

What stage is this document in the process?

| | |
|----|----------------------------|
| 01 | Initial Written Assessment |
| 02 | Definition Procedure |
| 03 | Assessment Procedure |
| 04 | Report Phase |
| 05 | Implementation Phase |

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

P300 introduces new Measurement Classes for aggregated Half Hourly-settled customers (for current transformer and whole current metered domestic, and whole current non-domestic markets). P300 builds on [Rejected Modification P280](#) and aligns with [DCUSA DCP179](#), which implements Half Hourly DCUSA tariff changes. P300 would enable DSOs to charge Suppliers on an aggregated basis as well as on a site specific basis.



The Authority has **approved** P300 for implementation on **5 November 2015**

This Modification impacts:

- Suppliers
- Distribution System Operators (DSOs)
- Supplier Meter Registration Agents (SMRAs)
- Half Hourly Data Aggregators (HHDAs)
- Half Hourly Data Collectors (HHDCs)
- Half Hourly Meter Operator Agents (HHMOAs)
- The Supplier Volume Allocation Agent (SVAA)
- ELEXON

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About This Document

The Authority has approved P300 Proposed Modification for implementation on **5 November 2015**, as part of the November 2015 BSC Systems Release.

This document sets out the final requirements for the P300 approved solution, for handover to the Release Manager. This version (v2.0) provides clarification and further detail.

For further background to P300, please refer to the P300 Final Modification Report, which is available on the [P300](#) page of the ELEXON website.



Any questions?

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Current arrangements

With the approval of [P272 'Mandatory Half Hourly Settlement for Profile Classes 5-8'](#), Metering Systems on Profile Class (PC) 5-8 with an advanced Meter will need to be Half Hourly (HH) settled from 1 April 2016. This will substantially increase the percentage of the market settled HH.

With the rollout of smart Meters, which are HH capable, Suppliers may opt to settle these HH. This will further increase the percentage of Metering Systems settled HH.

DUoS charges

For Non Half Hourly (NHH) Metering Systems, distribution network charges (also known as 'Distribution Use of System charges' or 'DUoS charges') are calculated on an aggregated basis. For HH settled customers, DUoS charges are calculated on a site specific basis.

Aggregated Data

The Balancing and Settlement Code (BSC) contains a number of provisions for providing Distribution System Operators (DSOs) with the metered data they need for charging purposes. Currently, HH Data Aggregators (HHDAs) for HH sites send the D0040 'Aggregated Half Hour Data File' data flow to the Supplier Volume Allocation Agent (SVAA). The D0040 data flow includes Consumption Component Classes (CCCs), which detail the aggregated data instead of the site specific data. However, the DSOs only receive the site specific data through the D0036 'Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix' and D0275 'Validated Half Hourly Advances' data flows, which they receive from the HH Data Collector (HHDC).

What is the issue?

Without any mechanism for DSOs to utilise and bill Suppliers on an aggregated basis, they will need to use site specific billing for HH settled Metering Systems. This will be disproportionately expensive and not reflective of the actual DUoS for some types of Metering System.

To ensure that DSOs have DUoS charges that are more reflective of the use of system (UoS) to better encourage the move to HH Settlement, Electricity North West raised approved Distribution Connection Use of System (DCUSA) Change Proposal [\(DCP\)179 'Amending the CDCM tariff structure'](#). DCP179 comes into effect on 1 April 2015 and amends the existing tariff structure by introducing HH metered tariffs for non-100kW connections. To enable this, it introduces new tariffs based on the receipt of HH aggregated data. It builds on the work undertaken by the Distribution Charging Methodologies Forum (DCMF) Methodologies Issue Group 22 (MIG 22), which is a sub-group that was formed by the DSOs and Suppliers to address the anomalies between the two different cost allocation mechanisms for HH and NHH tariffs in the Common Distribution Charging Methodology (CDCM).

DUoS Charges

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

Whilst the BSC contains provisions for providing DSOs with the metered data they need for charging purposes, these don't provide a mechanism for distinguishing between:

- HH settled customers whose network charges should be calculated on a site specific basis; and
- those whose network charges should be calculated on an aggregated basis.

P300 supports DCP179 by creating new Measurement Classes associated with HH aggregation under the BSC.



Approved solution

As of 5 November 2015 Measurement Class E will be split into three Measurement Classes (for HH Metering Systems that are not 100kW Metering Systems). It does this by renaming Measurement Class E and introducing two new Measurement Classes for HH sites, which will be used for aggregated DUoS billing, as follows:

- rename Measurement Class E to reflect that it is intended for HH current transformer (CT) metered Metering Systems that have site specific DUoS billing and are not 100kW Metering Systems;
- introduce new Measurement Class F for domestic HH CT and whole current (WC) Metering Systems that have aggregated DUoS billing and are not 100kW Metering Systems; and
- introduce new Measurement Class G for non-domestic HH WC metered Metering Systems that have aggregated DUoS billing and are not 100kW Metering Systems.

This will not mandate Suppliers to use the new Measurement Classes, who may continue to use Measurement Class C and the redefined Measurement Class E if the Metering System is HH settled. In addition, it does not mandate the migration to HH metering. P300 only facilitates the DCP179 changes by creating new Measurement Classes for aggregated DUoS billing.¹

Measurement Classes F and G will use the same CCCs as Measurement Class E, whether it is for import or export customers.

HHDAAs will need to implement the changes so that they can process the amended D0040 and D0298 'BM Unit Aggregated Half Hour Data File' data flows.

DSOs will need to specify which Standard Settlement Configuration (SSC)² should be used to report aggregated HH data for each relevant Line Loss Factor (LLF) Class (LLFC), since the D0030 'Non Half Hourly DUoS Report' data flow³ requires consumption data to be reported against an SSC.

The SVAA system will process the amended data flows and the mapping information in order to include the relevant data in the D0030 data flow that the DSOs use for aggregated DUoS billing.

HHDCs must not send D0036 and D0275 data flows to DSOs for the new Measurement Classes, but will instead send the D0010 'Meter Readings' data flow. Suppliers will not receive the D0010 data flow and will continue to receive the D0036 and D0275 data flows, which will include the precision of the metering data.

The Performance Level for Measurement Classes E, F and G will be 99% of energy settling on actual data at the First Reconciliation Volume Allocation Run (R1) with subsequent Settlement Runs also at 99%. Supplier Charges will be £0 for R1 and subsequent runs up to the Final Reconciliation Volume Allocation Run (RF), which will remain unchanged at £1.43 per chargeable MWh.

Does P300 mandate HH metering?

P300 does not mandate the migration to HH metering; it only facilitates the DCP179 changes by creating new Measurement Classes for aggregated DUoS billing. It also facilitates the migration to HH for PC 5-8 Metering Systems with Advanced Meters to comply with P272.

¹ However, DCP179 does mandate the use of the appropriate Measurement Class for DUoS billing purposes if a site is registered as HH.

² This will be an DSO SSC, and not a Supplier SSC. This will not be a default SSC such as an unrestricted SSC.

³ The Data Transfer Catalogue (DTC) changes will capture a revision to the title to reflect that this will now also include HH aggregated data.

Implementation Date

P300 will be implemented on **5 November 2015** as part of the November 2015 BSC Systems Release.

Scope

P300 will affect:

- Suppliers
- DSOs
- Supplier Meter Registration Agents (SMRAs)
- HHDAAs
- HHDCs
- HH Meter Operator Agents (HHMOAs)
- the SVAA
- ELEXON

P300 impacts a number of Data Transfer Catalogue (DTC) data flows, which will be raised as a separate DTC changes.

Impact on Code

P300 amends the following sections of the BSC:

- Section S Annex S-1
- Section S Annex S-2
- Section V
- Section W
- Section X Annex X-2

The approved BSC legal text can be found with the legal text.

Impact on CSDs and other Configurable Items

The following Code Subsidiary Documents (CSDs) and Configurable Items were identified during assessment as requiring changes in order to reflect the approved solution and can be found in Attachment A:

- BSC Procedure (BSCP) 502
- BSCP503
- BSCP507
- BSCP508
- BSCP536

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- Code of Practice (CoP) 10

The following CSDs and Configurable Items were identified during assessment as requiring changes in order to reflect the approved solution. However, no draft changes for these documents have been produced – these changes will need to be drafted and approved as part of the Release project:

- PARMS User Requirement Specification
- SVA Data Catalogue
- SVAA (ISRA) Conceptual Process Model
- SVAA (ISRA) Functional Definition & User Catalogue
- SVAA (ISRA) Logical Data Design
- SVAA (ISRA) Technical Specification
- SVAA User Requirement Specification

Updates may also be required to any Guidance Notes relating to the SVA arrangements as part of the implementation project. These were not identified during assessment.

Impact on BSC Systems

The solution will require changes to the Performance Assurance Reporting and Monitoring System (PARMS) systems, impacting the Business Processing Outsourcing (BPO) service provider only. This update is to amend existing PARMS Serials and add a new one in line with the approved solution.

The solution will also impact on the SVAA (ISRA) software, impacting both the Application Management and Development (AMD) and BPO service providers.

Impact on ELEXON

ELEXON will manage the P300 implementation (including overseeing/testing the system changes and updating the documents listed in Section 4).

Impact of other approved changes

Other approved changes, notably P272, may be impacted by approved P300 changes, and will also need to be considered. [Issue 59 'Consideration of the PARMS and Supplier Charge changes introduced by P272 and P300'](#) was raised to look further at PARMS and Supplier Charges following the approval of P272 and P300. The conclusions of which was that no change should be raised at this stage to Requirement 2.4 in Section 3.

3 Detailed Requirements

This section summarises the requirements for the approved solution to P300.

Solution requirements

Requirement 1

The BSC will split current Measurement Class E into three Measurement Classes.

| | |
|-----|---|
| 1.1 | The BSC will be modified to introduce new Measurement Class F for domestic HH CT and WC Metering Systems that have aggregated DUoS billing and are not 100kW Metering Systems. |
| 1.2 | The BSC will be modified to introduce new Measurement Class G for non-domestic HH WC metered Metering Systems that have aggregated DUoS billing and are not 100kW Metering Systems. |
| 1.3 | The BSC will be modified to rename Measurement Class E to reflect that it is intended for HH CT metered Metering Systems that have site specific DUoS billing and are not 100kW Metering Systems. |
| 1.4 | SMRAs must ensure that their Supplier Metering Registration Service (SMRS) systems are capable of accepting new Measurement Classes. |
| 1.5 | Suppliers will have the option of utilising the new Measurement Classes. However, it is the intention of DCP179 to ensure that Suppliers register the Metering Systems in the appropriate Measurement Classes to have the benefit of the applicable DUoS tariffs. |
| 1.6 | HHDA, HHDC and HHMOA will need to be able to process the new Measurement Classes within their systems. |
| 1.7 | The standing data items in the Market Domain Data (MDD) database will be updated with the new Measurement Classes. |

Requirement 2

The BSC will be modified to reflect that Measurement Classes E, F and G will have the same CCCs and Performance Levels.

| | |
|-----|---|
| 2.1 | The BSC will be modified to reflect that the six Import CCCs for Measurement Class E and the four Export CCCs used for Measurement Classes C and E would also be used for Measurement Classes F and G. |
| 2.2 | The BSC will be modified to reflect that the Performance Level for Measurement Classes E, F and G will be settling 99% of energy on actual data at R1 with subsequent Settlement Runs at 99%. |
| 2.3 | The PARMS will report the performance of settled energy on actual data for Measurement Classes E, F and G against PARMS Serial SP08c. |
| 2.4 | Supplier Charges will be amended in line with changes to Performance Levels. The Supplier Charge will be £0.00 for R1 and subsequent runs up to the RF Run, which will remain unchanged at £1.43 per chargeable MWh. ⁴ |

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⁴ Issue 59 'Consideration of the PARMS and Supplier Charge changes introduced by P272 and P300' will consider whether a material charge should be applied to R1 and subsequent runs up to RF.

Requirement 3

HHDA must ensure that all impacted parties receive data for all Metering Systems.

| | |
|-----|--|
| 3.1 | The BSCCo will raise a DTC CP to amend the D0040 and D0298 data flows to include new record types for the new Measurement Classes. These new record types will be similar to the existing D0040 and D0298 data flows. However, the consumption will be broken down by the J0189 'Distributor Id' and J0147 'Line Loss Factor Class Id' data items in addition to the J0084 'Supplier Id', J0066 'GSP Group Id' and J0160 'Consumption Component Class Id' data items. Because the new record types introduced into the D0040 and D0298 data flows apply only to the new Measurement Classes, a Supplier who is not using them will receive the D0040 and D0298 data flows with no data for the new record types. Further details of the changes can be found in section 1 of Appendix 1. |
| 3.2 | HHDA must be able to submit data to the SVAA, should they be appointed to a Metering System that is registered to one of the new Measurement Classes, using the amended D0040 and D0298. |
| 3.3 | The SVAA must be able to receive the revised D0040 and D0298 data flows. |

Requirement 4

The SVAA will aggregate data for Measurement Classes F and G, processing the amended D0040 and D0298 data flows into the existing D0030 and D0314 'Non Half Hourly Embedded Network DUoS Report' data flows.

| | |
|-----|---|
| 4.1 | Each DSO should provide the SSC ⁵ and Time Pattern Regimes (TPR) and where appropriate, the Clock Intervals, combinations for reporting each relevant LLFC, which DSOs would email to the SVAA. This flow will be designated within the SVA Data Catalogue. See Section 2 of Appendix 1 for further details. |
| 4.2 | The SVAA must load and validate the mapping flows. |

⁵ This will be an DSO SSC, and not a Supplier SSC. This will not be a default SSC such an unrestricted SSC.

| Requirement 4 | |
|---------------|---|
| 4.3 | <p>The SVAA must perform the following processing for each combination of J0084, J0066 and J0160 data items that has HH data:</p> <ul style="list-style-type: none"> Derive the Period Time Pattern States from the Clock Intervals in the mapping files. For each TPR, include a 'VMR' record, an 'SPX' record and a 'TOT' record in the output D0030 data flow: <ul style="list-style-type: none"> The VMR record will identify the J0189 and J0147 data items, plus the SSC from the lookup table, and the TPR. The PC will be reported as '0'. The EAC/AA data⁶ and SPM Default EAC MSID Count will be '0'. 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 TPR is 'ON', this will be the data provided by the HHDAs (summed across all HHDAs and all relevant CCCs). For periods where the TPR is 'OFF', this will be '0'. The TOT record will have the totals of the daily values on the SPX record. Map HH Counts for Period 1 as follows: <ul style="list-style-type: none"> Set SPM Total EAC MSID Count to the Data Aggregator HH MSID Count (for Settlement Period 1) from D0040/D0298 where CCC Id = 28, summed by Supplier, GSP Group, SSC Id, Distributor Id/LLFC Id. Set SPM Total AA MSID Count to the Data Aggregator HH MSID Count (for Settlement Period 1) from D0040/D0298 where CCC Id = 23, summed by Supplier, GSP Group, SSC Id, Distributor Id/LLFC Id. In both cases the TPRs for the same SSC will have the same count. See Section 6 of Appendix 1 for further details. |
| 4.4 | The SVAA must report the HH Aggregated data on the D0030 data flow against PC '0'. |
| 4.5 | The SVAA will include the HH data for the new Measurement Classes in the existing D0030 and D0314 data flows (used to report NHH consumption to DSOs), with no changes made to the structure of the data flows. |
| 4.6 | SMRAs will not include the DSO SSCs for Metering Systems on the new Measurement Classes in SMRS. |
| 4.7 | The DSO SSC and any related data will not be added into MDD. |

⁶ 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

The HHDC will provide the DSO with Cumulative Register reads using the D0010 data flow rather than the D0036 and D0275 data flows for Metering Systems using the new Measurement Classes F and G.

| | |
|-----|---|
| 5.1 | HHDCs must send the D0010 data flow to the DSO rather than the D0036 and D0275 data flows for Measurement Classes F and G. For the avoidance of doubt, the HHDC will continue to send the D0036 and D0275 data flows for Measurement Classes C and E. |
| 5.2 | The HHDC will still send the D0036 and D0275 data flows to the Supplier for Metering Systems registered to Measurement Classes F and G. The Supplier will not receive the D0010 data flow. |
| 5.3 | The HHDC will still send the D0036 data flow, and not the D0010 data flow, to the HHDA. |
| 5.4 | HHDCs must send the D0010 data flow for Measurement Classes F and G on a monthly basis. |
| 5.5 | Suppliers can validate to ensure that they don't receive site-specific invoices for Measurement Classes F and G Metering Systems, though this is not a mandatory requirement that would be imposed by implementation of P300. |

4 Impacts and Costs

Estimated central implementation costs of P300

The total indicative central implementation cost for P300 is approximately £120k. This comprises:

- approximately £112k in SVAA and PARMS costs (six months lead time); and
- approximately £8k (34 man days) in ELEXON effort.

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

The SVAA changes involve amending the SVAA system, which will need to process the amended data flows and the newly updated mapping information received. The SVAA has to include the relevant data in the D0030 data flow. The costs also include testing and deployment.

The proposed solution also impacts the PARMS Application, specifically the PARMS Serial SP08 'Energy and MSIDs on Actuals'. Whilst the data file structure sent from SVAA to the PARMS will not change, the changes to the Performance Level will require system changes.

The ELEXON costs include managing the implementation project and updating the relevant BSC Sections, CSDs and other documentation, and will include implementation of changes to reporting and processes.

P300 impacts

| Impact on BSC Parties and Party Agents | |
|--|---|
| Party/Party Agent | Impact |
| Suppliers | Suppliers will have the option of receiving bills based upon aggregated and site specific data. In the case of gaining a site that is utilising one of the new Measurement Classes, the Supplier will need to either re-register it (fulfilling any other requirements associated with that Measurement Class, such as ensuring applicable Metering Equipment installed appropriate to the Measurement Class) or amend its systems to accept the appointment. Suppliers may wish to validate their DUoS bills to ensure that they don't receive site-specific invoices for Measurement Class F and G Metering Systems. |
| DSOs | DSOs will need to change the way they operate and may need to amend billing systems. This may require new LLFCs and associated LLFs. In addition, all DSOs may need to make mid-year re-submissions for their LLFs. |
| SMRAs | SMRAs will need to ensure that the SSC for Metering Systems using the new Measurement Classes are not populated in SMRS. |
| HHDAs | HHDAs will need to change the way they generate aggregated |

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| Impact on BSC Parties and Party Agents | |
|--|--|
| Party/Party Agent | Impact |
| | data for submission to the SVAA. |
| HHDCs | HHDCs will need to change what data flows they send to DSOs. |
| HHMOAs | HHMOAs will need to be able to process the new Measurement Classes within their systems. |

| Impact on Transmission Company |
|--------------------------------|
| No impact. |

| Impact on BSCCo | |
|--------------------------|---|
| Area of ELEXON | Impact |
| Market Domain Data (MDD) | To add new valid values to MDD and process MDD Change Requests to enter the new Measurement Classes into MDD. |
| LLFs | There will be a need to process mid-year re-submissions for LLFs. |

| Impact on BSC Systems and process | |
|-----------------------------------|--|
| BSC System/Process | Impact |
| SVAA ('ISRA') Software | To introduce system changes to aggregate data. |
| PARMS | To update the new Performance Level and associated Supplier Charges. |

| Impact on Code | |
|---------------------|---|
| Code Section | Impact |
| Section S Annex S-1 | To reference Performance Levels for the new Measurement Classes and any changes to Supplier Charges. |
| Section S Annex S-2 | To add new sub aggregation by LLFC. |
| Section V | Description of data provided for DUoS reporting purposes. |
| Section W | Reference the new Measurement Classes and show which classes are relevant for NHH Trading Disputes. |
| Section X Annex X-2 | Include the summations and acronym updated in Annex S-2; expand the definitions of Measurement Class to include the redefined Measurement Class E and new Measurement Classes F and G; and extend definition of Consumption Level Indicator A to Measurement Classes F and G. |

| Impact on Code Subsidiary Documents | |
|--|--|
| CSD | Impact |
| BSCP502 | Reflect changes in respect to HHDCs. |
| BSCP503 | Reflect changes in respect to HHDA's. |
| BSCP507 | Reflect the provision of DSO mapping data to the SVAA. |
| BSCP508 | Reflect changes in respect to the SVAA. |
| BSCP536 | Reflect changes to Supplier Charges. |
| CoP10 | Reflect that Code of Practice (CoP) 10 will be used for new Measurement Classes F and G. |
| SVA Data Catalogue | <p>If P300 is approved, ELEXON will develop and consult on the necessary redlined changes as part of the implementation project to reflect any changes under the DTC.</p> <p>It will also introduce the new paper flow 'PXXX' for DSOs to provide mapping data to the SVAA, which will be given a unique reference number.</p> |
| SVAA (ISRA) Conceptual Process Model | The SVAA (ISRA) software documentations will be updated to reflect the changes to software and process. These will be updated as a consequential change. |
| SVAA (ISRA) Functional Definition & User Catalogue | |
| SVAA (ISRA) Logical Data Design | |
| SVAA (ISRA) Technical Specification | |
| SVAA User Requirement Specification | |

| Impact on other Configurable Items | |
|--------------------------------------|---|
| Configurable Item | Impact |
| PARMS User Requirement Specification | Amend the Performance Level for Measurement Class E and include Measurement Classes F and G in PARMS serial SP08c for PARMS reporting and Supplier Charges. |

| Other Impacts | |
|---|---|
| Item impacted | Impact |
| Distribution Connection and Use of System Agreement | As per DCP179. |
| Master Registration Agreement | Amendments to certain data flows under the DTC. |

1. INPUT FILES (D0040 and D0298)

Flow Reference: **D0040**

Flow Version: **00~~2~~3**

Status:

| | |
|--------------------------|--|
| Flow Name: | Aggregated Half Hour Data File |
| Flow Description: | Aggregated line loss adjusted HH consumption figures by Supplier and GSP Group. Where this flow is intended for the Supplier, the set of Suppliers will be limited to that Supplier only. |
| Flow Ownership: | BSC |

| From | To | Version |
|------|----------|---------|
| HHDA | Supplier | 3.0 |
| HHDA | SVAA | 6.0 |

Data Items:

| Reference | Item Name |
|--------------|----------------------------------|
| J0185 | Aggregated Supplier Consumption |
| J0186 | Aggregated Supplier Line Loss |
| J0160 | Consumption Component Class Id |
| J0241 | Data Aggregator HH MSID Count |
| <u>J0189</u> | <u>Distributor Id</u> |
| J1104 | GSP Group |
| <u>J0147</u> | <u>Line Loss Factor Class Id</u> |
| J1087 | Run Number |
| J1086 | Run Type Code |
| J0146 | Settlement Code |
| J0073 | Settlement Date |
| J0074 | Settlement Period Id |
| J0084 | Supplier Id |

Flow Structure:

| Group | Group Description | Range | Condition | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | Item Name |
|-------|---|-------|---|----|----|----|----|----|----|----|----|---------------------------------|
| ZPD | Data File Additional Header | 1 | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Settlement Date |
| | | | | | 1 | | | | | | | Settlement Code |
| | | | | | 1 | | | | | | | Run Type Code |
| | | | | | 1 | | | | | | | Run Number |
| | | | | | 1 | | | | | | | GSP Group |
| SUP | Supplier | 0-* | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Supplier Id |
| CCC | Consumption Component Class | 0-* | | G | | | | | | | | |
| | | | | | | 1 | | | | | | Consumption Component Class Id |
| SET | Settlement Period/Data Aggregator HH MSID Count | 0-* | | | G | | | | | | | |
| | | | | | | | 1 | | | | | Settlement Period Id |
| | | | | | | | 1 | | | | | Data Aggregator HH MSID Count |
| ASC | Aggregated Supplier Consumption | 1 | If Consumption | | | | G | | | | | |
| | | | | | | | | 1 | | | | Aggregated Supplier Consumption |
| ASL | Aggregated Supplier Line Loss | 1 | If Line Loss | | | | G | | | | | |
| | | | | | | | | 1 | | | | Aggregated Supplier Line Loss |
| SID | Supplier ID | 0-* | If Supplier has MPANs in Measurement Class 'F' or 'G' | G | | | | | | | | |
| | | | | | 1 | | | | | | | Supplier Id |
| CON | Consumption Component Class | 0-* | | | G | | | | | | | |
| | | | | | | 1 | | | | | | Consumption Component Class Id |
| LLL | Line Loss Factor Class | 0-* | | | G | | | | | | | |
| | | | | | | | 1 | | | | | Distributor Id |
| | | | | | | | 1 | | | | | Line Loss Factor Class Id |
| SPD | Settlement Period/Data Aggregator HH MSID Count | 0-* | | | | | G | | | | | |
| | | | | | | | | 1 | | | | Settlement Period Id |
| | | | | | | | | 1 | | | | Data Aggregator HH MSID Count |
| AGG | Aggregated Supplier Consumption | 1 | If Consumption | | | | G | | | | | |
| | | | | | | | | | 1 | | | Aggregated Supplier Consumption |
| ALL | Aggregated Supplier Line Loss | 1 | If Line Loss | | | | G | | | | | |
| | | | | | | | | | 1 | | | Aggregated Supplier Line Loss |

Flow Reference: **D0298**

Flow Version: **0023**

Status:

| | |
|-------------------|---|
| Flow Name: | BM Unit Aggregated Half Hour Data File |
| Flow Description: | Aggregated line loss adjusted HH consumption/generation figures in a GSP Group by Supplier and BM Unit. |
| Flow Ownership: | BSC |

| From | To | Version |
|------|----------|---------|
| HHDA | Supplier | 5.1 |
| HHDA | SVAA | 5.1 |

Data Items:

| Reference | Item Name |
|--------------|----------------------------------|
| J1629 | Aggregated BM Unit Energy |
| J1630 | Aggregated BM Unit Line Losses |
| J1628 | BM Unit Id |
| J0160 | Consumption Component Class Id |
| J0241 | Data Aggregator HH MSID Count |
| <u>J0189</u> | <u>Distributor Id</u> |
| J1104 | GSP Group |
| <u>J0147</u> | <u>Line Loss Factor Class Id</u> |
| J1087 | Run Number |
| J1086 | Run Type Code |
| J0146 | Settlement Code |
| J0073 | Settlement Date |
| J0074 | Settlement Period Id |
| J0084 | Supplier Id |

Flow Structure:

| Group | Group Description | Range | Condition | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | Item Name |
|------------|--|------------|--|----------|----------|----------|----------|----------|----------|----|----|---------------------------------------|
| ZPD | Data File Additional Header | 1 | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Settlement Date |
| | | | | | 1 | | | | | | | Settlement Code |
| | | | | | 1 | | | | | | | Run Type Code |
| | | | | | 1 | | | | | | | Run Number |
| | | | | | 1 | | | | | | | GSP Group |
| SUP | Supplier | 1-* | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Supplier Id |
| BMU | BM Unit | 1-* | | G | | | | | | | | |
| | | | | | | 1 | | | | | | BM Unit Id |
| CCC | Consumption Component Class | 0-* | | | | G | | | | | | |
| | | | | | | | 1 | | | | | Consumption Component Class Id |
| SET | Settlement Period / Data Aggregator HH MSID Count | 0-* | | | | | G | | | | | |
| | | | | | | | | 1 | | | | Settlement Period Id |
| | | | | | | | | 1 | | | | Data Aggregator HH MSID Count |
| ABE | Aggregated BM Unit Energy | 1 | If consumption or generation | | | | | G | | | | |
| | | | | | | | | | 1 | | | Aggregated BM Unit Energy |
| ABL | Aggregated BM Unit Line Losses | 1 | If Line Loss | | | | | G | | | | |
| | | | | | | | | | 1 | | | Aggregated BM Unit Line Losses |
| <u>SID</u> | <u>Supplier ID</u> | <u>0-*</u> | <u>If Supplier has MPANs in Measurement Class 'F' or 'G'</u> | <u>G</u> | | | | | | | | |
| | | | | | 1 | | | | | | | <u>Supplier Id</u> |
| <u>BMT</u> | <u>BM Unit</u> | <u>1-*</u> | | | <u>G</u> | | | | | | | |
| | | | | | | 1 | | | | | | <u>BM Unit Id</u> |
| <u>CON</u> | <u>Consumption Component Class</u> | <u>0-*</u> | | | | <u>G</u> | | | | | | |
| | | | | | | | 1 | | | | | <u>Consumption Component Class Id</u> |
| <u>LLL</u> | <u>Line Loss Factor Class</u> | <u>0-*</u> | | | | | <u>G</u> | | | | | |
| | | | | | | | | 1 | | | | <u>Distributor Id</u> |
| | | | | | | | | 1 | | | | <u>Line Loss Factor Class Id</u> |
| <u>SPD</u> | <u>Settlement Period / Data Aggregator HH MSID Count</u> | <u>0-*</u> | | | | | | <u>G</u> | | | | |
| | | | | | | | | | 1 | | | <u>Settlement Period Id</u> |
| | | | | | | | | | 1 | | | <u>Data Aggregator HH MSID Count</u> |
| <u>AGG</u> | <u>Aggregated BM Unit Energy</u> | <u>1</u> | <u>If consumption or generation</u> | | | | | | <u>G</u> | | | |
| | | | | | | | | | | 1 | | <u>Aggregated BM Unit Energy</u> |
| <u>ABM</u> | <u>Aggregated BM Unit Line Losses</u> | <u>1</u> | <u>If Line Loss</u> | | | | | | <u>G</u> | | | |
| | | | | | | | | | | 1 | | <u>Aggregated BM Unit Line Losses</u> |

2. MAPPING FILE

The following will be recorded in MDD:

- Line Loss Factor Class
- Valid MTC LLFC Combination.

LDSOs will need to use existing Line Loss Factor Classes or have created new ones for each combination of Measurement Class and voltage band needed for DCP179 charging. Line Loss Factors will need to have been provided for any new Line Loss Factor Classes. These LLFCs will be mapped to SSCs using a P-flow, as defined below. The SVAA system will need a file load function. The P-flow will be in DTC-style pipe-delimited format to allow for transition to a D-flow at a future date, if required.

| Group | Group Description | Range | Condition | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | Item Name |
|-------|-----------------------------------|-------|-----------|----|----|----|----|----|----|----|----|---|
| LLF | LLF/SSC Mapping | 1-* | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Distributor Id |
| | | | | | 1 | | | | | | | Line Loss Factor Class Id |
| | | | | | 1 | | | | | | | Standard Settlement Configuration Id |
| | | | | | 1 | | | | | | | Effective From Settlement Date {LLFSSC} |
| SSC | Standard Settlement Configuration | 0-* | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Standard Settlement Configuration Id |
| | | | | | 1 | | | | | | | Standard Settlement Configuration Desc |
| | | | | | 1 | | | | | | | Effective from Settlement Date {SSC} |
| | | | | | 0 | | | | | | | Effective to Settlement Date {SSC} |
| | | | | | 1 | | | | | | | Standard Settlement Configuration Type |
| TPR | Measurement Requirement | 1-* | | G | | | | | | | | |
| | | | | | | 1 | | | | | | Time Pattern Regime Id |
| CKI | Clock Intervals | 1-* | | | G | | | | | | | |
| | | | | | | | 1 | | | | | Day of the Week Id |
| | | | | | | | 1 | | | | | Start Day |
| | | | | | | | 1 | | | | | Start Month |
| | | | | | | | 1 | | | | | End Day |
| | | | | | | | 1 | | | | | End Month |
| | | | | | | | 1 | | | | | Start Time |
| | | | | | | | 1 | | | | | End Time |

Please note that if IDNOs use the same SSC, Measurement Requirements and Clock Intervals as DNOs, they will only need to provide the LLF Group. The SSC Group has been changed from one-to-many to zero-to-many in version 5 of this document.

SSC/TPR Numbering Convention

The SSCs and associated TPRs and Clock Intervals will not be registered in MDD. In order to ensure that 'dummy' SSCs and TPRs are kept distinct from 'real' SSCs and TPRs, a numbering convention will be used.

SSCs will be of the form 9SCn where 9 is a constant and SC = the Distributor Short Code for the host DNO for the relevant GSP Group. The final integer n will be numbered from 1 and will be incremented if new SSCs need to be created as a result of changes to the red/amber/green periods.

TPRs will be of the form 9SCn1, 9SCn2 and 9SCn3, where 1, 2 and 3 represent red, amber and green respectively.

| SSC/TPR Numbering Convention | | | |
|------------------------------|----------------------------|------|---|
| GSP Group ID | GSP Group | SSC | TPRs |
| _A | Eastern | 9101 | 91011 - Red 91012 - Amber 91013 - Green |
| _B | East Midlands | 9111 | 91111 91112 91113 |
| _C | London | 9121 | 91211 91212 91213 |
| _D | Merseyside and North Wales | 9131 | 91311 91312 91313 |
| _E | Midlands | 9141 | 91411 91412 91413 |
| _F | Northern | 9151 | 91511 91512 91513 |
| _G | North Western | 9161 | 91611 91612 91613 |
| _H | Southern | 9201 | 92011 92012 92013 |
| _J | South Eastern | 9191 | 91911 91912 91913 |
| _K | South Wales | 9211 | 92111 92112 92113 |
| _L | South Western | 9221 | 92211 92212 92213 |
| _M | Yorkshire | 9231 | 92311 92312 92313 |
| _N | South Scotland | 9181 | 91811 91812 91813 |

| SSC/TPR Numbering Convention | | | |
|------------------------------|----------------|------|-------------------------|
| GSP Group ID | GSP Group | SSC | TPRs |
| _P | North Scotland | 9171 | 91711 91712 91713 |

Example

LLF|SWAE|116|9211|20151101
LLF|SWAE|117|9211|20151101
LLF|SWAE|118|9211|20151101
LLF|SWAE|119|9211|20151101
SSC|9211|South Wales GSP Group MC F and G||I
TPR|92111
CKI|1|1|1|31|12|170000|193000
CKI|2|1|1|31|12|170000|193000
CKI|3|1|1|31|12|170000|193000
CKI|4|1|1|31|12|170000|193000
CKI|5|1|1|31|12|170000|193000
TPR|92112
CKI|1|1|1|31|12|073000|170000
CKI|1|1|1|31|12|193000|220000
CKI|2|1|1|31|12|073000|170000
CKI|2|1|1|31|12|193000|220000
CKI|3|1|1|31|12|073000|170000
CKI|3|1|1|31|12|193000|220000
CKI|4|1|1|31|12|073000|170000
CKI|4|1|1|31|12|193000|220000
CKI|5|1|1|31|12|073000|170000
CKI|5|1|1|31|12|193000|220000
CKI|6|1|1|31|12|120000|130000
CKI|6|1|1|31|12|160000|210000
CKI|7|1|1|31|12|120000|130000
CKI|7|1|1|31|12|160000|210000
TPR|92113
CKI|1|1|1|31|12|000000|073000
CKI|1|1|1|31|12|220000|240000
CKI|2|1|1|31|12|000000|073000
CKI|2|1|1|31|12|220000|240000
CKI|3|1|1|31|12|000000|073000
CKI|3|1|1|31|12|220000|240000
CKI|4|1|1|31|12|000000|073000
CKI|4|1|1|31|12|220000|240000
CKI|5|1|1|31|12|000000|073000
CKI|5|1|1|31|12|220000|240000
CKI|6|1|1|31|12|000000|120000
CKI|6|1|1|31|12|130000|160000
CKI|6|1|1|31|12|210000|240000
CKI|7|1|1|31|12|000000|120000
CKI|7|1|1|31|12|130000|160000
CKI|7|1|1|31|12|210000|240000

Please note that midnight (start of day) is always expressed as 000000 and midnight (end of day) as 240000.

Processing the Mapping File

The SVAA will use the Clock Intervals within the mapping data to create Period Time Pattern State Indicators (QR_j), where Q is a 1 or a 0, R is the SSC/TPR combination and J is a Settlement Period (on a particular Settlement Date).

The existing 'Day of the Week' lookup (from MDD) will be used to determine which Clock Interval Record (1 to 7) should be used for the relevant Settlement Date.

Effective From Settlement Date {LLFSSC} will be used to determine which SSC to map LLFC data to on a given Settlement Date. This allows for new SSCs with different TPRs and Clock Intervals to sit alongside older SSCs.

3. Other Options Considered

An alternative to the P-flow would be to set up data in the following MDD tables:

- Standard Settlement Configuration
- Time Pattern Regime
- Measurement Requirement
- Clock Interval
- Valid MTC SSC Combinations
- Valid MTC LLFC SSC Combinations

The following will be recorded in MDD under any option:

- Line Loss Factor Class
- Valid MTC LLFC Combination.

Under this option, the SVAA system would derive the Period Time Pattern State Indicators of 1 or 0 from the Clock Interval table in MDD. The LLFC-SSC mappings would be taken from the 'Valid MTC LLFC SSC Combinations' table in MDD. There would be no need for a P-flow.

A number of additional MDD tables would not need to be populated for the purposes of the solution. But they would normally be needed in relation to the SSC, Time Pattern Regime and Measurement Requirement tables. These are:

- Profile Class (a zero value might be needed);
- Valid Settlement Configuration Profile Class;
- Valid Measurement Requirement Profile Class;
- Valid MTC LLFC SSC PC Combination.

There are a number of problems with this option:

- it is not the solution agreed in the P300 Final Report, which states in Requirement 4.7 that the 'DSO SSC and any related data will not be added into MDD';
- it does not include a P-flow, which included in the P300 Final Report and the approved BSCP red-lining;

- It would rely on a Supplier sponsoring the MDD Change Request, as not all relevant entities can be proposed by LDSOs under the BSCP509 rules, and without a willing sponsor we would be left without a workable solution;
- It would rely on SVG approval of the MDD changes, without which we would be left without a workable solution;
- The process for loading MDD into the SVAA system would require thorough testing to ensure the feasibility of the solution (i.e. to ensure that the SSC tables could be loaded without the Profile Class combination tables;
- An industry consultation would be needed to ensure that setting up HH SSCs without the related Profile Class entities would not cause any failures to load MDD in any market participant systems (of which there are hundreds);
- Additional analysis and testing would be required to ensure that HH SSCs and TPRs would not have any adverse impact on the Daily Profile Production process;
- Whilst the testing/consultation described in the last three bullets is feasible, it would delay the design phase of P300 delivery for the central system developer to the extent that the November release date could not be met.

4. OUTPUT FILE (D0030)

Flow Reference: **D0030**

Flow Version: **001**

Status: Operational

| | |
|-------------------|--|
| Flow Name: | Non Half Hourly Aggregated DUoS Report |
| Flow Description: | A report of profiled SPM data by settlement class summed over Data Aggregator and Distributor. The Distributor will receive one report per Supplier. The report also includes domain data. In part one where the information is sent to the Distributor it will contain all Suppliers, whereas where the information is sent to the Supplier it will contain only data pertaining to that Supplier.. |
| Flow Ownership: | BSC |

| From | To | Version |
|------|-------------|---------|
| SVAA | Distributor | 6.0 |
| SVAA | Supplier | 6.0 |

Data Items:

| Reference | Item Name |
|-----------|---|
| J0161 | AA/EAC Indicator |
| J0020 | Actual/Estimated Indicator |
| J0244 | BSC Trading Party Id |
| J0160 | Consumption Component Class Id |
| J0162 | Consumption Component Indicator |
| J0884 | Daily Profiled SPM Total Annualised Advance |
| J0885 | Daily Profiled SPM Total EAC |
| J0163 | Data Aggregation Type |
| J0189 | Distributor Id |
| J0323 | Distributor Name |
| J1104 | GSP Group |
| J0166 | GSP Group Correction Factor |
| J0165 | GSP Group Correction Scaling Factor |
| J0066 | GSP Group Id |
| J0269 | GSP Group Name |
| J0147 | Line Loss Factor Class Id |
| J0103 | Measurement Quantity Id |
| J0164 | Metered/Unmetered Indicator |
| J1103 | Profile Class |
| J1292 | Profiled SPM Consumption (Settlement Period 01) |
| ... | (repeat for periods 2-49) |
| J1360 | Profiled SPM Consumption (Settlement Period 50) |
| J1090 | Report Parameters |
| J1087 | Run Number |
| J1086 | Run Type Code |
| J0146 | Settlement Code |
| J0882 | Settlement Code Description |
| J0073 | Settlement Date |
| J0074 | Settlement Period Id |
| J0167 | Settlement Period Label |
| J0190 | SPM Default EAC MSID Count |
| J0153 | SPM Total AA MSID Count |
| J1296 | SPM Total All EACs |
| J1195 | SPM Total Annualised Advance Report Value |
| J0150 | SPM Total EAC MSID Count |
| J0195 | SSR Run Date |
| J0196 | SSR Run Number |

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| Reference | Item Name |
|-----------|--------------------------------------|
| J0197 | SSR Run Type Id |
| J0076 | Standard Settlement Configuration Id |
| J0084 | Supplier Id |
| J0248 | Supplier Name |
| J0078 | Time Pattern Regime |
| J1089 | User Name |

Flow Structure:

| Group | Group Description | Range | Condition | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | Item Name |
|-------|-----------------------------|-------|---------------------------|----|----|----|----|----|----|----|----|---|
| ZPD | Data File Additional Header | 1 | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Settlement Date |
| | | | | | 1 | | | | | | | Settlement Code |
| | | | | | 1 | | | | | | | Run Type Code |
| | | | | | 1 | | | | | | | Run Number |
| | | | | | N | | | | | | | GSP Group |
| RDT | | 1 | | G | | | | | | | | |
| | | | | | 1 | | | | | | | User Name |
| | | | | | 1 | | | | | | | Report Parameters |
| HDR | | 1 | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Settlement Date |
| | | | | | 1 | | | | | | | Settlement Code |
| | | | | | 1 | | | | | | | Settlement Code Description |
| | | | | | 1 | | | | | | | SSR Run Date |
| | | | | | 1 | | | | | | | SSR Run Number |
| | | | | | 1 | | | | | | | SSR Run Type Id |
| SUP | | 1 | If Report is for Supplier | G | | | | | | | | |
| | | | | | 1 | | | | | | | Supplier Id |
| | | | | | 1 | | | | | | | Supplier Name |
| | | | | | 1 | | | | | | | BSC Trading Party Id |
| DIS | | 0-* | | G | | | | | | | | |
| | | | | | | 1 | | | | | | Distributor Id |
| | | | | | | 1 | | | | | | Distributor Name |
| GP1 | | 0-* | | | | G | | | | | | |
| | | | | | | | 1 | | | | | GSP Group Id |
| | | | | | | | 1 | | | | | GSP Group Name |
| VMR | | 0-* | | | | G | | | | | | |
| | | | | | | | | 1 | | | | Profile Class |
| | | | | | | | | 1 | | | | Standard Settlement Configuration Id |
| | | | | | | | | 1 | | | | Distributor Id |
| | | | | | | | | 1 | | | | Line Loss Factor Class Id |
| | | | | | | | | 1 | | | | Time Pattern Regime |
| | | | | | | | | 1 | | | | SPM Total All EACs |
| | | | | | | | | 1 | | | | SPM Total Annualised Advance Report Value |
| | | | | | | | | 1 | | | | SPM Total EAC MSID Count |
| | | | | | | | | 1 | | | | SPM Total AA MSID Count |
| | | | | | | | | 1 | | | | SPM Default EAC MSID Count |

| | | | | | | | | | | | | |
|-----|--|-----|---------------------------------|---|---|---|---|---|---|--|--|--|
| SPX | | 1 | | | | | | G | | | | |
| | | | | | | | | | 1 | | | Profiled SPM Consumption (Settlement Period 01) |
| | | | | | | | | | 1 | | | (repeat for periods 2-46) |
| | | | | | | | | | O | | | Profiled SPM Consumption (Settlement Period 47) |
| | | | | | | | | | O | | | (repeat for Periods 48-50) |
| TOT | | 1 | | | | | | G | | | | |
| | | | | | | | | | 1 | | | Daily Profiled SPM Total EAC |
| | | | | | | | | | 1 | | | Daily Profiled SPM Total Annualised Advance |
| SUP | | 0-* | If Report is for Distributor | G | | | | | | | | |
| | | | | | 1 | | | | | | | Supplier Id |
| | | | | | 1 | | | | | | | Supplier Name |
| | | | | | 1 | | | | | | | BSC Trading Party Id |
| DIS | | 1 | | G | | | | | | | | |
| | | | | | | 1 | | | | | | Distributor Id |
| | | | | | | 1 | | | | | | Distributor Name |
| GPI | | 0-* | | | | G | | | | | | |
| | | | | | | | 1 | | | | | GSP Group Id |
| | | | | | | | 1 | | | | | GSP Group Name |
| VMR | | 0-* | | | | | G | | | | | |
| | | | | | | | | 1 | | | | Profile Class |
| | | | | | | | | 1 | | | | Standard Settlement Configuration Id |
| | | | | | | | | 1 | | | | Distributor Id |
| | | | | | | | | 1 | | | | Line Loss Factor Class Id |
| | | | | | | | | 1 | | | | Time Pattern Regime |
| | | | | | | | | 1 | | | | SPM Total All EACs |
| | | | | | | | | 1 | | | | SPM Total Annualised Advance Report Value |
| | | | | | | | | 1 | | | | SPM Total EAC MSID Count |
| | | | | | | | | 1 | | | | SPM Total AA MSID Count |
| | | | | | | | | 1 | | | | SPM Default EAC MSID Count |
| SPX | | 1 | | | | | | G | | | | |
| | | | | | | | | | 1 | | | Profiled SPM Consumption (Settlement Period 01) |
| | | | | | | | | | 1 | | | (repeat for periods 2-46) |
| | | | | | | | | | O | | | Profiled SPM Consumption (Settlement Period 47) |
| | | | | | | | | | O | | | (repeat for periods 48-50) |
| TOT | | 1 | | | | | | G | | | | |
| | | | | | | | | | 1 | | | Daily Profiled SPM Total EAC |
| | | | | | | | | | 1 | | | Daily Profiled SPM Total Annualised Advance |
| HD2 | | 1 | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Settlement Date |
| | | | | | 1 | | | | | | | Settlement Code |
| | | | | | 1 | | | | | | | Settlement Code Description |
| | | | | | 1 | | | | | | | SSR Run Date |
| | | | | | 1 | | | | | | | SSR Run Number |
| | | | | | 1 | | | | | | | SSR Run Type Id |

| | | | | | | | | | | | | | | | |
|-----|--|-----|------------------------------|---|---|--|--|--|--|--|--|--|--|--|-------------------------------------|
| SU2 | | 1 | If Report is for Supplier | G | | | | | | | | | | | |
| | | | | | 1 | | | | | | | | | | Supplier Id |
| | | | | | 1 | | | | | | | | | | Supplier Name |
| CCC | | 0-* | | G | | | | | | | | | | | |
| | | | | | 1 | | | | | | | | | | Consumption Component Class Id |
| | | | | | O | | | | | | | | | | AA/EAC Indicator |
| | | | | | O | | | | | | | | | | Actual/Estimated Indicator |
| | | | | | 1 | | | | | | | | | | Data Aggregation Type |
| | | | | | 1 | | | | | | | | | | Metered/Unmetered Indicator |
| | | | | | 1 | | | | | | | | | | Consumption Component Indicator |
| | | | | | 1 | | | | | | | | | | Measurement Quantity Id |
| | | | | | 1 | | | | | | | | | | GSP Group Correction Scaling Factor |
| SP2 | | 0-* | | G | | | | | | | | | | | |
| | | | | | 1 | | | | | | | | | | GSP Group Id |
| | | | | | 1 | | | | | | | | | | GSP Group Name |
| | | | | | 1 | | | | | | | | | | Settlement Period Id |
| | | | | | 1 | | | | | | | | | | Settlement Period Label |
| | | | | | 1 | | | | | | | | | | GSP Group Correction Factor |
| SUP | | 0-* | If Report is for Distributor | G | | | | | | | | | | | |
| | | | | | 1 | | | | | | | | | | Supplier Id |
| | | | | | 1 | | | | | | | | | | Supplier Name |
| | | | | | 1 | | | | | | | | | | BSC Trading Party Id |
| CCC | | 0-* | | G | | | | | | | | | | | |
| | | | | | 1 | | | | | | | | | | Consumption Component Class Id |
| | | | | | O | | | | | | | | | | AA/EAC Indicator |
| | | | | | O | | | | | | | | | | Actual/Estimated Indicator |
| | | | | | 1 | | | | | | | | | | Data Aggregation Type |
| | | | | | 1 | | | | | | | | | | Metered/Unmetered Indicator |
| | | | | | 1 | | | | | | | | | | Consumption Component Indicator |
| | | | | | 1 | | | | | | | | | | Measurement Quantity Id |
| | | | | | 1 | | | | | | | | | | GSP Group Correction Scaling Factor |
| SP2 | | 0-* | | G | | | | | | | | | | | |
| | | | | | 1 | | | | | | | | | | GSP Group Id |
| | | | | | 1 | | | | | | | | | | GSP Group Name |
| | | | | | 1 | | | | | | | | | | Settlement Period Id |
| | | | | | 1 | | | | | | | | | | Settlement Period Label |
| | | | | | 1 | | | | | | | | | | GSP Group Correction Factor |

5. OUTPUT FILE (D0314)

| | |
|--------------------------|---|
| Flow Name: | Non Half Hourly Embedded Network DUoS Report |
| Flow Description: | A report of profiled SPM data by settlement class for Metering Points on embedded networks, summed over Data Aggregator and Supplier. This report is sent to Host LDSOs (as defined in BSC Procedure BSCP128), and includes data for all embedded networks within their distribution services area. |
| Flow Ownership: | BSC |

| From | To | Version |
|------|-------------|---------|
| SVAA | Distributor | 6.0 |
| SVAA | Supplier | 6.0 |

Data Items:

| Reference | Item Name |
|-----------|---|
| J0244 | BSC Trading Party Id |
| J0884 | Daily Profiled SPM Total Annualised Advance |
| J0885 | Daily Profiled SPM Total EAC |
| J0189 | Distributor Id |
| J0323 | Distributor Name |
| J1724 | Embedded Distributor Id |
| J1741 | Embedded Distributor Name |
| J1104 | GSP Group |
| J0066 | GSP Group Id |
| J0269 | GSP Group Name |
| J0147 | Line Loss Factor Class Id |
| J1103 | Profile Class |
| J1292 | Profiled SPM Consumption (Settlement Period 01) |
| ... | (repeat for periods 2-49) |
| J1360 | Profiled SPM Consumption (Settlement Period 50) |
| J1090 | Report Parameters |
| J1087 | Run Number |
| J1086 | Run Type Code |
| J0146 | Settlement Code |
| J0882 | Settlement Code Description |
| J0073 | Settlement Date |
| J0190 | SPM Default EAC MSID Count |
| J0153 | SPM Total AA MSID Count |
| J1296 | SPM Total All EACs |
| J1195 | SPM Total Annualised Advance Report Value |
| J0150 | SPM Total EAC MSID Count |
| J0195 | SSR Run Date |
| J0196 | SSR Run Number |
| J0197 | SSR Run Type Id |
| J0076 | Standard Settlement Configuration Id |
| J0078 | Time Pattern Regime |
| J1089 | User Name |

Flow Structure:

| Group | Group Description | Range | Condition | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | Item Name |
|-------|-----------------------------|-------|-----------|----|----|----|----|----|----|----|----|---|
| ZPD | Data File Additional Header | 1 | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Settlement Date |
| | | | | | 1 | | | | | | | Settlement Code |
| | | | | | 1 | | | | | | | Run Type Code |
| | | | | | 1 | | | | | | | Run Number |
| | | | | | N | | | | | | | GSP Group |
| RDT | Report Parameters | 1 | | G | | | | | | | | |
| | | | | | 1 | | | | | | | User Name |
| | | | | | 1 | | | | | | | Report Parameters |
| HDR | Settlement Information 1 | 1 | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Settlement Date |
| | | | | | 1 | | | | | | | Settlement Code |
| | | | | | 1 | | | | | | | Settlement Code Description |
| | | | | | 1 | | | | | | | SSR Run Date |
| | | | | | 1 | | | | | | | SSR Run Number |
| | | | | | 1 | | | | | | | SSR Run Type Id |
| 84G | Embedded Distributor | 0-* | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Embedded Distributor Id |
| | | | | | 1 | | | | | | | Embedded Distributor Name |
| | | | | | N | | | | | | | BSC Trading Party Id |
| DIS | Distributor | 1 | | G | | | | | | | | |
| | | | | | | 1 | | | | | | Distributor Id |
| | | | | | | 1 | | | | | | Distributor Name |
| GPI | GSP Group | 0-* | | | | G | | | | | | |
| | | | | | | | 1 | | | | | GSP Group Id |
| | | | | | | | 1 | | | | | GSP Group Name |
| 85G | SPM Information | 0-* | | | | | G | | | | | |
| | | | | | | | | 1 | | | | Profile Class |
| | | | | | | | | 1 | | | | Standard Settlement Configuration Id |
| | | | | | | | | 1 | | | | Embedded Distributor Id |
| | | | | | | | | 1 | | | | Line Loss Factor Class Id |
| | | | | | | | | 1 | | | | Time Pattern Regime |
| | | | | | | | | 1 | | | | SPM Total All EACs |
| | | | | | | | | 1 | | | | SPM Total Annualised Advance Report Value |
| | | | | | | | | 1 | | | | SPM Total EAC MSID Count |
| | | | | | | | | 1 | | | | SPM Total AA MSID Count |
| | | | | | | | | 1 | | | | SPM Default EAC MSID Count |
| SPX | Settlement Periods | 1 | | | | | | G | | | | |
| | | | | | | | | | 1 | | | Profiled SPM Consumption (Settlement Period 01) |
| | | | | | | | | | 1 | | | (repeat for periods 2-46) |
| | | | | | | | | | 1 | | | Profiled SPM Consumption (Settlement Period 46) |
| | | | | | | | | | O | | | (repeat for periods 48-50) |
| | | | | | | | | | O | | | |
| TOT | Daily SPM | 1 | | | | | | G | | | | |
| | | | | | | | | | 1 | | | Daily Profiled SPM Total EAC |
| | | | | | | | | | 1 | | | Daily Profiled SPM Total Annualised Advance |
| HD2 | Settlement Information 2 | 1 | | G | | | | | | | | |
| | | | | | 1 | | | | | | | Settlement Date |
| | | | | | 1 | | | | | | | Settlement Code |
| | | | | | 1 | | | | | | | Settlement Code Description |
| | | | | | 1 | | | | | | | SSR Run Date |
| | | | | | 1 | | | | | | | SSR Run Number |
| | | | | | 1 | | | | | | | SSR Run Type Id |

| | |
|---------------|--|
| Notes: | <p>The references to Embedded Distributor Id in Group 84G should be populated with the Distributor identified as operating the relevant sub-network i.e. having the relationship with the Supplier for the Metering Point(s).</p> <p>In all other instances, the Distributor should be populated as that operating as the Host LDSO (as defined in the BSC Procedure BSCP128).</p> |
|---------------|--|

6. PROCESSING

The table below shows the level of aggregation in the input (D0040/D0298) and output (D0030) flows. Where there is a mapping the energy/MSID count is carried across from the D0040/D0298 to the D0030 (depending on the CCC, see below). Otherwise the energy/MSID count is aggregated (again depending on the CCC, see below).

Please note that the D0314 flow should be populated according to the same rules.

| Level of Aggregation | | |
|--|------------------|----------------------------|
| Data Item | D0040/D0298 | D0030 |
| HHDA | YES | NO |
| GSP Group ID | YES | YES |
| Supplier | YES | YES |
| BM Unit ID | YES (D0298 only) | NO |
| Consumption Component Class Id | YES | NO (see D0030 mapping) |
| Distributor Id / Line Loss Factor Class Id | YES | YES |
| Profile Class | NO | YES (Set to 0) |
| Standard Settlement Configuration Id | NO | YES (from mapping records) |
| Time Pattern Regime | NO | YES (from mapping records) |

The additional 'XXX' records in the D0040/D0298 will contain records for six Consumption Component Classes. The only data used in the P300 solution will be those for CCCs 23 and 28.

| Relevant Consumption Component Classes | | |
|--|------------------------------------|-----------------|
| CCC ID | Description | Actual/Estimate |
| 23 | Consumption | Actual |
| 25 | Metering System Specific Line Loss | Actual |
| 26 | Non-specific Line Loss | Actual |
| 28 | Consumption | Estimate |
| 30 | Metering System Specific Line Loss | Estimate |
| 31 | Non-specific Line Loss | Estimate |

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The key fields in the D0030 flow will be populated as follows.

| D0030 Data Flow key fields | | |
|----------------------------|---|--|
| Group | Data Item | Derivation |
| VMR | Profile Class | Set to 0 |
| VMR | Standard Settlement Configuration Id | From mapping file |
| VMR | Distributor Id | From D0040/D0298 |
| VMR | Line Loss Factor Class Id | From D0040/D0298 |
| VMR | Time Pattern Regime | From mapping file |
| VMR | SPM Total All EACs | Set to zero |
| VMR | SPM Total Annualised Advance Report Value | Set to zero |
| VMR | SPM Total EAC MSID Count | See note below |
| VMR | SPM Total AA MSID Count | See note below |
| VMR | SPM Default EAC MSID Count | Set to zero |
| SPX | Profiled SPM Consumption (Settlement Period nn) | Aggregated Supplier Consumption from D0040/D0298 where CCC = 23 or CCC=28, summed by Supplier, GSP Group, SSC Id and Distributor Id/LLFC Id and multiplied by the Period Time Pattern State Indicator for the relevant TPR/Settlement Date/Settlement Period. |
| TOT | Daily Profiled SPM Total EAC | Aggregated Supplier Consumption from D0040/D0298 where CCC = 28, summed by Supplier, GSP Group, SSC Id, Distributor Id/LLFC Id and Settlement Period and multiplied by the Period Time Pattern State Indicator for the relevant TPR/Settlement Date/Settlement Period, then summed across all Settlement Periods in the Settlement Date. |
| TOT | Daily Profiled SPM Total Annualised Advance | Aggregated Supplier Consumption from D0040/D0298 where CCC = 23, summed by Supplier, GSP Group, SSC Id, Distributor Id/LLFC Id and Settlement Period and multiplied by the Period Time Pattern State Indicator for the relevant TPR/Settlement Date/Settlement Period, then summed across all Settlement Periods in the Settlement Date. |

Please note that if the Distributor Id/Line Loss Factor Class Id combination in the 'LLL' group on the D0040/D0298 does not have a LLF/SSC record in the mapping file, the D0040/D0298 record will be ignored and the run will continue. An error message will be written to an error log.

MSID Counts

Please note the HH MSID Count in the D0040/D0298 is at Settlement Period level, whereas the MSID counts in the D0030 are at a daily level.

Usually the counts will be the same for all periods, so the recommended solution is to use the Settlement Period 1 records – i.e.

Set **SPM Total EAC MSID Count** to the Data Aggregator HH MSID Count (for Settlement Period 1) from D0040/D0298 where CCC Id = 28, summed by Supplier, GSP Group, SSC Id, Distributor Id/LLFC Id.

Set **SPM Total AA MSID Count** to the Data Aggregator HH MSID Count (for Settlement Period 1) from D0040/D0298 where CCC Id = 23, summed by Supplier, GSP Group, SSC Id, Distributor Id/LLFC Id.

Appendix 2: Glossary & References

Acronyms

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

| Glossary of Defined Terms | |
|---------------------------|---|
| Acronym | Definition |
| AMD | BSC Application Management and Development |
| BSC | Balancing and Settlement Code |
| BSCCo | BSC Company |
| BPO | Business Process Outsourcing |
| CCC | Consumption Component Class |
| CoP | Code of Practice |
| CP | Change Proposal |
| CT | Current Transformer |
| CDCM | Common Distribution Charging Methodology |
| DCMF | Distribution Charging Methodologies Forum |
| DCP | DCUSA CP |
| DCUSA | Distribution Connection and Use of System Agreement |
| DSO | Distribution System Operator |
| DTC | Data Transfer Catalogue |
| DUoS | Distribution UoS |
| ECOES | Electricity Central Online Enquiry Service |
| EFR | Error and Failure Resolution |
| HH | Half Hourly |
| HHDA | HH Data Aggregator |
| HHDC | HH Data Collector |
| HHMOA | HH Meter Operator Agent |
| LLF | Line Loss Factor |
| LLFC | LLF Class |
| MDB | MRA Development Board |
| MDD | Market Domain Data |
| MRA | Master Registration Data |
| MSID | Metering System ID |
| MTDs | Meter Technical Details |
| NHH | Non Half Hourly |
| PAB | The Performance Assurance Board |
| PAF | Performance Assurance Framework |

| Glossary of Defined Terms | |
|---------------------------|---|
| Acronym | Definition |
| PARMS | Performance Assurance Reporting and Monitoring System |
| PC | Profile Class |
| R1 | First Reconciliation Volume Allocation Run |
| R2 | Second Reconciliation Volume Allocation Run |
| R3 | Third Reconciliation Volume Allocation Run |
| RF | Final Reconciliation Volume Allocation Run |
| SSC | Standard Settlement Configuration |
| SME | Small and Medium Enterprise |
| SMRA | Supplier Meter Registration Agent |
| SMRS | Supplier Meter Registration Service |
| SP04 | PARMS Serial SP04 Installation of HH Metering |
| SP08c | PARMS Serial SP08c Percentage of non-mandatory HH Energy Settled on Actual Readings |
| SVAA | Supplier Volume Allocation Agent |
| SVG | Supplier Volume Allocation Group |
| TPR | Time Pattern Regime |
| UoS | Use of System |
| WC | Whole Current |

DTC data flows and data items

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

| DTC Data Flows and Data Items | |
|-------------------------------|--|
| Number | Name |
| D0010 | Meter Readings |
| D0030 | Non Half Hourly DUoS Report |
| D0036 | Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix |
| D0040 | Aggregated Half Hour Data File |
| D0275 | Validated Half Hourly Advances |
| D0298 | BM Unit Aggregated Half Hour Data File |
| D0314 | Non Half Hourly Embedded Network DUoS Report |
| J0066 | GSP Group Id |
| J0084 | Supplier Id |
| J0147 | Line Loss Factor Class Id |
| J0160 | Consumption Component Class Id |

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| DTC Data Flows and Data Items | |
|-------------------------------|----------------|
| Number | Name |
| J0189 | Distributor Id |

External links

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

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

| External Links | | |
|----------------|-------------------------------------|---|
| Page(s) | Description | URL |
| 1, 3 | DCP179 page on the DCUSA website | http://www.dcusa.co.uk/Public/CP.aspx?id=201 |
| 1 | P280 page on the ELEXON website | http://www.elexon.co.uk/mod-proposal/p280-introduction-of-new-measurement-classes/ |
| 2 | P300 page on the ELEXON website | http://www.elexon.co.uk/mod-proposal/p300/ |
| 3 | P272 page on the ELEXON website | http://www.elexon.co.uk/mod-proposal/p272-mandatory-half-hourly-settlement-for-profile-classes-5-8/ |
| 7, 8 | Issue 59 page on the ELEXON website | http://www.elexon.co.uk/msg-issue/issue-59-consideration-parms-supplier-charge-changes-introduced-p272-p300/ |