<u>Numeric</u>	<u>MW</u>	<u>Stable Import Limit To value.</u>

## Publishing the data

### BMRS Website

The data will be reported via the Dynamic Data search on the BM Unit data screen. The existing SEL and SIL tables will be amended to capture the additional fields. The existing SEL and SIL data will be in the new table format, however for the new end time field, there will be no data so this field will contain a 'null' message or be left blank.

Please note that under the potential Alternative solution, SEL and SIL will not be published on any graph on the BMRS Website. This is because it is not particularly meaningful to display the 'raw' SEL and SIL data provided by the potential Alternative solution on a graph.

### TIBCO message structure

The format and content of the TIBCO messages sent for RURI, RURE, RDRI, RDRE and LTCS will be identical to the Proposed solution (i.e. XML). To minimise the impact on BSC Parties receiving TIBCO messages, the format will only change once at the time of the P297 implementation.

Since the design of the new structure is based on the new XML input flows with new fields, there may be some instances where those fields cannot be mapped as there would be no data relevant to the new fields. In such cases these fields will be left with either a 'null' message or a duplicated value<sup>22</sup>.

### Workgroup's conclusion on potential Alternative solution

The Workgroup unanimously, and a majority of respondents to the second Assessment Procedure Consultation, agreed that the Proposed solution as (detailed in section 3) is better than the potential Alternative solution (as detailed above). The Workgroup and respondents agreed that the provisions of the SEL and SIL net position data centrally on the BMRS, as under the Proposed solution, is better than BSC Parties attempting to individually calculate SEL and SIL net positions, under the potential Alternative solution. The Workgroup therefore agreed not to progress the potential Alternative solution any further.

### Other Alternative solutions raised by Assessment Consultation respondents

A respondent to the second Assessment Consultation commented that all faxed special conditions should be removed and that submitting dynamics for multiple sub-sets of one BMU allied with distinct Bid/Offer Ladders for, but not exclusively, multi-shaft CCGTs and cascade Hydro Schemes should be promoting efficiency in the implementation and administration of the balancing and settlement arrangements. Members of the Workgroup agreed that the two concerns are not specifically related to P297. However, the Workgroup noted that those categorised under the Grid Code as 'Other Relevant Data' can still be faxed and at this time, there is no concern that this condition should be removed.

The Proposer highlighted that the Transmission Company are attempting to address the second concern but noted that it remains a very complicated process with no easy answers. The Workgroup agreed that although it largely relates to the Grid Code, there may be a knock on effect for BSC Parties as the issue may involve changes to the BSC. Overall the Workgroup agreed that these concerns were outside the scope of P297 but noted that the outcomes may lead to subsequent changes separate from P297.

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<sup>22</sup> For the case of SIL/SEL, the 'End Time' will be populated as Null and 'To value' will be duplicated as the 'From Value' until such time they are sent in the new format where those values will be populated accordingly.

## Joint approach

A member of the Workgroup discussed whether it would be possible to have a joint approach in which both sets of data (net-position data and non-net position data) could be provided. The Workgroup noted that the differences between the two solutions will be supported by a specific flow for SEL and SIL and as such, it is not possible for both net-position data and non-net-position data to be sent at the same time.

The Workgroup noted that while under the Proposed solution, the non-net position data would not be available, similar data to non-net-position data would be available through the data being published under P291<sup>23</sup> and the Transparency Regulation changes that Modification P295<sup>24</sup> will introduce.

## Impact on BSC Parties

All five respondents to the first and second Assessment Procedure Consultations identified impacts on them as a result of implementing the P297 Proposed solution. Two respondents provided an estimated cost in the order of £100k for multiple system impacts, with an estimated lead time of at least six months, in order for Parties to implement the changes to align with P297. One respondent expressed the view that the benefits of the solution will outweigh the costs to implement.

The Workgroup noted that there would be multiple system impacts on organisations due to the changes to the TIBCO messages associated with the new and revised Dynamic Data items. The extent of the impact would depend on the number of systems an organisation has, how old the systems are and what processes (both internally and externally) the organisations would need to put in place to make the appropriate changes.

## Impact on BMRS

All five respondents to the second Assessment Procedure Consultation identified minor impacts on their organisations for the proposed changes to the BMRS Website for the Proposed solution. One respondent queried how submissions after gate closure but within the displayed BM window would be presented. ELEXON confirmed that if re-declarations came in, BMRS would simply overwrite the gate-closed values; these resubmissions would not be available in a specific list on the BMRS Website but would be shown in the TIBCO message.

The same respondent queried whether the existing method of the graphs for MEL/MIL would be used, as the respondent noted that for the notification times/sequence numbers, it would be possible to emphasise the most up-to-date profile at any given time including gate closure. The Workgroup noted that although a change could be made to show the re-declarations on the BMRS Website, elements are outside of the scope of P297 as changes would need to apply to MEL and MIL in addition to SEL and SIL for the most effective outcome. The Workgroup agreed that a BSC Party could raise another Modification to look into this but that it would also need to cover MEL/MIL which are not Dynamic Data items.

The respondent also commented that it might be sensible to allow larger field sizes in BMRS internal interfaces and external reporting (if they must be specified) to allow flexibility for potential future data specification changes, and rely on Data Validation, Consistency and Defaulting Rules (DVCDR)<sup>25</sup> to verify that current data is within current value limits. Members of the Workgroup noted that field size is based on data received from the Transmission Company. The Workgroup agreed that if the field sizes on BMRS

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<sup>23</sup> 'REMIT Inside Information Reporting Platform for GB Electricity'

<sup>24</sup> 'Submission and publication of Transparency regulation data via the BMRS'

<sup>25</sup> <http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=12815>

need to change based on submission, a BSC Party could raise a separate subsequent change to amend these.

One respondent highlighted their concerns for the proposed changes to the BMRS Website for the Alternative solution. The Workgroup noted that these concerns were similar to those put forward by the Proposer when the original Proposed solution was superseded to become the potential Alternative solution. The Workgroup therefore agreed that the respondent's concerns are mitigated by the alternative not being progressed further.

### **Impact on TIBCO**

All five respondents to the second Assessment Procedure Consultation identified impacts on their organisations for the proposed changes to the TIBCO message structure for the Proposed solution. One respondent commented that they would need to read the new XML formatted TIBCO messages in parallel to the existing flat messages going forwards to ensure that their existing TIBCO software version supports this functionality. In addition, the respondent noted that it would be useful for BSC parties to understand more about the roadmap for the TIBCO message format going forwards, noting suggestions made by ELEXON in its recent consultation on BMRS, and forthcoming changes for REMIT (P291) and EU Data Transparency (P295).

The Workgroup agreed that these concerns would be picked up as part of the implementation process which would be carried out far in advance of the P297 implementation date. Members of the Workgroup agreed that it would expect all relevant TIBCO information to be provided in detail on the Releases page of the BSC website for Parties to view. The Workgroup noted that specific TIBCO details are also being picked up as part of the implementation process for P295 and so this same approach should be taken for P297.

### **Potential Implementation Approach**

In the first Assessment Consultation the Workgroup initially recommended an Implementation Date of:

- 6 November 2014 (as part of the November 2014 BSC Release) if a decision was received on or before 31 January 2014; or
- 25 February 2015 (as part of the February 2015 BSC Release) if a decision was received after 31 January 2014 but on or before 31 May 2014.

The 31 January 2014 decision by date took into account the Authority's 25 Working Day (WD) KPI and additional 7 WD tolerance for the Christmas and New Year period, while allowing sufficient time following a decision for the changes to be developed and ready for the November 2014 Release. The Workgroup was keen to implement P297 before the end of 2014 to ensure the BSC aligns with the Grid Code changes and the new EBS system, envisaged to go-live in the third quarter of 2014.

A fall-back implementation date of 26 February 2015 as part of the February 2015 BSC Release was also included in case a decision could not be provided until after the 31 January 2014 decision by date. The decision by date for the February 2015 Release factors in the same amount of development time as per the November 2014 Release date.

All five respondents to the first Assessment Procedure Consultation unanimously agreed with the Workgroup's initial proposed implementation approach.

## Changes to the Implementation Approach

Following the first Assessment Procedure Consultation, it came to light that both Modifications P291 and P295 which are also BMRS related changes, are targeted for implementation in December 2014, with P291 having a 'go-live' date of 31 December 2014 and P295 having a recommended go live date of 16 December 2014. To maximise efficiency and for potential synergy savings, ELEXON suggested that the Workgroup consider a revised implementation date of 16 December 2014 so that P297 could be implemented concurrently alongside these Modifications.

Members of the Workgroup expressed its concern that the 16 December 2014 implementation date is close to the start of the Christmas period and also falls at the same time as companies' will put in place a 'change freeze period'. Although P291 and P295 will be implemented during this time, the Workgroup acknowledged that this was not an optional date but driven by the [European Transparency Regulation \(ETR\)](#), which requires arrangements to deliver the Transparency regulation to be implemented no later than 4 January 2015. The Workgroup, therefore, had reservations that because of these sizeable Modifications, there would be a risk for participants to have to carry out too many changes at once if P297 was also implemented alongside P291 and P295. The Workgroup, therefore, agreed to rule out 16 December 2014 as a possible revised implementation date for P297.

The Workgroup also agreed to rule out November 2014 as a prospective implementation date as there were concerns that issues may be caused if a staggered approach was taken with implementing P297 in November 2014, which would be very close to the P291 and P295 implementations in December 2014.

Overall, the Workgroup agreed that to mitigate the risk of either staggering implementation in November and December or implementing all three Modifications at once, the original fall-back date of the February 2015 Release would be the most appropriate revised implementation date for P297 solution. The Workgroup also agreed that there would be no distractions for industry at this time with the implementations of P291 and P295. However, the Workgroup acknowledged that there may be the potential for duplication of testing and that it is unlikely that there would be synergy savings as P297 would not be implemented at the same time as P291 and P295.

At the time, the Proposer confirmed that this implementation date for the P297 solution would not be an issue as the planned EBS go-live date was September 2014. Six months after the EBS go-live date (the date at which BSC Parties could start submitting the new and revised Dynamic Data to National Grid) would be March 2015 which is after the February 2015 implementation date. Subsequently the EBS planned go-live date was delayed to April 2015, with November 2015 being around six-months later (the date at which BSC Parties would start submitting the new and revised Dynamic Data to National Grid).

Following the changes to the Proposed solution and the presence of the potential Alternative solution the Workgroup noted the need for the implementation approaches to be revised again. The Workgroup therefore recommended an Implementation Date for the P297 Proposed solution of 5 November 2015 (November 2015 Release) if a decision is received on or before 16 February 2015; or 25 June 2015 (June 2015 Release) for the potential Alternative solution if a decision is received on or before 27 October 2014.

The majority of the respondents to the second Assessment Procedure Consultation agreed with the Workgroup's proposed implementation approaches for the Proposed and potential Alternative solutions, however, one respondent was concerned that there were potential interactions/overlaps between P291/P295 and P297. The Workgroup noted that since it



had agreed that the Proposed solution is better than the potential Alternative, there would be no overlap in implementation with P291/P295 as these Modifications will be implemented in December 2014, which is almost a year earlier than P297's proposed implementation in November 2015 (as detailed in section 4).

### **BSC Legal text**

All respondents to the Assessment Consultations agreed that the draft legal text delivers the intention of the P297 solution. One respondent to the second Assessment Consultation noted that as a result of the EBS Grid Code changes, the new definition of LTCS and the definitions of all the existing Dynamic Data items are proposed to move to Balancing Code 2 (BC2) from their current position in BC1. For consistency purposes, the new definition of LTCS and the definitions of all the existing Dynamic Data items in Section X-2 should be updated to replace the reference to BC1 with a generic "Grid Code Balancing Codes".

The Workgroup agreed that this change was sensible and as such, the draft legal text in Attachment A has been updated to capture the necessary amendments.

### **NETA IDD Part 1 redlining**

Respondents to both Assessment Consultations provided comments on the NETA IDD Part 1 redlining. One respondent commented that the NETA IDD seems to suggest that new message structures will continue to support existing attributes, excluding defined field name changes, which should ease transition to new TIBCO message definitions. ELEXON clarified that when the Transmission Company sends the new or revised Dynamic Data items in XML format, the data will populate new TIBCO messages, however prior to this following the implementation of P297 the new TIBCO messages will be populated from the old CSV files. The old CSV files will be mapped onto the new structure to cater for when the Transmission Company sends these new flows (rather than the other way round). This is now only applicable to the potential Alternative solution for P297, which as noted above is not being taken forward.

Another respondent questioned whether it was correct to continue to include the 'Effective From Time' field in the description of Stable Export Limit (SEL) and Stable Import Limit (SIL) in NETA IDD Part 1 section 4.7.4.34. ELEXON commented that it is more straightforward to keep the field type (TE) the same for ease of understanding as even though field name is changing, the type of data the field will contain is still a point in time that the data is effective from.

The respondent also noted that it may be worth comparing the changes to NETA IDD Part 1 sections 4.7.5.44 and 4.7.5.45 to the structure for Maximum Export Limit (MEL) and Maximum Import Limit (MIL) in NETA IDD Part 1 sections 4.7.5.28 and 4.7.5.29, given that the new SEL and SIL have a similar data structure to MEL and MIL (accepting that there is a pre and post-gate closure split for MEL and MIL, which is not proposed for SEL and SIL). This respondent also suggested that publishing a notification time on the SEL and SIL Dynamic Data items currently published and issued via TIBCO messages, may benefit BSC Parties, subject to the Transmission Company including the information in the flows they send. Following these Assessment Consultation comments, the solution was amended to incorporate these and other points and subsequently became the P297 Proposed solution for the second Assessment Procedure Consultation.

While there were no specific consultation comments received, ELEXON highlighted that a few additional revisions to the NETA IDD Part 1 document were required for document consistency in the form of a new file and data type for 'Effective End Time' and new file and data types for the additional Run Up and Run Down rates and elbows.

One respondent to the second Consultation queried why the approach to publishing SEL and SIL data under the Proposed solution is based on the current approach for MEL and MIL, but the proposed message definitions for SEL in 4.7.5.44 and SIL in 4.7.5.45 are substantially different to those for MEL in 4.7.5.28 and MIL in 4.7.5.29. ELEXON confirmed that for the Proposed solution, the TIBCO messages will have a new message subject and will not have the same message subject currently used. The message content will be of XML type rather than aligned with what is currently in NETA IDD Part 1. ELEXON noted that previously, it used to define the data inside the message (in ELEXON's case, the date 'TE' will be defined as 'TIBRVMSG\_DATETIME' format and individually define each and every element as a Scalar Data type). However, for the P297 proposed change, the data type of the whole message will be of a single special format type 'TIBRVMSG\_XML' which will contain the complete message.

## **NETA IDD Part 2 redlining**

Respondents to both Assessment Consultations provided comments on the NETA IDD Part 2 redlining. A respondent to the first Consultation highlighted that it may be useful to understand the governance that applies to the NETA IDD Part 2 spreadsheet and the BMRA & SAA Interface Specification document. A Workgroup member highlighted that neither are specified in the BSC or Grid Code but noted that the BMRA & SAA Interface Specification document is a public document available on the Transmission Company's website. ELEXON asked the Workgroup to note that the NETA IDD Part 2 spreadsheet is not on the BSC Baseline statement and therefore is not subject to the same governance process as CPs, but is published on the BSC website alongside the IDD documents for reference purposes.

ELEXON also noted that because the new schemas will be in an XML format, they cannot be directly mapped onto the current NETA IDD Part 2 spreadsheet. To address this, a new addendum or appendix will be created to the NETA IDD Part 2 spreadsheet to capture the details of the new and revised Dynamic Data items as part of the implementation of P297. As the format of the attachment or appendix to the NETA IDD Part 2 spreadsheet will be confirmed as part of the implementation of P297, a 'format to be confirmed' reference has been intentionally left in the NETA IDD Part 2 draft redlining. A respondent to the second Assessment Consultation commented that ELEXON should ensure that the new XSDs are presented in a way which facilitates changes to user systems in a timely and accurate fashion. ELEXON confirmed that users of TIBCO will be made explicitly aware of where the new XSD documents will be contained for the new XML schemas as part of the P297 implementation process.

The draft NETA IDD Part 1 and NETA IDD Part 2 redlining in Attachments B and C respectively capture all the revisions mentioned above.

## **EBS progress**

While there were no other specific comments on P297, one respondent requested that participants are kept informed as to the progress of National Grid's EBS implementation and the ELEXON project and that they are provided with documentation on a timely basis regarding the interfaces for submission and receipt of the new/ revised parameters. One respondent also commented that they would expect reductions in central costs if this proposal is implemented in conjunction with other changes affecting BMRS for example, P291, P295, and CP1397. This Workgroup's discussion around this comment has been captured as part of the implementation approach earlier in this section.



## Self-Governance?

The Workgroup considered whether P297 could be progressed as a Self-Governance Modification.

Some Workgroup members had initially expressed concern that if the P297 solution removed the list of Dynamic Data items from the BSC, this would be a material change and therefore would not meet the Self-Governance criteria. As set out earlier in section 6, the Proposer revised his view of the P297 solution so that the new Dynamic Data item (LTCS) is added to the Dynamic Data Set list in the BSC instead which resolved this area of concern.

Following the change to the solution the Workgroup considered Self Governance again and agreed that there would still be a material effect on competition (as covered by a)ii) of the Self-Governance criteria) as P297 would promote effective competition in generation and supply. The Workgroup also expressed the view that consumers (as covered by a)i) of the Self-Governance Criteria) would be impacted from a cost perspective. With these two matters in mind the Workgroup agreed that P297 should not be progressed under the Self-Governance provisions.

The Workgroup also noted that if P297 is progressed as a normal Modification Proposal then it is likely that the Authority will receive the Final Modification Report for P297 in parallel with any related Grid Code changes, which should mean that any final decision on P297 and the Grid Code changes are made at the same time.

All five respondents to the first Assessment Consultation unanimously agreed with the Workgroup's view that P297 is not suitable for determination as a Self-Governance Modification.



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### Self-Governance Criteria

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A Modification Proposal 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.

## Workgroup's views against the Applicable BSC Objectives

The Workgroup unanimously agreed that the P297 solution would overall better facilitate the Applicable BSC Objectives compared with the existing baseline. The following table contains the Proposer and Workgroup's views against each of the Applicable BSC Objectives:

Does P297 better facilitate the Applicable BSC Objectives?		
Obj.	Proposer's Views	Other Workgroup Members' Views <sup>26</sup>
(a)	<ul style="list-style-type: none"> <li>• <b>Neutral</b> – No impact.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Neutral</b> – No impact.</li> </ul>
(b)	<ul style="list-style-type: none"> <li>• <b>Neutral</b> – No impact.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Yes</b> (minority) – The proposal arises from non-BSC changes in support of more efficient system balancing operation by the Transmission Company, which affect the BSC.</li> </ul>
(c)	<ul style="list-style-type: none"> <li>• <b>Yes</b>– The proposed solution will benefit BSC Parties as it will aid transparency around which Bids and Offers the Transmission Company has accepted into the balancing mechanism, thereby promoting effective competition in the generation and supply of electricity.</li> <li>• <b>Yes</b>– provides users of the BMRS with the applicable (net-position) values of SEL/SIL i.e. they do not need to attempt to calculate them from the 'raw' data.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Yes</b> (unanimous) – Agree with Proposer's views.</li> </ul>
(d)	<ul style="list-style-type: none"> <li>• <b>Neutral</b> – No impact.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Yes</b> (minority) – because it will improve efficiency in ensuring that ELEXON is consistent with the Grid Code and the BSC systems are capable of processing and publishing the content and format of the new and revised Dynamic Data items.</li> <li>• <b>No</b> – (minority) – slightly detrimental impact due to cost of making the changes.</li> </ul>
(e)	<ul style="list-style-type: none"> <li>• <b>Neutral</b> – No impact.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Neutral</b> – No impact.</li> </ul>



### 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]

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<sup>26</sup> Shows the different views expressed by the other Workgroup members – not all members necessarily agree with all of these views.

**The Workgroup unanimously believes that P297 does better facilitate the Applicable BSC Objectives, and therefore recommends that P297 is approved.**

Respondents to both Assessment Consultations unanimously agreed with the Workgroup's unanimous view that P297 would better facilitate Applicable BSC Objective (c) and minority view that P297 would better facilitate Applicable BSC Objectives (b) and (d). The reasons provided by these respondents are consistent with those of the Workgroup.

A minority of respondents also agreed with the Workgroup's minority view that P297 would have a slight detrimental impact against Applicable BSC Objective (d), for the reasons put forward by the Workgroup.

You can find the full responses to both the first and second Assessment Consultations in Attachments D and E respectively.

### Panel's initial views on the Applicable BSC Objectives

The Panel unanimously agrees with the Workgroup's unanimous view that P297 would better facilitate Applicable BSC Objective (c) and minority view that P297 would better facilitate Applicable BSC Objectives (b) and (d). The views of the Panel are in line with the views of the Workgroup, as detailed in Section 7.

**The Panel initially unanimously recommends that P297 is approved.**

### Panel's views on draft legal text

The Panel unanimously agrees with the Workgroup's view that the proposed changes to the BSC in Attachment A, NETA IDD Part 1 redlining in Attachment B and NETA IDD Part 2 redlining in Attachment C deliver the intention of P297.

### Panel's views on the proposed Implementation Date

The Panel unanimously agrees with the Implementation Date proposed by the Workgroup, as detailed in Section 4.

## 9 Report Phase Consultation Responses

This section summarises the responses to the Panel's Report Phase Consultation on its initial recommendations. You can find the full responses in Attachment F.

### Summary of P297 Report Phase Consultation Responses

Question	Yes	No	Neutral/ No Comment	Other
Do you agree with the Panel's initial unanimous recommendation that P297 should be approved?	4	0	0	0
Do you agree with the Panel that the redlined changes to the BSC and CSDs deliver the intention of P297?	3	0	0	1
Do you agree with the Panel's recommended Implementation Date?	4	0	0	0
Do you have any further comments on P297?	1	3	0	0

### Respondents' views against the Applicable BSC Objectives

All respondents to the Report Phase Consultation agreed with the Panel's initial unanimous view that P297 would better facilitate Applicable BSC Objective (c). One respondent also agreed with the Workgroup and Panel's view that P297 would better facilitate Applicable BSC Objective (d). The reasons provided by these respondents are in line with the views expressed by the Workgroup and the Panel.

**All of the respondents agree with the Panel's initial recommendation that P297 should be approved.**

### Respondents' views on the draft legal text and CSDs

All respondents agreed with the proposed changes to the BSC, NETA IDD Part 1 redlining and NETA IDD Part 2 redlining. One respondent commented that the XSD documents for TIBCO messages using the new XML schema will be very important for BSC parties that use TIBCO, and ELEXON should ensure that new information is presented in a way which facilitates changes to user systems in a timely and accurate fashion. ELEXON noted that this will be facilitated as part of the implementation of P297 as detailed in section 3.

### Respondents' views on the proposed Implementation Date

All respondents to the Report Phase Consultation agreed with the proposed Implementation Date. Respondents commented that the proposed date is in line with the expected implementation timescale of the EBS project and therefore would ensure that the BMRS is able to accommodate the new and revised Dynamic Data items from that time.

### Respondent's other views and comments on P297

One respondent suggested that in general, it might be sensible to allow larger field sizes in BMRS internal interfaces and external reporting (if they must be specified) to allow flexibility for potential future data specification changes, and rely on National Grid's DVCDR

to verify that current data is within current value limits. ELEXON noted the respondent's comment and agreed that it would consider this as this as part of the implementation approach. No other comments or questions were received on P297.

### Panel's final views on the Applicable BSC Objectives

The Panel unanimously agrees with the Workgroup's unanimous view that P297 would better facilitate Applicable BSC Objective (c) and minority view that P297 would better facilitate Applicable BSC Objectives (b) and (d). The views of the Panel are in line with the views of the Workgroup, as detailed in Section 7.

**The Panel unanimously recommends that P297 is approved.**

### Panel's final views on BSC legal text

The Panel unanimously approved the proposed changes to the BSC in Attachment A, NETA IDD Part 1 redlining in Attachment B and NETA IDD Part 2 redlining in Attachment C.

### Panel's final views on the proposed Implementation Date

The Panel unanimously approved the proposed Implementation Date proposed of 5 November 2015, if approved on or before 16 February 2015.

### Panel's final comments on P297

A Panel Member queried whether the file format for the additional artefact (such as an addendum or appendix) to the current NETA IDD Part 2 spreadsheet had yet been agreed for the XSDs. ELEXON confirmed that the file format will need to be created and added as part of the implementation approach for P297 to ensure it is in the most appropriate format.

## 11 Recommendations

The BSC Panel recommends to the Authority:

- That P297 should be **approved**;
- An Implementation Date for P297 of:
  - 5 November 2015 if an Authority decision is received on or before 16 February 2015; and
- The BSC legal text and CSD redlining for P297.



## 12 Appendix 1: Workgroup Details

### Workgroup's Terms of Reference

P297 Terms of Reference	Reference
What changes are needed to BSC to support P297?	See section 3
Are changes needed to any Code Subsidiary Documents?	See section 3
What BSC System changes are required by P297?	See section 3
What are the benefits of P297?	See section 6
Does P297 better facilitate the Applicable BSC Objectives than the current baseline?	See section 7
Are there any Alternatives that should be considered?	See section 6

### Assessment Procedure timetable

Proposed Progression Timetable for P297	
Event	Date
Present Initial Written Assessment to Panel	8 August 13
Workgroup Meeting 1	19 August 2013
Workgroup Meeting 2	16 September 13
Assessment Procedure Consultation	3 - 24 October 13
Workgroup Meeting 3	29 October 13
Present Assessment Report to Panel	14 November 13
Workgroup Meeting 4	25 November 13
Workgroup Meeting 5	16 December 13
Second Assessment Procedure Consultation	7 – 28 Jan 14
Workgroup Meeting 6	29 Jan 14
Present Assessment Report to Panel	13 Feb 14

## Workgroup membership and attendance

Name	Organisation	19/08/13	16/09/13	29/10/13	25/11/13	16/12/13	29/01/13
David Barber	ELEXON (Chair)	✓	✓	✓	✓	☎	✓
Claire Anthony	ELEXON (Lead Analyst)	✓	✓	✓	✓	☎	✓
Robert Paterson	National Grid (Proposer)	✓	✓	✓	✓	☎	✓
Guy Phillips	E.ON UK	✓	✗	✗	☎	☎	☎
Gary Henderson	ScottishPower	☎	✓	✓	✓	☎	✓
Lisa Waters	Waters Wye Associates	✗	☎	✗	✗	✗	✗
Graham Bunt	EDF	✓	✓	☎	✓	☎	☎
Chris Gibson	RWE	☎	☎	☎	☎	☎	☎
Nicholas Brown	ELEXON (Legal)	✗	✓	✗	✗	✗	✗
John Lucas	ELEXON (Market Design and Analysis)	✓	✓	✗	✗	✗	✗
Zaahir Ghanty	ELEXON (Market Design and Analysis)	✗	✗	✓	✓	☎	✓
David Birchby	Ofgem	✓	✗	✗	✗	✗	✗
Adam Gilham	Ofgem	✗	✓	✓	✓	✗	☎