

**Stage 03: Attachment A: Detailed Assessment for P243**

What stage is this document in the process?

P243: Generator Forward Availability by Fuel type**01** Initial Written Assessment**02** Definition Procedure**03** Assessment Procedure**04** Report Phase**Contents**

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About this document:

This is Attachment A to the Assessment Consultation. This attachment provides additional detail, including details of the Modification Group's discussions.

1 Background

The aim of this section is to provide a high level summary of how Output Usable data by fuel type is presented in European countries.

What are the information levels of Output Usable data across Europe?

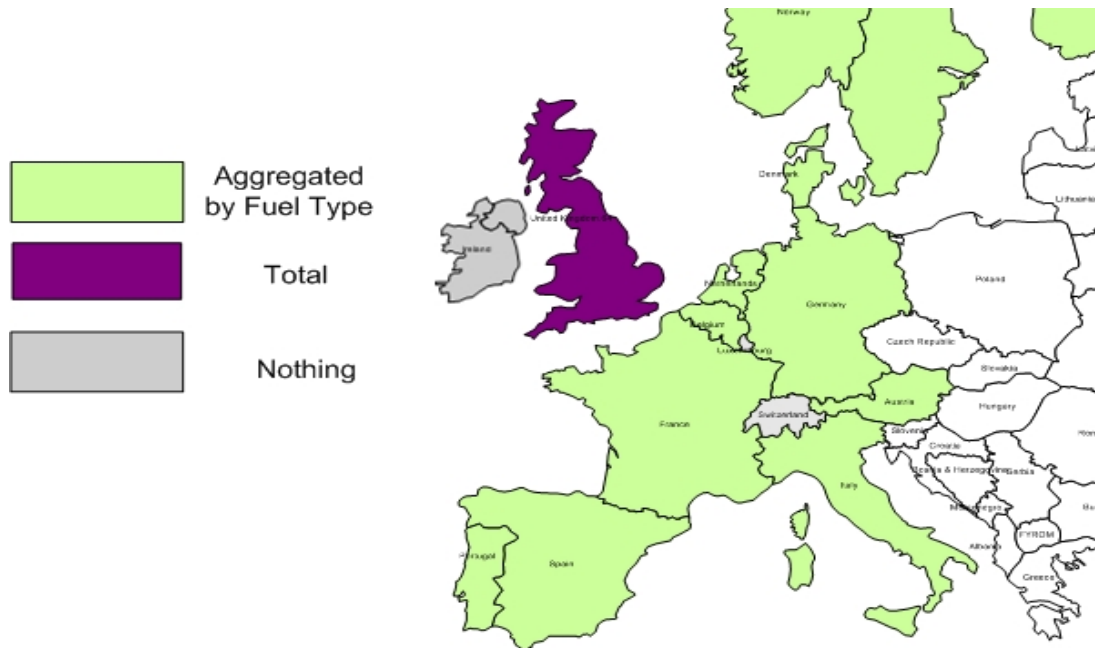


Figure 1: Map of Europe which shows countries that publish information on Output Usable data

As we can observe from the figure above, the majority of countries provide Output Usable data broken down by Fuel type. However, there are differences between how these countries present the data and the fuel types that this data is broken down into (see the examples below).

In the German electricity market, there is a trend to provide Output Usable data at a per station level as a means to increase the transparency of market information. An example of this can be seen on [RWE's webpage](#), where the forward availability by fuel type is provided for each power station for each day.

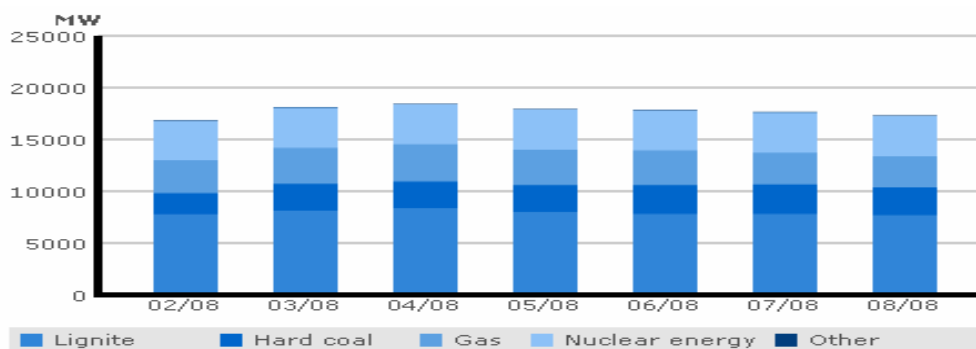


Figure 2: Output Usable data as shown on [RWE's German webpage](#).

In Spain, Generator availability is aggregated by fuel type for each hour of a given week and published as a graph and data table (data can be accessed via the [e.sios](#) website).



Output Usable Data

Output Usable 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 obligation OC2.

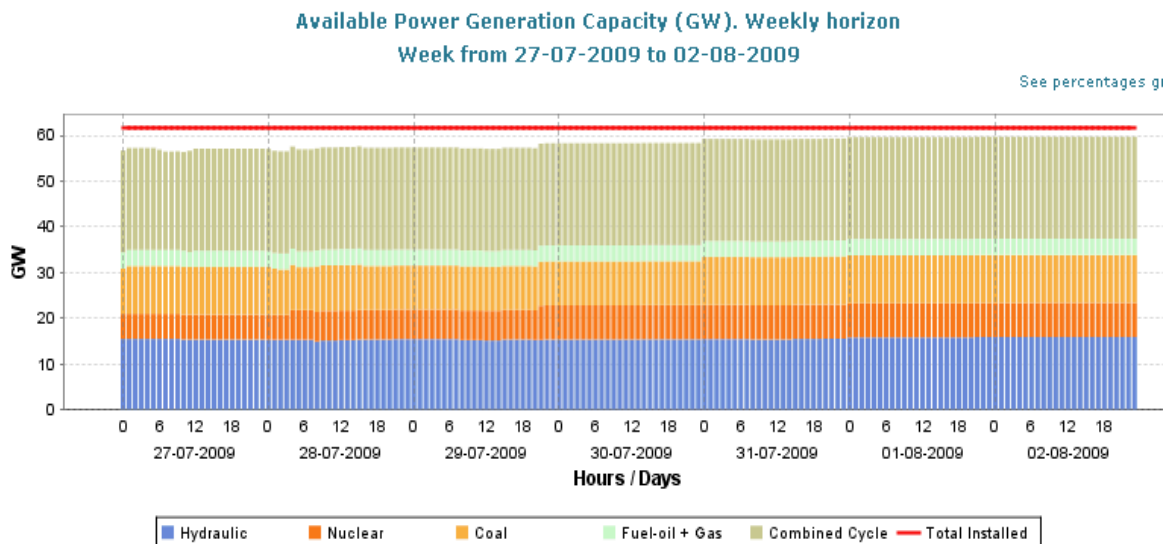


Figure 3: Output Usable data as shown on the [e.sios](#) (Spanish) website.

Proposer's suggested benefits of providing Output Usable data by fuel type in the UK market

Research published by Ofgem (['Liquidity in the GB wholesale energy market'](#)) indicates that markets such as Germany have shown that an increase in the transparency level of Output Usable data has a positive influence on the market liquidity. This is shown in the German market (where the data was introduced in 2006), where there is a significant increase in the churn rate (ratio of traded volumes to final consumption) since it was introduced. In contrast the UK market has shown a significant decrease in the same period.

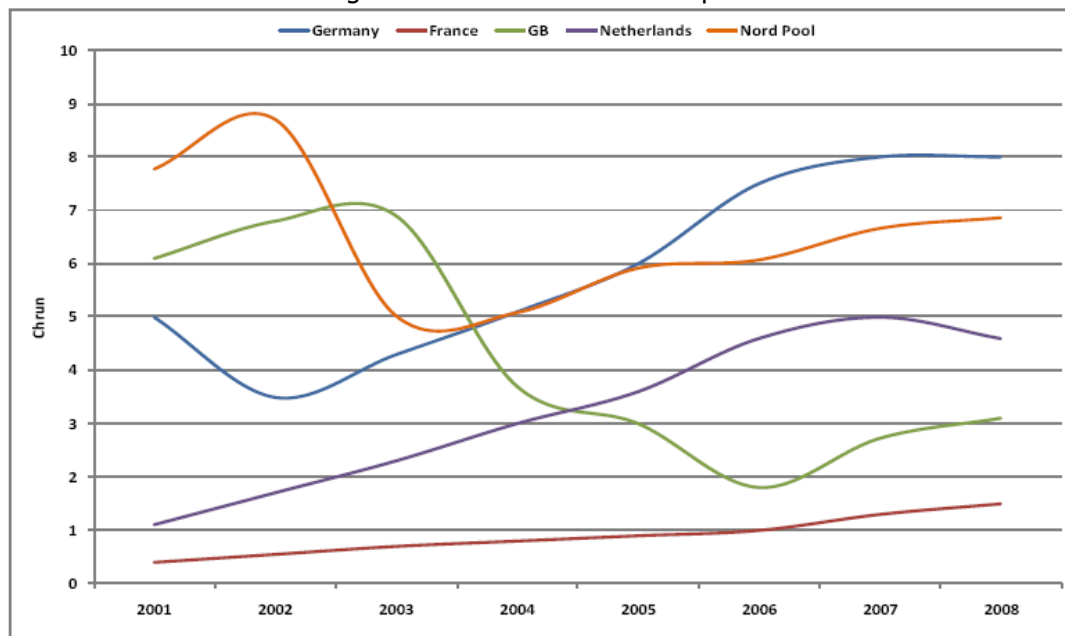


Figure 4: Churn rates in the GB and European markets 2001 – 2008.

Source: [Ofgem Ref 62/09: 'Liquidity in the GB wholesale energy market'](#)

In conclusion, the Proposer believes that the publication of forward availability by fuel type could help increase the liquidity in the UK electricity market as well as providing other benefits such as increased market competition.



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 consummated transactions, achieving thus market liquidity.

2 Terms of Reference



Who are the SSMG?

A standing group of industry experts, appointed by the Panel to consider potential Code changes in a number of subject areas – including Settlement invoicing and payment

The P243 Modification Group consists of members of the Settlement Standing Modification Group (SSMG) and those that were involved with Modifications P219 and P220. Section 8 contains full details of the Group's membership.

Table 1 shows the areas which the Group has considered in accordance with its Terms of Reference, and where you can find its discussions of each area (consultation document or detailed consultation).

Area of Terms of Reference	See:
Whether it is feasible to publish the required information - <i>Is it possible for National Grid to obtain and consequently publish this data, broken down by fuel types, and what the impacts of publishing this information are on industry</i>	Section 5 (detailed assessment)
Whether there are any confidentiality issues surrounding the publication of such data - <i>Publishing such information may provide information into how particular generators may behave</i>	Section 5 (detailed assessment)
Consider how the 'Output Usable data broken down by fuel type' will be published - <i>Should the data be published as a graph, CSV file, tabulated?</i>	Section 5 (detailed assessment)
Consider whether the continued publication of Output Usable data on the BSC and National Grid websites is appropriate - <i>If Output Usable data is broken down by fuel type and published on the BMRS, it would mean duplication of data across three different website</i>	Section 5 (detailed assessment)
The Implementation approach for P243 - <i>Whether P243 should be implemented in a standard BSC release or as a Standalone Modification</i>	Section 5 (consultation document)
The benefits and drawbacks of P243, including: <ul style="list-style-type: none">- <i>Impacts of publishing Output usable data in the GB market compared to European markets</i>- <i>Any cost benefit analysis.</i>- <i>Would the transparency of data published by P243 result in issues with Gaming?</i>	Section 6 (consultation document)
Whether an Alternative Modification is required	Section 5 (detailed assessment)

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Detailed Assessment

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3 Detailed P243 solution

The requirements for the Proposed P243 solution are described below:

National Grid amends its IT systems

National Grid would be required to amend its systems in order to submit Output Usable data on a National basis (aggregate BM unit data by fuel type nationally) to the Balancing Mechanism Reporting Agent (BMRA; this is the BSC Agent responsible for the running of the BMRS).

Publication of national '2-14' day ahead and '2-52' week ahead national Output Usable data by fuel type to the BMRS

The Data should be broken down by the same fuel types as the Out-turn data (Generation by Fuel-type) that is published on the BMRS. Currently the Fuel types are:

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

This would apply to:

Data	Frequency	Target time
2-14 day ahead daily Total Output Usable – daily peak half hour values	Whenever provided to any User pursuant to the Grid Code	16.00 Daily on Business Days only
2-52 week ahead weekly Total Output Usable – weekly	Whenever provided to any User pursuant to the Grid Code	Weekly at 17.00 on the last Business Day of the week

Please note that although Interconnectors do not provide to the BMRS Output Usable data for Interconnectors currently, National Grid will be required to publish such data as and when it becomes available in the same frequency as is indicated in the table above. Output Usable data that is submitted to the BMRS will include the total forecast Export and Import for each Interconnector fuel type.

Publication of national and Zonal Output Usable data and Generating Plant Demand Margin data to the BMRS

As part of the Proposed Modification, National Grid would be required to stop submitting the following files to the BSC website:

- [Generating Plant Demand Margin](#) (GPDM);
- National Output Usable data (all timescales); and
- Zonal [Output Usable data](#) (all timescales).

National Grid would be required to submit this data to the BMRS instead. This data will be submitted/published as is (with the exception of the '2-14 days ahead' and '2-52' weeks ahead data that will be broken down by fuel type).

BSC Website amendments

As National Grid would no longer submit any Output Usable/GPDM data to ELEXON, the webpages which contain this information would be replaced by a single page containing a hyperlink to the BMRS and a note explaining that this data has been transferred to the BMRS.

BMRS amendments

Summary

The BMRS would require amendments to existing pages in order to receive, validate and display the data as graphs, CSV and XML files. This will be for the '2-14 days and 2-52' weeks ahead data only.

Graphs for the above data would be present on the Electricity Data Summary page, as well as the 2-14 days ahead and 2-52 weeks ahead forecast pages in the National Data tab. For simplicity, this requirement is further broken down into sub requirements; for the Electricity Data Summary page and individual forecast pages.

The BMRS will be required to publish Output Usable data for Interconnectors for '2-14'days and '2-52' weeks ahead data. It is expected that this data will become available in the near future. Therefore until the time that such data becomes available, data will be published as **zero/not available**.

The BMRS will also receive additional data from National Grid i.e. national and Zonal Output Usable data for other timescales (please refer to requirement 2c for details).

Amendments to the Electricity Data Summary page:

Currently, the [Electric Data Summary](#) page offers key information on the electricity market on a single scrollable web page.

Output Usable data published on the BMRS will exist as separate graphs, one for the 2-14 days ahead and one for the 2-52 weeks ahead data. These will look identical to the Out-turn '[Generation by fuel type](#)' graphs present. The BMRS will, where appropriate:

- Display warnings that will highlight that the data is to be used at the user's own risk; and
- Displays help/information text explaining what the data items are (examples of this can be seen on the Electricity Data Summary page and in figures 1 and 2, where a user can point at the 'information' tab and 'help' text is displayed.)

Additionally, a similar table should be included as is present for the 'Generation by fuel type'; separate tables for the '2-14 Days ahead' and '2-52 Weeks ahead' data. An example of such a table is shown in Figure 2.

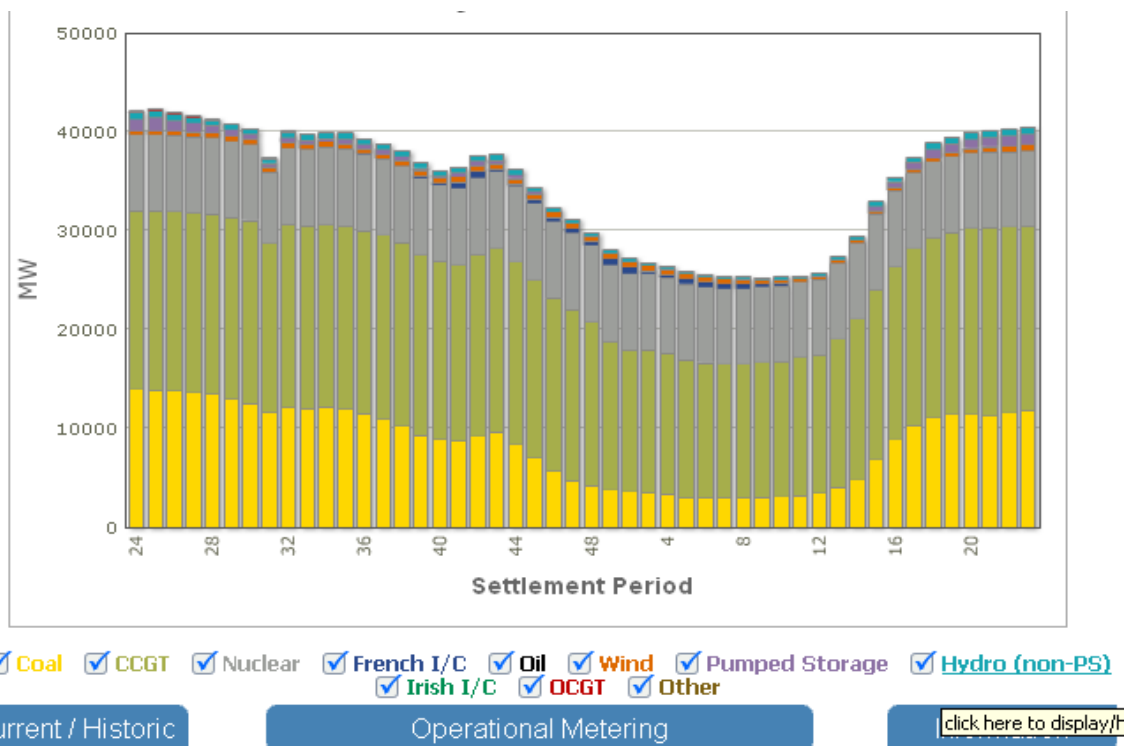


Figure 4: Current graphical presentation of Out-turn generation data by fuel type on the BMRS. Published Output Usable data will look identical to this graph

GB Generating Plant	Current		Last Half Hour (11:00-11:30)		Last 24 Hours (11:30-11:30)	
	MW	%age	MW	%age	MWh	%age
CCGT	18513	45.8%	18635	46.1%	407700	48.9%
OCGT	0	0.0%	0	0.0%	288	0.0%
OIL	0	0.0%	0	0.0%	0	0.0%
COAL	12234	30.2%	11843	29.3%	203795	24.5%
NUCLEAR	7612	18.8%	7610	18.8%	184275	22.1%
WIND	673	1.7%	629	1.6%	11546	1.4%
PS	788	1.9%	1080	2.7%	9689	1.2%
NPSHYD	639	1.6%	645	1.6%	11275	1.4%
OTHER	0	0.0%	0	0.0%	0	0.0%
Interconnectors	MW	%age	MW	%age	MWh	%age
INTFR	0	0.0%	0	0.0%	4447	0.5%
INTIRL	0	0.0%	0	0.0%	0	0.0%
TOTAL	40459	100%	40442	100%	833016	100%

Data last updated: 2009-08-21 10:50:00 (GMT)

24H Instant. Data

BMU Fuel Type EXCEL Spreadsheet

Information

Figure 5: Current tabular presentation of Output Usable data: Published Output Usable data will be presented in a similar format

The BMRS will contain health warning that the BM Units contained for the Output Usable data and those contained for the Out-turn data are not the same. The BMRS would list these BM units on the respective Output Usable and Out-turn webpages.

Publishing Output Usable data on the forecast pages:

This data is accessible via the 'National Data' tab from the tabs that exist on the BMRS. This allows the 2-14 days ahead and 2-52 weeks ahead forecast pages to be accessed. This is shown below

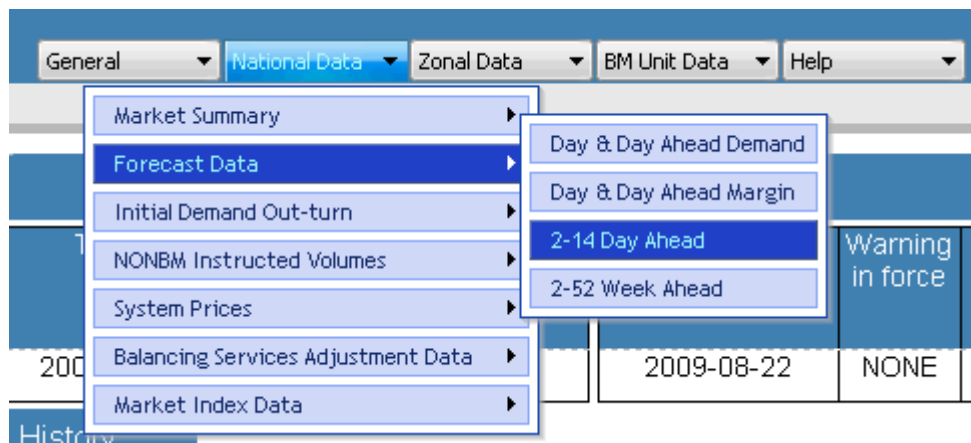


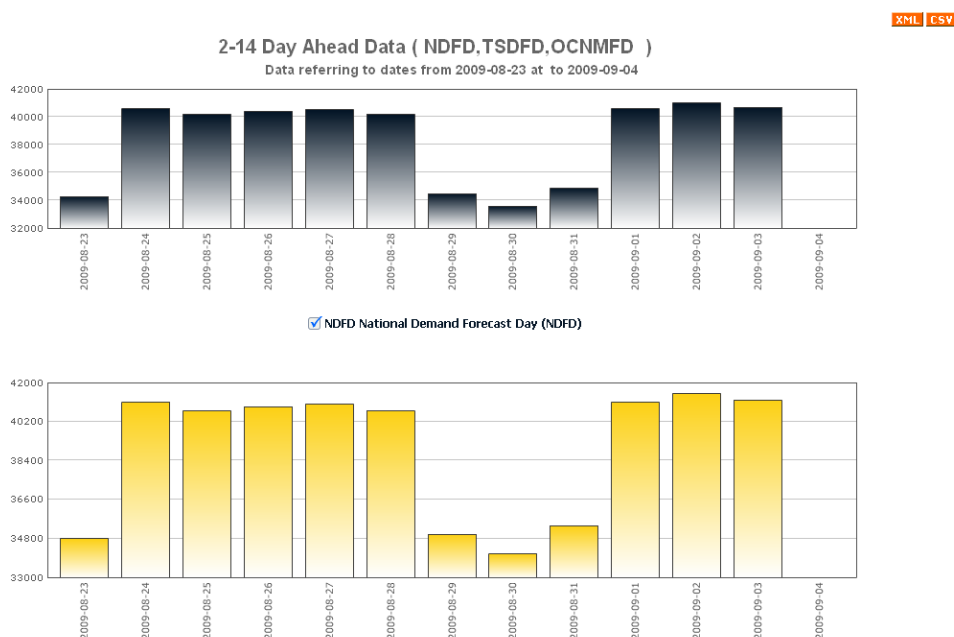
Figure 6: Output Usable data forecast webpages

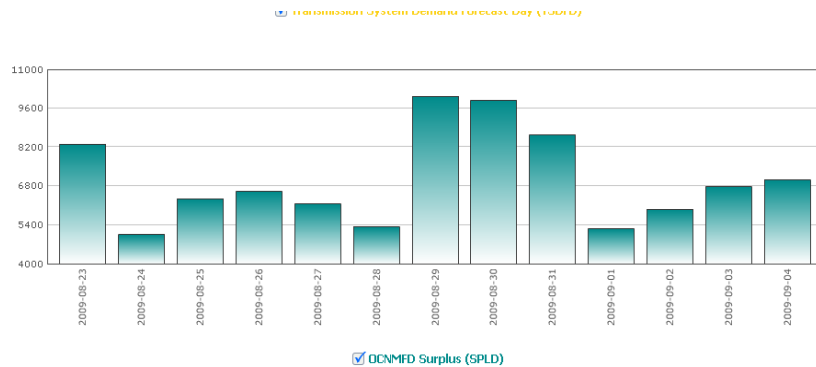
For each of the pages, data for the respective Output Usable data will be presented in graphical, CSV and XML formats. An example of this is demonstrated below, for the 2-14 day ahead page.

2-14 Day ahead forecast page

Currently the '2-14 Day Ahead Data' page of the BMRS contains three separate graphs which are:

- National Demand Forecast Day (NDFD);
- Transmission System Demand Forecast Day (TSDFD); and
- Surplus Data (SPLD)





DATE	SIP	NDFD Publish Time	NDFD	TSDFD Publish Time	TSDFD	OCNMF Publish Time	OCNMF
2009-08-23	3	2009-08-20 13:45:00	34300	2009-08-20 13:45:00	34800	2009-08-21 12:06:00	8319
2009-08-24	3	2009-08-20 13:45:00	40600	2009-08-20 13:45:00	41100	2009-08-21 12:06:00	5063
2009-08-25	3	2009-08-20 13:45:00	40200	2009-08-20 13:45:00	40700	2009-08-21 12:06:00	6349
2009-08-26	3	2009-08-20 13:45:00	40400	2009-08-20 13:45:00	40900	2009-08-21 12:06:00	6613
2009-08-27	3	2009-08-20 13:45:00	40500	2009-08-20 13:45:00	41000	2009-08-21 12:06:00	6159
2009-08-28	3	2009-08-20 13:45:00	40200	2009-08-20 13:45:00	40700	2009-08-21 12:06:00	5339

Figure 7: Demonstrates the current layout of the '2-14 Day ahead' data page on the BMRS website.

It also has a table containing the underlying NDFD, TSDFD and SPLD figures and a facility to download this data in CSV or XML format. The required change for P243 is to add the 2-14 Day Ahead National Output Usable data' as:

- A fourth graph, identical to the Graph shown in Figure 1;
- A separate table containing data by fuel type; and
- Additional columns in the CSV and XML file to highlight the Output Usable data.

Appropriate warnings will highlight that the data is to be used at the user's own risk. The warning will include information that the BM Units contained for the Output Usable data and those contained for the Out-turn data are not the same. The BMRS would list these BM units on the respective Output Usable and Out-turn webpages.

2-52 week ahead forecast page

Like the 2-14 day ahead forecast page, the '2-52 Week Ahead Data' page of the BMRS contains three separate graphs which are:

- National Demand Forecast Week (NDFW);
- Transmission System Demand Forecast Week (TSDFW); and
- Surplus Data (SPLW)

There is also a table containing the underlying NDFW, TSDFW and SPLW and a facility to download this data in CSV or XML format.

The required change for P243 is to add the 2-52 Week Ahead National Output Usable data' as:

- A fourth graph, identical to the Graph shown in Figure 1;
- A separate table containing data broken down by fuel type; and
- Additional columns in the CSV and XML file to highlight the Output Usable data.

Appropriate warnings will highlight that the data is to be used at the user's own risk. The warning will include information that the BM Units contained for the Output Usable data and those contained for the Out-turn data are not the same. The BMRS would list these BM units on the respective Output Usable and Out-turn webpages.

BMRS publishes forecast data for Interconnectors

Currently, the BMRS publishes Out-turn data for the two Interconnectors, but as National Grid does not receive and publish Interconnector future availability the publication of such data would form a new requirement. National Grid will submit (as and when it becomes available) the Interconnector availability ('2-14 days ahead' and '2-52 weeks ahead') to the BMRS for the French and Irish Interconnectors. The requirements for submitting this data are shown below:

Data	Frequency	Target time
2-14 day ahead daily Total Output Usable – daily peak half hour values	Whenever provided to any User pursuant to the Grid Code	16.00 Daily on Business Days only
2-52 week ahead weekly Total Output Usable – weekly	Whenever provided to any User pursuant to the Grid Code	Weekly at 17.00 on the last Business Day of the week

Until the time when National Grid submits this data to the BMRA, the BMRS will be required to publish the availability for each Interconnector fuel type as zero/not available.

Once this data is available, graphical displays of this information would be capped at zero if an Interconnector(s) were importing (taking electricity off the Transmission System). However any data contained in tables, CSV or XML files will report the Interconnector data 'as is' received from National Grid.

Transferring GPDM, National and Zonal Output Usable data from the BSC website to the BMRS

The BMRS would be required to publish the data (submitted by National Grid) relating to:

- [Generating Plant Demand Margin \(GPDM\)](#): currently this is only provided for the '2-14' Days ahead and '2-52' Weeks ahead time points;
- National Output Usable data (all timescales: '2-14' Days ahead, '2-49' Days ahead, '2-52' Weeks ahead, 1-5 years); and
- Zonal Output Usable data (all timescales: '2-14' Days ahead, '2-52' Weeks ahead, 1-5 years);
- Explanatory text as is present on the Output Usable and GPDM webpages on the BSC website; and
- A number of additional files i.e. Systems maps and BM Unit mapping zones.

Data relating to the '2-14' Days ahead and '2-52' Weeks ahead time points would be published on the '2-14' Days ahead and '2-52' Weeks ahead forecast webpages. New webpage(s) would be required for the other time points.

This data will not be presented as graphs or tables, but there will be a facility to download this data in CSV/XML formats.

The BMRS is also required to maintain the same access to historic versions of this data as the BSC website.

Impacts on the TIBCO messaging service

TIBCO is a messaging software used by the BMRS across the high grade network. Changes to the TIBCO messaging service would be needed so as to send to market participants the Output Usable data that is submitted by National Grid to the BMRS.

Impacts on Market Participant systems

Market participants that use the TIBCO messaging service may need to amend their systems in order to receive the Output Usable data issued by the BMRS using the TIBCO messaging service.

4 Potential Alternative P243 solution

The Requirements for the **Potential** Alternative Modification are identical to the Proposed Modification, except that Output Usable data would be published for each BM Unit.

Therefore:

- **National Grid** will be required to submit to the BMRA the '2-14' days ahead and '2-52' weeks ahead Output Usable data by BM unit. National Grid will also be required to submit to the BMRA the above data aggregated by fuel type;
- **The BMRA** will be required to display the information received as is described in section 2 (for the data that is aggregated by fuel type). The Output Usable data broken down by BM unit will need to be published via TIBCO and in CSV and XML file formats.

5 Modification Group's Discussions

Note: For simplicity, references to BM Unit are assumed to be BSC Units, unless specified otherwise.

Feasibility of publishing P243 Output Usable data

National Grid has indicated that they are able to publish Output Usable data (on a national basis) for the 2-14 days ahead and 2-52 Weeks ahead time points. However, it was noted

that there are instances where Output Usable data cannot be obtained and consequently published:

- Currently, there are no OC2 Obligations on Interconnectors to provide Output Usable data to National Grid, and therefore no such data is available. Currently the forward availability for Interconnectors is kept as 'zero' on reported Output Usable data as forward availability is not available for this fuel type Please see section 3.3 below);
- Output Usable data can only be provided for sites that provide this information to National Grid under the Grid Code. In this context not all wind farms and other sources of generation e.g. landfill gas, are not operationally metered.

The Group concluded that not all sources of generation would be covered by the published Output Usable data under P243.

Presentation of the P243 data

The Group strongly believed that having access to the P243 data in a single location was of high importance. In keeping with this principle, it was unanimously believed that the data should be hosted on the BMRS as the BMRS offers high availability, accessibility, reliability and resilience in the provision of market information.

In line with other data published on the BMRS, the Group suggested that the data be presented in Graphic, tabular, CSV and XML file formats. For further details on the presentation of the data and P243 solution, please refer to Section 4 of this document.

Further development of the Proposed P243 solution

The Initial P243 solution had the minimum requirements of publishing:

- Aggregated BM Unit Output Usable data by fuel type, so as to enable comparisons between Out-turn and Output Usable data;
- for the same 11 'Fuel type categories' used for Out-turn data; and
- For the 2-14 days and 2-52 weeks ahead periods.

On behalf of the Group, ELEXON carried out an initial National Grid/BMRA impact assessment on the initial Proposed Solution as described in the bullet points above and three suggested options which where:

- Publishing Output Usable data for Interconnectors;
- Moving existing Output Usable data from the BSC website onto the BMRS; and
- Increasing the granularity of publishing Output Usable data, by breaking the data by BM Unit and by Fuel type.

The Group noted the results of the impact assessment and believed that the Proposed Modification should be further developed. The Group noted that as National Grid and the BMRA systems would be amended under P243, it would be more cost effective to make numerous amendments to the system on one occasion. The development of the Proposed Modification is outlined below:

Publishing Output Usable data for Interconnectors

Currently, Output Usable data is not provided for Interconnectors as there are no Obligations under the Grid Code (OC2) for Interconnectors to provide their forward availability. OC2 places obligations on Generators to provide their forward availability to National Grid for a number of timescales.

The Group have a desire for Interconnector forward availability, as they believe it provides a fuller picture of the market with respect to Output Usable data. The Group also believed that there was an aspect of discrimination present as major 'Generation' source of electricity on the national transmission system is excluded when such data exists for other Generators.

National Grid highlighted that they are seeking to raise a Grid Code Modification in order to obtain Output Usable data for Interconnectors (under OC2). As such Interconnectors would provide similar data as Generators currently do under OC2. National Grid explained that the driver for the Grid Code Modification was P243. The Group noted that should the Authority approve both P243 and the Grid Code Modification, the P243 Legal text should be flexible in its drafting to accommodate any delays that may arise in obtaining Output Usable data for Interconnectors.

P243 data

- '2-14' Days ahead and '2-52' Weeks ahead national Output Usable data (by fuel type) published on the BMRS
- '2-49' Days ahead, '1-5' Years ahead national Output Usable data
- Zonal Output Usable data (all timescales and not broken down by fuel type)
- Generating Plant Demand Margin (GPDM) for '2-14' Days ahead and '2-52' Weeks Ahead time periods.

The Group noted that there are several Interconnectors which are scheduled to be operational from 2011 and the costs in providing this data to the BMRS. National Grid noted that their new BM system would be operational in a similar time span, and the National Grid costs for adding any Interconnectors would be substantially lower.

In conclusion, the Group believe that the provision of Interconnector forward availability should be included as part of the Proposed Modification.

Transfer of Output Usable data/GPDM data from the BSC website to the BMRS

Currently the BSC website hosts the national Output Usable data (all timescales¹) as well as other related data such as Zonal [Output Usable data](#) (all timescales) and Output Usable data and [Generating Plant Demand Margin](#) (GPDM).

As part of the P243 solution, the '2-14 Days ahead and 2-52 Weeks ahead' Output Usable data would be published on the BMRS. This would mean that current publication of the same data on the BSC website would be redundant. Some Group members noted that this had the potential to confuse new/small market participants, in trying to obtain all the Output Usable (different timescales) data from multiple sources.

With this in mind, the Group believed that the other data items relating to Output Usable data on the BSC website should also be transferred to the BMRS, even though this aspect of the solution was not initially included as part of the Modification Proposal. The rationale for this is as the BMRS has high accessibility, reliability and resilience especially when compared to a non operational website like the BSC website.

This would require National Grid to stop submitting data to ELEXON relating to:

- Generating Plant Demand Margin (GPDM);
- National Output Usable data (all timescales¹); and
- Zonal Output Usable data (all timescales¹).

And instead submit this data to the BMRS instead. As a result this information would be replaced by a single webpage on the BSC website that contains a hyperlink notifying users that this data has been moved to the BMRS.

Therefore the BMRS would publish:

- Generating Plant Demand Margin (GPDM): currently this is only provided for the '2-14' Days ahead and '2-52' Weeks ahead time points;
- National Output Usable data (all timescales); and
- Zonal Output Usable data (all timescales);

In addition the BMRS would also accommodate

- Explanatory text as is present on the Output Usable and GPDM web pages on the BSC website; and
- A number of additional files i.e. Systems maps and BM Unit mapping files.

The Group also noted that the BMRS would have the same level of access to historic versions of the data on the BSC website.

A suggestion was made that if users wished to access any information quickly, without having to navigate the BMRS, they could access the [Simple Object Access Protocol \(SOAP\) server](#). This server provides an interface for users to make requests for particular types of data and the ability to download this data as xml/CSV formats.



Generating Demand Margin (GPDM)	Plant Margin
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Generating Plant Demand Margin is the difference between "Output Usable" and forecast "National Demand"

¹ '2-14' days ahead, '2-49' days ahead, '2-52' weeks ahead and 1-5 years ahead

ELEXON explained to the Group that no significant cost savings to ELEXON would be achieved by transferring this data to the BMRS, as the cost of having this functionality on the BSC website is sunk.

Comparisons between Output Usable and Out-turn data

As part of the development of the Proposed Solution, the Group noted that a truly like for like comparison between Output Usable data and Out-turn data cannot be made. This is because the BM units that submit Output Usable data to National Grid are not the same as the BM Units that have operational metering and provide Out-turn data. For example, Out-turn data that is published on the BMRS includes National Grid BM Units which may not be BSC BM units such as Embedded Exemptable Large Power Stations (EELPS).

To avoid any confusion, the BMRS will include a 'health warning' in the BMRS help text which indicates to all BMRS users that the Output Usable data and Out-turn data for each fuel type category is not a like for like comparison.

This will be complemented with a published list of BM Units that make up the Fuel type categories under the Output Usable and Out-turn data.

Confidentiality issues in publishing Output Usable data

The Group had concerns that publishing Output Usable data for certain fuel types with low numbers of Generators e.g. Pumped Storage would divulge information such as Outage plans and market behaviour for individual Generators. The concerns surrounded whether a Generator's availability could be worked out from the increased granularity of national Output Usable data that would be published under P243.

National Grid explained that they do not provide Generation data for a fuel type, if there were less than 3 different Generators present. This helps ensure that there is a level of uncertainty when attempting to predict the availability of Generators for a given fuel type. The Group noted that the availability of a Generator in the short term could be obtained from Maximum Export Limits (MELs), which are already published on the BMRS.

With this in mind, the Group believed that the following consultation question (Q6) should be included in the consultation questionnaire (attachment B):

Question 6

Does the publication of national BM Unit Output Usable data aggregated by fuel type create any confidentiality issues for your organisation?

The Group also explored the possibility of publishing Output Usable data broken down by fuel type for each OC2 system zone. However, the Group did not pursue this further as they noted that there are instances where a single Generator for a given fuel type in a single zone exist. As such the Group believed this would create an unfair situation where the Forward availability for some Generators was easily viewable, and for others not.

Development of a Potential Alternative Modification

Please note that the Group have not endorsed an Alternative Solution for P243. The Group have suggested a potential Alternative and would like to seek views from industry on the merits/demerits of this potential solution. The Group have not provided any views on this solution against the Applicable BSC Objectives.

Some members of the Group believed that industry may find it useful to receive Output Usable data by BM Unit as well as Output Usable data aggregated by fuel type. This



Maximum Limit Export

A series of [MW](#) figures and associated times, making up a profile of the maximum level at which the [BM Unit](#) may be exporting (in [MW](#)) to the GB Transmission [System](#) at the [Grid Supply Point](#), as appropriate.

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increases the overall granularity of information when compared to the Proposed Modification.

Some members (including the Proposer) expressed their concerns that there may be a case of information overload with the vast amounts of data that are being transferred from the BMRS to BMRS users. Although Parties can choose which TIBCO data feeds they receive, the volume of data that flows through TIBCO will be significantly greater at BM Unit level when compared to the Proposed Modification (i.e. under the Proposed Modification you would receive data relating to the 11 fuel types, whereas under this potential Alternative you would receive data for approximately 323 CVA BM Units for the '2-14' days ahead and '2-52' weeks ahead time periods). As such the Proposer indicated that they only require aggregate Output Usable data by fuel type. The Group has included a question (Q3) the consultation questionnaire.

Question 3

Would the Potential Alternative Modification P243 help to achieve the Applicable BSC Objectives compared to the current baseline?

The Group also noted that there were inconsistencies between the way the BSC and National Grid define a BM Unit. Out-turn data that is published on the BMRS includes National Grid BM Units which may not be BSC BM units e.g. EELPS. In the context of P243, it was noted that Interconnectors are not classed as a BM Units under either the BSC or Grid Code; only Interconnector Parties are classed as BM Units. As there may be a low number of Interconnector Users, it is suggested that Output Usable data could be obtained directly from the Interconnector Company. Therefore, P243 would not provide BM Unit level Output Usable data for Interconnector categories.

Therefore clarity would be required for this solution, in explaining which definition of BM Units was being used, as well as having data that shows the mapping of BSC to National Grid BM Units and the link to the Output Usable data. This was felt to be an appropriate way forward by the group.

Discrimination issues under the Proposed/Potential Alternative Modifications

While the majority of the Group were in favour of the Proposed Modification, there were some concerns that publishing Output Usable data by Fuel type could cause discrimination. The discrimination arises in fuel categories where there are a low number of Generators, and as such reveal the Outage plans and trading position of certain Generators. With this in mind it was suggested that Output Usable data for each BM Unit could be published as it would be more equitable.

Not all Group members agreed with this as they believe that:

- It would still be difficult to predict a Generator's forward availability, and any prediction would be an 'aggregated availability' coupled with assumptions. Additionally, it is possible that a Generator's availability could change, especially in the case of a Portfolio Generators who may wish not to make use of any one type of Generation;
- This would create a similar discriminatory issue at the BM Unit level, especially where a Generator has only one BM Unit. In these instances, these members believed that the Output Usable data is strongly correlated to its Outage programme/trading position and puts such Generators at a disadvantage.

The Group have included two consultation questions (Q9a and Q9b) to gather views from industry in this area

Question 7

Do you believe that there are any discrimination issues under the:

- a) **Proposed Modification?**
- b) **Potential Alternative Modification?**

Gaming in the market

The Modification Group noted that the introduction of transparent market data can lead Parties to change their behaviour as a result of having the data. Indeed, the reason for increasing data transparency is to enable Parties to make better informed (and therefore more efficient and economic) commercial decisions, and thereby to maximise the potential profit from their trading.

Depending on your point of view, this change in behaviour can be seen as:

- A rational commercial response to increased information, with a positive effect on market competition and the economic efficiency of the Transmission System; or
- Potential for parties to misuse/game the data by changing their behaviour to gain a financial advantage to their own organisation with a negative effect on market competition i.e. reduces the usefulness of data for other Parties.

Therefore, a Party may use the transparency of data to estimate the Outage plans of another Generator in the same geographical area and use it to its advantage. This advantage could be either a commercial response or a misuse of the information.

For example, a Generator may use such information (Output Usable data published under P243) to align its planned Outages at a time when its competitors were less likely to fill in the 'Generation gap', and in doing so would increase its profits. In turn, this could lead to a more efficient spread of Outages across the national Transmission system if a number of Generators used the Output Usable data in the same manner.

On the other hand, Generator(s) could misuse this data and change its generation status (between 'generating' and being 'offline') so as to gain financial advantage. One way that this could be achieved is by causing a system constraint (too little or too much generation in a geographical area). As such National Grid may thereby instruct the Generator(s) to generate more/less electricity, which could mean the Generator gains financially compared to what it would have gained/lost if it did not change its generation status. This also decreases the value of the Output Usable data provided and decreases the efficiency of the Transmission System.

However, the Group noted that if a Generator(s) behaved in such a manner it would be in breach of its Generator's licence and could be the subject of an anti competitive investigation and financial penalties. As the market data is more transparent to the whole market, such behaviours would be easier to observe than the current arrangements; it would be easy to spot where a Generator deviated from its published Output Usable data submission and in doing so would be at risk of an investigation and negative publicity. As such, increased transparency may act as a deterrent to such behaviours.

6 Detailed impacts

Impact on BSC Systems and process

BSC System/Process	Impact
BMRS	Changes will be required to the BMRS in order to make the new data items available to Parties via the website and (for High Grade users) the TIBCO messaging service.

Impact on BSC Agent/service provider contractual arrangements

None

Impact on BSC Parties and Party Agents

BSC Parties and non-Parties who currently use the BMRS High Grade Service will be able to receive the new and amended data items via the website and/or TIBCO messaging. Parties and non-Parties using the Low Grade Service would be able to access the new and amended data items via the public website.

Impact on Transmission Company

Changes will be required to the National Grid systems (TOGA, BM and Registration systems), to submit the amended (new and existing) data files to the BMRS. Changes to the 'BMRS & SAA Interface Specification' which sets out the format of data submitted to the BMRS and ELEXON.

Impact on ELEXON

Area of ELEXON's business	Potential impact
Service Delivery	<ul style="list-style-type: none">• Observing Operational Acceptance Testing (OAT), keeping track of development progress and the management in the provision of the BMRS.
Change Delivery	<ul style="list-style-type: none">• Liaise with the (Interim) AMD Service Provider to coordinate the implementation, including the production redlined documentation.• Manage the testing effort required, including Participant Testing.

Impact on Code

Code section	Potential impact
Section Q	These sections will require amendment to reflect the P243 solution developed by the Modification Group
Section V	

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Impact on Code Subsidiary Documents	
CSD	Potential impact
BMRA Service Description	Changes would needed to reflect the P243 solution
Logica Interface Definition and Design (IDD) Part 1	
Logica Interface Definition and Design (IDD) Part 2	
BMRA User Requirements Specifications (URS)	

Impact on Core Industry Documents and other documents	
Document	Potential impact
Grid Code	Changes may be required to reflect: <ul style="list-style-type: none"> • any aggregation and publication of Output Usable data; and • Publishing Output Usable data for Interconnectors

Impact on other Configurable Items	
Configurable Item	Potential impact
BMRA Design Specification	Changes to these documents may be required to reflect the data items proposed under P243
BMRA Manual System Specification	
BMRA Operating Services Manual	
BMRA System Specification	
BMRA User Requirements Specifications (URS)	

Impacts on market participants	
	Potential impact
Market Participants	We believe that the impact on market participants is likely to be low. A consultation question has been asked in this area (see below)

The following consultation questions (Q2 and Q5 in the questionnaire) have been asked on impacts to market participants:

Question 2

Would the Proposed Modification impact your organisation?

Question 4

Would the Potential Alternative Modification impact your organisation?

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7 Group membership and process followed

Member	Organisation	20/08/09	23/09/09
Adam Lattimore	ELEXON (Chairman)	✓	X
Sherwin Cotta	ELEXON (Lead Analyst)	✓	✓
Kathryn Coffin	ELEXON (Chairman)	X	✓
Kristian Lande	LDH (Proposer)	X	X
Lea Bloechingler	LDH (Proposer's alternate)	✓	✓
Shafqat Ali	National Grid	✓	✓
Esther Sutton	E.ON UK	✓	✓ 
Martin McDonald	SAIC	X	✓
Garth Graham	Scottish and Southern	✓	✓
Martin Mate	EDF	✓	✓
Chris Stewart	Centrica	X	X
Emma Williams	FHC	X	X
Bill Reed	RWE	✓	✓
Attendee	Organisation	20/08/09	
Nicholas Brown	ELEXON (Lawyer)	✓ (part)	X
Steve Francis	ELEXON	✓	✓
James Grigor	Ofgem	✓	✓
Arne Haughland	Statkraft	X	X
Paul Auckland	National Grid	✓	✓
Tabish Khan	ELEXON	✓	X
Andy Howden	Logica	✓	✓
Andrew Colley	SSE	✓	X
Jonathan Harley	Gas forum	✓ (part)	X
Ricky Hill	Centrica	X	✓
Phil Hewitt	Enappsys	X	✓
Lisa Waters	Waterswey	X	✓ (part)

Process followed

Date	Event
13/08/09	IWA presented to the Panel
20/08/09	First Modification Group meeting held
01/09/09	P243 issued for initial Transmission Company and BMRA Impact assessment (in parallel with P244)
23/09/09	Second Modification Group meeting
02/09/09	P243 issued for industry impact assessment/consultation (with P244)

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