

What stage is this document in the process?

- 01 Initial Written Assessment
- 02 Definition Procedure
- ▶ 03 Assessment Procedure
- 04 Report Phase

Stage 03: Assessment Report

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

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



The P297 Workgroup recommends:

- **Approval** of P297



High Impact:

- Balancing Mechanism Reporting Service (BMRS)
- Transmission Company



Medium Impact:

- ELEXON

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Any questions?

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About this document:

This document is the P297 Workgroup's Assessment Report to the BSC Panel. ELEXON will present this report to the Panel at its meeting on 14 November 2013. The Panel will consider the Workgroup's recommendations, and will agree an initial view on whether this change should be made. It will then consult on this view before making its final recommendation to the Authority.

There are five 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 the P297 solution.
- 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 Assessment Procedure Consultation.

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Why Change?

The Electricity Balancing System (EBS) Group¹ has been progressing changes to the Dynamic Data Set in preparation for EBS go-live in the third quarter of 2014. These changes include the addition of one new Dynamic Data item and revisions to two existing Dynamic Data items.

The Dynamic Data Set is published on the Balancing Mechanism Reporting Service (BMRS) and is used by the Transmission Company as part of determining which Bids and Offers to accept in the Balancing Mechanism. Consequently it is important that the Dynamic Data Set published in the BSC and 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 Parameter² set in the Grid Code.

Solution

P297 proposes to modify BSC Section Q 'Balancing Mechanism Activities' and Section V 'Reporting' 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 to P297 will not directly impact BSC Parties. However, the new and revised Dynamic Data items may affect TIBCO messaging as they will be in XML format. P297 also impacts the BSC, BMRA, SAA and the Transmission Company.

The central implementation cost of the P297 solution is approximately £134k.

Implementation

26 February 2015 if an Authority decision is received on or before 12 March 2014. This is after the planned September 2014 'go-live' date for National Grid's new Electricity Balancing System (EBS) system but prior to March 2015 when BSC Parties will start submitting the new and revised Dynamic Data to National Grid.

Workgroup's Recommendation

The Workgroup unanimously recommend that P297 should be **approved**. The Workgroup unanimously believe that P297 would better facilitate Applicable BSC Objective (c) and a minority believe it would better facilitate Applicable BSC Objective (d).

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

² 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

Background

What is the Balancing Mechanism Reporting Service?

The Balancing Mechanism Reporting Service (BMRS) is a service 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 TIBCO³ feed. Alternatively, they can make use of the BMRS Website⁴, 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 third quarter of 2014, 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 interfaces⁵ at go-live, but has agreed to give market participants six months to five years to introduce and move to the new web-technology interfaces⁶. BSC Parties will be expected to start using these new interfaces from March 2015.

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 Set⁷ 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](#). Due to the introduction of EBS, the Grid Code Electricity Balancing System Working Group⁸ 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.

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

⁴ <http://www.bmreports.com/>

⁵ Electronic Data Transfer (EDT) and Electronic Data Logging (EDL)

⁶ For market participant data submissions this will be known as EDT*.

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

⁸ <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 Items⁹ and the addition of a new Dynamic Data Item¹⁰.

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.

⁹ Run-Up Rates (Import and Export) and Run-Down Rate (Import and Export) and Stable Export Limits and Stable Import Limits

¹⁰ Last Time to Cancel Synchronisation

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' and Section V 'Reporting' will need to be updated whilst the BMRS and SAA 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/12¹¹. 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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¹¹ <http://www.nationalgrid.com/NR/rdonlyres/6CBB2031-42F2-4382-9BBA-15F63F5BE797/58236/B12D.pdf>

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: $0 < NDZ \leq CS$ Break Point (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: $CSBP2 < NDZ \leq$ 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: $NDZ > CSBP 3$

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

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 Proposal¹².

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.

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 and highlighted in red:

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¹² 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/>

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 Rates, Run-Down Rates and Import and Export 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>
<u>Rate 4</u>	<u>Numeric</u>	<u>MW/min.</u>	<u>Run rate 4.</u>
<u>Quantity 5</u>	<u>Numeric</u>	<u>MW</u>	<u>Elbow 5.</u>
<u>Rate 5</u>	<u>Numeric</u>	<u>MW/min.</u>	<u>Run rate 5.</u>

Field	Format	Units	Comments
Quantity 6	Numeric	MW	Elbow 6.
Rate 6	Numeric	MW/min.	Run rate 6.
Quantity 7	Numeric	MW	Elbow 7.
Rate 7	Numeric	MW/min.	Run rate 7.
Quantity 8	Numeric	MW	Elbow 8.
Rate 8	Numeric	MW/min.	Run rate 8.
Quantity 9	Numeric	MW	Elbow 9.
Rate 9	Numeric	MW/min.	Run rate 9.
Quantity 10	Numeric	MW	Elbow 10.
Rate 10	Numeric	MW/min.	Run rate 10.

As is the current case with up to three Run-Up 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.

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 and Maximum Import Limit. It should be noted that the new 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"> Unit Name 	<ul style="list-style-type: none"> A valid unit name for which the data is submitted. The participant must have privileges to submit data on this unit.
<ul style="list-style-type: none"> Start Time 	<ul style="list-style-type: none"> Start time of the Stable limit. VX-1: Must be valid XML time format. 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)). VR-3: Must fall within the same Operational Day as the header "Date" attribute. VR-4: Start time must be within the current Operational day and next five Operational days.

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

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.

The proposed format for what will be sent to BMRA for [Stable Export Limits](#) is as follows:

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.
End Time	Date Time	—	End time of the Export Limit.
To Value	Numeric	MW	Stable Export Limit To value.

The proposed format for what will be sent to BMRA for [Stable Import Limits](#) is as follows:

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.
End Time	Date Time	—	End time of the Import Limit.
To Value	Numeric	MW	Stable Import Limit To value.

The frequency of the Stable Export Limits and Stable Import Limits will 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 participant e.g. multi-shaft Combined Cycle Gas Turbine (CCGT¹³) modules and Cascade Hydro Schemes may submit Stable Export Limits multiple times within a day.

Publishing the data

When the proposed new and revised Dynamic Data items are submitted by the Transmission Company, they will be processed and published in a consistent manner to existing data items “not later than 5 minutes following receipt from the Lead Party” in accordance with BSC Section Q, 6.1.9.

The data will then be reported via a new table accessible from the Dynamic Data search on the BM Unit data screen. The data will also be sent via TIBCO messages, in a format similar to other existing Dynamic Data items.

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 CSV¹⁴ to XML¹⁵. Only the new and revised files provided by the Transmission Company, whether in relation to BMRA-I002¹⁶, BMRA-I003¹⁷ 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.

TIBCO message structure

To minimise the impact on BSC Parties receiving TIBCO messages, it is envisaged that six months after EBS go-live which is planned for September 2014, the message structure will

¹³ 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

¹⁴ Comma Separated Values (simple file format)

¹⁵ eXtensible Markup Language(text data widely used by industry)

¹⁶ (input) Balancing Mechanism Data

¹⁷ (input) System Related Data

start to be sent in the new XML format. Therefore it will be necessary to map the existing Dynamic Data Items in CSV format into the new TIBCO message structure. 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 and in such cases those fields will be left with either a 'null' message or a duplicated value¹⁸. Parties should note that they will only need to change their ability to receive the new format of the TIBCO messages once.

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 and V. 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' to the existing wording in the Dynamic Data Set in Sections Q and V of the BSC. No further revision to the Dynamic Data set are required as the names of the two revised data items are not changing, only the format, which are captured in the NETA Interface Definition and Design (IDD) Part 1 and Part 2.

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 NETA IDD Part 1 'Interfaces with BSC Parties and their Agents' and NETA IDD Part 2 'Interfaces to other Service Providers' require revisions to capture the changes in the format of the revised Dynamic Data items and to include the new Dynamic Data item.

Note: 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, which is currently in the CSV format. The new and revised Dynamic Data being in XML format will not be relevant to this paradigm and as such will need to be held in the XML Schema Definition (XSDs) documents. An additional artefact, such as an addendum or appendix will need to be created and added to the NETA IDD Part 2 spreadsheet to address this, thus under BSC governance.

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.

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¹⁸ 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.

Recommended Implementation Approach

The Workgroup recommends an Implementation Date for P297 of:

- **26 February 2015** as part of the **February 2015 BSC Release** if a decision is received on or before 12 March 2014.

The 12 March 2014 decision by date takes into account the Authority's 25 WD KPI (and additional 7 WD tolerance for the Christmas and New Year period) and sufficient time following a decision for the changes to be developed and ready to implement. There is no fall back decision date for this Modification as P297 needs to be implemented after EBS 'go-live' which is planned for September 2014 but prior to March 2015 when BSC Parties will start submitting the new and revised Dynamic Data to National Grid.

BSC Parties should note that six months after EBS 'go-live', the TIBCO message structure will start to be sent in the new XML format. It will therefore be necessary to map the existing Dynamic Data items in CSV format into the new TIBCO message structure. Parties will only need to change their ability to receive the new format of the TIBCO messages once.

The Workgroup considered a revised implementation date of 16 December 2014 to align P297 with the implementation of Modifications [P291](#)¹⁹ and [P295](#)²⁰ which are also BMRS related changes. However, the Workgroup had reservations with this approach and agreed not to consider this as a potential implementation date. For further details on the Workgroup's discussion of these dates, please see section 6 (pages 16-17).

¹⁹ 'REMIT Inside Information Reporting Platform for GB Electricity'

²⁰ 'Submission and publication of Transparency regulation data via the BMRS'

5 Impacts & Costs

Estimated central implementation costs of P297

The total central implementation costs for the P297 solution is approximately £134k. This comprises of:

- Approx. £122k in system change costs to amend the BMRA and SAA; and
- Approx. £12k in ELEXON effort.

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 when the file format of the Dynamic Data items switches over to XML. When this occurs, the content will differ as shown by the changes 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

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The following section provides details on the Workgroup discussions that led to the P297 solution, and responses received to the Assessment Procedure Consultation. You can find the full responses to the Assessment Procedure Consultation in Attachment D.

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 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. 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.

This data item was excluded from the solution as the purpose of P297 is to align the BSC with the Grid Code. However 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 draft legislation. If the BSC is changed than 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 if, following further consideration the Proposer had not revised the solution. The Workgroup member noted that while this potential issue has been resolved by the P297 solution there is a potential risk if other changes occur.

TIBCO messages

All five respondents to the Assessment Procedure Consultation identified impacts on them as a result of implementing P297. Only one respondent provided an estimated cost in the order of £100k for multiple system impacts, which would depend on how they implemented their changes to align with P297. However, another 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.

The responses received were in line with the Workgroup's view of the likely impacts on participants and so none of the responses required further discussion by the Workgroup.

Implementation Approach

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 Assessment Procedure Consultation unanimously agreed with the Workgroup's initial proposed implementation approach.

Subsequent to the 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. 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.

The Proposer confirmed that this implementation date would not be an issue as the EBS go-live is date currently aimed for September 2014. Six months after the EBS go-live date (the date at which BSC Parties would start submitting the new and revised Dynamic Data to National Grid) would be March 2015 which is after the February 2015 implementation date.

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.



Self-Governance Criteria

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.

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

NETA IDD Part 1 and NETA IDD Part 2 redlining

Two respondents to the Consultation commented on the NETA IDD Part 1 and NETA IDD Part 2 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).

Another respondent questioned whether Stable Export Limit (SEL) and Stable Import Limit (SIL) still need to be included 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 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. This additional element would change the original requirements of the original Solution. Therefore, further analysis would need to be undertaken to ensure that the item would be required, that the item would be beneficial and to identify the additional system impacts. As a result this would require re-assessment of BSC system cost impacts and Party impacts.

While there were no specific consultation comments received, ELEXON highlighted that a few additional revisions to the NETA IDD Part 1 document are 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.

The same respondent also 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 Change Proposals, 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.

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.

7. Workgroup's Final Views

Workgroup's views against the Applicable BSC Objectives

The Workgroup unanimously agreed that P297 would overall better facilitate the Applicable BSC Objectives compared with the existing baseline. All five respondents to the Consultation agree with the Workgroup's view.

Therefore, the Workgroup unanimously agreed that the P297 solution would better facilitate the achievement of:

- **Applicable BSC Objective (c)** because it 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.

A minority of the Workgroup also agreed that the P297 solution would better facilitate:

- **Applicable BSC Objective (d)** 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.

The Workgroup therefore unanimously recommends that P297 is approved.

8. Recommendations

The P297 Workgroup invites the Panel to:

- **AGREE** an initial recommendation that P297 should be approved;
- **AGREE** an initial Implementation Date for P297 of:
 - 26 February 2015 (as part of the February 2015 BSC Release) if a decision is received on or before 12 March 2014.
- **AGREE** the draft legal text and NETA IDD Part 1 and NETA IDD Part 2 redlining for P297;
- **AGREE** that Modification P297 should be submitted to the Report Phase; and
- **AGREE** that ELEXON should issue the draft P297 Modification Report for consultation and submit results to the Panel to consider at its meeting on 12 December 2013.

Further Information

More information is available in

Attachment **A**: P297 Draft Legal Text

Attachment **B**: Draft redlined changes to NETA IDD Part 1

Attachment **C**: Draft redlined changes to NETA IDD Part 2

Attachment **D**: Assessment Consultation Responses

For further information on P297, including the collated responses to the P297 Assessment Procedure industry consultation, please see the [P297](#) page of the ELEXON website.



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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Appendix 1: P297 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
Report Phase Consultation (12 WD consultation)	15 November – 3 December 13
Present Draft Modification Report to Panel	12 December 13

Workgroup membership and attendance

Name	Organisation	19/08/13	16/09/13	29/10/13
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 Analysis and Design)	✓	✓	✗
Zaahir Ghanty	ELEXON (Market Analysis and Design)	✗	✗	✓
David Birchby	Ofgem	✓	✗	✗
Adam Gilham	Ofgem	✗	✓	✓

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