



SPICE Sub-Project ELEXON Interface Specification

IS/24.12.0198

Issue 5, 5 November 2002

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1 INTRODUCTION

1.1 Purpose and Scope

This document defines the Market Information that will be made available by National Grid to ELEXON. Information is provided as a result of electricity industry regulator OFGEM authorising changes to the trading arrangements which impact the National Grid. Changes originate from Modification Proposals submitted by participants requesting changes which make it fairer in the market place to meet the Balancing and Settlement Code (BSC) objectives.

The Applicable BSC Objectives (as defined in the Transmission Licence) are:

The efficient discharge by the Licensee of the obligations upon it by the licence.

The efficient, economic and co-ordinated operation by the Licensee of the Licensee's Transmission System.

Promoting effective competition in the generation and supply of electricity, and (so far as consistent with) promoting such competition in the sale and purchase of electricity.

Providing efficiency in the implementation and administration of the balancing and settlement arrangements.

1.2 Related Documents

The following documents are related to this document:

1. P022 Requirements Specification for Distribution of Generator Outage Information – ELEXON Limited 2001. Issue 1.0. Date: 24 Aug 2001.
2. NETA Project FILENOTE – FN0099-P022_Impact Assessment.
3. P008 "Incorporation of the BPA/SPA Price Adjusters into the BSC".
4. BMRA/SAA Interface Standard, OF/CS KBC.NETA.008.
5. Appendix F: Balancing Services Adjustment Data Methodology Statement [Adjusted for P74/P78] - Version 2.1
(http://www.nationalgrid.com/uk/indinfo/balancing/pdfs/Appendix_F_BSAD_option_2_amended.pdf).
6. NETA Programme: Interface Definition and Design Part 1 Issue V3.4
7. NETA Programme: Interface Definition and Design Part 2 Issue V3.4
8. Balancing and Settlement Code (BSC) – Section Q
(http://www.elexon.co.uk/ta/bsc/rel_docs/bsc_downloads.html)
9. SPICE Sub Project BMRA & SAA Interface Specification (IS-SO/24/12/0001)
10. Initial Assessment of Modification Proposal P033 – ELEXON Limited. Issue 1.0. Date: 17 August 2001
11. Balancing Services Adjustment Data Methodology Statement - Version Date 28 Mar 2002
(http://www.nationalgrid.com/uk/indinfo/balancing/pdfs/BSAD_Feb_Decision_Letter.pdf).

2 TRANSFER MECHANISM

2.1 Operating Code 2 (OC2) Data Transfer Mechanism

OC2 Data which consists of both Output Usable and Generating Plant Demand Margin are held in electronic files, the formats of which are outlined in later sections.

National Grid will transfer files to the ELEXON target machine located at the ELEXON site via FTP (File Transfer Protocol). There will be no electronic acknowledgement of the file transfer, successful or otherwise.

National Grid will first copy the files into a temporary directory at the ELEXON FTP site. Then rename it to their target directory, which can be different for Output Useable and Generating Plant Demand Margin. Any failures during this process are reported to the National Grid Watch-IT screen which is monitored 24 hours a day, 7 days a week by the National Grid Support Staff. In the event of any issues arising, ELEXON support staff should get in touch with the National Grid Support Desk. Details of configuring the ELEXON FTP node and contacting National Grid Support Desk are documented later in this document.

2.2 Balancing Services Adjustment Data Transfer Mechanism (BSAD and NETBSAD)

Data will be held in electronic files, the format of which is outlined in later sections.

National Grid will transfer files to the ELEXON target machine located at the ELEXON site via FTP (File Transfer Protocol). There will be no electronic acknowledgement of the file transfer, successful or otherwise.

If the FTP of a BSAD or NETBSAD file to ELEXON fails, National Grid will attempt to re-send the file at set intervals until successful transfer is completed. However, if ELEXON operators are missing BSAD or NETBSAD information they can contact the National Grid Support Desk (see section 5). All BSAD and NETBSAD transmissions to ELEXON will be archived on a National Grid machine.

3 SYSTEM TIME

The standard time of the interface will be GMT. The system clock will be kept referenced to a recognised global time base. The National Grid facility will operate at local time, thus the GMT time of issue of data files will vary with British summer time. For files with half-hour settlement periods normally there will be 48 periods. On specific clock change days this will result in this number varying by 2 periods either way.

4 SYSTEM RESILIENCE

4.1 OC2 Data

In the event of a National Grid system failure, disaster recovery systems will be made available.

Export files generated by the interface system will be replicated at the disaster recovery site.

4.2 BSAD and NETBSAD

The hosts and networks used in the production of BSAD and NETBSAD are subject to National Grid's standard operational procedures in regard to resilience and recovery. In the

event of a failure of these procedures to produce BSAD or NETBSAD National Grid will, as a working practise, manually produce and email this data to ELEXON

5 NATIONAL GRID SUPPORT DESK

5.1 OC2 Data Support

National Grid Support Desk can be contacted on 0800 777770.

Files are kept in the National Grid data directory SPC\$ELEXON_DATA for a period of seven days from the published date time. After the seven days, files are archived onto backup tapes and removed from this directory.

Any issues related to data files which are less than seven days old, ELEXON can take the following steps:

 Login into National Grid FTP Node with node name, username and password provided.

 With the use of the Data Type and Sequence Number/Start Date of the data, retrieve the files.

 (Details of Data Types and Sequence Numbers are documented later in the document.)

If ELEXON support staff is unable to retrieve the files or in the case of any other support issues, this should to be logged via the National Grid Support Desk.

In the case of missing or incomplete files, the Data Type and File Sequence Number/Start Date should be provided to the National Grid Support Desk.

If the publish time is less than seven days old and an expected file cannot be found, the Support Desk will need to identify the reason and take appropriate action to provide the file to ELEXON. This may involve, the National Grid Support Desk seeking assistance from NETA Support.

For files with a publish time which is older than seven days of publish time, National Grid Information System Operational Commercial Systems (ISOCS) will need to retrieve the files from the archive.

5.2 BSAD and NETBSAD Support

Unlike for Output Usable transmissions, the ELEXON operators will not be able to retrieve missing BSAD or NETBSAD data files as these files will not be held on the same system.

If expected BSAD or NETBSAD information has not been received, or ELEXON require the information to be re-sent for any reason, then ELEXON should contact the National Grid Support Desk on 0800 777770. They will forward the request to the relevant staff who will attempt to resolve the problem. Within normal office hours manual email of daily BSAD or NETBSAD information will be available as a back-up method of file transfer.

6 FTP LINK - NATIONAL GRID/ELEXON

ELEXON will have a link to the NETA Systems via a 64K Leased Line circuit from ELEXON to one of National Grid Core Routers with ISDN 128K link as a backup. The Core Routers provide the interface to the National Grid Operational Network thus providing the necessary security between National Grid Core Systems and the outside world. National Grid

will provide and configure the ELEXON router for the above project. This connection will adhere to National Grid Security standards, IP Address Schemes and Access Programs (Related Document 4).

ELEXON will have to meet the following National Grid Security Requirements:

Use National Grid IP Address Scheme and Border Gateway Protocol.

If required - ELEXON will have to do all Network Address Translations on their own router/firewall for their own internal system and not expect National Grid to make any changes to their configurations.

National Grid will support and manage all communications up to the Ethernet Port of the installed router at ELEXON. This includes the Leased Line Communication Link. Any issues further than the installed National Grid Router at ELEXON will be expected to be supported by ELEXON. E.g. their own internal network.

To FTP files, ELEXON will provide the following:

- Username/Password (Password encrypted and stored in NETA database).
- temp and inbox directories under the above Username root directory.
- Target Operating System (UNIX, VMS or PC).

Similar information will be provided by National Grid so that ELEXON can access the directory SPC\$ELEXON_DATA to retrieve Output Usable data files. This method is not applicable to BSAD data files and the transfer mechanism for BSAD files is documented in section 2.2 of this document.

More details about National Grid Security Requirements can be found in the BMRA/SAA Interface Standards, Related Document 4.

7 P022 REQUIREMENT

The following section describes the data that will be made available by National Grid to ELEXON as per modification proposal P22 raised by Dynege UK Limited on the 22nd June 2001. This resulted in a Requirement Specification (Related Document 1) where it was agreed that ELEXON would present a Definition Report. The report identified the following requirements.

- Transfer Requirements
- Data Requirements
- Timing Requirements

Following impact assessment by National Grid, it was agreed that the data will be transferred to ELEXON instead of the BMRA. There were six options to cover the data and timing requirements. Option A2 was chosen to provide Output Usable data based on National and National Grid System Zones. The definition of System Zones can be found on the National Grid Web site http://www.nationalgridinfo.co.uk/grid_code/mn_associated.html. and on the BSC Web Site. Data to be provided under this Option A2 is documented later in this document. Details of the other five options can be found in the Related Document 1.

Note that National Grid will write to ELEXON giving one month's notice of any future Zonal Boundary Reviews.

7.1 Long Term Output Usable MW OC2 Data

Long term output usable data covers the period between current day+2 and 5 years ahead. The next sections describe the data that will be made available for this period. Codes shown in the next two sections in brackets are file name prefixes to identify the different files.

The first character represents data group. (Z) for System Zone and (N) for National.

OU – Output Usable

The period. Examples: 2T14D, refers to 2 – 14 Days ahead and Y1 refers to Year 1 ahead data sets.

7.1.1 System Zones Output Usable MW OC2 Data

System Zones Output Usable data will be made available at the following target times:

- 2 – 14 days ahead, (ZOU2T14D) – Output Usable data.
Made available by 16:00 each business day.
- 2 – 49 days ahead, (ZOU2T49D) – Output Usable data.
(To be decided when available).
- 2 – 52 weeks ahead, (ZOU2T52W) – Output Usable data.
Made available by 17:00 every Friday.
- Year 1 ahead, (ZOUY1) – Output Usable data.
Made available as soon as the data is ready.
- Year 2 ahead, (ZOUY2) – Output Usable data.
Made available as soon as the data is ready.
- Year 3 ahead, (ZOUY3) – Output Usable data.
Made available as soon as the data is ready.
- Year 4 ahead, (ZOUY4) – Output Usable data.
Made available as soon as the data is ready.
- Year 5 ahead, (ZOUY5) – Output Usable data.
Made available as soon as the data is ready.

7.1.2 National Output Usable MW OC2 Data

National Output Usable data will be made available at the following target times:

- 2 – 14 days ahead, (NOU2T14D) – Output Usable data.
Made available by 16:00 each business day.
- 2 – 49 days ahead, (NOU2T49D) – Output Usable data.
(To be decided when available)
- 2 – 52 weeks ahead, (NOU2T52W) – Output Usable data.
Made available by 17:00 every Friday.
- Year 1 ahead, (NOUY1) – Output Usable data.
Made available as soon as the data is ready.

- Year 2 ahead, (NOUY2) – Output Usable data.
Made available as soon as the data is ready.
- Year 3 ahead, (NOUY3) – Output Usable data.
Made available as soon as the data is ready.
- Year 4 ahead, (NOUY4) – Output Usable data.
Made available as soon as the data is ready.
- Year 5 ahead, (NOUY5) – Output Usable data.
Made available as soon as the data is ready.

(All yearly files will be made available twice a year; approximately at six monthly intervals.)

8 BALANCING SERVICES ADJUSTMENT DATA (BSAD)

Balancing Services Adjustment Data for Settlement Days prior to the P78 "Go Live" date will be published as Record Type "BSAD" (see example in Section 15.17).

The timetable for P78 "Go Live" is 25th February 2003.

The "BSAD" Record Type comprises National Grid's gross half-hourly position resulting from its energy trades. The frequency and content of the BSAD files will accord with the details in the Balancing Services Adjustment Data Methodology Statement, Version Date 28 Mar 2002 [11].

BSAD contains the following information on a Settlement Day/Settlement Period basis:

- BCA - Buy Price Cost Adjustment
- BVA - Buy Price Volume Adjustment
- BPA - Buy Price Price Adjustment
- SCA - Sell Price Cost Adjustment
- SVA - Sell Price Volume Adjustment
- SPA - Sell Price Price Adjustment

Following the introduction of the P78 Revisions "BSAD" Record Type files will only be produced for Post-Event daily BSAD files where values have been revised. The following section (Section 8.1) details this transmission frequency.

8.1 Post Event Data

The Post-Event daily BSAD files will contain a revised view of National Grid's trading position for Settlement Periods within an earlier calendar day (where this calendar day precedes the P78 "Go Live" date).

National Grid will ensure that the Post Event BSAD is delivered in line with the time scales set out in Section Q Paragraph 6.3.3 of the Balancing and Settlement Code [8] and restated in Section 1.5 of the BSAD Methodology Statement [11].

9 NET BALANCING SERVICES ADJUSTMENT DATA (NETBSAD)

Balancing Services Adjustment Data for Settlement Days from the P78 "Go Live" date will be published as Record Type "NETBSAD" (see example in Section 15.18).

Net Balancing Services Adjustment Data (NETBSAD) comprises National Grid's net half-hourly position resulting from its energy trades. The frequency and content of the NETBSAD files will accord with that detailed in the Balancing Services Adjustment Data Methodology Statement, Version 2.1 [5].

NETBSAD values are provided as net volumes and costs. The NETBSAD submissions differentiate between "System" actions taken by National Grid for short-term corrective purposes and "Energy" actions taken for energy balancing reasons.

NETBSAD contains the following information on a Settlement Day/Settlement Period basis:

- EBCA - Net Buy Price Cost Adjustment (Energy)
- EBVA - Net Buy Price Volume Adjustment (Energy)
- SBVA - Net Buy Price Volume Adjustment (System)
- BPA - Buy Price Price Adjustment
- ESCA - Net Sell Price Cost Adjustment (Energy)
- ESVA - Net Sell Price Volume Adjustment (Energy)
- SSVA - Net Sell Price Volume Adjustment (System)
- SPA - Sell Price Price Adjustment

This data will be sent at the following frequencies:

9.1 Day Ahead Data

The Day Ahead NETBSAD will contain a preliminary view of National Grid's trading position for all Settlement Periods within the next day.

National Grid will ensure that Day Ahead NETBSAD is delivered in line with the time scales set out for BSAD provision in Section Q Paragraph 6.3 of the Balancing and Settlement Code [8]. This commitment is restated in the Section 1.3 of the BSAD Methodology Statement [5].

9.2 Post Event Data

The Post-Event NETBSAD will contain a revised view of National Grid's trading position for Settlement Periods within an earlier calendar day (where this calendar day is on P78 "Go Live" date).

National Grid will ensure that the Post Event NETBSAD is delivered in line with the time scales set out in Section Q Paragraph 6.3.3 of the Balancing and Settlement Code [8] and restated in Section 1.5 of the BSAD Methodology Statement [5].

9.3 Additional Frequencies

As stated in Section 1.3 of the BSAD Methodology Statement [5] National Grid will supply Balancing Services Adjustment Data "on a half hour basis as soon as possible after Gate Closure".

10 P033 REQUIREMENT

The following section describes the data that will be made available to BSC Web Site as per Modification Proposal P33 raised by the National Grid on the 10th of August 2001 (Related Document 10).

10.1 Generating Plant Demand Margin based on OC2 Data

Generating Plant Demand Margin information will be made available at the following target times:

- 2 – 14 days ahead, ½ hour average MW value for the peak of the day (OCNMFD2 – Generating Plant Demand Margin)
Made available by 16:00 each business day.
- 2 – 52 weeks ahead, ½ hour average MW value for the peak of the week (OCNMF2 – Generating Plant Demand Margin)
Made available by 17:00 every Friday.

(Generating Plant Demand Margin = Output Usable – Forecast Demand where Forecast Demand = National Demand + Station Demand).

11 FILE NAMING CONVENTION

Each ELEXON transfer file will have a unique file name consisting of three parts and a file extension. The extension will be .xon for OC2 data and .bmr for BSAD and NETBSAD data. Each Data Type will be submitted in a separate file.

Title	Description	Field Size	Field Format	Comment
DATA TYPE	The type of data which the file contains. See the definition of Data Record Types in Section 13 below for a list of allowable values	8	Alphabetic	Variable length field up to a maximum of field size dependant on the name of the record type.
OC2: START DATE	Start Date	8	YYYYMMDD	Start Date with Data Type can be used to overwrite existing files.
BSAD: CREATION DATE	Date and time of file creation in GMT	12	YYYYMMDDHH24MI	
SEQUENCE NO	Sequence number of a file created within a file type.	5	NNNNN	Fixed length field with incremental rotating values ranging from 00000 to 99999. Value reset to 00000 after 99999.

For OC2Data:

The filename will be of the form <DATA TYPE>_<START_DATE>_<SEQUENCE NO>.xon for short term data.

For example, National Output Useable MW OC2 2 – 14 Days Ahead data for the 1st January 2002, the file name would be NOU2T14D_20020103_00000.xon where the date 20020103 represents start date of the data.

Each file comprises of one or more data records. Each record consists of a data header record followed by a set of data fields.

For BSAD and NETBSAD Data:

The filename will be of the form <DATA TYPE>_<CREATION_DATE>_<SEQUENCE NO>.bmr.

For example, BSAD data for the 28th October 2003 at 0030 hours, the file name would be BSAD_200310280030_00000.bmr where the date/time 200310280030 represents creation date/time of the data.

Each file comprises one or more data records. Each record consists of a set of data fields.

12 FILE HEADER AND FOOTERS

12.1 File Headers

The file headers will consist of five records at the beginning of a file. Each header record will be prefixed with the character '*'. There will be no space between the asterisk and any of the file header information.

The first record will contain the filename as specified in section 11.

The third record will contain a brief description of the file type.

The fifth record will describe the columns of data stored in the subsequent data records.

The second and fourth record will only contain a single '*' character.

12.2 File Footers

The file footers will consist of a single record at the end of the file. The record will contain the '<EOF>' string.

12.3 Engineering Week/Year

Engineering Week and Year are based on International Standard Organisation (ISO) standards. Weeks will always begin on a Monday and end on a Sunday.

Week 1 normally will be the first Monday of the New Year. However, if there are 4 or more days of the last week of the previous year falls in the New Year, then Week 1 will begin on last Monday of the previous year. Example, Week 1 for Year 2003 begins on the 30th of December 2002.

A year will have a minimum of 52 weeks and maximum of 53 weeks.

13 RECORD HEADERS

Field	Format	Comments
Data Type	Alphanumeric	OC2 ZOU2T14D System Zones 2-14 Days Ahead Data

Field	Format	Comments
		NOU2T14D National 2-14 Days Ahead
		ZOU2T49D System Zones 2-49 Days Ahead
		NOU2T49D National 2-49 Days Ahead
		ZOU2T52W System Zones 2-52 Weeks Ahead
		NOU2T52W National 2-52 Weeks Ahead
		ZOUY1 System Zones Year 1 Ahead
		NOUY1 National Year 1 Ahead
		ZOUY2 System Zones Year 2 Ahead
		NOUY2 National Year 2 Ahead
		ZOUY3 System Zones Year 3 Ahead
		NOUY3 National Year 3 Ahead
		ZOUY4 System Zones Year 4 Ahead
		NOUY4 National Year 4 Ahead
		ZOUY5 System Zones Year 5 Ahead
		NOUY5 National Year 5 Ahead
		OCNMFD2 Generating Plant Demand Margin based on OC2 data for 2-14 days
		OCNMF2W2 Generating Plant Demand Margin based on OC2 data for 2-52 weeks
		BSAD data:
		BSAD Balancing Services Adjustment Data
		NETBSAD Net Balancing Services Adjustment Data

14 RECORD DATA FORMAT

Record Type	Field	Format	Units	Comments
ZOU2T14D	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		Currently A, B, C, D, E, F or G. Zones can change and overlap.
	Day of Forecast	Date		YYYY-MM-DD
	System Zone Output Usable	Numeric	MW	Between 0 and 99999
NOU2T14D	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		N for National
	Day of Forecast	Date		YYYY-MM-DD
	National Output Usable	Numeric	MW	Between 0 and 99999
ZOU2T49D	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		Currently A, B, C, D, E, F or G. Zones can change and overlap.
	Day of Forecast	Date		YYYY-MM-DD
	System Zone Output Usable	Numeric	MW	Between 0 and 99999
NOU2T49D	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		N for National
	Day of Forecast	Date		YYYY-MM-DD
	National Output Usable	Numeric	MW	Between 0 and 99999
ZOU2T52W	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		Currently A, B, C, D, E ,F or G. Zones can change and overlap.

Record Type	Field	Format	Units	Comments
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
	System Zone Output Usable	Numeric	MW	Between 0 and 99999
NOU2T52W	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		N for National
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
	National Output Usable	Numeric	MW	Between 0 and 99999
ZOUY1	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		Currently A, B, C, D, E, F or G. Zones can change and overlap.
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
	System Zone Output Usable	Numeric	MW	Between 0 and 99999
NOUY1	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		N for National.
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY

Record Type	Field	Format	Units	Comments
	System Zone Output Usable	Numeric	MW	Between 0 and 99999
ZOUY2	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		Currently A, B, C, D, E, F or G. Zones can change and overlap.
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
	System Zone Output Usable	Numeric	MW	Between 0 and 99999
NOUY2	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		N for National.
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
	System Zone Output Usable	Numeric	MW	Between 0 and 99999
ZOUY3	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		Currently A, B, C, D, E, F or G. Zones can change and overlap.
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
	System Zone Output Usable	Numeric	MW	Between 0 and 99999

Record Type	Field	Format	Units	Comments
NOUY3	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		N for National.
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
ZOUY4	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		Currently A, B, C, D, E, F or G. Zones can change and overlap.
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
	System Zone Output Usable	Numeric	MW	Between 0 and 99999
NOUY4	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		N for National.
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
ZOUY5	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		Currently A, B, C, D, E, F or G. Zones can change and overlap.
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
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Record Type	Field	Format	Units	Comments
	System Zone Output Usable	Numeric	MW	Between 0 and 99999
NOUY5	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	System Zone	Character		N for National.
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as engineering week 1
	Engineering Year	Numeric		YYYY
BSAD	Settlement Day	Text(10)		Format: YYYY-MM-DD
	Settlement Period	Numeric		Between 1 and 50
	Buy-price Adjustment Cost	Numeric	£	Format (10.2)
	Buy-price Adjustment Volume	Numeric	MWh	Format (10.3)
	Buy-price Adjustment Price	Numeric	£/ MWh	Format (10.2)
	Sell-price Adjustment Cost	Numeric	£	Format (10.2)
	Sell-price Adjustment Volume	Numeric	MWh	Format (10.3) Note: Sell Volumes will be zero or negative
	Sell-price Adjustment Price	Numeric	£/ MWh	Format (10.2)
NETBSAD	Settlement Day	Text(10)		Format: YYYY-MM-DD
	Settlement Period	Numeric		Between 1 and 50

Record Type	Field	Format	Units	Comments
	Net Buy Price Cost Adjustment (Energy) - EBCA	Numeric	£	Format (10.2)
	Net Buy Price Volume Adjustment (Energy) - EBVA	Numeric	MWh	Format (10.3)
	Net Buy Price Volume Adjustment (System) - SBVA	Numeric	MWh	Format (10.3)
	Buy-price Price Adjustment - BPA	Numeric	£/ MWh	Format (10.2)
	Net Sell Price Cost Adjustment (Energy) - ESCA	Numeric	£	Format (10.2)
	Net Sell Price Volume Adjustment (Energy) - ESVA	Numeric	MWh	Format (10.3) Note: Sell Volumes will be zero or negative
	Net Sell Price Volume Adjustment (System) - SSVA	Numeric	MWh	Format (10.3) Note: Sell Volumes will be zero or negative
	Sell-price Price Adjustment - SPA	Numeric	£/ MWh	Format (10.2)
OCNMFD2	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	Day of Forecast	Date		YYYY-MM-DD
	Margin	Numeric	MW	Between -99999 and 99999

Record Type	Field	Format	Units	Comments
OCNMF2	Publishing Datetime	Date Time		YYYY-MM-DD HH24:MI
	Engineering Week Number	Numeric		1 – 53, the first calendar week to contain 4 or more days in the new calendar year is defined as week 1.
	Engineering Year	Numeric		YYYY
	Margin	Numeric	MW	Between –99999 and 99999

15 EXAMPLE TRANSFER FILE LAYOUT

The following data is intended to show formatting layout only and is not intended to represent accurate, consistent or validated operational data.

15.1 System Zone Output Usable MW Data (ZOU2T14D)

```
*ZOU2T14D_20020104_00000.xon
*
*System Zone Output Usable MW Based on OC2 (2 – 14 days) Data
*
*Data,Publish Time,System Zone,Forecast Date,Output Usable(MW)
ZOU2T14D,2002-01-02 15:50,A,2002-02-04,1500
...
<EOF>
```

15.2 National Output Usable MW Data (NOU2T14D)

```
*NOU2T14D_20020104_00000.xon
*
*National Output Usable MW Based on OC2 (2 – 14 days) Data
*
*Data,Publish Time,System Zone,Forecast Date,Output Usable(MW)
NOU2T14D,2002-01-02 15:50,N,2002-02-04,1500
...
<EOF>
```

15.3 System Zone Output Usable MW Data (ZOU2T49D)

```
*ZOU2T49D_20020104_00000.xon
*
*System Zone Output Usable MW Based on OC2 (2 – 49 days) Data
*
*Data,Publish Time,System Zone,Forecast Date,Output Usable(MW)
ZOU2T49D,2002-01-02 15:50,A,2002-02-04,1500
...
<EOF>
```

15.4 National Output Usable MW Data (NOU2T49D)

```
*NOU2T49D_20020104_00000.xon
*
*National Output Usable MW Based on OC2 (2 – 49 days) Data
*
*Data,Publish Time,System Zone,Forecast Day,Output Usable
NOU2T49D,2002-01-02 15:50,N,2002-02-04,1500
...
<EOF>
```

15.5 System Zone Output Usable MW Data (ZOU2T52W)

```
*ZOU2T52W_20020114_00000.xon
*
*System Zone Output Usable MW Based On OC2 (2 – 52 weeks) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
ZOU2T52W,2002-01-02 15:50,A,3,2002,1500
...
<EOF>
```

15.6 National Output Usable MW Data (NOU2T52W)

```
*NOU2T52W_20020114_00000.xon
*
*National Output Usable MW Based on OC2 (2 – 52 weeks) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
NOU2T52W,2002-01-02 15:50,N,3,2002,1500
...
<EOF>
```

15.7 System Zone Output Usable MW Data (ZOUY1)

```
*ZOUY1_20021230_00000.xon
*
*System Zone Output Usable MW Based on OC2 (Year 1) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
ZOUY1,2002-03-08 15:50,A,1,2003,1500
...
<EOF>
```

15.8 National Output Usable MW Data (NOUY1)

```
*NOUY1_20021230_00000.xon
*
*National Output Usable MW Based on OC2 (Year 1) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
NOUY1,2002-03-08 15:50,N,1,2003,1500
...
<EOF>
```

15.9 System Zone Output Usable MW Data (ZOUY2)

```
*ZOUY2_20031229_00000.xon
*
*System Zone Output Usable MW Based on OC2 (Year 2) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
ZOUY2,2002-03-08 15:50,A,1,2004,1500
...
<EOF>
```

15.10 National Output Usable MW Data (NOUY2)

```
*NOUY2_20031229_00000.xon
*
*National Output Usable MW Based on OC2 (Year 2) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
NOUY2,2002-03-08 15:50,N,1,2004,1500
...
<EOF>
```

15.11 System Zone Output Usable MW Data (ZOUY3)

```
*ZOUY3_20050103_00000.xon
*
*System Zone Output Usable MW Based on OC2 (Year 3) Data
*
```


*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
ZOUY3,2002-03-08 15:50,A,1,2005,1500
...
<EOF>

15.12 National Output Usable MW Data (NOUY3)

*NOUY3_20050103_00000.xon
*
*National Output Usable MW Based on OC2 (Year 3) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
NOUY3,2002-03-08 15:50,N,1,2005,1500
...
<EOF>

15.13 System Zone Output Usable MW Data (ZOUY4)

*ZOUY4_20060102_00000.xon
*
*System Zone Output Usable MW Based on OC2 (Year 4) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
ZOUY4,2002-03-08 15:50,A,1,2006,1500
...
<EOF>

15.14 National Output Usable MW Data (NOUY4)

*NOUY4_20060102_00000.xon
*
*National Output Usable MW Based on OC2 (Year 4) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
NOUY4,2002-03-08 15:50,N,1,2006,1500
...
<EOF>

15.15 System Zone Output Usable MW Data (ZOUY5)

*ZOUY5_20070101_00000.xon
*
*System Zone Output Usable MW Based on OC2 (Year 5) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
ZOUY5,2002-03-08 15:50,A,1,2007,1500
...
<EOF>

15.16 National Output Usable MW Data (NOUY5)

*NOUY5_20070101_00000.xon
*
*National Output Usable MW Based on OC2 (Year 5) Data
*
*Data,Publish Time,System Zone,Eng. Week,Eng. Year,Output Usable(MW)
NOUY5,2002-03-08 15:50,N,1,2007,1500
...
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15.17 Balancing Services Adjustment Data

*BSAD_200310280030_00000.bmr

*

*Balancing Services Adjustment Data

*

*Data, Settlement Date, Settlement Period, Buy Price Cost Adjustment, Buy Price Volume Adjustment, Buy Price Price Adjustment, Sell Price Cost Adjustment, Sell Price Volume Adjustment, Sell Price Price Adjustment

BSAD,2003-10-28,1,11.11,22.222,33.33,44.44,-55.555,66.66

BSAD,2003-10-28,2,11.11,22.222,33.33,44.44,-55.555,66.66

BSAD,2003-10-28,3,11.11,22.222,33.33,44.44,-55.555,66.66

BSAD,2003-10-28,4,11.11,22.222,33.33,44.44,-55.555,66.66

BSAD,2003-10-28,5,11.11,22.222,33.33,44.44,-55.555,66.66

BSAD,2003-10-28,6,11.11,22.222,33.33,44.44,-55.555,66.66

BSAD,2003-10-28,7,11.11,22.222,33.33,44.44,-55.555,66.66

BSAD,2003-10-28,8,11.11,22.222,33.33,44.44,-55.555,66.66

BSAD,2003-10-28,9,11.11,22.222,33.33,44.44,-55.555,66.66

<EOF>

15.18 Net Balancing Services Adjustment Data

*NETBSAD_200310280030_00000.bmr

*

*Net Balancing Services Adjustment Data

*

*Data, Settlement Day, Settlement Period, Net Buy Price Cost Adjustment (Energy), Net Buy Price Volume Adjustment (Energy), Net Buy Price Volume Adjustment (System), Buy Price Price Adjustment, Net Sell Price Cost Adjustment (Energy), Net Sell Price Volume Adjustment (Energy), Net Sell Price Volume Adjustment (System), Sell Price Price Adjustment

NETBSAD,2003-10-28,1,11.11,22.222,33.333,44.44,55.55,-66.666,-77.777,88.88

NETBSAD,2003-10-28,2,11.11,22.222,33.333,44.44,55.55,-66.666,-77.777,88.88

NETBSAD,2003-10-28,3,11.11,22.222,33.333,44.44,55.55,-66.666,-77.777,88.88

NETBSAD,2003-10-28,4,11.11,22.222,33.333,44.44,55.55,-66.666,-77.777,88.88

NETBSAD,2003-10-28,5,11.11,22.222,33.333,44.44,55.55,-66.666,-77.777,88.88

NETBSAD,2003-10-28,6,11.11,22.222,33.333,44.44,55.55,-66.666,-77.777,88.88

NETBSAD,2003-10-28,7,11.11,22.222,33.333,44.44,55.55,-66.666,-77.777,88.88

NETBSAD,2003-10-28,8,11.11,22.222,33.333,44.44,55.55,-66.666,-77.777,88.88

NETBSAD,2003-10-28,9,11.11,22.222,33.333,44.44,55.55,-66.666,-77.777,88.88

<EOF>

15.19 Generating Plant Demand Margin Based on OC2 Data for 2 – 14 days File

*OCNMFD2_20020904_00000.xon

*

*Generating Plant Demand Margin Based On OC2 (2 – 14 days) Data

*

*Data,Publish Time,Forecast Day,Margin

OCNMFD2,2002-09-02 16:00,2002-09-04,1500

...

<EOF>

15.20 Generating Plant Demand Margin Based on OC2 Data for 2 – 52 weeks File

*OCNMF2_20020916_00000.xon

*

*Generating Plant Demand Margin Based On OC2 (2 – 52 weeks) Data

*

*Data, Publish Time, Eng. Week, Eng. Year, Margin

OCNMF2, 2000-09-06 17:00, 38, 2002, 1600

...

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DOCUMENT STATUS

Product Description Reference

IS-SO/24.22.0023

AMENDMENT RECORD

Issue	Draft	Date	Author	Description of changes
5	-	05-NOV-02	IW	Modified following internal and external review.
5	1	29-OCT-02	IW	Modified to retain both BSAD and NETBSAD formats.
4		01-OCT-02	IW	Issue 4
4	1	23-SEP-02	IW	Modified BSAD to account for P78 Revisions
3	-	10/07/02	JS	Issue 3
3	1	12-JUN-02	EVS	Modified OCNMFD and OCNMFW to OCNMFD2 and OCNMFW2 respectively.
2		26-APR-02	EVS	Issue 2
2	1	7-MAR-02	EVS	P33 and P8 Modifications
1		6-FEB-02	EVS	Issue 1
1	2	29-JAN-02	EVS/ SAM	Changes as per National Grid and ELEXON review comments.
1	1	18-DEC-01	EVS	Issue 1, Draft 1

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