

## Market Change Request

| Number          | Title                                  | Priority    |
|-----------------|--|-------------|
| <b>MCR</b> 0165 | Recalculation of Consumption Estimates | <i>High</i> |

| Date       | Version | Reason For Change   |
|------------|---------|---|
| 05/08/2008 | 0.1     | Market Change Request to bill customers equitably over a time period in which there has been a series of estimate readings and a tariff change.       |
| 21/08/2008 | 1.0     | Released to the market for approval.  |
| 09/10/2008 | 2.0     | This MCR was amended to reflect the actual changes made. Some aspects of MCR 1.0 were not delivered but will now be carried over in a subsequent MCR. |
| 23/10/2008 | 3.0     | Released to the market for approval.  |
| 13/08/2009 | 4.0     | This MCR amended to include Appendix 1 clarifying the changes for the November 2009 market release  |

| CHANGE REQUEST:                        |                                     |                                       |
|--|-------------------------------------|---------------------------------------|
| <b>Name of Requesting Organisation</b> | <b>Retail Market Design Service</b> |                                       |
| <b>Contact name</b>                    | <b>Colm Gaffney</b>                 |                                       |
| <b>Date Change Request Raised</b>      | <b>6<sup>th</sup> May 2008</b>      | <b>Originating Discussion Request</b> |
|  |                                     | <b>DR</b> 0156                        |

| Detail of Discussion Request   |
|--|
| <p><b>Background</b></p> <p>ESB Networks provides meter readings to electricity suppliers for the RoI retail electricity market. For non-quarter hourly non-maximum demand meter points, actual or estimated readings are provided 6 times a year for each meter point. In cases where access is not possible an estimated meter reading is provided.</p> <p>The estimate is produced using an industry standard estimated algorithm provided in the SAP ISU software. The estimation algorithm uses the consumption history for the meter point, and the profile for the meter point to produce the estimate. The production of estimates is governed by 'Estimation of Non-Quarter Hourly Meter Readings' a briefing document within the approved retail market design.</p> <p>When an actual reading is received that indicates the previous estimate was too high, the central market system withdraws and replaces the estimate with a recalculated figure. If there has been a series of estimates, this will be done for each estimate as far back as required to ensure that no estimated reading is greater than the new, actual reading.</p> <p>This recalculation, withdrawal and replacement process generates two new market messages per estimate replaced (i.e. one withdrawal and one replacement message) and leads to extra processing by the supplier. By agreement, replacement had been limited to cases of over-estimation.</p> <p>The following proposal sets out an approach that would involve the extension of the recalculation of estimates to cases where an underestimate is indicated. It is proposed to provide a set of parameters that would suppress the process where the discrepancy is below a set level of consumption. A recalculation will occur where the consumption level is above a certain level and also meets other specific criteria (see Detailed Solution section).</p> |
| <p><b>Additional Information- Version 1.0 July 2008</b></p> <p>The Regulator prioritised the delivery of this MCR which was due to go live in July 2008. The MCR was subsequently modified by removing the link to a DUoS price change. This allows the recalculation to</p>   |

## Detail of Discussion Request

work for price changes made by the market independently of any DUoS price changes.

**Note** a defect was noticed with the live recalculation which is to be addressed through a separate document.

### Additional Information - Version 2.0 September 2008

MCR0165: 'Recalculation of Estimates' was released on 16th September 2008. A number of amendments to the functionality were made as a result of testing.

#### Delivered

Re-estimation will be triggered automatically when an actual reading is received where the previous 3 readings are estimates and the consumption on any of the registers generated by the new reading is greater than  $\frac{1}{4}$  of the annual EUF.

#### Exceptions

1) If one or more of the 3 previous estimates are related to a CoS or CoLE, re-estimation will not occur. CoS and CoLE reads are treated as actual reads for this purpose.

**Reason:** The supplier has ended the relationship with the customer.

2) Where the reading received is an advanced reading for meter works relating to the re-energisation of a meter, re-estimation will not occur.

**Reason:** Any advance on a de-energised meter is a matter for revenue protection and shouldn't be automatically re-estimated.

3) Where the reading received is a meter works reading, it will not trigger a re-estimation.

**Reason:** This functionality would have delayed the release. It is planned for future development and will be the subject of a further MCR.

In line with the existing re-estimation design for consumption credits, re-estimation will not be triggered for the following situations:

1. An actual reading (type 01) is received that is less than the last previous actual.
2. An actual reading (type 01) is received for an order with an interim reading (read reason of 02)
3. There is a mismatch in reading dates for registers on the same device.
4. If a site contains 2 or more registers with the same time of use (TOU), re-estimation will not occur unless the consumption for one or more of the registers is greater than  $\frac{1}{4}$  of the annual EUF. Consumptions will not be combined in these scenarios.

## Future Developments Under Consideration

### Meter Works Readings

Per 3 above, meter works readings for removed meters will not yet produce a re-estimation. An impact study is being carried out to assess the viability of introducing this functionality. Meter work removal readings include the following scenarios:

1. Removal readings for the de-energisation, transfer or removal of a device.
2. Removal readings for a like for like or like for unlike meter exchange.
3. Removal readings for a meter configuration change.

### Addition of warning flag to the 305 message.

The Schema needs to be amended to include a flag which indicates to a supplier that recharging may be required. The flag will be added to the NQH non settlement estimates (305) message (see Appendix 1).

### Proposed Solution<sup>1</sup>

The principles of the proposal are:

- Recalculate estimates **WHERE**:
  - An actual reading is received immediately after a reading history of 3 or more consecutive estimates on any one register.
  - **AND** the consumption at that meter point is greater than  $\frac{1}{4}$  of the Estimated Usage Factor
  - **AND** there is no Change of Supplier (CoS) or Change of Legal Entity (CoLE) during this period of estimates.

### Detailed Solution

**IF Consumption  $C > Y = \text{EUF}/4$  and three or more estimate reads THEN recalculate the estimates.**

### Definitions

**C** = Consumption at the meter point

**EUF** = Estimated Usage Factor is a statement in kWh of the estimated consumption for a given Timeslot at a Meter Point since the previous read-date, extrapolated to an annual consumption based on the applicable derived profile.

**Y** = is equal to one quarter of the estimated usage factor (EUF/4) i.e. expected consumption for 3 months at that meter point.

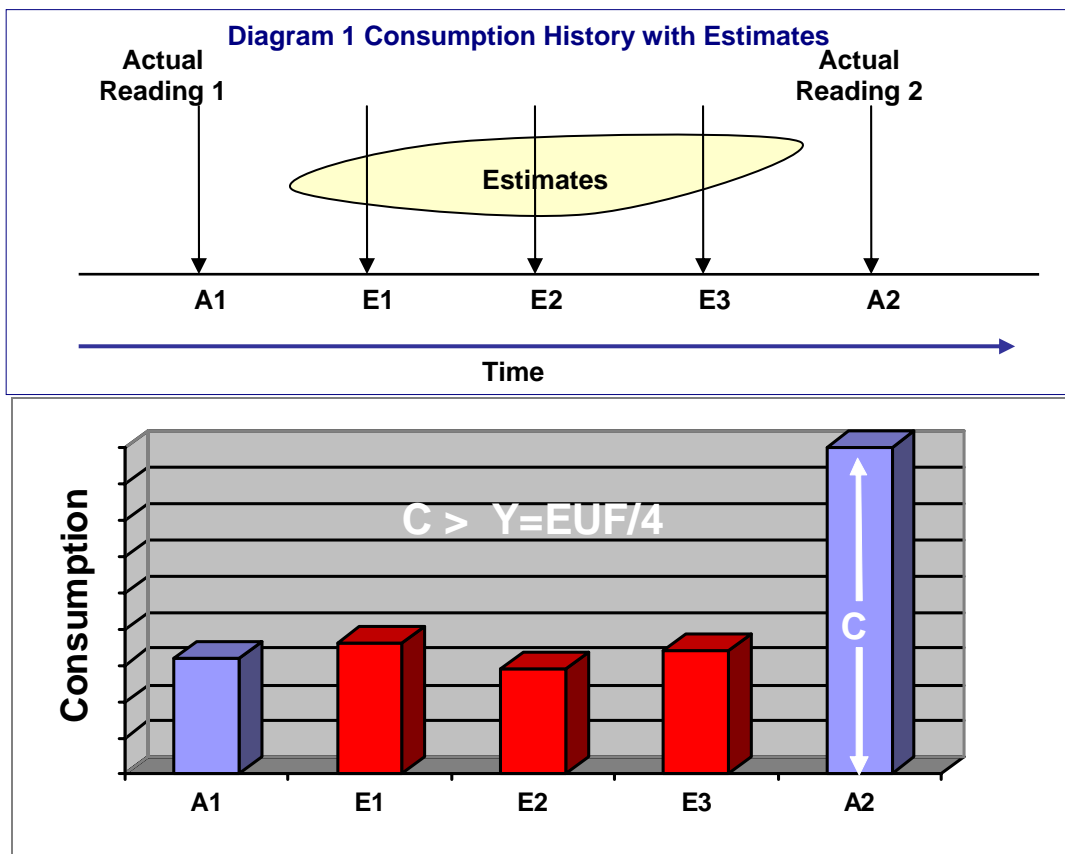


Diagram 1 above indicates actual readings A1 and A2 and estimate readings E1, E2, and E3 over a period of time.

The bar graph (diagram 2) indicates the actual (blue) and estimated (red) consumptions over the same period of time. A2 - the second actual - is considerably higher than the estimates. If the consumption C

<sup>1</sup> The initial design allowed for a flag to the NQH scheduled reading (300) message. This flag would indicate that recharging may be required and that a tariff change is likely to have occurred. Due to the fact that there was a schema change freeze in 2008 this flag was excluded. A revised design means that this flag will be added to Non Settlement estimates (305) message for implementation in November 2009.

for reading A2 is > than one quarter of the Estimated Usage Factor (EUF) and there is no change of supplier then the estimates are recalculated. The various recalculation scenarios are indicated in the table below.

### Recalculation of Estimates Scenarios

| Scenario | Description  | Action  |
|----------|--|---|
| 1.       | <b>IF</b> Consumption $C > Y = EUF/4$<br><b>AND</b> an actual reading is received immediately after a reading history of 3 or more consecutive estimates on any one register without an actual, customer or special reading.<br><b>AND</b> there is <b>No</b> Change of Supplier <b>OR</b> Change of Legal Entity<br><b>THEN</b> Re-estimate | <b>Recalculate</b><br>Re-estimation is triggered for E1, E2, E3 and read withdrawal (300W) market messages are issued to Supplier.  |
| 2.       | <b>IF</b> Consumption $C < Y = EUF/4$<br><b>THEN</b> do not recalculate  | <b>Do not recalculate</b><br>No re-estimation is performed. The actual reading A2 is sent to the Supplier on the 300 market message |
| 3        | <b>IF</b> Consumption $C > Y = EUF/4$<br><b>AND</b> 3 or more estimates<br><b>AND</b> Change of Supplier <b>OR</b> Change of Legal Entity<br><b>THEN</b> No re-estimation is performed.  | <b>Do not recalculate</b>   |

### Responses to Supplier Queries

**Question:** Which Usage Factor do you use to calculate EUF/4, the Usage Factor before the new read or the one you calculate in the light of the new read?

**Answer:** You use the Estimated Usage Factor preceding the actual read.

**Question:** What happens if the period of estimates is broken by non scheduled reads (Special, Customer etc)?

**Answer:** Non-scheduled readings are regarded as actual reads and you wouldn't recalculate in this case.

**Question:** Will a customer or special read trigger a recalculation of estimates in the same way as a scheduled actual read?

**Answer:** Yes.

### Reason for Discussion Request

To bill customers equitably over a time period in which there has been a series of estimate readings and a tariff change.

### Market Design Documents impacted by Request

**Change to supplementary information that has been baselined at 6.1 and will be published in 6.2**

|                             |  |
|-----------------------------|--|
| Date of IGG where discussed | 26 <sup>th</sup> June 2008 DR was approved |
|-----------------------------|--|

|                                     |     |
|-------------------------------------|-----|
| Change Request xref (if applicable) | N/A |
|-------------------------------------|-----|

| PART 2 MARKET ASSURANCE: |           |     |                  |                                    |
|--------------------------|-----------|-----|------------------|------------------------------------|
| Applicability            |           |     |                  |                                    |
| ESB Networks             | Suppliers | TSO | SSA              | Generators                         |
| X                        |           |     |                  |                                    |
| Scope of Test            |           |     |                  |                                    |
| Connectivity             | DTT       | MSA | IPT              | Other                              |
|                          |           |     |                  | Unit Testing<br>Regression Testing |
|                          |           |     | No. Of Scenarios |                                    |
|                          |           |     |                  |                                    |

| PART 3 RESPONSES AND MODIFICATIONS:                 |
|---|
| <b>Collation of Impact Assessment</b> (from Form C) |
| <i>Not Applicable</i>                               |
| <b>Modifications Included</b>                       |
| <i>Not Applicable</i>                               |
| <b>Reason for Modifications</b>                     |
| <i>Not Applicable</i>                               |

| PART 4 ASSESSMENT & RECOMMENDATION:          |
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| <b>Part 4(a) ASSESSMENT</b>                  |
| <b>Summary of Impact Assessment</b>          |
|  |
| <b>Recommendation on Implementation Plan</b> |
|  |

| Part 4(b) RECOMMENDATION         |           |                   |         |
|----------------------------------|-----------|-------------------|---------|
| ACCEPTANCE                       | REJECTION | NO RECOMMENDATION | COMMENT |
|                                  |           |                   |         |
| <b>Reason for Recommendation</b> |           |                   |         |
|                                  |           |                   |         |
| <b>Date of Recommendation</b>    |           |                   |         |
|                                  |           |                   |         |

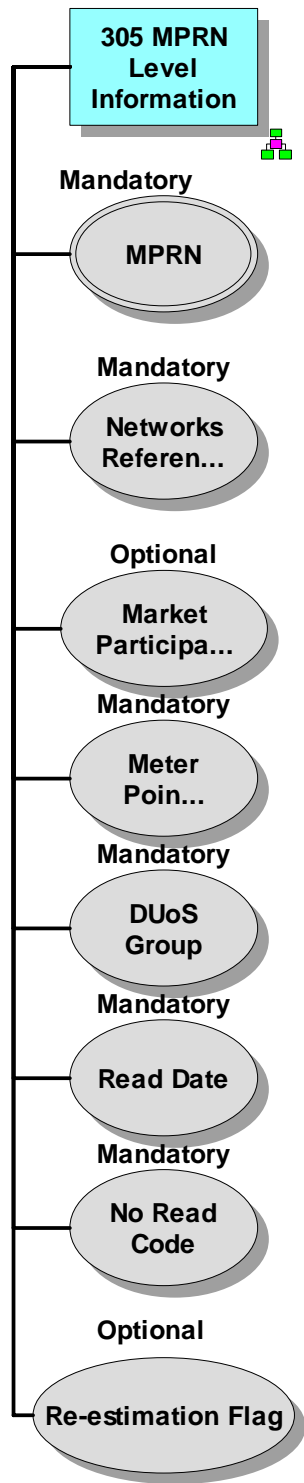
### **Appendix 1 – Clarification of MCR 0165 changes for November 2009 market release**

In September 2008, changes were made to the Central Market Systems to automatically trigger re-estimation when an actual reading is received and where the previous three readings are estimates and the consumption on any of the registers generated by the new reading is greater than  $\frac{1}{4}$  of the annual EUF.

The following changes will be delivered in November 2009:

This design allows for a flag to the NQH estimated reading message (305 MM). This flag will indicate that a supplier may wish to recharge this customer as a recalculation of estimates has been applied for a debit amount to this MPRN.

This new optional field will be called 'Re-estimation Flag' and it can contain a value of 'Y' or blank and it will appear as the last field on the 305 MPRN Information Level segment as per ARIS diagram below.



Re-estimation Flag on 305 MM

**Attributes**

| <b>Name</b>                     | <b>Re-estimation Flag</b>   |
|---------------------------------|---|
| <b>Business Data Definition</b> | A flag that alerts a supplier that a recalculation of estimates has been carried out on this MPRN for a debit amount. |
| <b>Composition Instructions</b> | 'Y' indicates recalculation of estimates has occurred<br>Blank indicates no recalculation of estimates occurred       |
| <b>Length</b>                   | 1   |
| <b>Data Type</b>                | Character   |