WHOLESALE-RETAIL CODE
CHANGE PROPOSAL/ CHARGING CHANGE PROPOSAL

Change Proposal Reference *(To be completed by the Panel Secretary)*	**CPW027**	Version No	**1**
Type of Change Proposal: *(delete as appropriate)*	Change Proposal		
	~~Charging Change Proposal~~		
Submission Date	20/10/17		
Title: of Change Proposal/Charging Change Proposal	QC Error Code		
Summary: of Change Proposal/Charging Change Proposal *(40 to 50 Words Maximum)*	Separating the errors generated under the QC Error Code to allow retailers to better target their resources.		
General Details of the Proposer			
Name of Proposer	Katy Spackman		
Capacity (to submit Change Proposals and Charging Change Proposals – on behalf of a Party, as a Panel member, as the customer representative, or the Market Operator or on behalf of the Authority; or Charging Change Proposals – on behalf of a Wholesaler).	On behalf of NWGB		
Contact Email	Katy.spackman@nwgb.co.uk		
Telephone Number	07977 418 898		
The Proposer recommends that this Change Proposal/Charging Change Proposal should initially: *(delete as appropriate)*	~~Proceed to Assessment~~		
	Proceed to Consultation		
	~~Proceed to Recommendation~~		
Is the change Urgent (Yes/No)? If yes, please provide reason for urgency (if applicable)	Yes. The workload around rejected meter reads is significant and has a material impact on retailer resources.		

Related Documents

Reference of any associated Code Panel Change Proposal/ Charging Change Proposal	CPW013
Documents Accompanying Form	CMOS Production Transaction Count Data

Change Proposal/ Charging Change Proposal Details

Description of (i) the issue or defect which this Change Proposal seeks to address, or (ii) the modified or new charging method or charging structure required pursuant to this Charging Change Proposal, as required under the Market Arrangements Code Section 6.2.1(b).

Following the rejection of CPW013, this proposal is submitted as an interim solution while the wider issue of rejected meter reads is considered.

When a transaction is submitted to CMOS a T109.M transaction that either approves the transaction or rejects it is returned. In the T109.M transaction an Error Code field is completed. If the transaction is approved then "OK" is populated. If the transaction is rejected then the Error Code is populated with information telling the submitter why the transaction was rejected. The list of valid Error Codes is listed in CSD0301.

CGI also maintain a list of all the Validation Rules that the CMOS system tests to determine whether a transaction is accepted or rejected. This list does not form part of CSD0301, but is published on the Code page on the MOSL website for information.

Multiple different Validation Rules may be mapped to a single Error Code.

The tests that a meter read must pass for it to be approved by CMOS are detailed in CSD0203 and in particular a number of tests against the meter read volume submitted are detailed in 2.6.11, which require the submitted volume to be within certain thresholds. There are 12 validation rules set out in this section, 9 of which result in the transaction being rejected and which generate an Error Code. Each of these Error Code tests are mapped to a CGI Validation Rule but all 9 of these Validation Rules are grouped into a since Error Code, QC, to be included on the T109.M transaction.

This means that the message submitter is told that the meter read has been rejected as it has failed the Volume Validations, but not which validation.

The Volume Validations listed in CSD0205 2.6.11 are tight and since market opening 34% of all market transactions submitted by wholesalers and retailers have been rejected with a QC error code. If we assess it just for meter reads (T105.W and T105.R transactions), 54% of all meter reads have been rejected with a QC Error Code.

- These figures are shown in the Supporting Evidence spreadsheet attached with this CPW, and is sourced from the CMOS production transaction counts reports produced by MOSL. The data used is up to 08/08/2017, which is when the CMOS Production Count sheets stopped being published on the MOSL website.

In most cases the submitted meters reads are valid because either:

- The submitter has already validated the read in their own systems before submitting it to the market;
- The validations set out in the code are restrictive, in particular around the thresholds and the fact that it is not clear why reads for some of the cases are rejected. This was analysed and discussed as part of the Working Group for CPW013.

This means CMOS is imposing rework around these reads that is unnecessary, resulting in the following consequences:

- It is impossible to filter out which reads genuinely would benefit from further investigation. This is because the 9 tests that result in a rejection are all grouped into a single Error Code.
- that Trading Parties, and in particular retailers, have limited resources to look at the volume of rejected meter reads, and if they have already carried out their own validations, have limited incentive to check the rejected meter reads.
- Difficult choices have to be made about the quantity of work these rejected meter reads can generate and there is a high risk that all rejected meter reads may be resubmitted with no validation, because there is limited resource to filter out the important rejections, let alone actually check each read individually. Over time this will impact the quality of meter reads held in CMOS.

The fact that 35% of all rejected market messages are contained in a single Error Code signifies that some refinement would be beneficial in the Error Codes.

This CPW proposes that new Error Codes are added to distinguish between the 9 Validation Rules covered by the current QC Error Code.

Description of the Change Proposal/ Charging Change Proposal, its nature and purpose and (for Change Proposals only) how it is consistent with the Principles and falls within the Objectives noted below, as required under the Market Arrangements Code Section 6.2.1(c).

This CPW proposes that new Error Codes are added to distinguish between the 9 Validation Rules covered by the current QC Error Code.

This change would:

- Not change any of the tests set out in the Codes (CSD0203 2.6.11)
- Not change any of the tests that CGI have to run within CMOS
- Not change the format of any Data Item or Transaction
- Require a change to the mapping of the CGI Validation Rules to the Error Codes
- Require a change to the list of Error Codes set out in CSD0301
- Have limited Trading Party system impact as it does not affect Transaction of Data Item format.

This change would save the industry about £50,000 per year over the next 5 years on the following assumptions:

- trading parties spend 30 seconds less per rejected meter transaction than they currently do. This is considered a conservative estimate.
- There are approximately £50,000 of industry implementation costs.
- The benefits to the quality of the CMOS data have not been financially assessed, but are considered positive.

The cost benefit assessment is shown in the Supporting Evidence spreadsheet attached with this CPW. The saving is material because any saving in time across the approximately 600,000 annual expected rejected meter reads can quickly add up.

We consider this change to be urgent, as it has a material impact on Retailers resource requirements and the data quality held within CMOS. Given the limited system design changes we consider the cost impact to be low and that it should be possible to implement quickly.

We ask for it to be included in the March 2018 CMOS release.

The proposal is:

- CSD0301 v1.0 p179 Error Codes are changed as follows:
  - The QC error code is deleted and 9 new error codes added as follows:

Code	Description
QC1	Meter read failed volume validation: SPID is occupied, previous volume <=0 and current volume =0
QC2	Meter read failed volume validation: SPID is occupied, previous volume <=0 and current volume <0
QC3	Meter read failed volume validation: SPID is occupied, previous volume <=0 and current volume reduced by >300%
QC4	Meter read failed volume validation: previous volume <=0 and current volume >0
QC5	Meter read failed volume validation: SPID is occupied, previous volume >0 and current volume =0
QC6	Meter read failed volume validation: SPID is occupied, previous volume >0 and current volume is negative
QC7	Meter read failed volume validation: SPID is occupied, previous volume >0 and current volume reduced by >300%
QC8	Meter read failed volume validation: SPID is occupied, previous volume >0 and current volume has increased by a small amount (<20%)
QC9	Meter read failed volume validation: SPID is occupied, previous volume >0 and current volume has increased by >200%

The new Error Codes would map to the CGI Validation Rules as set out in the Error Codes spreadsheet v3.0.1.1 date 20/09/17 (as published on the MOSL website) as follows:

New Error Code	Current Validation Rule	Validation addressed
QC1	VR.053	The meter read is invalid if: • PEDV <= 0 and • CDV = 0 and • SPID Occupancy Status is not vacant and • the Meter Read Type is not Initial Read and • the meter Re-Read flag is not a Re-Read (0)
QC2	VR.054	The meter read is invalid if: • PEDV <= 0 and • CDV > -3 and • CDV < 0 and • the Meter Read Type is not Initial Read and • the meter Re-Read flag is not a Re-Read (0)
QC3	VR.055	The meter read is invalid if: • PEDV <= 0 and • CDV <= -3 and • the Meter Read Type is not Initial Read and • the meter Re-Read flag is not a Re-Read (0)
QC4	VR.056	The meter read is invalid if: • PEDV <= 0 and • CDV > 0 and

		• the Meter Read Type is not Initial Read and • the meter Re-Read flag is not a Re-Read (0)
QC5	VR.057	The meter read is invalid if: • PEDV > 0 and • CDV = 0 and • SPID Occupancy Status is not vacant and • the Meter Read Type is not Initial Read and • the meter Re-Read flag is not a Re-Read (0)
QC6	VR.058	The meter read is invalid if: • PEDV > 0 and • CDV > -3 and • CDV < 0 and • the Meter Read Type is not Initial Read and • the meter Re-Read flag is not a Re-Read (0)
QC7	VR.059	The meter read is invalid if: • PEDV > 0 and • CDV <= -3 and • the Meter Read Type is not Initial Read and • the meter Re-Read flag is not a Re-Read (0)
QC8	VR.060	The meter read is invalid if: • PEDV > 0 and • CDV < 0.2 * PEDV and • the Meter Read Type is not Initial Read and • the meter Re-Read flag is not a Re-Read (0)
QC9	VR.061	The meter read is invalid if: • PEDV > 0 and • CDV > 2 * PEDV and • the Meter Read Type is not Initial Read and • the meter Re-Read flag is not a Re-Read (0)

Principles and Objectives

Description of the principles and objectives affected by the Change Proposal on the items below (if applicable) as detailed in Part A of Schedule 1 Part 1: Objectives Principles and Definitions.

Principles	Affected (Y/N)	Description
Efficiency	Y	Retailers will be able to focus their resources in dealing with these rejected messages
Proportionality	Y	There are limited code and system changes required
Transparency	Y	The change would better refine information provided to retailers
Simplicity, cost-effectiveness and security		
Barriers to entry	Y	The resource required to deal with meter read rejections can be significant. Any improvement will help new entrants assess their participation in the market
Non-discrimination		

Customer participation		
Customer contact		
Seamless markets		
No limit on upstream competition		
Business Terms Objectives		
Operational Terms Objectives		
Market Terms Objectives		
Description of the impact of the Change Proposal/ Charging Change Proposal on the following items, as required under the Market Arrangements Code Sections 6.2.1 (f), (g) and (h).		
Configured Item	Impacted (Y/N)	Description
Schedule 1: Terms and Conditions of a Wholesale Contract		
Wholesale-Retail Code, Schedule 1 Part 1 (Objectives, Definitions and Principles)		
Wholesale-Retail Code, Schedule 1 Part 2 (Business Terms)		
Wholesale-Retail Code, Schedule 1 Part 3 (Operational Terms)		
Wholesale-Retail Code, Schedule 1 Part 4 (Market Terms)		
Wholesale-Retail Code, Schedule 1 Part 5 (CSDs)	Y	CSD 0301 Error Codes
Wholesale-Retail Code, Schedule 1 Part 6 (Operational Forms)		
Appointment		
Licence		
Any other industry code, agreement or document (e.g.		

the Wholesale Contract or the MOSL Articles) (please specify)		
Central Market Operating System	Y	Mapping of Validation Rules to Error Codes
Trading Party systems which interface with Central Systems and other relevant Trading Party systems/ business processes.	Y	Mapping of Error Codes
Scottish Core Industry Documents		

Further Information

Description of any discussions on the topic of the Change Proposal/ Charging Change Proposal at the User Forum (as relevant) or otherwise relevant discussions with parties, as required under the Market Arrangements Code Section 6.2.1(i).
Further Comments

Key

	To be completed by the Market Operator
	To be completed by the Proposer