Stage 03: Assessment Consultation

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

04 Report Phase

P243: Generator Forward Availability by Fuel type

P243 aims to produce a more detailed forecast of Generator availability, by publishing Output Useable data broken down by 'fuel types' on the Balancing Mechanism Reporting System (BMRS).

Modification Group initially recommends **Approval** of Proposed Modification P243

Impacts:
Generators, Transmission Company, the BMRA and BMRS Users

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About this document:

The purpose of this Assessment Consultation is to obtain views or further evidence from BSC Parties and other interested parties on matters discussed in this document. The P243 Modification Group will then discuss the consultation responses before making its recommendations to the Panel in November 2009.

There are 3 parts to this document. This is Part 1. Part 1 provides details of the solution, impacts, costs, benefits and the potential implementation activities associated with this change. Part 2 (Attachment A) sets out the Modification Group's discussions, which resulted in this solution. Part 3 (Attachment B) is the Assessment Consultation Questions response form, which includes all the questions highlighted in the Assessment Consultation documentation.

Any questions?

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1. Summary

Why Change?

Output Usable data is currently available on both the BSC and National Grid websites. However, this data is not broken down by fuel type. P243 aims to make this data available by fuel type and in one central location.

Proposed Solution

The Proposed solution consists of:

- Publishing Output Usable data broken down in the same fuel type categories as Out-turn data on the BMRS for the 2-14 days and 2-52 weeks ahead time periods;
- Publishing Output Usable data for Interconnectors. Currently forward availability for Interconnectors is not provided to National Grid but it is expected that this data will become available to National Grid and the wider industry in the near future. Until this data is made available the BMRS will include the forward availability for each Interconnector fuel type set at zero/not available;
- Transferring all Output Usable data/Generating Plant Demand Margin data from the BSC website to the BMRS.

Please refer to section 3 of this document for further details.

Potential Alternative Solution

The Modification Group are considering a potential Alternative solution, which will increase the granularity of the Output Usable data published on the BMRS by reporting the forward availability for each BM Unit. The Group would welcome your views on this solution.

Please refer to section 4 of this document for further details.

Impacts & Costs

We believe that the impacts on industry are minimal as the P243 solution aims to introduce a new way for National Grid to aggregate existing Generator availability data and for the BMRS to publish this new data feed. The estimated cost for P243 is approximately £348,000 which is composed of:

- National Grid costs of £170,000;
- BSC Agent costs of £170,000; and
- BSCCo costs of £8,000.

Please refer to section 5 of this document for further details.

Implementation

The Modification Group provisionally recommend an implementation approach where:

- P243 is implemented in the November 2010 BSC release; or
- P243 is implemented in a February 2011 BSC Release.

Please refer to section 5 of this document for further details.

The Case for Change

The Modification Group believe that P243 will improve the quality of information on likely availability of generation capacity by fuel type, and increase competition between market participants in this area. The Group also believe that transparent and easily accessible data reduces market barriers for new entrants (especially those that have limited resources for forecasting Generator forward availability) and allows all market participants to compete on a level playing field.

Recommendations

The Modification Group have provided an initial view that the Proposed Modification should be **APPROVED**.

2. Why Change?

Data on the BMRS and BSC website

The Balancing Mechanism Reporting System (BMRS) is a website that provides current and historic data on the electricity market, such as Imbalance prices, forecasted Demand and system prices.

Currently, the BMRS provides near real-time information for Out-turn data. Out–turn data is a measure of the actual generation exported onto the Transmission System and is collected in real time via National Grid's operational metering. The data is reported at both national and BM Unit level, and is also broken down to show Generation by fuel type. At present, there are 11 'fuel type categories', including the major fuel types:

- Oil;
- Coal;
- Wind;
- Nuclear; and
- Gas.

National Grid also publishes Output Usable data via the BSC website. Output Useable data is the forecast of how much generation will be produced (Generator availability) and is based on information submitted by Generators in compliance with Grid Code obligations OC2. The Output Usable data is published for the following periods:

- 2-14 days ahead;
- 2-49 days ahead;
- 2-52 weeks ahead;
- 1-2 years ahead; and
- 3-5 years ahead.

The issue

Both Out-turn and Output Usable data include data on the whole of the national electricity Transmission System, known as 'national' data.

However, unlike Out-turn data, Output Usable data is not broken down by fuel Type, is not published on the BMRS and is not published on a BM Unit basis. Therefore, while you can see a detailed breakdown for Generation Out-turn on a BM Unit level, you cannot see a comparable detailed breakdown for Output Useable data. This means that:

- Detailed comparisons between the Output Usable and Out-turn data cannot be made. Only high level comparisons are possible;
- The future availability of a plant cannot be viewed; and
- Strategic decisions with respect to generation cannot be made.

The issue of publishing Output Usable data by fuel type was previously discussed under Issue 17 'Review of Electricity Market Information' in 2005. Although the Issue Group believed that a Modification should be raised to consider this issue further, no such Modification has been raised until now.

The BMRS

The BMRS can be accessed at: www.bmreports.com

11 fuel type categories

- Oil;
- Coal;
- Wind;
- Nuclear;
- Gas;
- French Interconnector;
- Irish Interconnector;
- Pumped Storage;
- Hydro;
- OCGT; and
- CCGT.

3. Proposed Solution

P243 Proposed Solution

The solution developed by the Modification Group can be split into the following three parts:

1. **Publishing aggregated Output Usable data by fuel type on the BMRS**. Output Usable data will be published in the same fuel type categories used for Out-turn data for the '2-14' days and '2-52' weeks ahead periods;

2. **Publishing Output Usable data for Interconnectors**. Although Interconnectors do not submit Output Usable data to National Grid, the Group agreed that the Proposed Modification Legal text should be flexible enough to allow for this to be published on the BMRS (if this data becomes available in the future). This would also mean that until such data is available, the BMRS will report the forward availability for each Interconnector fuel type as zero/not available; and

3. **Transferring Output Usable/Generating Plant Demand margin data from the BSC website to the BMRS.** The Group agreed that it would be inefficient and confusing to have Output Usable data in different locations (BMRS/BSC website). Therefore the national Output Usable data (all timescales), zonal Output Usable data (all timescales) and Generating Plant Demand margin data will be transferred from the BSC website onto the BMRS.

Further details of the P243 solution and the Group's rationale for developing the Proposed Modification can be found in sections 3 and 5 of the P243 detailed assessment.

Are there new BSC Obligations?

The intention of the P243 solution is not to place any further obligations on BSC Parties. As such this solution will not require the submission of new information. It only aims to introduce a new way of aggregating current Generator availability data already supplied by BSC Parties to National Grid.

4. Potential Alternative Solution

The Group have suggested that there may an Alternative Modification. While the Group **have not formally suggested an Alternative**, they believed that this potential solution should be consulted on, so as to gather views from industry.

The Potential Alternative Modification is largely identical to the Proposed Modification. However, **in addition** to publishing the information described in section 3 above, the potential Alternative Modification will also publish on the BMRS **Output Usable data broken down by BM Unit**. As indicated previously, the Potential Alternative would not place any Obligations on BSC Parties.
Further details of this potential Alternative solution and the Group's rationale for suggesting this can be found in sections 4-5 of the P243 detailed assessment.

5. Implementation approach

Implementation approach

The Group have suggested that P243 is implemented in the earliest possible BSC Systems Release to realise the benefits of the Modification sooner. The Implementation lead time for P243 is largely driven by National Grid (approximately 9 months), with a further month required by ELEXON/BMRA to complete any appropriate testing to ensure the communication between National Grid and BMRA systems was working. Based on this assumption the Group provisionally suggest an implementation in:

- November 2010 if the Authority approves P243 by end of January 2010; or
- February 2011 if the Authority approves P243 by end of May 2010.

A consultation question (Q8b) has been included which seeks views from industry on whether there are any concerns in publishing the Output Usable data by fuel type in November 2010.

Question 9b

Would publishing Output Usable data by fuel type in November 2010 (winter) create any issues/problems to your organisation, as opposed to publishing this information in February 2011 (spring)?

Interaction with P244

P244 'Provision of BritNed flow data to the BMRS' aims to include data relating to the Netherlands-England Interconnector (BritNed) on the Balancing Mechanism Reporting System (BMRS) which is scheduled to become operational in late 2010.

The Group note that P243 and P244 assessment procedures are being progressed to identical timescales and recommend implementing these Modifications together in a standard BSC release as there are cost savings in doing so.

Both Modifications (P243 and P244) could be implemented alone, if the Authority were to reject one of the two Modifications or if it was recommended that P243 and P244 should be implemented separately. However, a more efficient route would be to implement both Modifications together and included as part of a standard BSC Systems release. **Please note** that there is approximately an overall **20% cost saving** in implementing P243 and P244 together, as opposed to implementing these Modifications separately.

6. Impacts and Costs

The majority of impacts of P243 are on National Grid, the BMRA and ELEXON. We believe that the impacts on industry are likely to be low. At a high level, the identified impacts are:

- Changes are required to National Grid's IT systems in order to aggregate and submit the P243 data to the BMRS;
- Changes are required to the BMRA in order to receive and display the P243 data to both high grade and low grade service users.
- BMRS users may require changes to the TIBCO messaging service in order to receive the P243 data; and

- BSCCo will implement changes to the Code (sections Q and V). Changes would also be required to the various Code Subsidiary documents and lower level documentation (e.g. BMRA and Logica Configurable items);

For more detail on the P243 impacts, please refer to section 6 of the P243 detailed assessment.

Costs for implementing P243

The **estimated** costs for implementing the Proposed and Potential Alternative Modifications are shown in the table below:

Table 1: Implementation costs for P243 in a standard BSC Systems release.

Solution	Costs
P243 Proposed Modification	National Grid: £170k BSC Agent: £170k BSCCo: £8k (37 man days) **Total: £348k**
P243 Potential Alternative Modification	National Grid: £240k BSC Agent: £186k BSCCo: £8k (37 man days) **Total: £434k**

The BMRA costs consist of 2 aspects which are the Application Management and Development (AMD) (the aspect of the BMRA service that is involved in developing the solution for the BMRS system) and Business Process Outsourcing (BPO) (which is responsible for the day to day running of the BMRA). ELEXON expects a new AMD contract in early 2010. Therefore, the overall BSC agent costs provided here are less accurate than normal. If P243 were approved, we would need to revisit these costs. We believe that the costs shown here are a reasonable estimate to use to assess and consult on P243.

Please note that the costs provided are **indicative costs** and will be updated during the P243 consultation/impact assessment.

7. The Case for Change

Some of the areas that the Modification Group have discussed are summarised below. Details of these discussions can be found in section 5 of the detailed assessment.

Discrimination?

A concern was raised as to whether the publication of aggregated Output Usable data by fuel type introduced the potential for discrimination in fuel types with a low number of Generators. As the publication of such data is would be publicly available on the BMRS, it may enable other Parties to work out a Generator's Outage periods and trading position, which would not be possible if a fuel type has several Generators.

The majority of the Group believed that there were no such discrimination issues as there would still be difficulty in predicting a Generators forward availability and any prediction would be an 'aggregated Generator forward availability'.

A way of resolving the potential for discrimination would be to publish Output Usable data by BM Unit. While the majority of the Group believed that this would create discrimination issues, especially in instances where a Generator had a single BM Unit, they believed that this potential solution should be consulted with industry.

Gaming in the market

The Group considered whether P243 increased the risk of gaming in the market. While some respondents had concerns that the increased transparency of information might lead to gaming, others believed that it would only increase competitive behaviours between market participants.

Impact of publishing Output Usable data in the GB market compared to Europe

The Group noted that Output Usable data by fuel type is provided in most European countries and that these countries have shown a positive increase in market liquidity.

The Group agreed that while it would be difficult to make any comparisons between the GB market and European markets as the market arrangements are fundamentally different. However, it was concluded that in spite of these differences that there was no reason why the publishing of Output Usable data for the GB market should have a different outcome.

Market Liquidity

The term market liquidity refers to the volume of transactions within a market. With sufficient buyers and sellers, a market enjoys continuous offers, bidding, and transactions, thus achieving market liquidity.

Applicable BSC Objectives (benefits and drawbacks)

The benefits and drawbacks for P243 have been tied to the Applicable BSC Objectives. The initial majority view of the Group was that the Proposed Modification **WOULD** better facilitate the achievement of the Applicable BSC Objectives when compared with the existing level of data publication under the Code.

The Group believed that the primary benefits were to competition on forecasting Generator forward availability (BSC Objective (c)). While it was agreed that BSC Objective (b) was relevant to P243, the majority of Group members believed that the potential benefits/drawbacks were finely balanced such that it was difficult to say whether there was a positive or negative impact on this BSC Objective. The Group have also provided differing views against BSC Objective (d).

The arguments made 'for and against' each BSC Objective were as follows:

Applicable BSC Objective (b)

For	Against
– Generators of different fuel types should be able to coordinate Outage periods (on an aggregate level) and in turn Outages would be spread thereby enabling the Transmission Company to operate the Transmission System efficiently. – Market participants can make better informed decisions on market prices. The transparency of data will enable a true reflection of market electricity prices rather than expected market prices. If participants take more economical/efficient decisions, this should in turn help the Transmission Company in the efficient and economic operation of the Transmission System.	– Transparency of data could increase the risk of gaming; Parties are able to see Outages and change their operational plans. This in turn could reduce the validity of the published Output Usable data. However, if a Generator knowingly behaved in such a manner, it would be in breach of it's Generators Licence. – If Parties game such that Output Usable is no longer an accurate indicator of their planned capability, then this would make it difficult for the Transmission Company to operate the national Transmission System efficiently and economically. – There is a risk that some Generators maybe subject to a competition inquiry for no fault of its own (i.e. its planned Outage period has coincided with another Generator's planned/unplanned Outage in the same geographical area).

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 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

Recommendation

Modification Group initially recommends approval of the Proposed Modification P243

Applicable BSC Objective (c)

P243 would promote competition in the buying and selling of electricity as:

For	Against
– Increased transparency, allows market participants to have a better view of market conditions and make better informed decisions. This is seen to increase competition. – Transparent and easily accessible data makes the national electricity market more attractive to new market participants. As the data is available to all market participants, it enables new/small market participants (who have limited resources for forecasting Generator forward availability) to compete on a level footing with larger established participants. Established market participants have the resources/experience to forecast Generator forward availability which smaller/new market participants may not. – The improved transparency of data will enable market participants will see that market prices are a better reflection of the state of the Transmission System, rather than speculation. This will lead market participants to take more efficient and economic decisions and in turn is believed to improve market liquidity. – Better view of the fuel switching potential i.e. the likelihood that some Generators or a large number of Generators switch from one fuel type to another and compare this to other markets. This also has an impact on market prices. If the availability for a fuel type is low, it would suggest that the market price would be higher when compared to a fuel type that has high forward availability.	– Parties may not use the data in a correct manner and use the data to 'game'. – Potential discrimination in fuel types with a low number of Generators. This may enable other Parties to work out a Generator's Outage periods and trading position, which would not be possible if a fuel type has several Generators. – Output Usable data is not an exact 'like for like' comparison with existing 'Out-turn generation by fuel type data' due to differences in how data is obtained under the Grid Code. However, while this can be addressed by an explanation in the BMRS help text, there is the potential for Parties to misinterpret the data missing out the differences in these two types of data.

Applicable BSC Objective (d)

P243 would promote efficiency in the implementation and administration of the balancing and settlement arrangements as::

For	Against
– Moving all existing Output Usable/Generating Plant Demand margin from the BSC website to the BMRS increases the efficiency of the BSC arrangements as all the data would exist in one central place. This would reduce confusion for market participants in having data duplicated over multiple websites. – Any change always has an associated implementation cost and this does not reduce the efficiency of the BSC arrangements.	– High implementation costs for P243 and sunk cost in having the BSC website publish the Output Usable/ Generating Plant Demand Margin data.

Cost Benefit Analysis

The Modification Group has found it extremely difficult to quantify the benefits of increased data transparency. The Group has also noted that Ofgem had also given this view in its investigation into the 'Liquidity in the GB wholesale energy market'. However, the Group has agreed to include a consultation question which asks participants whether they are able to quantify any benefits to their organisations (question 10 of the consultation questionnaire).

Question 10
Are there any cost savings/quantifiable benefits of being able to access the Output Usable data (forward availability of Generation) under P243 to your organisation?

8. Further Information

More information is available in

Attachment **A**: Detailed Assessment.

This information includes:

- Impacts
- Modification Group membership
- Modification Group discussions
- Process followed for P243

Attachment **B**: Consultation questionnaire

All documentation for P243 is available at the P243 page of the ELEXON website.