



## Stage 04: Draft Modification Report

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

▶ 04 Report Phase

# P280 'Introduction of new Measurement Classes'

P280 seeks to introduce new Measurement Classes for Half Hourly-settled customers in the Domestic, Small Medium Enterprise and the Industrial & Commercial markets, and a requirement for the Supplier Volume Allocation Agent to provide Distributors with aggregated Half Hourly consumption data for Metering Systems registered to these new Measurement Classes.

P280 would enable Distributors to charge Suppliers on an aggregated basis as well as on a site-specific basis.



- The BSC Panel:
- Initially recommends **approval** of P280



- High Impact:
- SVAA



- Medium Impact:
- Suppliers
  - Distributors
  - HH Data Aggregators
  - HH Data Collectors



- Low Impact:
- ELEXON

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## Any questions?

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## About this Document

This is the P280 Draft Modification Report, updated following industry consultation, which ELEXON will present to the Panel on 9 August 2012. The Panel will consider the consultation responses received and its initial recommendations and agree a final recommendation to Ofgem on whether or not P280 should be approved.

This report contains the information set out in the P280 Assessment Report (details of the solution, impacts, costs, benefits/drawbacks and proposed implementation approach), the Panel's initial discussions and recommendations and a summary of the responses to the Report Phase industry consultation. Attached are:

- Attachment A - Detailed Assessment: more information on the Workgroup's analysis and assessment, details of Workgroup membership and Terms of Reference (unchanged from version attached to P280 Assessment Report); and
- Attachment B - Draft redlined changes to the BSC to implement P280.

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## Why Change?

Distributors calculate Distribution network charges (DUoS charges) and invoice each Supplier per MPAN on a site specific basis for every Half Hourly settled customer, and the existing HH market is relatively small. However, the Secretary of State's has mandated that Profile Classes 5-8 must have an 'Advanced' (HH capable) meter by 2014, alongside the government led initiative that Profile Classes 1-4 have 'Smart' meters by 2019.

Industry participants have therefore been considering the prospect of a significant expansion in the number of HH settled sites. The Proposer believes that, if HH Settlement is widely adopted and Distributors have to bill HH customers on a site specific basis, the cost to Distributors would be of the magnitude of tens of millions of pounds.

Industry led work, including the Profiling Settlement Review Group (PSRG), DCUSA Change Proposal DCP 103, BSC Modification P272, and the Distribution Charging Methodologies Forum (DCMF) Methodologies Issue Group 22 (MIG 22), has indicated that as a minimum there should be the option of receiving DUoS invoices based on aggregated HH data for HH settled sites below the current threshold for HH metering (100kW).

## Solution

P280 would introduce three new Measurement Classes and associated Consumption Component Classes so that Suppliers of sub 100kW HH settled customers may be invoiced for DUoS charges on an aggregated basis.

## Impacts

P280 is effectively a facilitation change, but the Supplier Volume Allocation Agent (SVAA), HH Data Aggregators (HHDAs) and Distributors would be required to support the P280 arrangements from the P280 Implementation Date. P280 is optional for Suppliers, so Suppliers and HH Data Collectors (HHDCs) use of the new Measurement Classes would be at the Supplier's discretion. However, if a Supplier that does not use the new Measurement Classes takes on a customer that does, that Supplier would need to manage the transition.

## Implementation

The Report Phase consultation included a proposed P280 Implementation Date of 1 October 2013 if an Authority decision is received on or before 1 October 2012, but we recommend the Panel consider amending the implementation approach.

## The Case for Change

The Workgroup unanimously believed P280 would better facilitate the Applicable BSC Objectives compared with the existing baseline by providing an efficient and cost effective mechanism to deal with a large increase in HH data and providing Suppliers with flexibility to move into the HH market in the most efficient way. All of the Workgroup believed P280 would benefit either Objective (c) or Objective (d), or both (c) and (d).

The Panel unanimously agreed with the Workgroup and made an initial recommendation to the Authority that Proposed Modification P280 should be approved.

## Recommendations

The Panel is invited to confirm its initial recommendation to the Authority that P280 should be approved and amend the P280 implementation approach so the Implementation Date is 1 April 2014 if approval is received by 1 October 2012 (at least 18 months implementation lead time) or 1 April 2013 (at least 12 months implementation lead time).

## 2 Why Change?

### Background

#### Distribution Changes

Distribution network charges (also known as DUoS charges) are calculated for each HH settled customer by Distributors on a site specific basis. With the introduction of smart meters into the NHH settled market, more NHH sites will have the ability to be settled on a HH basis. This could significantly increase the number of sites where Distributors will have to calculate site specific DUoS charges. A DCUSA Change Proposal (DCP103) was raised in July last year 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 invoicing for DUoS in respect of sub 100kW sites using aggregated HH data rather than on a site specific basis, but this was deemed outside of the scope of the DCUSA change proposal.

Currently, the only option available to the Distributors is to invoice each Supplier per MPAN for every HH settled customer on a site specific basis. Should this remain the only option available, based on the analysis conducted under DCP103, the Proposer believes that the resulting cost to the Distributors (in the event that HH settlement is widely adopted for smart metered customers) would be in the tens of millions of pounds. The majority of this cost would likely be recovered from Suppliers and ultimately from customers. Furthermore the Proposer suspects that both Suppliers and HH agents may also have system capacity and/or business process issues should this be the enduring solution post smart metering roll out. To avoid this, there needs to be an alternative that enables Distributors to charge Suppliers on an aggregated (as well as on a site-specific) basis.

### Current Process

Currently SVA metering can be either settled HH or NHH depending on the circumstances. If the Metering System is defined as being 100kW or above it must be settled as HH. If it is below 100kW then it is usually settled on a NHH basis, unless the Supplier has elected to settle it on a HH basis.

Those sites that are Settled HH are billed for DUoS by Distributors on a Site Specific Basis. Currently there is no option available for Distributors to receive Aggregated HH data for sub 100kW sites.

#### Measurement Classes

The Measurement Class of a Metering System reflects how it is Settled i.e. HH, NHH or HH elective.

There are five Measurement Classes A, B, C, D and E:

#### Measurement Class 'A':

This is selected for all NHH Settled meters. Suppliers have set performance levels they must adhere to within the Settlement process. These performance levels are determined by the proportion of consumption through NHH Metering Systems that should be settled on actual Meter Advances (rather than estimates) at each of the Supplier Volume Allocation runs.



#### What is the issue?

The defect in the BSC arrangements is that they don't provide any 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.



#### Measurement Class 'A' Performance Levels

Run	Performance Level
SF	N/A
R1	30%
R2	60%
R3	80%
RF	97%

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### **Measurement Class 'B'**

NHH Unmetered supplies are classified as Measurement Class 'B'. These are any electronic equipment that draws a current and is connected to the Distribution Network without a meter recording its energy consumption.

### **Measurement Class 'C':**

100kW or above Metering Systems are classified as Measurement Class 'C' (unless they are "unmetered" in Class D).

Measurement Class C Metering Systems must submit 99% actual Meter reading data by the initial settlement (and all subsequent Reconciliations). Where actual Meter reading is unavailable, Data Collectors must provide estimated data.

### **Measurement Class 'D':**

This is the HH equivalent of Measurement Class 'B'.

### **Measurement Class 'E':**

Measurement Class 'E' is a Measurement Class for Metering Systems that would fall under the 100kW limit, and therefore would be settled NHH under Measurement Class A, but their Supplier elects to be settled HH.

The difference in Settlement terms between Measurement Class 'C' and 'E' is that for those Metering Systems that are HH elective in Measurement Class 'E' the Supplier need only get 99% actual data by RF.

## **What's the issue?**

### **The BSC and the current defect**

The BSC contains a number of provisions for providing Distributors with the metered data they need for charging purposes:

- General provisions in L5.2.4;
- SVAA requirements in S2.7.7; and
- HHDC requirements in Annex S-2, 3.3.2(g).

The defect in these arrangements is that they don't provide any 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.

Currently, HHDA's for sites in Measurement Classes 'C' and 'E' send the data flow D0040 to the SVAA. The D0040 flow includes Consumption Component Classes (CCC). It is the CCC which details the aggregated data instead of the Site Specific data. However, the Distributors only receive the site specific data via the D0036 and D0275 flows. They receive this information from the HHDC.

As only around 100,000 of the 29million customers within the market are settled HH the fact that there is no mechanism to aggregate billing has not had much of an impact. However, with the roll out of Smart metering, and other industry changes, there is a concern that the percentage of the market settled HH could increase substantially. Without any mechanism for Distributors to utilise and bill Suppliers using Aggregated HH data it will force Distributors to use site-specific billing for all customers under 100kW where it will be disproportionately expensive.

This section explains the P280 Proposed Modification, which is the solution put forward by the Proposer.

Neither the Workgroup nor Assessment Consultation respondents have identified any Alternative Modification within the scope of P280 which would better facilitate the Applicable BSC Objectives than the Proposer's solution.

### Summary

P280 proposes that as of 1st October 2013:

- 3 new Measurement Classes will be introduced;
- 10 new Consumption Component Classes will be introduced for each Measurement Class (6 for Import and 4 for Export);
- HHDA's will be mandated to implement the changes and process the proposed amendments to the D0040 and D0298 data flows;
- Distributors will be mandated to specify which Standard Settlement Configuration (SSC) should be used to report aggregated HH data for each relevant Line Loss Factor Class (since the D0030 data flow requires consumption data to be reported against a SSC);
- the SVAA system will be required to process the amended data flows and the mapping information in order to include the relevant data in the D0030 flow that the Distributors use for aggregated DUoS billing;
- HHDCs must not send D0036/D0275s to Distributors for the new Measurement Classes, but will instead be required to send D0010s; and
- There will be no mandate on Suppliers to use the new Measurement Classes. It would be left to individual Suppliers to choose when they wish to use them. Although P280 is optional for Suppliers, if a Supplier that does not support the new Measurement Classes takes on a customer that currently uses them the Supplier would need to manage the transition, but the impact should be minimal (a process to change to a Measurement Class supported by the Supplier and accepting MDD updates<sup>1</sup>).

### Detailed Requirements

#### Requirement 1 – Introduction of New Measurement Classes

3 new Measurement Classes would be introduced in the BSC for Domestic, Small and Medium Enterprises (SME) and Industrial and Commercial (I&C) customers to distinguish HH settled customers whose network charges would be calculated on an aggregated basis.

New Measurement Classes:

- F Half Hourly aggregated metered (**Domestic**)
- G Half Hourly aggregated metered (**Non domestic whole current**)
- H Half Hourly aggregated metered (**Non domestic CT metered**)<sup>2</sup>

<sup>1</sup> Changes to Market Domain Data (MDD) are undertaken on a circa 6 weekly cycle, resulting in accepted changes being sent to each company on the D0269/D0270 data flows. The new Measurement Classes (Measurement Class Id and Measurement Class Description and the effective from and to dates) will be contained within such flows and the Supplier will have to process the flows so that, subject to their system validation processes, they can handle any data associated with MDD.

<sup>2</sup> The group agreed that one of the key issues for consultation was the criteria for separating Measurement Classes G and H. Please see Attachment A for group discussions on this.

This will result in the need for each new Measurement Class and their associated Consumption Component Classes being updated in the Market Domain Data.

The Supplier Metering Registration Service (SMRS) systems will need to be capable of accepting the new Measurement Classes.

Suppliers will have the option of utilising the new Measurement Classes. Supplier Agents will need to be able to process the new Measurement Classes for any Suppliers who choose to use them.

Should any site utilising the new Measurement Classes wish to revert to NHH or Site Specific data they will need to revert to one of the pre-existing Measurement Classes.

## Import and Export

Each new Measurement Class will have six new Import and four new Export CCCs (for use in reporting actual and estimated consumption and losses).

## Import Consumption Component Classes

The current set up is that there a range of CCCs, many of them are linked to the CCIs. The new MCs will each be associated with six Consumption Component Classes for Import as follows:

Consumption Component Class Id	Measurement Quantity Id	Data Aggregation Type	Metered/ Unmetered Indicator	Consumption Component Indicator	Actual/ Estimated Indicator	AA/EAC Indicator	Consumption Level Indicator
36	AI	H	M	C	A		F
37	AI	H	M	M	A		F
38	AI	H	M	L	A		F
39	AI	H	M	C	E		F
40	AI	H	M	M	E		F
41	AI	H	M	L	E		F
42	AI	H	M	C	A		G
43	AI	H	M	M	A		G
44	AI	H	M	L	A		G
45	AI	H	M	C	E		G
46	AI	H	M	M	E		G
47	AI	H	M	L	E		G
48	AI	H	M	C	A		H
49	AI	H	M	M	A		H
50	AI	H	M	L	A		H
51	AI	H	M	C	E		H
52	AI	H	M	M	E		H
53	AI	H	M	L	E		H

Where the data is defined as being based on actual or estimated data for each Consumption Component Class Indicator. The group decided that for import we would keep the CCCs the same as they currently are. The Group acknowledged that in the future the CCCs as a whole will need reviewing, but this was out of scope of P280.



## Export Consumption Component Classes

In the current HH settled market, all Export is reported on the same six CCCs (i.e. CCC Id 6-8 for actual data and CCC Id 14-16 for estimated data), irrespective of whether the Export Metering System is registered to Measurement Class C or E.

The Modification Group proposes that additional Export CCCs be introduced for the new Measurement Classes. Any Export from Metering Systems registered to the new Measurement Classes would be allocated to the new CCCs by the HHDA, and reported to Distributors in the D0030 data flow by SVAA.

As noted above, Measurement Classes C and E currently share a single set of six Export Consumption Component Classes (6-8 and 14-16).

However, the new Measurement Classes F, G and H will only have four CCCs each. At present there are three Consumption Component Indicators (CCI) namely C M and L, which have either Actual (A) or Estimate (E) allocated to each class which gives a total of six combinations in all. CCI M only applies to large scale site specific sites that have site specific LLFCs and under the proposals outlined in P280 it is unlikely that it will be utilised, therefore it would seem prudent not to include it as part of the P280 solution and use only C and L which combined with the Actual and Estimate fields give four CCCs.

The use of only 4 CCCs would then result in 12 new combinations covering all three new measurement classes. (see table below)

Consumption Component Class Id	Measurement Quantity Id	Data Aggregation Type	Metered/ Unmetered Indicator	Consumption Component Indicator	Actual/ Estimated Indicator	AA/EAC Indicator	Consumption Level Indicator
54	AE	H	M	C	A		F
55	AE	H	M	L	A		F
56	AE	H	M	C	E		F
57	AE	H	M	L	E		F
58	AE	H	M	C	A		G
59	AE	H	M	L	A		G
60	AE	H	M	C	E		G
61	AE	H	M	L	E		G
62	AE	H	M	C	A		H
63	AE	H	M	L	A		H
64	AE	H	M	C	E		H
65	AE	H	M	L	E		H

## Requirement 2 – Amending the D0040 and D0298 data flows

At present HHDA's send aggregated HH data to SVAA. The level of aggregation is Supplier, GSP Group and CCC. In order to support reporting of aggregated data by SVAA for Measurement Classes 'F' to 'H', this data will also need to be broken down by:

- Distributor Id, in order that SVAA can report the data to the correct Distributor; and
- Line Loss Factor Class Id, in order that SVAA can provide separate values of aggregated consumption for different Line Loss Factor Classes. This will support

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different tariffs for different voltage levels or Measurement Classes (if required by the relevant Charging Methodology).

The Group proposes, based on significant support from the consultation, that all HHDA should be required to support the new Measurement Classes (and be able to submit data to SVAA should they appointed to one).

Therefore, to support this requirement, the D0040 and D0298 data flows will be amended to include new record types for the new Measurement Classes. These new record types will be similar to the existing D0040/D0298 data, but the consumption will be broken down by Distributor ID and LLFC ID (in addition to Supplier Id, GSP Group and Consumption Component Class).

Because the new record types introduced into the D0040/D0298 apply only to the new Measurement Classes, a Supplier who is not using them will receive a D0040/D0298 that does not contain any of the new records. This is intended to minimise the impact on Suppliers who are not using the new Measurement Classes (i.e. it is proposed that the additional information included will not be visible on the flows for the older Measurement Classes).

This requirement will be mandatory for Data Aggregators to ensure that all impacted parties receive data for all Metering Systems.

### **Requirement 3 – Processing the amended D0040/ D0298 data into the existing D0030 and D0314 data flows**

The Group agreed that aggregated HH data for the new Measurement Classes should be included in the existing D0030 and D0314 data flows (used to report NHH consumption to Distributors), with no changes made to the structure of the data flows. As these existing data flows require consumption to be reported against a Profile Class and SSC, SVAA will have to associate each item of aggregated HH data with a Profile Class and SSC. Note that this mapping of HH consumption to SSCs is purely for purposes of SVAA reporting (i.e. Metering Systems on the new Measurement Classes will **not** be registered to an SSC in SMRS).

The Group agreed that the new data on the D0030 will be reported against Profile Class zero, rather than a Profile Class specified by the Supplier. This ensures that aggregated HH data (for Measurement Classes 'F' to 'H') can be clearly distinguished from NHH data.

Note that Profile Class zero will not be added to Market Domain Data. This is consistent with existing practice (in which a Profile Class of zero is used on data flows relating to the Half Hourly market, even though this value is not included in the list of valid Profile Classes in MDD).

In order to allow SVAA to report HH data in the existing D0030 format, Distributors will need to inform the SVAA what Standard Settlement Configuration (SSC) to report so that the correct data can be associated with each Line Loss Factor Class (LLFC). It will be mandatory for Distributors to provide this information, as the SSC, TPR and PC are mandatory items in the D0030 data flow. However, Distributors who aren't interested in mapping consumption to Time Pattern Regimes (e.g. because their billing systems do not use the VMR group) can just provide simple default data (e.g. map all LLFCs to the unrestricted SSC 0393).

The SVAA will need to aggregate the data accordingly when they produce the report. Each DNO should provide the SSC for reporting each relevant LLFC. They should also provide a default SSC for reporting of any consumption that comes in on other (unexpected) LLFCs.

For example, suppose that a hypothetical Distributor had established new Line Loss Factor Classes as follows:

- LLFCs 200 and 400 for Measurement Class 'F' (to be billed on a single-rate tariff);
- LLFC 201 for Measurement Class 'G' (to be billed on a two-rate tariff); and
- LLFC 401 (for Measurement Class 'H' (to be billed on a two-rate tariff).

It could be that the Distributor uses a billing system that assumes no link between tariff and SSC (and bills Suppliers using the profiled Half Hourly data on the SPX record of the D0030 data flow). In this case it would not matter which SSC the consumption was reported against, and the Distributor could submit a single row of standing data instructing SVAA to report all aggregated HH data against a dummy SSC (such as the unrestricted SSC 0393):

Input LLFC		Effective Date	Output SSC
Distributor	LLFC		
XXXX		01-10-2013	0393

Alternatively, the Distributor may use a billing system that assumes a link between the DUoS tariff time bands and the SSC selected by the Supplier (because it bills Suppliers using data aggregated to time band level on the VMR record of the D0030 data flow). In this case the Distributor would need SVAA to aggregate the Half Hourly data for each LLFC into appropriate time bands. The Distributor would enable this by specifying an appropriate SSC for each LLFC in the standing data provided to SVAA:

Input LLFC		Effective Date	Output SSC
Distributor	LLFC		
XXXX	200	01-10-2013	0393
XXXX	201	01-10-2013	0154
XXXX	400	01-10-2013	0393
XXXX	401	01-10-2013	0154
XXXX		01-10-2013	0154

In the above example, the Distributor has specified SSC 0154 for LLFCs 201 and 401 because the Time Pattern Regimes of SSC 0154 (i.e. 23:30 – 06:30 and 06:30-23:30) match his billing requirements. The standing data tells SVAA to produce a D0030 data flow that (for these LLFCs) contains separate VMR records for each TPR:

- VMR records for Time Pattern Regime 00039 will contain the total consumption for time band 23:30 – 06:30; and
- VMR records for Time Pattern Regime 00221 will contain the total consumption for time band 06:30 – 23:30.

LLFCs 200 and 400 are associated with the unrestricted SSC 0393, and so data for these LLFCs will be reported against the single unrestricted Time Pattern Regime 00001. The row with no LLFC specified is a default, and indicates that any consumption on 'unexpected' LLFCs (for Measurement Classes 'F', 'G' or 'H') should also be reported against SSC 0154.

The Distributors would have the option to specify a unique SSC Id to the LLFC Id associated with each of the new Measurement Classes. This would facilitate the SVAA system aggregating the daily HH data into the number of time-periods defined by the SSC.

The Group agreed that the SSC chosen by the DNO for reporting purposes should be a clock time SSC with switching times on half hour boundaries. Note that this restriction only applies to how the data is aggregated for reporting on the D0030. Suppliers are still free to use SSCs with switching times in GMT or not on half hour boundaries.

The SVAA system will be amended to include a new database table that holds the mapping from LLFC to SSC. This will be populated via manual data entry. BSCP508 will be amended to include a paper form, which Distributors would fax or email to SVAA. SVAA would then type the data into a new data entry screen.

#### **Requirement 4 – Changes to the SVAA system**

There are a number of changes that are necessary:

- As explained in requirement 2, data is now received from HHDAs on amended D0040 and D0298 data flows
- As explained in requirement 3, the aggregated HH data on the D0030 is now reported against Profile Class zero.

Changes will be required to the SVAA system on how they produce their reports. They will need to be capable of receiving the lookup table from Requirements 2 & 3.

The SVAA will need to be able to produce the report in the new format. For each combination of Supplier Id, GSP Group and LLFC that has HH data (in the Consumption Component Classes corresponding to the new Measurement Classes), SVAA will need to perform the following processing when producing the D0030:

- Look up the appropriate SSC from the new database table (provided each Distributor has specified a default there will always be one).
- Identify the Time Pattern Regimes associated with the SSC, and the Period Time Pattern States associated with each TPR on that Settlement Day. (Period Time Pattern States are the flags indicating whether the TPR is treated as ON or OFF in each Settlement Period).
- For each TPR, include a VMR record, an SPX record and a TOT record in the output D0030:
  - The VMR record will identify the Distributor Id and LLFC, plus the SSC from the lookup table, and the TPR. The Profile Class will be reported as zero. The EAC/AA data<sup>3</sup> and SPM Default EAC MSID Count will be zero. The SPM Total EAC MSID Count and SPM Total AA MSID Count will be populated from the estimated and actual Data Aggregator HH MSID Counts provided by HHDAs on the new data flows (summing across all HHDAs and all relevant non-losses CCCs).
  - The SPX record will report 46/48/50 HH consumption values. For periods where the Time Pattern Regime is ON, this will be the data provided by the HHDAs (summed across all HHDAs and all relevant CCCs). For periods where the Time Pattern Regime is OFF, this will be zero.
  - The TOT record will have the totals of the values on the SPX record.

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<sup>3</sup> EAC/AA data (i.e. SPM Total All EACs and SPM Total Annualised Advance Report Value fields) could potentially be populated with aggregated HH data (instead of set to zero) but these data items are defined as holding annualised EAC/AA data; putting daily totals into annualised fields would create a risk of misunderstanding and error. In any case the daily totals of aggregated data will be made available on the TOT record (in the Daily Profiled SPM Total EAC and Daily Profiled SPM Total Annualised Advance fields).

## **Requirement 5 – LDSOs not to issue site-specific invoices for MPANs in the new Measurement Classes**

To avoid double charging, there is a need for the DNO not to issue site-specific invoices for MPANs in the new Measurement Classes. The solution is not to send the D0036/D0275 thereby avoiding any duplicated bills. This Requirement is actually delivered by the Requirement 6 solution.

Suppliers would presumably wish to validate that they don't receive site-specific invoices for these MPANs, though this is not a mandatory requirement that would be imposed by implementation of P280.

## **Requirement 6 – Amending the HHDC-LDSO data flow**

To avoid double charging the HHDC-LDSO data flow process would be amended to indicate whether the data relates to the new Measurement Classes (and is therefore outside the scope of site-specific billing).

Where this is the case a HHDC will send a D0010 instead of a D0036/D0275 for the new Measurement Classes. So for Measurement Classes 'C' or 'E' the HHDC sends a D0036/D0275, and for Measurement Classes 'F' to 'H' the HHDC sends a D0010. This eliminates the risk of double charging thereby meeting requirement 5 above (as the LDSO doesn't get a D0036/D0275 for the new Measurement Classes).

The D0010 flow was chosen as this would result in the use of an existing data flow that allows for all parties to receive the data as they do now and there would be no need to create new or amend existing data flows. Additionally, receipt of data could be monthly/quarterly thereby reducing significantly the daily data flow traffic of the alternative data flow options. This will also avoid any data privacy issue of seeing customer HH data.

## **Possible alternative approach**

The group has not developed a P280 Alternative, but did consider a potential alternative approach at the first meeting. A group member suggested an alternative approach with aggregation carried out by Supplier Agents instead of performed centrally, as they felt that this might be lower impact overall. However, the majority of the Group concluded that the solution developed by the Proposer and Workgroup was the most efficient, effective and clear approach, and therefore agreed not to further develop the potential alternative.

A group member did not agree with the majority view, as they felt it was debatable whether the proposed solution (i.e. central aggregation) is the most efficient or appropriate approach, but did acknowledge that the proposed approach requires central system changes rather than numerous impacts on the systems of a number of individual participants. Due to other commitments this group member could no longer take part in the Modification.

## **Legal text**

The proposed redlined changes to the BSC to deliver the P280 solution can be found in Attachment B. The Workgroup agrees that these changes deliver the intent of P280. No Assessment Consultation respondents had any comments on the legal text, which is therefore unchanged from the version provided in the consultation. You can find the full consultation responses and impact assessment responses received, and all other P280 documentation, are available from the [P280](#) page of the ELEXON website.

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### Estimated central implementation costs

The total central implementation cost for P280 is approximately £115k. This comprises:

- Approximately £110k in SVAA costs; and
- Approximately £14,400 (60 man days) in ELEXON effort.

### SVAA

These are one-off implementation costs, and there would be no additional on-going operational costs.

The SVAA costs include making the relevant changes to the systems.

### ELEXON

The ELEXON costs include managing the implementation project and updating the relevant BSC Sections, Code Subsidiary Documents and other documentation.

Additionally there may need to be work surrounding LLF's and LLF Validation as the timing of the change may mean that all LDSOs make mid-year re-submissions for their LLFs. This would involve extensive work to process and come at a time when the annual submissions start coming in and need to be processed too.

However, ELEXON is keen to note that as a result of this change and further work in this area there could be additional changes at a later date as the PAB and ELEXON may want to consider how under the new arrangements we will monitor performance and mitigate risks. Such work may include:

- Determining whether the current PARMS serials would need an additional level of granularity to separate out the new Measurement Classes.
- Modifying PARMS Serial SP04 (which currently measures NHH sites moving to HH sites).
- Creating a new PARMS serial, and possible associated Supplier Charge, to monitor the % energy for the new Measurement Classes (similar to SP08a/b currently).

Any possible additional costs are not directly linked to P280 and would be covered by the Modifications and CPs raised.

## P280 Impacts

BSC Parties / Party Agents	
Type of Party / Party Agent	Impact
Supplier Volume Allocation Agent (SVAA)	Will need to introduce system changes to aggregate data
Suppliers	Will now have the option of receiving billing based upon aggregated and site specific data
Distributors	Will need to change the way they operate and may need to amend billing systems
HH Data Aggregators & HH Data Collectors	Will need to change the way they generate aggregated data for submission to the SVAA and what HHDCs send to Distributors

Impact on ELEXON	
Raise MDD Change Requests to enter the new Measurement Classes into MDD	
Implement BSC changes as set out in the attached legal text and develop and implement any associated impacts on Code Subsidiary Documents	
Manage implementation of P280 system changes	

Impact on Code	
Code Section	Potential impact
Section ANNEX S-2:	Changes will be required to implement the solution. See draft legal text in Attachment B.

## Indicative Industry costs of P280

A key point of P280 is that use of the additional measurement classes is voluntary and therefore suppliers can mitigate the potential costs if they decide not to use the new MCs<sup>4</sup>.

A number of Suppliers stated that at the time of the assessment they were unable to provide costs. However, they were still in favour of the Modification.

Two Suppliers did provide costs ranging between £70k – and £450k. These costs stem from system changes.

A number of Distributors provide costs ranging from £15k - £100k. These costs are related to updating the billing system to process the modified flows.

HHDCs and HHDAAs were unable to quantify the costs but one respondent noted that any costs would be substantially less than Distributors. Again responses were in favour of implementing the P280.

The majority of responses agreed with the Proposer's view that should the current option remain where Distributors have to invoice each Supplier per MPAN for every HH settled customer on a site specific basis then the resulting cost to Distributors (if HH settlement is widely adopted for smart metered customers) would be in the tens of millions of pounds.

<sup>4</sup> Suppliers that choose not to use the new Measurement Classes, but wish to take on a customer on a new MC, can manage the transition using existing processes, but system/process changes are needed to do so effectively.

### Recommended Implementation Dates

The recommended Implementation Date included in the Draft Modification Report for industry consultation was:

- 1 October 2013 if an Authority decision is received on or before 1 October 2012.

However, in light of consultation responses received we recommend that the Panel consider amending the P280 implementation approach as set out in this Draft Report (see page 19).

### Workgroup considerations

The group considered three implementation dates whilst conducting the assessment of P280. The aim of this approach was to determine what if any impacts there may be upon industry participants.

Dates considered:

- April 2013, initial Proposer date, twelve months prior to the proposed Implementation Date of P272 and as the group deemed this a facilitation Modification this would ensure that industry had in place the necessary processes. At the time of the decision the date coincides with MIG22, if MIG22 necessitates certain tariffs, be they aggregated or otherwise, it was thought that it would be beneficial for P280 to be in place to accommodate them.
- October 2013 as this allows for twelve months from approval (should this be granted) to undertake any changes to systems, processes and progress any consequential code changes (e.g. DTC flow changes). Also the industry is ready for any changes associated with P272.
- April 2014 as this ties in with one of the P272 proposed implementation date.

Overall the group recommended that the Implementation Date of P280 should be 1 October 2013 as there was some concern with Parties being ready for April 2013.



### What are the Workgroup's views against the Applicable BSC Objectives?

The final **unanimous** view of the group was that overall P280 Proposed **would** better facilitate the Applicable BSC Objectives compared with the existing Code baseline.

All group members identified benefits against either Objective (c) or Objective (d) and unanimously agreed that P280 has no impact on Objectives (a), (b) and (e).

The Group members who believe P280 will better facilitate Objective (c) do so because it will:

- Facilitate more effective management of increased volumes of HH data.
- Ensure systems and processes are in place to enable Suppliers to move into the new HH market when they wish to do so without constraint.
- Allow flexibility to suppliers to receive aggregated or site specific bills.

Some group members also noted that the P280 solution utilises existing processes which minimises impacts and costs.

The Group members who believe P280 will better facilitate Objective (d) do so because it will:

- Provide 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.
- Increase accuracy in the arrangements (in the context of an expanded HH market).

### Consultation respondents' views on the Applicable BSC Objectives

The majority of Assessment Consultation respondents agree with the Workgroup's view that P280 better facilitates the Applicable BSC Objectives. The reasons and Objectives cited by these respondents are broadly in line with those expressed by members of the Workgroup.

Three respondents disagreed with the Workgroup's views. They considered that the proposed change is not efficient in terms of managing HH data, as it introduces three new unnecessary measurement classes that HH settlement needs to accommodate. That P280 is overly complicated, implicating all parts of the Industry from Suppliers to SVAA to try to cater for all possibilities of potential outcomes of future consultations and group decisions without clear benefits for the Applicable BSC Objectives.

Additionally there was the view that there are currently no guarantees that smart metering HH data will be available for use in the domestic market therefore do P280 cannot provide a cost effective solution.



#### 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

### Panel's Discussion

A Panel member queried whether there would be any additional costs for a Supplier who opted out of utilising the additional new Measurement Classes and whether or not there was a process in place for a Supplier who has chosen not to use the new Measurement Classes taking on a customer under Measurement Class F, G or H.

The Panel noted that the same existing processes for use in the case that a Supplier takes on a customer for which it has no previous data would also apply where a Supplier takes on a customer under one of the new Measurement Classes. The Panel were therefore satisfied that there would be no additional costs and that there was a process in place.

### Panel's views on the Applicable BSC Objectives

The Panel Members unanimously agrees with the Workgroup's unanimous view that P280 better facilitates Applicable BSC Objectives (c) and (d) for the reasons set out in Section 6.

**The Panel unanimously believes that P280 does better facilitate the Applicable BSC Objectives, and therefore initially recommends that P280 is approved.**

### Panel's views on legal text

The Panel unanimously agrees with the Workgroup's view that the proposed changes to the BSC in Attachment B deliver the intention of P280.

### Panel's views on Implementation Date

The Panel unanimously agrees with the Implementation Date proposed by the Workgroup, as detailed in Section 5.

Ten responses were received to the P280 Report Phase industry consultation. Eight respondents represent one or more BSC Party, one represents several non-Party organisations that operate in various Party Agent capacities and one is an individual who is an independent IS consultant. The latter individual responded only to the final consultation question inviting any further comments on P280 (in which they raised a technical issue).

### Panel's initial recommendation to approve P280

Of the ten respondents, seven agreed with the Panel's initial recommendation that P280 should be approved (including the non-Party organisation). Two respondents disagreed with the recommendation and one respondent (the individual independent IS consultant) did not respond to this question.

The seven respondents who agreed the recommendation include a variety of participant types, including Distributor, Supplier and Party Agent. No new benefits were identified by respondents that supported P280.

One of the respondents that did not support the Panel's initial recommendation was ENC, which operates as an Independent Distribution Network Operator (IDNO). ENC did not support P280 due to a specific query concerning the impact on IDNOs; this query is detailed below along with other technical issues raised by consultation respondents.

The other respondent that did not agree with the Panel's initial recommendation was EDF Energy. EDF energy did not support P280 for a range of reasons detailed at length in its response. EDF noted that Distributors' costs due to DUoS billing processes, and the impact on them of handling DUoS bills, are outside the scope of the BSC. They contended that the benefits of P280 lie with Distributors and some Distribution System users (due to avoided costs under the distribution charging arrangements) but implementation costs fall on BSC Parties and Party Agents (collectively and individually) and ongoing costs will exist for participants that do not use the P280 functionality. With reference to the Applicable BSC Objectives, EDF argued that:

- Objective (b) - more half-hourly Settlement should promote efficient system operation by facilitating passive and active response to time-of-use price signals, but it has not been demonstrated that P280 is necessary (and part of the most effective approach) in the long term, and P280 itself does not change the time-of-use price signals;
- Objective (c) - more half-hourly Settlement should promote competition by facilitating more accurate allocation of time-of-use volumes and hence costs to competing parties and ultimately to individual consumers, which should avoid cross-subsidy between Suppliers and ultimately individual customers, but it has not been demonstrated that P280 is necessary (and part of the most effective approach) in the long term, and P280 could create costs for parties that do not use the new Measurement Classes; and
- Objective (d) - no benefit because implementation would incur significant cost by Suppliers and Agents, and some costs for those that do not intend to use the proposed functionality, and though P280 might reduce distribution billing costs of Distributors and some suppliers there is no BSC Settlement benefit.

## Implementation

Respondents were closely split on the recommended Implementation Date of 1 October 2013 if an Authority decision is received on or before 1 October 2012. One respondent did not provide a response, five respondents agreed with the recommended date and four respondents did not support the recommendation.

Respondents that agreed included three Distributors, a Party Agent and a participant that operates as both Supplier and Party Agent. Comments from some of these respondents included that P280 is a facilitating change that is not aligned with any other proposed change and the optionality of P280 for Suppliers meant they had no objection to the recommended date.

Of the respondents that disagreed one is a Distributor and the other three each operate in multiple roles including Distributor, Supplier and Party Agent. All four suggested a date of April 2014 would be more appropriate (three specified this date and one suggested a notice period of 18 months).

Two respondents suggested a later Implementation Date based on the implementation impact of P280 and the interaction with other changes and events (midyear price changes; Green Deal and other mandated industry changes; April would align with new Regulatory year and tariffs and P280 changes would be implemented at the same time).

Another respondent suggested April 2014 implementation because the DCMF-MIG group is likely to result in changes to the DUOS charging methodology with effect from 1 April 2014, though the respondent also picked up on the avoidance of changes to pricing models mid-way through the year, changes to Supplier and Distributor billing/IT systems, and other commitments (e.g. Smart) as additional drivers for April 2014 implementation.

Finally, one respondent believed a longer implementation timescale would be desirable to reduce costs for parties that need to change systems and processes and avoid risks to customer pricing and billing, and suggested 18 months' notice from approval should achieve this. They commented that if P272 were to be approved for implementation before this there could be benefit in ensuring P280 was implemented at the same time or shortly before P272, but on its own merits did not believe there was a driver to implement P280 12 months from approval, as proposed.

Given the split responses, with a significant minority (only one less than the majority view) suggesting a longer implementation timeframe, and specifically implementation in April 2014, we believe there is merit in considering a later implementation date. However, the responses are linked to work and events that may coincide with P280 implementation rather than (in all cases) that a 12 month lead time is unrealistic for implementation of P280 in isolation. Furthermore, P280 is linked with other work intended to be implemented in April 2014. Therefore we do not believe at this time an Implementation Date later than 1 April 2014 should be considered, but a decision could be made later than 1 October 2012 and still allow implementation on 1 April 2014, albeit with a reduced implementation lead time.

We therefore recommend that the Panel consider an implementation approach of a P280 Implementation Date of:

- 1 April 2014 if a decision is received from the Authority on or before 1 October 2012 (providing at least 18 months implementation lead time); and
- 1 April 2014 if a decision is received from the Authority after 1 October 2012 but on or before 1 April 2013 (providing at least 12 months implementation lead time).

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## Legal text

Seven respondents agreed that the draft redlined changes would deliver the P280 solution. One respondent disagreed, one submitted a neutral response but made significant comment on the text and one did not respond to this question. The respondents that agreed with the redlining did not raise any additional points or issues.

The respondent that disagreed with the redlining was ENC, which operates as an IDNO, and they simply referred to their response to question 1 in which they disagreed with P280 due to a specific query concerning the impact on IDNOs. This means the issue concerns the solution rather than the legal text's delivery of the solution, so there is no issue with the legal text. If the P280 solution was changed as a result of ENC's response to question 1 the legal text may need to be amended to reflect the change, but this would be the case for any change to the solution.

Another respondent, EDF Energy, made a number of comments on the legal text. We recommend changes to the legal text in response to some of the comments to make the proposed new provisions consistent with other Code areas not directly related to the P280 solution. The recommended amendments do not change the P280 Proposed Solution agreed by the Proposer and considered by the Workgroup and are not material with respect to P280.

- **S-2 3.5.11, 3.5.12, etc:** the text indicates that Half Hourly aggregation should have a new sub-aggregation by Line Loss Factor Class. The respondent contended that P280 requires this only for Half Hourly sites associated with new Measurement Classes F, G and H; in the other cases the sub-aggregation will not be reported and is superfluous.

The results of sub-aggregation will not be reported unless appropriate to the Supplier, but consistent aggregation will not affect the reported information received by the Supplier and will mean HHDAs can operate in a uniform manner with respect to different Suppliers' data and the SVAA will receive consistent data. Both the SVAA and HHDAs are required to support the new Measurement Classes while Suppliers can choose whether to use them or not, and the drafting is consistent with this.

- **Annex V-1 Table 7:** the 'General Description' of data to be provided in the DUoS report is not a clear description of the data that would actually be reported.

The description is not sufficiently clear for reporting purposes, but is the appropriate level of detail for the description in the Code. The necessary detail will be specified in BSCP508, which is referenced in the table, as the relevant BSCP.

- **W3.1.1(e):** new Measurement Classes F, G and H are included in this paragraph, but this is inconsistent with the exclusion of existing Measurement Class E, which is included in W3.1.1(f) in order to avoid discriminating with regard to disputes relating to equivalent sites settled non-Half Hourly and voluntarily settled Half Hourly. The new Measurement Classes F, G and H should be treated in an equivalent non-discriminatory manner with Measurement Class E.

We recommend a change is made to the legal text. It was not intended for P280 to impact the treatment of disputes, and we agree it is consistent with the existing BSC provisions to include the new Measurement Classes F, G and H in W3.1.1(f).

- **Annex X-2, Table X-8:** the text at Annex X-2, 3.5.1 should be changed to reflect the change to this table to include the new Consumption Component Classes.

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We recommend a change should be made to the legal text such that Annex X-2, 3.5.1 reflects that Table X-8 has changed.

- **Annex X-2 Table X-6:** it is not clear from the description of Measurement Class that the classification of a Metering System in new Measurement Classes F, G and H (rather than E or C) is voluntary by the Supplier.

It is not the purpose of this table to specify this, so no change should be made.

- **Table X-8 explanatory text (viii):** the descriptions of the new Measurement Classes under Consumption Level Indicator do not make it clear that the aggregation of consumption data (including export) only occurs if the Supplier has requested it by registering the Metering System with the appropriate Measurement Class.

It is not the purpose of this explanatory text to specify when aggregation will occur, just to define the values of Consumption Level Indicators, so no change should be made.

## Further comments and technical issues

Several respondents used the opportunity for further general comment on P280 to reiterate its benefits and their support for P280, as follows:

- Facilitates DCUSA changes for Smart metering and half hourly/non-half hourly tariffs;
- Resolves many issues relating to other proposals such as P272 and DCP 103:
  - P272 seeks to mandate transfer of Profile Classes 5-8 to HH Settlement; P280 enables this on a voluntary basis; and
  - DCP 103 seeks to mandate HH Settlement (& site-specific billing) for all Smart Metering Customers; P280 allows HH Settlement without the burden of site specific Billing, which was deemed untenable;
- It is an 'enabling' change that will remove a key barrier identified by P272.

However, other respondents raised technical issues around P280, as set out below.

### Availability of LLFCs

A respondent noted that the LLFC describes adjustment factors that relate to an MPAN, but that many LDSOs also use LLFC to define tariffs and a limited number are available. The respondent believed this to be a particular issue for IDNOs operating across 14 GSP, and commented that a solution should not constrain Distributors operation across all GSPs (i.e. there should be no distortion of competition). The respondent would expect ELEXON to work with affected Distributors to develop solutions that take into account the limited range of LLFCs.

Limited availability of LLFCs is already a recognised issue outside of P284 and work is ongoing, albeit at an early stage. P280 introduces an additional driver to resolve this issue, but it is not an issue specific to P280.

### Quality checking CT details

A respondent suggested that If CT metering is the distinction between proposed measurement class 'G' and proposed measurement class 'H' then there will be a need to

be quality check the accuracy of CT ratio details, and issues exist with many details held at present.

The P280 solution may introduce an additional driver for Suppliers to quality check such details, but this issue is not specific to P280.

### **Interaction with P272**

A respondent commented that implementation of P280 would be dependent on delivery of a solution for increased accuracy of the HH Data Collection flows that currently report Half Hourly kWh volumes to one decimal place. A requirement of Modification P272 is the increased resolution of HH meter data from 0.1kWh to 0.001kWh. The respondent believed that this increased resolution is required to enable the aggregation of large amounts of low volume data sets, and needs to be implemented alongside P280.

P280 is linked to P272, though not contingent upon it, and increased resolution in reporting is required to enable effective aggregation of data. As an enabling Modification, P280 would facilitate P272.

### **Impact on Suppliers that do not support the new Measurement Classes**

A respondent challenged the contention that P280 would have no impact on Suppliers that choose not to support the new Measurement Classes. The respondent contended that a Supplier that gains a customer with a Metering System associated with one of the new Measurement Classes (F, G or H) would, if it elects not to support the new Measurement Class and makes no changes to its systems, experience issues in validating flows that include new Measurement Class values and identifying such instances so that the Supplier can change the Measurement Class. If the Measurement Class is not change before the supply start date the Supplier would receive flows containing new fields which may cause problems if their systems have not been suitably amended.

The respondent noted that similar problems are currently encountered when NHH-only Suppliers gain HH customers in error, and vice versa. There are usually relatively few such instances and they are therefore reasonably manageable, but in the future many more customers are likely to be the new Measurement Classes (in the magnitude of hundreds of thousands or millions).

While Suppliers could choose whether or not to employ the new Measurement Classes that P280 would introduce it is true that if they choose not to use and support the new Measurement Classes they would be impacted to the extent that they would need to ensure that they can manage the transition from the new Measurement Class to one they support. This was identified in the Assessment of P280.



## 9 Recommendations

Having considered the P280 Draft Modification Report, we invite the Panel to:

- NOTE the P280 Draft Modification Report and consultation responses;
- CONFIRM the recommendation to the Authority<sup>5</sup> contained in the P280 Draft Modification Report that Proposed Modification P280 should be made;
- APPROVE an amended Implementation Date for Proposed Modification P280 of 1 April 2014 if a decision is received from the Authority:
  - On or before 1 October 2012 (therefore providing at least 18 months implementation lead time); or
  - After 1 October 2012 but on or before 1 April 2013 (therefore providing at least 12 months implementation lead time);
- APPROVE the amended legal text for Proposed Modification P280; and
- APPROVE the P280 Modification Report or INSTRUCT the Modification Secretary to make such changes to the report as may be specified by the Panel.

## 10 Further Information

More information is available in:

Attachment **A**: Detailed Assessment

Attachment **B**: Draft Legal Text

Further information on P280, including the full Solution Requirements and the complete version of the impact assessment responses, is available on the [P280](#) page of the ELEXON website.

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<sup>5</sup> The Authority is the body that governs Ofgem and to whom the Panel makes its recommendations under the BSC.