RETAIL ENERGY CODE

R0067 – INTRODUCTION OF CSS REFRESH FUNCTIONALITY

COST BENEFIT ANALYSIS

This document sets out the Code Manager's assumptions and conclusions on the benefit analysis for R0067, which is based on historic gas switching data[1] as well as figures provided from the Gas Retail Data Agent (GRDA). This document provides detail to support the Final Change Report.

INTRODUCTION

The benefits of CSS refresh functionality would result from cost avoidance of transportation charges for Losing Shippers, and the correct apportionment of the Transportation Charges to the Gaining Shipper. The accurate apportionment of relevant charges would be seen through timely resolution of registration related issues resulting from missing Central Switching Service (CSS) messages.

To date, missing messages have only affected the registration and settlement of domestic sites resulting in misdirected transportation charges. However, there is a significant risk and expectation that this issue will affect Industrial and Commercial (I&C) and large daily metered supply points in future. This risk has been explored as part of the analysis and the different scenarios identified by the Code Manager.

ASSUMPTIONS

Reference	Assumption
A1	The vast majority of missing messages will be for domestic Supply Meter Points (SMP) (404 of 448 messages). This is in view of domestic sites to date only being affected, but it is expected that a smaller proportion of I&C and large daily metered supplies will be affected in future.
A2	Missing messages will impact both I&C and large daily metered sites (43 of 448 are I&C and 1 of 448 are large daily metered sites). This is in view of domestic sites to date only being affected, but it is expected that a smaller proportion of I&C and large daily metered supplies will be affected in future.

[1] Source Ofgem – Table 2.7.1 Transfer statistics in the domestic gas and electricity markets, monthly, Great Britain.

A3	The oldest unresolved case of a missing message is 163 days old. Without the ability to resend the missing messages the cases remain unresolved and incorrect transportation charges would be apportioned. 163 days was provided as the longest outstanding case by the GRDA - from 24 July 2022 to the date of the data cut on 03 October 2022, this is considered a worst-case scenario. 83 days has been used as a fairer reflection of resolution timescales.
A4	200 missing messages were seen in the period between 24 July 2022 and 03 January 2023[2]. This figure was provided from the GRDA and used to calculate the expected number of missing messages resulting in delayed registration and settlement of sites over a year of 448.

SOLUTION COSTS

Costs have been provided by REC Service Providers, as part of impact assessment activity.

	Costs
GRDA	£190,000
CSS	£295,000
SI	£26,635
Total	**£511,635**

COST BENEFIT ANALYSIS

The below costs relate to daily misdirected transportation changes by supply type[2].

Supply Type	Cost Per Day
Small Domestic	£2.49
Avg. I&C	£68.34
Large Daily Metered Supply	£15,481.85

[2] Data as provided by the GRDA

It is acknowledged that switching volumes to date have been low and are expected to increase, however all scenarios have been based on current switching values.

SCENARIO 1 – DOMESTIC ONLY SITES

Scenario one provides an indication of domestic sites being affected by missing messages, as to date only domestic sites have been affected. It is acknowledged that since CSS Go-Live switching volumes to date have been lower than average and are expected to increase. However, this scenario considers that switching volumes since November 2021 have been low and reflects this.

The below scenario assumes:

- The cost per domestic supply point per day for misdirected transportation charges is £2.49; and
- There would be 448 missed messages per year attributed only to domestic supplies.

This scenario considers the resolution timescales of 83 working days and 163 working days.

Domestic supplies only			
Resolution timescale (days)	**Missing Messages per year**	**Transportation charges**	**Beneficial Cost Point**
83	448	£92,588.16	5.5 years
163	448	£181,829.76	2.8 years

* Please note the above table is subject to rounding.

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SCENARIO 2 – ALL SUPPLY TYPES AT AN AVERAGE RESOLUTION TIMESCALE

Scenario two provides an indication of all supply types being affected by missed messages at an average resolution timescale.

The below scenario assumes:

- There would be 448 missed messages per year, based on the extrapolation of the existing data set (see assumption A4) to provide an expected annual volume and are proportioned in accordance with assumption A1 and A2; and
- The average resolution timescale for missed messages is 83 days.

83 WD resolution time				
Supply Type	**Cost Per Day**	**Missing Messages per year**	**Transportation charges**	**Beneficial Cost Point**
Small Domestic	£2.49	404	£83,579.63	
Avg. I&C	£68.34	43	£241,330.34	
Large Daily Metered Supply	£15,481.85	1	£1,150,975.82	
Total			**£1,475,885.79**	127 days

* Please note the above table is subject to rounding.

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SCENARIO 3 – ALL SUPPLY TYPES AT THE LONGEST OUTSTANDING CASE

Scenario three provides an indication of all supply types being affected by missed messages at a resolution timescale of 163 days.

The below scenario assumes:

- There would be 448 missed messages per year, based on the extrapolation of the existing data set (see assumption A4) to provide an expected annual volume and are proportioned in accordance with assumption A1 and A2; and
- The resolution timescale of 163 days which is the longest outstanding case.

163 WD resolution time				
Supply Type	**Cost Per Day**	**Missing Messages per year**	**Transportation charges**	**Beneficial Cost Point**
Small Domestic	£2.49	404	£164,138.31	
Avg. I&C	£68.34	43	£473,937.90	
Large Daily Metered Supply	£15,481.85	1	£2,260,350.10	
Total			**£2,898,426.31**	64 days

With the introduction of a solution where resolution timescales can meet the intended service level of three working days, the below transportation costs are anticipated and are compared with the above resolution timescales of 83 and 163 working days.

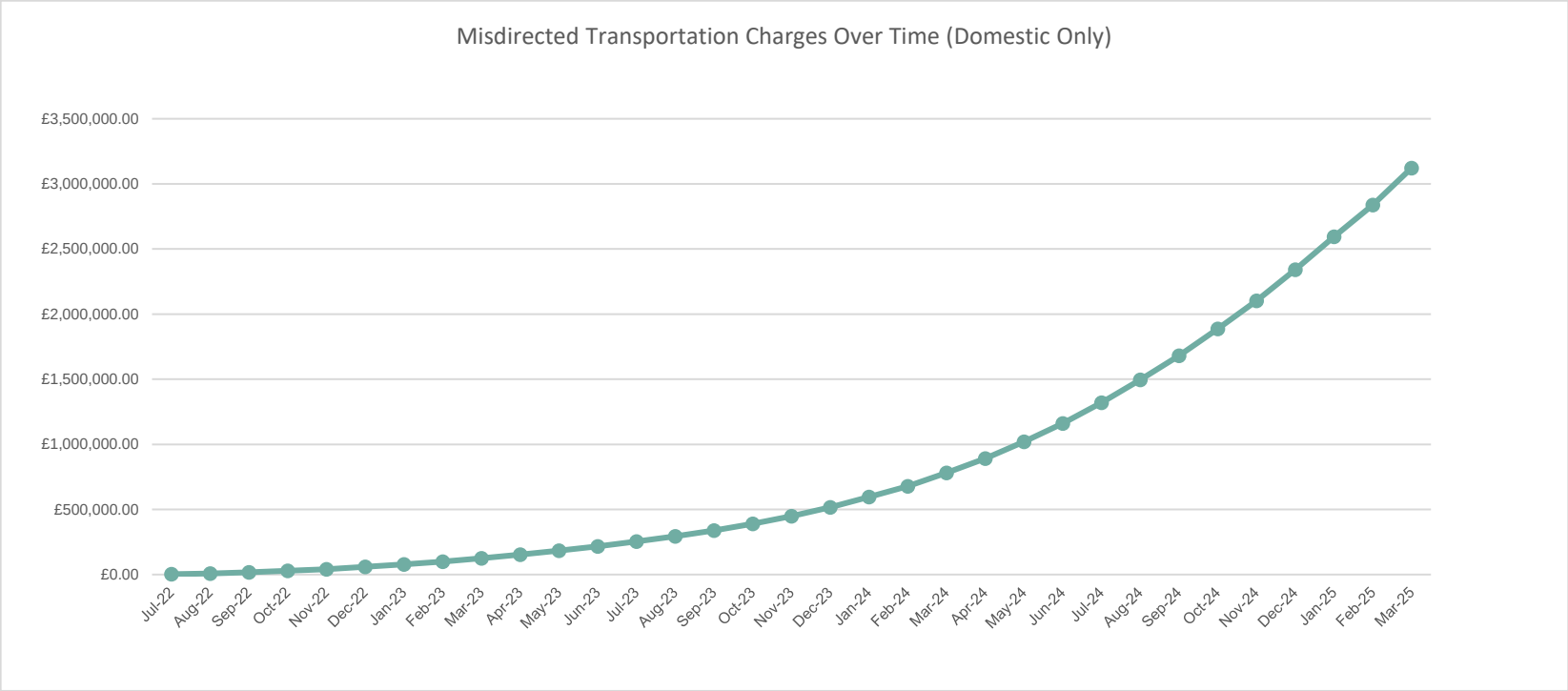
Supply Type	**Cost Per Day**	**Missing Messages per year**	**Cost at 3WD**	**Difference between cost at 83 WD**	**Difference between cost at 163 WD**
Small Domestic	£2.49	404	£3,020.95	£80,558.68	£161,117.36
Avg. I&C	£68.34	43	£8,722.78	£232,607.56	£465,215.12
Large Daily Metered Supply	£15,481.85	1	£41,601.54	£1,109,374.28	£2,218,748.56
Total			**£53,435.27**	**£1,422,450.52**	**£2,844,991.04**

* Please note the above tables are subject to rounding.

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FORECAST COSTS WITH NO SOLUTION

The below graph displays the anticipated and increasing costs to the industry if no changes are made to address the issue, this situation would see missed messages remain unresolved, impacting domestic registrations. The forecast considers increasing Switching volumes, to levels as seen in November 2021 after remaining low for the next six months, in addition to accumulating daily transportation charges.



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CONCLUSION

Based on this analysis, the Code Manager considers the one-off implementation cost of between £511,635 to central systems (this reflects the central system costs to GRDA, CSS and system integrator). Also, there is an additional annual support cost to the industry of £22,000.

The Code Manager has identified a beneficial cost point window of between 64 days and 5.5 years for the one of central system costs of this solution, with the overall potential cost avoidance for Losing Shippers per annum of between £93K and £2.9 million.

All scenarios provide short beneficial cost point periods; therefore, the Code Manager believes there is a positive case for change.