

## P339 'Introduction of new Consumption Component Classes for Measurement Classes E-G'

P339 seeks to introduce new Consumption Component Classes (CCCs) for Measurement Classes "E", "F" and "G". These new CCCs will enable aggregated consumption volumes for both Active Import (AI) and Active Export (AE) to be identified separately.



ELEXON recommends P339 is progressed to the Assessment Procedure for an assessment by a Workgroup

This Modification is expected to impact:

- Half Hourly Data Aggregators
- The Supplier Volume Allocation Agent system

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## About This Document

This document is an Initial Written Assessment (IWA), which ELEXON will present to the Panel on 2 June 2016. The Panel will consider the recommendations and agree how to progress P339.

There are two parts to this document:

- This is the main document. It provides details of the Modification Proposal, an assessment of the potential impacts and a recommendation of how the Modification should progress, including the Workgroup's proposed membership and Terms of Reference.
- Attachment A contains the P339 Proposal Form.



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# 1 Why Change?

## Measurement Classes "F" and "G"

Measurement Classes "F" and "G" were introduced by Approved Modification [P300 'Introduction of new Measurement Classes to support Half Hourly DCUSA Tariff Changes \(DCP179\)'](#). The introduction of these Measurement Classes enabled network charges to be applied on an aggregated basis for smaller customers rather than on a site-specific basis.

## Consumption Component Classes

P300<sup>1</sup> originally intended to introduce 10 new Consumption Component Classes (CCCs) for both Measurement Classes "F" and "G" (six for Import and four for Export).

The P300 Workgroup did not include the CCCs for Export as this would have increased the size of certain data flows. Instead, P300 utilised the existing CCCs applicable to Measurement Class "E". As a result, Active Import (AI) and Active Export (AE) in Measurement Classes "E", "F" and "G" cannot be separated in Settlement. This also has a consequence, in that aggregated Export cannot be settled under these Measurement Classes.

Currently there are three Measurement Classes for Half Hourly (HH) Metering Systems with less than 100kW Maximum Demand:

- Measurement Class "E" – HH Metering Equipment at a below 100kW Premises with a current transformer (CT)
- Measurement Class "F" - HH Metering Equipment at a below 100kW Premises with a CT or whole current (WC), and at a Domestic Premises
- Measurement Class "G" - HH Metering Equipment at a below 100kW Premises with a WC and not at a Domestic Premises.

These Measurement Classes currently share six CCCs that are identified with a Consumption Level Indicator of "A" as defined in [Section X, Annex X-2](#) of the Balancing and Settlement Code (BSC):

- Consumption Level Indicator "A" - Metering Systems which are not 100kW Metering Systems (equivalent to Measurement Class "E", "F" and "G")

The six CCCs ("23", "25", "26", "28", "30" and "31") all have a Measurement Quantity ID of AI (consumption/import) and there are none for AE (generation/export).

The full list of valid CCCs can be found in [BSC Section X Annex X-2, table X-8](#).

## Settlement Reform Advisory Group Recommendation

The Settlement Reform Advisory Group (SRAG) was established by the BSC Panel in July 2015 to investigate improvements to the Settlement process. The SRAG presented its [recommendations](#) to the BSC Panel in February 2016.

<sup>1</sup> Prior to P300, Rejected Modification Proposal [P280 'Introduction of new Measurement Classes'](#) sought to introduce new Measurement Classes, P280 also included new CCCs.



### Measurement Classes

The Measurement Class of a Metering System reflects how it is settled i.e. HH or NHH. There are currently seven Measurement Classes:

- A) NHH Metered
- B) NHH Unmetered
- C) HH Metered 100kW and above
- D) HH Unmetered
- E) HH Metering below 100kW premises with CT
- F) HH Metering below 100kW premises with CT or whole current, domestic
- G) HH Metering below 100kW with whole current, nondomestic



### Consumption Component Classes

Consumption Component Class is a classification of HH Consumption which comprises of one element from each of the categories listed in [BSC Section X Annex X-2, Table X-8](#) (example: metered or unmetered; with or without line losses).

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As part of its work the SRAG identified barriers to elective HH Settlement for small sites (Measurement Classes "F" and "G"). The Settlement arrangements were originally designed for large customers with complex Metering Systems. Therefore the SRAG's focus has been on what is needed from a Settlement perspective for lower energy usage customers, recognising the different technology changes brought about by smart Meters.

One of the barriers identified by the SRAG arises from unmetered and unregistered Export from microgeneration sites (primarily solar sites registered in the Feed-in-Tariff (FiT) scheme). This unmetered and unregistered Export reduces the Grid Supply Point Group Correction Factor (GSPGCF) below "1" in Settlement Periods where photo-voltaic (PV) arrays are exporting. This in turn is having a significant impact on Suppliers' ability to forecast and purchase energy accurately.

The SRAG therefore recommended to the Panel that a Modification be raised to introduce new CCCs for Export in Measurement Classes "E", "F" and "G". The SRAG believe that the CCCs to be introduced will facilitate the aggregated HH Settlement of microgeneration sites, where Export is metered and registered for Settlement. This will in turn mitigate Export from impacting the GSPGCF.

## What is the issue?

The P300 Workgroup did not include the CCCs for Export as it was believed this would increase the size of certain data flows. However, one of the barriers to elective HH Settlement for small sites identified by the SRAG arises from unmetered and unregistered Export from microgeneration sites. Therefore, it was recommended that a Modification be raised to introduce new CCCs for Export in Measurement Classes "E", "F" and "G".



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### Grid Supply Point Group Correction

Grid Supply Point Group Correction is the mechanism that adjusts Suppliers' Metered Volumes in each GSP Group in order to address the under or over accounting of energy. This is done by applying a correction factor to Suppliers' Supplier Volume Allocation (SVA) energy so that the aggregate energy allocated to Suppliers is equal to the GSP Group Take in each Settlement Period.

Further information can be found in the [GSP Group Correction Guidance note](#).

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### Proposed solution

BSC Modification [P339 'Introduction of new Consumption Component Classes for Measurement Classes E-G'](#) was raised by OVO Energy on 4 May 2016.

P339 seeks to introduce new CCCs for Measurement Classes "E", "F" and "G" to allow aggregated consumption volumes for both AI and AE to be identified separately. The new CCCs will enable:

- the aggregation of HH Export volumes for Settlement and the billing for Distribution use of System (DUoS) charges;
- the application of different Performance Levels to Measurement Classes "E", "F" and "G";
- the application of different GSPGCF scaling weights to Measurement Classes "E", "F" and "G"; and
- the ability to apply different BSC specified charges to smaller Customers.

P339 will also enable revision of the GSPGCF Scaling Weights for each of Measurement Classes "E", "F" and "G".

### Proposer rationale

The Proposer contends that all of the above changes will remove significant barriers to elective HH Settlement.

The CCCs to be introduced under P339 will facilitate the aggregated HH Settlement of microgeneration sites, where Export is metered and registered for Settlement. This will in turn mitigate Export from impacting the GSPGCF. Introducing the new CCCs will further help enable elective HH Settlement for small sites by enabling Performance Levels to be set separately for each Measurement Class.

The new CCCs under P339 will introduce more flexibility to the BSC specified charging methodology and allow charging for smaller HH Metering Systems. For example, Measurement Class "F" will be separate from the traditional HH charging (Measurement Class "C"). This will allow the removal of a barrier identified to elective HH Settlement which currently means HH Metering Systems are charged more than Non Half Hourly (NHH) Metering Systems. This charge difference will be approximately £2 more per Metering System per year once all Profile Class 5-8 NHH Metering Systems sites have switched to HH following the implementation of P272.

P339 will also enable revision of the GSPGCF Scaling Weights for each of Measurement Classes "E", "F" and "G". This will individually allow small HH sites to receive the GSPGCF benefits arising from low GSPGCFs that are currently received by NHH registered Metering Systems.

### Applicable BSC Objectives

The BSC allows for the Panel to amend the list of valid CCCs from time to time. As such, there will be no need for a Modification to make the amendments if agreed by the Panel;



#### DUoS charges

The DUoS charge covers the cost of receiving electricity from the national transmission system and feeding it directly into homes and businesses through the regional distribution networks. These networks are operated by LDSOs



#### Scaling Weights

The GSP Group Correction Factor calculation refers to a Scaling Weight for each Consumption Component Class (CCC), which defines how much GSP Group Correction should be applied to that CCC.

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other than a Fast-Track Self-Governance (housekeeping) change to update the BSC with any new CCCs. However, as there is no governance for how the Panel makes these amendments and the likelihood of impacts as a consequence of changes, a BSC Modification provides the necessary framework.

The Applicable BSC Objectives that are better facilitated by this modification are Objective (c) and (d).

- **Objective (c)** - Elective HH Settlement opens up the potential for innovative new products in the domestic retail market thus increasing competition. This Proposed Modification will remove barriers to an elective HH Settlement market and facilitates this BSC objective.
- **Objective (d)** - This Proposed Modification creates the facility for microgeneration sites to be settled without the need for large volumes of site specific HH data to be passed between Parties.

## Other industry changes required

In addition to the changes under the BSC, changes may also be required to the [Master Registration Agreement](#) (MRA) Data Transfer Catalogue (DTC). For example, to amend relevant data flows so that it can report production for AE for exporting Metering Systems to Distributors on an aggregated basis. However, this depends on the solution(s) agreed by the Proposer and the Workgroup.

All potential impacts to the MRA will be assessed by the Workgroup as part of the P339 Assessment Procedure.



### What are the Applicable BSC Objectives?

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System

(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements

(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]

(f) Implementing and administering the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation

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### 3 Areas to Consider

In this section we highlight areas which we believe the Panel should consider when making its decision on how to progress this Modification Proposal, and which a Workgroup should consider as part of its assessment of P339. We recommend that the areas below form the basis of a Workgroup's Terms of Reference, supplemented with any further areas specified by the Panel.

#### Transmission Charges

Ofgem published its [conclusions on barriers to Elective HH Settlement](#) on 26 May 2016.

Ofgem recommends that a Connection use of System Code (CUSC) modification be raised to extend the existing NHH Transmission Network Use of System (TNUoS) charging structure to HH domestic and smaller non-domestic customers with WC Meters (Measurement Classes "F" and "G"). Ofgem feels that this will help to avoid overcharging for transmission charges and therefore contribute to cost-effective elective HH Settlement. They also think this is the most targeted solution which avoids significant changes to Settlement Data.

Ofgem note that in order for ELEXON to be able to provide the data required to support such a CUSC Modification, the solution would need to be applied to an existing defined group, which Ofgem recommends should be by Measurement Class.

We believe the Workgroup should therefore consider whether changes will be needed in relation to TNUoS charges.

#### Consumption Level Indicator

Currently the list of valid CCCs in [BSC Section X Annex X-2, table X-8](#) includes a column for 'Consumption Level Indicator'. The Consumption Level Indicator is currently not required in the Market Domain Data (MDD) and other data flows.

ELEXON believes the Workgroup should consider whether this information should be required in MDD and other data flows that use the other data items captured by Table X-8, taking into account the fact that there may be significant impacts on MDD, Supplier, Distribution System Operator (DSO) and Supplier Agent systems. ELEXON anticipate there to be little to no impact should Consumption Level Indicator not be included in MDD.

#### Performance Levels

P339 seeks to enable the application of different Performance Levels to Measurement Classes "E", "F" and "G". Due to the complexity of making changes to the Performance Levels, we believe that P339 should simply enable the application of different Performance Levels to Measurement Classes "E", "F" and "G" with the required Performance Level changes being progressed under a separate Modification.

#### Areas to consider

The table below summarises the areas we believe a Modification Workgroup should consider as part of its assessment of P339:

Areas to Consider
Is the introduction of new CCCs for Export in Measurement Classes "E", "F" and "G" appropriate, taking into account the P300 Workgroup views?
What are the appropriate Scaling Weight values for Measurement Classes "E", "F" and "G"?
Is the Consumption Level Indicator required in MDD and other data flows?
How does the P339 solution align with Ofgem's recommendations on HH Settlement?
In addition to the aggregation of HH Export volumes for the billing of DUoS charges, what changes need to be considered in relation to TNUoS charges?
What changes are needed to BSC documents, systems and processes to support P339 and what are the related costs and lead times?
Are there any Alternative Modifications?
Does P339 better facilitate the Applicable BSC Objectives than the current baseline?

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## 4 Proposed Progression

### Next steps

We recommend that P339 is progressed to an Assessment Procedure for consideration by a Workgroup.

The Proposer has requested that P339 be treated as a Self-Governance Modification. A Modification Proposal can be progressed as Self-Governance if:

- The Panel believes that it satisfies the Self-Governance Criteria, and the Authority does not issue a contrary direction; and/or
- The Authority believes that it satisfies the Self-Governance Criteria and issues a notice to that effect.

This Modification Proposal has no material impact on consumers, competition, the Transmission System and/or BSC governance. There will be no impact on Parties. The Proposer therefore believes that this Modification Proposal meets the Self-Governance Criteria.

### Workgroup membership

We recommend that the P339 Workgroup is comprised of Half Hourly Data Aggregators (HHDAAs), DCP and P300 Workgroup Members, individuals with an understanding of Measurement Classes and CCCs along with other relevant experts and interested parties.

### Timetable

We recommend that P339 undertakes a five month Assessment Procedure. This will allow for the Workgroup to fully assess the Modification (taking into account the summer holidays as well as internal resource). We are therefore recommending the following timetable:

Proposed Progression Timetable for P339	
Event	Date
Present Initial Written Assessment to Panel	9 Jun 16
Workgroup Meeting	W/B 11 Jul 16
Industry Impact Assessment	29 Jul – 19 Aug 16
Workgroup Meeting	W/B 22 Aug 16
Assessment Procedure Consultation	9 – 30 Sep 16
Workgroup Meeting	W/B 10 Oct 16
Present Assessment Report to Panel	10 Nov 16
Report Phase Consultation	11 – 25 Nov 16
Present Draft Modification Report to Panel	8 Dec 16
Issue Final Modification Report to Authority	9 Dec 16



### What is the Self-Governance Criteria?

A Modification that, if implemented:

(a) is unlikely to have a material effect on:

- (i) existing or future electricity consumers; and
- (ii) competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity; and
- (iii) the operation of the national electricity transmission system; and
- (iv) matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and
- (v) the Code's governance procedures or modification procedures; and

(b) is unlikely to discriminate between different classes of Parties.

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## 5 Likely Impacts

### Potential Impacts

We do not anticipate any impacts to BSC Parties due to the implementation of this Modification. However, the proposed solution aims to remove one of the barriers to elective HH Settlement which will be of benefit to Parties.

In order to allow the Supplier Volume Allocation Agent (SVAA) to provide DSOs with aggregated production data for Measurement Classes "F" and "G", changes will be required to the SVAA Initial Settlement and Reconciliation Agency (ISRA) and HHDA systems.

Should the Proposer and the Workgroup agree that Consumption Level Indicator data should be required in MDD there may be significant impacts on MDD, Supplier, DSO and Supplier Agent systems.

Changes will also be required to BSC [Section X2](#), SVAA technical documentation and MDD in order to introduce the new CCCs and add GSPGCF Scaling Weights for the CCCs. Depending on the solution agreed by the Proposer and the Workgroup the MDD changes will be either a data amendment or a system amendment.

### Impacts outside the BSC

In addition to the changes required under the BSC, changes will also be required to the MRA DTC. These changes are need to amend, for example, relevant data flows so that it can report production of AE for exporting Metering Systems to DSOs on an aggregated basis.

#### Impact on BSC Parties and Party Agents

Party/Party Agent	Potential Impact
HHDA	HHDA's may need to make system changes in order to implement the P339 propose solution. Full details of the potential impacts will be obtained as part of the assessment of this Modification.
DSOs	If the Consumption Level Indicator is captured in MDD and other data flows, then this will have an impact on DSO, Supplier and Supplier Agent systems.
Suppliers	
Other Supplier Agents	

#### Impact on Transmission Company

There are no impacts on the Transmission Company anticipated. However, this will be confirmed as part of the assessment of P339.

#### Impact on BSCCo

Area of ELEXON	Potential Impact
ELEXON	ELEXON will be required to implement the proposed document and system changes required under P339.

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#### Impact on BSC Systems and processes

BSC System/Process	Potential Impact
SVAA (ISRA)	Changes will be required to implement P339.

#### Impact on Code

Code Section	Potential Impact
Section X2	Change will be required to implement P339.

#### Impact on Code Subsidiary Documents

CSD	Potential Impact
SVAA technical documentation	Changes required to the SVAA technical documentation will be determined as part of the assessment of P339.
BSCP509	Changes may be required to implement P339.

#### Other Impacts

Item impacted	Potential Impact
MRA DTC	Change may be required to the DTC. Full details of the DTC impact will be determined as part of the assessment of P339.

## 6 Recommendations

We invite the Panel to:

- **AGREE** that P339 progresses to the Assessment Procedure;
- **AGREE** the proposed Assessment Procedure timetable;
- **AGREE** the proposed membership for the P339 Workgroup; and
- **AGREE** the Workgroup's Terms of Reference.

## Appendix 1: Glossary & References

### Acronyms

Acronyms used in this document are listed in the table below.

Acronym	
Acronym	Definition
AI	Active Import
AE	Active Export
BSC	Balancing and Settlement Code
CCC	Consumption Component Class
CT	current transformer
CUSC	Connection Use of System Code
DSO	Distribution System Operator
DTC	Data Transfer Catalogue
DUoS	Distribution use of System
FiT	Feed-in-Tariff
GSPGCF	Grid Supply Point Group Correction Factor
HH	Half Hourly
ISRA	Initial Settlement and Reconciliation Agency
IWA	Initial Written Assessment
MDD	Market Domain Data
MRA	Master Registration Agent
NHH	Non Half Hourly
PV	photo-voltaic
SRAG	Settlement Reform Advisory Group
SVAA	Supplier Volume Allocation Agent
TNUoS	Transmission Network Use of System
WC	whole current

### External links

A summary of all hyperlinks used in this document are listed in the table below.

All external documents and URL links listed are correct as of the date of this document.

External Links		
Page(s)	Description	URL
3	P300 page of the ELEXON website	<a href="https://www.elexon.co.uk/mod-proposal/p300/">https://www.elexon.co.uk/mod-proposal/p300/</a>

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External Links		
Page(s)	Description	URL
3, 7	BSC Section X Annex X2	<a href="https://www.elexon.co.uk/wp-content/uploads/2015/11/Section_X-2_v36.0.pdf">https://www.elexon.co.uk/wp-content/uploads/2015/11/Section_X-2_v36.0.pdf</a>
3	SRAG recommendations to the BSC Panel	<a href="https://www.elexon.co.uk/wp-content/uploads/2015/10/27_249_13A_SRAG_Report_PUBLIC2.pdf">https://www.elexon.co.uk/wp-content/uploads/2015/10/27_249_13A_SRAG_Report_PUBLIC2.pdf</a>
3	P280 page of the ELEXON website	<a href="https://www.elexon.co.uk/mod-proposal/p280-introduction-of-new-measurement-classes/">https://www.elexon.co.uk/mod-proposal/p280-introduction-of-new-measurement-classes/</a>
5	P339 page of the ELEXON website	<a href="https://www.elexon.co.uk/mod-proposal/p339/">https://www.elexon.co.uk/mod-proposal/p339/</a>
6	MRA website	<a href="https://dtc.mrasco.com/default.aspx">https://dtc.mrasco.com/default.aspx</a>
7	Ofgem's conclusions on elective HH Settlement	<a href="https://www.ofgem.gov.uk/publications-and-updates/elective-half-hourly-settlement-conclusions-paper">https://www.ofgem.gov.uk/publications-and-updates/elective-half-hourly-settlement-conclusions-paper</a>

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