

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

04 Report Phase

Stage 01: Initial Written Assessment

P300 'Introduction of new Measurement Classes to support Half Hourly DCUSA Tariff Changes (DCP179)'

P300 seeks to introduce new Measurement Classes for aggregated Half Hourly-settled customers (for current transformer and whole current metered domestic, and whole current non-domestic markets) and 10 new CCCs. P300 builds on [Rejected Modification P280](#) and aligns with [DCUSA DCP 179](#), which seeks to implement Half Hourly DCUSA tariff changes. P300 would enable LDSOs to charge Suppliers on an aggregated basis as well as on a site specific basis.



ELEXON recommends P300 is progressed to the Assessment Procedure for an assessment by a Workgroup



High Impact:

- Supplier Volume Allocation Agent (SVAA)

Medium Impact:



- Suppliers
- Licenced Distribution Systems Operators (LDSOs)
- Half Hourly Data Aggregators (HHDAs)
- Half Hourly Data Collectors (HHDCs)



Low Impact:

- ELEXON

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About This Document

This document is an Initial Written Assessment (IWA), which ELEXON will present to the Panel on 20 March 2014. The Panel will consider the recommendations and agree how to progress P300.



Any questions?

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1 Why Change?

DUoS charges and related industry changes

For Half Hourly (HH) settled customers, distribution network charges (also known as 'Distribution Use of System charges' or 'DUoS charges') are calculated on a site specific basis. With the introduction of HH capable smart and advanced Meters into the Non-Half Hourly (NHH) settled market, more NHH sites will have the ability to be settled on a HH basis. This could significantly increase the amount of sites where Licensed Distribution System Operators (LDSOs) will have to calculate site specific DUoS charges.

To ensure that LDSOs have DUoS charges that are more reflective of the use of system (UoS) to better encourage the move to HH Settlement, the industry has raised two Distribution Connection and Use of System Agreement (DCUSA) Change Proposals (DCPs) (DCP103 and DCP179) and one BSC Modification Proposal (P280).

DCP103

[DCP103 'DUoS Charges for sub 100kw HH settled sites'](#) was raised in July 2011 but subsequently withdrawn. This sought to help facilitate the move from NHH settled market into the HH settled market by attempting to ensure that DUoS charges would remain the same for NHH customers electing to be settled HH under Measurement Class E. In conducting this work, the DCUSA consultation concluded that the industry would be better served settling HH customers on an aggregated basis rather than on a site specific basis. However, this was deemed outside of the scope of the DCP.

Based on the analysis conducted under DCP103, the resulting cost to the industry (in the event that HH Settlement is widely adopted for smart metered customers and these sites are settled on a site specific basis) would be in the tens of millions of pounds. To avoid this, aggregated (rather than site specific) charges are required.

P280

Electricity North West Ltd raised [P280 'Introduction of new Measurement Classes'](#) on 29 November 2012. This was raised to support DCP103. This sought to introduce new non-mandatory Measurement Classes for HH-settled customers in the 'domestic' and 'small and medium enterprise' (SME) markets, and to require the Supplier Volume Allocation Agent (SVAA) to provide LDSOs with aggregated HH consumption data for Metering Systems registered to those new Measurement Classes.

At its meeting on 10 August 2012, the BSC Panel recommended to the Authority that it approve P280. However, the Authority subsequently rejected P280, stating in its decision document (dated 6 November 2012):

"The P280 proposal alone does not facilitate any change to the way sites will be settled and charged for UoS. A change to the UoS charging methodology is required in order for any benefits to be realised. Until we are able to make an assessment of the most appropriate UoS charging structure for sites with demand below 100kW that wish to be settled HH, we do not consider we can approve this modification. This is because it is not certain whether the P280 proposed change will be required if a different approach is taken in developing the UoS charging methodology. Approving the P280 proposal may therefore result in wasted costs to the industry."



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.



Measurement Classes

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

- A: NHH metered
- B: NHH Unmetered Supply (UMS)
- C: 100kW or above HH metered
- D: HH equivalent UMS
- E: Non-mandatory HH metered

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DCP179

Electricity North West Ltd raised [DCP179 'Amending the CDCM tariff structure'](#) in June 2013, which replaced DCP103, to amend the existing tariff structure by introducing HH metered tariffs for connections below 100kW. To enable this, it seeks to introduce new Measurement Classes associated with aggregating HH data.

Currently, HH Data Aggregators (HHDAs) for HH sites send the Data Flow D0040 'Aggregated Half Hour Data File' to the SVAA. The D0040 includes Consumption Component Classes (CCCs), which detail the aggregated data instead of the site specific data. However, the LDSOs only receive the site specific data through the D0036 'Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix' and D0275 'Validated Half Hourly Advances' Data Flows, which they receive from the HH Data Collector (HHDC).

With the rollout of smart and advanced metering, there is a concern that the percentage of the market settled HH could increase substantially. Without any mechanism for LDSOs to utilise and bill Suppliers on an aggregated basis, they will need to use site specific billing for these customers. This will be disproportionately expensive and not reflective of the actual UoS.

There are also benefits to Settlement for moving to HH metered, as this is considered more accurate.

Impacts on P272

It is now mandatory (since 6 April 2009) that any new Metering Equipment installed for sites in Profile Classes (PCs) 5-8 must be an advanced (i.e. HH capable) Meter. From 6 April 2014, all Meters for PC5-8 sites will have to be 'advanced' regardless of when installation took place. This is not to say that these HH capable Meters must be settled HH. However, Suppliers (or the customer) can elect to settle these customers HH if they wish (or if the customer wishes them to do so).

Smartest Energy raised [P272 'Mandatory Half Hourly Settlement for Profile Classes 5-8'](#) on 20 May 2011. P272 proposes mandatory HH Settlement for PCs 5-8 sites from 1 April 2014. P272 contends that to settle such sites on average profiled data, rather than on HH data, leads to inaccuracies in Settlement and masks individual customer behaviour. The P272 Workgroup put forward an Alternative Solution with an Implementation Date of April 2015.

The Panel made its final recommendation that P272 should be rejected at its meeting on 13 December 2012. P272 is currently with the Authority for decision, but on the 6 February 2014 it [directed the Panel to consult again on the Implementation Date](#).

DCP179 (and P300) enables more reflective DUoS charges to be put in place. This would mean that current NHH PC 5-8 customers that move to HH metered won't be penalised through DUoS charges. Having the reflective DUoS charges in place, which are lower will support the transition period for implementing P272. The Authority reasons that its decision on P272 is contingent on DCP179, which is dependent on P300.

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What is the issue?

The BSC contains a number of provisions for providing LDSOs with the metered data they need for charging purposes. However, these don't provide a mechanism for distinguishing between HH-settled customers whose network charges should be calculated on a site specific basis, and those whose network charges should be calculated on an aggregated basis. P300 supports DCP179 by proposing to create the new Measurement Classes under the BSC.

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Proposed solution

P300 builds on solution put forward under P280 and aligns to the requirements of DCP179. It proposes the following:

- Creation of two new Measurement Classes, which Suppliers may use to identify specific types of HH metered sites (Suppliers will not be mandated to use the new Measurement Classes, and may still use existing Measurement Classes 'C' and 'E'):
 - Measurement Class 'F' – HH aggregated metered (domestic), which will include current transformer (CT) and whole current (WC) metered domestic customers); and
 - Measurement Class 'G' – HH aggregated metered (non-domestic WC) (Measurement Class E will be used for CT metered non-domestic customers under 100kW).
- Creation of 10 new CCCs for each Measurement Class (six for Import and four for Export).
- Mandate HHDA's to implement the changes and process the proposed amendments to the D0040 and D0298 'BM Unit Aggregated Half Hour Data File' Data Flows.
- Mandate LDSOs to specify which Standard Settlement Configuration (SSC) should be used to report aggregated HH data for each relevant Line Loss Factor Class (LLFC) since the D0030 'Non Half Hourly DUoS Report' data flow requires consumption data to be reported against an SSC.
- Require the SVAA system to process the amended Data Flows and the mapping information in order to include the relevant data in the D0030 Data Flow that the LDSOs use for aggregated DUoS billing.
- Mandate that HHDCs must not send D0036 and D0275 Data Flows to LDSOs for the new Measurement Classes, but will instead be required to send a D0010 'Meter Readings' Data Flow.

Applicable BSC Objectives

The Proposer believes that P300 better facilitates:

- **Applicable BSC Objective (c)** by accommodating a change raised within another code that has a direct impact on its ability to deliver i.e. without a change to the BSC systems and processes it prevents the improvement in competition being facilitated via another Code.
- **Applicable BSC Objective (d)** because it provides an efficient and cost effective mechanism to deal with a large increase the volume of HH data without flooding Parties with site specific data resulting from the expansion of the HH market. Increased use of actual data from HH metering will provide industry-wide benefits, through improvements in the accuracy of Settlement.



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]

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Implementation approach

Due to the interaction with DCP179, the Proposer is seeking a joint implementation approach. Whilst DCP179 is currently seeking to implement on 1 April 2015, the DCP179 Working Group is aware of the likely progression timescales for P300 and the previous responses for P280, which sought a 12-month lead-time for industry to implement. DCP179 is dependent on P300; however, P300 is not dependent on DCP179.

ELEXON attends the DCP179 Working Group, so is able to provide that group with updates on the progression of P300 and will include the DCUSA Code Administrator on any relevant communications. We will also provide updates to the MRA Development Board (MDB) on the progression of P300 through our attendance at that meeting in regards to any consequential changes to the DTC.

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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 P300. 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.

Consideration of P280 discussions

As P280 has considered the issues that P300 aims to address, the P300 Workgroup should consider the conclusions of P280 to identify if anything has changed. This should include a review of the views and discussions of the P280 Workgroup, P280 consultation responses and the views and conclusions of the Panel and the Authority.

Impacts and benefits

The Proposer believes that benefit of P300 would result in a substantial reduction in DUoS charges and increased efficiency in the implementation and administration of the BSC arrangements. The P280 Workgroup has considered this previously, but the P300 Workgroup should consider this again.

Interaction with DCUSA

P300 is intended to facilitate the new tariffs under DCP179, but does not depend upon them. However, the P300 Workgroup should keep abreast of DCP179 and any other changes required to the Common Distribution Charging Methodology (CDCM) to introduce suitable tariffs for the new Measurement Classes. It should also confirm whether it is satisfied with the analysis and work undertaken by the DCP179 Working Group, or whether any further analysis of costs, impacts and benefits is required.

Number of Measurement Classes and CCCs

The Proposer believes that two new Measurement Classes each with 10 new associated CCCs would be appropriate. The P300 Workgroup should consider if this is a sensible approach.

Performance Standards and Supplier Charges

The Proposer has not expressed a view on the Performance Standards for the new Measurement Classes. The P300 Workgroup should therefore consider this area. In considering this it should take into consideration that if it aligns the Performance Standards with those for Measurement Class 'E', then it would need to be mindful of P272 solution, which proposes to amend the Performance Standard for Measurement Class 'E' to 99% of energy settled on actual data at the First Reconciliation Run (R1). The P300 Workgroup should also consider the impact this will have on Supplier Charges.

Impact on Data Transfer Catalogue and BSC Configurable Items

Changes will be required to the Master Registration Agreement (MRA) Data Transfer Catalogue (DTC) and BSC Configurable Items to support reporting of aggregated data for the new Measurement Classes. For the MRA DTC changes, these will be raised once the changes have been identified. The MRA DTC and BSC Configurable Item changes are likely to include:

- amendment to the D0030 and D0314 'Non Half Hourly Embedded Network DuoS Report' Data Flows, BSCP508 'Supplier Volume Allocation Agent' and the SVAA software to report consumption for those customers to LDSOs on an aggregated basis;
- amendment to the D0040 and D0298 Data Flows to include necessary Data Items to recognise LLFCs and LDSO Market Participant IDs (MPIDs); and
- amendment to the J1161 'Measurement Class Id' Data Item to include the new values and ensure that the J0311 'Measurement Class Description' Data Item matches that of the new 'Measurement Class Id' when selected.

Implementation approach

Considering that the P280 Workgroup recommended a 12-month implementation to allow industry to implement system and process changes, it is likely that a similar conclusion will be made for P300. In addition, the P300 Workgroup will need to be mindful of the DCP179 Implementation Date, which is dependent on P300. However, P300 is not dependent on DCP179.

Areas to consider

The table below summarises the areas we believe a Modification Workgroup should consider as part of its assessment of P300:

Areas To Consider
What has changed since the Authority's decision on P280?
What are the expected impacts and benefits associated with P300 (where not already covered by DCP179)?
What is the interaction with DCP179 and the DCUSA?
Are the Measurement Classes and CCCs identified by P300 appropriate?
What should the Performance Standards be for the new Measurement Classes?
What is the impact on Supplier Charges?
What changes are needed to BSC documents, systems and processes to support P300 and what are the related costs and lead times?
What changes are required to MRA DTC and any other industry Codes?
Are there any Alternative Modifications?
Does P300 better facilitate the Applicable BSC Objectives than the current baseline?
What should the implementation approach be for P300?

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4 Proposed Progression

Next steps

We recommend the Modification is progressed to an Assessment Procedure for consideration by a Workgroup.

Workgroup Membership

We propose to seek membership from the P280 Workgroup and DCP179 Working Group, as well as any experts and interested parties.

Timetable

We recommend a five month Assessment Procedure, meaning the Workgroup will submit the Assessment Report to the Panel at its meeting on 14 August 2014. This takes into account the Easter and May bank holiday periods, when it may be difficult to hold a Workgroup due to assumed lack of availability of Workgroup members. It also allows for an Impact Assessment as well as the Workgroup's Assessment Consultation.

As part of the Assessment Procedure, the Workgroup will need to develop, and consider the merits of, the Proposed Modification (and any Alternative). We will issue the solution for industry consultation (15 Working Days duration) for industry to comment on the Proposed (and any Alternative) solution. We propose that the Report Phase consultation is carried out over a 10 Working Day period, which will allow for the Draft Modification Report to be presented to the Panel at its September meeting.

Proposed Progression Timetable for P300	
Event	Date
Present Initial Written Assessment to Panel	20 Mar 14
Workgroup Meeting	W/B 07 Apr 14
Impact Assessment (15 Working Days)	24 Apr – 16 May 14
Workgroup Meeting	W/B 02 Jun 14
Assessment Procedure Consultation (15 Working Days)	20 Jun – 11 Jul 14
Workgroup Meeting	W/B 21 Jul 14
Present Assessment Report to Panel	14 Aug 14
Report Phase Consultation (10 Working Days)	14 – 29 Aug 14
Present Draft Modification Report to Panel	11 Sep 14
Issue Final Modification Report to Authority	12 Sep 14

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5 Likely Impacts

Impact on BSC Parties and Party Agents

Participant	Potential Impact
Suppliers	Will now have the option of receiving billing based upon aggregated and site specific data.
LDSOs	Will need to change the way they operate and may need to amend billing systems. In addition, depending upon when the change is implemented, all LDSOs may need to make mid-year re-submissions for their LLFs.
HHDA's	Will need to change the way they generate aggregated data for submission to the SVAA.
HHDCs	Will need to change what Data Flows they send to LDSOs.

Impact on Transmission Company

No impact

Impact on BSCCo

BSCCo area	Potential Impact
Market Domain Data (MDD)	Processing MDD Change Requests to enter the new Measurement Classes, SSCs and CCCs into MDD.
LLFs	Potentially, depending upon the timing of the change, it will need to process mid-year re-submissions for LDSOs LLFs.
Change Implementation	Implement document and system changes.

Impact on BSC Systems and process

BSC System/Process	Potential Impact
SVAA	Will need to introduce system changes to aggregate data

Impact on Code

Code Section	Potential Impact
Section S	To reference revised data collection and provision requirements
Section S Annex S-1	To reference performance levels for the new Measurement Classes and any changes to Supplier Charges
Section W	To reference the new Measurement Classes and show which classes are relevant for NHH Trading Disputes
Section X Annex X-1	To reference the new Measurement Classes and CCCs
Section X Annex X-2	To reference the new Measurement Classes and CCCs

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Impact on Code Subsidiary Documents	
CSD	Potential Impact
BSCP508	To reflect the reporting of consumption to LDSOs on an aggregated basis
BSCP533	If P300 is approved, ELEXON will develop and consult on the necessary redlined changes to PARMS Serials as part of the implementation project
BSCP533 Appendix A	
BSCP533 Appendix B	
BSCP536	To reflect any changes to Supplier Charges
SVA Data Catalogue Volume 1	If P300 is approved, ELEXON will develop and consult on the necessary redlined changes as part of the implementation project to reflect any changes under the DTC

Impact on other Configurable Items	
Configurable Item	Potential Impact
PARMS User Requirement Specification	If P300 is approved, ELEXON will develop and consult on the necessary redlined changes as part of the implementation project.

Impact on Core Industry Documents and other documents	
Document	Potential Impact
Distribution Connection and Use of System Agreement	As per DCP179
Master Registration Agreement	Amendments to certain Data Flows under the DTC

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6 Recommendations

ELEXON invites the Panel to:

- **AGREE** that P300 progresses to the Assessment Procedure;
- **AGREE** the proposed Assessment Procedure timetable;
- **AGREE** the proposed membership for the P300 Workgroup; and
- **AGREE** the Workgroup's Terms of Reference.

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List of acronyms

The following table lists the different acronyms used throughout this report:

Acronyms	
Acronym	Definition
BSC	Balancing and Settlement Code
BSCP	Balancing and Settlement Code Procedure
CCC	Consumption Component Classes
CDCM	Common Distribution Charging Methodology
CT	current transformer
DCP	DCUSA Change Proposal
DCUSA	Distribution Connection and Use of System Agreement
DTC	Data Transfer Catalogue
DUoS	Distribution Use of System
HH	Half Hourly
HHDA	Half Hourly Data Collector
HHDC	Half Hourly Data Aggregator
IWA	Initial Written Assessment
KW	Kilowatt
LDSO	Licensed Distribution System Operator
LLF	Line Lose Factor
LLFC	Line Lose Factor Class
MDB	MRA Development Board
MDD	Market Domain Data
MPID	Market Participant ID
MRA	Master Registration Agreement
NHH	Non Half Hourly
PARMS	Performance Assurance Reporting and Monitoring System
PC	Profile Class
R1	First Reconciliation
SSC	Standard Settlement Configuration
SVAA	Supplier Volume Allocation Agent
UoS	Use of System
WC	whole current

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List of Data flows

The following table lists the various Data flows referenced throughout this report:

Data Flows	
Data Flow	Name
D0010	Meter Reading
D0030	Non Half Hourly DUoS Report
D0036	Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix
D0040	Aggregated Half Hour Data File
D0275	Validated Half Hourly Advances
D0298	BM Unit Aggregated Half Hour Data File
D0314	Non Half Hourly Embedded Network DUoS Report

List of Data Items

The following table lists the various Data Items referenced throughout this report:

Data Items	
Data Item	Name
J0311	Measurement Class Description
J1161	Measurement Class Id