

P339 IMPLEMENTATION GUIDE

Who should read this implementation guide?

The implementation guide will be of interest to Distribution Network Operators (DNOs), Independent Distribution Network Operators (IDNOs), Half Hourly Data Aggregators (HHDA) and Suppliers.

What is P339?

Consumption values are categorised for the purposes of volume allocation and reporting (including performance reporting) by a Consumption Component Class (CCC).

Each CCC has a two digit identifier (CCC Id) and is defined by a combination of attributes.

Some of these attributes are associated with individual Metering Systems:

- Half Hourly or Non Half Hourly
- Metered or unmetered
- Import or export
- 100 kW maximum demand or below 100 kW (for Half Hourly Metering Systems).

In these cases, the Metering System is allocated to an appropriate Measurement Class.

Other attributes of a CCC depend whether values are Consumption or Line Loss values, and actuals or estimates (as notified by the Half Hourly Data Aggregator (HHDA) or Non Half Hourly Data Aggregator (NHHDA)).

[P300 'Introduction of new Measurement Classes to support Half Hourly DCUSA Tariff Changes \(DCP179\)'](#), which was implemented in the November 2015 Release, sub-divided Measurement Class E (sub-100kW Half Hourly) into three Measurement Classes E, F and G depending on the type of metering (whole current or Current Transformer metered) and whether the customer premise is domestic or non-domestic. These Measurement Classes share six CCCs for Active Import (AI) and do not currently have any CCCs for Active Export (AE). This means it is not possible to separate AI and AE for these Measurement Classes or to report at Measurement Class level. It is also not possible to provide export data for aggregated Distribution Use of System (DUoS) billing.

[P339 'Introduction of new Consumption Component Classes for Measurement Classes E-G'](#) introduces new CCCs for Half Hourly Metering Systems with less than 100kW maximum demand to differentiate between:

- Active Import and Active Export; and
- Measurement Classes E, F and G.

The CCCs previously associated with Measurement Classes E, F and G collectively ((i.e. 23, 25, 26, 28, 30 and 31) will be associated exclusively with Measurement Class E.

What are Measurement Classes E, F and G?

The below 100kW Measurement Classes are defined as follows:

- E - Half Hourly Metering Equipment at below 100kW Premises with current transformer;
- F - Half Hourly Metering Equipment at below 100kW Premises with current transformer or whole current, and at Domestic Premises;
- G - Half Hourly Metering Equipment at below 100kW Premises with whole current and not at Domestic Premises.

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What Measurement Classes should Suppliers use for Export Metering Systems?

Measurement Classes are defined in terms of the premises at which the Metering Equipment is installed. So an Export Metering System should be allocated to the same Measurement Class as the import Metering System at the same premises.

What are the new (and amended) CCC Ids?

The new (and amended) CCC Ids are set out in the table below. All the CCC Ids listed below relate to Half Hourly metered energy.

CCC Id / Measurement Class	E	F	G
HH Active Import Consumption (Actuals)	23	42	54
Active Import Metering System Specific Line Losses (Actuals)	25	43	55
Active Import Metering System Non-Specific Line Loss (Actuals)	26	44	56
Active Import Consumption (Estimates)	28	45	57
Active Import Metering System Specific Line Losses (Estimates)	30	46	58
Active Import Metering System Non-Specific Line Loss (Estimates)	31	47	59
Active Export Consumption (Actuals)	36	48	60
Active Export Metering System Specific Line Losses (Actuals)	37	49	61
Active Export Metering System Non-Specific Line Loss (Actuals)	38	50	62
Active Export Consumption (Estimates)	39	51	63
Active Export Metering System Specific Line Losses (Estimates)	40	52	64
Active Export Metering System Non-Specific Line Loss (Estimates)	41	53	65

When will the new (and amended) CCC Ids be introduced?

ELEXON will raise a Market Domain Data (MDD) Change Request by 2 February 2017 for inclusion in MDD Version 253, with a publish date of 8 March 2017 and a go-live date of 15 March 2017. Associated GSP Group Correction Factor Scaling Weights will be introduced at the same time.

Please note that, although the CCC Ids will be live from 15 March 2017, they should not be used until the implementation date of 1 April 2017. If HHDA's intend to deploy P339 software ahead of the implementation date, we would recommend incorporating date-specific logic to ensure that aggregation files are not rejected.

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What changes do HHDAs need to make?

HHDAs will allocate HH Import or Export volumes to the relevant CCC Id in the Aggregated Half Hour Data File (D0040) or BM Unit Aggregated Half Hour Data File (D0298) data flows sent to the Supplier Volume Allocation Agent (SVAA). The allocation of energy will depend on the Measurement Quantity (i.e. whether Active Import or Active Export) and the Metering System's Measurement Class, as notified by the Supplier Meter Registration Service (SMRS)).

In line with the changes to the D0040 and D0298 introduced by P300:

- the top sections of the flows (the 'SUP' group and its nested sub-groups) will contain data for all CCC Ids; and
- the bottom sections of the flows (the '37J' group in the D0298, '24J' group in the D0040, and their nested sub-groups) will contain data for CCC Ids associated with Measurement Classes F and G (whether Active Import or Active Export).

The data for CCC Ids associated with Measurement Classes F and G will thus be aggregated twice – once for the purposes of the Settlement calculations and, separately, for the purposes producing the Aggregated DUoS Report (D0030).

What is the effective date of the new CCC Ids?

CCC Ids do not have an effective date. HHDAs should use the new CCC Ids for all aggregation runs performed on or after the implementation date. So, for example, all runs scheduled for Monday 3 April 2017 (the P339 implementation date is Saturday 1 April 2017) should use the new CCC Ids, even though the Settlement Dates of these runs will pre-date the implementation date.

Suppliers also need to be aware that Reconciliation Runs from 1 April 2017 in respect of dates earlier than 1 April 2017 will contain the new CCC Ids.

What happens if the HHDAs carries out an aggregation run in advance of the scheduled date in the Settlement Calendar?

If an HHDA uses the new CCC Ids before the SVAA has implemented the amended P339 software (expected to be on Thursday 30 March 2017), this will cause an error.

CCC Ids 23, 25, 26, 28, 30 and 31 will be associated with Measurement Class E going forward, but were previously associated with Measurement Classes E, F or G. If the HHDA submits data for a Measurement Class G Metering System using CCC Ids 23-31 (i.e. before implementing its P339 changes), the SVAA will process this as if it were allocated to Measurement Class E. This won't impact the Settlement calculations as Measurement Classes E, F and G are all processed in the same way. It won't impact the D0030 report, because the SVAA will continue to accept all CCC Ids associated with Measurement Classes E, F and G, and will use the Line Loss Factor Class Id to differentiate between the volumes for Measurement Classes F and G.

What happens if the HHDA is unable to implement its P339 changes ahead of the 3 April runs?

As described above, the SVAA will continue to process CCC Ids 23-31 for the purposes of the D0030. This will ensure that DUoS billing is correct in the event that:

- D0040/D0298 flows received by the SVAA on or soon after the implementation date were produced before HHDAs implemented their P339 changes; or
- HHDAs are late in implementing their P339 changes; or
- HHDA data is defaulted to a pre-1 April 2017 Run Type.

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It also has the advantage that HHDAs do not need to implement any date-specific logic as part of their P339 changes. However, it means that the onus is on HHDAs to ensure that Measurement Class E data is not included in the bottom sections of the D0298/D0040 flows (i.e. the '37J' group in the D0298, '24J' group in the D0040 and their nested sub-groups). This is in accordance with the existing Data Transfer Catalogue (DTC) rules.

What do DNOs/IDNOs need to set up and when?

DNOs and IDNOs will need to send the SVAA a revised 'Mapping Data for HH Aggregated Metering Systems' (P0239) flow. ELEXON will receive and check these flows on behalf of the SVAA. Please email the mapping data to jon.spence@elexon.co.uk.

The revised P0239 file will need to include a new 'dummy SSC' for export and a mapping of this SSC to an appropriate export Line Loss Factor Class (LLFC). For the year from 1 April 2017, the export SSC will be single-rate i.e. have a single Time Pattern Regime (TPR). If DCUSA Change Proposal DCP268 'DUoS Charging Using HH settlement data' is approved, multi-rate SSCs may need to be introduced for future years.

Additionally, if a host DNO is introducing new red-amber-green periods from April 2017, these will need to be included as new dummy SSCs in the P0239, along with new LLFC mappings, 'dummy TPR's and 'clock intervals'.

The recommended timetable for providing this data is shown below.

Who	What	When
DNO	Submit revised P0239 mapping file to ELEXON	By 10/02/2017
ELEXON	Notify IDNOs of new DNO 'dummy SSCs'	By 17/02/2017
IDNO	Submit revised P0239 mapping file to new LLFs (D0265) for any LLFCs requested in MDD version 230	By 17/03/2017
ELEXON	Publish revised mapping details on ELEXON website	By 31/03/2017

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What is the format of the mapping file (P0239)?

Group	Group Description	Range	Condition	L1	L2	L3	L4	L5	L6	L7	L8	Item Name		
ZHD	File Header	1	G											
					1								File Type	
					1									From Role Code
					1									From Participant Id
					1									To Role Code
					1									To Participant Id
	1										Creation Time			
LLF	LLF/SSC Mapping	1-*	G											
					1								Distributor Id	
					1									Line Loss Factor Class Id
					1									Standard Settlement Configuration Id
	1										Effective From Settlement Date {LLFSSC}			
SSC	Standard Settlement Configuration	0-*	G											
					1								Standard Settlement Configuration Id	
					1									Standard Settlement Configuration Desc
					1									Effective from Settlement Date {SSC}
					0									Effective to Settlement Date {SSC}
	1										Standard Settlement Configuration Type			
TPR	Measurement Requirement	1-*	G											
						1							Time Pattern Regime Id	
CKI	Clock Intervals	1-*	G											
							1						Day of the Week Id	
								1						Start Day
									1					Start Month
										1				End Day
											1			End Month
												1		Start Time
									1		End Time			
ZPT	File Footer	1	G											
					1								Record Count	
					1							Checksum		

Please note:

- if IDNOs use the same SSC, Measurement Requirements and Clock Intervals as DNOs, they will only need to provide the LLF Group;
- The file should be in standard Data Transfer Catalogue (DTC) format – i.e. a pipe-delimited format;
- You can find definitions of the data items in the [Data Transfer Catalogue](#);
- The File Type should be 'P0239001';
- LLFCs mapped to the Export SSC should have a MS Specific LLFC Indicator of 'C' = 'General LLF Class Export (i.e. those associated with the LV Generation HH or Aggregate HH DUoS tariff);
- Old LLFCs can be mapped to new Import SSCs, if revised red-amber-green periods have been defined;
- Old LLF/SSC mappings should be retained for use in Reconciliation runs;
- Effective From Settlement Date {LLFSSC} for any new mappings should be set to '20170401';
- The new Export SSC should have an Effective From Settlement Date {SSC} of '20170401';
- Where Red, Amber, Green periods have been revised;

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- The end-dated SSC should be retained, along with its associated TPRs and Clock Intervals (for use in Reconciliation Runs);
- The old SSC should have an Effective To Settlement Date {SSC} of '20170331'
- a new SSC should be set up with an Effective from Settlement Date {SSC}
- Values for 'Day of the Week Id' are – 1=Monday, 2=Tuesday, 3=Wednesday, 4=Thursday, 5=Friday, 6=Saturday, 7=Sunday;
- midnight (start of day) is always expressed as 000000 and midnight (end of day) as 240000;
- more than one LLFC can be mapped to the same SSC; but
- an LLFC must not be mapped to more than one SSC (at any point in time);
- Record Count is inclusive of the Header and Footer records.

An example P0239 data flow is shown in Appendix A.

What codes should DSOs use for the 'dummy SSCs' and TPRs?

The SSCs and associated TPRs and Clock Intervals will not be registered in MDD. In order to ensure that 'dummy' SSCs and TPRs are kept distinct from 'real' SSCs and TPRs, we recommend that DNOs and IDNOs adopt the following numbering convention in their mapping files.

The SSCs set up in November 2015 were of the form 9SCn where 9 is a constant and SC = the Distributor Short Code for the host DNO for the relevant GSP Group. The final integer was set to 1.

If the host DNO is using different Red, Amber, Green periods from 1 April 2017, we recommend incrementing the final digit of the SSC to 2.

TPRs are of the form 9SCn1, 9SCn2 and 9SCn3, where 1, 2 and 3 represent Red, Amber and Green respectively.

For the new export SSCs, there will be a single TPR from 1 April 2017, noting that this could change if DCUSA Change Proposal DCP268 is approved. As all DNOs will be using a single rate SSC, we recommend using a standard dummy SSC Id for export of 9991 with a TPR of 99911.

GSP Group Id	GSP Group	Nov 15 SSC	TPRs	Export SSC	TPR	April 17 SSC (if required)	TPRs
_A	Eastern	9101	91011 red 91012 amber 91013 green	9991	99911	9102	91021 red 91022 amber 91023 green
_B	East Midlands	9111	91111 91112 91113	9991	99911	9112	91121 91122 91123
_C	London	9121	91211 91212 91213	9991	99911	9122	91221 91222 91223
_D	Merseyside and North Wales	9131	91311 91312 91313	9991	99911	9132	91321 91322 91323
_E	Midlands	9141	91411	9991	99911	9142	91421

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GSP Group Id	GSP Group	Nov 15 SSC	TPRs	Export SSC	TPR	April 17 SSC (if required)	TPRs
			91412 91413				91422 91423
_F	Northern	9151	91511 91512 91513	9991	99911	9152	91521 91522 91523
_G	North Western	9161	91611 91612 91613	9991	99911	9162	91621 91622 91623
_H	Southern	9201	92011 92012 92013	9991	99911	9202	92021 92022 92023
_J	South Eastern	9191	91911 91912 91913	9991	99911	9192	91921 91922 91923
_K	South Wales	9211	92111 92112 92113	9991	99911	9212	92121 92122 92123
_L	South Western	9221	92211 92212 92213	9991	99911	9222	92221 92222 92223
_M	Yorkshire	9231	92311 92312 92313	9991	99911	9232	92321 92322 92323
_N	South Scotland	9181	91811 91812 91813	9991	99911	9182	91821 91822 91823
_P	North Scotland	9171	91711 91712 91713	9991	99911	9172	91721 91722 91723

Who should I contact if I have any further questions?

Please contact Kevin Spencer (kevin.spencer@elexon.co.uk / 020 7380 4115) or Jon Spence (jon.spence@elexon.co.uk / 020 7380 4313).

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Appendix A: Example P0239 flow

```
ZHD|P0239001|R|ACME|G|CAPG|20170210103000
LLF|ACME|123|9101|20151105
LLF|ACME|123|9102|20170401
LLF|ACME|456|9101|20151105
LLF|ACME|456|9102|20170401
LLF|ACME|789|9991|20170401
SSC|9101|ACME GSP Group MC F and G|20151105|20170331|I
TPR|91011
CKI|1|1|1|31|12|160000|190000
CKI|2|1|1|31|12|160000|190000
CKI|3|1|1|31|12|160000|190000
CKI|4|1|1|31|12|160000|190000
CKI|5|1|1|31|12|160000|190000
TPR|91012
CKI|1|1|1|31|12|070000|160000
CKI|1|1|1|31|12|190000|230000
CKI|2|1|1|31|12|070000|160000
CKI|2|1|1|31|12|190000|230000
CKI|3|1|1|31|12|070000|160000
CKI|3|1|1|31|12|190000|230000
CKI|4|1|1|31|12|070000|160000
CKI|4|1|1|31|12|190000|230000
CKI|5|1|1|31|12|070000|160000
CKI|5|1|1|31|12|190000|230000
TPR|91013
CKI|1|1|1|31|12|000000|070000
CKI|1|1|1|31|12|230000|240000
CKI|2|1|1|31|12|000000|070000
CKI|2|1|1|31|12|230000|240000
CKI|3|1|1|31|12|000000|070000
CKI|3|1|1|31|12|230000|240000
CKI|4|1|1|31|12|000000|070000
CKI|4|1|1|31|12|230000|240000
CKI|5|1|1|31|12|000000|070000
CKI|5|1|1|31|12|230000|240000
CKI|6|1|1|31|12|000000|240000
CKI|7|1|1|31|12|000000|240000
SSC|9102|ACME GSP Group MC F and G|20170401||I
TPR|91021
CKI|1|1|1|31|12|163000|193000
CKI|2|1|1|31|12|163000|193000
CKI|3|1|1|31|12|163000|193000
CKI|4|1|1|31|12|163000|193000
CKI|5|1|1|31|12|163000|193000
TPR|91022
CKI|1|1|1|31|12|070000|163000
CKI|1|1|1|31|12|193000|230000
CKI|2|1|1|31|12|070000|163000
CKI|2|1|1|31|12|193000|230000
CKI|3|1|1|31|12|070000|163000
CKI|3|1|1|31|12|193000|230000
CKI|4|1|1|31|12|070000|163000
CKI|4|1|1|31|12|193000|230000
CKI|5|1|1|31|12|070000|163000
CKI|5|1|1|31|12|193000|230000
TPR|91023
CKI|1|1|1|31|12|000000|070000
CKI|1|1|1|31|12|230000|240000
CKI|2|1|1|31|12|000000|070000
CKI|2|1|1|31|12|230000|240000
```


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```
CKI|3|1|1|31|12|000000|070000
CKI|3|1|1|31|12|230000|240000
CKI|4|1|1|31|12|000000|070000
CKI|4|1|1|31|12|230000|240000
CKI|5|1|1|31|12|000000|070000
CKI|5|1|1|31|12|230000|240000
CKI|6|1|1|31|12|000000|240000
CKI|7|1|1|31|12|000000|240000
SSC|9991|ACME GSP Group MC F and G|20170401||E
TPR|99911
CKI|1|1|1|31|12|000000|240000
CKI|2|1|1|31|12|000000|240000
CKI|3|1|1|31|12|000000|240000
CKI|4|1|1|31|12|000000|240000
CKI|5|1|1|31|12|000000|240000
CKI|6|1|1|31|12|000000|240000
CKI|7|1|1|31|12|000000|240000
ZPT|78|494625374
```

An example IDNO mapping data flow is shown below.

```
ZHD|P0239001|R|GLBX|G|CAPG|20170317103000
LLF|GLBX|321|9101|20151105
LLF|GLBX|321|9102|20170401
LLF|GLBX|543|9101|20151105
LLF|GLBX|543|9102|20170401
LLF|GLBX|424|9111|20151105
LLF|GLBX|424|9112|20170401
LLF|GLBX|433|9111|20151105
LLF|GLBX|433|9112|20170401
. . .
LLF|GLBX|567|9181|20151105
LLF|GLBX|567|9182|20170401
LLF|GLBX|789|9181|20151105
LLF|GLBX|789|9182|20170401
LLF|GLBX|567|9171|20151105
LLF|GLBX|567|9172|20170401
LLF|GLBX|789|9171|20151105
LLF|GLBX|789|9172|20170401
LLF|GLBX|246|9991|20170401
ZPT|59|123456789
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