ISG113/01

Meeting name	Imbalance Settlement Group (ISG)
Date of meeting	Ex-Committee – response requested by **4pm on 7 June 2010**
Paper title	CP1333 - Change Proposal Progression
Purpose of paper	For Decision
Synopsis	CP1333 aims to improve the transparency of SO-SO data by improving the mechanism for receiving and publishing the data on the BMRS. Ex-Committee approval is sought to implement this change as part of the November 2010 BSC Release.

1 Summary

1.1 We raised CP1333 'Improved Reporting of Prices for SO – SO Trades' on 30 April 2010 and subsequently issued it for impact assessment via Change Proposal Circular 00680 (CPC00680) in May 2010.

1.2 This CP impacts the BMRS which is being changed as part of the November 2010 BSC Release. In order to exploit development synergies and to allow the changes to be introduced prior to go-live of the Brit Ned inter connector, a decision is sought. Due to the tight implementation timescales associated with CP1333 we agreed, at ISG112, that we would request an ex-committee decision once we had received responses from the industry impact assessment (final responses were received on Thursday, 27 May 2010).

1.3 This paper provides an overview of CP1333, as well as a summary of the industry responses to CPC00680.

2 CP1333 - The need for Change?

2.1 Background

2.1.1 In May 2008 we raised CP1247[1] to separate the System Operator to System Operator (SO-SO) trade information from the 'Systems Warning Page' on the BMRS. The primary intention of CP1247 was to ensure that there is a clear distinction between actual 'System Warnings' and 'SO-SO Trade Data'.

2.1.2 The solution introduced as part of CP1247 was seen as an interim solution. It was emphasised at the time that a more enduring solution would need to be developed in order to cope with the anticipated increases in System Operator trades in the future.

2.2 The ISG approved CP1247 in May 2008 (Please refer to Attachment F).

2.3 The Problem

2.4 Ofgem recently published an Electricity Interconnector Policy which highlights further reforms of SO-SO balancing arrangements towards the end of 2010. These changes will significantly increase

[1] BMRS Amendment to Report Interconnector SO-SO Prices Separately from Other System

the volume of price data which will require improvements to the Balancing Mechanism Reporting System (BMRS).

2.5 The current Balancing Mechanism Report Service (BMRS) SO-SO Trade page presents SO-SO price data in an **unstructured manner**. This means that it will become extremely difficult for Parties to locate the relevant SO-SO information as the volume of data increases significantly.

3 Solution

3.1 We raised CP1333 in order to establish a robust mechanism for receiving and publishing the SO-SO trade information.

3.2 CP1333 will ensure that the BMRS is capable of dealing with an increase in information as well as ensuring that the BMRS continues to provide electricity information in a transparent and user-friendly format. The solution has also been designed in a flexible manner that will allow it to be used for new Interconnectors (starting with BritNed next year and the East-West interconnector to Ireland) and new data formats that are consistent with EU standards[2].

3.3 At ISG112, an ISG member questioned whether the data formats were likely to change in the future. We do not believe that the data formats will change as they are consistent with EU standards (the ENTSO-e XML schema), however, if the reporting requirements (the elements that are reported on the SO-SO Trade Page) for CP1333 were to change, we believe that the solution would accommodate the changes efficiently and at minimal cost.

4 Intended Benefits

4.1 The changes are driven by both the GB regulator and European Regulatory bodies which are seeking to develop increased harmonisation and flexibility on interconnectors between member state countries electricity markets. CP1333 represents improvements to the current arrangements to ensure more market reflective prices are offered by each party.

4.2 The existing BMRS mechanism for reporting the prices of SO-SO trades is fairly primitive - the information is embedded in textual strings and cannot easily be queried. Arguably, this may be acceptable for the current low volumes of data, but will not be satisfactory when the volume of data on the Anglo-French Interconnector increases dramatically later this year.

4.3 CP1333 aims to provide a better service to BSC Parties by ensuring that data is presented in an easily accessible and user friendly format.

5 Industry Views

5.1 We received 7 responses; of these 6 agreed and 1 was neutral.

5.2 Respondents to the consultation highlighted that the current mechanism for publishing the SO-SO data was not suitable, given the anticipated increase in SO-SO data towards the end of 2010. The respondents highlighted that the solution proposed as part of CP1333 was a more robust and future proof solution. In addition the respondents believed that the solution would ensure more transparency of SO-SO data.

[2] All SO-SO data would be sent as XML files compliant with the **ENTSO-e XML schema** for the Merit Order List document.

6 Impacts and Costs

6.1 The table below highlights the costs associated with progressing CP1333:

Market Participant	Cost/Impact	Implementation time needed
ELEXON	ELEXON will require 25 days, equivalent to £6K.	November 10 release is suitable
BSC Parties	One party believed that they would require 90 days to implementing the solution. No other respondents highlight any time constraints.	November 10 release is suitable
National Grid	National Grid estimated an impact of approximately £10k	November 10 release is suitable
BSC Service Provider Costs	The estimated Service Provider costs are approximately £70K	November 10 release is suitable

7 Implementation Approach

7.1 By the end of this year, Ofgem intends to formalise their interconnector policy. The Policy highlights an intent to:

'Maximise the efficient use of existing and planned interconnection by ensuring that users can respond efficiently to price differentials and that the mix of capacity products and levels of firmness provide for competition, market entry and an appropriate allocation of rights and responsibilities between market participants'

7.2 In response to Ofgem's policy, National Grid (NG) has outlined their aim to provide this data to us by November 2010. In preparation for this increase in data, we believe that the 'SO-SO Trade Page' needs to be refined by November in order to present the data in a more structured manner and to coincide with National Grid's proposed timescales.

7.3 The intention is that CP1333 be introduced as part of the November 2010 Release. We believe that this will be beneficial for numerous reasons, namely:

- Implementing CP1333 alongside other BMRS changes will significantly reduce the overall cost of the change;
- An implementation in November will align with Ofgem's Interconnector Policy; and
- The BMRS will be set up to receive and publish the SO-SO data in a structured and user friendly format by the time NG are in a position to submit the data.

8 Conclusion

8.1 In summary we believe that CP1333 will ensure that there is transparency for all Parties involved in Balancing the Transmission System. In particular participants, who publish their Bids and Offers on the BMRS, will have access to the SO-SO data. We believe that CP1333 will better

facilitate Objective (c)[3] and (d)[4] of the Applicable BSC objectives i.e. level the playing fields by ensuring transparency in the market.

9 Recommendation

9.1 We invite you to **APPROVE** CP1333 for implementation as part of the November 2010 Release.

Stuart Holmes

ELEXON Change Assessment

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Appendix:
Appendix 1 – Industry Impact Assessment Responses to CP1333

List of Attachments:
Attachment A – NETA_IDD_Part1_redlined
Attachment B – NETA_IDD_Part2_redlined
Attachment C – BMRS_SOSO_FILE_LOADER
Attachment D – Standing_Data_for_SO-SO_Trade_Type
Attachment E – CP1333_v1.0
Attachment F – ISG88_v0.4

[3] 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.
[4] Promoting efficiency in the implementation and administration of the balancing and settlement arrangements.

Appendix 1: Industry Impact Assessment Summary for CP00680 – Improved Reporting of Prices for SO – SO Trades

IA History CPC Number	CPC00680	Impacts	IDD Part 1 & Part 2		
Organisation	**Capacity in which Organisation operates in**		**Agree?**	**Impacted?**	**Days needed to implement**
TMA Data Management Ltd	HHDC, HHDA, NHHDC and NHHDA		Yes	No	-
NPower Limited	Supplier/Supplier Agents		Yes	No	-
Gemserv	MRASCo		Yes	No	-
ScottishPower	Supplier/Supplier Agents		Yes	No	-
National Grid Electricity Transmission plc	National Electricity Transmission System Operator		Yes	Yes	November release is achievable
Scottish and Southern Energy	Supplier/Generator/ Trader / Party Agent / Distributor		Yes	Yes	90
EDF Energy Networks	EDF Energy Networks (EPN) plc, EDF Energy Networks (LPN) plc, EDF Energy Networks (SPN) plc, EDF Energy (IDNO) Ltd (EDFI		Neutral	No	-

Table 2: Impact Assessment Responses[5]

Organisation	Agree?	Impacted?	Comments	ELEXON Response
Gemserv	Yes	No	Would implementation in the proposed Release have an adverse impact on your organisation? **No**	-
TMA Data Management Ltd	Yes	No	Would implementation in the proposed Release have an adverse impact on your organisation? **No**	-
EDF Energy Networks	Neutral	No	-	-
National Grid Electricity Transmission plc	Yes	Yes	**Do you agree with the change comments:** National Grid agrees that the existing BMRS mechanism for reporting the prices of SO-SO trades is not suitable given the increased volume of data resulting from improvements to the cross border balancing framework being implemented in France. The current information is embedded in textual strings and cannot easily be queried. National Grid supports the provision of this data to the market in an easily	-

[5] Please note that we have only included responses in this table where the respondent provided additional information.

Organisation	Agree?	Impacted?	Comments	ELEXON Response
			accessible and user friendly format. **For which role is your organisation impacted?** National Electricity Transmission System Operator **Please state what the impact is:** Requirement 1 in CP1333 states that "Transmission Company to send SO-SO price data to BMRS in a structured format". The proposed structured format is XML files compliant with ENTSO-e XML schema. The above requirement will impact Transmission Company's IT systems which will require changes in order to send the data in the required format. **How much notice would you need to implement these changes, if they were approved:** Transmission Company will be able to delivery changes for the November 2010 release in line with the scope we have developed with ELEXON in working on CP1333. **Would implementation in the proposed Release have an adverse impact on your organisation:** No. Please see response to Q3. We believe this change will allow the market to continue to benefit from sufficiency transparency of the prices of potential system management actions that we may have available with other system operators. **Please provide details of associated costs:** The cost of the changes required to make pricing information similar to that we currently provide to the BMRS is small. We estimate the marginal cost impact to be £10K on our wider IT project to deliver the changes to the Cross Border Balancing (CBB) regime. The wider project is proceeding to implement the new CBB regime and will do this without a dependency on CP1333. **Do you have any other comments:** No	
Npower Limited	Yes	No	No changes to systems or processes required. There are no associated costs for this Change Proposal.	-
Accenture (UK) Ltd. (for and on behalf of ScottishPower)	Yes	No	SP agrees that this change would improve market price reflectivity and would provide a better service to BSC Parties by ensuring that data is easily accessible and in user friendly format.	-
Scottish and Southern Energy	Yes	Yes	**Impact:** Changes to our systems and processes. Would implementation in the proposed Release have an adverse impact on your organisation? **No**	-
Gemserv	Yes	No	Would implementation in the proposed Release have an adverse impact on your organisation? **No**	-

We did not receive any comments on the redline text.

CP1333 Attachment – NETA IDD Part 1 v24.0 redlining v0.3

This document sets out proposed drafting to the Part 1 of the NETA IDD to support CP1333. Drafting is based on IDD Part 1 v24.0.

Add reference to SO-SO Price information to BMRA-I005 interface, after System Warnings:

BMRA-I005: (output) Publish System Related Data

Interface ID: BMRA-I005	User: BMR Service User	Title: Publish System Related Data	ITT reference: BMRA SD 7.2, P8, P78, P172, P219, P220, P217, CP1333
Mechanism: BMRA Publishing Interface	Frequency: Continuous (as made available from the SO)	Volumes: Various	

Interface Requirement:
The BMRA Service shall publish System data continuously, as it is received from the SO.

The System Related data consists of the following:

[note: this is an extract of the full list of data in BMRA-I005; no other changes are proposed to this section]

…

Indicated Margin
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- National/Boundary Identifier
- Margin (MW)

Indicated Imbalance
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- National/Boundary Identifier
- Imbalance Value (MW)

System Warnings

SO-SO Prices

Balancing Services Adjustment Data:
- Settlement Date
- Settlement Period
- Net Energy Buy Price Cost Adjustment (EBCA) (£)
- Net Energy Buy Price Volume Adjustment (EBVA) (MWh)

…

The System Warnings functionality will be utilised, within existing constraints, to report the issuing of all Emergency Instructions, and to notify whether or not each instruction should be treated as an Excluded Emergency Acceptance.

Balancing Services Adjustment Data for Settlement Dates after, and including the P217 effective date will always have a value of zero for the following data items: Net Energy Buy Price Cost Adjustment (EBCA) Net Energy Buy Price Volume Adjustment (EBVA) Net System Buy Price Volume Adjustment (SBVA) Net Energy Sell Price Cost Adjustment (ESCA) Net Energy Sell Price Volume Adjustment (ESVA) Net System Sell Price Volume Adjustment (SSVA)
Physical Interface Details:
Within the Balancing Services Adjustment Action Data the SO-Flag will be set to 'T' where the associated Action has been flagged by the SO as potentially impacted by transmission constraints.

Add reference to new TIBCO message in section 4.7.1

4.7.1 Message Types

The following table lists all of the message types sent from BMRA and specifies the External Interface Requirement met by each one.

External Interface Requirement	**Data Type**	**Message Type**
BMRA-I005	Indicated Margin	MELNGC
BMRA-I005	Indicated Imbalance	IMBALNGC
BMRA-I005	System Warnings	SYSWARN
BMRA-I005	SO-SO Prices	SOSO
BMRA-I005	Net Balancing Services Adjustment Data	NETBSAD
BMRA-I005	Balancing Services Adjustment Action Data	DISBSAD
BMRA-I005	System Message	SYSMSG

Add new field types required for the new TIBCO messages into to the field type index tables in section 4.7.4:

4.7.4 Field Type Index

Field Type	Data Type
TT	SO-SO Trade Type
ST	SO-SO Start Time
TD	Trade Direction
CI	Contract Identifier
TQ	Trade Quantity
TP	Trade Price

Modify section 4.7.4 to include new field definitions for use in TIBCO message (existing definitions will be renumbered accordingly):

SO-SO Trade Type

Field Data Type : SO-SO Trade Type
Field Type : TT
Field Name : "TT"
Description : The type of SO-SO Trade
TIB Data Type : TIBRVMSG_STRING
C/Java Type : Char*/String
Messages containing field : SOSO
Additional Information :

SO-SO Start Time

Field Data Type : SO-SO Start Time
Field Type : ST
Field Name : "ST"
Description : The date and time for which an SO-SO price applies
TIB Data Type : TIBRVMSG_DATETIME
C/Java Type : time_t/Date
Messages containing field : SOSO
Additional Information :

SO-SO Trade Direction

Field Data Type : Trade Direction
Field Type : TD
Field Name : "TD"
Description : Flag indicating whether the direction of an SO-SO trade is up or down
TIB Data Type : TIBRVMSG_STRING
C/Java Type : Char*/String
Messages containing field : SOSO

Additional Information : Valid values: 'A01' (up) or 'A02' (down)

Contract Identification

Field Data Type : Contract Identification
Field Type : CI
Field Name : "CI"
Description : A unique identifier for an offered SO-SO trade
TIB Data Type : TIBRVMSG_STRING
C/Java Type : Char*/String
Messages containing field : SOSO
Additional Information :

Trade Quantity

Field Data Type : Trade Quantity
Field Type : TQ
Field Name : "TQ"
Description : Level of an offered SO-SO trade
TIB Data Type : TIBRVMSG_F32
C/Java Type : Float
Messages containing field : SOSO
Additional Information : Value in MW.

Trade Price

Field Data Type : Trade Price
Field Type : TP
Field Name : "TP"
Description : The price of an SO-SO trade
TIB Data Type : TIBRVMSG_F32
C/Java Type : Float
Messages containing field : SOSO
Additional Information : Value in unit currency per MWh. The currency used (e.g. EUR or GBP) will potentially be different for different SO-SO Trade Types (i.e. different Interconnectors and products).

Insert new TIBCO message in section 4.7.5:

4.7.5.55 SOSO – SO-SO Prices

This message contains details of prices for trades offered between System Operators. The data is published by BMRA as it is received from the System Operator.

Message Definition

Field	**Field Type**	**Description of field**
SO-SO Trade Type	TT	A code identifying the type of trade being made
SO-SO Start Time	ST	The start date and time for which a Trade Price applies
SO-SO Trade Direction	TD	The direction of the trade
Contract Identification	CI	A unique identifier for an offered trade
Trade Quantity	TQ	The quantity of an offered trade in MW
Trade Price	TP	The price of the trade in units of currency per MWh

Message Subject Name

BMRA.SYSTEM.SOSO

In section 4.8, insert format of data to be made available by download:

4.8.29 SO-SO Prices

4.8.29.1 Header Record

Field	**Type**	**Format**	**Comments**
Record Type	string		Fixed String “HDR”
File Type	string		Fixed String “SO-SO PRICES”

4.8.29.2 Body Record

Field	**Type**	**Format**	**Comments**
Record Type	string		Fixed String “SOSO”

Field	Type	Format	Comments
Trade Type	string		A code identifying the type of trade being made
Start Time	datetime	yyymmddhhmmss	The start date and time for which a Trade Price applies
Trade Direction	string	A01 or A02	The direction of the trade
Contract Identification	string		A unique identifier for an offered trade
Trade Quantity	number	MW	The quantity of an offered trade in MW
Trade Price	number	Currency/MWh	The price of the trade in units of currency per MWh

4.8.29.3 Example File

```
HDR,SO-SO PRICES
SOSO,BALIT_NG,201004221700,A01,RTE_20101225_1000_3,12584,24.25
SOSO,BALIT_NG,201004221800,A02,RTE_20101225_1000_27,10524,30.16
FTR,2
```

CP1333 Attachment- NETA IDD Part 2 v25.0 redlining v0.4

This document sets out proposed drafting to the Part 2 of the NETA IDD to support CP1333. It is based on NETA IDD Part 2 v25.0.

Modify section 2.1.2.2 to reference the new format of SO-SO price data received from NGC:

2.1.2.2 NGC File Format

Data received from the System Operator (described in this document as flows BMRA-I002 and BMRA-I003) will be formatted according to the SO's specification for the flows, given in [NGCSPEC]. For the avoidance of doubt, this format is amplified as follows:

1. The first line of the file will contain an asterisk and the file name.
2. The second through fifth lines of the file will start with an asterisk and will be ignored.
3. The last line of the file will begin with the characters '<EOF>'.
4. Lines not beginning with an asterisk or '<EOF>' will contain data records. A data record consists of fields separated by commas as illustrated in Section 14 of [NGCSPEC].
5. A checksum is not included in these files.

The files use the ASCII character set.

In addition, receipt of these files will not be acknowledged by the NETA Central Systems in any way. Files contain sequence numbers - each file type has its own sequence, and duplicate or missing file detection is the same as described in section 2.2 of Part 1, except that instead of sending an out of sequence message, a warning is logged so that the operator can instigate manual processed to resolve the problem.

[NGCSPEC] defines one file which has a different format: the System Warning file, file name SYS_WARN_<CREATION DATE>.bmr. This is a free format text file with no special formats for the first five lines or the last line.

The other exception is the SO-SO Price interface (BMRA-I00x). This data is provided as an XML file, in a format defined by the XML Schema for Merit Order List documents (published in the ENTSO-E Reserve Resource Planning EDI library).

All other interfaces with the System Operators will use the common conventions specified in Section 2.2 of Part 1 of the Interface Definition and Design.

Create a new automatic interface in Section 9 for the BMRA to receive SO-SO price data:

BMRA-I00x: (input) SO-SO Prices

Interface ID: BMRA-I00x	Source: System Operator	Title: System Related Data	ITT reference: CP1333
Mechanism:	Frequency:	Volumes:	

Electronic data file transfer, XML	Continuous (as made available from SO)	

Logical:

The BMRA shall receive SO-SO prices in an XML file and will include:

- The Resource Provider i.e. the System Operator who is offering the price.
- The Acquiring Area and Connecting Area. These codes identify the TSO areas involved in a trade, and are used by the BMRA to identify the Interconnector to which the data relates.
- The Resolution. This code identifies the length of the period of time to which the price relates (e.g. 60 minutes).
- The Time Interval i.e. the start date and time of the period of time to which the price relates.
- The Contract Identification, i.e. a code assigned by the System Operators that identifies a particular offer to increase or reduce flows on the Interconnector.
- The Direction (up or down) in which the MW level would change.
- The Currency (e.g. EUR or GBP).
- The MW level and price.

Physical Interface Details:

This file will be received in a format defined by the XML Schema for Merit Order List documents (published in the ENTSO-E Reserve Resource Planning EDI library). The data items will be as defined in the XML Schema,

Create a new manual interface in Section 9 to cover the receipt of standing data used to support BMRA's processing of SO-SO price information:

BMRA-I00x: (input) SO-SO Standing Data

Interface ID: BMRA-I00x	Source: System Operator	Title: SO-SO Standing Data	ITT Reference: CP1333
Mechanism: Manual, MS Excel Spreadsheet, by email.	Frequency: As necessary	Volumes: Infrequent, generally when new trading products are added	

Logical:

For reporting purposes, the BMRS associates SO-SO prices with a code (the SO-SO Trade Type) that identifies which Interconnector the price relates to, the Party offering the price, and the length of the time period to which it applies (e.g. 60 minutes).

An appropriate SO-SO Trade Type is automatically allocated to each price received via the SO-SO Price interface (BMRA-I00x), based on the Resource Provider, Acquiring Area, Connecting Area and Resolution associated with that price.

In order to support this process, the BMRA shall receive standing data defining the attributes associated with each SO-SO Trade Type:

- SO-SO Trade Type
- Resource Provider Code
- Connecting Area Code
- Resolution Code
- Currency

- Effective From Date
- Effective To Date

Physical Interface Details:

The details described above shall be provided to the BMRA as an MS Excel Spreadsheet.

CP1333 Attachment – BMRS SO-SO Loader Specifications

The following would be loaded as part of the SO-SO Loader:

- An SO-SO price (for reporting via Tibco and subsequent publication via the web) from each Interval element of the XML file. The required processing would be as follows: Use the Resource Provider, Acquiring Area, Connecting Area and Resolution codes to identify the SO-SO Trade Type (Please refer to the SO-SO Trade Type section below) to which the price relates;

- The Time Interval element identifies the date and time (in UTC) of the start of the period to which the price relates. This time would be the start time of the block to which the price data relates e.g. a price that relates to 04:00 – 05:00 on 26 June 2011 would be notified with a time of 2011-06-26 04:00:00;

- The Contract Identification and Direction would be used to identify an individual Bid or Offer, allowing a 'stack' of multiple prices for each hour. Note that there is no concept of a Bid Offer Number – the file presents a number of Bids and Offers in each hour, any number of which may be accepted (starting with the cheapest);

- The Currency element identifies the currency in which price data is provided. This would be validated against the expected currency (on the standing data table); and

- The Qty and Energy Price elements identify a MW level and a price (in the currency relevant for that SO-SO Trade Type i.e. £/MWh or €/MWh).

CP1333 Attachment - Standing Data for SO-SO Trade Type

Standing data to be held against each SO-SO Trade Type is as follows:

Standing Data	Description
Identifying code	BALIT_NG for 1-hour BALIT products offered by National Grid, and BALIT_RTE for 1-hour BALIT products offered by RTE
Short Textual Description	Description of the Trade Type
Resource Provider code	Code associated with that product (e.g. '10XFR-RTE------Q' for BALIT_RTE, or '10X1001A1001A515' for BALIT_NG);
Acquiring Area code	Code associated with that product (e.g. '17Y100Z100Z00013' for BALIT_RTE and BALIT_NG);
Connecting Area code	Code associated with that product (e.g. '10YFR-RTE------C' for BALIT_RTE, or '10YGB----------A' for BALIT_NG);
Resolution code	Code associated with that product (e.g. 'PT60M' for BALIT_RTE and BALIT_NG)
Currency	Currency in which data is expected (e.g. 'EUR' for BALIT_RTE and BALIT-NG)
Effective From and To Dates	Dates associated with the standing data. These from and to dates would allow the standing data in effect to change over time e.g. introducing a new SO-SO Trade Type, or changing the details in effect for an existing one.

Change Proposal – BSCP40/02	CP No: 1333 *Version No: v1.0*

Title: Improved Reporting of Prices for SO – SO Trades

Description of Problem/Issue

Background

System Operator to System Operator (SO-SO) Trades are trades between National Grid and other Transmission System Operators connected to the GB Transmission System via interconnectors. These Trades are used in two types of balancing service, namely Constraint Management and Balancing (CMB) and Emergency Assistance.

The current Balancing Mechanism Report Service (BMRS) SO-SO Trade page presents SO-SO price data in an **unstructured manner**. This means that it will become extremely difficult for Parties to locate the information they need as the volume of data increases significantly. We propose changing the BMRS to present the data in a structured manner.

Current Process

Currently, the Transmission Company uses the System Warning interface[1] to send both formal System Warnings (as defined in the Grid Code) and other free-form textual information. The Balancing Mechanism Reporting Service (BMRS) then analyses the content of each message, and chooses the appropriate route to display it:

- A System Warning is displayed on the System Warnings page, and also summarised on the Electricity Data Summary page.
- A message concerning the prices of System Operator to System Operator (SO-SO) trades on one of the Interconnectors is displayed on a separate SO-SO Trade page, but not displayed on the System Warnings page.
- Messages that don't fall into either of the above categories (e.g. details of pre-Gate Closure BMU Transactions) are displayed on the System Warnings page, but not the Summary Page.

Note: These differences relate only to the website – the Tibco interface treats all three types of message identically.

CP1333 applies to the second of the above categories – messages that relate to 'SO-SO trades'. SO-SO trades are sent to BMRS using the System Warning file format. These files do not have the standard headers and footers of other files sent from the Transmission Company, but are just unstructured text files, identified by their filename of:

- ***SYS_WARN_YYYYMMDDHHSS.bmr (where YYYYMMDDHHSS denotes the timestamp e.g. SYS_WARN_200012201320.bmr)***

It is only the fact that the text of the message contains the phrase ***"prices for SO to SO transactions"*** that identifies a SO-SO price message.

[1] Section 10 of the BMRA & SAA Interface Specification

The problem

Requirements for reporting these messages have evolved over time, as the volume of data has increased:

- At NETA Go-Live, SO-SO price data was treated in the same way as other messages; (i.e. reported on the Systems Warning page);
- The mechanism for segregating SO-SO prices from other messages was introduced by Change Proposal CP1247 in the November 2008 BSC Systems Release. CP1247 was intended to support an 'interim solution' for SO-SO balancing trades across the Anglo-French interconnector (known as the Interconnexion France Angleterre or IFA). As described in Ofgem's recently-published Electricity Interconnector Policy, this interim solution allowed Transmission System Operators (TSOs) to exchange "six prices a day for four hour segments".
- The interim solution is going to be replaced by an enduring solution that will further increase the volume of prices. Ofgem's document states that "both TSOs are working on developing an *'enduring solution'* for implementation in late 2010" and that this is "likely to lead to more prices per day being exchanged". Potentially the volume of prices will increase from one set of price data per four hour block to ten sets of price data per hour i.e. a forty-fold increase.

This anticipated data volume increase will make it increasingly difficult for Parties to locate SO-SO prices using the unstructured text format.

Proposed Solution

In order to support the anticipated increase in the volume of price data, we would introduce a new and more structured (and therefore user friendly) mechanism for presenting this data to Parties.

Requirements for CP1333

Requirement 1 – Transmission Company to send SO-SO price data to BMRS in a structured format:

The Transmission Company would send SO-SO price data in a structured format to the BMRS. All SO-SO data would be sent as XML files compliant with the **ENTSO[2]-e XML schema** for the Merit Order List document.

Requirement 2 – BMRS to load SO-SO price data:
The file loader for SO-SO files would be different to existing BMRS file loaders, in that it would need to load parse and validate XML files rather than CSV and pipe-separated files as currently (Please refer to attachment D for information relating to the SO-SO Loader).

The end result of the loading process is therefore a number of Bids and Offers, each comprising the following 6 data items:

1. **SO-SO Trade Type;**
2. **UTC date and time;**
3. **Direction;**
4. **Contract Identification;**
5. **Quantity; and**

[2] European Network of Transmission System Operators for Electricity

6. Energy Price.

This data would be reported as a Tibco message (and stored on the database for subsequent reporting via the website).

The BMRS would load files from National Grid as and when received. For the initial SO-SO Trade Types we expect a separate file for each hour, received by H-15 (i.e. 15 minutes before the start of the hour).

The BMRS would allow price data to be updated if required, i.e. new data (for a given SO-SO Trade Type, UTC date and time, Direction and Contract Identification) should replace the existing data.

Requirement 3 – BMRS to publish a new web page for SO-SO price data that presents the data as a structured table:
The new SO-SO price data web page would show structured SO-SO data for today and tomorrow (if any). It would be a simple table of data, with the option to download in CSV or XML format.

Requirement 4 – BMRS to issue a new Tibco message that presents the price data in a structured manner to Parties:
As data is received and loaded, it would be published to Parties as a new Tibco message type. Data items would be as derived from the input file i.e. SO-SO Trade Type, UTC date and time, Direction, Contract Identification, Quantity and Energy Price.

Requirement 5 – BMRS to publish a web page for retrieving historic price data (for a particular Settlement Day, Interconnector and/or Settlement Period):
This page would allow data to be accessed for any given Settlement Date. The user should also have the option of restricting the output to a given SO-SO Trade Type and/or start time. Data should be displayed in a table, with the option to download in CSV or XML format.

Scope

Only two Interconnectors are currently in operation (i.e. the Anglo-French interconnector, and the Moyle Interconnector to Northern Ireland). However, a number of new projects are expected to come into operation over the next few years, such as the BritNed interconnector to the Netherlands, and the East-West Interconnectors between Wales and Ireland. The solution would therefore support receipt and publishing of data for multiple Interconnectors.

We recognise that not all Interconnectors would use the new mechanism. With this in mind, the BMRS would support a scenario where:

1. data for Interconnectors with a high volume of price data (e.g. the Anglo-French interconnector) is sent using the new mechanism; while
2. price data for other Interconnectors (with a lower volume of data) continue to be sent using the existing textual interface and displayed on the current SO-SO Trade page.

SO-SO Trade Types

The new reporting mechanism would be required to support a variety of SO-SO products on a number of different Interconnectors. To allow this flexibility we would introduce the concept of an SO-SO Trade Type, representing a type of SO-SO trade for which BMRS is required to report data. BMRS would maintain a list of valid SO-SO Trade Types, and update it over time as new products

and/or Interconnectors are introduced.

Initially there are likely to be two SO-SO Trade Types, both relating to the 1 hour product (colloquially known as "BALIT", for Balancing Inter-TSO) on the IFA, these relate to:

1. Resources offered by **National Grid**, and
2. Resources offered by **Réseau de Transport d'Electricité** (RTE).

We anticipate that over time new SO-SO Trade Types would be introduced, representing other products on the IFA, and products on other Interconnectors (e.g. BritNed). Any change to the list of valid SO-SO Trade Types would be notified to BMRA by ELEXON via a manual interface.

Note: The purpose of holding the Resource Provider, Acquiring Area, Connecting Area and Resolution is to allow the file loader to identify the SO-SO Trade Type associated with each price in the XML file.

Justification for Change

The changes are driven by both the GB regulator and European Regulatory bodies which are seeking to develop increased harmonisation and flexibility on interconnectors between member state countries electricity markets. CP1333 represent improvements to the current arrangements to ensure more market reflective prices are offered by each party.

The existing BMRS mechanism for reporting the prices of SO-SO trades is fairly primitive - the information is embedded in textual strings and cannot easily be queried. This is acceptable for the current low volumes of data, but will not be satisfactory when the volume of data on the Anglo-French Interconnector increases dramatically later this year.

CP1333 aims to provide a better service to BSC Parties by ensuring that data is presented in an easily accessible and user friendly format.

To which section of the Code does the CP relate, and does the CP facilitate the current provisions of the Code?

Section V 'Reporting'

CP1333 better facilitates the current provisions of the code because it ensures that information is presented in a more Efficient, Effective and Transparent manner.

It is for these reasons that we believe CP1333 better facilitates the Applicable BSC Objectives.

Estimated Implementation Costs

The total estimated implementation costs for CP1333 are approximately £60k, comprising:

ELEXON Effort and Costs:

ELEXON will manage the delivery of the BMRS changes. If implemented as part of the November release ELEXON will require 25 days, equivalent to £6K. These estimates would increase if CP1333 was not approved as part of the November 2010 Release.

Service Provider Costs:

The estimated Service provider cost is £55K These estimates would increase significantly if CP1333 was not approved as part of the November 2010 Release.

Configurable Items Affected by Proposed Solution(s)

NETA Interface Definition and Design: Part 1 – Interfaces with BSC Parties and their Agents

NETA Interface Definition and Design: Part 2 – Interfaces to other Service Providers

BMRA URS Balancing Mechanism Reporting Agent User Requirements Specification[3]

Impact on Core Industry Documents or System Operator-Transmission Owner Code

None

Related Changes and/or Projects

CP1247 'BMRS Amendment to Report Interconnector SO-SO Prices Separately from Other System Messages'

Requested Implementation Date

November 2010

Reason:

Implementation as part of the November release would coincide with National Grid's implementation timescales. In addition, it would lead to lower implementation costs, as there are already significant BMRS changes as part that Release.

Version History

This is version 1.0 of the CP for impact assessment.

[3] The BMRA URS is a category 2 document. Redlined changes required to support the solution need not be provided at the same time as the formal Change Proposal.

Originator's Details:

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Date……30 April 2009

Attachments: Yes

Attachment A– NETA Interface Definition and Design: Part 1 – redlined v0.3 (6 Pages)

Attachment B – Interface Definition and Design: Part 2 – redlined v0.4 (3 Pages)

Attachment C – BMRS SO-SO Loader Specifications (1 Page)

Attachment D – Standing Data for SO-SO Trade Type (1 Page)

ISG88/04

Meeting name	Imbalance Settlement Group (ISG)
Date of meeting	27 May 2008
Paper title	Progression of BMRS Change Proposals CP1246 and CP1247
Purpose of paper	For Decision
Synopsis	This paper presents two Change Proposals (CPs) to the Balancing Mechanism Reporting Service (BMRS), and invites ISG to agree whether they should be approved for inclusion in the November 08 release.

1 Introduction

1.1 This paper presents to ISG for its consideration and agreement on progression two Change Proposals that have been raised since the last meeting. Both CPs concern potential enhancements to the Balancing and Mechanism Reporting Service (BMRS):

- CP1246 ('A New Interface from BMRS to the ETSOVista Reporting System') proposes a new interface to allow system prices, which are already available on the BMRS, to be published also on the European-wide ETSOVista website.
- CP1247 ('BMRS Amendments to Report Interconnector SO-SO[1] Trade Price Data Separately from Other System Messages') proposes a change to the reporting of System Warnings and other messages.

1.2 Although these Change Proposals have only recently been raised, ELEXON believes (for reasons explained in section 4 below) that a decision on whether to progress them should be made in time to allow implementation with the other BMRS changes in the November 08 release. This has required a compressed timescale for the impact assessment.

2 CP1246 – Interface to ETSOVista

2.1 The association of European Transmission System Operators (ETSO)[2] is a non-profit association through which European TSOs cooperate to facilitate harmonisation of rules and facilitate the European Internal Electricity Market (IEM). It currently has no statutory role, although ELEXON understands that the European Commission's proposed Third Package of energy market reforms would see ETSO evolving into a more formal European Network of Electricity Transmission System Operators (ENTSO).

2.2 ETSOVista[3] is a market information website developed by ETSO to provide a single source of electricity market data across the IEM, and meet the guidelines on Information Transparency[4] published by the European Regulators Group for Electricity and Gas (ERGEG)[5]. It is designed to

[1] SO-SO refers to trades between system operators, in this case RTE and National Grid.

[2] Information on ETSO is available at http://www.etso-net.org/

[3] https://www.etsovista.org/

[4] 'Guidelines for Good Practice on Information Management and Transparency in Electricity Markets', March 2006, http://ec.europa.eu/energy/electricity/florence/doc/twg/ergeg_ggpimt.pdf

[5] ERGEG (http://www.energy-regulators.eu/portal/page/portal/EER_HOME) is an advisory group of national regulators established by the European Commission in 2003.

aggregate and publish market data provided by TSOs, market operators and market participants from EU member states and other European nations.

2.3 Development of the ETSOVista platform has taken place in a number of stages:

- Phase 1 (Interconnector Flows) was completed in Q4 2006;
- Phase 1.1 (Day Ahead Interconnector capability and National Demand forecasts) was completed in Q1 2008; and
- Phase 2 (comprising a variety of additional data items) is currently under development.

2.4 To date, National Grid (as GB TSO) has provided this data to ETSOVista. However, some of the Phase 2 data relates to system prices, which are calculated by the BMRS. The question therefore arises of whether these data items should be sent to ETSOVista directly from BMRS, or forwarded on by National Grid.

2.5 ELEXON and National Grid believe that it would be simpler, more efficient and more robust for BMRS (as the original source of this data) to provide these data items to ETSOVista. It is also consistent with the approach taken elsewhere in Europe (with market operators passing data directly to ETSOVista on behalf of TSOs), and with the views expressed by industry last year (in response to National Grid's consultation on Electricity Market Information) that BMRS is the preferred platform for close-to-real-time reporting of market data[6]. National Grid has informed us that for it to make these changes in CP1246 then the costs would exceed those quoted by Logica for completing this work.

2.6 CP1246 therefore proposes that BMRS should produce an XML file of system prices and related data (in the format specified by ETSOVista) for each Settlement Period, and transfer it (via email) to the company operating the ETSOVista platform (currently located in Switzerland). Each file will contain the following data:

- A Balancing Mechanism Trend flag. This flag can have three different values, corresponding to the cases $NIV_j>0$, $NIV_j<0$ and $NIV_j=0$.
- The Global Imbalance i.e. the value (in MWh) of NIV_j.
- The System Sell Price (SSP_j) and System Buy Price (SBP_j).

2.7 In producing the file, BMRS will be required to convert system prices from sterling to euros. It is proposed to perform this conversion using an average exchange rate, updated manually on a monthly basis, rather than attempting to keep track of hour-by-hour or day-by-day fluctuations in the exchange rate.

2.8 Logica has assessed the development cost of amending BMRS in this way as approximately £34k. There is no ongoing operational cost.

2.9 It is proposed to treat the new interface to ETSOVista as part of the BMRS Low Grade Service i.e. a new mechanism for making BMRS data available over the public internet to anyone who wants it. This is consistent with Section V2.3.1 of the BSC, which states that the Low Grade service "shall be made available, without charge, to any person who wants it" by means specified in the Communication Requirements Document (CRD). Redlined changes to the CRD to acknowledge the existence of the ETSOVista interface as part of the Low Grade Service are attached to this paper.

[6] Details of the consultation and the responses received are available at http://www.nationalgrid.com/NR/rdonlyres/C3D2D03E-C94B-49E6-B684-5D109B7B75DD/20693/Conclusions_Report.pdf

3 CP1247 – Reporting of SO-SO Interconnector Prices

3.1 The BMRS contains a System Warning page, which was originally intended for publication of System Warnings as defined in the Grid Code. However, it is also used to publish a variety of other information. For example, it was for a time used to publish details of Pre-Gate Closure BM Unit Transactions.

3.2 Currently, the great majority of messages published on this page are prices for SO-SO trades on the two Interconnectors. Two messages (one per Interconnector) are published each day.

3.3 The reason that data has often been published on the System Warning page (rather than a page of its own) is to avoid the cost of changing systems (both the BMRS itself, and the National Grid systems that provide data to it). However, over the past eighteen months Logica and ELEXON have been investigating mechanisms for reducing the cost of BMRS change (by introducing more agile development methodologies, and more modern development technologies).

3.4 ELEXON has been informed by National Grid that they are currently working with RTE to enhance the arrangements for SO-SO trading on the French Interconnector. This work is part of the Balancing Workstream of the ERGEG Electricity Regional Initiative. National Grid envisages that by September this year, separate prices will be required for a number of different time blocks within each day. The number of messages relating to SO-SO prices would therefore increase considerably. National Grid has suggested that these messages should be moved to a separate page. The impact of achieving this would be as follows:

- BMRS would be amended to categorise each message as it is received. Those messages that contain the phrase "prices for SO to SO transactions" (in any combination of upper and lower case) would be flagged as SO-SO price messages. The onus would be on National Grid to ensure that all such messages continue to contain this phrase and they have agreed to undertake to do this.
- The System Warning page and the Systems Warning table on the Inner Homepage would both be amended to exclude SO-SO price messages.
- A new page (similar to the existing System Warning page) would be created to display SO-SO price messages.
- In order to minimise the impact on Parties, no change would be made to Tibco messages. All messages would continue to be reported as currently (irrespective of whether or not they contained the phrase "prices for SO to SO transactions").

3.5 Logica has assessed the development cost of amending BMRS in this way as approximately £35k. There is no ongoing operational cost.

3.6 The primary benefit of this change is that it increases the usability of the System Warning page, and avoids other messages getting lost among a large number of SO-SO price messages.

3.7 It should be noted that National Grid envisages further enhancement of the SO-SO trading arrangements expected sometime in 2009, and this solution could therefore turn out to be relatively short-lived (if more sophisticated reporting arrangements subsequently become necessary). However, the development of a new page for SO-SO price information and filtering this data from other data types is consistent with the expected evolution of information publication needs in this area.

4 Proposed Timescale for Progression

4.1 ELEXON proposes that, subject to approval of these Change Proposals by ISG, they should be included in the November 2008 release. The reasons for this are as follows:

- The next implementation opportunity following November 2008 is June 2009 (because ELEXON has proposed that, barring an emergency, no changes should be made to the CVA systems in February 2009, to facilitate an orderly transition to the new operating arrangements introduced by Project Isis);
- The Phase 2 ETSOVista reporting arrangements to which CP1246 relates are being implemented throughout Europe during 2008, making a June 2009 implementation for Great Britain difficult to justify;
- The new Interconnector arrangements to which CP1247 relates are being implemented in September 2008, which would again make a June 2009 implementation problematic; and
- There will be a reduced overhead in managing the changes, as the November release already includes significant BMRS changes (i.e. Approved Modifications P219 and P220).

4.2 ELEXON acknowledges that these Change Proposals have been raised late in the day, and that this has had the unfortunate effect of limiting the time available to participants to consider the changes. The reasons for this are as follows:

- In the case of CP1247, ELEXON only recently became aware of the issue through National Grid. The details of the proposed changes between National Grid and RTE have only recently been finalised. ELEXON has not in the past attempted to keep abreast of developments in SO-SO trading on the Interconnector.
- In the case of CP1246, ELEXON has been aware of the issue for some months. However it has taken a period of discussion with National Grid and the ETSOVista project team in order to understand the issues raised.

4.3 ELEXON believes that the best way to prevent this sort of situation arising again in future is to ensure that arrangements are in place for monitoring market and industry developments that may impact the BSC arrangements. A wide variety of ELEXON staff become aware of such issues through their normal day-to-day contacts with market participants (and other industry bodies), but currently mechanisms for sharing this information within ELEXON and ensuring it is acted on in a timely manner are somewhat *ad hoc*. We are currently investigating whether a more formal internal mechanism for tracking such issues would be appropriate (e.g. a spreadsheet with named staff members responsible for different areas and/or issues).

4.4 In order to leave open the possibility of a November 08 implementation, these two Change Proposals were issued for impact assessment on Monday 12 May[7], with responses requested by Thursday 22 May. ELEXON will present details of the industry responses to the ISG meeting on Tuesday 27 May.

[7] Change Proposal Circular CPC00364, available from the ELEXON website at http://www.elexon.co.uk/documents/circulars/Change_Proposal_Circular/CPC00634.doc

5 Recommendations

5.1 The ISG is invited to:

a) **NOTE** the results of the industry impact assessment of CP1246 and CP1247 (to be presented verbally at the meeting);

b) **EITHER**:

APPROVE CP1246 for inclusion in the November 2008 BSC Systems Release;

Or

REJECT CP1246 (on the basis of industry impact assessments discussed at the meeting); and

c) **EITHER**:

APPROVE CP1247 for inclusion in the November 2008 BSC Systems Release;

Or

REJECT CP1247 (on the basis of industry impact assessments discussed at the meeting).

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List of attachments:

Attachment A: CP1246 – Communication Requirements Document redlined changes

