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.

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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)