

Phase

Initial Written Assessment

Definition Procedure

Assessment Procedure

Report Phase

Implementation

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.



The P339 Workgroup recommends **approval** of P339

This Modification is expected to impact:

- SVAA
- ELEXON
- Suppliers
- Supplier Agents
- LDSOs

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About This Document

This document is the P339 Workgroup's Assessment Report to the BSC Panel. ELEXON will present this report to the Panel at its meeting on 10 November 2016. The Panel will consider the Workgroup's recommendations and will agree an initial view on whether this change should be made.

It is recommended that P339 be progressed under the Self-Governance arrangements. The Panel will consult on this view and, if it agrees that P339 meets the Self-Governance Criteria and provided the Authority does not direct otherwise, it will determine whether or not P339 is approved for implementation at its meeting on 8 December 2016.

There are seven parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, benefits/drawbacks and proposed implementation approach. It also summarises the Workgroup's key views on the areas set by the Panel in its Terms of Reference, and contains details of the Workgroup's membership and full Terms of Reference.
- Attachment A, B, C and D contain the draft redlined changes to the BSC and Code Subsidiary Documents for P339.
- Attachment E contains the full responses received to the Workgroup's Impact Assessment Consultation.¹
- Attachment F contains the full responses received to the Workgroup's Assessment Procedure Consultation.

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¹ A confidential version of the Impact Assessment responses will be provided to the Panel and the Authority, with non-confidential version published on the P339 page of the ELEXON website.

Why Change?

Measurement Classes "E", "F" and "G" share six Consumption Component Classes (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. It is not possible to provide aggregated data for Distribution Use of System (DUoS) billing.

Solution

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.

Impacts & Costs

The central implementation costs to deliver P339 are approximately **£81k**. Changes are required to the SVAA (Supplier Volume Allocation Agent) system and internal reporting tools.

Some Half Hourly Data Aggregators (HHDA's) indicated they will need to change their internal systems to handle the new data.

Implementation

The Workgroup recommends an Implementation Date for P339 of **1 April 2017**.

Recommendation

The **majority** view of the Workgroup is that P339 does better facilitate Applicable BSC Objectives (c) and (d) when compared to the current baseline and therefore recommends that P339 is **approved**.

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

P300² originally intended to introduce 10 new 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, AI and AE in Measurement Classes “E”, “F” and “G” cannot be separated in Settlement. This also has a consequence, in that network charges cannot be applied on an aggregated basis for Export.

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 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.

As part of its work the SRAG identified barriers to elective HH Settlement for small sites (Measurement Classes “F” and “G”). The HH Settlement arrangements were originally



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).

² Prior to P300, Rejected Modification Proposal [P280 ‘Introduction of new Measurement Classes’](#) sought to introduce new Measurement Classes, P280 also included new CCCs.

designed for large customers with complex Metering Systems. Therefore, the SRAG's focus had 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 micro-generation 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 micro-generation sites, where Export is metered and registered for Settlement. If Suppliers did register these sites in Settlement this would, 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 micro-generation sites. Therefore, SRAG recommended that a Modification be raised to introduce new CCCs for Export in Measurement Classes "E", "F" and "G".



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](#).

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 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's 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 micro-generation 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 methodology³ 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.

The P339 solution also facilitates majority of the different options for solutions to the Connection and Use of System Code (CUSC) Modification [CMP266 'Removal of Demand TNUoS charging as a barrier to future elective Half Hourly settlement'](#).

³ Note that if the proposed solution [for P346 'Changes to the BSC Specified Charges to facilitate Elective HH settlement'](#) is implemented, it may mean that new CCCs would not be required for specified charging purposes.



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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Legal text

Attachment A contains the proposed changes to [BSC Section X Annex X-2](#) to deliver P339. In table X-8, the redlining defines the new CCCs and also includes the addition of new column named 'Measurement Class'. The new values for the Measurement Class are also defined. The new CCC IDs are mapped against Supplier Volume Reporting Group on table X-9.

Following the update of the Energy Settlement Mix data flow reference number from P0049002 to P0049003, references to this flow within [BSCP533 'PARMS Data Provision, Reporting and Publication of Peer Comparison Data'](#) and the [SVAA Data Catalogue Volume 1](#) have been redlined. These redlined changes are shown in Attachments B and C respectively.

References to specific CCC IDs in [BSCP536 'Supplier Charges'](#) have been updated and are shown in Attachment D.

Estimated central implementation costs of P339

The central implementation costs to deliver P339 are approximately **£81k** to develop and implement the required changes to the SVAA system and internal reporting tools.

The changes to the SVAA system include loading the new CCCs, adding the new Scaling Weights and adding the Measurement Class information. The Pool Application library file will be updated to increase the max number of CCCs. The DUoS reporting module and Supplier Quarterly Volume reporting module currently included references to specific CCC IDs. This will be altered so that CCCs will be selected based on business rules which identify the relevant CCCs rather than hardcoded CCC IDs.

The supplementary TUoS reporting module (which is sent from SVAA to the Transmission Company) will be updated to include the new CCCs. This information will be aggregated by Measurement Class and Measurement Quantity (i.e. E/AI, E/AE, F/AI, F/AE, G/AI and G/AE).

The new CCCs will be added to MDD under the usual process as set out in [BSCP509 'Changes to Market Domain Data'](#).

There are several internal reporting systems used by ELEXON which will need to be updated to change references to specific CCC IDs. These reports are sent to our customers and provide additional beneficial performance information.

The SVAA data flow reference number for Energy Settlement Mix will need to be updated from P0049002 to P0049003. References to this flow within BSCP533 and the SVAA Data Catalogue will need to be updated.

The costs associated with internal reporting tools were identified after the final Workgroup meeting and Assessment Procedure Consultation. This means the Workgroup and the consultation respondents were not aware of the full costs during their considerations of P339. The costs that were originally identified were £25k rather than £81k.

Interaction with P347

Modification [P347 'Reduced R1 Read performance requirements'](#) also requires the introduction of new CCCs. It should be noted that if both Modifications are approved these central costs will be only be incurred once.

Indicative industry costs of P339

The responses from industry participants to the P339 Impact Assessment varied depending on the participant's role. HHDA's typically indicated changes would be required to their internal systems. One HHDA indicated one-off implementation costs would be equivalent to 15 man-days. They will also face on-going costs for training, data storage, reporting, assurance etc. Two other HHDA indicated large one-off costs. However one HHDA indicated that they would incur no costs.

Two Distributors responded to the Impact Assessment and both indicated minimal costs.

Two Suppliers indicated changes would be required to their internal systems, but another Supplier indicated low operational impact.

The Transmission Company indicated limited system changes but did stress the importance of P339 as an enabler to the changes to TNUoS charging that are being progressed under [CMP266 'Removal of Demand TNUoS charging as a barrier to future elective Half Hourly settlement'](#).

A number of respondents noted that P339 will have a limited impact as it builds on functionality that was previously developed for P300.

The full responses to the Impact Assessment and the Assessment Procedure Consultation can be found in Attachments E and F respectively.

P339 impacts

Impact on BSC Parties and Party Agents	
Party/Party Agent	Impact
Distributors	<p>LDSOs must provide new pseudo-SSCs mapped to a single rate TPR for AE. (Existing SSCs and TPR can be used for the new AI CCCs).</p> <p>LDSOs will use existing LLFC IDs for Active Export for Measurement Classes "F" and "G" which are mapped to new pseudo-SSCs on the P0239 paper flow. (Existing LLFC IDs can be used for the new AI CCCs)</p> <p>P339 will not have a direct impact although it will allow billing of DUoS charges related to aggregate HH Export.</p>
HHDA	<p>HHDAs will need to be able to allocate Metering System Identification Administration Numbers (MSIDs) to the new CCCs.</p> <p>HHDAs must be able to submit data to the SVAA, should they be appointed to a Metering System that is registered to Measurement Classes "E", "F" or "G", using the D0040 and D0298 data flows.</p>
Supplier	Supplier systems will need to be capable of receiving the affecting data files and load them into internal systems.

Impact on Transmission Company
The Transmission company will receive new aggregations for Measurement Classes "E", "F" and "G", split by Measurement Quantity on the P0210 supplementary flow. The Transmission Company will have to process this information appropriately

Impact on BSCCo
<p>To add new valid values to MDD and process MDD Change Requests to enter the new Consumption Classes into MDD.</p> <p>BSCCo will publish the new LLFC IDs and mapping information on the BSCCo Website.</p> <p>BSCCo will update internal reporting systems which provide performance information to Parties. Certain internal reporting systems contain references to specific CCC IDs which will need to be updated.</p>

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Impact on BSC Systems and process	
BSC System/Process	Impact
SVAA (ISRA)	<p>Load the new CCCs, Scaling Weights and Measurement Class information.</p> <p>The SVAA must report HH Aggregated data on the D0030 data flow against Profile Class (PC) "0".</p> <p>The SVAA must include the HH data for the CCCs and Measurement Classes in the existing D0030 and D0314 data flows, with no changes made to the structure of the flows.</p> <p>Changes to DUoS, TUoS and Supplier Quarterly Volume reporting modules.</p>
Pool Application	The library file will be updated to increase the max number of CCCs.

Impact on Code	
Code Section	Impact
Section X, Annex X-2	The list of CCCs will be updated to include the new CCC IDs. A column for 'Measurement Class' will be added to match the corresponding Measurement Class for that CCC. The new CCC IDs will be mapped against Supplier Volume Reporting Group on table X-9.

Impact on Code Subsidiary Documents	
CSD	Impact
BSCP533	Update Data Catalogue Flow Reference number from P0049002 to P004903.
BSCP536	Update references to specific CCC IDs.
SVAA Data Catalogue Volume 1	Update Data Catalogue Flow Reference number from P0049002 to P004903.

Recommended Implementation Date

The Workgroup recommends an Implementation Date for P339 of **1 April 2017**.

Workgroup's consideration of the Implementation Date

The Workgroup noted that the respondents to the Impact Assessment indicated a variety of lead times with several indicating around 6 months and one as long as 12 months. The main driver for a 1 April 2017 Implementation Date is to align with the start of the TNUoS charging year and the interaction with CUSC change [CMP266](#). CMP266 seeks to prevent double charging of TNUoS for a Meter electing to be HH settled. If P339 is implemented later than 1 April 2017 it will mean it is not possible to separate consumption from Meters in different Measurement Classes that migrate to HH Settlement between 1 April and the P339 Implementation Date. This could result in continued double charging of TNUoS, which is a barrier to elective HH Settlement.

Respondents to the Assessment Procedure Consultation (the full responses can be found in Attachment F) were largely in agreement with a 1 April 2017 date. Only one respondent disagreed; they indicated they would require six months from the point of approval. The Workgroup considered this but noted that only Suppliers who wish to settle their customers HH would be affected and it would be their choice as to when they begin to do so. The Workgroup discussed that the readiness of the HHDA, as a Supplier Agent, would most likely impact a Supplier's decision as to when to begin settling a customer HH. The Workgroup felt that there was no reason to delay implementing the P339 solution.

A 1 April 2017 Implementation Date also satisfies Ofgem's target of introducing changes that remove barriers to elective HH Settlement by early 2017.

Impact Assessment respondents' views on BSC Release cycle

There was no consensus amongst respondents to the Impact Assessment on the effect of implementing P339 outside of a standard BSC System Release. Some indicated it would be preferably to be part of standard Release whilst other respondents had the opposite view. The full responses to the Impact Assessment can be found in Attachment E.

Should Group Correction Factor be applied to Measurement Classes "F" and "G"?

The Workgroup discussed the principle of whether GCF should be applied to Measurement Classes "F" and "G". One Workgroup member disagreed with part of the Proposer's rationale for the Modification. They felt that the concept of 'free' energy⁴ as a result of Export from embedded generation was incorrect. In their view there is no need to apply different Scaling Weights to Measurement Classes "F" and "G" because they should be subjected to the same Scaling Weight as HH demand in Measurement Class C or E.

The group discussed that the way individual Suppliers forecast demand from their customers will depend on whether this energy can be considered as 'free'. There were conflicting views within the Workgroup on whether a Supplier is likely to account for the impact of PV spill on GCF in their forecasts and therefore contract to buy less energy for periods where there is likely to be higher levels of PV generation. This could mean they avoid having to buy as much energy in the first place. Other Workgroup members accepted that this was correct in theory but in practice it was implausible to forecast the effect of unregistered PV on the GCF in any half hour in each GSP Group and to account for it in forward purchasing decisions. The Proposer commented that their own internal analysis has shown that the impact of PV spill has meant that GCF is often less than one and that this can decrease commodity costs by up to 1% in certain regions.

The Proposer also highlighted that there are other benefits of introducing new CCCs that may not be immediately apparent but would allow Suppliers to develop new commercial offerings. Another Workgroup member also commented that it would be useful to have the option to apply different Scaling Weights to different types of HH demand in the future. If new CCCs are not created there will be no mechanism to do this without a further Modification.

Potential Alternative Modification

A Workgroup member proposed a Potential Alternative Modification which would address the defect of being unable to include HH Export volumes in Settlement. This member commented that the only reason to introduce new CCCs is to be able to apply GCF. Their Potential Alternative Modification proposed the creation of a new Measurement Class for aggregated HH Export under 100kW, with the related aggregations being provided in the [D0040 'Aggregated Half Hourly Data File'](#) or [D0298 'BM Unit Aggregated Half Hour Data File'](#) data flow. While this would help to separate out Export volumes for Settlement purposes, it would not enable the required level of flexibility similar to the application of different Scaling Weights or Performance Levels to different types of HH demand. The Workgroup member who suggested the potential alternative solution commented that it may be possible to derive data to support differential Performance Levels without having new CCCs; this will likely result in more complex or costly changes to Central Systems. However it will avoid Suppliers and HHDA's having to handle more CCCs.

Workgroup conclusion on Potential Alternative Modification

The Workgroup considered the responses to both the Impact Assessment and the Assessment Procedure Consultation. The consensus was that the potential Alternative

⁴ The perceived 'free' energy arises because a GCF of less than one reduces the amount of consumption allocated to a Supplier in Settlement.

Modification would be more costly and complex to implement and would provide less flexibility. The potential Alternative Modification was seen as a partial solution and could mean another Modification is likely to be raised in the future. The Workgroup agreed at the second meeting not to pursue the potential alternative solution.

Is the introduction of new export CCCs in Measurement Classes “E”, “F” and “G” appropriate, taking into account the P300 Workgroup views?

The Workgroup agreed that the disadvantages of introducing new CCCs identified by the P300 Workgroup may still exist, i.e. excessively large data sets and system capacity/performance concerns. However, the Proposer believes that the potential benefits of creating these new CCCs outweigh the disadvantages. Without the new CCCs, the defect not addressed by P300 would still exist. I.e. HH aggregated Export data cannot be provided for DUoS billing and different Scaling Weights cannot be applied to different categories of HH demand.

There was general agreement in the Workgroup that some of the anticipated benefits of this Modification will be realised in the future but that P339 is largely an ‘enabling’ or ‘investment’ Modification. One Workgroup member felt that the changes proposed under this Modification should be made in the future when they are actually required due to a policy decision, rather than trying to anticipate what may be needed. Others in the Workgroup felt that this Modification will almost certainly be needed and that there was little benefit in waiting; the Proposer agreed with this view.

Scaling Weight values for Measurement Classes “E”, “F” and “G”

The Workgroup agreed that the Scaling Weights for Measurement Classes “F” and “G” should mirror the non Half Hourly (NNH) equivalents, specifically:

- All new CCCs for AE (including the new export CCCs for Measurement Class “E”) should have a Scaling Weight of 0;
- All new CCCs for AI with a consumption component indicator of C should have a Scaling Weight of 1; and
- All new CCCs for AI with a consumption component indicator of L and M should have a Scaling Weight of 1.2.

Note, that new CCCs with a consumption component indicator of ‘M’ do not have NHH equivalents. This has been assigned a Scaling Weight of 1.2 to be aligned with consumption component indicator ‘L’.

The Scaling Weight for all CCCs in Measurement Class “E” will stay the same i.e. a value of 0. A member noted that there is still possible for errors to Settlement to occur in Measurement Class “E” and therefore we may need to look at having a Scaling Weight value other than zero applied. The Proposer reaffirmed that they believe these Scaling Weight values should be visited periodically and altered if data suggests it is necessary.

Consultation respondents’ views on Scaling Weights

Several respondents to the Assessment Procedure Consultation (the full responses can be found in Attachment F) commented that it would be inappropriate to correct for errors in



Consumption component indicator

C indicates basic consumption (or generation)

M indicates metering system specific lines losses

L indicates metering system non-specific line losses

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the HH market in the same way as NHH market. They believed that further analysis should be undertaken to determine the appropriate values. ELEXON clarified at the third Workgroup meeting that the rationale of proposed Scaling Weight values was not attempt to account for errors in the HH market but rather that it should simply mirror the NNH market. This is so that if a Supplier wishes to encourage customers to switch to Half Hourly Settlement, they will not lose out on the perceived benefit of a GCF of less than one. ELEXON contacted several of the respondents who had raised the concern about the Scaling Weight values to explain the rationale; they then agreed with the proposed values.

Defining the new CCCs

ELEXON identified 30 potential new CCCs which were considered by the Workgroup. There were 20 new CCCs identified as definitely required and 10 that were optional. The Workgroup agreed that all 30 should be created under P339. The main point of debate was around the 10 CCCs which have a consumption component indicator of 'M' – Metering System specific line losses. The Workgroup felt that it was highly unlikely for Metering System specific line losses to be required for Measurement Classes "F" and "G". However if there is the slightest possibility that these CCCs could possibly be used in the future, it would be efficient to create them now rather than leaving open the possibility that another Modification would have to be raised in the future. The Workgroup felt that there is no significant disadvantage in creating all 30, even if some of them were never used, as there is no additional cost to BSC Parties. Any CCCs that are not used by any Suppliers will not appear on data flows so the size of those flows will not automatically increase as a result of the CCCs being created.

There were no objections raised to this approach by the respondents to the Assessment Procedure Consultation.

Consumption Level Indicator

The Consumption Level Indicator is defined in [Section X Annex X-2](#) of the BSC and helps to identify the Measurement Classes for which each CCC can be applied. This Indicator is not available as part of the CCC information in MDD. Instead, participants have to use a combination of MDD and Annex X-2 to determine the valid combinations of Measurement Class and CCC.

With the prospect of more CCCs, the Proposer commented that ideally MDD should include the Consumption Level Indicator, allowing for a more efficient data-driven approach to identifying the relevant CCCs to be adopted by participants, particularly HHDA's, in managing this information.

ELEXON advised that formally adding the Consumption Level Indicator into MDD is likely to involve more complex Central System changes as well a DTC change. Ultimately the Workgroup recognised that it is not necessary to modify the MDD at this point in time as the current method of determining CCC from Measurement Class can be maintained without creating significant risk. Enhancements to MDD can be progressed separately from P339 if required.

All of the respondents to the Assessment Procedure Consultation agreed with this view, except for two who did not have a view on this question.

What are the impacts and benefits to consumers?

A Workgroup member observed that there are likely to be different impacts across different consumer groups. They added that the monetary value to be collected via DUoS and Transmission Network Use of System (TNUoS) charges is fixed. Therefore, if one group of customers is charged less, the outstanding costs will be recovered from the remaining customer groups. There is no overall net difference, meaning that these costs are shared across all customers and will inevitably result in winners and losers.

One possible benefit put forward by a member is the potential for the Supplier to offer more appropriate tariffs to incentivise time of use. However, another member argued that this incentive can be achieved without the introduction of new CCCs. One Workgroup member re-iterated that without these changes there is a risk that new innovative and beneficial offers to consumers (that will be brought to market following elective and later mandatory HH Settlement of domestic energy, above and beyond tariff options) will be compromised in the event that Settlement processes are not positioned early to avoid such compromise.

The Workgroup discussed the impact of P339 on customers who are currently receiving FITs payments. The group noted that even if export is currently metered there is no requirement for it to be entered into Settlement. In the future Settlement may be mandated for these customers. However, currently there will be no impact on FITs customers, other than providing the ability to settle their aggregated HH export data in the future.

It was also noted that whilst P339 has the potential for benefits to consumers, there is no negative impact on consumers.

System Impacts

At the third Workgroup meeting ELEXON provided an update on the development of the solution. ELEXON explained that although the Workgroup had previously discussed removing the consumption level indicator column from table X-8 of Annex X-2 of the BSC, it was later discovered that the information was used in the performance assurance systems. The redlined was updated to keep the consumption level indicator column and also add a column for Measurement Class.

ELEXON also advised that SVAA changes are required to remove references to hardcoded CCC IDs as well as loading the new CCCs and Measurement Class information. Changes are also required to several reporting modules which also currently used hardcoded CCC IDs.

Workgroup views on alignment of P339 solution with Ofgem's recommendations on HH Settlement

The Workgroup agreed that the P339 solution is aligned with Ofgem's recommendations on HH Settlement. The majority of respondents to the Assessment Procedure Consultation also agreed. One respondent attended the third Workgroup meeting and verbally commented that they had not agreed with this in their response to the Assessment Procedure Consultation due to concerns about the value of Scaling Weights. However, in light of the subsequent discussions on the rationale for the values they were now in agreement. Another respondent to the Assessment Procedure Consultation answered 'no' to this question but their comments indicated that they did in fact agree.



Conclusion 5.12 from Ofgem's [Elective half-hourly settlement: conclusions paper](#)

'We think applying GSP Group Correction Factor to HH domestic customers (measurement class F) should be considered as part of the modification raised to introduce new CCCs. This would be a way of addressing the impact of microgeneration which is not metered or settled, as a targeted change helping to contribute to our goal of cost-effective elective HHS. If new CCCs are introduced, ELEXON would then be able to raise a Market Domain Data change to apply GCF to measurement class F. We think that this area should be kept under review.'

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Legal text

ELEXON updated the Workgroup at its third meeting that the redlined legal text for P339 had been updated so that the additional column in Section X Annex X-2, table X-8 would be named 'Measurement Class' rather than 'Measurement Class Indicator'. This is because 'Measurement Class' is already a defined term within the BSC and there is no need to create a new term as it would have an identical definition.

Views on Self-Governance

After consideration of the Impact Assessment responses, the Workgroup unanimously agreed that P339 should proceed as a Self-Governance Modification. There were no objections to this by respondents to the Assessment Procedure Consultation.

Further considerations

Unregistered micro-generation

A Workgroup member raised the issue of unregistered micro-generators. They note that generators with an output of less than 30kW will not be distinguishable in any way. Other members pointed out that although it is not known when mandatory HH Settlement will come into effect, whenever that does happen, this Modification will facilitate HH Settlement. A Workgroup member raised the point that there is no obligation to register what is currently NHH Export (sub 30kW) in Settlement, even if a smart Meter is installed at the premises. Consequently, they believe the prospect of anyone making use of the aggregate HH Export CCC IDs is minimal.

Another member commented that if there was certainty around the timescales for mandatory HH Settlement there would be an incentive for all stakeholders to work toward the reform of data flows. However, there is currently no common goal.

A member advised the Workgroup that, at the time that P300 was raised and progressed there were fewer micro-generation sites. The member noted that this number has risen since then and believes that it will only continue to rise.

Flow Validation Issues

The Workgroup considered an existing issue in validating Profile Class "0" data that could be exacerbated by the implementation of P339. The issue is that data flows which contain aggregated consumption data for supply points which have been assigned Measurement Class "F" or "G" have been failing validation. Following the creation of Measurement Classes "F" and "G" under P300, new 'dummy' Standard Settlement configurations (SSCs) and Time Pattern Regime (TPRs) were created but were not added into MDD. This means Distributors have to manually load the mapping information into their systems. The information is currently published on the [ELEXON website](#).

The Workgroup felt that until the DCUSA Change [DCP268 'DUoS Charging Using HH settlement data'](#) is implemented, the exact requirements are unclear. The Workgroup agreed that a temporary work around (i.e. publishing the mapping information in one place) would be sufficient in the short term.

7 Workgroup's Conclusions

The Workgroup agreed by majority that P339 would overall better facilitate the Applicable BSC Objectives compared with the existing baseline, and so recommends that P339 should be **approved**.

The following table contains the Proposer and the Workgroup's final views against each of the Applicable BSC Objectives.

Does P339 better facilitate the Applicable BSC Objectives?		
Obj	Proposer's Views	Other Workgroup Members' Views
(a)	• Neutral	• Neutral
(b)	• Neutral	• Neutral
(c)	<ul style="list-style-type: none"> • Yes - 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. 	<ul style="list-style-type: none"> • Neutral (1 of 6) – This Modification itself does not directly increase competition, it only creates the <i>potential</i> for new products. It may have no impact on competition at all. • Yes (4 of 6) – Agree with Proposer. • No (1 of 6) – There is no need to apply different Scaling Weights to Measurement Classes "E", "F" and "G". Many of the other objectives of this modification could be achieved by another means.
(d)	<ul style="list-style-type: none"> • Yes - This Proposed Modification creates the facility for micro-generation sites to be settled without the need for large volumes of site specific HH data to be passed between Parties. 	<ul style="list-style-type: none"> • Yes (5 of 6) – Agree with Proposer. • No (1 of 6) – Implementing this Modification for the purpose of being able to changing Scaling Weights is inefficient, as changing Scaling Weight will have very little effect in practice.
(e)	• Neutral	• Neutral
(f)	• Neutral	• Neutral

Assessment Consultation respondents' views on the Applicable BSC Objectives

Of the 13 respondents to the P339 Assessment Procedure Consultation, 11 agreed that P339 would better facilitate the Applicable BSC Objectives than the current baseline. One respondent who disagreed, informed the Workgroup verbally at its third meeting that in light of discussions on the rationale for the value of Scaling Weights, they did agree that the P339 solution better facilitates the Applicable BSC Objectives. One other respondent was neutral as they believe that P339 only creates the potential for increased efficiency and competition. They commented that without mandatory Settlement of export from micro-generation sites, P339 does not necessarily better facilitate the Applicable BSC Objectives.



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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8 Recommendations

The P339 Workgroup invites the Panel to:

- **AGREE** that P339:
 - **DOES** better facilitate Applicable BSC Objective (c); and
 - **DOES** better facilitate Applicable BSC Objective (d);
- **AGREE** an initial recommendation that P339 should be **approved**;
- **AGREE** an initial Implementation Date for P339 of 1 April 2017;
- **AGREE** the draft legal text;
- **AGREE** an initial view that P339 should be treated as a Self-Governance Modification;
- **AGREE** that P339 is submitted to the Report Phase; and
- **NOTE** that ELEXON will issue the P339 draft Modification Report (including the draft BSC legal text) for an 11 Working Day consultation and will present the results to the Panel at its meeting on 8 December 2016.

Workgroup's Terms of Reference

Specific areas set by the BSC Panel in the P339 Terms of Reference

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 are the impacts and benefits to consumers?

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?

Assessment Procedure timetable

P339 Assessment Timetable

Event	Date
Panel submits P339 to Assessment Procedure	9 Jun 16
Workgroup Meeting 1	11 Jul 16
Industry Impact Assessment	29 Jul 16 – 19 Aug 16
Workgroup Meeting 2	24 Aug 16
Assessment Procedure Consultation	21 Sep – 12 Oct 16
Workgroup Meeting 3	19 Oct 16
Panel considers Workgroup's Assessment Report	10 Nov 16

Workgroup membership and attendance

P339 Workgroup Attendance				
Name	Organisation	11 Jul 16	24 Aug 16	19 Oct 16
Members				
Talia Addy	ELEXON (<i>Chair</i>)	✓	✗	✗
Douglas Alexander	ELEXON (<i>Chair</i>)	✗	✓	✗
Royston Black	ELEXON (<i>Chair</i>)	✗	✗	✓
Alison Cross	ELEXON (<i>Lead Analyst</i>)	✓	✓	✓
Conor Maher-McWilliams	OVO Energy Ltd (<i>Proposer</i>)	✓	✗	✓
Stephen Harris	OVO Energy Ltd (<i>Proposer Alternate</i>)	✗	✓	✗
Barney Scott	OVO Energy Ltd (<i>Proposer Alternate</i>)	✗	✓	✓
Colin Prestwich	SmartestEnergy Ltd	✓	✗	✗
Phillip Russell	Independent	✓	✓	✓
Paul Akrill	IMServ	✓	✗	✗
Walter Hood	Everis	✓	✓	✓
Dermot Hearty	Salient Systems Limited	✓	☎	☎
Haydn Wyllis	SSE	✓	☎	✓
Chris Ong	UK Power Networks	✓	✗	☎
Imran Bannister	Utilita	✗	✗	✗
Christopher Rotheram	OPUS Energy	✗	✓	✓
Attendees				
Kevin Spencer	ELEXON (<i>Design Authority</i>)	✗	✓	✓
Steve Francis	ELEXON (<i>Design Authority</i>)	✓	✗	✗
Kathryn Gay	ELEXON (<i>Settlement Operations</i>)	✓	✗	✓
Adam Jessop	ELEXON (<i>Settlement Operations</i>)	✗	✓	✗
Toby Godrich	ELEXON (<i>Lead Lawyer</i>)	✓	✗	✗
Martin Bell	Ofgem	✓	✓	✓
Daniel Hatton	Utilita	✗	✓	✗
Ian Hall	IMServ	✗	☎	✗
Gregory Mackenzie	British Gas	✗	✗	✓
David Collins	CGI	✗	✗	☎

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Appendix 2: Glossary & References

Acronyms

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

Acronyms	
Acronym	Definition
AE	Active Export
AI	Active Import
BSC	Balancing and Settlement Code
CCC	Consumption Component Class
CSD	Code Subsidiary Document
CT	Current Transformer
CUSC	Connection and Use of System Code
DCUSA	Distribution Connection and Use of System Agreement
DUoS	Distribution Use of System
DTC	Data Transfer Catalogue
FiT	Feed-in-Tariff
GSPGCF	Grid Supply Point Group Correction Factor
HH	Half Hourly
HHDA	Half Hourly Data Aggregator
ISRA	Initial Settlement and Reconciliation Agency
LDSO	Licensed Distribution System Operator
LLFC	Line Loss Factor Class
MDD	Market Domain Data
MRA	Master Registration Agreement
MSID	Metering System Identification Number
NHH	Non Half Hourly
PC	Profile Class
PV	Photo-voltaic
SSC	Standard Settlement Configuration
SRAG	Settlement Reform Advisory Group
SVAA	Supplier Volume Allocation Agent
TNUoS	Transmission Network Use of System
TPR	Time Pattern Regime
WC	Whole Current

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DTC data flows and data items

DTC data flows and data items referenced in this document are listed in the table below.

DTC Data Flows and Data Items	
Number	Name
D0030	Aggregated DUoS Report
D0040	Aggregated Half Hour Data File
D0298	BM Unit Aggregated Half Hour Data File
D0242	Supercustomer DUoS Daily Statement
D0314	Non Half Hourly Embedded Network DUoS Report

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
4	Approved Modification P300	https://www.elexon.co.uk/mod-proposal/p300/
4, 7, 14	BSC Sections	https://www.elexon.co.uk/bsc-related-documents/balancing-settlement-code/bsc-sections/
4	SRAG's Report to BSC Panel	https://www.elexon.co.uk/wp-content/uploads/2015/10/27_249_13A_SRAG_Report_PUBLIC2.pdf
4	Rejected Modification P280	https://www.elexon.co.uk/mod-proposal/p280-introduction-of-new-measurement-classes/
5	GSP Group Correction Guidance note	https://www.elexon.co.uk/wp-content/uploads/2015/02/GSP_Group_Correction_v4.0.pdf
6	Modification Proposal P339	https://www.elexon.co.uk/mod-proposal/p339/
6, 8 and 10	CUSC Change Proposal CMP266 'Removal of Demand TNUoS charging as a barrier to future elective Half Hourly settlement'	http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP266/
6	Modification Proposal P346	https://www.elexon.co.uk/mod-proposal/p346/
7	BSCP533 'PARMS Data Provision, Reporting and Publication of Peer Comparison Data'	https://www.elexon.co.uk/bsc-related-documents/related-documents/bscps/6/?show=10&type

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External Links		
Page(s)	Description	URL
7	SVAA Data Catalogue Volume 1	https://www.elexon.co.uk/bsc-related-documents/related-documents/business-definition-documents/
7	BSCP536 'Supplier Charges'	https://www.elexon.co.uk/bsc-related-documents/related-documents/bscps/6/?show=10&type
8	Modification Proposal P347	https://www.elexon.co.uk/mod-proposal/p347/
8	BSCP509 'Changes to Market Domain Data'	https://www.elexon.co.uk/bsc-related-documents/related-documents/bscps/5/?show=10&type
15	Ofgem's Elective half-hourly settlement: conclusions paper	https://www.ofgem.gov.uk/publications-and-updates/elective-half-hourly-settlement-conclusions-paper
16	Mapping information for LLFCs and dummy SSCs and TPRs.	https://www.elexon.co.uk/wp-content/uploads/2015/01/P300-LLFCs-and-dummy-SSC-TPRs1.pdf
16	DCUSA Change Proposal DCP268 - DUoS Charging Using HH settlement data	https://www.dcusa.co.uk/Lists/Change%20Proposal%20Register/DispForm.aspx?ID=293&Source=https%3A%2F%2Fwww.dcusa.co.uk%2FSitePages%2FActivities%2FChange-Proposal-Register.aspx&ContentTypeId=0x0100684A1DE09E1F9740A444434CF581D435