Market Change Request 1238			Updated HH Intervals Estimation & Substitution Rules		
Status	Approved	**Priority**	High	**Status Date**	09/04/2025

Date	Version	Reason for Change	Version Status
27/02/2025	1.0	Issued to Market	Final
26/03/2025	2.0	Converted to MCR	Final

Part 1 DETAIL OF DISCUSSION REQUEST / MARKET CHANGE REQUEST	
Requesting Organisation(s)	**ESB Networks**
Request Originator Name	Keith Fitzpatrick
Date Raised	27/02/2025

Classification of Request	
Change Type	Non-Schema Impacting

Detail of Request

Reason for Request

Background
ESB Networks has flagged at previous IGGs the anomaly of estimated non zero HH import interval values being issued for some power outage periods instead of the correct true interval value of zero. Over the last number of months, ESB Networks has completed a significant amount of work to identify and address instances of non zero HH import interval values being issued for power outage periods.

The work carried out to date by ESB Networks includes the following:

- Preventative
  - A suite of improvements have been made to the AMI systems to minimise instances of estimated non zero HH import interval values for power outage periods.
- Corrective
  - Manual DUoS adjustment of estimated non zero HH import interval values for MPRNs impacted by power outages in 2021/2022
  - Correction of estimated non zero HH import interval values via the Central Market System (CMS) for MPRNs impacted by power outages as a result of Storm Isha and Joselyn in 2024
  - Correction of estimated non zero HH import interval values via the CMS for MPRNs impacted by the power outages as a result of Storm Éowyn at the beginning of 2025

In addition to the work specific to power outages, ESB Networks also checked for other instances of non actual HH import interval values that were not replaced by actual interval values.

This highlighted exceptional scenarios where non actual interval values were not replaced by actuals which results in a misalignment between the sum of the interval values and cumulative register reads.

For MCC12 MPRNs DUoS Billing and Data Aggregation is based on the interval values. Suppliers are provided with the interval values via the 343MM and also a daily 24-hour cumulative register read via the 345MM. Typically a cumulative register read by its nature can have a corrective effect on any previous overstated or understated consumption. Interval values are measurements at a point in time and are only corrected if the same interval is replaced with a different version of the interval value.

A corrective fix is required (and is the subject of this MDR) for instances where non actuals are not likely to be replaced by actuals for MCC12 customers. This corrective fix will ensure that the sum of the interval values will always align to the 24 hour cumulative register read.

ESB Networks continues to work to ensure actual interval values are available in the first instance or as soon as possible. However, in order to provide an extra level of comfort the following solution is being proposed.

Please note: The change proposed here centres around updating the *HH Validation Estimation and Substitution Summary Briefing Document* to describe the method in which ESB Networks will update non actual HH kW import values in the event that actual interval values are unlikely to be available to the CMS. The proposed solution aligns with existing market processes.

Proposed Solution

Solution Description

The solution is proposed to work as follows:

Reconcilation

1. Identify MCC12 MPRNs where non actual HH import interval values exist in the CMS.
2. Retrieve the most recent previous 24 hour cumulative register read prior to the presence of the non actual intervals in the CMS
3. Retrieve the 24 hour cumulative register read post period of non actual interval values (if no 24 hour cumulative register read is available then ignore until one is available)
4. Calculate the kWh consumption between the two cumulative 24 hour register reads
5. Sum all HH kW import interval values within the same period as the two 24 hour register reads
6. Convert the summed kW import interval values to kWh
7. Compare total kWh calculated from the cumulative 24 hour register reads against the kWh calculated from the sum of intervals.

Adjustment

8. If the difference exceeds an agreed threshold then
    a. Adjust the non actual interval values to ensure that the sum of all the intervals between the two cumulative 24 hour register reads aligns to the register read consumption calculated between the two cumulative 24 hour register reads.
        i. The difference is uniformly smeared across each non-zero interval value by adding or subtracting the difference. This will ensure the consumption pattern shape is maintained as closely as possible whilst aligning to the consumption indicated by the cumulative register reads.
        ii. A floor of zero will be set to ensure the adjustment does not result in negative interval values. If there is potential for a negative interval value then further adjustments are completed to ensure that the total difference is smeared across relevant interval values.
        iii. If all non-actual interval values are zero then the adjustment will apply uniformly.

    - The interval value status assigned to the adjusted non actual values will be 'VCHG'.
    - The updated interval values will be treated the same as any other updated interval values and will be issued to Market Participants via the 343 MM, used for DUoS Billing and Data Aggregation etc.

ESB Networks' proposed approach is to apply the solution in two ways:

1. Historical look back
2. Regular housekeeping

Historical Look Back

ESB Networks is conscious that the provision of updated intervals to Suppliers after the passing of a period of time may create challenges for suppliers' customer billing. With this in mind ESB Networks is proposing to apply a once off suite of processing using the above solution with the following parameters:

Look back period: 01.01.2023 onwards (to align with conclusion of previous DUoS adjustment exercise).
Threshold: +/-10 kWh.

To minimise reverse and rebill scenarios ESB Networks will process data per MPRN i.e. if an MPRN has more than one estimation period then ESB Networks will process all periods for that same MPRN at the same time.

ESB Networks will advise a timeline for this activity to the IGG via RMDS.

Regular Housekeeping

Once the historical look back suite of processing (referred to above) has been completed, ESB Networks will continue to run this process on a regular basis with the parameters adjusted to the below:

Look back period: This will be set to a rolling 13 months and the solution ran on a regular basis (at least weekly) . Initially the solution will be set to run <10> days in arrears but ESB Networks reserve the right to adjust this parameter at a later date if analysis shows a more optimum setting. ESB Networks wish to ensure that the right balance is struck between updating of data as soon as possible versus providing sufficient time to allow for the actual data to flow from the smart meter and AMI systems through to the Central Market Systems and onto the Market Participants.
Threshold: +/-1 kWh.

Scope of Change

Design Documentation	Business Process	DSO Backend System Change	MP Backend System Change	Tibco	Supplier EMMA	Schema	Webforms	Webservice	Extranet Market Website
☒	☐	☒	☐	☐	☐	☐	☐	☐	☐

Market Messages

Message No.	Message Name	ROI
No Impact	No Impact	No Impact

Data Definitions

No Impact

Data Codes

Market Message Implementation Guides

Message Guide	Yes/No
No Impact	No Impact

Market Process Diagrams – MPDs			
Market Process Number	**Market Procedure**	**Affected**	
No Impact		Yes	

Guidance Documentation		
Document	**Version**	**Affected**
No impact		No Impact

Briefing Document			
Briefing Document		**Affected**	
Summary Validation, Estimation and Substitution Rules for HH Interval Metering		Y	

User and Technical Documents			
Reference	**Name**	**Version**	**Affected**
No impact			No Impact

Comments

Part 2 - Performance and Data Changes	
Market Messages volume, processing etc.	
Data	
Details of Data changes e.g. cleansing	

Approved by	CRU