

Stage 03: Attachment A: Detailed Assessment for P280

P280 'Introduction of New Measurement Classes'

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

04 Report Phase

Contents

| | | |
|---|--------------------------------------|----|
| 1 | Terms of Reference | 2 |
| 2 | Related Industry Work | 3 |
| 3 | Development of Solution Requirements | 7 |
| 4 | Timetable and Responsibilities | 21 |

About this document:

This is Attachment A to the P280 Assessment Consultation Document. It provides additional details of the Modification Group's analysis and assessment.

1 Terms of Reference

P280 Terms of Reference(ToR)

The standard Terms of Reference for Modification Groups is available on the [ELEXON](#) website. The Panel confirmed that the Modification Group should consider the points below.

Specific areas set by the Panel in the P280 Terms of Reference

Development of the P280 Proposed solution.

Changes to BSC documentation, systems and processes needed to support P280 implementation.

Any alternative approach.

Materiality of the issue identified by P280.

Assessment of P280 against the Applicable BSC Objectives

Quantification of P280 costs and benefits where possible (where not already covered by DCUSA).

Impact on industry participants.

Inclusion of Profile Classes 5-8.

Consider mandating Supplier to use the new Measurement Classes.



Any questions?

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P280
Detailed Assessment

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Page 2 of 21

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2 Related Industry Work

Modification P280 is not dependent on any other BSC Modification Proposal or other industry change, but work is being carried out in areas related to P280. Though the P280 Workgroup's assessment of P280 is against the BSC baseline and in terms of the Applicable BSC Objectives, considerations around these related pieces of work inform the context in which the group operates. This section therefore sets out updates on relevant work.

P272 Update

Modification P272 'Mandatory Half Hourly Settlement for Profile Classes 5-8' is currently progressing through the Modification process. At the BSC Panel meeting on the 12 January the Panel decided not to progress P272 to Report Phase and agreed to keep it in the Assessment Procedure.

The Panel noted concerns from Ofgem that the difficulty in assessing the benefits of P272 would make it difficult to make a determination on the Modification. Furthermore, developments in the market over the coming year may make some of the 'known unknowns' known; and at that stage the Modification Group would be better placed to complete analysis and make a recommendation to the Panel.

The Panel agreed with this and noted that they would like to see more done to clarify both the quantitative and qualitative benefits of the Modification, in particular the qualitative benefits.

Ofgem presented a 'road map' to the March Panel which included:

- what analysis will need to be undertaken,
- What assumptions and available data should be used; and
- the timescales involved.

During continued analysis of P272 the Workgroup have agreed to amend the solution to include the proposed new aggregated Measurement Classes of P280 should it be implemented. Thus partly removing the DUoS barrier for P272 and greatly improving the arguments for both Modifications. The other DUoS barrier is the difference in charging dependent upon whether the site is HH or NHH settled and is covered later.

P272 shall be conducting a further 4 week consultation within the next month to explore in greater detail the costs and benefits associated with the Modification which will enable the workgroup to build a model for further analysis to take place. The Assessment report is due to be presented to the Panel on 13 September 2012.

DCP 103

DCUSA CP 103 was raised by British Gas back in July 2011 to support their early trial of Smart metering. The aim of this DCUSA Change Proposal was to mandate a change that would ensure that below 100kW DUOS customer charges would be the same regardless of whether they were settled HH or NHH. Currently there is a difference in the pricing structure depending on how the customer is settled even though the customer still uses the same amount of consumption.

The DCP 103 Working group highlighted two specific issues.

- Firstly the current billing system for HH settled customers is Site-Specific and is widely regarded throughout the industry as not being capable of dealing with a substantial increase in HH DUoS bills due to system capacity constraints.
- Secondly, the fact that in a small minority of cases the impact of the DCP may result in some customers being charged more i.e. the current HH tariff is more beneficial than the equivalent NHH charges being applied.

To address these issues the DCP 103 Working group looked at a 4 different solutions.

Option 1 – Reflect NHH Tariffs in HH Billing Systems

In this option, the current NHH tariffs (unrestricted and day/night) would be set up in HH billing systems (with a zero capacity and reactive charge), so that customers can be moved into HH settlement without disrupting their DUoS charges. No changes would be made to data flows i.e. DNOs receive site-specific data from HHDCs (on a D0036/D0275) and send site-specific billing data to Suppliers.

This option requires CDCM changes, to allow NHH tariffs to be applied to certain HH-settled customers, a process for handling initial and further tariff changes within Measurement Class E and it would require new LLFCs to be set up in MDD. It also has an impact on Distributor Billing systems.

Option 2 – Distributors provide aggregated billing data to Suppliers

This is a variant of option 1, in which Distributors still receive site-specific data from HHDCs (on a D0036/D0275), but send aggregated billing data to the Supplier. This means the Supplier is shielded from receiving a high-volume of site-specific DUoS bills.

The potential downside for Suppliers is more difficulty in validation of DUoS charges. This would result in no changes to the BSC, but possible changes to the flows used by Distributors to invoice Suppliers and a system change to aggregate data in order to create aggregated HH DUoS bills.

Option 3 – Aggregated Billing Data from SVAA (on existing D0030)

In this option, SVAA aggregates data for relevant HH customers and includes it on the D0030, and (it was suggested) HHDCs would not send D0036/D0275 data to the DNO for these customers.

As with option 1, there's a question over which customers to include in scope:

- Option 3A – the simplest option (from a system viewpoint) is probably to include the whole of Measurement Class 'E'
- Option 3B - as for option 1, a Workgroup member had a view that customers with CT/VT metering should still have an agreed capacity, and be charged on conventional HH tariffs. This potentially requires us to introduce a new Measurement Class, so that traditional Measurement Class 'E' still gets reported on HH data flows, and only the new Measurement Class is reported on the D0030. This means a bigger system change for Suppliers and Supplier Agents.¹

Under both 3A and 3B, the aggregated HH data would appear in the same D0030 as the NHH data (under the new LLFCs introduced for this purpose). Options 3A and 3B both

¹ This is the opinion of the DCP103 group, a member of the P280 group disagrees with this assessment.

require changes to SVAA and to HHDCs/HHDA's (unless we allow the HHDCs to carry on sending D0036/D0275 flows). It is suspected that they will also both require changes to the BSC. It seems unlikely that either variant is deliverable for April 2012.

As well as the normal D0030, the change would also apply to the pseudo-D0030s introduced for P246 (Reporting to LDSOs of Aggregated Metering Data for Embedded Networks).

Option 4 – Aggregated Billing Data from SVAA (on new flows)

A minor variant of option 3, in which SVAA reports aggregated HH data on new flows (rather than the existing D0030 and P246 pseudo-D0030).

DCP103 current progression

The Workgroup are currently exploring Option 1 as they believe this meets the intent of the change proposal. The majority agreed that option 4 was the preferred approach but this did not meet the intent of the change proposal. This preferred approach and the proposer's view that any billing capacity constraint may be anti-competitive was the basis for the P280 Solution (be it by using existing flows or new ones to facilitate the use of aggregated HH billing data).

A P280 Workgroup member queried whether the DCP 103 Workgroup had considered a Solution where the HHDA would see singular MPANS but the HHDC would aggregate these into a 'Super MPAN'?

DCP 103 had not considered this option as it was set up primarily to examine the current processes. However, it was felt that this solution is similar to P280 with the only difference being that the DA would be aggregating rather than central systems.

Ofgem has requested information on the impact that DCP 103 will have on those customers that are currently elective HH but will see their current tariff no longer available if this proposal is implemented. There is a concern regarding customers on Measurement Class E who may be better off remaining on the current HH DUoS tariff.

Some members of the Workgroup raised concerns that it could be anti competitive to have an allocation provided to each Supplier due to system capacity concerns and, after reviewing legal advice on the grounds of whether any form of constraint of trade is deemed anti-competitive agreed to remove any such allocation method. Parties have a Licence obligation not to restrict, prevent or distort competition.

Latest situation DCP 103

A further consultation has just concluded over the process of handling initial tariff selection for existing measurement class e customers and how notification takes place where the supplier wishes to amend the tariff at a later date.

Progression Timeline

The original intent of DCP 103 was to have the Solution implemented as of the 1st April 2012. However, this is simply not possible now. British Gas, the Proposer of DCP 103, is now aiming to implement the DCP by April 2013. It is expected that this revised timetable can be met with the Change Report being submitted to the July Panel and a determination by the end of November in time for the Distributors to derive indicative charges with effect from the 1st April 2013.

MIG 22 Working Group.

This working group was combined with MIG 12 (difference in UMS Tariffs associated with NHH and HH settled)

The initial timescale was to deliver changes by the 1st April 2013 and a such aligned with the proposed implantation date a the time the Modification was raised. MIG 12 work has been completed resulting in a DCUSA change proposal being raised last month with the intention to meet the April 2013 implementation date.

The MIG22 element is at the information gathering and analyses stage and it is now believed that the likely implementation date will slip to April 2014.

Profile Class 5-8 considerations in related work

The Proposer noted that several ongoing initiatives relate particularly to Profile Classes 5-8 and summarised these to the group. This information can be found in Section 4.

3 Development of Solution Requirements

The following section details the Work Group discussions and conclusions that resulted in the P280 solution requirements set out in the main document. Note that the agreements documented below were subject to some refinement in the development of the finalised solution requirements for the Assessment Report.

Profile Class 5-8 considerations

Related work

At the first working group meeting in January 2012, as a background to P280 the Proposer noted that several on-going initiatives relate to Profile Classes 5-8. These projects are at different stages of development and cover various specific requirements surrounding settlement of PC 5-8, as summarised below:

DCP103:

- Meeting held 11 Jan 2012
- Implementation likely to be October 2012 (subject to approval)
- HH billing Site-specific billing is available now for all however, there are is not that much take up due to the generally higher DuoS charge.

P272:

- Submission to BSC Panel 12 Jan 2012
- Recommendation is to reject both options
- Implementation April 2014/15 (subject to approval)
- Mandatory HH site specific settlement option rejected (one of the reasons being awaiting outcome of MIG22) by the group, however, this Modification is now staying in the Assessment stage, with further analysis to be conducted.

MIG 22:

- Still at model review stage
- Unknown as to whether outcome of charging review will be NHH Aggregated, NHH site specific, HH site specific or HH Aggregated
- Implementation planned for April 2013 (subject to approval)
- Unknown as to whether outcome of charging review will be NHH Aggregated, NHH site specific, HH site specific or HH Aggregated.

Options surrounding the inclusion of Profile Class 5-8 in P280

The Proposer's views on the pros and cons of the inclusion of PC 5-8 in the scope of the P280 solution, for consideration by the Workgroup, are as follows:

In Scope:

Pros

- By including HH aggregation for PCs 5-8 we future proof the outcome of any further change in this area.
- Allows for early movers where suppliers (and their agents) are ready to do so.
- No need to wait for outcome of other initiatives.
- It may assist early delivery of other initiatives by having either option (Site Specific or aggregation) available to choose from.

Cons

- We end up with a further BSC change to remove a redundant Measurement Class (outcome is likely to support HH site specific, HH aggregation but not both).
- If outcome is for site specific then change of Measurement Class is required.

Out of scope:

Pros

- Let's other initiatives determine whether this is a requirement.
- Focuses on the original scope of the Modification.
- No further BSC change needed if outcome is use of HH site specific Measurement Class.

Cons

- A further BSC change required if outcome of other initiatives are in support of an aggregated Measurement Class.
- may delay implementation of other initiatives due to additional Modification required.

The Proposer felt that the pragmatic view is to include PC 5-8 in P280 and tailor the Modification so that any future change is housekeeping. The governance on whether it is likely to be site specific or aggregated will be determined by DCUSA and the Use of System Charging Methodology.

Proposed Measurement Classes

The Proposer suggested keeping the existing Measurement Classes the same.

- A Non Half Hourly aggregated metered (PC1-8)
- B Non Half Hourly aggregated unmetered (PC1,8)
- C Half Hourly Site Specific metered (above 100kW Premises)
- D Half Hourly Site Specific unmetered
- E Elective Half Hourly site specific metered (below 100kW Premises)

However, he proposed three new Measurement classes.

- F Half Hourly aggregated metered Domestic (ex PC1-2)
- G Half Hourly aggregated metered Small Medium Enterprise (ex PC3-4)
- H Elective Half Hourly aggregated metered I&C (ex PC 5-8)

The Proposer noted that there will be a need to determine the threshold that would necessitate a move from Measurement Class G to Measurement Class E or Measurement Class H. The suggestion in the Modification is where there is a requirement to install CT metering equipment to replace whole current metering.

Definition/thresholds for new Measurement Classes

A workgroup member asked under the current proposal whether it would be possible for an SME customer to choose to have HH Site Specific billing should they want it. It was discussed and agreed that this would be dependent on the outcome of the I&C (Industrial & Commercial) group. However PC 5-8 customers will have that option under Measurement Class E as they do currently.

It was queried whether when installing AMR meters for I&C customers whether or not those customers are also fitted with a Current Transformers (CT) and therefore whether we will need a different definition between SME and I&C customers?

It was argued that perhaps the group should use the current definitions; (ex profiles classes) whilst other members of the group felt that the definition should be based upon which type of metering was installed as long as that information was readily available.

It was noted that the existing criteria is that if you have a maximum demand meter installed you must be a Profile Class 5-8 customer. However, the use of maximum demand may not be applicable in the HH Settled market as HH capable Meters don't necessarily utilise Maximum Demand in the same way.

A group member queried whether it mattered which of the new Measurement Classes a customer is placed upon, and it was highlighted that each Measurement Class will relate to a specific DUoS charge.

The group agreed that a new mechanism was needed as the current mechanism i.e. the Maximum Demand register would not be applicable in the HH Settled Market and that the issue with defining which Measurement Class should be used would be with the former Profile Class 3-4 and 5-8 customers as there currently isn't a clear identifier on the metering side due to the fact that the PCs 3 & 4 will receive smart meters; PCs 5-8 will receive advanced meters.

It was stated that the threshold shouldn't be based upon capacity as an AMR meter can be installed at sites with whole current or CT measuring equipment.

Group Conclusions:

The group agreed that the threshold should be based upon the type of measurement device installed.

New Measurement Classes:

- F Half Hourly aggregated metered (Domestic)
- G Half Hourly aggregated metered (Non domestic whole current)
- H Elective Half Hourly aggregated metered I&C (Non domestic CT metered)

Mandating Suppliers to use the new Measurement Classes

The group considered whether to mandate that Suppliers use the new Measurement Classes. However the group concluded that any such mandate may cause delays or rejection by the industry on similar lines to P272 and the Modification would lose its facilitation solution allowing other changes to determine when such a mandate takes place.

Requirement 1 – Introduction of new Measurement Classes

As highlighted above the Proposer when raising P280 believed that two new Measurement Classes would be appropriate; one for Domestic Customers and one for Non-Domestic Customers below an agreed size threshold. The Group considered the inclusion of Profile

Classes 5-8, and whether this was a practical approach or whether the group should consider an additional Measurement Class for Profile Classes 5-8 as discussed.

The Group were also asked to consider what threshold the new Measurement Classes should apply to. The Proposer suggested that the absence of measurement transformers could be used as the criterion i.e. the new Measurement Classes would be open only to customers with whole current metering. His belief being that this supports the National Terms of Connection (DCUSA Schedule 2B) where the use of measurement transformers require a different set of terms one of which is the requirement for a maximum capacity. This then links to Profile Class 5-8 where a maximum capacity is also required. This ensures that there is no overlap with the work on P272 (Mandatory Half Hourly Settlement for Profile Classes 5-8).

The overall idea with regards to the reporting side is for these new Measurement Classes to look the same as the current NHH report. To achieve this certain measures will need to be taken including:

- Adding additional information to the Market Domain Data (MDD).
- For each of the three new Measurement Classes there will be 2/4 new Consumption Component Classes (CCC) that the SVAA will need to add to as each new Measurement Class will have a number of CCCs associated with this.

The reasoning behind the new CCCs is that these will enable the SVAA to undertake the relevant aggregation to incorporate in the D0030. Currently each Measurement Class has associated CCCs and the Data Aggregator breaks the data down by these CCCs. Therefore any new Measurement Classes will need new CCCs associated with them.

The group agreed that new Line Loss Factors (LLFs) should be raised through the existing process.

The group discussed the impact on Suppliers and there was a concern that Suppliers may be swamped with data from the HHDCs. However, the Proposer highlighted that it was up to Supplier's discretion as and when they choose to use the new Measurement Classes. This enables Suppliers to ensure that they have systems in place. Additionally Suppliers will have the choice as they do now as to what flows they will receive from the HHDC.

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 new measurement classes will each be associated with six Consumption Component Classes for Import as follows:

| | | | | | | |
|-------------|-------------|------|--------------|-------------|----------------|-----------|
| Consumption | Measurement | Data | Metered/Unme | Consumption | Actual/Estimat | Consumpti |
|-------------|-------------|------|--------------|-------------|----------------|-----------|

| Component Class Id | Quantity ID | Aggregation Type | Filtered Indicator | Component Indicator | Filtered Indicator | Measurement Level Indicator |
|--------------------|-------------|------------------|--------------------|---------------------|--------------------|-----------------------------|
| 66 | AI | H | M | C | A | F |
| 67 | AI | H | M | M | A | F |
| 68 | AI | H | M | L | A | F |
| 69 | AI | H | M | C | E | F |
| 70 | AI | H | M | M | E | F |
| 71 | AI | H | M | L | E | F |
| 72 | AI | H | M | C | A | G |
| 73 | AI | H | M | M | A | G |
| 74 | AI | H | M | L | A | G |
| 75 | AI | H | M | C | E | G |
| 76 | AI | H | M | M | E | G |
| 77 | AI | H | M | L | E | G |
| 78 | AI | H | M | C | A | H |
| 79 | AI | H | M | M | A | H |
| 80 | AI | H | M | L | A | H |
| 81 | AI | H | M | C | E | H |
| 82 | AI | H | M | M | E | H |
| 83 | AI | H | M | L | E | H |

Export Consumption Component Classes

In the current HH settled market, all Export is reported on the same six Consumption Component Classes (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.

Originally the group did not include new CCCs for Export. The implication was that Export from Metering Systems registered to the new Measurement Classes would continue to be reported on CCC 6-8 and 14-16 (and any associated DUoS charges would therefore be billed on a site-specific rather than aggregated basis).

The Modification Group then proposed 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 CCCs (6-8 and 14-16). This suggested two possible options for the new Export CCCs. The first would be to introduce a single set of six CCCs for use with Measurement Classes F, G and H:

| CCC Id | MQ Id | Aggregation Type | Metered / Unmetered | Consumption Component Indicator ² | Actual / Estimate | Consumption Level Indicator |
|--------|-------|------------------|---------------------|--|-------------------|-----------------------------|
| 54 | AE | H | M | C | A | - |
| 55 | AE | H | M | M | A | - |
| 56 | AE | H | M | L | A | - |
| 57 | AE | H | M | C | E | - |
| 58 | AE | H | M | M | E | - |
| 59 | AE | H | M | L | E | - |

CCCs are included for Export Metering Systems with site-specific Line Loss Factor Classes (i.e. Consumption Component Indicator of 'M'). It is unlikely that there will be many such Metering Systems (as site-specific LLFCs are only used at Extra High Voltage, and the new Measurement Classes are more applicable to lower voltages), but it is technically possible and this approach is also consistent with the current approach employed for CCCs.

The group considered that this option would minimise the proliferation of CCCs, but does not allow Distributors to distinguish between Export from the three new Measurement Classes. The alternative approach would be to introduce a separate set of six new CCCs for each new Measurement Class:

| CCC Id | MQ Id | Aggregation Type | Metered / Unmetered | Consumption Component Indicator | Actual / Estimate | Consumption Level Indicator |
|--------|-------|------------------|---------------------|---------------------------------|-------------------|-----------------------------|
| 54 | AE | H | M | C | A | F |
| 55 | AE | H | M | M | A | F |
| 56 | AE | H | M | L | A | F |
| 57 | AE | H | M | C | E | F |
| 58 | AE | H | M | M | E | F |
| 59 | AE | H | M | L | E | F |
| 60 | AE | H | M | C | A | G |
| 61 | AE | H | M | M | A | G |
| 62 | AE | H | M | L | A | G |
| 63 | AE | H | M | C | E | G |
| 64 | AE | H | M | M | E | G |
| 65 | AE | H | M | L | E | G |
| 66 | AE | H | M | C | A | H |
| 67 | AE | H | M | M | A | H |
| 68 | AE | H | M | L | A | H |
| 69 | AE | H | M | C | E | H |
| 70 | AE | H | M | M | E | H |
| 71 | AE | H | M | L | E | H |

However, from the consultation responses and further group discussions the group decided upon utilising only 4 CCCs per each new Measurement Class.

This is due to the fact that at present there are three consumption component classes (CCC) 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. CCC 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 CCC's.

² Definition for Consumption Component Indicators C, M & L:

C – Consumption Actual,

M – Metering System Site-Specific Line Loss,

L – Line loss factor Class.

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 |

Group Conclusions:

The Group considered that, with effect from 1st October 2013³, three new Measurement Classes for domestic, Small Medium Enterprises (SME) and Industrial and Commercial (I&C) customers should be introduced under the BSC. These new Measurement Classes would distinguish HH Settled customers whose network charges should 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 Elective Half Hourly aggregated metered I&C (Non domestic CT metered)

This will result in the need for each new Measurement Class and their associated CCC being updated in the Market Domain Data (MDD).

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 and Supplier Agents will need to be able to process the new Measurement Classes for those Suppliers who choose to use them.

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

³ Throughout the assessment stage the group viewed a number of different implementation dates which are covered in the main document, However during the meeting where the Group reviewed the consultation responses they agreed a change of implementation date. The previous implementation dates were valid at the time and where in this document it refers to any date other than 1st October 2013 these have been left in as part of an accurate record of the meeting discussions.

Requirement 2 – Amending the D0040 and D0298 data flows

The group considered what would be involved in changing the format of the D0040/298 sent from HHDA to SVAA.

The group noted that it was crucial that the SVAA are capable of interpreting which DNO it will be reporting to and which LLFCs the aggregated data applies to. Currently the SVAA does not have the ability to determine this from the existing D0040/0298 flows.

The group also stated that as the Modification was not going to mandate that Suppliers use these new Measurement Classes that it was paramount that instead of amending the flows as was originally suggested that instead there would be a need to introduce new flows that would replicate the existing D0040 and D0298 flows.

This would include details of Distributor Id and Line Loss Factor Class Id. The purpose of this would enable the SVAA to know which DNO to report the consumption too, and would then allow the DNO to know which tariff to apply (assuming that they have more than 1 option).

The impacts of this requirement would necessitate a change to the DTC, as well as the HHDA systems, Suppliers will need to introduce some corresponding system changes. The Group agreed the impact of these changes on parties would be specifically sought in the consultation document.

A workgroup member queried whether P280 should ensure that all HHDA's utilise these flows. The group's view was that it should be down to the Supplier to ensure that their perspective agents are ready for when the Supplier wishes to use the new Measurement Classes.

The group stated that they didn't see the need to mandate the HHDA's given that the new Measurement Classes are specifically for aggregated billing therefore they can only be used in combination with the new flows. For clarification a group member highlighted that any customer set up for Site Specific billing would not be able to utilise the new flows.

In the group's consultation we proposed that new data flows (based on the D0040 and D0298) would be introduced for use with the new Measurement Classes. Use of the new flows would be optional (avoiding the need for HHDA's to upgrade their systems if they did not wish to support the new Measurement Classes).

The Modification Group concluded that this optionality would introduce significant complexity. HHDA's who did not wish to support the new Measurement Classes would require exception processing to identify if they were erroneously appointed to a Metering System in one of these Measurement Classes, and to resolve the issue with the relevant Supplier. To avoid this complexity, the Group proposed, based on significant support from the consultation, that all HHDA's 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 MCs. 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/D2098 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 Distributors receive data for all Metering Systems.

Group Conclusions:

The Group concluded that we would amend the existing flows and that the HHDA's would be mandated.

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

The SVAA will need to aggregate the data accordingly when they produce the report. Each Distributor should provide the Standard Settlement Configuration for reporting each relevant Line Loss Factor Class (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 | | 31-03-2013 | 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/PC | |
|-------------|------|----------------|---------------|----|
| Distributor | LLFC | | SSC | PC |

| | | | | |
|------|-----|------------|------|---|
| XXXX | 200 | 31-03-2013 | 0393 | 1 |
| XXXX | 201 | 31-03-2013 | 0151 | 1 |
| XXXX | 400 | 31-03-2013 | 0393 | 4 |
| XXXX | 401 | 31-03-2013 | 0151 | 4 |
| XXXX | | 31-03-2013 | 0151 | 1 |

The group discussed the impacts of this requirement with regards to industry participants.

- SVAA – would need to populate the data structure.
- Distributors – it was argued that there would be less in the way of change for them due to the fact that they already process the D0030 flow.

A workgroup member noted that should Distributors want the D0030 format then the SVAA would add the SSCs. Additionally Suppliers will need to know what each SSC relates to.

As a result of this discussion it was asked whether the SSC should be included into the MDD. It was proposed that for each new Measurement Class we could create a pseudo SSC. A workgroup member however, highlighted that for each SSC there are up to 50 TPRs.

However, the group also discussed the possibility of creating Time Pattern Regimes (TPRs) corresponding to the new LLFCs specific for the new Measurement Classes. It is necessary to do this because some Distributors take values from the VMR record whilst others use the SPX data therefore the group must ensure that both are allowed under the D0030 flow.

Additional options considered included creating one report against all 50 TPRS or ensuring that the Distributors aggregate this information. Some members stated that they would prefer receiving all 50 TPRs whilst other favoured the option of allowing DNOs to essentially pick and choose which TPRs they receive, this would mean that the DNOs would advise the SVAA of which TPRs they would like to receive and the SVAA system would be set up in such a way as to provide this information.

The below is a strawman solution suggested by a group member.

The D0030 flow reports consumption to DNOs by Supplier Id, GSP Group Id, Profile Class Id, LLFC Id, SSC Id and TPR Id. It does this both as both total kWh for the Settlement Day and run type (in the VMR group) and as kWh in each half hour period for the Settlement Day and run type (in the SPX group).

Different Distributor's billing systems utilise either the SPX or the VMR group data to produce the DUoS invoices hence the SVAA system will need to be able to associate relevant data items with the LLFC Ids that Distributors will utilise with the new Measurement Classes.

Each Distributor may allocate a pseudo SSC for each of the relevant LLFCs. These will not be published in MDD. Each pseudo SSC will be allocated a TPR. These TPRs will be published in MDD. If no SSC and hence associated TPRs are allocated to the LLFC then these data items will be null in the VMR group.

Irrespective of whether a pseudo SSC has been allocated then the Data Item;

- 'SPM Total All EACs' will contain the aggregate estimated kWh for the LLFC and TPR combination;
- 'SPM Total Annualised Advance Report Value' will contain the aggregate actual kWh for the LLFC and TPR combination;
- 'SPM Total EAC MSID Count' will contain the count of number of MPAN for which the HH data associated with the LLFC has been estimated; and
- 'SPM Total AA MSID Count' will contain the count of the number of MPANs for which the HH data associated with the LLFC is actual data.

If a pseudo SSC has been allocated then the Data Item then SPM Default EAC MSID Count will be zero and the SPX group will contain the aggregate HH data (actual & estimated) associated with the LLFC – TPR combination.

If a pseudo SSC has not been allocated then SPM Default EAC MSID Count will be null and the SPX group will contain the aggregate HH data (actual & estimated) associated with the LLFC.

The Group have 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.

Group Conclusions:

Distributors will need to inform the SVAA what SSC to report so that the correct data can be associated with each LLFC.

The SVAA will need to aggregate the data accordingly when they produce the report.

Requirement 4 – Changes to the SVAA System

The group concluded that throughout their discussions on the previous requirements that they had identified the necessary changes that would need to take place.

Group Conclusions:

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 Requirement 3.

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 Distributor not to issue site-specific invoices for MPANs in the new Measurement Classes. Therefore each Distributor must ensure that receipt of D0036/D0275 data for an MPAN in one of the new Measurement Classes will not trigger an invoice for site-specific HH charges. Suppliers would presumably wish to validate that they don't receive site-specific invoices for these MPANs.

Group Conclusions:

The group concluded that this is a Distributor issue and that they will need to ensure they do not issue Site Specific bills for the new Measurement Classes. The Workgroup acknowledged that the above approach is likely to be expensive and error-prone (expensive because it may need significant changes to DNO HH billing systems; error-prone because it relies on the Distributor billing system having the same view of Measurement Class data as the Supplier and any differences will lead to disputed invoices).

Therefore the group sought further information from industry to address these concerns.

Requirement 6 – Amending the HHDC-LDSO data flow

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

The group originally considered three different approaches to this.

Option 1

Introduce the Measurement Class data item onto the D0036/D0275. This option seems unattractive, because it would require all HHDCs (including those not using the new Measurement Classes) to change, which is inconsistent with the Group's discussion of the HHDC-Distributor interface.

Option 2

The same as option 1, but we would give new flow numbers to the revised flows, allowing HHDCs who aren't using the new Measurement Classes to continue using the old D0036/D0275 flows. Distributors would be entitled to assume that MPANs on the old D0036/D0275 flows do require site-specific invoices.

Again there was concern surrounding this as this creates additional work for HHDCs and Distributors, and Distributors still need to validate that the correct data flow has been received.

Option 3

A variant on option 2, in which the new flows have exactly the same file format as the D0036/D0275 (i.e. don't have Measurement Class added in to them), and are only used for the new Measurement Classes. The D0036/D0275 will continue to be used for existing site-specific Measurement Classes.

In other words, it's the flow number (not the data in the file) that indicates whether the data relates to old site-specific Measurement Classes or new Measurement Classes. This is potentially easier for HHDCs and Distributors to implement (because the new flow is in the D0036/D0275 format they already know, with only the flow number changed), and because the new flows wouldn't be used for billing at all, it should reduce the risk of the wrong MPANs being billed.

The concern for this option is based on the fact that it is still necessary to validate that the correct data flow has been received against the MPAN thereby ensuring the correct billing is undertaken so Distributors may as well deal with it themselves if this reduces industry costs.

They already have a relationship between the LLFC and the MPAN so should be able to use this (as they do now) to determine whether to bill on a site-specific basis or not.

This is similar to what happened previously in the NHH market where some MPANs (PC1-4) were invoiced in aggregate by Settlement Class and the rest (PC5-8) were invoiced on a site specific basis. The Distributor undertook the responsibility to bill in the correct manner. The Distributor did not receive different D0010 data flows.

The group also discussed the use of such data for validation purposes. An alternative approach to receipt of the HH daily data is to make receipt optional and potentially receive aggregated monthly data in the form of a D0010.

However, after the original consultation the workgroup examined the responses and noted the fact that there was mixed support for a number of different options. The group decided that it would be prudent to consult further on this aspect.

The Group examined the benefits and drawbacks received for each option and for additional options considered alongside the views given during the latest working group meeting.

Option 1

| Data Flow | Pros | Cons |
|--|---|---|
| No data flow is sent (Data for new Measurement Classes received on D0030 from SVAA, but not from HHDC) | Reduces the need to send significant data flows on a daily basis. (29m/dayx2data flowsx2recipients) | Impacts Distributors ability to reconcile the aggregated bill and use of such data at a site level for network planning |
| | Avoids any potential double billing by the distributor. | |
| | Will avoid any data privacy issue of seeing customer HH data. | |

Option 2

| Data Flow | Pros | Cons |
|---|--|--|
| D0010 (in preference to the other data flow options) | Use of an existing data flow allows for all parties to receive the data as they do now, and results in no need to create new or amend existing data flows. | Increase in D0010 volume rather than on an ad hoc basis (29m monthly/quarterly/six monthly or spread over time). |
| | Receipt of data could be monthly/quarterly thereby reducing significantly the daily data flow traffic of the alternative data flow options (29m/dayx2data flowsx2recipients) | |
| | Will avoid any data privacy issue of seeing customer HH data. | |
| | Avoids any potential double billing. | |

Option 3

| Data Flow | Pros | Cons |
|--|--|--|
| D0036/D0275 (i.e. existing D0036/D0275 data flows used to send data for both old and new Measurement Classes) | Those who do not want to use the New Measurement Classes are unaffected since no change to existing data flow structure. | Distributors would have to have validation in place to avoid sending out a site specific bill as well as the aggregated bill for the new measurement classes in order to prevent double billing. |
| | | The RIGS would produce inaccurate reporting unless a change is agreed to the reporting requirements. This would need ofgem approval. |
| | | There may be a data privacy issue since |

| | | |
|--|--|--|
| | | this data will not be used for billing apart from validation of the bill and for network planning. |
| | | Significant daily data flow traffic across the industry (29m/dayx2data flowsx2recipients) |
| | | No means of identifying whether the data in the flow will be billed by the distributor on a site specific or aggregated basis. |

Option 4

| Data Flow | Pros | Cons |
|--|---|--|
| D0036A/D0275A (inclusion within the flow of the measurement Class data item) | Identifies by Measurement Class thereby aids understanding of what will be site specific billing and what will be aggregated billing undertaken by the distributor. | Distributors would have to have validation in place to avoid sending out a site specific bill as well as the aggregated bill for the new Measurement Classes |
| | | The RIGS would produce inaccurate reporting unless a change is agreed to the reporting requirements. This would need ofgem approval. |
| | | There may be a data privacy issue since this data will not be used for billing apart from validation of the bill and for network planning. |
| | | Those who do not want to use the new Measurement Classes will be affected due to the data flow structure changes. |
| | | Significant daily data flow traffic across the industry (29m/dayx2data flowsx2recipients) |

Option 5

| Data Flow | Pros | Cons |
|---|--|--|
| D0036E/D0275E (This provides for equivalent data flow structures of the D0036/D0275 and is used for MC F,G & H. (D0036/D0275 used for MC C&E) | Those who do not want to use the New Measurement classes are unaffected. | There may be a data privacy issue since this data will not be used for billing apart from validation of the bill and for network planning. |
| | Distributor billing is unaffected since they would not bill on these data flows. | Significant daily data flow traffic across the industry (29m/dayx2data flowsx2recipients) |
| | The RIGS reporting would not need to be changed. | |

The group also considered where the preferred option allowed, whether participants should have the ability to opt in/opt out of receiving data or should it be mandatory that data is sent.

Group Conclusions:

The responses received were mixed but there was a majority that favoured option 2. The Group noted that no option was going to be universally popular but agreed that on the strengths of the arguments that Option 2 was the most practical solution.

Additionally the group agreed with the majority of responses which stated that rather than having to cater for who has opted in / out, that for ease of implementation purposes it should be mandatory.

4 Timetable and Responsibilities

Timetable

| Assessment activity | Date |
|---|----------|
| Present IWA to Panel | 08/12/11 |
| P280 Modification Group meeting 1 | 12/01/12 |
| BSC Agent/ELEXON Impact Assessment / Consultation | 10/02/12 |
| P280 Modification Group meeting 2 | 15/03/12 |
| BSC Agent/ELEXON Impact Assessment / Consultation 2 | 30/04/12 |
| P280 Modification Group meeting 3 | 22/05/12 |
| Panel considers Assessment Report | 12/04/12 |

Modification Group's membership and attendance

| Member | Organisation | 12/01/12 | 15/03/12 | 22/05/12 |
|------------------------------------|-----------------------------------|----------|----------|----------|
| John Lawton (Proposer) | Electricity North West Limited | ✓ | ✓ | ✓ |
| Collette Baldwin | Eon Energy | ✓ | X | ✓ |
| Walter Hood | IBM | ✓ | ✓ | ✓ |
| Julie Woulds | IMServ | ✓ | ✓ | ✓ |
| Ian Goudge | SSE | ✓ | ✓ | ✓ |
| Peter Waymont | UK Power Networks | ✓ | ✓ | ✓ |
| Eric Graham | TMA Data Management | ✓ | X | X |
| Martin Damti | Northern Powergrid | ✓ | ✓ | |
| Phillip Russell | Independent | ✓ | ✓ | ✓ |
| Stacey Deakin | GTC | ✓ | ✓ | |
| Jane Griffiths | Central Networks | ✓ | ✓ | ✓ |
| Jonathan Amos / Joanna Campbell | Ofgem | ✓ | ✓ | ✓ |
| Kevin Woollard | British Gas | X | ✓ | ✓ |
| Jonathan Wisdom | Npower | X | ✓ | X |