

Meter Configuration Code Guidance Notes

Incorporating relationship between Meter Configuration, DUoS Charging, Data Aggregation and Market Messaging

Version Number :	7.1
Status :	Final
Date :	15 th December 2021
Document Name :	Meter Configuration Code Guidance Notes

History of Changes

Document Updates		
Date	Description	Version
01.06.2004	Release	1.0
17.09.2004	Updated to include changes to load profiles	2.0
16.12.2004	Updated to include Unmetered and QH MCC / DUoS combinations	2.1
20.02.2007	Reviewed and updated of the Meter Configuration Code Guidance Notes with input from Market Participants, per IGG AP #1	3.0
21.06.2007	Updated ' <i>Volumes of existing Metering Configurations Per MCC</i> ' from 2004 figures to 2007 figures following feedback from Airtricity.	3.1 & 4.0
05.11.2010	Updated Table 5.22 following implementation of MCR0177 DG4 DUoS tariff for Local Authority Public Lighting as part of version 8.1 of the Market Design <i>Note: Version 5.0 of this document was published for version 9.0 of the Market Design, to address Non-Conformance ref AIQ-1603.</i>	5.0
23.04.2019	MCR1167 – Facilitate energy efficiencies in Local Authority Public Lightning	6.0
16.02.2021	Re-versioned as part of Schema Release V13.0 (Smart) MCR1160 Smart Metering Meter Works	7.0
15.12.2021	Updated Table 5.1 MCC & DUoS Charging following implementation of 2021-2022 Annual Tariff Review by CRU	7.1

Table of Contents

1. INTRODUCTION	4
1.1 PURPOSE OF DOCUMENT	4
1.2 SCOPE	4
2. DEFINITION OF TERMS	5
2.1 METER CONFIGURATION CODE.....	5
2.2 PROFILES USED BY AGGREGATION.....	5
<i>Standard Profile</i>	5
<i>Derived Profile</i>	6
<i>Load Profile</i>	6
3. METER CONFIGURATION CODE RELATIONSHIPS.....	6
3.1 MCC AND DUOS CHARGING.....	7
3.2 MCC AND DATA AGGREGATION	7
3.2.1 <i>Assigning a Standard Profile to Non-Interval Sites</i>	7
3.2.1.1 <i>Non-Interval Non MD Standard Profiles</i>	8
3.2.1.2 <i>Non-Interval MD Standard Profiles</i>	9
3.2.1.3 <i>Unmetered Standard Profiles</i>	10
3.2.2 <i>Assigning a Load Profile to Non-Interval Sites</i>	11
3.3 MCC AND MARKET MESSAGING	13
4. VOLUMES OF EXISTING METERING CONFIGURATIONS PER MCC	14
5. RELATIONSHIP BETWEEN MCC, DUOS, DATA AGGREGATION, AND MARKET MESSAGES.	17
5.1 MCC AND DUOS CHARGING.....	17
5.2 MCC AND DATA AGGREGATION	21
5.3 RELATIONSHIP BETWEEN MCC AND MARKET MESSAGE.....	31
5.4 PROCESSING MCC50	36
5.5 APPENDIX 1 MARKET MESSAGES REPRESENTING MCC.....	37

1. Introduction

1.1 Purpose of Document

This document is intended to provide Market Participants with understanding of the relationship between,

- the Meter Configuration Code (MCC) and DUoS Charging
- the Meter Configuration Code (MCC) and market messaging.
- the Meter Configuration Code (MCC) and data aggregation key values

The document is also intended to give Market Participants an understanding of the number of sites that are associated with each MCC.

1.2 Scope

Section 2 of the document will define a number of the key terms that will be used within the document.

Section 3 will establish the conceptual relationship between the Meter Configuration Code (MCC), DUoS Charging, Data Aggregation, and Market Messaging.

Section 4 will provide the volumetric of sites associated with each MCC.

Section 5 will apply the conceptual relationships established in section 3 to each MCC.

2. Definition of Terms

2.1 Meter Configuration Code

The Meter Configuration Code is a code to indicate the register functionality required by the Supplier to be delivered by the physical meter (s) installed at a meter point. It does not describe the technical attributes of the meter (s). The measurement units and time slot of each register can be inferred from the MCC.

Meter Configuration Codes fall into two categories:

- MCCs that can be requested by suppliers

There is a set of standard Metering Configurations that are valid for installation and meter configuration change requests from suppliers. Each standard metering scenario will have its own MCC assigned.

- MCCs that can not be requested by suppliers

There is a set of non standard MCCs that are not valid for installation. These may not be requested in a meter configuration change.

Within the set of non standard MCCs there is a group of meter points where the metering configuration does not occur frequently enough to have their own non standard MCC. This group are described as MCC50.

2.2 Profiles used by Aggregation

One of the concepts this document will establish is the relationship between the Meter Configuration Code and data aggregation profiles.

Please note: Data aggregation profiles are not assigned to Quarter Hourly meter points or meter points where there is a Smart Meter with Interval Services. Actual interval data is available from these sites.

There are three types of profile explained below.

Standard Profile

A Standard Profile provides a coefficient for each 15 minute interval in a year. Each standard profile is based on readings from a statistical sample of the customer group concerned. Each Non-Interval Meter Point and each unmetered Meter Point is assigned a single Standard Profile. (All the Standard Profiles for unmetered are outlined in section 5.2).

Derived Profile

For legacy non-interval meters, the Day or Night Time of Use (ToU) at a meter point is assigned a Profile based on the Standard Profile assigned to that MPRN.

Whereas for a Smart Meter with non-interval services, MCC16, the Day Off Peak/Night Off Peak/ Peak Time of Use (ToU) at a meter point is assigned a Profile based on the Standard Profile assigned to that MPRN.

The Day or Night Time of Use (ToU) for Legacy meters and Day Off Peak/Night Off Peak/ Peak Time of Use (ToU) for MCC16 Smart Meters interpreted from the Standard Profile is known as the Derived Profile.

Load Profile

A Load Profile is a Time of Use interpretation of a Standard Profile. A Load Profile will be a Derived Profile for Day/Night and Day Off Peak/Night Off Peak/ Peak Time of Use for legacy non-interval meters and MCC16 Smart Meters respectively. It will be the Standard Profile for a 24 hour Time of Use.

A Load Profile is used (in conjunction with it's Usage Factor) to facilitate Data Aggregation at Non-Interval meter points.

A Load Profile must be assigned to a Non-Interval meter point for each Time of Use active at the meter point where the Time of Use is relevant to data aggregation (generally kilowatt-hour consumption on non-statistical meters).

The allocation of Load Profiles to an Non-Interval meter point is dependent upon

- The Standard Profile allocated to the meter point
- The Meter Configuration that exists at the meter point

3. Meter Configuration Code Relationships

This section outlines the conceptual relationship that MCC has to the following key areas:

- DUoS Charging
- Data Aggregation
- Market Messaging

3.1 MCC and DUoS Charging

The DUoS rate applicable to a meter point depends on the DUoS Group and the MCC present at the site. The DUoS group describes how the meter point is categorised for DUoS. The MCC describes the combination of registers present in the metering at the site. The register types determine the Time of Use(s) that will be billed at the meter point.

Where an MCC has multiple registers for the same Time of Use, DUoS billing will aggregate the consumption recorded on the registers at the same Time of Use. The DUoS charge relevant to the ToU will be applied to this aggregated consumption.

Section 5.1 of this document describes the DUoS billing representation for each MCC in the market place.

3.2 MCC and Data Aggregation

This section of the document describes how the Meter Configuration Code for a given meter point influences the standard profile and the load profile(s) assigned to that meter point.

Section 5.2 of this document describes the allocation of standard profile and load profile for each combination of MCC, DUoS group and Load Factor¹.

3.2.1 Assigning a Standard Profile to Non-Interval Sites

A Standard Profile must be associated with every meter point that is not QH metered or meter points where there is a Smart Meter with Interval Services.

Only one Standard Profile may be assigned to a meter point.

There are three groupings of standard profiles used by Non-Interval sites. These are,

- Non-Interval Non MD Standard Profiles
- Non-Interval MD Standard Profiles
- Unmetered Standard Profiles

The following sections communicate the standard profiles that make up these groupings and the rules for assigning them to a meter point.

¹ Load Factor is used in the allocation of Standard Profiles when the MCC at the site describes a Maximum Demand metering configuration.

3.2.1.1 Non-Interval Non MD Standard Profiles

The standard profiles that are categorised as Non-Interval non MD standard profiles are shown in table 3.2.1.1.

The allocation of a Standard Profile to a Non-Interval Non-MD meter point is dependent upon:

- The DUoS Group of the meter point
- The Meter Configuration that exists at the meter point

If the MCC communicates that a 24 Hour register exists at the meter point, then the 24 hour “Unrestricted” Standard Profile (i.e. 01,03,05) is allocated, irrespective of the other registers that may exist at the meter point

If the MCC communicates that a 24 Hour register does not exist at the meter point, then the “Day/Night” standard profile (i.e. 02, 04, 06) is allocated.

Standard Profile	Standard Profile Description
01	Urban Domestic Unrestricted
02	Urban Domestic Day/Night
03	Rural Domestic Unrestricted
04	Rural Domestic Day/Night
05	Non Domestic Unrestricted
06	Non Domestic Day / Night
25	Urban Domestic SST
27	Rural Domestic SST
29	Non Domestic SST

Table 3.2.1.1: Non-Interval Non-MD Standard Profiles

3.2.1.2 Non-Interval MD Standard Profiles

The standard profiles that are categorised as Non-Interval MD standard profiles are shown in table 3.2.1.2

The allocation of a Standard Profile to a Non-Interval Max Demand meter point is dependent upon,

- The DUoS Group of the meter point
- The Load Factor Code associated with the meter point
- The MCC at the meter point.

Since DG7 and higher are always QH, standard Profiles 07, 08, and 09 can only apply to DUoS Groups DG6, DG6A and DG6B. (Note that it is also possible for Meter Points with these DUoS groups to be QH if they are over the threshold for QH.)

Standard Profile	Standard Profile Description
07	MD with Load Factor up to (but not including) 30%
08	MD with Load Factor greater than or equal to 30% but less than 50%
09	MD with Load Factor greater than or equal to 50%

Table 3.2.1.2: Non-Interval MD Standard Profiles

3.2.1.3 Unmetered Standard Profiles

The standard profiles that are categorised as Unmetered standard profiles are shown in table 3.2.1.3

The allocation of a Standard Profile to an Unmetered supply point is solely dependent upon the Burn Hour Calendar.

Standard Profiles 10 to 23 inclusive only apply to DUoS Groups DG3 and DG4.

Standard Profile	Standard Profile Description
10	Unmetered (Flat)
11	Unmetered Dusk to Dawn
12	Unmetered Dusk to Midnight
13	Public Lighting-Dusk/Dawn with Extra Trimming
14	Public Lighting - Dusk/Dawn with Extra Trimming and 75% dimming between midnight and 06.00 hrs
15	Public Lighting - Dusk/Dawn with Extra Trimming and 67% dimming between midnight and 06.00 hrs
16	Public Lighting - Dusk/Dawn with Extra Trimming and 50% dimming between midnight and 06.00 hrs
17	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 75% from 21:00 through to 07:00 next day
18	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 67% from 21:00 through to 07:00 next day
19	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 50% from 21:00 through to 07:00 next day
20	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 75% from 20:00 to 22:00 then to 50% until 07:00 next day
21	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 67% from 20:00 to 22:00 then to 50% until 07:00 next day
22	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 64% from 20:00 to 22:00 then to 47% until 07:00 next day
23	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 64% from 20:00 to 22:00 then to 36% until 07:00 next day

Table 3.2.1.3: Unmetered Standard Profiles

3.2.2 Assigning a Load Profile to Non-Interval Sites

This section of the document provides examples of how load profiles are assigned to an MPRN.

Row 1 of Table 3.2.2 describes a scenario where the DUoS Group is DG1 and the Metering Configuration is MCC01. In this situation Standard Profile “01” applies.

24H is the only applicable Time of Use at the meter point. This is inferred from the MCC describing the registers for this type of meter point. Therefore only a single Load Profile needs to be allocated - <01 – 24H>. Rows 2 and 3 of table 3.2.2 describe a scenario where the DUoS Group is DG1 and the Metering Configuration is MCC02. In this situation Standard Profile “02” applies. There is a “Day” Time of Use and a “Night” Time of Use at the meter point. This is inferred from the MCC describing the registers for this type of meter point. Therefore two Load Profiles need to be allocated <02 – 00D> and <02 – 00N>.

Rows 4, 5 and 6 of table 3.2.2 describe a scenario where the DUoS Group is DG1 and the Metering Configuration is MCC16. In this situation Standard Profile “25” applies. There is a “Day Off Peak” Time of Use, a “Night Off Peak” and a “Peak” Time of Use at the meter point. This is inferred from the MCC describing the registers for this type of meter point. Therefore three Load Profiles need to be allocated <25 – 01D> , <25 – 01N> and <25 – 01P>.

DUoS Group	MCC	MCC Description	Standard Profile	Std Profile Description	Load Profile
DG1	MCC01	24 Hour	01	Urban Domestic Unrestricted	01 – 24H
DG1	MCC02	Day/Night	02	Urban Domestic Day/Night	02 – 00D
DG1	MCC02	Day/Night	02	Urban Domestic Day/Night	02 – 00N
DG1	MCC16	Day Off Peak/ Night Off Peak/ Peak	25	Urban domestic SST	25 - 01D
DG1	MCC16	Day Off Peak/ Night Off Peak/ Peak	25	Urban domestic SST	25 - 01N
DG1	MCC16	Day Off Peak/ Night Off Peak/ Peak	25	Urban domestic SST	25 - 01P
DG2	MCC16	Day Off Peak/ Night Off Peak/ Peak	27	Rural domesic SST	27 - 01D
DG2	MCC16	Day Off Peak/ Night Off Peak/ Peak	27	Rural domesic SST	27 - 01N
DG2	MCC16	Day Off Peak/ Night Off Peak/ Peak	27	Rural domesic SST	27 – 01P
DG5	MCC16	Day Off Peak/ Night Off Peak/ Peak	29	Non-domestic SST	29 - 01D

DG5	MCC16	Day Off Peak/ Night Off Peak/ Peak	29	Non-domestic SST	29 - 01N
DG5	MCC16	Day Off Peak/ Night Off Peak/ Peak	29	Non-domestic SST	29 - 01P

Table 3.2.2: Assigning a Load Profile to a Meter Point

3.3 MCC and Market Messaging

The Meter Configuration Code will exist in market messages as a value communicating the meter configuration existing at a site or the meter configuration requested by a Supplier.

It is also possible to infer from the MCC what meter reads will be communicated in market messages from Networks to Suppliers.

If a Supplier has a site with an associated meter configuration of MCC02, market message 300 will communicate consumption at a day register and a night register.

Alternatively, if a Supplier has a site with an associated meter configuration of MCC58, market message 300 will communicate consumption at a 24 hour register, a day register, and a night register.

Section 5.3 of this document will describe the messaging relationship for each MCC in the market place.

4. Volumes of existing Metering Configurations Per MCC

The following table gives indicative numbers of Meter Points assigned to each MCC based on data taken in June 2007.

MCC	Description	Totals June 2007
MCC01	24H	1,742,457
MCC02	D/N	240,431
MCC03	24h+NSH	70,528
MCC04	D/N+W	8,431
MCC06	MDNm+Pk	1,190
MCC07	24H+NSH+W	6,196
MCC08	24H+W	169
MCC09	Umetered	1,570
MCC10	QH2CH_IP	51,388
MCC11	QH4CH_IPXP	121
MCC05	MDNm/Pk	1190
MCC50	NONSTD	593
MCC51	D/N+NSH	779
MCC53	2 X D/N	66
MCC57	24H+D	0
MCC58	24H+D/N	588
MCC59	24H+D/N+W	51
MCC60	24H+D/N+NSH	68
MCC61	2x24H	9,448
MCC62	2x24H+NSH	2,204
MCC63	2x24H+D	0
MCC64	2x24H+W	536
MCC65	3X24H	7445
MCC67	3X24H+D	0
MCC70	3X24H+NSH	841
MCC71	4X24H	625
MCC72	3X24H+W	278
MCC73	4X24H+NSH	212
MCC74	5X24H	165
MCC75	24H+2XNSH	146
MCC76	4X24H+W	81
MCC77	2X24H+W+NSH	79
MCC78	3X24H+W+NSH	79
MCC79	5X24H+NSH	65
Total		2,148,020

MCC code Descriptor Explanations	
24H	Register recording Import kWhs 24 hours, 7 Days, all year
D	Register recording Import kWhs Day 08:00 - 23:00 7 Days, all year
N	Register recording Import kWhs Night 23:00 -08:00 7 Days, all year
D/N	Group of Registers recording Import kWhs Day 08:00 - 23:00, Night 23:00 -08:00, 7 Days, all year
NSH	Night Storage Heating Specific Register (Meter) recording Import kWhs 23:00 -08:00, 7 Days, all year.
W	Wattless: Register (On separate meter or MFM) recording kVARhs 24 hours, 7 Days, all year
HH1CH_1CR_IP	Half Hourly: 1 Channel Recorder_ Import kWhs recorded every 30 minutes 24 hours, 7 Days, all year and 1 Register recording Import kWhs 24 hours, 7 days, all year
01D	08:00-17:00 & 19:00-23:00 Day Consumption
01N	23:00-08:00 Night Consumption
01P	17:00-19:00 Peak Consumption
MD	Maximum Demand: Group of Registers recording MD kWhs and Cumulative MD kWhs (N only or N+P), Reset Counter, Day kWh, Night kWh and 24Hr kVAh (Standard MD)
Nm+Pk	Registers for both Normal 08:00 - 21:00 and Peak 17:00 - 19:00 MD (i.e two registers all year round)
Nm/Pk	Registers for both Normal 08:00 - 21:00 OR Peak 17:00 - 19:00 MD (i.e one register which has to be manually configured at site to change between Normal and Peak.)
Unmetered	Unmetered supply
QH2CH_IP	Quarter Hourly: 2 Channel Recorder_ Import kWhs and kVAr. MD kWhs and MD kVAr. recorded every 15 minutes 24 hours, 7 Days, all year
QH4CH_IPXP	Quarter Hourly: 4 Channel Recorder_ Import kWhs and kVAr, Export kWhs and kVAr. Import MD kWhs and kVAr and Export MD kWhs and kVAr. recorded every 15 minutes 24 hours, 7 Days, all year
NONSTD	Describes Non standard setup usually pertains to customers which have had specific requirements catered for in the past.

Notes

- The number of sites associated with MCC10 reflects the number of sites capable of being read as QH.
- The number of sites associated with MCC12 reflects the number of sites capable of being read as HH.

- Previously published MCC52, MCC54, MCC55, MCC56, MCC66 have no occurrences and will be removed from the design

5. Relationship between MCC, DUoS, Data Aggregation, and Market Messages.

This section of the document applies the rules established in section three of the document to relate MCC to DUoS charging, Data Aggregation values, and Market Messages.

5.1 MCC and DUoS Charging

As described in section 3.1 of the document, the registers associated with a Time of Use communicated in the MCC determines how a charge is calculated for a particular meter point.

Table 5.1 below describes the registers per Time of Use associated with each MCC and the manner in which the DUoS charge will be calculated for each ToU.

Table 5.1 Relationship between MCC and DUoS Charges

MCC	Consumption	Comment	Price		DUoS Charge
MCC01	24 hours (kWh)	*	24 hour Price	=	24 Hour Charge
MCC02	Day (kWh)	*	Day Price	=	Day Charge
	Night (kWh)	*	Night Price	=	Night Charge
MCC03	24 hours (kWh)	*	24 hour Price	=	24 Hour Charge
	Night storage Heating	*	Night Price	=	Night Charge
MCC04	Day (kWh)	*	Day Price	=	Day Charge
	Night (kWh)	*	Night Price	=	Night Charge
	Wattless (kVArh)	*	Wattless Price	=	LPF Surcharge
MCC08	Wattless (kVArh)	*	Wattless Price	=	LPF Surcharge
	24 hours	*	24 hour Price	=	24 Hour Charge
MCC07	Wattless (kVArh)	*	Wattless Price	=	LPF Surcharge
	24 hours	*	24 hour Price	=	24 Hour Charge
	Night storage Heating	*	Night Price	=	Night Charge
MCC12	Day Off Peak (kWh)		Day Price	=	Day Charge

MCC	Consumption	Comment	Price		DUoS Charge
	Night Off Peak (kWh)	Interval Service: Consumption will be consolidated into Standard Smart Tariff time slots*	Night Price	=	Night Charge
	Peak (kWh)		Day Price	=	Day Charge
MCC16	Day Off Peak (kWh)		Day Price	=	Day Charge
	Night Off Peak (kWh)	*	Night Price	=	Night Charge
	Peak (kWh)	*	Day Price	=	Day Charge
MCC51	Day (kWh)	*	Day Price	=	Day Charge
	Night (kWh)	*	Night Price	=	Night Charge
	Night storage Heating	*	Night Price	=	Night Charge
MCC53	Day (kWh)				
	Day (kWh)	(Day A + Day B) *	Day Price	=	Day Charge
	Night (kWh)				
	Night (kWh)	(Night A + Night B) *	Night Price	=	Night Charge
MCC57	24 hours	*	24 hour Price	=	24 Hour Charge
	Day (kWh)	*	Day Price	=	Day Charge
MCC58	24 hours	*	24 hour Price	=	24 Hour Charge
	Day (kWh)	*	Day Price	=	Day Charge
	Night (kWh)	*	Night Price	=	Night Charge
MCC59	24 hours (kWh)	*	24 hour Price	=	24 Hour Charge
	Day (kWh)	*	Day Price	=	Day Charge
	Night (kWh)	*	Night Price	=	Night Charge
	Wattless (kVArh)	*	Wattless Price	=	LPF Surcharge
MCC60	24 hours (kWh)	*	24 hour Price	=	24 Hour Charge
	Day (kWh)	*	Day Price	=	Day Charge
	Night (kWh)	*	Night Price	=	Night Charge
	Night storage Heating (kWh)	*	Night Price	=	Night Charge
MCC61	24 Hour (kWh)	(24 Hour A + 24 Hour B) *	24 Hour Price	=	24 Hour Charge
MCC62	24 Hour (kWh)	(24 Hour A + 24 Hour B) *	24 Hour Price	=	24 Hour Charge
	Night storage Heating (kWh)	*	Night Price	=	Night Charge
MCC63	24 Hour (kWh)	(24 Hour A + 24 Hour B) *	24 Hour Price	=	24 Hour Charge
	Day (kWh)	*	Day Price	=	Day Charge
MCC64	24 Hour (kWh)	(24 Hour A + 24 Hour B) *	24 Hour Price	=	24 Hour Charge
	Wattless (kVArh)	*	Wattless Price	=	LPF Surcharge

MCC	Consumption	Comment	Price		DUoS Charge
MCC65	24 Hour (kWh)	(24 Hour A + 24 Hour B + 24 Hour C) *	24 Hour Price	=	24 Hour Charge
MCC67	24 Hour (kWh)	(24 Hour A + 24 Hour B + 24 Hour C) *	24 Hour Price	=	24 Hour Charge
MCC70	24 Hour (kWh)	(24 Hour A + 24 Hour B + 24 Hour C) *	24 Hour Price	=	24 Hour Charge
	Night storage Heating (kWh)	*	Night Price	=	Night Charge
MCC71	24 Hour (kWh)	(24 Hour A + 24 Hour B + 24 Hour C + 24 Hour D) *	24 Hour Price	=	24 Hour Charge
MCC72	24 Hour (kWh)	(24 Hour A + 24 Hour B + 24 Hour C) *	24 Hour Price	=	24 Hour Charge
	Wattless (kVAh)	*	Wattless Price	=	LPF Surcharge
MCC73	24 Hour (kWh)	(24 Hour A + 24 Hour B + 24 Hour C + 24 Hour D) *	24 Hour Price	=	24 Hour Charge
	Night storage Heating (kWh)	*	Night Price	=	Night Charge
MCC74	24 Hour (kWh)	(24 Hour A + 24 Hour B + 24 Hour C + 24 Hour D + 24 Hour E) *	24 Hour Price	=	24 Hour Charge
MCC75	24 hours	*	24 hour Price	=	24 Hour Charge
	Night storage Heating	(NSH A + NSH B) *	Night Price	=	Night Charge
MCC76	24 Hour (kWh)	(24 Hour A + 24 Hour B + 24 Hour C + 24 Hour D) *	24 Hour Price	=	24 Hour Charge
	Wattless (kVAh)	*	Wattless Price	=	LPF Surcharge
MCC77	24 Hour (kWh)	(24 Hour A + 24 Hour B) *	24 Hour Price	=	24 Hour Charge
	Wattless (kVAh)	*	Wattless Price	=	LPF Surcharge
	Night storage Heating	*	Night Price	=	Night Charge
MCC78	24 Hour (kWh)	(24 Hour A + 24 Hour B + 24 Hour C) *	24 Hour Price	=	24 Hour Charge
	Wattless (kVAh)	*	Wattless Price	=	LPF Surcharge
	Night storage Heating	*	Night Price	=	Night Charge
MCC79	24 Hour (kWh)	(24 Hour A + 24 Hour B + 24 Hour C + 24 Hour D + 24 Hour E) *	24 Hour Price	=	24 Hour Charge
	Night storage Heating (kWh)	*	Night Price	=	Night Charge
MCC05	MD				MIC Surcharge
	Day (kWh)	*	Day Price	=	Day Charge
	Night (kWh)	*	Night Price	=	Night Charge
	Wattless (kVAh)	*	Wattless Price	=	LPF Surcharge

MCC	Consumption	Comment	Price		DUoS Charge
MCC06	MD				MIC Surcharge
	Day (kWh)	*	Day Price	=	Day Charge
	Night kWh	*	Night Price	=	Night Charge
	Wattless (kVArh)	*	Wattless Price	=	LPF Surcharge
MCC10	Import Active (kW)				Import split into two Day Charge, Night Charge
	Import Reactive (kVAr)				LPF Surcharge
	MIC				MIC Surcharge
MCC11	Import Active (kW)				Import split into two Day Charge Night Charge
	Import Reactive (kVAr)				LPF Surcharge
	MIC				MIC Surcharge
	Export Active (kW)				Import and Export Data is netted for each 15 minute interval and a price applied.
	Export Reactive (kVAr)				Not used DUoS
MCC09	Import Unmetered (kWh)		Unmetered Price	=	Unmetered Charge

Note that the LPF Surcharge and MIC Surcharge are described in CER document CER 03/290 ' Proposal For New DUoS Billing System'

5.2 MCC and Data Aggregation

Section 3.2 of this document explained how a standard profile is associated with a meter point based on the DUoS group and the MCC at that meter point.

Table 5.2.1 below explains the relationship between DUoS Group, MCC and assigned standard profiles for Non-Interval Metered meter points. Unmetered and QH Meter points are explained in tables 5.2.2 and 5.2.3.

DUoS Group	MCC		Standard Profile		Time of Use
DG1	MCC01	24 hour	01	Urban Domestic Unrestricted	24H
	MCC02	D/N	02	Urban Domestic Day/Night	00D 00N
	MCC03	24h+NSH	01	Urban Domestic Unrestricted	24H 00N
	MCC16	SST IMP	25	Urban domestic SST	01D 01N 01P
	MCC51	D/N+NSH	02	Urban Domestic Day/Night	00D 00N
	MCC53	2 X D/N	02	Urban Domestic Day/Night	00D 00N
	MCC57	24h+Day	01	Urban Domestic Unrestricted	24H 00D
	MCC58	24h+D/N	01	Urban Domestic Unrestricted	24H 00D 00N
	MCC60	24h+D/N+NS	01	Urban Domestic Unrestricted	24H 00D 00N
	MCC61	2x24h	01	Urban Domestic Unrestricted	24H
	MCC62	2x24h+NSH	01	Urban Domestic Unrestricted	24H 00N
	MCC63	2x24h+Day	01	Urban Domestic Unrestricted	24H 00D
	MCC65	3X24h	01	Urban Domestic Unrestricted	24H
	MCC67	3X24h+Day	01	Urban Domestic Unrestricted	24H 00D
	MCC70	3X24h+NSH	01	Urban Domestic Unrestricted	24H 00N
	MCC71	4X24h	01	Urban Domestic Unrestricted	24H
	MCC73	4X24h+NSH	01	Urban Domestic Unrestricted	24H 00N
	MCC74	5X24h	01	Urban Domestic Unrestricted	24H
	MCC75	24+2XNSH	01	Urban Domestic Unrestricted	24H 00N
	MCC79	5X24+NSH	01	Urban Domestic Unrestricted	24H 00N

DG2	MCC01	24 hour	03	Rural Domestic Unrestricted	24H
	MCC02	D/N	04	Rural Domestic Day/Night	00D 00N
	MCC03	24h+NSH	03	Rural Domestic Unrestricted	24H 00N
	MCC16	SST IMP	27	Rural domestic SST	01D 01N 01P
	MCC51	D/N+NSH	04	Rural Domestic Day/Night	00D 00N
	MCC53	2 X D/N	04	Rural Domestic Day/Night	00D 00N
	MCC57	24h+Day	03	Rural Domestic Unrestricted	24H 00D
	MCC58	24h+D/N	03	Rural Domestic Unrestricted	24H 00D 00N
	MCC60	24h+D/N +NS	03	Rural Domestic Unrestricted	24H 00D 00N
	MCC61	2x24h	03	Rural Domestic Unrestricted	24H
	MCC62	2x24h+NSH	03	Rural Domestic Unrestricted	24H 00N
	MCC63	2x24h+Day	03	Rural Domestic Unrestricted	24H 00D
	MCC65	3X24h	03	Rural Domestic Unrestricted	24H
	MCC67	3X24h+Day	03	Rural Domestic Unrestricted	24H 00D
	MCC70	3X24h+NSH	03	Rural Domestic Unrestricted	24H 00N
	MCC71	4X24h	03	Rural Domestic Unrestricted	24H
	MCC73	4X24h+NSH	03	Rural Domestic Unrestricted	24H 00N
	MCC74	5X24h	03	Rural Domestic Unrestricted	24H
	MCC75	24+2XNSH	03	Rural Domestic Unrestricted	24H 00N
	MCC79	5X24+NSH	03	Rural Domestic Unrestricted	24H 00N
DG5	MCC01	24 hour	05	Non Domestic Unrestricted	24H
	MCC02	D/N	06	Non Domestic Day/Night	00D 00N
	MCC03	24h+NSH	05	Non Domestic Unrestricted	24H 00N
	MCC04	D/N +W	06	Non Domestic Day/Night	00D 00N
	MCC07	24H+NSH+W	05	Non Domestic Unrestricted	24H 00N
	MCC08	24h+W	05	Non Domestic Unrestricted	24H
	MCC16	SST IMP	29	Non-domestic SST	01D 01N 01P
	MCC51	D/N +NSH	06	Non Domestic Day/Night	00D 00N
	MCC53	2 X D/N	06	Non Domestic Day/Night	00D 00N
	MCC57	24h+Day	05	Non Domestic Unrestricted	24H 00D

	MCC58	24h+D/N	05	Non Domestic Unrestricted	24H
					00D
					00N
	MCC59	24h+D/N +W	05	Non Domestic Unrestricted	24H
					00D
					00N
	MCC60	24h+D/N +NS	05	Non Domestic Unrestricted	24H
					00D
					00N
	MCC61	2x24h	05	Non Domestic Unrestricted	24H
	MCC62	2x24h+NSH	05	Non Domestic Unrestricted	24H
					00N
	MCC63	2x24h+Day	05	Non Domestic Unrestricted	24H
					00D
	MCC64	2x24h+W	05	Non Domestic Unrestricted	24H
	MCC65	3X24h	05	Non Domestic Unrestricted	24H
	MCC67	3X24h+Day	05	Non Domestic Unrestricted	24H
					00D
	MCC70	3X24h+NSH	05	Non Domestic Unrestricted	24H
				00N	
MCC71	4X24h	05	Non Domestic Unrestricted	24H	
MCC72	3X24h+W	05	Non Domestic Unrestricted	24H	
MCC73	4X24h+NSH	05	Non Domestic Unrestricted	24H	
				00N	
MCC74	5X24h	05	Non Domestic Unrestricted	24H	
MCC75	24+2XNSH	05	Non Domestic Unrestricted	24H	
				00N	
MCC76	4X24h+W	05	Non Domestic Unrestricted	24H	
MCC77	2X24h+W+NSH	05	Non Domestic Unrestricted	24H	
				00N	
MCC78	3X24h+W+NSH	05	Non Domestic Unrestricted	24H	
				00N	
MCC79	5X24+NSH	05	Non Domestic Unrestricted	24H	
				00N	
DG5A	MCC01	24 hour	05	Non Domestic Unrestricted	24H
	MCC02	D/N	06	Non Domestic Day/Night	00D
					00N
	MCC03	D/N 24h+NSH	05	Non Domestic Unrestricted	24H
					00N
	MCC04	D/N +W	06	Non Domestic Day/Night	00D
					00N
	MCC07	24H+NSH+W	05	Non Domestic Unrestricted	24H
					00N
	MCC08	24h+W	05	Non Domestic Unrestricted	24H
	MCC51	D/N +NSH	06	Non Domestic Day/Night	00D
					00N
	MCC53	2 X D/N	06	Non Domestic Day/Night	00D
				00N	
MCC57	24h+Day	05	Non Domestic Unrestricted	24H	
				00D	
MCC58	24h+D/N	05	Non Domestic Unrestricted	24H	
				00D	
				00N	
MCC59	24h+D/N +W	05	Non Domestic Unrestricted	24H	
				00D	
				00N	

	MCC60	24h+D/N+NS	05	Non Domestic Unrestricted	24H
					00D
					00N
	MCC61	2x24h	05	Non Domestic Unrestricted	24H
	MCC62	2x24h+NSH	05	Non Domestic Unrestricted	24H
					00N
	MCC63	2x24h+Day	05	Non Domestic Unrestricted	24H
					00D
	MCC64	2x24h+W	05	Non Domestic Unrestricted	24H
	MCC65	3X24h	05	Non Domestic Unrestricted	24H
	MCC67	3X24h+Day	05	Non Domestic Unrestricted	24H
					00D
	MCC70	3X24h+NSH	05	Non Domestic Unrestricted	24H
					00N
	MCC71	4X24h	05	Non Domestic Unrestricted	24H
	MCC72	3X24h+W	05	Non Domestic Unrestricted	24H
	MCC73	4X24h+NSH	05	Non Domestic Unrestricted	24H
					00N
	MCC74	5X24h	05	Non Domestic Unrestricted	24H
MCC75	24+2XNSH	05	Non Domestic Unrestricted	24H	
				00N	
MCC76	4X24h+W	05	Non Domestic Unrestricted	24H	
MCC77	2X24h+W+NSH	05	Non Domestic Unrestricted	24H	
				00N	
MCC78	3X24h+W+NSH	05	Non Domestic Unrestricted	24H	
				00N	
MCC79	5X24+NSH	05	Non Domestic Unrestricted	24H	
				00N	
DG5B	MCC01	24 hour	05	Non Domestic Unrestricted	24H
	MCC02	D/N	06	Non Domestic Day/Night	00D
					00N
	MCC03	D/N 24h+NSH	05	Non Domestic Unrestricted	24H
					00N
	MCC04	D/N+W	06	Non Domestic Day/Night	00D
					00N
	MCC07	24H+NSH+W	05	Non Domestic Unrestricted	24H
					00N
	MCC08	24h+W	05	Non Domestic Unrestricted	24H
	MCC51	D/N +NSH	06	Non Domestic Day/Night	00D
					00N
	MCC53	2 X D/N	06	Non Domestic Day/Night	00D
					00N
MCC57	24h+Day	05	Non Domestic Unrestricted	24H	
				00D	
MCC58	24h+D/N	05	Non Domestic Unrestricted	24H	
				00D	
				00N	
MCC59	24h+D/N +W	05	Non Domestic Unrestricted	24H	
				00D	
				00N	
MCC60	24h+D/N+NS	05	Non Domestic Unrestricted	24H	
				00D	
				00N	
MCC61	2x24h	05	Non Domestic Unrestricted	24H	

	MCC62	2x24h+NSH	05	Non Domestic Unrestricted	24H
					00N
	MCC63	2x24h+Day	05	Non Domestic Unrestricted	24H
					00D
	MCC64	2x24h+W	05	Non Domestic Unrestricted	24H
	MCC65	3X24h	05	Non Domestic Unrestricted	24H
	MCC67	3X24h+Day	05	Non Domestic Unrestricted	24H
					00D
	MCC70	3X24h+NSH	05	Non Domestic Unrestricted	24H
					00N
	MCC71	4X24h	05	Non Domestic Unrestricted	24H
	MCC72	3X24h+W	05	Non Domestic Unrestricted	24H
	MCC73	4X24h+NSH	05	Non Domestic Unrestricted	24H
					00N
	MCC74	5X24h	05	Non Domestic Unrestricted	24H
MCC75	24+2XNSH	05	Non Domestic Unrestricted	24H	
				00N	
MCC76	4X24h+W	05	Non Domestic Unrestricted	24H	
MCC77	2X24h+W+NSH	05	Non Domestic Unrestricted	24H	
				00N	
MCC78	3X24h+W+NSH	05	Non Domestic Unrestricted	24H	
				00N	
MCC79	5X24+NSH	05	Non Domestic Unrestricted	24H	
				00N	
DG6	MCC05	MDNM/PK	07	MD with Load factor up to 30%	24H
					00D
					00N
	MCC06	MDNM+PK	07	MD with Load factor up to 30%	24H
					00D
					00N
MCC05	MDNM/PK	08	MD with Load factor of 31% to 50%	24H	
				00D	
				00N	
MCC06	MDNM+PK	08	MD with Load factor of 31% to 50%	24H	
				00D	
				00N	
MCC05	MDNM/PK	09	MD with Load Factor above 50%	24H	
				00D	
				00N	
MCC06	MDNM+PK	09	MD with Load Factor above 50%	24H	
				00D	
				00N	
DG6A	MCC05	MDNM/PK	07	MD with Load factor up to 30%	24H
					00D
					00N
	MCC06	MDNM+PK	07	MD with Load factor up to 30%	24H
					00D
				00N	
MCC05	MDNM/PK	08	MD with Load factor of 31% to 50%	24H	
				00D	
				00N	
MCC06	MDNM+PK	08	MD with Load factor of 31% to 50%	24H	
				00D	
				00N	
MCC05	MDNM/PK	09	MD with Load Factor above 50%	24H	
				00D	
				00N	

	MCC06	MDNM+PK	09	MD with Load Factor above 50%	24H
					00D
					00N
DG6B	MCC05	MDNM/PK	07	MD with Load factor up to 30%	24H
					00D
					00N
	MCC06	MDNM+PK	07	MD with Load factor up to 30%	24H
					00D
					00N
	MCC05	MDNM/PK	08	MD with Load factor of 31% to 50%	24H
					00D
					00N
	MCC06	MDNM+PK	08	MD with Load factor of 31% to 50%	24H
					00D
					00N
MCC05	MDNM/PK	09	MD with Load Factor above 50%	24H	
				00D	
				00N	
MCC06	MDNM+PK	09	MD with Load Factor above 50%	24H	
				00D	
				00N	

Table 5.2.1 Relationship between DUoS group, MCC and standard profiles

Table 5.2.2 below explains the relationship between DUoS Group, MCC, and assigned standard profiles for Unmetered MPRN's.²

Please note: The code value 'UNM' of Time of Use will be applicable for Unmetered sites.

DUoS Group	MCC			Standard Profile
	MCC09	Unmetered	10	Unmetered (Flat)
	MCC09	Unmetered	11	Unmetered Dusk to Dawn
	MCC09	Unmetered	12	Unmetered Dusk to Midnight
	MCC09	Unmetered	13	Public Lighting-Dusk/Dawn with Extra Trimming
	MCC09	Unmetered	14	Public Lighting - Dusk/Dawn with Extra Trimming and 75% dimming between midnight and 06.00 hrs
	MCC09	Unmetered	15	Public Lighting - Dusk/Dawn with Extra Trimming and 67% dimming between midnight and 06.00 hrs
	MCC09	Unmetered	16	Public Lighting - Dusk/Dawn with Extra Trimming and 50% dimming between midnight and 06.00 hrs
	MCC09	Unmetered	17	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 75% from 21:00 through to 07:00 next day
	MCC09	Unmetered	18	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 67% from 21:00 through to 07:00 next day
	MCC09	Unmetered	19	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 50% from 21:00 through to 07:00 next day
	MCC09	Unmetered	20	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 75% from 20:00 to 22:00 then to 50% until 07:00 next day
	MCC09	Unmetered	21	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 67% from 20:00 to 22:00 then to 50% until 07:00 next day
	MCC09	Unmetered	22	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 64% from 20:00 to 22:00 then to 47% until 07:00 next day
	MCC09	Unmetered	23	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 64% from 20:00 to 22:00 then to 36% until 07:00 next day

² This table was updated as a result of implementation of [MCR 0177 - DG4 DUoS Tariff for Local Authority Public Lighting](#) and MCR1167 – Facilitate energy efficiencies in Local Authority Public Lighting

	MCC09	Unmetered	10	Unmetered (Flat)
	MCC09	Unmetered	11	Unmetered Dusk to Dawn
	MCC09	Unmetered	12	Unmetered Dusk to Midnight
	MCC09	Unmetered	13	Public Lighting-Dusk/Dawn with Extra Trimming
	MCC09	Unmetered	14	Public Lighting - Dusk/Dawn with Extra Trimming and 75% dimming between midnight and 06.00 hrs
	MCC09	Unmetered	15	Public Lighting - Dusk/Dawn with Extra Trimming and 67% dimming between midnight and 06.00 hrs
	MCC09	Unmetered	16	Public Lighting - Dusk/Dawn with Extra Trimming and 50% dimming between midnight and 06.00 hrs
	MCC09	Unmetered	17	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 75% from 21:00 through to 07:00 next day
DG4	MCC09	Unmetered	18	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 67% from 21:00 through to 07:00 next day
	MCC09	Unmetered	19	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 50% from 21:00 through to 07:00 next day
	MCC09	Unmetered	20	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 75% from 20:00 to 22:00 then to 50% until 07:00 next day
	MCC09	Unmetered	21	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 67% from 20:00 to 22:00 then to 50% until 07:00 next day
	MCC09	Unmetered	22	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 64% from 20:00 to 22:00 then to 47% until 07:00 next day
	MCC09	Unmetered	23	Public Lighting - Dusk to Dawn with Extra Trimming, dimmed to 64% from 20:00 to 22:00 then to 36% until 07:00 next day

Table 5.2.2 Relationship between DUoS group, MCC and standard profiles for Unmetered MPRN's

This table was updated as a result of implementation of MCR 0177 - DG4 DUoS Tariff for Local Authority Public Lighting and MCR1167 Facilitate energy efficiencies in Local Authority Public Lighting

Table 5.2.3 below explains the relationship between DUoS Group and MCC for QH Metered meter points.

Please note: Time of use and Standard Load profiles do not apply to QH meter points. The majority (Approximately 50%) of QH Meter points are currently defined as DG7 MV MD.

DUoS Group	MCC	
DG5	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG5A	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG5B	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG6	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG6A	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG6B	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG7	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG7A	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG7B	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG8	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG8A	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG8B	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG9	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG9A	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG9B	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP
DG10	MCC10	QH2CH_IP
	MCC11	QH4CH_IPXP

Table 5.2.3 Relationship between DUoS group and QH MCC

Table 5.2.4 below explains the relationship between DUoS Group and MCC for meter points where there is a Smart Meter with Interval Services.

Please note: Time of use and Standard Load profiles do not apply to meter points where there is a Smart Meter with Interval Services.

DUOS Group	MCC	
DG1	MCC12	HH1CH_1CR_IP
DG2	MCC12	HH1CH_1CR_IP
DG5	MCC12	HH1CH_1CR_IP

Table 5.2.4 Relationship between DUoS group and HH MCC

5.3 Relationship between MCC and Market Message

Table 5.3 below describes the relationship between MCC and the content of a market message. For clarity, only a sub-set of the total message content is illustrated below.

The MCC does not describe the physical metering at a site, therefore the serial numbers shown in the table are for illustrative purposes only. Notwithstanding this, serial numbers S1, S2 ...S6 are used to indicate instances of different devices. Reading information R1,R2Rn is used to indicate readings on a device level i.e. R2 means Register Reading 2 from device S1.

This section of the document should be used in conjunction with the Market Message Implementation Guide for the 300 messages.

Please note: MCC09 for Unmetered sites is not applicable to this table. See the current version of Market Message Implementation Guide – Unmetered for an explanation of the content of Market Messages for Unmetered sites (Messages 700, 700W, 701 and 701W).

MPRN Information			Register Information						
MPRN	MCC	Meter Serial No	Time slot	Sequence	UOM	Multiplier	Reading	Register Type	Register Description
M.....	MCC01	S1	24H	1	kWh	1	R1	01	24H kWh Consumption
M.....	MCC02	S1	00D	1	kWh	1	R1	02	Day kWh Consumption
			00N	2	kWh	1	R2	03	Night kWh Consumption
M.....	MCC03	S1	24H	1	kWh	1	R1	01	24H kWh Consumption
		S2	00N	1	kWh	1	R1	04	Night Storage Heating kWh consumption
M.....	MCC04	S1	00D	1	kWh	1-N	R1	02	Day kWh Consumption
			00N	2	kWh	1-N	R2	03	Night kWh Consumption
			24H	3	kVArh	1-N	R3	05	kVArh (Wattless) Consumption
M.....	MCC06	S1	00NR	2	kW	1-N	R1	08	Cumulative MD Normal
			00NR	3	kW	1-N	R2	06	MD Normal
			0PK	4	kW	1-N	R3	09	Cumulative MD Peak
			0PK	5	kW	1-N	R4	07	MD Peak
			00D	6	kWh	1-N	R5	02	Day kWh Consumption
			00N	7	kWh	1-N	R6	03	Night kWh Consumption

MPRN Information			Register Information						
MPRN	MCC	Meter Serial No	Time slot	Sequence	UOM	Multiplier	Reading	Register Type	Register Description
			24H	8	kVArh	1-N	R7	05	kVArh (Wattless) Consumption
M.....	MCC07	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	00N	1	kWh	1-N	R1	04	Night Storage Heating kWh consumption
		S3	24H	1	kVArh	1-N	R1	05	kVArh (Wattless) Consumption
M.....	MCC08	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	24H	1	kVArh	1-N	R1	05	kVArh (Wattless) Consumption
M.....	MCC16	S1	01D	1	kWh	1	R1	78	Day Off Peak Consumption
		S1	01N	2	kWh	1	R2	79	Night Off Peak Consumption
		S1	01P	3	kWh	1	R3	80	Peak Consumption
M.....	MCC05	S1	0NR	2	kW	1-N	R1	08	Cumulative MD Normal
			0NR	3	kW	1-N	R2	06	MD Normal
			00D	4	kWh	1-N	R3	02	Day kWh Consumption
			00N	5	kWh	1-N	R4	03	Night kWh Consumption
		S2	24H	1	kVArh	1-N	R1	05	kVArh (Wattless) Consumption
M.....	MCC51	S1	00D	1	kWh	1	R1	02	Day kWh Consumption
			00N	2	kWh	1	R2	03	Night kWh Consumption
		S2	00D	1	kWh	1	R1	04	Night Storage Heating kWh consumption
M.....	MCC53	S1	00D	1	kWh	1	R1	02	Day kWh Consumption
			00N	2	kWh	1	R2	03	Night kWh Consumption
		S2	00D	1	kWh	1	R1	02	Day kWh Consumption
			00N	2	kWh	1	R2	03	Night kWh Consumption
M.....	MCC57	S1	24H	1	kWh	1	R1	01	24H kWh Consumption
			00D	2	kWh	1	R1	02	Day kWh Consumption
M.....	MCC58	S1	24H	1	kWh	1	R1	01	24H kWh Consumption
			00D	1	kWh	1	R1	02	Day kWh Consumption
		S2	00N	2	kWh	1	R2	03	Night kWh Consumption
M.....	MCC59	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
			00D	1	kWh	1-N	R1	02	Day kWh Consumption
		S2	00N	2	kWh	1-N	R2	03	Night kWh Consumption
			S3	24H	1	kVArh	1-N	R1	05

MPRN Information			Register Information						
MPRN	MCC	Meter Serial No	Time slot	Sequence	UOM	Multiplier	Reading	Register Type	Register Description
M.....	MCC60	S1	24H	1	kWh	1	R1	01	24H kWh Consumption
		S2	00D	1	kWh	1	R1	02	Day kWh Consumption
			00N	2	kWh	1	R2	03	Night kWh Consumption
		S3	00N	1	kWh	1	R1	04	Night Storage Heating kWh consumption
M.....	MCC61	S1	24H	1	kWh	1	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1	R1	01	24H kWh Consumption
M.....	MCC62	S1	24H	1	kWh	1	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1	R1	01	24H kWh Consumption
		S3	00N	1	kWh	1	R1	04	Night Storage Heating kWh con
M.....	MCC63	S1	24H	1	kWh	1	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1	R1	01	24H kWh Consumption
		S2	00D	1	kWh	1	R2	02	Day kWh Consumption
M.....	MCC64	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	24H	1	kVArh	1-N	R1	05	kVArh (Wattless) Consumption
M.....	MCC65	S1	24H	1	kWh	1	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1	R1	01	24H kWh Consumption
		S3	24H	1	kWh	1	R1	01	24H kWh Consumption
M.....	MCC67	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S4	00D	1	kWh	1-N	R1	02	Day kWh Consumption
M.....	MCC70	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S4	00N	1	kWh	1-N	R1	04	Night Storage Heating kWh consumption
M.....	MCC71	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S4	24H	1	kWh	1-N	R1	01	24H kWh Consumption

MPRN Information			Register Information						
MPRN	MCC	Meter Serial No	Time slot	Sequence	UOM	Multiplier	Reading	Register Type	Register Description
M.....	MCC72	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S4	24H	1	kVArh	1-N	R1	05	kVArh (Wattless) Consumption
M.....	MCC73	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S4	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S5	00N	1	kWh	1-N	R1	04	Night Storage Heating kWh consumption
M.....	MCC74	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S4	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S5	24H	1	kWh	1-N	R1	01	24H kWh Consumption
M.....	MCC75	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	00N	1	kWh	1-N	R1	04	Night Storage Heating kWh consumption
		S3	00N	1	kWh	1-N	R2	04	Night Storage Heating kWh consumption
M.....	MCC76	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S4	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S5	24H	1	kVArh	1-N	R1	05	kVArh (Wattless) Consumption
M.....	MCC77	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	00N	1	kWh	1-N	R1	04	Night Storage Heating kWh consumption
		S4	24H	1	kVArh	1-N	R1	05	kVArh (Wattless) Consumption
M.....	MCC78	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S5	24H	1	kWh	1-N	R1	01	24H kWh Consumption

MPRN Information			Register Information						
MPRN	MCC	Meter Serial No	Time slot	Sequence	UOM	Multiplier	Reading	Register Type	Register Description
		S4	00N	1	kWh	1-N	R1	04	Night Storage Heating kWh consumption
		S5	24H	1	kVArh	1-N	R1	05	kVArh (Wattless) Consumption
M.....	MCC79	S1	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S2	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S3	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S4	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S5	24H	1	kWh	1-N	R1	01	24H kWh Consumption
		S6	00N	2	kWh	1-N	R1	04	Night Storage Heating kWh consumption

Table 5.3 MCC and Market Messages

5.4 Processing MCC50

There are less than 500 installations that are presently associated with MCC50. This MCC was created to deal with sites that have non standard meter configurations in very low volumes which did not warrant creating a stand alone MCC.

It is not obvious from the MCC what the metering configuration is at the installation. Two examples of MCC50 metering configurations are shown in table 5.4 below.

DUOS Group	MCC		Standard Profile		Time of Use
DG2	MCC50	2XD	04	Rural Domestic Day/Night	00D
DG5	MCC50	3X24H+2XW	05	Non Domestic Unrestricted	24H

Table 5.4: A MCC50 metering configuration.

If a Supplier registers a site with an MCC50, the 320 market message will communicate the registers on site.

Data Aggregation will follow the rules for Time of Use set out in section 3 of this document.

From a DUoS perspective, consumption at registers with the same Time of Use will be combined to calculate a charge. This again follows the same rules as for other Non Standard MCCs.

5.5 Appendix 1 Market Messages representing MCC

Message	Title	Sender	Recipient	Valid MCC's	Purpose
013	Customer Details Change	Supplier	Networks	All Requestable	Suppliers issues to Networks for a change of customer details
016	Change Of Legal Entity	Supplier	Networks	All Requestable	Suppliers issues to Networks for a change of customer Legal Entity
017	Meter Point Status Change Request	Supplier	Networks	All Requestable	Suppliers issues to Networks for a change of Meter Point Status Request
030	Meter Works Request	Supplier	Networks	All Requestable only	Suppliers select an MCC from the valid selectable list to request an MCC change using Meter Works Types MO1
332	Non-Interval Meter Technical Details	Networks	Supplier	All Non-Interval	This is confirmation of the MCC requested on the 030 or in some circumstances can confirm a change in MCC initiated by Networks.
331	Interval Meter Technical Details	Networks	Supplier	All Interval	This is confirmation of the Interval MCC requested on: <ul style="list-style-type: none"> - the 030 (for QH) or in some circumstances can confirm a change in MCC initiated by Networks - 010, 013, 016, 017 (for HH)
010	Registration Request	Supplier	Networks	All Requestable only	Suppliers select an MCC from the valid selectable list to request an MCC change as part of a new registration request. N: B Read Arrangement must also be set to MC – Meter Change .
102P	Change of Supplier Provisional Acceptance	Networks	Supplier	Current = All Required = All Requestable	Where a Meter Change was requested as Part of the Change of Supplier the Current and required MCC's are provided for information. The Change of Supplier is confirmed on the 105 message once Meter Works are complete.
102	Change of Supply Registration Acceptance	Networks	Supplier	Current = All Required = All Requestable only	Where a Meter Change was requested as Part of the Change of Supplier the Current and required MCC's are provided for information. The Change of Supplier is confirmed on the 105 message once Meter Works are complete.
102R	Change of Supplier Registration Rejection	Networks	Supplier	All – See purpose	This was the MCC requested by the Supplier where appropriate. Where a reject reason of IMF was provided the MCC provided was invalid.

Message	Title	Sender	Recipient	Valid MCC's	Purpose
day105	Change of Supplier Confirmation	Networks	Supplier	Where a Meter Change was requested = All Requestable otherwise all MCC's are valid.	This is the MCC relating to the Meters installed at the meter point following the Change of Supplier.
101P	New Connection Provisional Acceptance	Networks	Supplier	All Requestable only	This is the required MCC that was requested by the Supplier provided here for information.
101	New Connection Registration Acceptance	Networks	Supplier	All Requestable only	This is the MCC relating to the Meters installed at the meter point following the New Connection.
301	Meter Point Characteristics	Networks	Supplier	All Requestable only	MCC is only provided when a change to MCC forms part of an Increased / decreased Connection.
301N	Proposed Meter Point Characteristics	Networks	Supplier	All Requestable only	MCC is only provided when a change to MCC forms part of a proposed Increased / decreased Connection.
320	Validated CoS Reading	Networks	Supplier	All Non-Interval	MCC is provided for information along with validated CoS Readings
320W	Withdrawn CoS Reading	Networks	Supplier	All Non-Interval	MCC is provided for information along with withdrawn CoS Readings
700	Unmetered Characteristics + AUF	Networks	Supplier	MCC09 only	This information is sent when a site is first registered with a Supplier or any time any of the data items within the message changes on ESB Networks systems – MCC provided for information only.
700W	Withdrawal of unmetered Characteristics + AUF	Networks	Supplier	MCC09 only	Notification that the technical details sent to Supplier on a 700 message have been withdrawn. This includes the reason for the withdrawal.
701	Unmetered Consumption	Networks	Supplier	MCC09 only	Notification of consumption at a Unmetered site – MCC provided for information
701W	Withdrawal of unmetered consumption	Networks	Supplier	MCC09 only	Notification of withdrawal of consumption including the reason for withdrawal – MCC provided for information only.