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SOLUTION DEVELOPMENT REPORT

R0294 – IMPLEMENTATION OF IF-051 DATA REFRESH IN EES FOR BSC CP1607

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1. BACKGROUND

This Change Proposal enables an MHHS Programme change (On Hold Request OHCR003, originally Programme Change Request CR-044) to implement a data refresh message into the MHHS arrangements, which is now being delivered via BSC CP1607. R0294 is a consequential REC change to ensure appropriate implementation of the IF-051 in EES.

A further consequential DIP change is also expected to be raised by the BSC working with the DIP Manager to deliver the IF-051 in the DIP for March 2026.

It has been highlighted to the Code Manager that the IF-051 Data Structure, approved under BSC CP1607, is not the latest design. The BSC have raised a further Change Proposal, BSC CP1629, with a corrected IF-051 data structure. Whilst there will be best endeavors to ensure the implementation of this new Change Proposal is aligned to BSC CP1607's implementation date 26 March 2026, at this time it cannot be guaranteed. However, to further support R0294's ability to ensure the correct data elements are received and processed following receipt of an IF-051 message, and mitigate any risk around misalignment of industry central systems, the below solution has catered for the latest structure, despite its associated BSC CP1629's lack of formal approval.

2. PROPOSED SOLUTION OVERVIEW

The IF-051 Data Refresh message is expected to be triggered by SMRS, and routed to the EES via the DIP in varying scenarios:

- Following a Data Refresh, where parties have requested SMRS to make an update.
- Following a Super User update, in these scenarios it is expected the IF-051 will included an individual MPXN update. Super-User updates within SMRS can be made under several circumstances.
    - SMRS has built in a configurable limit of ~20k data refreshes can be actioned per calendar day, per LDSO.
    - SMRS has confirmed the solution to trigger an IF-051 has been built to the above mechanisms, this pertains to instances the flow will be automatically triggered and would not be agreed bilaterally with the EES Provider before issuing. SMRS has

furthermore confirmed that all IF-051 relevant for a calendar day will be triggered following the completion of the ERDS overnight batch process, it is therefore expected that EES will receive these messages after 11pm.

- A bulk refresh triggered when bilaterally agreed.
    - This mechanism is built into the BSC CP1607 Legal text, defined as 'Sent on agreement between Parties'. It is therefore expected that the EES Provider would be notified prior to the commencement of IF-051's being triggered for this purpose.
    - A separate mechanism to send bulk refreshes outside of the DIP and agreed bi-laterally with the EES provider is not within scope of R0294 and should be pursued as a separate cross-code Change Proposal.

Furthermore, SMRS does not master all the data attributes which are issued within the IF-051, and the Code Manager and EES Provider have conducted technical workshops to review which of the data attributes contained within the IF-051 will be consumed and updated within EES following receipt. The data attributes within scope and out of scope are detailed below.

During technical workshops it has also been identified that in some cases where data attributes are mastered within SMRS, there is significant risk in EES processing and applying this information. Given the lack of appropriate history provided under the IF-051, and without the necessary history being provided, processing would destroy the integrity of the data held presently within EES and introduce logic and development to the EES which has been deemed out of scope for this solution.

RETAIL ENERGY CODE

IF-051 - In Scope Data Groups and Data Items to be applied within EES following receipt

The following table sets out the Data Group and associated Data Items that are within scope for EES to consume and apply following the receipt of an IF-051 - as described under BSC CP1629 – Attachment C IF-051 drafting.

IF-051 Common/ Custom Block Name	Associated Data Items / Conditionality	Further Info
B022 (MPAN Address) (Mandatory)	Metering Point Postcode (O) Address Line 1 – 9 (O)	Following receipt of IF-051. EES will validate the MPXN contained within the file matches one held within the system currently. This validation is conducted through the information in Block B022.
M0 – MPAN (Mandatory) B001 – GSP EffectiveFrom (Mandatory where available in SMRS)	M0: MPAN Core (M) Distributor DIP ID (M) GSP Group ID (M) B001: GSP Group ID EFD (M)	If block B001 wasn't provided on receipt of IF-051, but a change to GSP Group ID under block M0 had been made, it is assumed that EES would retain the existing EFD.
B023 – MPAN Connections Info (Mandatory)	Connection Type (M) Connection Type EFD (M) Direction of Energy Flow (M) Metered Indicator (M)	Receive, consume, overwrite of existing data.
B024 – MPAN DUOS Tariff ID (Mandatory)	DUOS Tariff ID (M) DUOS Tariff ID EFD (M)	Receive, consume, overwrite of existing data.
B025 – MPAN Energisation Status (Mandatory)	Energisation Status (M) Energisation Status EFD (M)	Receive, consume, overwrite of existing data.

B029 - DCC Enrolment Status (Mandatory where available in SMRS)	DCC Service Flag (M) DCC EFD (M)	If block B029 wasn't provided on receipt of IF-051, then EES will amend associated attributes to show as NULL.
B030 – MPAN IHD Information (Mandatory where available in SMRS)	In Home Display (IHD) Install Status (M) IHD Status EFD (M)	If block B030 wasn't provided on receipt of IF-051, then EES will amend associated attributes to show as NULL.
B031 – SMSO Info (Mandatory where available in SMRS)	Smart Metering System Operator (SMSO) (M) SMSO EFD (M)	If block B031 wasn't provided on receipt of IF-051, then EES will amend associated attributes to show as NULL.
B032 – MPAN Legacy Info (Mandatory for Traditional Metering / Operation for other Meters OR where not available in Registration Service)	Profile Class Id (C - Mandatory for Traditional Meters) Profile Class EFD (C – mandatory where PC is provided) Standard Settlement Configuration (SSC) Id (C – Mandatory for Traditional Meters) SSC EFD (C – mandatory where SSC is provided)	If block Is not presented within IF-051 then EES will amend associated attributes to show as NULL.
B080 – Green Deal Information (Mandatory if available in Registration Service)	Green Deal Effective From (M) Green Deal Effective To (M)	Receive, consume, overwrite of existing data or where block is not presented within IF-051 EES does not apply data, or amend associated attributes to NULL

RETAIL ENERGY CODE

IF-051 – Out of Scope Data Groups and Data Items that will not be applied within EES following receipt

The following table sets out the Data Group and associated Data Items that are out of scope for EES to consume and apply following the receipt of an IF-051 - as described under BSC CP1629 – Attachment C IF-051 drafting.

IF-051 Common/ Custom Block Name	Associated Data Items / Conditionality	Further Info
B079 – Meter Point Registration Statuses (Mandatory)	RMP Status (Registration) (M) RMP Status EFG (M) MP Status (M) MP Status EFD (M)	Not within scope of EES solution for IF-051, **due to limited testing time.**
B085 – Current Supplier (Mandatory where available in SMRS)	Current Supplier DIP ID (M) Current Supplier MPID (M) Supplier EFD (M)	Not within Scope of EES Solution information received and mastered via CSS updates.
B081 – Current Metering Service Details (Mandatory where available in SMRS)	Current Metering Service DIP ID (C – if available in registration service) Current Metering Service MPID (C – if available in registration service) Metering Service EFD (C – if available in registration service)	Not within scope of EES solution. **EES requires Metering Service History.**
B082 – Current Data Service Details (Mandatory where available in SMRS)	Current Data Service DIP ID (C – if available in registration service) Current Data Service MPID (C – if available in registration service) Data Service EFD (C – if available in registration service)	Not within scope of EES solution. **EES requires Data Service History**

B019 – Assigned MDR (Mandatory where available in SMRS)	Assigned MDR DIP ID (M) Assigned MDR MPID (M) Assigned MDR EFD (M)	Not within scope of EES solution. **Should be received into EES via IF-036.**
B020 – Customer Direct Contract MS Info (Mandatory where available in SMRS)	Customer Direct Contract MS DIP ID (M) Customer Direct Contract DS EFD (M)	Not within scope of EES solution. **Should be received into EES via IF-039.**
B026 – MPAN Market Segment (Mandatory)	Market Segment Indicator (M) Market Segment Indicator EFD (M)	Not within Scope of EES solution due to complexity and limited testing time.
B027 – Assumed Annual Consumption (Mandatory where available in SMRS)	Annual Consumption (M) Annual Consumption EFD (M) Annual Consumption Quality Indicator (M)	Not within Scope of EES Solution. **Data note mastered by SMRS, data received into EES via Elexon.**
B028 – Domestic Premise Indicator (Mandatory if available)	Domestic Premise Indicator (M) Domestic Premise Indicator EFD (M)	Not within Scope of EES Solution. **Data received into EES via CSS.**
B086 – Existing MPAN Meter Details (Mandatory if Metering Installed)	Meter ID (M) Meter Type (M) Manufacturers Make and Type (O) ESME ID (C – Mandatory for Smart Meters) Meter Location (M) Number of Register Digits (C – Mandatory for SMETs2) Meter Installation Date/ Time (M) Meter Removal Date/ Time (O)	Not within Scope of EES Solution. EES contains Meter Details history, logic within IF-051 doesn't cater for this and consumption of data would break integrity.

B075 – Meter MAP Info – Most recent record only for each B086Meter Provided where available in Registration Service	Meters Asset Provider ID (M) Meter Asset Provider EFD (M)	Not within Scope of EES Solution. **MAP**
B035 - Linked Import/Export MPAN (Mandatory if Linked MPAN exists)	Associated Import/ Export MPAN (M) Associated MPAN Energy Direction (M) Import/ Export MPAN Supplier DIP ID (C – mandatory if available in registration service) Import/ Export MPAN Supplier MPID (C – mandatory if available in registration service)	Not within scope of EES solution. **No history / EFD updates provided under IF-051 and would introduce complex logic into EES.**
B037 – Related MPAN(s) (Mandatory where available in SMRS)	Primary MPAN (C – should be populated where MPAN is part of a group of MPANs) Secondary MPAN (C)	Not within scope of EES solution. **No history / EFD updates provided under IF-051 and would introduce complex logic into EES.**

Following receipt and consumption of the IF-051, the solution proposes that EES will make the relevant data refresh updates to appropriate Data Items available to Industry via the EES GUI and API's before 6am the following calendar day.

For reference, the Maximum Demand Volumes EES will facilitate for Market Messages received via the DIP will be retained, as per the Electricity Enquiry Service (EES) Service Definition section 9.4 and are as follows:

- Average daily volume of 66,000
- A peak daily volume of 300,000
- An average hourly volume of 2,750
- A peak hourly volume of 35,000
- An annual volume of 24 million

Updates to EES Provider Reporting

R0294 will additionally introduce further obligations on the EES provider SLA's under existing report (32) which will allow the EES provider to confirm the % of IF-051's processed by 06am the following calendar day. The % value will be based upon a monthly cadence of the report.

Full solution requirements detail accompany this report, Attachment A_R0294 Solution Requirements Matrix v1.0 (DIA).

3. IMPACT ASSESSMENT

Given the urgent status applied under R0294, and the corresponding need to align to the implementation date of BSC CP1607, it was agreed with the EES Provider that R0294 should move directly to Detailed Impact Assessment (DIA).

Additionally, it was agreed that the usual 25 working day DIA response timeframe would not allow for relevant responsible committee reviews and decisions, it was therefore agreed with the EES Provider that the DIA response be returned by 16 January 2026.

4. TESTING STRATEGY

The scope the recommended testing approach under R0294 would be following the successful receipt and consumption of an IF-051.

The approach for DIP testing and E2E integration testing with SMRS should be conducted under BSC CP1607, with BSC co-ordination as the lead code for this Change Proposal.

5. IMPLEMENTATION

To ensure alignment with BSC CP1607, it is expected that R0294 will be released on an extraordinary basis for 27 March 2026. Following the receipt of the Detailed Impact Assessment (DIA) response from the EES Provider this continues to be the intended release date, unless there is a change to the CP1607 release date.

RETAIL ENERGY CODE

1 DESIGN CONSIDERATIONS AND ASSUMPTIONS

Ref	Design Considerations and Assumptions
AC1	It is assumed that IF-051's will be received into EES via the DIP following a Data Refresh or Super User update by SMRS.
AC2	It is assumed that the scope of R0294's solution does not include a mechanism for bulk data refresh outside of the DIP and bilaterally agreed with SMRS, and the scope of this mechanism should be included in a new cross code change.
AC3	It is assumed that the approved structure for the IF-051 under BSC CP1607 will not be used, and a new structure design under BSC CPXXXX will determine the approved structure ahead of implementation of R0294
AC4	It is assumed that the DIP Manager / BSC will facilitate DIP and E2E Testing of the IF-051 and impacted service providers under CP1607 and therefore this element of testing is not included within the approach under R0294
AC5	It is assumed that the data attributes consumed and applied within EES will be those classified as 'In Scope' as defined under section 4
AC6	It is assumed that the data attributes not consumed and applied within EES will be those classified as 'Out of Scope' as defined under section 5
AC7	It is assumed that the 'out of scope' data attributes assigned under section 4 are related to instances where SMRS does not master the data (for example Annual Consumption), or where EES receives the same data sets as part of different BAU IF market messages
DC1	EES will only conduct validation on the MPAN attribute to match to an existing MPAN within EES
DC2	EES has no ability to identify the purpose of receipt of the IF-051 (i.e if received as a result of a super-user update or data refresh)

DC3	EES will not conduct any validation or apply any logic to the data attributes within scope of consumption, it will simply process and overwrite existing data
DC4	Where block B032 is not present within an IF-051 these items will be set to NULL within EES
DC5	Where block's B030, B031, B029 & B080 are not present within an IF-051 no updates will be made within EES
DC6	EES will not incorporate message sequencing, and no event ID is included within the IF-051, this may present risk that misalignment between industry systems is still in effect.
DC7	EES will have no mechanism to highlight where it believes data may be misaligned, it is expected that a further receipt of IF-051's or another appropriate IF message will be received and correct the data as relevant.
DC8	EES will be unable to progress with refresh updates provided within IF-051 messages for blocks B035 and B037. The information provided within the IF-051 does not give effective from or business process validation criteria which presently exists within EES for these items, and as a result would mean significant development time and logic would have to be applied, which is in direct contrast to the DC3.