

Market Change Request

Number		Title	Priority
MCR	0178	Treatment of Supplier Unit excess of Generation over Demand	
			<i>Approved at HWG Workshop 26 Oct, 2010</i>

Date	Version	Reason For Change
15 th April 2010	1.0	Market Change Request raised containing no changes from the associated Discussion Request.

PART 1 CHANGE REQUEST:

Name of Requesting Organisation	MRSO, ESB Networks		
Contact name	James Long		
Date Change Request Raised	15 th April 2010	Originating Discussion Request	
		DR	0177

Detail of Change Request

There is a requirement that the functionality of the Retail Market that sets positive Supplier Units to zero, along with any associated out-of-market registration checks and information messaging, be turned off. This will enable positive values to be displayed in the 590 & 596 messages, if there is excess generation over demand in a Supplier Unit. It will also allow both SEMO and the relevant Supplier to see the true value being aggregated against a particular Supplier Unit. This change will impact on the contents of the 590 NPED (Non Pricing Effecting Demand) file and the 596 message.

When a Supplier Unit has excess generation, the system changes the value in the affected Supplier Unit to zero. This triggers a Work Item for MRSO, who in turn manually upload the positive volumes for dispatch to SMO by email. MRSO now want this functionality to be terminated, as it is no longer required.

In addition, it is proposed that the requirement for self-certification by the Supplier at registration of out-of-market generation, be removed.

Reason for Change Request

During the development of the wholesale metering requirements for SEM, it was asserted that it was a SEM Central Market System requirement that Supplier Units could never represent an excess of out-of-market generation over demand. Consequentially, the Retail Market design currently limits the value of a Supplier Unit to zero, in the event that the generation registered to a Supplier Unit is greater than the demand registered to the Supplier Unit, in a Trading Period. When this limit is applied, MRSO notifies both the Supplier and the SMO by email, of the amount of excess generation over demand that has been set to zero, within the Supplier Unit volumes.

SEMO now have a situation with a current Market Participant, where generation exceeds demand, in their assigned Supplier Unit. In accordance with the current Retail Market design, the data that MRSO are sending in the 590 message is showing zero values and not taking into account the excess generation.

SEMO have confirmed that the SEM Central Market Systems can readily process Supplier Unit representing Demand (negative numbers) and Generation (positive numbers). Therefore, the "limit Supplier Units to zero if it contains a positive number" and "inform the Supplier and SMO" functionality which was built by MRSO is no longer required, and this functionality can be turned off. Removing this

functionality will simplify and streamline the design. SEMO have advised that they were unable, under T&SC rules, to perform out-of-market Settlement based on the exception reports for positive values as proposed in the original decision above. MRSO are now seeking to have the parameters removed and as a consequence of this, allow both positive and negative values to appear in the 590 and 596 market messages.

Scope of Change Request							
Correction to Documentation	Business Process	Market & MP Systems	MGCC	Readings Processor	Market Gateway	Schema	Web Forms
X	X	X					

Identification of Baseline Products Impacted

Market Processes: MPD16 Data Aggregation 2.1 v 7.0
MPD16_2_1 Supplementary info v7.0.doc

Market Messages: Measured Quantity Field on MMs 590 NPED/596 can contain positive data. Note that there is no change to the Schema.

User & Technical Info: None

Working Practices: Working Practice 14 - Distribution Connected Non Participant Generator Export Arrangements Working Practice Draft Version 4.0 attached



WP14 Draft ver 4.0.pdf

Other Documentation: Aggregation Briefing Document Draft Version 3.5 attached.



Aggregation Briefing Doc Draft ver 3.5.pdf

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Description of Trading & Settlement Code Impact (if any)

PART 2 MARKET ASSURANCE:

Applicability

ESB Networks	Suppliers	TSO	SMO	Generators
X	X	X		

Scope of Test

Connectivity	DTT	MSA	IPT	Other
			No. Of Scenarios	

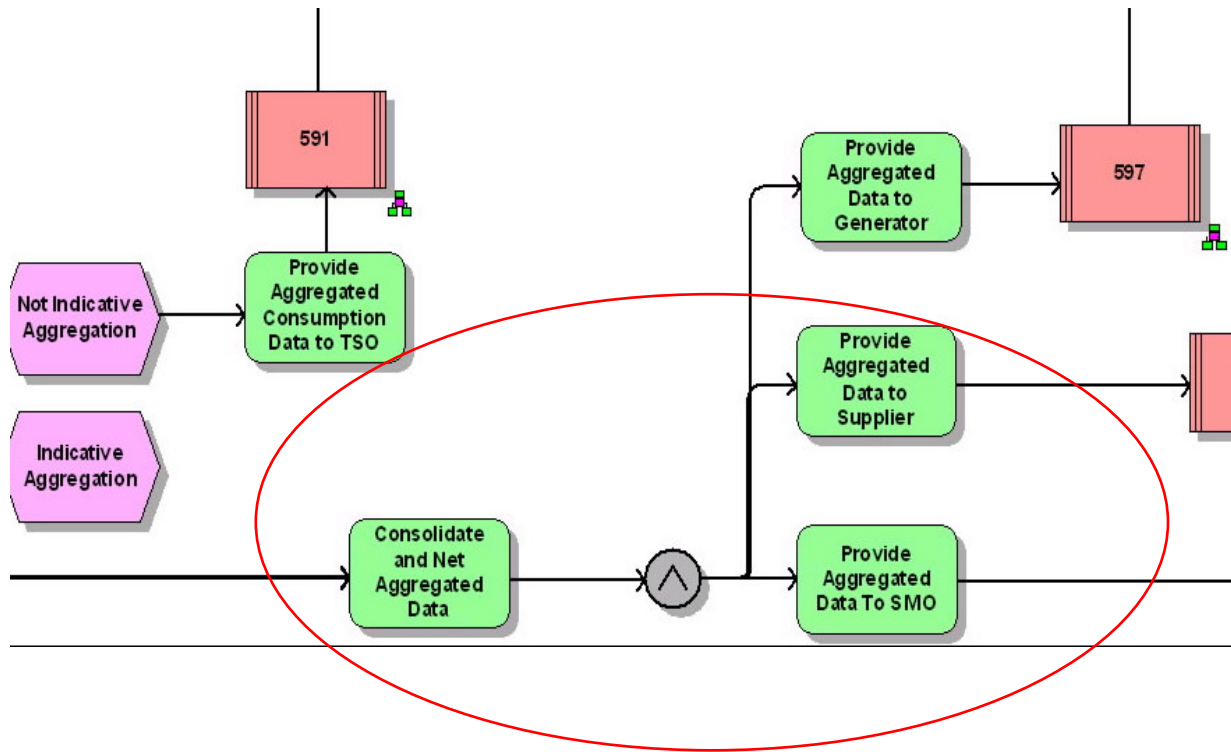
Date of issue of Change Request	
Date response is required	

PART 3 RESPONSES AND MODIFICATIONS:
Collation of Impact Assessment (<i>from Form C</i>)
Modifications Included
Reason for Modifications

PART 4 ASSESSMENT & RECOMMENDATION:
Part 4(a) ASSESSMENT
Summary of Impact Assessment
Recommendation on Implementation Plan

Part 4(b) RECOMMENDATION			
ACCEPTANCE	REJECTION	NO RECOMMENDATION	COMMENT
Reason for Recommendation			
Date of Recommendation			

1. ARIS Process Flow Diagram



2. ARIS Process Flow Diagram: Supporting Text

Attributes	
Description	In order to provide complete aggregated import and export at Supplier Unit and Generator Unit level the previous aggregated data is consolidated by the MRSO and the following actions taken: First, per 15-minute interval, adding the Loss Adjusted NQH Import and QH Import Data that has been summated to Supplier Unit level. Second, MRSO will summate from 15 minute to 30 minute settlement intervals. Third, MRSO will subtract , per 30-minute settlement interval, the non-participant generation data that has been summated per Supplier Unit from the relevant 30-minute settlement interval for the Loss Adjusted Import that has been aggregated per Supplier Unit. Fourth, where the result of this subtraction is a positive value, it will be set to nil. Finally MRSO will convert the kWhs data to MWhs by division by 1000, representing MWh to three decimal places. This is called the Measured Quantity.
Last change	21/10/2006 12:15:18
Last user	system
Name	Consolidate and Net Aggregated Data

Attributes	
Description	Loss Adjusted aggregated data sent to the SMO at Supplier Unit Level that is relevant to a Supplier will also be sent to that Supplier. Where the measured quantity of an interval has been set to zero in the netting calculations MRSO will send an email to the Supplier allowing them to take any further relevant action with the SMO.
Last change	08/02/2007 10:53:36
Last user	system
Name	Provide Aggregated Data to Supplier

Attributes	
Description	Loss Adjusted aggregated data will be sent to the SMO indicating the Measured Quantity per 30-minute settlement interval, per Supplier Unit or Generator Unit. Where the measured quantity of an interval has been set to zero in the netting calculations MRSO will send an email to the Supplier and copied to the SMO.
Last change	25/07/2007 11:46:05
Last user	system
Name	Provide Aggregated Data To SMO

3. Supplementary Information

4.1 Loss Factors

The DSO will identify the Distribution Loss Factors (DLF) applying to each meter point through the definition of an appropriate DLF Code and DLF value.

For Distribution Connected Generators a site specific DLF will be applied. For other Meter Points, DLF shall be applied according to the connection voltage and settlement class – QH/NQH

4.2 Profile Coefficients

The DSO will identify the profile coefficients applying to each settlement interval for each Load Profile. Profile coefficients will be identified in advance for each year and will take account of weekends and public holidays. Profile coefficients are expected to sum to 1 for a 365 day year.

4.3 Settlement Dates and Intervals

A Settlement Date is the calendar day on which export or import consumption is determined to have occurred. When the Settlement Date is a day in which the clocks are advanced it shall have 23 hours and when the Settlement Date is a day in which the clocks are put back it shall have 25 hours.

A Settlement Interval within the Retail Market is defined as a fifteen minute period. There shall normally be 96 Settlement Intervals in a day but there can be 92 or 100 when the clocks are changed. Within the Wholesale Market a Settlement Interval is defined as a thirty minute period. As such, there shall normally be 48 Wholesale Market Settlement Intervals in a day but there can be 46 or 50 when the clocks are changed.

4.4 Derived Load Profiles

For each Timeslot to be settled a Derived Load Profile will be allocated in accordance with published rules for the combination of:

- For non-MD sites, whether the meter point is rural domestic, urban domestic or non-domestic, as determined by the DUoS Group
 - For MD sites, the load factor
- The Timeslot to be settled.

The Derived Load Profile is a set of interval coefficients determined from a researched or sampled Standard Load Profile which are specific to the Timeslot, which sum to the same as the profile from which the derivation is made (1 over a 365-day year). Derived Load Profiles applied at a Meter Point may be determined from more than one Standard Load Profile (e.g. where both 24 hour and night storage meters are installed).

4.5 Day / Night Split for Aggregation

For customers connected at LV with non quarter-hourly meters day-time DLFs shall apply from 8.00 a.m. to 11.00 p.m. in winter and 9.00 a.m. to 12.00 p.m. during summer. For LV customers with quarter-hourly meters, MV and 38kV customers, day-time DLFs shall apply from 8.00 a.m. to 11.00 p.m, summer and winter Night-time DLFs shall apply to the remaining hours of the settlement day.

All NQH aggregation run processes are identical, with output data provided per 15 minute retail settlement interval.

4.6 Records

MRSO will maintain a record of input to Indicative, Initial, Ad Hoc and both 4 and 13 month Re-Aggregation runs identifying the Generator, Supplier, SSAC, Loss Factor Code, Profiles and Usage Factor Data used for each Meter Point.

4.7 Timings

Indicative Aggregation will occur on the week day following the Settlement Date

Initial Aggregation will occur on the fourth week day following the Settlement Date

A Re-aggregation will occur four months following the Settlement Date

A Re-aggregation will occur thirteen months following the Settlement Date

4.8 Unmetered Connections

Unmetered Connections are managed within aggregation at Tmprn level. As such, information is distributed in the same process & messages as per NQH.

4.9 SMO Controls

Controls required by the SMO have been agreed and documented separately in Working Practice 007.

4.10 The 591 Market Message

The 591 Market Message only allows valid combinations of DLF Code & Load Profile.

4.11 Netting of Non Participant Generation

De Minimus Generators that elect not to participate in the SEM can register Supplier Units against their export via Export Agreements. Prior to the issue of aggregated data to the SMO this loss adjusted export will be netted, per Settlement Interval, from the aggregated loss adjusted import recorded against that Supplier Unit. ~~It is possible for this netting to result in a positive value and where this is the case the result will be set to zero and an email issued from the MRSO to the relevant Supplier outlining the occurrence and thus enabling them to take any further relevant action with the SMO.~~

4.12 Signing

The following Signing standards will apply across consumption/generation quantities within the Data Aggregation message:

- Supplier Unit data will be **both signed (negative values) and unsigned (positive values)**
- Generator Unit Data will not be signed in messages 590 and 597
- Zeros will not be signed in all messages
- 591, 594, 595 and 598 – The Demand and Generation values will not be signed

4.13 Price Effecting Generation

Where Distribution Connected Participant Generators have Price Effecting Generation they will not be sent 594 or 597 messages from MRSO, instead, that export data would be available to the participant via the EirGrid website.

4.14 Price Effecting Import

RA324 will not be implemented by SMO prior to SEM go-live. This will impact on a small number of Trading sites with firm/non firm access calculations. Where Import data is Price-Effecting, it is needed by SMO on a 7 day week, calendar day basis, and Eirgrid will be handling the provision of this data to the SMO.

This means that, from SEM go-live, MRSO will not aggregate the import for these sites and therefore will not include the import for these sites in 591, 595 and 596 messages to Suppliers nor 591 and 595 messages to TSO, and will not include the import for these sites in 590 messages to SMO.

4.15 Market Messages

The Data Aggregation process will utilise a set of Market Messages, the 59x series, which will be generic across each aggregation. In addition there will be a Settlement Run Indicator in the body of each message to indicate the originating procedure. This Settlement Run Indicator will contain values as follows:

- 10 = Indicative Aggregation
- 20 = Initial Aggregation
- 30 = Re-aggregation at M+4
- 40 = Re-aggregation at M+13
- 50 = Ad Hoc Aggregation

4.16 – 591 Market Message

The 591 Market Message was baselined at version 6.0 as part of the suite of changes to the Retail Market Design to satisfy new requirements of SEM implementation.

The following statement will be true for the composition of the 591 Market Message

- Invalid Combinations should not be populated in the message, however if there are no MPRNs registered for a valid combination then a count of zero should be populated in the message

The implication of this statement is that where the DLF is LV:

- the count of MPRNs , Load profile and DLF will always be included for each of the Load Profiles 01-12 in the segment Additional Aggregation Information
- And where the Count of MPRNs is zero, none of the lower level segments will be populated viz no Additional Aggregated Consumption, no Additional Aggregation Data segments for that Load Profile/DLF combination

where the DLF is not LV:

- there should be none of the segments : Additional Aggregation Information , Additional Aggregated Consumption, Additional Aggregation Data segments