

PUBLIC

BSC Change Business Requirements

P375 – Metering Behind The Boundary Point

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P375 BUSINESS REQUIREMENTS

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P375 BUSINESS REQUIREMENTS

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Approvals

Date	Name	Role
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P375 BUSINESS REQUIREMENTS

CONTENTS

Document History	2
Approvals	3
1. INTRODUCTION.....	6
1.1 Purpose	6
2. BSC Change Summary	6
2.1 BSC Change P375 Problem Statement	6
2.2 BSC Change P375 Objectives	7
2.3 BSC Change P375 Scope.....	8
2.4 BSC Change P375 Context Diagram	9
2.5 References.....	10
3. BUSINESS REQUIREMENTS	11
3.1 Current State (As-Is situation).....	11
3.2 P375 Validated Assumptions	11
3.3 High Level Business Requirements.....	16
3.4 Business Requirements	16
3.5 Architectural Requirements	44
3.5.1 Elexon Kinnect Customer Solution	44
3.5.2 Data and Calculation Platform (DCP)	44
3.6 Non-Functional Requirements (Work In Progress)	Error! Bookmark not defined.
3.7 Business Rules	47
3.7.1 Business Rules for Elexon Kinnect Customer Solution.....	47
3.7.2 Business Rules for Data and Calculation Platform	49
3.8 Scenarios.....	50
4. GLOSSARY	56
APPENDIX A – Data Flows	58
APPENDIX B – P375 Logical Data Model (LDM)	62
APPENDIX C – High Level End-To-End Registration Process Map	63
APPENDIX D - High Level End-To-End Calculation Process Map	64
APPENDIX E – AMSID Registration Process Map	65
APPENDIX F – Agent Appointment Process Map.....	66
APPENDIX G – Compliance Testing Process Map.....	67
APPENDIX I – Sending Metered Data Process Map.....	69
APPENDIX J – Data Aggregation Process Map.....	70
APPENDIX K – De-Registration process Map	71

P375 BUSINESS REQUIREMENTS

APPENDIX L – AMSID Dispute Process Map 72



P375 BUSINESS REQUIREMENTS

1. INTRODUCTION

1.1 Purpose

The BSC Change Business Requirements document is produced as part of the 'End to End BSC Change Process' during the BSC Change Assessment stage. It is produced in line with ELEXON's standards for Business Analysis.

The purpose of this document is to communicate the Business Requirements of BSC Change P375 to industry members and service providers. It enables an initial impact assessment to be carried out by a Service Provider and any impacted stakeholder.

In addition, it describes the anticipated impact on BSCCo (people, processes and systems), BSC Agents, the BSC, Code Subsidiary Documents, and other Configurable Items as well as on BSC Parties and Party Agents.

2. BSC CHANGE SUMMARY

2.1 BSC Change P375 Problem Statement

The BSC currently requires Bid-Offer Acceptances and Replacement Reserve Acceptances to be settled using readings from Meters installed to measure flows of electricity at the defined Boundary Point. However, we anticipate that there will be a future need for new and/or different types of customers and business to participate in the Balancing Mechanism (BM) and other alternative balancing products through Secondary Balancing Mechanism Units (SBMU's).

We have observed an increased interest in new business models with diverse and smaller scale assets such as electric vehicle (EV) charging units. These smaller assets tend to share a site with other demand and generation assets, whose flows are all measured and then settled using the Boundary meter. When providing a balancing service it is necessary to submit a Physical Notification to the National Electricity Transmission System Operator (NETSO). The Physical Notification is a forecast of flows for the relevant settlement period. This Physical Notification becomes the Final Physical Notification (FPN) at gate closure and is used by the NETSO to dispatch the asset and is subsequently used in the Settlement of the Balancing service.

If this FPN is inaccurate, it can lead to Imbalance and/or Non-delivery charges in settlement. As the Boundary Meter measures total flows for the site and not just the asset, Virtual Lead Parties (VLPs) have stated difficulties in being able to accurately forecast the FPN and state this as a significant blocker for the provision of Balancing Services. This creates a need to allow Settlement to acquire data from metering behind the Boundary Point, i.e. at the asset, which is delivering the Balancing Service. By allowing this, the VLP can install metering or use existing metering which can isolate the flows, which the VLP can therefore forecast accurately in its FPN.

This issue arose through the development of the Project TERRE (Trans European Replacement Reserves Exchange) arrangements through BSC [Modification Proposal P344 'Project TERRE implementation into GB market arrangements'](#), but may become relevant to other Balancing Services in the future. Whilst P344 will allow GB users to offer the TERRE product it also opens up access to the Balancing Mechanism for independent aggregators (as VLPs). Therefore, P375 removes a barrier to the BM and balancing services being settled through the BM and not just the TERRE product.

P375 BUSINESS REQUIREMENTS

Element	Description
The problem of...	Settling only Balancing Service Metered Volumes collected at a Boundary Point
Affects...	Asset Metering Virtual Lead Parties (AMVLPs) – i.e. VLPs that want to use Asset Metering HHDCs MOAs SVAA BSCCo Suppliers (through more accurate FPN and delivered volumes)
The impact of which...	Means that the metering at the site Boundary Point does not allow for differentiation between the delivery of Balancing Services and other independent actions on site. As a result, there may be a difference between the forecasted metering volumes of the site (Physical Notification) and the Settled metered volumes due to the inability to differentiate. This difference may create an adverse Imbalance Position or Non Delivery Charge to the Provider (Virtual Lead Party) of the Balancing Services and/or an incorrect adjustment or lack of adjustment to the Primary's Suppliers metered volumes, which may not be related to the actual delivery of the Balancing Service and impact upon the System.
A successful solution would...	Allow a suitably Qualified VLP, an Asset Metering VLP (AMVLP), to register an Asset Metering System to create a new AMSID Pair, which can then be allocated to a Secondary BM Unit. The AMSID Pair will be associated with all Boundary Point MSID pair(s) they interact with at a site. AMVLPs will also be able to utilise asset metering installed on site and registered with SVAA to calculate all other flows on site not metered through Asset metering flows. The metering installed will meet Code Of Practice 11 standards in terms of requirements and accuracy. Performance Assurance will work to ensure Settlement Risk is mitigated when using asset metering. The solution will allow Settlement of the Balancing Service to use both metering installed at the asset with volumes adjusted by Line Loss Factors (LLF) up to the GSP (equivalent of Boundary Point volumes) and Boundary Point meters. The AMVLP will decide which metering option best suits their needs from a commercial perspective. The submission of the FPN and how it is used within settlement will not alter due to P375, but opening up the option to use Asset Metering will allow AMVLP's to submit more accurate FPNs thus removing a significant barrier.

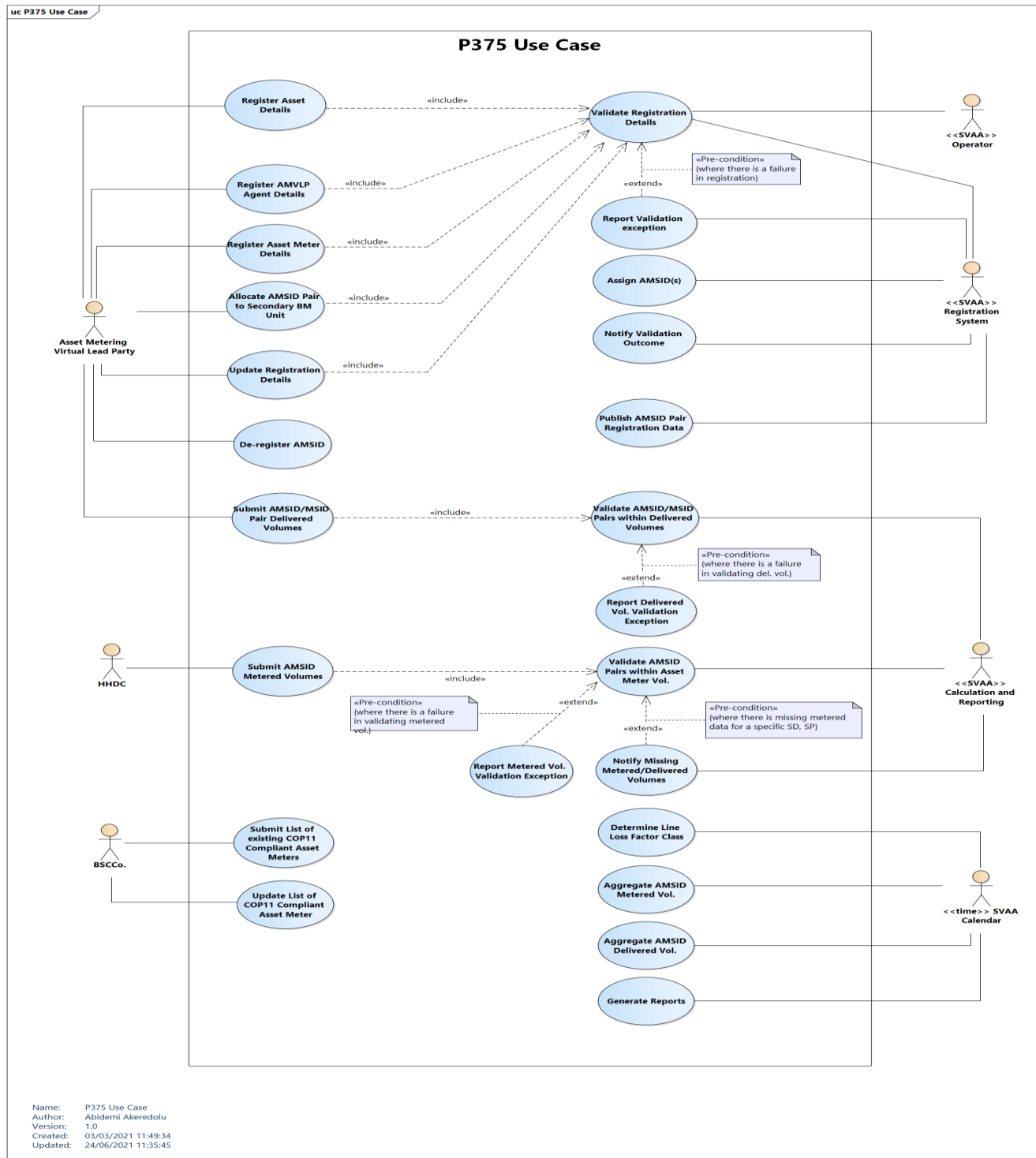
2.2 BSC Change P375 Objectives

The objective of the P375 solution is to implement the new and amended software systems and processes required to facilitate the Settlement of Secondary BM Units using metering behind the site Boundary Point.

P375 BUSINESS REQUIREMENTS

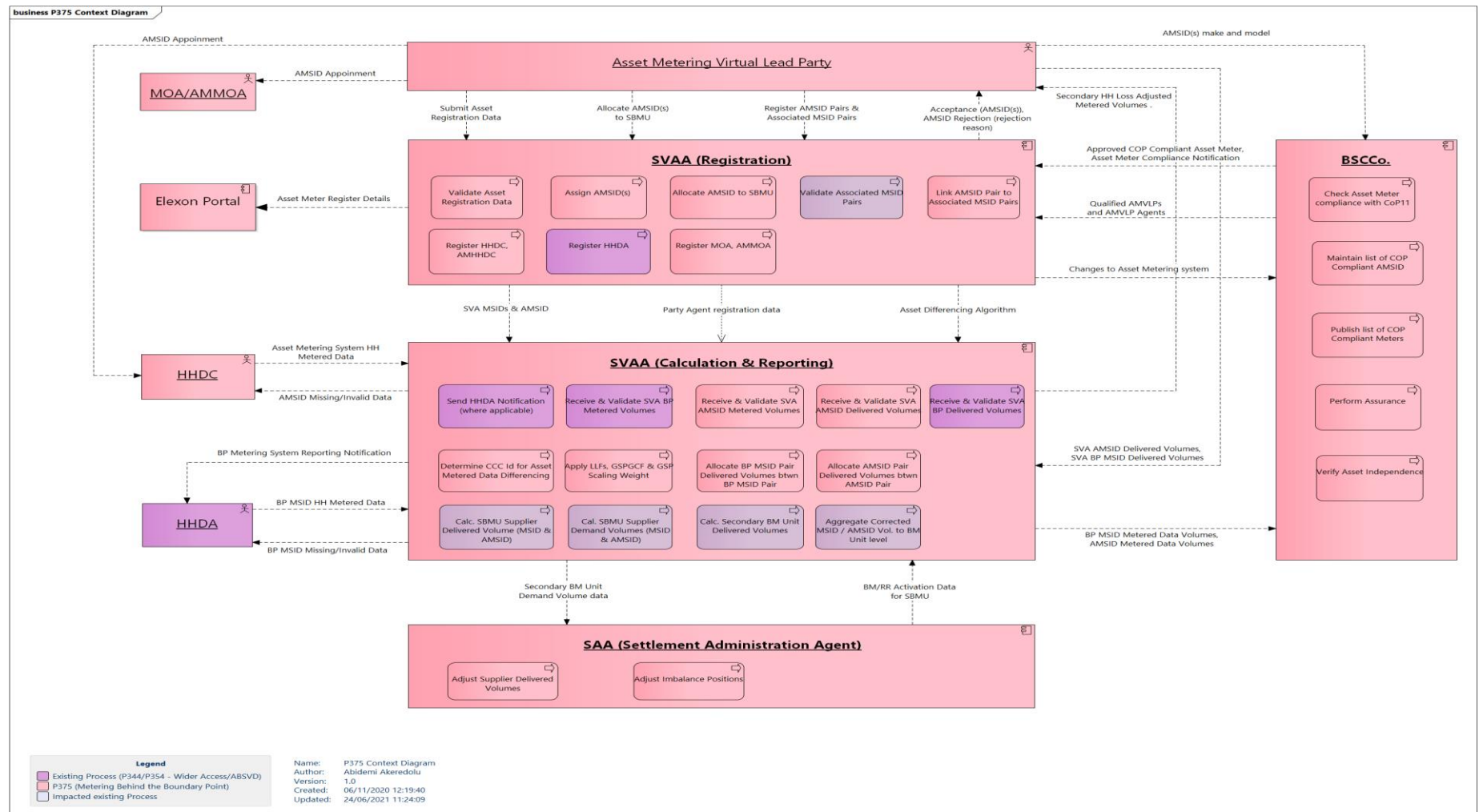
2.3 BSC Change P375 Scope

The scope of P375 is to amend BSC Central Systems and BSC Procedures to enable the registration of Asset Metering Systems to raise AMSID Pairs for allocation to Secondary Balancing Mechanism Units. The diagram below represents a high-level main use case (SVAA core process) reflecting the P375 deliverables.



2.4 BSC Change P375 gram

The context diagram below shows the interaction between the new and amended processes for P375.



2.5 References

Document	Author	Date
P375: 'Settlement of Secondary BM Units using metering behind the site Boundary Point' BSC Modification proposal	Saskia Barker, Flexitricity	5 January 2017
P375 Initial Written Assessment	Steven Bradford	11 December 2018
P375 Assessment Report Consultation	Tom Darwen	
BSP602 'SVA Metering System and Asset Metering System Register'¹	ELEXON	
Supplier Volume Allocation Data Catalogue Volume 1: Data Interfaces and Volume 2: Data Items	ELEXON	
P344 Project TERRE Business Requirements	ELEXON	

¹ The will be the new title of BSCP602 for P375

P375 BUSINESS REQUIREMENTS

3. BUSINESS REQUIREMENTS

3.1 Current State (As-Is situation)

The process for collecting and aggregating Metered Volume data for the Assets located behind the Boundary Point does not exist yet. However, we introduced a similar process as a part of BSC Modification P344 "Project TERRE implementation into GB market arrangements". Under P344, the Virtual Lead Parties must register Boundary Point Metering System Identifiers (MSID) with the Supplier Volume Allocation Agent (SVAA). These MSIDs are registered in MSID Pairs against Secondary BM Units. SVAA validates the MSID information provided by the VLP and, upon successful registration, it then instructs a HHDA to report Metered Volume data for a given MSID in line with the SVAA Settlement calendar. VLPs are obligated to provide MSID Pair Delivered Volumes to SVAA. SVAA then aggregates both Metered Volume and Delivered Volume data and passes it on to SAA, which in turn adjust Imbalance Position of the Supplier(s) who are the Registrants of the MSID(s) in the Boundary Point MSID Pair impacted by the VLP.

SVAA maintains a central register of all MSIDs that are registered against Secondary BM Units (for all VLPs) and, inter alia, the Supplier and Half Hourly Data Aggregator (HHDA) for each MSID.

3.2 P375 Key Principles

The following list represents the key principles of the P375 solution.

Qualification

1. Only a suitably Qualified VLP, called an Asset Metering VLP (AMVLP), will be able to participate in the processes introduced by P375².
2. Where a Company wishes to participate in the provision of the Balancing Services and the Balancing Mechanism by using Asset Metering Systems located 'behind the Boundary Point', then that Company must Qualify as an AMVLP, as set out in BSCP537 and the Self-Assessment Document (SAD).
3. Any existing VLP that wants to use the Asset Metering processes introduced under P375 must first complete the AMVLP Qualification.
4. Any new or existing VLP that does not wish to use Asset Metering Systems does not need to undergo AMVLP Qualification, and will be able to use the existing VLP processes introduced under P344 with minimal disruption (but it will be necessary to will introduce version 2 of some of the VLP data flows introduced for P344).

Registration of Asset Metering Systems to obtain AMSID Pairs

5. Qualified AMVLPs shall follow the three-stage Registration process for Asset Metering Systems set out in BSCP602:
 - Stage 1 – Asset Registration;
 - Stage 2 – AMVLP Agent Registration; and
 - Stage 3 - Asset Meter Registration.
6. AMVLPs should submit the Registration data using Salesforce Communities where possible, either by data entry into online forms, or by using the data file upload function provided. Where it is not possible to use

² The P375 Industry Expert Group noted at its meeting in February 2021 that this distinct Qualification process for AMVLPs would be required.

P375 BUSINESS REQUIREMENTS

either of these methods, an AMVLP may email the Registration data file to the BSC Service Desk, to be uploaded into Salesforce.

7. The SVAA will validate the data submitted in each Registration Stage; each Registration Stage must have completed validation successfully before the AMVLP may submit the data for the next Registration Stage.
8. On the successful completion of Registration Stage 1, the SVAA will generate an AMSID Pair for each Asset Registered and will notify the AMVLP of the AMSID Pair details as part of the confirmation of the Registration Stage 1.
9. The AMVLP will be able to complete its appointment of the AMVLP Agents for the relevant AMSID Pair(s), and will be allowed to submit Stage 2 Registration Details to the SVAA, but will not be able to allocate the AMSID Pair(s) to Secondary BM Units at this point.

Allocation of AMSID Pairs to Secondary BM Units

10. AMVLPs will be able to register Secondary BM Units, using the same BSCP15 process as VLPs.
11. When the AMVLP has successfully completed all three Registration Stages, it will be allowed to allocate the AMSID Pair(s) to Secondary BM Units.
12. An AMVLP will have a choice of either delivering Balancing Services measured at a Boundary Point (BP) through MSID Pairs (as-is process introduced by P344) or measured by Asset Metering System located behind the BP MSID through AMSID Pairs (new process introduced by P375).
13. AMVLPs may elect to allocate an AMSID Pair to a Secondary BM Unit for the purposes of:
 - Asset Metering, where the AMSID Pair Delivered Volume will be used instead of the Boundary Point MSID Pair Delivered Volume in Settlement calculations; or
 - Asset Differencing, where the AMSID Pair Delivered Volume will be subtracted from the Boundary Point MSID Pair Delivered Volume used in Settlement calculations.

This will be effected by use of two new indicators' included in Secondary BM Units:

- MSID Pair Indicator; and
 - AMSID Pair Differencing Indicator
14. An AMVLP may allocate an AMSID Pair(s) to its Secondary BM Unit(s), in addition to the Boundary Point MSID Pair(s), which must have been specified. See Scenario 9 in section 3.5 of this document.
 15. Where an AMVLP has allocated an AMSID Pair to a Secondary BM Unit for the purposes of Asset Metering, a second AMVLP may allocate that AMSID Pair to a different Secondary BM Unit for the purposes of Asset Differencing, without any impact on the first AMVLP. Similarly where an AMVLP has allocated an AMSID Pair to a Secondary BM Unit for the purposes of Asset Differencing, a second AMVLP may allocate that AMSID Pair to a different Secondary BM Unit for the purposes of Asset Metering, without any impact on the first AMVLP.
 16. However, where an AMVLP has allocated an AMSID Pair to a Secondary BM Unit for the purposes of Asset Metering and a second AMVLP allocates that AMSID Pair to a different Secondary BM Unit also for the purposes of Asset Metering, the first AMVLP will lose the AMSID Pair allocation.
 17. Where a VLP or AMVLP chooses to use a BP MSID Pair for Settlement, by allocating it to a Secondary BM Unit, another VLP or AMVLP cannot then use that same BP MSID pair. Any other AMVLP with Asset(s) located 'behind' that BP wishing to participate in Balancing Mechanism will be required to register the Asset(s) and related Asset Metering Systems(s) and obtain AMSID Pair(s).

P375 BUSINESS REQUIREMENTS

AMSIDs and AMSID Pairs

18. AMSIDs generated by the SVAA will take the same 13-digit format as MSIDs. However, AMSIDs will be distinguishable from MSIDs through the first two digits, which will be a short code not used by Distribution Businesses, which will be captured in the Market Domain Data ("MDD"). It is essential to use a short code that is not currently used by Distributors or any other Market Participants, to ensure that AMSIDs are unique and are easily recognised by all Market Participants and BSC central systems.
19. An 'AMSID Pair' means one Import AMSID and, where applicable, one Export AMSID relating to an Asset Metering System situated behind one or more Boundary Points for the purposes of providing Replacement Reserve (RR) or Balancing Mechanism (BM) Services. To clarify an AMSID Pair must contain an Import AMSID but does not have to contain an Export AMSID where the related Asset has no generation capacity.
20. As a part of the P375 AMSID Pair registration process, the AMVLP must list each Boundary Point MSID Pair through which the Metered Volumes for a given AMSID Pair (or Pairs) may be recorded ("Associated MSID Pair"). The relationship between the Boundary Point MSID Pairs and the AMSID Pairs situated behind the Boundary Point is "many-to-many" – i.e. there could be:
 - Multiple AMSID Pairs behind a single Boundary Point MSID Pair; or
 - A single AMSID Pairs behind multiple Boundary Point MSID Pairs; or
 - Multiple AMSID Pairs behind multiple Boundary Point MSID Pairs.

The Stage 1 Registration data must show all relevant Boundary Point MSID Pairs and all relevant AMSID Pairs for a site. The Boundary Point MSID Pairs are called "Associated MSID Pairs". All Associated MSID Pairs specified in the Registration Stage 1 data must already be registered in the SVA Metering Systems Register.

21. SVAA will use the relationship between AMSID Pairs and Associated MSID Pairs when processing an AMVLP's AMSID Pair delivered volumes.
22. For each MSID in each MSID Pair, the SVAA shall identify and store information on the Half-Hourly Data Aggregator (HHDA) and shall instruct that HHDA to send HH Metering System Metered Volume Data to the SVAA. This is an existing process introduced for P344, which is not amended by P375.
23. Where on a given site, there is more than one Asset located behind the Boundary Point(s), the SVAA may be required to calculate metered volumes for the Assets participating in the BM using a new differencing process. For example, the AMVLP may request that their metered volumes equals BP MSID Pair delivered volumes less other AMSID Pair delivered volumes relating to the BP MSID. The process will be analogous to the existing difference metering³ process. The 'differencing' will be applied during aggregation of Metered Data up to a Secondary BM Unit level.
24. Once an AMSID Pair is registered in SVAA as located behind a given Boundary Point MSID Pair (or Pairs), that association (i.e. the location of the AMSID Pair) is fixed, i.e. AMSID Pair cannot be moved to a different location in the country. However, we recognise that the configuration of a given site can change (e.g. the Metering System is exchanged or part of the network decommissioned); Therefore, an AMSID Pair can gain new associations. In such instances, the AMVLP will be required to provide SVAA with proof that the Boundary Point MSID Pair has changed (or a new one was added). SVAA (after reviewing the evidence) will change the associations in line with the changes to the site configuration.
25. When submitting the Final Physical Notification (FPN) to the NGESO, an AMVLP will have to ensure that their FPN reflects the sum of metered data expected at a Boundary Point MSID Pair or AMSID Pair, depending on what is registered in the AMVLP's Secondary BM Unit. Please note that the AMVLP will have to account for

³ 8.4.3 BSCP514 'SVA Operations for Metering Systems Registered in SMRS'

P375 BUSINESS REQUIREMENTS

losses to/from the Asset Meter as well as from the Boundary Point to the GSP when submitting the FPN. For avoidance of doubt – P375 will not change the process of FPN submission to the NGESO or adjust the FPN when it is used in settlement.

26. The P375 process shall distinguish two roles for an AMVLP in relation to an AMSID Pair:
- i) An AMVLP can be an 'Asset Metering System Registrant' who is responsible for registering an Asset Metering System and obtaining AMSID Pair(s); they would be responsible for the appointment of AMVLP Agents to each AMSID Pair and the Asset Metering system's compliance against CoP11; or
 - ii) A second VLP may wish to allocate an AMSID Pair relating to an Asset Metering System registered under (i) above against their Secondary BM Unit for the purposes of differencing. This non-Registrant AMVLP should not appoint any AMVLP Agents to the AMSID Pair.
27. The reason for distinguishing the two roles is to allow two AMVLPs to use the same AMSID Pair at the same time (i.e. where a differencing arrangement is used and one AMVLP uses it 'as-is' Metered Volume data and the other AMVLP needs the AMSID to obtain the 'remainder'). In such instance, although two AMVLPs would use the same AMSID for Settlement, only one of them would be responsible for the metering and Agent appointments. However, please note that where a VLP is the only VLP on site and the Asset Meter cannot be installed at the asset, such an AMVLP would fulfil both roles.
28. An AMVLP that is using an AMSID Pair for the purposes of Asset Metering shall send AMSID Pair Delivered Volumes for each AMSID Pair, instead of Boundary Point MSID Pair Delivered Volumes, to the SVAA for each Settlement Period in which a Balancing Service was delivered.
29. An AMVLP that is using an AMSID Pair for the purposes of Asset Differencing shall not be required to send AMSID Pair Delivered Volume for each AMSID Pair, and shall only be required to send the MSID Pair Delivered Volumes to the SVAA for each Settlement Period in which a Balancing Service was delivered.

Code of Practice for Asset Metering

30. The Asset Meter must conform to the relevant Code of Practice (COP) requirements. A new Code of Practice (COP11) has been created to describe requirements for Asset Metering Systems. In addition, Asset Meters must be installed and maintained by a BSC Qualified Meter Operator Agent (MOA) in accordance with provisions of BSC Section J. Asset Meters that have Half Hourly Integral Outstations that are designed to meet the criteria of Asset Meter Types 1, 2, 3 and 4 within CoP11 must be dialled and protocol tested by a BSC Qualified HHDC. However, for any Asset Meter that does not have Half Hourly Integral Outstations, the AMVLP may elect to provide these services via a 3rd party AMHHDC (or act as AMHHDC) and pass the Asset Meter data to a HHDC. The AMHHDC (or AMVLP, if acting as AMHHDC) must be Qualified and must pass protocol testing to prove that they can access the data from the Asset Meter and convert such data to a format suitable for submission to the HHDC. They must also produce an equivalent of Meter Technical Details (MTD) for a new Asset Meter. However, it will be the responsibility of the VLP to store, maintain and send to its agents the MTDs for the Asset Meter.
31. Where an Asset meter that an AMVLP wishes to register as part of an Asset Metering System is not on the list of the COP11 compliant Asset Meters, the AMVLP may apply to BSCCo to add that Meter to the approved list. This can be done concurrently with Registration Stage 1 of the of the Asset Metering System, which does not require the Asset Meter details - but BSCCo must have added the meter to the approved list of COP11-compliant Asset Meters before the registration of the Asset Metering System can be completed. For the avoidance of doubt, if the BSCCo does not agree to include an Asset meter in the approved list of CoP-compliant meters, that meter may not be registered as part of an Asset Metering System. Where an AMVLP seeks to replace an existing Asset Meter in a previously validated Asset Metering System with an Asset

P375 BUSINESS REQUIREMENTS

Meter that is not CoP11 compliant, then the Asset Metering System will no longer be considered to be validated.

AMVLP Agents

32. An AMVLP that registers an Asset Metering System shall appoint AMVLP Agents to the related AMSID Pair:

- a BSC Qualified MOA to install and maintain CoP11-compliant Asset Meters;
 - this must be a SVA HHMOA for Type 1, 2, 3 or 4 (Transformer connected) Asset Meters, but an Asset Metering MOA (AMMOA) is permitted for Type 4 (Whole Current only) and Type 5 Asset Meters.

The processes for appointing a MOA or AMMOA should closely follow the existing provisions set out in BSCP514 'Half Hourly Meter Operation for SVA Metering Systems Registered in SMRS'⁴.

- a BSC Qualified Half Hourly Data Collector (HHDC), who will record and send Half Hourly Asset Metering Metered Volumes to the SVAA.
 - this must be a SVA HHDC for Type 1, 2 or 3 Asset Meters, but an Asset Metering HHDC is allowed to collect data from Type 4 or 5 Asset Meters.
 - Where an AMHHDC has been appointed, the AMVLP must also appoint a SVA HHDC, to receive the data read by the AMHHDC and send it to the SVAA.

The process for appointing a HHDC or a AMHHDC should closely follow the existing provisions set out in BSCP502 'Half Hourly Data Collection for SVA Metering Systems Registered in SMRS'⁴.

33. The same AMVLP Agent must be appointed to both AMSIDs in an AMSID Pair.
34. Where an AMVLP elects to dial the Asset Meter itself (i.e. acting as an AMHHDC) and pass on the metered data to HHDC, the AMVLP must pass the protocol testing to prove that it can access the data from the Asset Meter and convert such data to a format suitable for submission to the HHDC. For avoidance of doubt, the Asset Meters that Half Hourly Integral Outstations that are designed to meet the criteria of Asset Meter Types 1, 2 and 3 within COP11 must be dialled and protocol tested by a BSC Qualified HHDC.
35. The AMVLP, HHDC and MOA shall comprise an "AMVLP Hub", similar to the Supplier Hubs that are currently in use for Boundary Point Metering systems.

SVAA Calculations

36. As P375 will use some of the data at a different level of granularity, some existing SVAA calculation steps of Metered Volume for a Secondary BM Unit and Delivered Volume for a Secondary BM Unit will be affected. However, the following steps will remain the same:
- Secondary BM Unit Delivered Volume calculation. SVAA calculates Secondary BM Unit Delivered Volume ('QVMD_{i2NLKji}') by grouping the Metering System Delivered Volume ('QVMD_{Kj}') by the Secondary BM Unit in line with the information provided by the AMVLP in the SVA Metering System Register.
 - Secondary BM Unit Supplier Delivered Volume calculation. As part of each SVA aggregation Run, SVAA aggregates the Line Loss and GSP Group Correction Factor adjusted Delivered Volume data. For avoidance of doubt, the aggregation will now include the AMSID Pair related data submitted for P375 purposes, as well as MSID Pair related data submitted for P344 related purposes. Both should feed into

⁴ The title of this document will be amended to include "and Asset Metering Systems Registered with the SVAA" for P375.

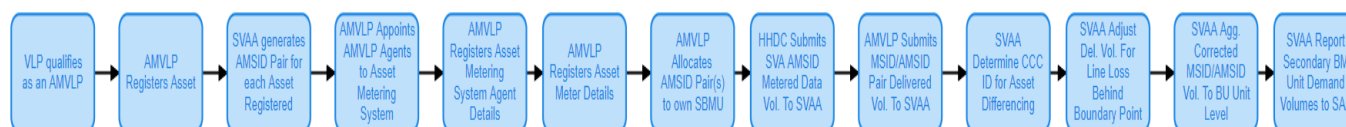
P375 BUSINESS REQUIREMENTS

calculation of Secondary BM Unit Supplier Delivered Volume ('VBMUSDVi2ji') in MWh for each Secondary BM Unit.

37. Once calculated, SVAA should report the Secondary BM Unit Demand Volume data to the Settlement Administration Agent (SAA).

3.3 High Level Business Requirements

This below diagram provides an illustration of the sequence of events that make up the BSC Change P375.



[Please see Appendix C for the BSC Change P375 End-To-End Process Map](#)

3.4 Business Requirements

The following table lists the business requirements for P375. The requirements are split into the main areas below:

- Registration of Asset Metering System in three stages:
 - i) AMVLP registers Asset and Associated MSID Pair(s) with SVAA
 - SVAA generates AMSID(s) for Asset and informs AMVLP
 - ii) AMVLP appoints AMVLP Agents and registers AMVLP Agents with SVAA
 - MOA/AMMOA installs asset meter(s) and informs AMVLP
 - iii) AMVLP registers asset meter details with SVAA
 - Subject to successful validation, Registration is complete
- Allocation of AMSID Pairs to a Secondary BM Unit
- Assurance
- Aggregation and Imbalance

The requirements are grouped by process area they belong to (e.g., 'Registering AMSIDs and appointing agents' category). Each requirement is stated at high-level and additional description is provided where necessary.

Please note that items in **bold** in the following Business Requirements tables are defined in the Glossary section of this document. For ease of reading, these items are in bold only the first time they appear in the Business Requirements. The items that have their respective meaning set out in either in the Balancing and Settlement Code or any of the Code Subsidiary Documents are not listed in the Glossary.

P375 BUSINESS REQUIREMENTS

Ref. no	Business Requirement
P375-BR1	<p><u>Asset Metering System Registration Service</u></p> <p>The SVAA shall provide an Asset Metering System Registration Service which will allow AMVLPs to register details of Asset Metering Systems for which they will become the Registrant including related Asset Meters and AMVLP Agents in an Asset Metering System Register.</p>
P375-BR2	<p>The Asset Metering System Register must store the following information.</p> <p><u>Requirement Description</u></p> <p>Within the Asset Meter Register (AMR), SVAA must be able to receive and store details of all Asset and Asset Metering Systems (AMS) registered by Asset Metering Virtual Lead Parties (AMVLPs). The details to be stored are:</p> <p><u>Registration Stage 1: Registration of an Asset</u></p> <ul style="list-style-type: none"> • AMVLP MPID • AMSID Pair Name • AMSID Pair Effective From Settlement Date • AMSID Pair Effective To Settlement Date • Export AMSID required indicator • Import AMSID • Export AMSID • GSP Group Id • BM Unit Id • Address line 1 • Address line 2 • Address line 3 • Address line 4 • Address line 5 • Address line 6 • Postcode • Asset Type (e.g. diesel generator, battery storage unit, EV charging unit) • Asset Voltage • Asset Capacity (in kW) • Measurement Transformer Indicator • For each Associated MSID Pair: <ul style="list-style-type: none"> ▪ Import MSID ▪ Export MSID • Measurement Class Id <p><u>Registration Stage 2: Registration of Asset Metering System AMVLP Agent Details</u></p> <p>For each Asset (i.e. AMSID Pair). Note that HHDC details are mandatory; AMHHDC details are optional; and either SVA HH MOA or AMMOA details must be provided:*</p> <ul style="list-style-type: none"> • AMVLP Id • Import AMSID • Export AMSID • HHDC MPID • HHDC Effective from Date

P375 BUSINESS REQUIREMENTS

	<ul style="list-style-type: none"> • HHDC Effective to Date • AMHHDC MPID • AMHHDC Effective from Date • AMHHDC Effective to Date • MOA MPID • MOA Effective from Date • MOA Effective to Date <p><i>*Where there are two Asset Metering Systems related to an Asset, the same HHDC and MOA must be appointed for both Asset Metering Systems.</i></p> <p><u>Registration Stage 3: Registration of Asset Meter Details</u></p> <ul style="list-style-type: none"> • AMVLP Id • Import AMSID • Export AMSID <p>For each Asset Meter:</p> <ul style="list-style-type: none"> ▪ Asset Meter Serial Number ▪ Outstation Type ▪ Asset Meter make and model ▪ Asset Meter Effective From Date ▪ Asset Meter Effective To Date ▪ Asset Meter Type
P375-BR2a	<p>SVAA shall ensure all AMSID(s) relating to an AMVLP Registrant can be associated with each other and key relationships maintained.</p> <p>SVAA shall map the following relationships for P375:</p> <ul style="list-style-type: none"> • Map MSID to MSID Pair • Map AMSID to AMSID Pair • Map AMSID Pair to Associated MSID Pair • Map AMVLP to AMSID(s) • Map AMVLP to MSID(s) • Map AMVLP to Secondary BM unit • Map Secondary BM Unit to AMSID(s) • Map Secondary BM Unit to MSID(s) • Map MSID Pair to MSID_AMSID Allocation • Map AMSID Pair to MSID_AMSID Allocation • Map MSID(s) to HHDA appointment • Map MSID(s) to Supplier • Map AMSID(s) to HHDC appointment • Map AMSID(s) to AMHHDC appointment • Map AMSID(s) to AMMOA appointment • Map AMSID(s) to MOA appointment • Map AMSID(s) to GSP Group • Map MSID(s) to GSP Group • Map GSP Group to Secondary BM Unit • Map effective from date and effective to date of the above relationships <p>Please see Appendix B for the P375 Logical Data Model</p>

P375 BUSINESS REQUIREMENTS

P375-BR2b	<p><u>Registering an Asset and related Asset Metering System, obtaining AMSIDs and appointing AMVLP Agents</u></p> <p>In order to obtain an AMSID Pair for an Asset, the Registrant AMVLP shall be required to register the Asset and related Asset Metering System(s) with SVAA in three stages:</p> <ul style="list-style-type: none"> • Stage 1: Asset Registration • Stage 2: Registration of AMVLP Agents • Stage 3: Asset Meter Registration <p>After successful validation of Registration Stage 1, the SVAA shall generate an AMSID Pair for the Asset and notify the Registrant AMVLP. At this point, the SVAA shall not allow the Registrant AMVLP to allocate the AMSID Pair to a Secondary BM Unit.</p> <p>After successful validation of Registration Stages 2 & 3, the SVAA shall allow the Registrant AMVLP to assign the AMSID Pair to one of its Secondary BM Units (subject to the conditions in BR16 being met).</p> <p>The SVAA shall also allow a second, non-Registrant, AMVLP to allocate the same AMSID Pair to one of its Secondary BM Units, (subject to the conditions in BR16a being met).</p>
P375-BR2c	<p><u>Registration Stage 1: Registration of an Asset</u></p> <p>The Registrant AMVLP shall be required to submit Asset registration details to SVAA. The details to be submitted are listed in P375-BR2, Registration Stage 1.</p> <p>This data flow is specified as the Paaaa ⁵Asset Registration' in SVA Data Catalogue Volume 1.</p>
P375-BR2d	<p><u>Registration Stage 2: Registration of Asset Metering System AMVLP Agent</u></p> <p>The Registrant AMVLP shall be required to submit registration of AMVLP Agent details to SVAA. The details to be submitted are listed in P375-BR2, Registration Stage 2.</p> <p>This data flow is specified as the Pdddd 'Registration of AMVLP Agents' in the SVA Data Catalogue Volume 1.</p>
P375-BR2e	<p><u>Re- submission of Registration Stage 2 AMVLP Agent Details</u></p> <p>Where the AMVLP becomes aware of amendments to the Asset Metering System AMVLP Agent appointment details i.e. "Change of Agent (COA)", which have been registered under Registration Stage 2, they must notify SVAA at the earliest given opportunity.</p>
P375-BR2f	<p><u>Registration Stage 3: Registration of Asset Meter Details</u></p> <p>The Registrant AMVLP shall be required to submit registration of Asset Meter details to SVAA. The details to be submitted are listed in P375-BR2, Registration Stage3.</p> <p>This data flow is specified as the Pgggg 'Asset Meter Registration' in the SVA Data Catalogue Volume 1.</p>
P375-BR2g	<p><u>Re-submission of Registration Stage 3 Asset Meter Registration Details</u></p> <p>Where the AMVLP becomes aware of amendments to the Asset Meter details i.e. "Change of Asset Meter (COM)", which have been registered under Registration Stage 3, they must notify SVAA at the earliest given opportunity.</p>

⁵ Paaaa, Pdddd, Pgggg, etc. are placeholder numbers for the new data flows, which will be replaced by actual data flow numbers in the June 2022 Release of the SVA Data Catalogue.

P375 BUSINESS REQUIREMENTS

	The details to be submitted are listed in BR2f
P375-BR2h	Where a Change of Asset Meter results in the removal of the last Asset Meter Behind the Boundary Point, SVAA shall de-register the Asset and notify the AMVLP.
P375-BR2i	<p>The SVAA shall allow a Registrant AMVLP to register an Asset Metering System by submitting the Paaaa, Pdddd & Pgggg P-flows via the following mechanisms:</p> <ol style="list-style-type: none"> 1) Via manual entry using online form(s) in the Elexon Kinnect Customer Solution; or 2) Via electronic file upload into the Elexon Kinnect Customer Solution by the AMVLP 3) Via electronic file upload into the Elexon Kinnect Customer Solution by the SVAA (following AMVLP email of electronic file to the BSC Service Desk). The sender must be a Category A or F Authorised Person.
P375-BR2j	<p>SVAA shall be able to receive, validate and update changes to the 'Asset Metering System Register'.</p> <p>Where the AMVLP has submitted updated registration data which has failed validation, the SVAA shall:</p> <ul style="list-style-type: none"> • Set the status of the Asset Registration to pending. • Exclude the related AMSID Pair from Settlement calculations for Settlement Day where no valid Asset Meter has been registered.
P375-BR2k	SVAA shall only allow an AMSID Pair to be allocated to a Secondary BM Unit where all 3-registration stages have completed successfully.
P375-BR2l	Where any of the 3 registration stages fail validation, the Registrant AMVLP shall be required to re-submit to SVAA the registration details pertaining to the failed stage.
P375-BR3	<p><u>Requirement Description</u></p> <p>SVAA shall validate the Asset Metering System Registration data submitted by a Registrant AMVLP in each Stage (BRs 2c, 2d & 2f) is complete and valid and shall notify the Registrant AMVLP of the outcome.</p> <ul style="list-style-type: none"> • Elexon Kinnect Customer Solution (P375-BR2i, 1 or 2) – the online form shall validate each Registration data item submitted for a Stage when entered, and shall check that all mandatory data for that stage has been submitted before deeming that stage to be complete; • Email to the BSC Service Desk (P375-BR2i, 3) within 1 Working Day (WD) of receipt:
P375-BR3a	<p><u>Stage 1 Registration business validation:</u></p> <p>SVAA shall perform the following checks:</p> <p>The organisation submitting the request must be registered in Asset Metering System Register as an AMVLP.</p> <ul style="list-style-type: none"> • Each Associated MSID Pair must be registered in the SVA Metering System Register • Each Associated MSID Pair must be allocated to a Secondary BM Unit that is in the same GSP Group
P375-BR3b	<p><u>Stage 2 Registration business validation:</u></p> <p>SVAA shall perform the following checks:</p> <ul style="list-style-type: none"> • The AMSID Pair already exists in the Asset Metering System Register (i.e. Stage 1 Registration has completed successfully)

P375 BUSINESS REQUIREMENTS

	<ul style="list-style-type: none"> The HHDC and, where used, the AMHHDC is Qualified (i.e. check the MPID against an approved list) The MOA (SVA HHMOA or AMMOA) is qualified. (i.e. check the MPID against an approved list) The MOA is appropriate to the Measurement Transformer Indicator (i.e. if "Y", then an AMMOA is not appropriate).
(P375-BR3c)	<p><u>Stage 3 Registration business validation:</u></p> <p>SVAA shall perform the following checks:</p> <ul style="list-style-type: none"> Each Asset Meter is included in the list of approved CoP11-compliant Meters Each Asset Meter is consistent with the Asset Meter Type specified in Stage 1 Registration
P375-BR3d	<p>Prior to Go-Live, SVAA shall load and store, a list of approved CoP11-compliant Asset Meters in order to perform validation checks stated in BR3c. The details to be stored are required to be submitted to SVAA by BSCCo in BR3e.</p>
P375-BR3e	<p>BSCCo shall provide the existing list of approved COP11-compliant Asset Meters to SVAA [10] WD prior to P375 implementation date.</p> <ul style="list-style-type: none"> Asset Meter Model (where available) Asset Meter Type Meter Compliance against which CoP11 Asset Meter Type(s)
P375-BR3f	<p>Post Go-Live, BSCCo shall be able to update the list of valid COP11- compliant Asset Meters through a Sales Cloud form.</p>
P375-BR4	<p>SVAA shall generate an AMSID for each Asset Metering System in relation to a successfully registered Asset, as part of the Registration of an Asset Metering System.</p> <p><u>Requirement Description</u></p> <p>Where the Stage 1 Registration validation was successful for a given Asset, then the SVAA must assign an AMSID Pair to each Asset for use in the related Asset Metering System(s).</p> <ul style="list-style-type: none"> Import AMSID – will always be required Export AMSID – will not be required where the 'Export AMSID required indicator' is set to "F" <p>At this point, the AMSID Pair will be deemed to 'exist in the Asset Metering System Register' for the purposes of Registration Stage 2, but SVAA should not allow the AMSID Pair to be included in a Secondary BM Unit.</p>
P375-BR5	<p>SVAA shall notify the Registrant AMVLP of the outcome for each stage of registration:</p> <p>Stage 1 Validation Response (to a Paaaa)</p> <ul style="list-style-type: none"> Pcccc 'Confirmation of Asset Registration (including Import AMSID and, where applicable, Export AMSID). This will also include the AMSIDs generated by SVAA; or Pbbbb 'Rejection of Asset Registration' (including "Rejection Reason"). <p>Stage 2 Validation Response</p> <ul style="list-style-type: none"> Peeee 'Rejection of Registration of AMVLP Agents'; or

P375 BUSINESS REQUIREMENTS

	<ul style="list-style-type: none"> Pffff 'Confirmation of Registration of AMVLP Agents' (including "Rejection Reason") <p>Stage 3 Validation Response</p> <ul style="list-style-type: none"> Phhhh 'Rejection of Asset Meter Registration'; or Piiii 'Confirmation of Asset Meter Registration' (including "Rejection Reason") <p>Where a Paaaa, Pdddd or Pgggg data flow has been loaded into the Elexon Kinnect Customer Solution by an AMVLP or by the SVAA contains multiple Assets, SVAA shall create a single Pbbbb, Peeee or Phhhh data flow for all Assets that have failed validation and a single Pcccc, Pfffff or Piiii data flow for all Assets that have passed validation</p> <p>Elexon Kinnect Customer Solution i.e. digitalised online form data entry by the AMVLP – immediately after validation for each stage of registration, the SVAA shall notify the Registrant AMVLP.</p> <p>Email to the BSC Service Desk– Within 1WD of receiving the Paaaa, Pdddd or Pgggg data flow, the SVAA shall validate the Registration data flow and notify the Registrant AMVLP of the outcome by emailing the response data flow to the sender's email address</p> <p>Where the Registrant AMVLP has entered Asset Registration Details through Elexon Kinnect Customer Gateway, SVAA shall generate an AMSID for each Asset Metering System (i.e. the Import AMSID and, where applicable, the Export AMSID) shall be automatically populated.</p> <p>SVAA shall notify the Registrant AMVLP (even where they have entered Asset Registration Details through Elexon Kinnect Customer Solution) as part of the Pcccc 'Confirmation of Asset Registration' data flow.</p>
P375-BR6	SVAA shall not allow AMSID Pair to be allocated to a Primary BM Unit.
P375-BR7	<p>The SVAA shall be able to automatically generate AMSIDs. Each AMSID shall be unique, i.e. it cannot be a duplication of an existing AMSID and it must be distinct from any MSIDs (or Secondary MSIDs) that have been raised to date or could be raised in the future.</p> <p>SVAA shall assign a thirteen digit "AMSID" to each Asset Meter using the logic listed below</p> <ul style="list-style-type: none"> First two digits – short code (not used by Distributors for MSIDs) – tbc but "88" may be usable. Next 10 digits - Unique number generated by the SVAA. Last digit - Check digit <p>By automatically generating AMSID(s) using a range of numbers not used by 'real' MSIDs, there will be no chance of conflicting AMSIDs and MSIDs.</p>
P375-BR8	<p>The AMVLP can list more than one Asset meter against an AMSID as long as the Asset Metering System measure the Metered Volumes for Assets located on the same site 'below' the same Boundary Point(s).</p> <p>For avoidance of doubt, the use of asset metering is a commercial choice. The AMVLP will decide what metering solution best suits each individual site.</p>
P375-BR9	<u>'AMVLP Hub' Processes</u>

P375 BUSINESS REQUIREMENTS

	<p>AMVLPs and the AMVLP Agents shall use new 'AMVLP Hub' processes to exchange data. The 'AMVLP Hub' processes shall be based where possible on existing Supplier Hub processes:</p> <ul style="list-style-type: none"> • An AMVLP Hub shall comprise an AMVLP, a HHDC (and, where applicable, an AMHHDC) and a MOA (or an AMMOA), but not a HHDA • Where the relevant Supplier Hub data flow involves a Supplier, then a new instance (or instances) will be created with the AMVLP replacing the Supplier; and • Where a Supplier Hub data flow does not involve a Supplier (i.e. only involves HHDC and/or MOAs), existing instances can be used in the AMVLP Hub • The AMVLP Hub flows shall use the existing "MPAN⁶ Core" Data Item to hold the AMSID • AMVLP Hub instances of data flows involving AMVLPs shall only contain AMSIDs and not MSIDs • Where possible (i.e. where the sender and the recipient both have a DTN Gateway), an AMVLP Hub data flow should be transferred via the DTN. Where this is not possible, the AMVLP Hub data flow, AMVLPs will be able to select their preferred transfer mechanism, but the main body of the file should conform to the structure defined in the Data Transfer Catalogue.
P375-BR10	<p>The MOA (SVA HHMOA or AMMOA) must install and maintain COP11 compliant Asset Meters.</p> <p><u>Requirement Description</u></p> <p>Asset Meters must conform to the COP11 requirements. Following Asset meter installation, the MOA should send the Asset Meter Technical Details to the AMVLP. For existing Asset equipment that have not yet been registered in the Asset Metering System Register, the AMVLP may provide these details to the AMMOA.</p>
P375-BR10a	<p>The AMVLP shall only install a new or replacement Asset Meter which is included in the list of COP11 compliant Asset Meters.</p>
P375-BR10b	<p>Where an AMVLP wishes to use an Asset Meter that is not included in the list of COP11 compliant Asset Meters, they must first submit a request to BSCCo to check whether the Asset Meter is COP11 compliant and, where appropriate, add the Asset Meter to the list, before submitting the Asset Meter Registration details.</p> <p>Otherwise, the Asset Metering System will fail Registration Stage 3 and SVAA will not allow the related AMISD Pair to be allocated to a Secondary BM Unit</p>
P375-BR11	<p>A Registrant AMVLP must appoint a HHDC and may also appoint, where applicable, an AMHHDC.</p> <p><u>Requirement Description</u></p> <p>After the Registrant AMVLP has received the AMSID Pair for the Asset Metering System from the SVAA, the AMVLP shall appoint a Qualified HHDC and, where applicable AMHHDC in accordance with CoP11 and BSCP601 for an AMSID Pair. Where the AMVLP has appointed an AMHHDC, they will also need to appoint a HHDC to receive HH AMSID Metered Volume Data from the AMHHDC and send it to the SVAA.</p>

⁶ MPAN is the MRA equivalent term to MSID in the BSC

P375 BUSINESS REQUIREMENTS

	The appointment process must mirror the existing process performed by Suppliers in line with BSCP502 Section 3.2.
P375-BR12	<p>AMVLP must appoint a MOA (a SVA HH MOA or an AMMOA).</p> <p><u>Requirement Description</u></p> <p>After the Registrant AMVLP has received the AMSID Pair for the Asset Metering System from the SVAA, the AMVLP shall appoint a Qualified SVA HH MOA or AMMOA for each AMSID Pair. The process must mirror existing appointment performed by Suppliers in line with BSCP514 Section 5.2.</p>
P375-BR12a	<p>SVAA shall register the new AMVLP agent roles:</p> <ul style="list-style-type: none"> • Asset Meter MOA (AMMOA) • Asset Meter HHDC (AMHHDC) <p>For the avoidance of doubt, the AMMOA and AMHHDC roles will not be captured in Market Domain Data (MDD).</p>
P375-BR12b	<p>BSCCo shall upload details of the existing list of AMVLP agent roles into Salesforce [10] WD prior to P375 implementation date.</p> <ul style="list-style-type: none"> • MOA (SVA HH MOA) • HHDC
P375-BR12c	<p>On an ad hoc basis i.e. when there is an update to the agent appointment, the SVAA shall store and maintain details of the “new” AMVLP agents, i.e. AMHHDC and AMMOA in the Asset Metering System Register.</p> <p>Please see the Elexon Kinnect Customer Solution business rules table in Section 3.7.1 for AMVLP agent appointments rules.</p>
P375-BR12d	<p>SVAA shall be able to differentiate the various type of AMVLP agents that may be appointed to the Asset Metering System:</p> <ul style="list-style-type: none"> • MOA (SVA HH MOA) • MOA (CVA HH MOA) • AMMOA • HHDC • AMHHDC <p>Noteworthy, SVAA shall not be required to integrate with legacy CRA for the purposes of P375. Please see the Elexon Kinnect Customer Solution business rules table for AMVLP agent appointments rules.</p>
P375-BR12e	Where there are two AMVLPs using the same AMSID Pair (i.e. one AMVLP using the AMSID Pair for Asset Metering and the other AMVLP using the AMSID Pair for Differencing), only the Registrant AMVLP shall appoint AMVLP Agents for an AMSID Pair.
P375-BR12f	<p>Where the Registrant AMVLP end dates an AMSID Pair which is also being used by a 2nd AMVLP, the SVAA shall notify the 2nd AMVLP that it can either appoint its own AMVLP agents (as per Stage 2 of the registration process) or take over responsibility of the existing agents if it wishes to continue to use that AMSID Pair.</p> <p>Where the new AMVLP is going to become the Registrant, they would need to submit a Paaaa with the Action Indicator set to “C” (Change of Registrant).</p>

P375 BUSINESS REQUIREMENTS

<p><u>Compliance Testing of Meters</u></p> <p>BSCCo shall perform Compliance Testing and Protocol Approval of Asset Meters.</p>	
P375-BR13	<p>BSCCo must publish and maintain a list of COP compliant Asset Meter make and models and data collectors with protocol approval for that Asset Meter.</p> <p><u>Requirement Description</u></p> <p>On an Ad Hoc basis i.e. when there is an update to the COP list, BSCCo must publish onto the BSC Website and maintain a list of COP compliant Asset Meter make and models. BSCCo shall use reasonable endeavours to ensure that the list is at all times publicly available on the BSC Website. BSCCo shall publish the following new data items for the Asset Metering:</p> <ul style="list-style-type: none"> • Name of Manufacturer • Asset Meter Model • Asset Meter Type • Outstation with a fixed multiplier of 1 • DTN Data Item J0471 'Outstation Type' • Meter Compliance against which CoP11 Asset Meter Type(s) • HHDC • AMVLP with Protocol Approval
P375-BR13a	<p>Business Rules to Support P375-BR13</p> <ul style="list-style-type: none"> • There must be at least one entity that can dial the Asset Meter • The Asset Meter must have been protocol approved before that Asset Meter can be added the approved list. • All entities that can dial that Asset Meter Type will be listed under the protocol-approved section for the relevant Asset Meter type.
P375-BR13b	<p>Where BSCCo has received a request from an Applicant to assess an Asset Meter compliance with the relevant CoP, the BSCCo shall perform any necessary checks to ascertain whether the Asset Meter is compliant with the relevant CoP.</p> <p>The approval process will be included in BSCP601.</p>
P375-BR13c	<p>If BSCCo ascertains that the Asset Meter is compliant with the relevant CoP, BSCCo shall amend the list of CoP compliant Asset Meter(s) and publish the revised list on the BSC Website as per BR13 above.</p>
375-BR13d	<p>Upon verification (compliant or non-compliant) of the Asset Meter compliance check with the COP list, BSCCo shall send a notification of approval or rejection (with rejection reason) back to the Applicant by email within 1WD of validation.</p>
375-BR13e	<p>Where BSCCo has received a request from a HHDC to assess whether they have the protocol to communicate with an Asset Meter, the BSCCo shall perform any necessary checks to ascertain whether the data collector's protocol is compliant for an Asset Meter type.</p> <p>The approval process shall be included in BSCP601.</p>
375-BR13f	<p>If BSCCo ascertains that the protocol is compliant for an Asset Meter, BSCCo shall amend the list of CoP protocol approved data collectors for the relevant Asset Meter type and publish the revised list on the BSC Website as per BR13 above.</p>
375-BR13g	<p>Upon verification (compliant or non-compliant) of the data collector protocol check for an Asset Meter type, BSCCo shall send a notification of approval or rejection (with rejection reason) back to the applicant by email within 1WD of validation.</p>

P375 BUSINESS REQUIREMENTS

P375-BR14	<p>An Applicant shall submit a request to add a new Asset Meter make and model to the COP 11 Meter list to the BSCCo.</p> <p><u>Requirement Description</u></p> <p>Where an Applicant wishes to register an Asset Meter and with the relevant Asset Meter Type which is not included in the BSCCo list of approved devices, the applicant must contact the BSCCo to request that the BSCCo assess Metering System's compliance with the relevant COP.</p> <p>The approval process will be included in BSCP601.</p> <p>The applicant can be any person, company or an entity who wishes that a given device were added to the list.</p>
P375-BR14a	Where there have been any changes to the information submitted to the initial Asset Metering system (as per BR2b), the SVAA shall be required to notify BSCCo of any such change.
P375-BR14b	On receipt of change of Asset Meter notification from SVAA that the new or replacement Asset Meter has failed validation (i.e. is non COP11-compliant), the BSCCo shall review the list of COP11 compliant Asset Meters for omissions and update where appropriate.
P375-BR14c	Not used
P375-BR14d	Where the new or replacement Asset Meter has failed validation (i.e. is non COP11-compliant, fails stage 3 registration process), The SVAA shall send a rejection notification to the AMVLP.
P375-BR14e	Where the new or replacement Asset Meter has failed validation, the SVAA shall exclude the AMSID from Settlement calculations.
<p><u>Registering AMSID Pairs against a Secondary BM Unit</u></p> <p>The AMVLP shall be required to notify the SVAA of any AMSID Pairs to be treated as belonging to that Secondary BM Unit; and details of the associated BP MSID Pairs.</p>	
P375-BR15	<p>SVA Metering System Register must store the following information.</p> <p><u>Requirement Description</u></p> <p>Within the SVA Metering System Register, SVAA must be able to receive and store details of all AMSID Pairs against the Secondary BM Units. The details (data) to be stored:</p> <ul style="list-style-type: none"> • AMSID Pair_BM Unit ID • AMSID Pair ID • AMSID Pair_BM Unit EFD • AMSID Pair_BM Unit ETD • AMSID Pair Differencing Indicator <p>The 'Apply Differencing' indicator should take a BOOLEAN format.</p> <p>Where AMSID Pair Differencing Indicator (False = Asset Metering; True = Differencing)</p>
P375-BR15a	The SVAA shall amend the structure of the existing Secondary BM Unit Pair Allocation to include the MSID Pair Indicator.
P375-BR15b	Prior to Go-Live, the SVAA shall assign an MSID Pair Indicator of "T" - No MSID Pairs (i.e. P344 option) to all existing Secondary BM Unit MSID Pair Allocations.
P375-BR15c	The SVAA shall allow the AMVLPs to update the MSID Pair Indicator (T= No AMSID Pairs; A = AMSID Pairs used for Asset Metering; D = AMSID Pairs used for Differencing).

P375 BUSINESS REQUIREMENTS

P375-BR16	<p>An AMVLP may allocate AMSID Pair(s) to a Secondary BM Unit</p> <p><u>Requirement Description</u></p> <p>Where a Registrant AMVLP wishes to use a given AMSID Pair within their Secondary BM Unit for a provision of Balancing Services, the AMVLP must submit a Pjjjj 'AMSID Pair Allocation to a Secondary BM Unit' containing the following data items:</p> <p>:</p> <ul style="list-style-type: none"> • AMVLP Id • BM Unit Id • Import AMSID • Export AMSID • AMSID Pair Differencing Indicator • MSID Pair Indicator • AMSID Pair in Secondary BM Unit EFD • AMSID Pair in Secondary BM Unit ETD • Import MSID (from Associated MSID Pair) • Export MSID (from Associated MSID Pair, where present) <p>A P375 site may contain one or more AMSID Pairs and one or more Associated MSID Pairs (i.e. there is a "many-to-many" relationship between AMSID Pairs and Associated MSID Pairs).</p> <p>The Pjjjj must include all relevant AMSID Pairs and Associated MSID Pairs.</p> <p>AMVLP shall send this information to SVAA at least 5 WD prior to the Effective from Date of the AMSID Pair.</p> <p>The AMVLP may use the Elexon Kinnect Customer Solution, email to submit a Pjjjj data flow to allocate AMSID(s) to their Secondary BM Unit. Where the proposed allocation is not allowed, the SVAA shall issue a Pmmm 'Notification of AMSID Pair Conflict' to the AMVLP.</p>
P375-BR16a	<p>A second AMVLP (who is not the Asset Metering System Registrant) can allocate an existing AMSID Pair(s) to their Secondary B M Units for the provision of Balancing Services in line with BR16 above.</p> <p>Where the use of the AMSID Pair(s) by the AMVLP2 is the same as the use of the AMSID Pair(s) by AMVLP1, the AMSID Pair will be allocated to AMVLP2's Secondary BM Units and de-allocated from AMVLP1's Secondary B M Units "a "loss of AMSID Pair Allocation"). SVAA shall notify AMVLP1</p> <p>Where the use of the AMSID Pair(s) by the second AMVLP is different to the use of the AMSID Pair(s) by the first AMVLP (e.g. AMVLP1 is using it for Asset Metering and AMVLP2 is using it for Differencing), both AMVLPs may use the AMSID Pair without a Loss of Allocation.</p>
P375-BR16b	<p>An AMVLP can allocate AMSID Pairs to the Secondary BM Units based on following events lifecycle:</p> <ul style="list-style-type: none"> • An existing VLP that already have existing Secondary BM Units (i.e. under P344 arrangement) they are currently trading against shall be required to qualify as an AMVLP before they can allocate AMSID Pairs into their Secondary BM Units post P375 Go-Live. • An AMVLP can raise new Secondary BM Units and allocate AMSID Pairs against the new SBMU • A second AMVLP can re-allocate AMSID Pairs currently registered against another AMVLPs SBMU to their Secondary BM Unit • An AMVLP can allocate an AMSID Pair for the purposes of:

P375 BUSINESS REQUIREMENTS

	<ul style="list-style-type: none"> ○ Asset Metering – this is where the AMSID Pair Delivered Volume is used instead of the Boundary Point MSID Pair Delivered Volume. ○ Asset Differencing - this is where the AMSID Pair Delivered Volume is subtracted from the Boundary Point MSID Pair Delivered Volume. <p>Please refer to the P375 re-allocation scenarios document</p>
P375-BR16c	<p>Business Rules to Support BR16</p> <ul style="list-style-type: none"> • At any point in time, only two AMVLPs can allocate a given AMSID Pair to their SBMU. • Where an AMVLP has allocated an AMSID Pair to a Secondary BM Unit for the purposes of Asset Metering, a second AMVLP may also use that AMSID Pair for Asset Differencing; and vice versa. • The relationship between AMSID Pair and MSID pair can be a many: many relationship
P375-BR16d	<p>As soon as an AMVLP becomes aware of any changes to the configuration of a site containing Asset Metering Systems, the AMVLP shall make appropriate changes to the relevant Secondary BM Units (s).</p> <p>The AMVLP shall notify SVAA of any changes to the configuration or information underpinning a Secondary BM Unit. Such configuration changes are based on the following lifecycle events:</p> <ul style="list-style-type: none"> • Add New Asset Metering Systems • Allocate AMSID to Secondary BM Units • Associate AMSID Pair with MSID Pair • Remove Asset Metering Systems • Disassociate AMSID Pair from Secondary BM Units • Disassociate AMSID Pair from MSID Pair • AMSID Pairs can switch between AMVLPs. (see re-allocation rules) • Concurrent change of MSID Pair indicator and AMSID Pair 'Apply Differencing' indicator. • Add Asset Meter • Remove Asset Meter <p>Please refer to the P375 Configuration Change document.</p> <p>The AMVLP may use the Elexon Kinnect Customer Solution to submit an online form notify SVAA of any changes to the configuration or information underpinning a Secondary BM Unit.</p> <p>The AMVLP may also have the option to notify SVAA of any changes to the configuration or information underpinning a Secondary BM Unit via email of its reason.</p>
P375-BR16e	<p>SVAA shall be able to facilitate a concurrent change of MSID Pair indicator and AMSID Pair Differencing indicator in a SBMU without breaking the indicator rules (outlined in BR15 and BR25).</p> <p>Please refer to the P375 Configuration Change document.</p>
P375-BR17	<p>SVAA shall notify the 'Asset Metering System Registrant' where the differencing is applied.</p> <p><u>Requirement Description</u></p> <ul style="list-style-type: none"> • Where an AMVLP that is not the 'Asset Metering System Registrant' allocated an AMSID Pair to their Secondary BM Units, then the Registrant AMVLP must be notified.

P375 BUSINESS REQUIREMENTS

	<ul style="list-style-type: none"> Where an AMVLP allocates to its Secondary BM Unit an AMSID Pair for which it is the 'Asset Metering System Registrant', then SVAA will not issue a notification <p>Elxon Kinnect Customer Solution i.e. digitalised online form data entry by the AMVLP – Immediately after successful allocation of the differencing AMSID Pair to the Secondary BM Unit, the SVAA shall notify the 'Asset Metering System Registrant'</p> <p>Email– Within 1WD of successful allocation of the differencing AMSID Pair to the Secondary BM Unit, the SVAA shall notify the 'Asset Metering System Registrant'.</p>
P375-BR18	<p>AMVLP shall register all affected Boundary Point MSID Pair(s) with SVAA when registering AMSID Pairs. These are known as Associated MSID Pairs</p> <p><u>Requirement Description</u></p> <p>Where an AMVLP decides to use an Asset Metering System to participate in Balancing Services, in addition to registering a new AMSID Pair, an AMVLP must also register Associated Boundary MSID Pair in the SVA Metering System Register' where not already registered.</p> <p>To register the MSID Pair the VLP will provide the following details:</p> <ul style="list-style-type: none"> The Secondary BM Unit Id The GSP Group Id; The MSID of the Import Metering System The MSID of the Export Metering System (where applicable) The MSID Pair Effective From Settlement Date The MSID Pair Effective To Settlement Date The MSID Pair Indicator <p>For the avoidance of doubt, where there is more than one VLP operating Assets located 'behind' a given Boundary Point Metering System, each VLP will have to register the same Associated MSID Pair against its AMSID Pair. This will not act as a change of ownership. (see BR16-BR16c)</p>
P375-BR19	<p>SVAA shall validate the AMSID Pair allocation to a secondary BM Unit.</p> <p><u>Requirement Description</u></p> <ul style="list-style-type: none"> On receipt of the AMSID Pair registration (in BR9), the SVAA shall check that the registration is complete and valid. <ul style="list-style-type: none"> Elxon Kinnect Customer Solution i.e. digitalised online form data entry by the AMVLP – Immediately after the completion of the AMSID Pair registration, SVAA must check that the registration is complete and valid. Email– Within 1 WD of receiving all required AMSID Pair registration details the SVAA must check that the registration is complete and valid. SVAA shall also perform the SVA Metering System Register checks in accordance with the appendices in BSCP602.
P375-BR19a	Not Used
P375-BR20	<p><u>Requirement Description</u></p> <p>On completion of the validation of the allocation to a Secondary BM Unit details, the SVAA shall notify the outcome to the Registrant AMVLP</p>

P375 BUSINESS REQUIREMENTS

	<p>Where the validation was successful, the SVAA shall confirm that AMSID Pair is now allocated to the Secondary BM Unit and can be used for provision of Balancing Services from the 'Effective from Date'.</p> <p>At the same time, SVAA will check whether Boundary Point MSID Pairs linked to that AMSID Pair are registered in 'SVA Metering System Register' for provision of Balancing Services in line with P344.</p> <p>An AMVLP cannot allocate an AMSID Pair to their Secondary BM Unit if an Associated MSID Pair is already being used for Balancing Services and has not being selected for Asset Differencing. If another AMSID pair is allocated behind a MSID Pair being used for Asset Differencing then all Parties will be notified when the AMSID is allocated.</p> <p>Elexon Kinnect Customer Solution i.e. digitalised online form data entry by the AMVLP – Immediately after validating the AMSID(s) registration, SVAA shall notify the validation outcome (whether to approve or reject) to the AMVLP.</p> <p>Email– Within 1 WD of validating the AMSID(s) registration, SVAA shall notify the validation outcome (whether to approve or reject) to the AMVLP.</p> <p>Where the registration was unsuccessful, SVAA will provide the rationale in the notification issued to the AMVLP.</p>
P375-BR21	<p>AMVLPs shall notify SVAA upon the change of AMVLP for an Asset Metering System.</p> <p><u>Requirement Description</u></p> <p>The AMVLPs shall notify the SVAA upon change of AMVLP for an Asset Metering System at least 5WDs prior to the Effective from Date of the AMSID Pair in the Secondary BM Unit.</p> <p>The AMVLP may use the Elexon Kinnect Customer Solution or email to notify change of ownership of Asset Metering System.</p>
P375-BR21a	<p>SVAA shall validate the change of Registrant AMVLP for an Asset Metering System:</p> <p>SVAA shall perform the same validation as for a registration of a new AMSID Pair (see BR19).</p> <p>Where the validation proved successful, SVAA will amend its records within both Asset Metering System Register (to indicate the change of Asset Metering Registrant) and 'SVA Metering System Register (to indicate that the Pair should be aggregated under another Secondary BM Unit)'.</p> <p>Please see P375 re-allocation document</p>
P375-BR21b	<p>In the event of AMSID Pair re-allocation, SVAA shall de-associate the AMSID Pair from the losing AMVLPs Secondary BM Unit</p>
P375-BR21c	<p>In the event of AMSID Pair re-allocation, the Gaining AMVLP and the Losing AMVLP will need to agree when the gaining AMVLP becomes the Registrant AMVLP. The Gaining AMVLP shall submit a Paaaa with a "C" in the action indicator to become the new Registrant AMVLP. The gaining AMVLP shall either appoint new agents or take over responsibility of the existing agents.</p>
P375-BR22	<p>SVAA shall notify new and previous VLP of an AMSID Pair re-allocation.</p> <p><u>Requirement Description</u></p> <p>Where an AMSID Pair is re-allocated to a different AMVLPs Secondary BM Unit, the SVAA upon successful validation and amendment of records (in line with BR16), shall issue the following notification:</p>

P375 BUSINESS REQUIREMENTS

	<ul style="list-style-type: none"> • New AMVLP – a notification of re-allocation of AMSID Pair to their respective Secondary BM Unit. • Losing AMVLP - a notification of change of AMVLP of Asset.
P375-BR23	<p>An AMVLP losing AMSID Pair shall be able to raise an AMSID Pair dispute.</p> <p><u>Requirement Description</u></p> <p>Where a Losing AMVLP believes that the transfer of AMSID Pair occurred in an error, the relevant AMVLP shall follow the AMSID Pair Dispute process outlined in BSCP602.</p> <p>The losing AMVLP will have 5WD since the SVAA notification was issued to raise such a dispute.</p> <p>For the avoidance of doubt, Loss of AMSID Pair disputes shall be carried out bilaterally or multi-laterally. As such, the customer solution dispute functionality developed for P344 does not need to be extended for P375.</p>
P375-BR24	<p>A AMVLP shall be able to de-register an AMSID Pair.</p> <p><u>Requirement Description</u></p> <p>Where an AMVLP wishes to stop using an AMSID Pair for Balancing Services and effectively de-register the AMSID Pair.</p> <p>The AMVLP shall follow an amended P344 process to request AMSID i.e. The AMVLP shall use the Elexon Kinnect Customer Solution to submit an online form to de-register AMSID(s). The AMVLP shall also have the option to de-register AMSID(s) via email of its reason.</p>
P375-BR24a	<p>SVAA shall validate an AMSID Pair based on the following events lifecycle:</p> <ul style="list-style-type: none"> • AMSID Pairs can switch between AMVLPs (re-allocation). • AMSID Pairs can switch between Secondary BM Units of same AMVLP operating within same GSP Group (de-registration). • MOA (SVA HHMOA or AMMOA) appointed to an AMSID Pair can change. • HHDC appointed to an AMSID Pair can change. • AMHHDC appointed to an AMSID Pair can change. • AMSIDs in an AMSID Pair can be registered/de-registered.
SVAA shall differentiate between different uses of MSID Pairs.	
SVAA shall include details of BP MSID Pairs associated with the AMSID Pairs in the SVA Metering System Register	
P375-BR25	<p>SVAA shall differentiate between different uses of MSID Pairs.</p> <p><u>Requirement Description</u></p> <p>Within the 'SVA Metering System Register' SVAA shall be distinguish between the MSID Pairs that a VLP uses for the Balancing Services purposes (P344) and the MSID Pairs that are registered by AMVLPs (P375) for Asset Metering.</p> <p>We propose the introduction of an MSID Pair indicator to the 'SVA Metering System Register' to allow the differentiation.</p> <ul style="list-style-type: none"> • "T" – True. MSID Pair Metered volumes are to be included in the Secondary BM Unit. This is the P344 option. • "A" – Asset Meter. MSID Pair Metered Volumes are not to be included in the Secondary BM Unit. This is the P375 option. The AMVLP will still be notifying Delivered Volumes for the MSID Pair (when a P375 asset behind the BP MSID Pair delivers a volume).

P375 BUSINESS REQUIREMENTS

	<ul style="list-style-type: none"> “D” – Differencing. MSID Pair Metered Volumes are to be included in the Secondary BM Unit (but with some specific AMSIDS netted off – these represent Plant and Apparatus not in the Secondary BM Unit).
P375-BR26	<p>SVAA shall be able to receive, approve and update details updates to ‘SVA Metering System and Asset Metering System Register’.</p> <p><u>Requirement Description</u></p> <p>Where the validation was successful for any of the Registration details for an AMSID Pair or relationships, then the SVAA shall confirm changes to the ‘SVA Metering System Register’ made by the VLP</p>
P375-BR27	<p>SVAA shall instruct HHDA of the affected Boundary Point MSID Pair(s)</p> <p>For the avoidance of doubt, the existing P344/P354 processes regarding HHDA data shall not be affected by the P375 solution.</p>
P375-BR27a	<p>In the event of missing MSID Metering System Half-Hourly Metered Data (D0385), SVAA shall use the existing P0034 (missing data) data flow to communicate missing data back to the HHDA (as outlined in BSCP508).</p>
P375-BR27b	<p>For MSID Metering System Half-Hourly Metered Data (D0385), SVAA shall send a P0034 notification to the HHDA for each VAR where SVAA has not received data from the HHDA.</p>
P375-BR27c	<p>In the event of a validation exception, the SVAA shall use the existing P0035 (Invalid Data) data flow to communicate exceptions back to the HHDA (as outlined in BSCP508).</p>
<p><u>Submission of HH AMSID metered data by HHDCs</u></p> <p>HHDCs shall submit to SVAA metered data for AMSIDs to which they are appointed.</p>	
P375-BR28	<p>HHDC shall send AMSID Half Hourly Metered Volume data to SVAA for each AMSID for which they have been appointed by an AMVLP. This will be the equivalent of the Boundary point Metered Volume Data which HHDC’s send to HHDA’s for Boundary MSIDs.</p> <p><u>Requirement Description</u></p> <p>he Half Hour Data Collector shall produce and send HH Metered Volumes (estimated if actuals are not available) for the SSF VAR DA deadline for all AMSIDs it has been instructed to report on. The following information shall be submitted:</p> <ul style="list-style-type: none"> The 13-digit Asset Metering System Identifier (AMSID) Metered Consumption in kWh Measurement Quantity Id Actual/Estimated Indicator Settlement Date <p>The HHDC shall use the DTN to submit AMSID Half Hourly Metered Volume data to the SVAA (DXXXX). The new DTN data flow including these data items will be defined in the Data Transfer Catalogue and in the Code Subsidiary Documents together with the process that shall be followed when submitting the data.</p> <p>Noteworthy, the DTC name will be under new governance from REC Go-Live.</p>
P375-BR28a	<p>The HHDC may submit AMSID Half Hourly Metered Volume data for one or more Settlement Dates in a single Dxxxx file (unlike HHDA’s submitting Half Hourly Metered Volume data for a single Settlement Date in the D0385).</p>

P375 BUSINESS REQUIREMENTS

	<p>The new Dxxxx data flow from HHDCs to SVAA will contain a data item called the J0020 'Actual / Estimated Indicator', which has 3 valid set items:</p> <ul style="list-style-type: none"> • "A" - Actual • "C" – Long Day / Short Day Indicator (not used for the purpose of P375). • "E" – Estimated <p>Where SVAA receives a DXXXX with a J0020 Indicator of "C", SVAA shall process the Dxxxx as if it contained an "E".</p>
P375-BR28b	<p>If it is the first time SVAA has received a Dxxxx for a particular AMSID for a particular Settlement Day and contains a "C" or an "E" in the J0020, SVAA should store the AMSID metered volume as an estimate.</p> <p>If the SVAA has already received an estimate for a particular AMSID for a particular Settlement Day, and subsequently receives a Dxxxx with a "C" or an "E" in the J0020, it should process it but the value will remain as an estimate.</p> <p>If the SVAA has already a Dxxxx with an "A" in the J0020, SVAA shall ignore any subsequent Dxxxx for that AMSID and Settlement Day, if the J0020 contains "C" or "E".</p>
P375-BR28c	<p>Business Rules to Support P375-BR28a</p> <p>The HHDC Must:</p> <ul style="list-style-type: none"> • Submit AMSID Half Hourly Metered Volume data to SVAA when available for the SF Volume Allocation Run (VAR) by the SVAA Settlement calendar DA Run date. • Use estimated AMSID Half Hourly Metered Volume data if no actual data is available for the SF Volume Allocation Run. • If estimated data was submitted for the SF Run, submit actual AMSID Half Hourly Metered Volume data as soon as it becomes available • For each Reconciliation VAR, where SVAA has not received actual data 2WDs prior to the DA Run date, SVAA shall issue a P0034 'Missing Data' to the HHDC and AMVLP.
P375-BR28d	<p>SVAA shall validate the AMSIDs included in the Half Hourly Asset Meter Volumes Data (DXXXX) received from the HHDC. The SVAA shall perform the following checks:</p> <ul style="list-style-type: none"> • Technical validation of the file structure; and • Business validation of the AMSID details included in the file.
P375-BR28e	<p>Upon validation of the AMSID Half Hourly Metered Data (DXXXX), if it fails validation, the SVAA shall notify the HHDC.</p> <p>SVAA shall use the existing P0035 (Invalid Data) data flow to communicate invalid data back to the HHDC and AMVLP (as outlined in BSCP508).</p>
P375-BR28f	<p>All functionalities of the Operator Portal shall be applied to the P375 process.</p> <p>This functionality shall include (but not limited to):</p> <ul style="list-style-type: none"> • Incoming File Monitoring • Check Receipt of expected files • Check Receipt of unexpected files • Check for Missing files • Outgoing File Monitoring • Disaggregation of AMSID Metered Data (at settlement period level)

P375 BUSINESS REQUIREMENTS

	<ul style="list-style-type: none"> Download files Re-run File validation
Aggregation of AMSID metered volumes Where an AMVLP has registered an AMSID Pair in a Secondary BM Unit, SVAA shall include the metered volumes for each AMSID provided by the HHDC(s) in the calculation of Secondary BM Unit Demand Volume (applying Line Loss Factors, GSP Group Correction Factors and GSP Scaling weight as appropriate).	
P375-BR29	SVAA shall determine the LLFC Id for Metered Data using the connection voltages registered in the AMR
P375-BR29a	Where the AMVLP becomes aware of a change to the Connection Voltage they must notify SVAA at the earliest given opportunity, by submitting a Paaaa (with the Action Indicator set to "C") containing a revised Connection Voltage. N.B. if the change of Connection Voltage was significant, it may require the Asset Metering System to be de-registered and re-registered, resulting in a new AMSID Pair for the Asset.
P375-BR30	SVAA shall determine CCC Id for AMSIDs. <u>Requirement Description</u> <ul style="list-style-type: none"> Metered Data for AMSIDs submitted by HHDC will not have been allocated to a CCC. SVAA will need to allocate, based on: Whether the AMSID is Import or Export Whether the Meter reading is Actual or Estimated Measurement Class registered by the AMVLP Note that that a table identifying the CCC Id associated with each combination of Import/Export, Actual/Estimate and Measurement Class is published in Table X-8 of Annex X-2 of the BSC.
P375-BR31	SVAA shall categorise Metered Volume data sent by HHDCs into Secondary BM Unit's Metering System Metered Consumption. <u>Requirement Description</u> For each AMSID, SVAA will use the Metered Volume data provided by HHDC, as well as LLFC and CCC Id to group the Metered Volume data into Allocated Asset Metering System Metered Consumption (AAVMMC _{HNLKj}). This will be an equivalent of Secondary BM Unit Metering System Metered Consumption, 'AVMMC _{HZaNLKji} ' ⁷ that is currently provided by HHDCs for P344 Boundary Point MSIDs.
P375-BR32	SVAA shall transform Allocated Asset Metering System Metered Consumption into Asset Metering System Metered Consumption (VMMC _{HNLKj}). <u>Requirement Description</u> SVAA shall amend the units of Metered Volume data it received from HHDC from kWh to MWh. This is an equivalent of 'VMMC _{HZaNLKji} ' ⁸ .
P375-BR33	SVAA shall group Metering System Metered Consumption by Secondary BM Unit.

⁷ BSC Section S Annex S-2: Supplier Volume Allocation Rules paragraph 3.9.2.

⁸ BSC Section S Annex S-2: Supplier Volume Allocation Rules paragraph 7.1.1B.

P375 BUSINESS REQUIREMENTS

	<p><u>Requirement Description</u></p> <p>SVAA shall calculate Secondary BM Unit Metered Consumption ('VBMMC_{i2NLKji}') by grouping Asset Metering System Metered Consumption ('VMMC_{HNLKj}') by the Secondary BM Unit in line with the information provided by the AMVLP in the SVA Metering System and Asset Metering System Register.</p> <p>Where Asset Differencing applies, SVAA shall also re-determine the Consumption Component Class (see BR33A below).</p>
P375-BR33A	<p>Where an AMVLP is using Asset Differencing, SVAA shall re-determine the Consumption Component Class at the point of determining Secondary BM Unit Metered Consumption (VBMMC) values. This applies to both:</p> <ul style="list-style-type: none"> The VBMMC_{i2NLKj} values calculated for the Asset Metering Systems (from the Asset Metering System Metered Consumption, VMMC_{HNLKj}); and The VBMMC_{i2aNLKji} values calculated for the associated Boundary Point Metering Systems (from the Metering System Metered Consumption, VMMC_{HzaNLKji}). <p><u>Requirement Description</u></p> <p>For each Asset Differencing arrangement, SVAA shall identify the AMSID Pair(s) and their associated MSID Pair(s), from the data provided by the AMVLP. Note that in some cases, there could be multiple MSID Pairs and AMSID Pairs associated with each other, in which case they should all be treated as a group for the purpose of this requirement.</p> <p>For each Settlement Period, SVAA shall sum the VMMC_{HzaNLKji} values for the Metering Systems in the MSID Pairs and subtract the VMMC_{HNLKj} values for the Asset Metering Systems in the AMSID Pairs (treating Import CCCs as positive and Export CCCs as negative, as per the usual SVAA sign convention). The result is the Net Differencing Volume (VNDK_j) for the Asset Differencing arrangement in that Settlement Period.</p> <p>If the VNDK_j value is positive, SVAA shall allocate the VBMMC values for all these Metering Systems to an Import CCC (regardless of whether the VMMC value was Import or Export). Conversely, if the VNDK_j value is negative, SVAA shall allocate the VBMMC values for all the Metering Systems to an Export CCC.</p>
P375-BR34	<p>SVAA shall calculate losses for each Secondary BM Unit's Metering System Metered Consumption.</p> <p><u>Requirement Description</u></p> <p>SVAA shall calculate losses for each Metered Volume data ('VLOSS_{i2KNij}') by applying Line Loss Factors to the Secondary BM Unit Metered Consumption ('VBMMC_{i2aNLKji}'). Note that the Line Loss Factor Class relates to the connection voltage of the AMSID (see BR), and the calculated losses therefore adjust the meter reading from the Asset Meter to the boundary of the Transmission System.</p>
P375-BR35	<p>SVAA shall determine the Secondary Half Hourly Consumption.</p> <p><u>Requirement Description</u></p> <p>SVAA shall sum Secondary BM Unit Metered Consumption ('VBMMC_{i2aNLKji}') derived from data provided by HHDAs and HHDCs for each MSID and AMSID registered against a given Secondary BM Unit in the SVA Metering System Register. This should be done per Secondary BM Unit, Settlement Period and Consumption Component Class basis ('V_{i2Nj}').</p>

P375 BUSINESS REQUIREMENTS

	<p>For purpose of P375, when aggregating Secondary BM Unit Metered Consumption, SVAA shall identify instances where Asset Differencing needs to be applied based on the information provided in the SVA Metering System Register. The Secondary Half Hourly Consumption should become:</p> <p>The sum of the Secondary BM Unit Metered Consumption for BP MSID Pairs registered for purposes of P344 or P375 differencing (but not for standard P375 purposes), i.e. Secondary BM Unit MSID Pair Indicator of 'T' or 'D' (but not 'A'); plus</p> <p>The sum of HHDC's VBMMC for AMSID Pairs registered for non-differencing purposes; minus</p> <p>The sum of HHDC's VBMMC for AMSID Pairs registered for differencing purposes.</p> <p>This calculation is described in paragraph 7.1.4 of Annex S-2 of the P375 legal text. Please see Scenario 14 for more detail.</p>
P375-BR36	<p>SVAA shall aggregate losses to a Secondary BM Unit level.</p> <p><u>Requirement Description</u></p> <p>SVAA shall calculate losses for each Secondary BM Unit ('VLOSS_{i2Nij}') by summing all Metered Volume data ('VLOSS_{i2KNij}') belonging to that BM Unit for a given Settlement Day and Settlement Period.</p> <p>For purpose of P375, when aggregating Metered Volume data ('VLOSS_{i2KNij}'), SVAA shall identify instances where differencing needs to be applied based on the information provided in the SVA Metering System Register. The Secondary Half Hourly Consumption (Losses) should become:</p> <p>The sum of losses derived from HHDA's Metered Volume data ('VLOSS_{i2KNij}') for BP MSID Pairs registered for purposes of P344 or P375 differencing (but not for standard P375 purposes), i.e. Secondary BM Unit MSID Pair Indicator of 'T' or 'D' (but not 'A'); plus</p> <p>The sum of losses derived from HHDC's Metered Volume data ('VLOSS_{i2KNij}') for AMSID Pairs registered for non-differencing purposes; minus</p> <p>The sum of losses derived from HHDC's Metered Volume data ('VLOSS_{i2KNij}') for AMSID Pairs registered for differencing purposes.</p> <p>This calculation is described in paragraph 7.2.4 of Annex S-2 of the P375 legal text.</p>
P375-BR37	<p>SVAA shall adjust Metered Volume data by GSP Group Correction Factor.</p> <p><u>Requirement Description</u></p> <p>The SVAA shall adjust Half Hourly metered volume data for GSP Group Correction (thus deriving Secondary Corrected Component, 'VCORC_{i2Nij}') using the GSP Group Correction Factor and GSP Group Correction Scaling Weight calculated by the SVAA for each MSID and AMSID.</p>
P375-BR38	<p>SVAA shall aggregate Metered Volume data up to Secondary BM Unit level (calculate Secondary BM Unit Demand Volume).</p> <p><u>Requirement Description</u></p> <p>As part of each SVA aggregation Run, SVAA shall aggregate the Line Loss and GSP Group Correction Factor adjusted metered data. For avoidance of doubt, the aggregation shall include the AMSID Pair related data submitted for P375 purposes, as well as MSID Pair related data submitted for P344 related purposes. Both shall feed into calculation of Secondary BM Unit Demand Volume ('VBMUDV_{i2j}') in MWh for each Secondary BM Unit. Once calculated, SVAA shall report the Secondary BM Unit Demand Volume data to the Settlement Administration Agent (SAA).</p>

P375 BUSINESS REQUIREMENTS

P375-BR39	<p>SVAA shall check that it received all Metered Data (AMSID and MSID) as expected.</p> <p><u>Requirement Description</u></p> <p>When aggregating metered data sent by HHDC for a given Settlement Day, Supplier Volume Allocation Agent shall check that it has received Metered Data for all AMSIDs it expects to have received Metered Data for. Missing Metered Data will trigger Supplier Volume Allocation Agent to follow the process in BSCP508⁹ 3.2 A.3.</p>
P375-BR39a	<p>In the event of missing AMSID Half Hourly Metered Data, SVAA shall be required to resolve instances where there is a failure or delay in receiving required data from the HHDC and shall:</p> <ul style="list-style-type: none"> • Contact the responsible HHDC upon non-delivery to request the subsequent forwarding of the required data set. • If all attempts to acquire the missing data are unsuccessful, then no data is entered into that Settlement run. <p>SVAA shall amend the existing P0034 (Missing data) data flow to communicate exceptions back to the HHDC (as outlined in BSCP508).</p>
<p><u>AMSID Delivered Volumes</u></p> <p>The Lead Party of a Secondary BM Unit shall notify Delivered Volumes to SVAA (identifying both the AMID Pair and BP MSID Pair to which they relate).</p>	
P375-BR40	<p>VLPs and AMVLPs shall provide SVAA with Delivered Volume data.</p> <p><u>Requirement Description</u></p> <p>The Lead Party of a Secondary BM Unit to which an RR Activation was issued shall provide to SVAA by Settlement Day + 1 WD a data file identifying the delivered MWh volumes for each MSID Pair or AMSID Pair associated with the Secondary BM Unit that was instructed to deliver RR Activation.</p> <p>The data to be provided by the Virtual Lead Party:</p> <ul style="list-style-type: none"> • Import AMSID • Export AMSID (where applicable) • Import MSID • Export MSID (where applicable) • Settlement Date • Settlement Period • Delivered volume (in MWh, where a positive value represents an increase in output and a negative volume represents a decrease in output) <p>This is an expanded version of MSID Pair Delivered Volume, 'MPDV_j¹⁰', referred to in the P375 legal text as 'AMPDV_j'. Where there is more than one Associated MSID Pairs for an AMSID, VLPs shall indicate against which MSID Pair to assign the Delivered Volumes</p>
P375-BR40a	<p>The SVAA shall validate that MSIDs and AMSIDs included in the delivered volumes data received from VLP or AMVLP of Secondary BM Units are included (on that Settlement Date) in a Secondary BM Unit for which the Lead Party is responsible (and report an exception if not) as per existing P344 process.</p>

⁹ BSCP508 – Supplier Volume Allocation Agent

¹⁰ BSC Section S Annex S-2: Supplier Volume Allocation Rules paragraph 3.10.1.

P375 BUSINESS REQUIREMENTS

P375-BR40b	An AMVLP that is using an AMSID Pair for the purposes of Asset Metering shall submit AMSID Pair Delivered Volumes for each AMSID Pair, instead of Boundary Point MSID Pair Delivered Volumes, to the SVAA for each Settlement Period in which a Balancing Service was delivered.
P375-BR40c	An AMVLP that is using an AMSID Pair for the purposes of Asset Differencing shall not be required to send AMSID Pair Delivered Volume for each AMSID Pair, and shall only be required to send the MSID Pair Delivered Volumes to the SVAA for each Settlement Period in which a Balancing Service was delivered.
Aggregation of AMSID Delivered Volumes SVAA shall aggregate AMSID Delivered Volumes in the calculation of Secondary BM Unit Demand Volume (applying Line Loss Factors and GSP Group Correction Factors as appropriate).	
P375-BR41	SVAA shall check that it received all Delivered Volume data as expected. <u>Requirement Description</u> The SVAA shall be required to resolve instances where there is a failure or delay in receiving required data from the Lead Party of Secondary BM unit and shall: Contact the responsible Party upon non-delivery to request the subsequent forwarding of the missing data set. If all attempts to acquire the missing data are unsuccessful then the SVAA will deem zeroes for that Settlement Run. To enable the SVAA to identify when Half Hourly Delivered Volumes are expected the SVAA shall load and store and data flow from the SAA detailing for each Settlement Day where the SAA has processed Replacement Reserve Activation Data for a Secondary BM Unit.
P375-BR42	SVAA shall validate AMSID Pairs within Delivered Volume data sent by AMVLPs. <u>Requirement Description</u> The SVAA shall check the SVA Metering System Register and validate that AMSID Pairs included in the data received from Lead Parties of Secondary BM Units are included (on that Settlement Date) in a Secondary BM Unit for which the Lead Party is responsible (and report an exception if not).
P375-BR43	SVAA shall adjust AMSID Pair Delivered Volumes for losses between AMS and BP MS. <u>Requirement Description</u> Prior to allocating Delivered Volumes between AMSIDs, SVAA shall adjust Delivered Volumes submitted by the VLP for the losses occurring between BP MSID Pair and AMSID Pair (thus converting 'AMPDV _j ' into 'MPDV _j '). The Adjustment shall follow the principle: $MPDV_j = AMPDV_j * \frac{LLF_{AMSID}}{LLF_{MSID}}$ Where: 'Delivered Volume' ('MPDV _j ' equivalent) is a Volume for a given Settlement Period in a given Settlement Day. 'AMPDV _j ' are the Delivered Volumes provided for AMSID Pairs for a given Settlement Period in a given Settlement Day. LLF _{AMSID} * is Line Loss Factor for a given Settlement Period in a given Settlement Day based on LLFC allocated to AMSID.

P375 BUSINESS REQUIREMENTS

	<p>LLF_{MSID}^* is a Line Loss Factor for a given Settlement Period in a given Settlement Day based on LLFC allocated to a MSID.</p> <p>* - Please note that these are not the legal notations and the subscripts are only for illustrative purposes.</p>
P375-BR44	<p>SVAA will allocate Delivered Volumes at a given Boundary Point MSID Pair between the Import MSID and Export MSID.</p> <p><u>Requirement Description</u></p> <p>SVAA will use the disaggregated metered data provided by HHDAs to allocate the AMSID Pair Delivered Volume to the component MSID Pairs affected by that AMSID Pair for each Settlement Period, creating the Metering System Delivered Volume ('$QVMD_{Kj}$') equivalent. The impact of P375 on this process is that there may now be multiple VLPs notifying values of '$MPDV_j$' for a single Boundary MSID Pair. This is handled by allocating the total net value of '$MPDV_j$' between the Import and Export MSIDs, and then sharing out the result between the VLPs (in proportion to their '$MPDV_j$' values).</p> <p>High-level steps of allocation:</p> <ol style="list-style-type: none"> SVAA will identify Metered Volume data for a given Settlement Day, Settlement Period for a given Boundary Point MSID Pair. SVAA will sum (net Export off Import) all Delivered Volumes for a given Settlement Day, Settlement Period and Boundary Point MSID Pair reported by VLPs. SVAA will allocate the net Delivered Volume to the Boundary Point MSIDs within a given Boundary Point MSID Pair based on Metered Volume data. SVAA will allocate the net Delivered Volume to each affected Secondary BM Unit based on proportion of total Delivered Volume (see Scenario 12) for a given MSID Pair. For avoidance of doubt the affected Secondary BM Units are: <ol style="list-style-type: none"> A Secondary BM Unit that consists of that MSID Pair (in accordance with the SVA Metering System Register) and; A Secondary BM Unit that consists of an AMSID Pair (in accordance with SVA Metering System Register) which affects the Boundary Point MSID Pair in question.
P375-BR44a	<p>In the event where SVAA can't allocate Delivered Volumes in full to the Secondary BM Unit at a given Boundary Point MSID Pair between the Import MSID and Export MSID. The SVAA shall report an Exception notification to the VLP and notify BSCCo as per existing P344 process.</p>
P375-BR45	<p>SVAA shall determine the Secondary Half Hourly Delivered (Non Losses).</p> <p><u>Requirement Description</u></p> <p>SVAA shall sum Secondary BM Unit Metered Consumption ('$QVBMD_{i2NLKji}$') derived from data provided by HHDAs and HHDCs for each MSID and AMSID registered against a given Secondary BM Unit in the SVA Metering System Register. This shall be done per Secondary BM Unit, Settlement Period and Consumption Component Class basis ('VD_{i2NKji}').</p>
P375-BR46	<p>SVAA shall calculate losses for each Allocated Delivered Volume.</p> <p><u>Requirement Description</u></p>

P375 BUSINESS REQUIREMENTS

	SVAA shall calculate losses for each Allocated Delivered Volume data ('VDLOSS _{i2KNij} ') by applying Line Loss Factors to the Secondary BM Unit Delivered Volume ('QVBMD _{i2NLKji} ').
P375-BR47	<p>SVAA shall adjust Allocated Delivered Volume data by GSP Group Correction Factor.</p> <p><u>Requirement Description</u></p> <p>The SVAA shall adjust Half Hourly Delivered Volume data for GSP Group Correction (thus deriving Secondary Corrected Component, 'VCORDC_{i2NKji}') using the GSP Group Correction Factor and GSP Group Correction Scaling Weight calculated by the SVAA for each MSID and AMSID.</p>
<p><u>SVAA Reporting</u></p> <p>SVAA shall provide reports to VLPs and AMVLPs and Suppliers</p>	
P375-BR48	<p>SVAA shall provide all VLPs and AMVLPs that have MSID Pair(s) and / or AMSID Pair(s) allocated to a Secondary BM Unit) with loss adjusted Metered Volumes for each MSID and AMSID.</p> <p><u>Requirement Description</u></p> <p>Upon adjustment of the for Line Losses ('VLOSS_{i2KNij}'), the SVAA shall provide the Lead Party of a Secondary BM Unit the relevant Half Hourly Metered Volumes for each MSID and AMSID registered to that Secondary BM Unit as per the 'SVA Metering System Register.</p> <p>The SVAA shall be able to provide this data in a .csv format. For avoidance of doubt, a single report per VLP or AMVLP shall be produced collating all MSID Pair and AMSID Pair related data.</p>
P375-BR48a	<p>SVAA shall provide Suppliers with loss adjusted Delivered Volumes.</p> <p>Upon adjustment of the allocated HH Delivered Volumes for Line Losses, the SVAA shall report the Secondary Half Hourly Delivered (non-losses) volumes and the Secondary Half Hourly Delivered (losses) volumes for that MSID to the relevant Supplier.</p> <p>SVAA will only report loss adjusted Delivered Volumes to the Supplier for those MSIDs where the Customer Consent Flag has been marked as TRUE in the SVA Metering System Balancing Service Register (as per existing P344 / P354 processes).</p> <p>The SVAA shall be able to provide this data in a .csv format. For avoidance of doubt, a single report per Supplier shall be produced collating all MSID Pair and AMSID Pair related data.</p>
<p><u>Verification of asset independence</u></p> <p>BSCCo will perform statistical monitoring to identify AMSIDs that may not be acting independently of the other assets on-site (i.e. all the dependent load is not measured by the Asset Metering System), which may trigger other appropriate Performance Assurance Techniques.</p> <p>Where there is no correlation between the change in flows of the MSID and AMSID, then a flag is raised against the relevant AMSID for further investigation</p>	
P375-BR49	Once an AMSID Pair becomes operational BSCCo shall (as required) review the Asset registration evidence as a part of its assurance activities.
P375-BR50	6 months post P375 implementation, BSCCo shall perform a one-off statistical analysis on a sub-set sample (dependent on how many sites there are after 6 months) of specific sites i.e. particular Balancing Service of a particular type to check whether the Asset Metering Systems measure metered data of Assets that are independent.

P375 BUSINESS REQUIREMENTS

P375-BR50a	The SVAA shall make available the registration details (as specified in BR2) for every AMSID Pair successfully registered under P375 to BSCCo.
P375-BR50b	<p>The SVAA shall make available for each AMSID, by Settlement Day, Settlement period, Run Type to BSCCo.</p> <p>The data items to be made available to BSCCo are as follows:</p> <ul style="list-style-type: none"> • Participant ID • Supplier ID • Primary BMU ID • Secondary BMU ID • Distributor ID • GSP Group ID • Metering System Delivered Volume: <ul style="list-style-type: none"> - AMSID Loss Metering System Delivered Volume - AMSID Non Loss Metering System Delivered Volume - MSID Loss Metering System Delivered Volume - MSID Non Loss Metering System Delivered Volume • Metered volume • Expected metered volume • Non-delivered volume • BOA volume • RR volume
P375-BR50d	<p>The BSCCo shall analyse, investigate and identify any perceived anomalies (i.e. no correlation between the change in flows of the MSID and AMSID) going on behind the meter.</p> <p>The BSCCo shall:</p> <ul style="list-style-type: none"> • Ensure AMSIDs are independent of each other • Ensure AMVLPs don't purposely increase their factory demand or increase their battery intake at the same time as when providing a Balancing Service. The result being, the system doesn't benefit from what AMVLPs get paid for the delivered service. • Ensure there is no a correlating change in the Boundary Point MSID flow at the same time as the AMSID flow when providing Balancing Service.
P375-BR50e	<p>BSCCo shall flag any anomalies against an Asset where a given Asset is not acting independently of other assets on-site. The BSCCo shall flag the Asset as having:</p> <ul style="list-style-type: none"> • A potential anomaly; or • One-off anomaly occurrence; or • Continuous anomalies.
P375-BR51	Where BSCCo has identified anomalies raised against a given Asset, BSCCo may require the AMVLP to provide evidence that the asset is independent of other site loads. This may include site single line diagram showing the physical arrangement and asset network connections on site to gain a better understanding of the site set up.
P375-BR51a	Where an Asset Metering Investigation is required, BSCCo may consider carrying out a site visit.

P375 BUSINESS REQUIREMENTS

P375-BR52	BSCCo could deem an Asset as non-independent and therefore invalid for the purposes of P375 based on the evidence review.
P375-BR52a	Where an Asset is confirmed to have anomalies, the BSCCo shall report its investigation findings to the BSC Panel.
P375-BR52b	The BSC Panel, upon reviewing any evidence, may decide to refer the Asset and relevant AMVLP to another body as appropriate, raise any disputes to any Settlement impacting volumes, and/or take any other steps they deem necessary.
P375-BR52c	Where the BSC Panel invalidates a given Asset, the BSC PANEL will instruct the SVAA to amend its records i.e. reject the allocation of the related AMSID Pair to the Secondary BM Unit.
P375-BR52d	SVAA shall notify the relevant Registrant AMVLP and, where applicable, the second AMVLP using the AMSID Pair related to the Asset immediately after the Asset and related AMSID Pair has been invalidated.
Performance Assurance Settlement Risks arising from the use of AMSIDs in Settlement will be managed using the Performance Assurance Framework Any Settlement Risk shall be identified either through the Risk Owners or the relevant SMEs (working alongside the Risk Owners) – same process as we would currently use to identify or update any new or existing risks.	
P375-BR53	An AMVLP shall be able to raise a Trading Dispute against an Asset Metering System Metered Volumes. (The AMVLP shall follow the existing Dispute process in the BSCP11).
P375-BR54	The SVAA must be able to access a list of the following Qualified Persons for the purposes of validation of Registration data: <ul style="list-style-type: none"> • VLPs • AMVLPs • HHDCs • AMHHDCs • SVA HHMOAs • AMMOAs
P375-BR55	Reporting of AMSIDs The SVAA shall publish and maintain the following data items for all active AMSIDs in AMSID Pairs on the Elexon Portal: <ul style="list-style-type: none"> • Import AMSID • Export AMSID • Effective From Settlement Date • Effective To Settlement Date • Registrant AMVLP BSC Party ID • Asset Type • Asset Meter Type • Measurement Transformer Indicator • Asset Metering EFD • Asset Metering ETD • Asset Differencing EFD • Asset Differencing ETD • HHDC MPID

P375 BUSINESS REQUIREMENTS

	<ul style="list-style-type: none"> • HHDC Effective from Date • HHDC Effective to Date • AMHHDC MPID • AMHHDC Effective from Date • AMHHDC Effective to Date • MOA MPID (will include appointed HHMOA or AMMOA) • MOA Effective from Date • MOA Effective to Date • GSP Group • Post Code • Site Address 1 • Site Address 2 • Site Address 3 • Site Address 4 • Site Address 5 • Site Address 6 <p><i>For the avoidance of doubt, the Associated Supplier Boundary Point MSID Pair data shall NOT be published.</i></p> <p>If any information relating to any AMSID changes in a Day, then SVAA shall publish the updated list of AMSIDs on the Elexon Portal at [18:00] on that day.</p>
Publication of the Asset Meter Register	
P375-BR56	The Elexon Portal page shall display the date and time of the latest refresh of the Asset Meter Register data.
P375-BR56a	The SVAA shall refresh the Asset Meter Register data page on the Elexon Portal at least once [at 18:00 local time] each day.
P375-BR56b	Access to the published Asset Meter Register data within the Elexon Portal shall be available to any participants, who will be required to sign an access agreement.
P375-BR57	BSCCo shall introduce new Qualification processes for: <ul style="list-style-type: none"> i) AMVLPs – For new participants and for existing VLPs that intend to register Asset Metering Systems and allocate AMSIDs to Secondary BM Units; ii) AMHHDCs; iii) AMMOAs
P375-BR58	Asset Metering Qualification processes
P375-BR58a	Where a VLP wishes to register Asset Metering Systems and allocate the related AMSIDs to Secondary BM Units, it must first complete the Asset Metering VLP Qualification.
375-BR58b	SVAA shall store and maintain details of the new AMVLP role code called 'Asset Metering VLP' in Salesforce.
375-BR59	BSCCo shall register AMVLP as a Participant Role in Market Domain Data (MDD)
375-BR60	BSCCo shall progress changes to the Energy Market Data Specification (EMDS) to facilitate the AMVLP Hub activities involving AMVLPs, SVA HHMOAs or HHDCs (but not involving AMMOAs or AMHHDCs, which will not be required to have a Data Transfer Network (DTN) Gateway).

P375 BUSINESS REQUIREMENTS

3.5 Architectural Requirements

3.5.1 Elexon Kinnect Customer Solution

Where the requirements refer to the loading, storing and maintenance of data in the Asset Meter Register (AMR), this shall be implemented using the following methods:

The AMVLPs shall be able to register details of the Asset Metering Systems (AMS) registered by Asset Metering Virtual Lead Parties (AMVLPs) stated in section 3.4 of the business requirements above using any of the following methods:

- a. Online forms via the Elexon Kinnect Customer Solution.
- b. Online forms via the Salesforce cloud.
- c. Using an automated API to submit registration requests and supporting data for processing.

Salesforce Communities

The AMVLPs shall provide Asset Metering Systems registration details via Elexon Kinnect Customer Solution. Any online forms will be developed on Elexon Kinnect Customer Solution and will need to support the transaction of data described in the relevant BRs.

Salesforce Cloud

The AMVLPs can make general contact with SVAA, whether through paper form or csv template via email or some other online facility, to get assistance with registering their Asset Metering Systems data. However, it might be we want to steer the AMVLPs toward either using the online form or API, reserving salesforce cloud as a backup for dealing with exceptions or other support calls.

3.5.2 Data and Calculation Platform (DCP)

Where the requirements refer to the calculations in section 3.4 of the business requirements above, this shall be implemented as follows:

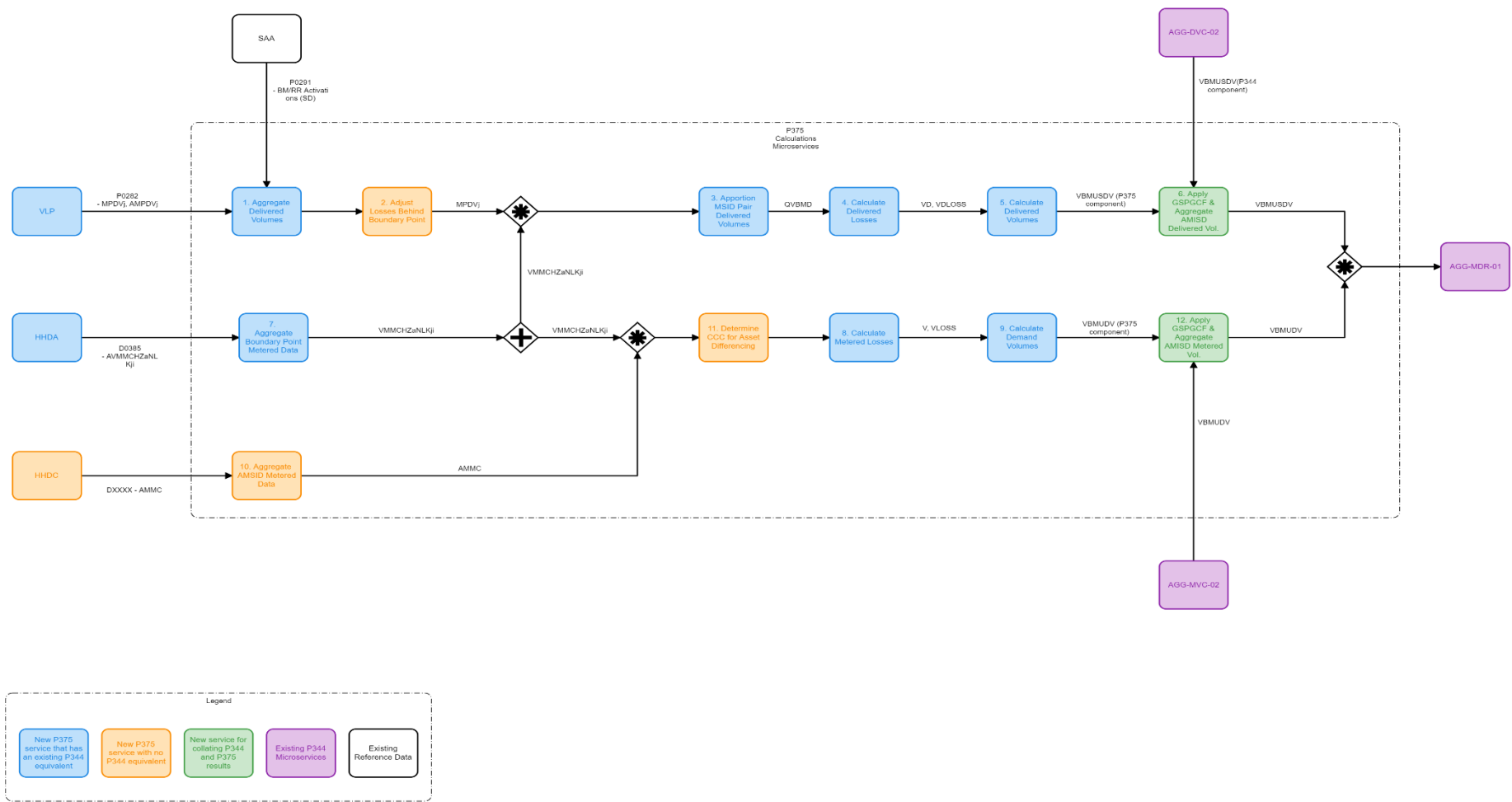
- A dedicated calculation service shall be designed for the P375 solution i.e. the P375 calculation service(s) must be independent of any existing calculation services even if there are similarities to some of the existing calculations.
 - Existing P344 Microservices will continue to perform calculations for Secondary BM Units that only include MSID Pairs (identified in reference data by MSID Pair Indicator of 'T', as defined in BR25).
 - New Microservices will perform calculations for P375 Secondary BM Units (identified in reference data by MSID Pair Indicator of 'A' or 'D') and their associated AMSID Pairs.
- Calculations that have the same input data requirements, but provide significant or complex business functionality shall be decomposed into separate calculation services.
- Calculations with different input data requirements shall be decomposed into separate calculation services.
- All calculation (intermediate and final) output results created during each step of the calculations shall be recorded and stored.
- The SVAA shall capture all output result for each stage of the calculation that serves as data input into another calculation stage.
- The reporting service(s) for the P375 solution shall be independent of the calculation service i.e. there must be no calculations in the reporting services.

P375 BUSINESS REQUIREMENTS

3.5.3 Catalogue of Proposed P375 Calculation Mircoservices

Name	Description	P344 equivalent	P375 BRs
Delivered Volumes Aggregation	Aggregate files to obtain required set of Delivered Volumes (MPDV and AMPDV)	AGG-DFA-01	BR40, BR41, BR42
Adjust for losses behind boundary	For Asset Metering, adjust the AMPDV for losses to Boundary Point	n/a	BR43
MSID Pair Apportionment	P375 process is more complex than P344, as it must cope with multiple VLPs at a single Boundary Point	AGG-DVA-01	BR44
Calculate Delivered Losses	Process should be same as P344	AGG-DVC-01	BR45, BR46
Calculate Delivered Volumes	Process should be same as P344	AGG-DVC-02	BR47
Calculate VBMUSDV	Combine P344 and P354 components of VBMUSDV for reporting to SAA	n/a	
Aggregate HHDA Metered Data	Aggregate files to produce required metered data (AVMMC); convert from KWh to MWh	AGG-MFA-01	
Calculate Metered Losses	P375 process must handle MSID Pairs and AMSID Pairs	AGG-MVC-01	BR33, BR34, BR35, BR36
Calculate Demand Volumes	P375 process must handle MSID Pairs and AMSID Pairs (and take account of Asset Differencing when aggregating)	AGG-MVC-02	BR35, BR36, BR37
Aggregate HHDC Metered Data	Aggregate files to produce required metered data (AMMC); label with appropriate LLFC and CCC Id; convert from KWh to MWh	n/a	BR28-32, BR39
Determine CCC for Asset Differencing	For Asset Differencing, determine whether the MSIDs and AMSIDs involved are net Importing or Exporting (and adjust the CCC Ids accordingly)/	n/a	BR33A
Calculate VBMUDV	Combine P344 and P354 components of VBMUDV for reporting to SAA	n/a	BR38

3.5.4 Proposed P375 Calculations Mircoservices Design



3.6 Business Rules

The following Business Rules define the conditions and constraints of the P375 process. The systems and manual processes performed for P375 will conform to the following principles.

3.6.1 Business Rules for Exelon Kinnect Customer Solution

Ref	BR Area	P375 Customer Solution Business Rules
P375-R1	Registration	AMSID Pairs can only be allocated to a Secondary BM Unit i.e. An AMSID cannot be registered against a Primary BM Unit.
P375-R2	Registration	AMSIDs can only be allocated to a maximum of two Secondary BM Units at any point in time.
P375-R3	Allocation	AMSID Pairs should only be allocated to a Secondary BM Unit by a maximum of two AMVLPs at any point in time. One AMVLP can allocate a given AMSID Pair to a Secondary BM Unit for Asset Metering and the other AMVLP can allocate it to a Secondary BM Unit for differencing.
P375-R4	Registration	An AMSID can only be associated with one AMSID Pair at any point in time. However, in line with Business Rule 3, AMSID Pair can be associated with two AMVLPs at any point in time.
P375-R5	Registration	Within the 'SVA Metering System Register', only one AMVLP can have the MSID Pair allocated to their BM Unit with an Indicator of 'T' or 'D'. However, any number of AMVLPs can use it with an Indicator of 'A'.
P375-R6	Registration	A site can have multiple Boundary Points, leading to one or more AMSID Pair being associated with multiple BP MSID Pairs.
P375-R9	Registration	An Asset Metering System can only be registered against one AMSID Pair at any given time.
P375-R10	Registration	There can be more than one AMSID Pair at a site
P375-R11	Registration	AMSIDs can be associated with one or more Asset Meters.
P375-R12	Registration	Only an Asset Metering Virtual Lead Party may register Asset Metering Systems, AMSID Pairs, agents and Asset Meters and allocate AMSID Pairs to Secondary BM Units.
P375-R13	Registration	Only an Asset Metering Virtual Lead Party may register an MSID Pair with an MSID Pair Allocation Type of A(sset metering) or D(ifferencing).
P375-R14	Registration	Only Half-hourly Metering Equipment can be used as an Asset Metering System
P375-R15	Registration	A single AMSID can only be associated with either Import to or Export from an Asset.
P375-R16	Registration	The Export AMSID within the AMSID Pair is optional, in that some Assets will not have the capacity to produce electricity, and so would not need an Export AMSID assigned. Where an Export AMSID was provided, the 'Data Collector for Export AMSID' and Meter MOA for the export AMSID must be the same for the import.
P375-R17	Registration	All Asset Metering Systems must be allocated a unique AMSID

P375 BUSINESS REQUIREMENTS

P375-R18	Registration	An AMSID Pair can be registered by one AMVLP for Asset Metering, and subsequently used by another for Difference Metering (or vice versa)
P375-R19	Appointment	An Asset Metering Virtual Lead Party acting as the Registrant of an AMSID Pair must appoint a fully Qualified Half Hourly Data Collector for an Asset Metering System, and must ensure that there is an HHDC appointed for all Settlement Dates that the AMVLP is the Registrant of the AMSID Pair.
P375-R20	Appointment	An AMVLP may additionally appoint an Asset Metering HHDC for an Asset Metering System (for which it has already appointed an HHDC) where allowed by the COP11.
P375-R21	Appointment	An AMVLP acting as the Registrant of an AMSID Pair must appoint a fully Qualified Half Hourly MOA for an AMSID of Asset Metering Types 1, 2, 3 and 4 (measurement transformer connected meters in the case of Asset Metering Type 4) and must ensure that there is a fully Qualified Half Hourly MOA appointed for all Settlement Dates that the AMVLP is the Registrant of the AMSID Pair.
P375-R22	Appointment	An AMVLP acting as the Registrant of an AMSID Pair may appoint an Asset Metering MOA for an AMSID of Asset Metering Types 4 ("whole current" (direct connected) only) and 5, and must ensure that there is a MOA (HHMOA or AMMOA) appointed for all Settlement Dates that the AMVLP is the Registrant of the AMSID Pair.
P375-R23	Appointment	An AMVLP must appoint the same MOA (SVA HHMOA or AMMOA) for the AMSID Pair.
P375-R24	Appointment	If the original registrant of an AMSID Pair terminates their association with that AMSID Pair, then the new Registrant AMVLP associated with the same AMSID Pair must appoint new agents or take over responsibility of the existing agents.
P375-R25	Appointment	In the event of an AMSID Pair Reallocation, the losing AMVLP's association with the AMSID Pair will be terminated with effect from the calendar day before the effective date of the reallocation.
P375-R26	Registration	An AMVLP cannot allocate an AMSID Pair to their Secondary BM Unit for Asset Metering if another AMVLP is using Asset Differencing behind the same Boundary Point, but has not allocated the requested AMSID Pair to their Secondary BM Unit.
P375-R27	Registration	The first AMVLP who wishes to use an Asset, whether for Asset Metering or Asset Differencing, shall be deemed to be the 'Asset Metering System Registrant' and must complete the registration of Asset Metering System by providing information against all attributes listed in the registration forms (see BR 2).
P375-R28	Aggregation and Imbalance	When associating AMSID Pairs with MSID Pairs in a Secondary BM Unit, only one AMVLP can use the AMSID Pair for differencing, i.e. all other AMSID Pairs have to have their Asset Meters installed at the Asset (measuring flows to and from the Asset).
P375-R29	Registration	If the AMSID Pair Differencing Indicator is set to 'True', the MSID Pair Indicator must be set to D(ifferencing). If the AMSID Pair Differencing Indicator is set to 'False', the MSID Pair Indicator must be set to A(sset Metering).

P375 BUSINESS REQUIREMENTS

P375-R30	Allocation	An MSID Pair registered to NGESO (i.e. for the purposes of ABSVD) may be associated concurrently (i.e. with overlapping effective dates) with a VLP'S, AMVLP'S or Supplier's association of the same MSID Pair to their Secondary BM Unit. And vice versa.
P375-R31	Allocation	An MSID associated with a Storage Facility (i.e. for the purposes of P383) may be associated concurrently (i.e. with overlapping effective dates) with an MSID Pair associated with Secondary BM Unit, Additional Supplier BM Unit or NGESO. And vice versa. [Existing rule]
P375-R32	Allocation	Where a VLP or an AMVLP registers an MSID Pair with MSID Pair Indicator = T) or a Supplier registers an MSID Pair, and the MSID Pair is already associated with another VLP or AMVLP (also using MSID Pair Indicator =T) or a Supplier, the new VLP or AMVLP can elect to reallocate the MSID Pair [Existing rule - but modified to take into account the new MSID Pair Indicator]
P375-R33	Allocation	Where an AMVLP registers an AMSID Pair with an AMSID Pair Differencing Indicator of False (i.e. asset metering) and the AMSID Pair is already associated with another AMVLP (also using an MSID Pair Differencing Indicator of False) the new AMVLP can elect to reallocate the AMSID Pair to one of its Secondary BM Unit.
P375-R34	Allocation	A maximum of two AMVLPs can include the same MSID Pair in their Secondary BM Units, where one or both AMVLPs are using an MSID Pair Allocation Type of A, and, provided that they are not using the same AMSID Pair.
P375-R35	Allocation	An AMVLP may not register an MSID Pair with an MSID Pair Allocation Type of D(ifferencing) if the same MSID Pair is registered with overlapping effective dates by another AMVLP also using an MSID Pair Allocation Type of D(ifferencing)

3.6.2 Business Rules for Data and Calculation Platform

Ref	BR Area	P375 Data & Calculation Business Rules
P375-R36	Data Submission	AMVLPs should only submit AMSID Pair Delivered Volumes for AMSID Pairs used for Asset Metering – they should submit BP MSID Pair Delivered Volumes for AMSID Pairs used for Differencing.
P375-R37	Registration	Where the value is TRUE, the AMSID Pair Metered Volumes are to be used instead of the Secondary BM Unit Metered Volume.
P375-R38	Registration	Where the value is FALSE, the AMSID Pair Metered Volumes are to be subtracted from the Secondary BM Unit Metered Volumes.
P375-R39	Aggregation and Imbalance	When providing the AMSID Pair Delivered Volumes to SVAA, the AMVLP must indicate which Boundary Point MSID Pair(s) they used to deliver the service. Where there is more than one MSID Pair and / or more than one AMSID Pair, the AMVLP must provide an AMSID Pair Delivered Volume for each combination of MSID Pair and AMSID Pair.

P375 BUSINESS REQUIREMENTS

P375-R40	Data Submission	A fully Qualified HHDC must be appointed to submit AMSID Half Hourly Metered Volume data to SVAA. Where of an AMHHDC has been appointed to an AMSID Pair, the AMHHDC shall pass the AMSID Half Hourly Metered Volume data to the HHDC.
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3.7 Scenarios

P375 Scenario 1

The customer changes the AMVLP operating the Asset for which an AMSID is already registered and used for Balancing Services.

AMVLPs will follow the same process as for P344 Boundary Point Meters (MSID Pairs) as set out in BSCP602. The new AMVLP (AMVLP A) registers with SVAA the AMSID within its chosen SBMU. The AMSID automatically moves to the new AMVLP A's SBMU and is removed from the relevant SBMU belonging to the AMVLP (AMVLP B) to whom the customer previously 'belonged' too. SVAA notifies AMVLP B that they 'lost' the AMSID Pair. AMVLP B's consent is not required to enact the change. AMVLP B can raise a dispute where they believe that the transfer was erroneous (e.g., AMVLP B has a contract in place with the customer that is still in effect).

P375 Scenario 2

The new AMVLP appoints a new DC for an AMSID. How will the new DC know the details of the AMSID, especially when e.g. the previous AMVLP is not forthcoming with the data, the data is lost or the AMVLP goes into administration.

AMVLP should request the information about previous MOA for an AMSID from SVAA. SVAA upon validation shall provide required data and pass it on to the AMVLP. AMVLP will have to liaise with MOA to send the equivalent of Meter Technical Details to the AMVLP and Data Collector.

P375 Scenario 3

An AMVLP (AMVLP A) wants to use the Boundary Meter to provide Balancing Services. That Boundary Point Meter is already used by another AMVLP (AMVLP B) who provides Balancing Services via Asset B. However, AMVLP A wants to use the Boundary Meter to settle for a different customer (Asset A) from the other AMVLP (VLP B).

As per BSCP602, where a VLP OR AMVLP registers a MSID Pair to their Secondary BM Unit which already belongs to a different Secondary BM Unit, then (provided that all it passes validation) the new VLP or AMVLP takes the MSID Pair over. However, in this scenario, AMVLP B will be justified in wanting to keep the Boundary Meter within its own Secondary BM Unit as their customer (Asset B) has not changed hands. However, if AMVLP A registers MSID Pair to their Secondary BM Unit, then the MSID will move to AMVLP A. AMVLP B can raise a dispute in line with BSCP602. Where an agreement cannot be reached between the two AMVLPs, which want to use two different Assets via the same Boundary Point MSID Pair, one of the AMVLPs should be advised to install the Asset Meter.

P375 Scenario 4

The DC is unable to retrieve data from the Asset Metering System.

The process for Boundary Meters is described in BSCP601, and the same should be followed for AMSIDs. The DC could either send in a '0' value for the Metered Data at a given Settlement Period or provide an estimated value. When data is retrieved from the AMSID this can be sent to SVAA and this will be reconciled at a later Volume Allocation Run.

P375 Scenario 5

More than one Asset Meter is linked to the same Boundary Point Meter MSID Pair.

P375 BUSINESS REQUIREMENTS

The P375 process allows associating unlimited amount of Asset Meters (in the form of AMSID Pairs) to the same Boundary Point Meter MSID Pair. Performance Assurance Framework will ensure that the Asset Meters record separate values (i.e. measuring each Asset separately) and do not record the same flows for one asset.

P375 Scenario 6

An Asset Meter is already in use on a site. There is another asset on site, which can provide Balancing Services what are my options?

- The AMVLP could use the Boundary Meter if it is not already in use (see scenario 1 & 3). A VLP follows processes introduced as a part of P344 to do so.
- The AMVLP could register a new Asset Meter for the other Asset.
- The AMVLP could register a new 'Asset Meter' whose flows are calculated by SVAA through a form of difference metering (net of Boundary Point Metered data and any Asset Metered Data that does not fall under an AMVLP's control) if no other Asset Meter uses differencing on site.

P375 Scenario 7

I cannot install an Asset Meter near to the Asset but want to use the Asset for Balancing Services. I do not want to or cannot use the Boundary Meter for various reasons.

At all times, where possible the MOA should install the physical Asset Meter at the location of the Asset.

Where such installation is not possible/practical, then the MOA can install the Asset Meter on Assets that do not provide the Balancing Service (i.e. measuring the 'leftover' Metered Data). In such instance, the AMSID would be registered for the Asset providing the Balancing Service on site, however SVAA will have to apply 'metering by difference' to derive the Metered Data for the Asset.

P375 Scenario 8

The Asset Meter records the Metered Data for the Balancing Service but there is no corresponding change in flows recorded at the Boundary Point Meter.

The Boundary records Metered Data flows for the whole site. If there is a change in the flow in the opposite direction from the Balancing Service, this will offset the expected result (e.g., where Balancing Service was to increase rate of Export, but the other Assets on site increased rate of Import at the same time). Prior to P375, this may have resulted in non-delivery charges. P375 alleviates that problem. However, where the Boundary Point Meter does not record the deviation based on the Balancing Service on a regular basis this may trigger further checks to be made such as line diagrams or site visits to ensure that the asset is truly independent from other assets on site.

P375 Scenario 9

As an AMVLP, I have some sites where I would like to use the Boundary Point Meter and some sites where I would like to use the Asset Meter. Do I need to create separate SBMU's, as this may causes problems in meeting the current minimum threshold of 1MW for Balancing Services?

The SBMU can contain a mix of sites whose Metered Data are derived from the Boundary Point Meter and or Asset Meters. The AMVLP does not need to create a new SBMU, which houses just AMSIDs. However, a AMVLP cannot choose to register both Boundary Point MSID Pair and AMSID Pair to measure the same Asset.

P375 Scenario 10

I now use AMSIDs within my SBMU. How will this affect my FPN?

The Metered Data collected by the DC will not be loss adjusted. SVAA will allocate Line Loss Factor Class as a part of the AMSID registration process. The Line Loss Factor Class for a given AMSID will be of the voltage level connection of the Asset (which may be different to the Boundary Point MSID LLFC).

P375 BUSINESS REQUIREMENTS

DC will send the 'raw' Metered Data to SVAA and the SVAA will apply the Line Loss Factors to adjust for losses to GSP level.

The FPN submitted to NGESO should be adjusted so that it relates to flows at the GSP level. Therefore, AMVLP should make adjustments for line losses. Inaccuracies in the FPN may lead to non-delivery/imbalance charges. The Grid Code expects FPNs to be as accurate as possible.

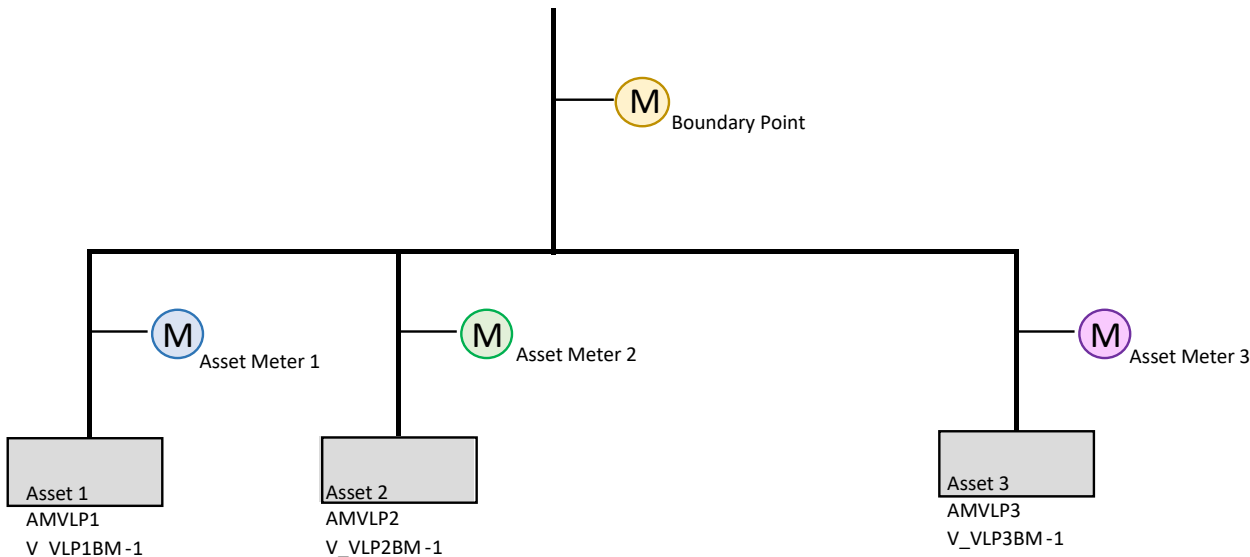
P375 Scenario 11

I previously used difference metering for my AMSID but a meter on site has been removed meaning that this is now not possible.

Where this happens then it is not possible to continue using difference metering for that site unless MOA (under AMVLP's instruction) installs another Asset meter. The Boundary Meter can be used for settlement if it is not already used by another VLP.


P375 Scenario 12

Multiple AMVLPs use a given Boundary Point to respond to instructions. What will happen with Delivered Volumes allocation?



In the above scenario, there are three Assets on a network behind a single Boundary Point. A 'Supplier X' supplies the Boundary Point (and, as a result all the assets beneath it) with electricity. No BSC Party uses the Boundary Point to provide the Balancing Services. Each of the Assets behind the Boundary Point is managed by a different VLP.

HHDA provided SVAA with the following Metered Volume data for a given Boundary Point MSID Pair on a Settlement Day and Settlement Period.

 Boundary Point Import MSID: 1 MWh and Export MSID: 3 MWh

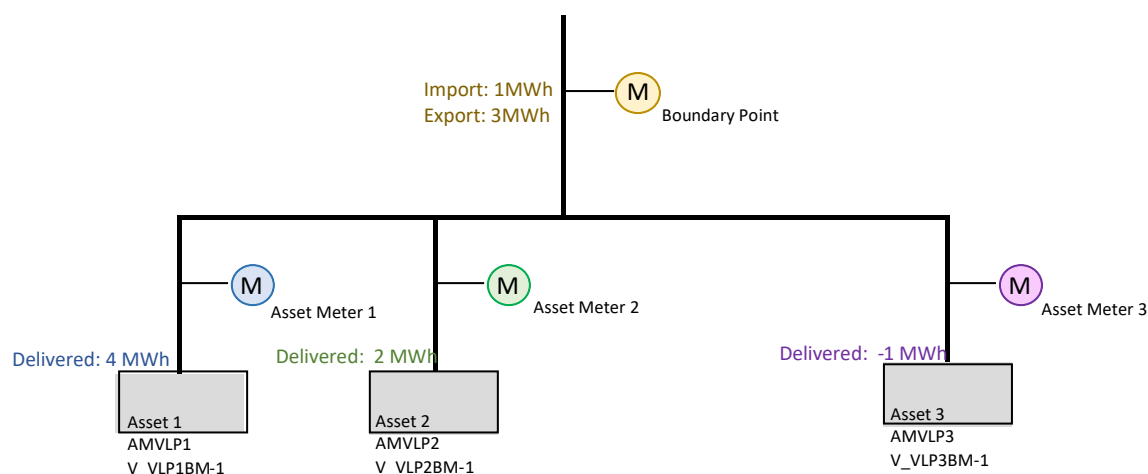
Three AMVLPs have notified Delivered Volumes.

 Asset Meter 1 AMVLP1 = 4 MWh

P375 BUSINESS REQUIREMENTS

 Asset Meter 2 $AMVLP2 = 2 \text{ MWh}$

 Asset Meter 3 $AMVLP3 = -1 \text{ MWh}$



SVAA will first allocate the total net of all Delivered Volumes provided for a given Boundary Point MSID Pair. In this case, the total net Delivered Volume is 5 MWh ($4+2+ (-1)$). Those 5 MWh, would be allocated in line with the current provisions of the BSC¹¹.

1. Check whether Delivered Volume is non-negative (value of zero or above) or negative (less than zero).
2. Where the value is non-negative (in our scenario 5MWh), start with an Export MSID within the Boundary Point MSID Pair.
3. Compare the Delivered Volume (5MWh) against the Metered Volume for the Export MSID (3MWh).
4. Allocate the minimum value of the two to the Export MSID (3MWh).
5. Allocate the difference to the Import MSID within the MSID Pair ($5\text{MWh} - 3 \text{ MWh} = 2\text{MWh}$).

Once the net volume is allocated between MSIDs within Boundary Point MSID Pair, the SVAA will allocate the volumes at each MSID between the AMVLPs proportionately. The table below illustrates:

AMVLP	Delivered Volume	Proportion of Total	Import Volume	Export Volume
AMVLP1	4 MWh	80%	$2 * 0.8 = 1.6 \text{ MW}$	$3 * 0.8 = 2.4 \text{ MWh}$
AMVLP2	2 MWh	40%	$2 * 0.4 = 0.8 \text{ MWh}$	$3 * 0.4 = 1.2 \text{ MWh}$
AMVLP3	-1 MWh	-20%	$2 * -0.2 = -0.4 \text{ MWh}$	$3 * 0.2 = -0.6 \text{ MWh}$

¹¹ BSC Section S Annex S-2: Supplier Volume Allocation Rules paragraph 3.10

P375 BUSINESS REQUIREMENTS

Scenario 13

The customer no longer wishes to use an Asset for Balancing Services. As an AMVLP what should I do?

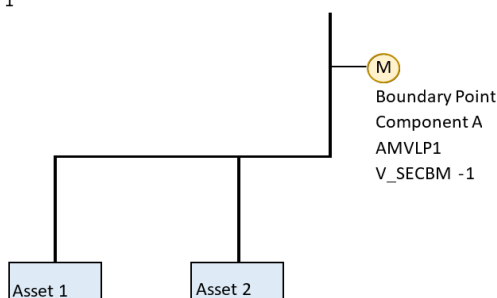
Where an Asset will no longer be participating in the Balancing Services, the AMVLP will be able to notify SVAA about AMSID Pair de-registration. AMVLP should highlight the reason for de-registering the AMSID (e.g. decommissioning of plant). SVAA will amend its records to reflect that.

Scenario 14

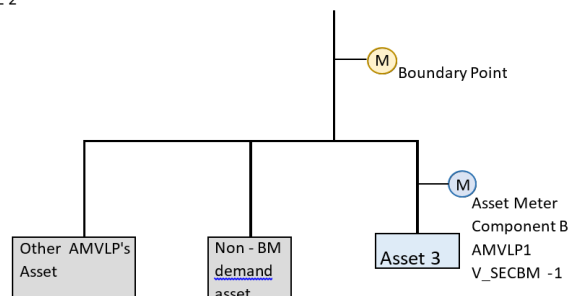
How will SVAA aggregate Metered Data and apply differencing for a Secondary BM Unit?

When aggregating Metered Data from multiple MSID Pairs and AMSID Pairs up to a Secondary BM Unit level, SVAA will have to sum data from multiple sources. Let a Secondary BM Unit 'V_SECBM-1' be composed of one BP MSID Pair (Component A) located at a site 1, AMSID Pair (Component B) located at a site 2 and AMSID Pair located at a site 3. The AMSID Pair on site 3 is registered for differencing (Component C) against BP MSID Pair (Component D; for avoidance of doubt this would be a different BP MSID Pair to the Component A). The scenario is represented in the following set of graphics.

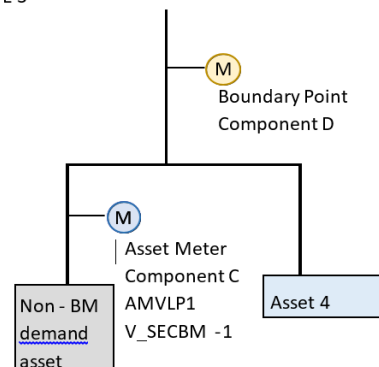
SITE 1



SITE 2



SITE 3



P375 BUSINESS REQUIREMENTS

HHDA will provide SVAA with Metered Volume Data for Component A and Component D in line with SVAA Settlement Calendar.

HHDC will provide SVAA with Metered Volume Data for Components B and C three working days after a given Settlement Day.

SVAA will initiate aggregation activity in line with SVAA Settlement Calendar.

1. First SVAA will determine CCC Id to the Metered Data received from HHDCs (BR31).
2. Then it will determine the Volume Allocation Run for that data (BR32).
3. Then it will assign the LLFC, CCC Id, Secondary BM Unit and the Primary BM Unit that is affected (the Primary BM Unit of a Supplier supplying the BP MSID Pair) to each Metered Data for each Settlement Period and Settlement Date (BR33).
4. SVAA will change units of each Metered Data from KWh to MWh (BR34).
5. It will group the Metered Data (MWh) into 'pots' by LLFC, CCC Id, Secondary BM Unit (in this case 'V_SECBM-1') and the Primary BM Unit that is affected.
6. It will calculate losses for each 'pot' based on the LLFC allocated to it (BR35).
7. It will then aggregate the Metered Volume data in line with the following (BR36):

$$\text{Metered Data}_{V_SECBM-1} = \sum \text{Metered Data}_{\text{Component A}} + \sum \text{Metered Data}_{\text{Component B}} + (\sum \text{Metered Data}_{\text{Component D}} - \sum \text{Metered Data}_{\text{Component C}})$$

P375 BUSINESS REQUIREMENTS

4. GLOSSARY

Below table represents terms which we will introduce as a part of this Modification or which are defined outside the Balancing and Settlement Code. The terms introduced as a part of P375 will be finalised as a part of development of the legal text.

Terms, which are defined in the Balancing and Settlement Code or Code Subsidiary Documents, were omitted.

Please note that items surrounded by a square parentheses '[]' **are yet to be agreed/further defined**.

Term	Meaning/Proposed Meaning
Asset Metering System Id) (AMSID)	Is the equivalent of MSID for an Asset Metering System. Its format is 13 digits, like an MSID, but the first two digits will be a short code that is not already used for MSIDs.
Asset Meter Central Register (AMR)	means a register listing all AMSIDs which provide or provided Balancing Services.
Asset Metering Point (AMP)	means the point at which a supply to (export) or from (import) to a Boundary Point: (i) is or is intended to be measured; or (ii) where metering equipment has been removed, was or was intended to be measured; or, where in each case such measurement is for the purposes of ascertaining the Asset Metering Virtual Lead Party's Settlement liabilities under the Code.
Asset Metering System (AMS)	means a Metering Equipment that measures Exports or Imports at an Asset Metering Point.
Asset Metering System Identifier (AMSID)	means a unique number relating to an Asset Metering Point. It is analogous to a SVA Metering System Number.
Asset Metering Virtual Lead Party (AMVLP)	means a Virtual Lead Party that is also able to register an Asset and allocate the related AMSID Pair to one of its Secondary BM Units.
Balancing Service	has the meaning given to that in the Transmission Licence.
Boundary Point	means a point at which any Plant or Apparatus not forming part of the Total System is connected to the Total System
Boundary Point Metering System	means a Metering System which measures Exports or Imports at a Boundary Point
Connection Voltage	voltage at which the Asset connects to the private network
Asset Capacity	a measure of Asset's maximum Import and Export capacity expressed in kW. It is analogous to Generation Capacity for Export AMSIDs and Demand Capacity for Import AMSIDs.
Asset Metering Meter Operator Agent (MOA)	means an agent appointed by a Asset Metering Virtual Lead Party in accordance with [Section L] to install, commission, test and maintain, and rectify faults in respect of SVA Asset Metering Equipment which falls under the category of Asset Meter Types 4 (whole current only) and 5 [below 1MW Maximum Demand for the circuit being measured by an Asset Meter]. Each Asset Metering VLP (as a Performance Assurance Party) is responsible for ensuring that the Meter Operator Agent Alternative.
Metering Point	means the point, determined according to the principles and guidance given at schedule 8 of the Master Registration Agreement, at which a supply to (export) or from (import) a Distribution System: (i) is or is intended to be measured; or (ii) where metering equipment has been removed, was or was intended to be measured; or

P375 BUSINESS REQUIREMENTS

	(iii) in the case of an Unmetered Supply, is deemed to be measured, where in each case such measurement is for the purposes of ascertaining the Supplier's Settlement liabilities under the Code.
Metering System	means particular commissioned Metering Equipment, subject to and in accordance with Section K1.6
Party responsible for dialling the Asset Meter	means an agent appointed by a Asset Metering Virtual Lead Party in accordance with [Section L] to retrieve, validate and process metering data in relation to SVA Asset Metering Equipment and passing such data to the appointed Half-Hourly Data Collector.
MSID	has the same meaning as SVA Metering System Number
Physical Notification (PN)	means, in respect of a Settlement Period and a BM Unit, a notification made by (or on behalf of) the Lead Party to the NETSO under the Grid Code as to the expected level of Export or Import, as at the Transmission System Boundary, in the absence of any Acceptances, at all times during that Settlement Period.
Pseudo Metering Point	According to Master Registration Agreement (MRA) "additional set(s) of Metering Point Administration Data, up to eight, or more if agreed with all affected Parties, associated with a single Half Hourly Metering Point created to facilitate the splitting of energy volumes between Suppliers at such Metering Point. Each Pseudo Metering Point shall only exist whilst the energy volumes at the Metering Point are scheduled to that Pseudo Metering Point;
SVA Metering System Number	means a unique number relating to a Metering Point and which consists of the following: (i) a 2 digit number determined by reference to the Licensed Distribution System Operator; (ii) a 10 digit reference number provided by the relevant Licensed Distribution System Operator; (iii) a 1 digit check number provided by the relevant Licensed Distribution System Operator.
SVA Metering System and Asset Metering System Register (previously known as SVA Metering System Balancing Services Register and SVA Metering System Register)	means the register established pursuant to Section S10.1.3 and BSCP507. It lists the association between Secondary BM Units and MSID Pairs and/or AMSID Pairs.

P375 BUSINESS REQUIREMENTS

APPENDIX A – Data Flows

The SVAA shall re-purpose any existing P344 P flows i.e. the SVAA shall create new P flows specific to P375 solution.

Flow Ref	Data Flow Name	Source	From	To	Version
P0211	Site Visit Rejection	BSCP514	AMMOA	AMVLP	001
P0211	Site Visit Rejection	BSCP514	MOA	AMVLP	001
P0278	MSID Pair Allocation	BSCP602	Supplier VLP AMVLP	SVAA	001 001
P0279	Confirmation of MSID Pair Allocation	BSCP602	SVAA	Supplier VLP AMVLP	001 001
P0280	Rejection of MSID Pair Allocation	BSCP602	SVAA	Supplier VLP AMVLP	001 001
P0281	Loss of MSID Pair Allocation	BSCP602	SVAA	Supplier VLP AMVLP	001 001
P0282	Delivered Volume Notification	BSCP602	VLP AMVLP	SVAA	002
P0283	Rejection of Delivered Volume	BSCP602	SVAA	VLP AMVLP	002
P0284	Confirmation of Delivered Volume	BSCP602	SVAA	VLP AMVLP	002
P0285	Delivered Volume Exception Report	BSCP602	SVAA	VLP AMVLP	002

P375 BUSINESS REQUIREMENTS

P0286	Disputed MSID Pair Allocation	BSCP602	VLP	VLP	001
P0287	Secondary Half Hourly Delivered Volumes	BSCP508	SVAA	Supplier	001
P0288	Secondary Half Hourly Consumption Volumes	BSCP508	SVAA	VLP AMVLP	001
P0289	Secondary BM Unit Demand Volumes	BSCP508	SVAA	SAA	001
P0290	Secondary BM Unit Delivered Volumes	BSCP508	SVAA	SAA	001
Paaaa	Asset Registration	BSCP602	AMVLP	SVAA	001
Pbbbb	Rejection of Asset Registration	BSCP602	SVAA	AMVLP	001
Pcccc	Confirmation of Asset Registration	BSCP602	SVAA	AMVLP	001
Pdddd	Registration of AMVLP Agents	BSCP602	SVAA	SVAA	001
Peeee	Rejection of AMVLP Agent Registration	BSCP602	SVAA	AMVLP	001
Pffff	Confirmation of AMVLP Agent Registration	BSCP602	SVAA	AMVLP	001
Pgggg	Asset Meter Registration	BSCP602	AMVLP	SVAA	001
Pgggg	Asset Meter Registration	BSCP514	AMVLP	SVAA	001
Phhhh	Rejection of Asset Meter Registration	BSCP602	SVAA	AMVLP	001
Phhhh	Rejection of Asset Meter Registration	BSCP514	AMVLP	AMMOA MOA	001
Piiii	Confirmation of Asset Meter Registration	BSCP602	SVAA	AMVLP	001
Piiii	Confirmation of Asset Meter Registration	BSCP514	SVAA	AMVLP	001

P375 BUSINESS REQUIREMENTS

Pjjjj	AMSID Pair Allocation to a Secondary BM Unit	BSCP602	AMVLP	SVAA	001
Pkkkk	Confirmation of AMSID Pair Allocation to a Secondary BM Unit	BSCP602	SVAA	AMVLP	001
Pllll	Rejection of AMSID Pair Allocation Rejection to a Secondary BM Unit	BSCP602	SVAA	AMVLP	001
Pmmmm	Notification of use of AMSID Pair by another AMVLP	BSCP602	SVAA	AMVLP	001
Pnnnn	Missing Metering System Data	BSCP502	SVAA	HHDC AMVLP	001
Pnnnn	Missing Metering System Data	BSCP503	SVAA	HHDA	001
Poooo	Invalid Metering System Data	BSCP502 BSCP503	SVAA	HHDC AMVLP	001
Poooo	Invalid Metering System Data		SVAA	HHDA	001
Prrrr	Disputed AMSID Pair Allocation*	BSCP602	AMVLP	AMVLP	001
Psssss	Consumption Data Issue Notification	BSCP502	AMHHDC	HHDC	001
Ptttt	Notification of AMHHDC	BSCP502	AMVLP	AMHHDC HHDC	001
Ptttt	Notification of AMHHDC	BSCP514	AMVLP	AMHHDC HHDC AMMOA MOA	001
Puuuu	Provision of Site Technical Details	BSCP514	AMVLP	AMMOA MOA	001
Pvvvv	Details of Asset Metering Fault	BSCP502	Any participant other than	AMVLP	001

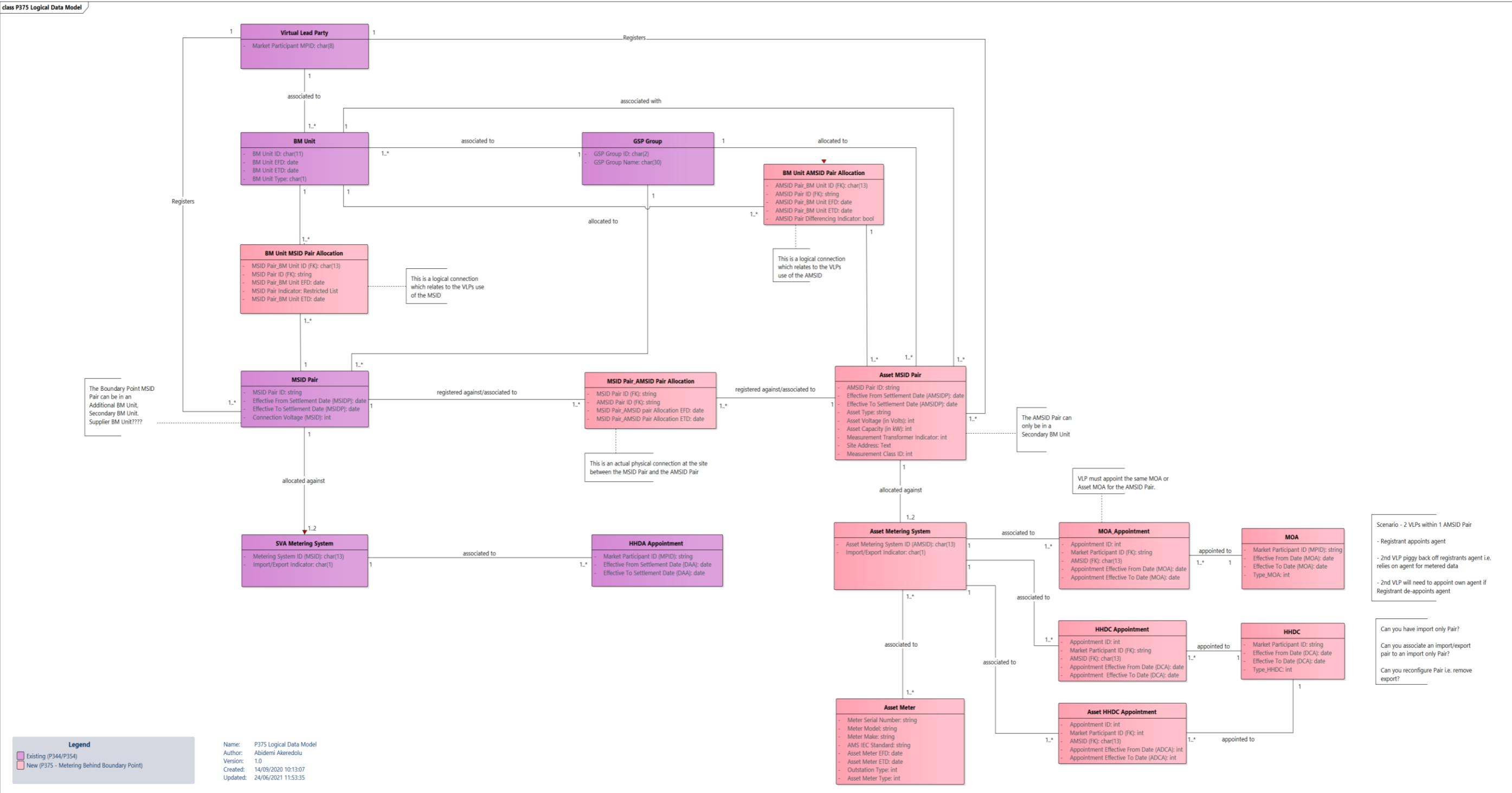
P375 BUSINESS REQUIREMENTS

		BSCP514	AMVLP, HHDC or AMHHDC		
Pwww	Report Action Required	BSCP502	AMHHDC HHDC	AMVLP	001
Pxxx	Metering Non-Compliance Notification	BSCP514	AMMOA MOA	AMVLP	001
Pyyy	Rejection Response for Request for Asset Metering System Site Technical Details	BSCP514	AMVLP	AMMOA MOA	001
Pzzz	Loss of AMSID Pair Allocation Notification	BSCP602	SVAA	AMVLP	001

P375 BUSINESS REQUIREMENTS

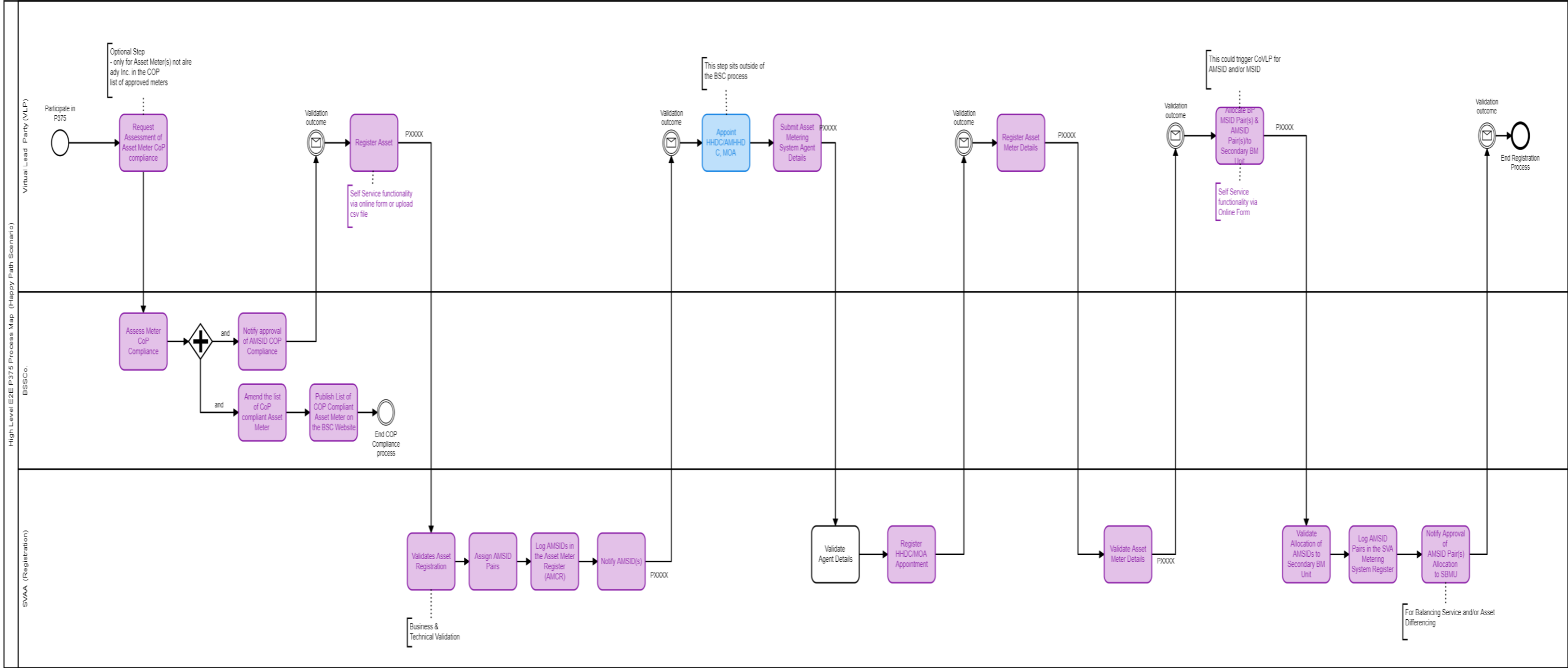
APPENDIX B – P375 Logical Data Model (LDM)

This LDM helps to define the detailed structure of the P375 data elements in the SVAA system and the relationships between the data elements and form the basis of the physical data model. This logical Data Model has been represented using the UML Class notation. Noteworthy, the LDM illustrates a snapshot at a point in time; meaning the relationships can change over time. For example, the Asset Metering System can only have a single relationship with a HHDC/MOA appointment at any one point, but over time will have many appointments.



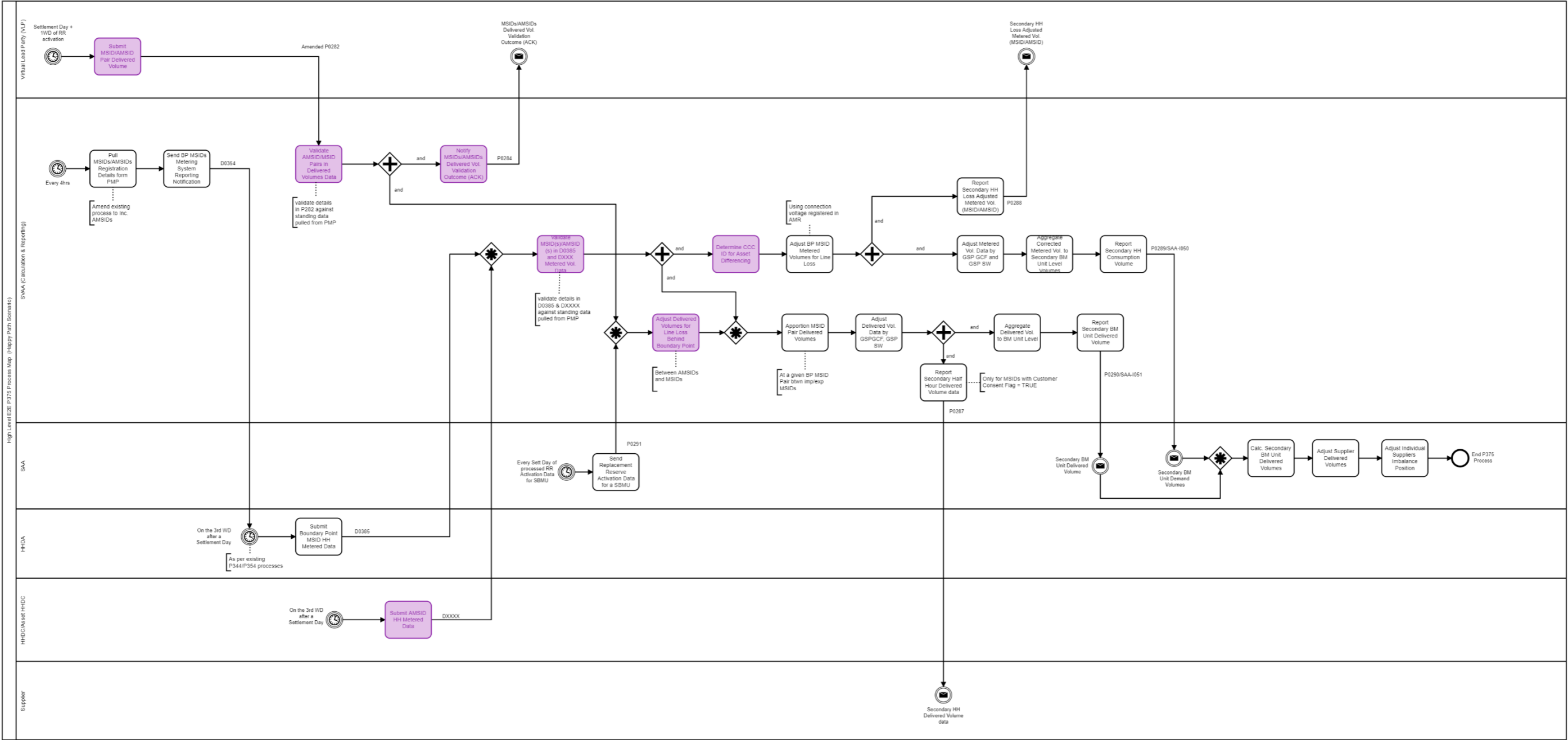
P375 BUSINESS REQUIREMENTS

APPENDIX C – High Level End-To-End Registration Process Map



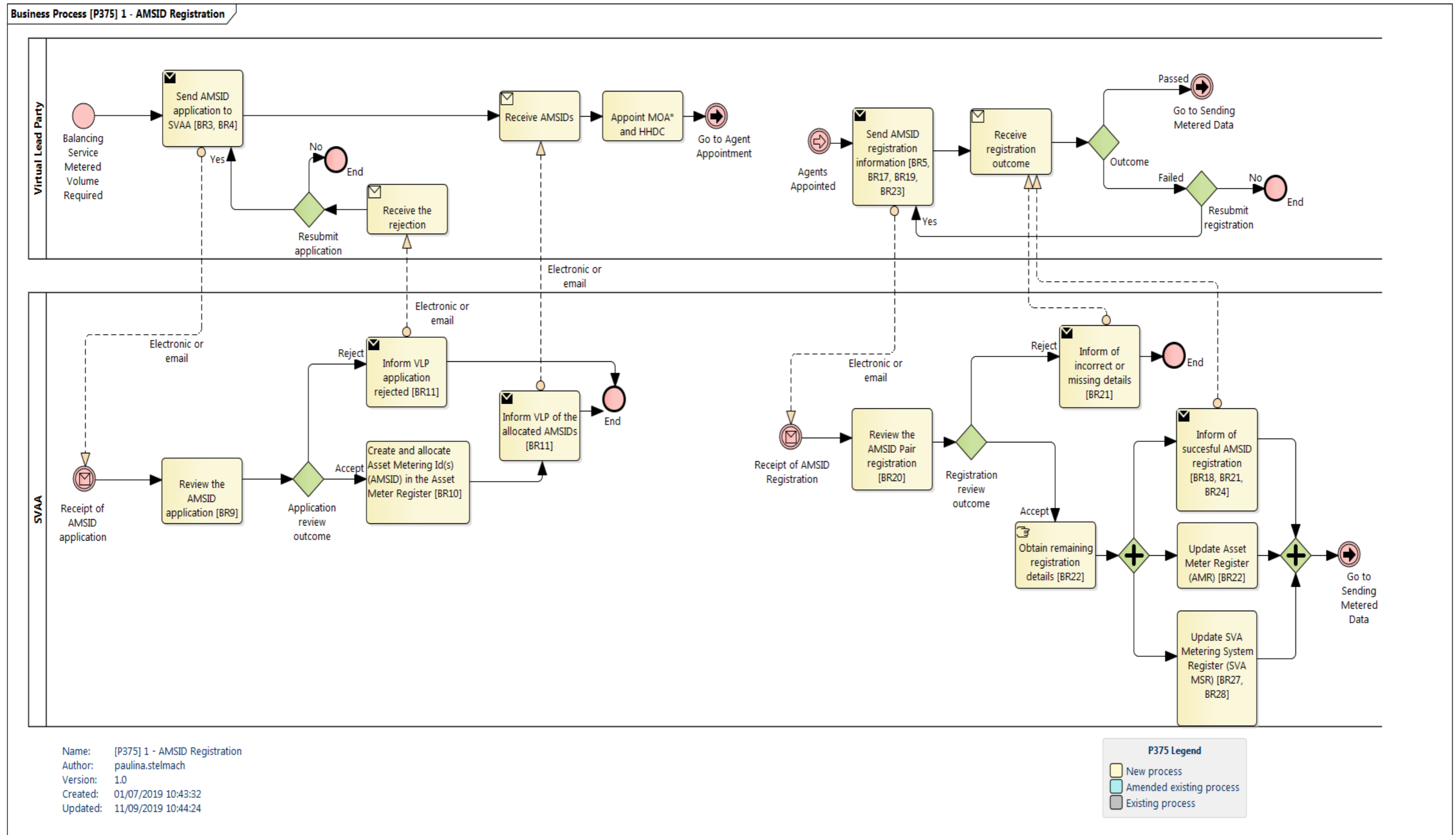
P375 BUSINESS REQUIREMENTS

APPENDIX D - High Level End-To-End Calculation Process Map



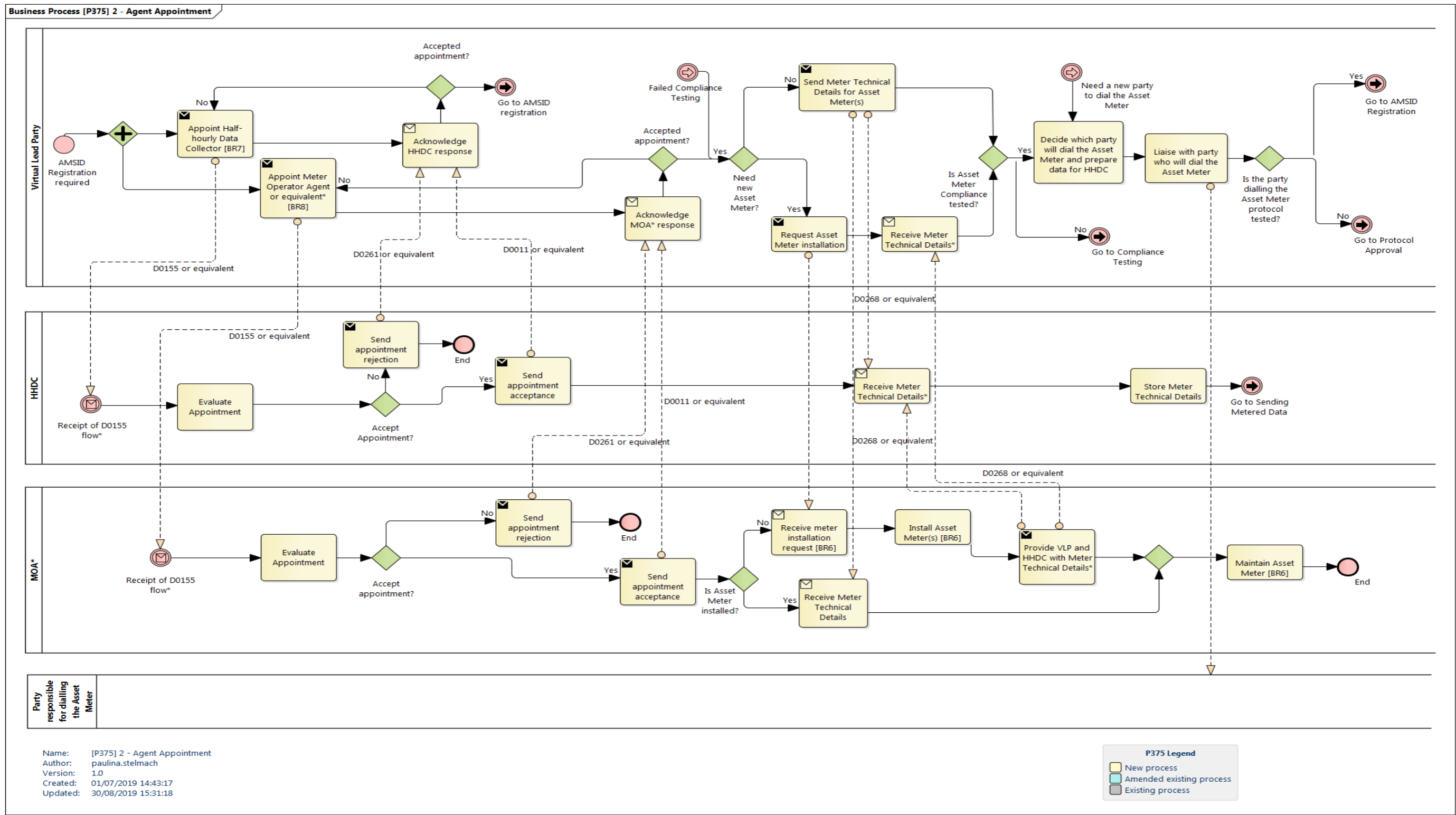
P375 BUSINESS REQUIREMENTS

APPENDIX E – AMSID Registration Process Map



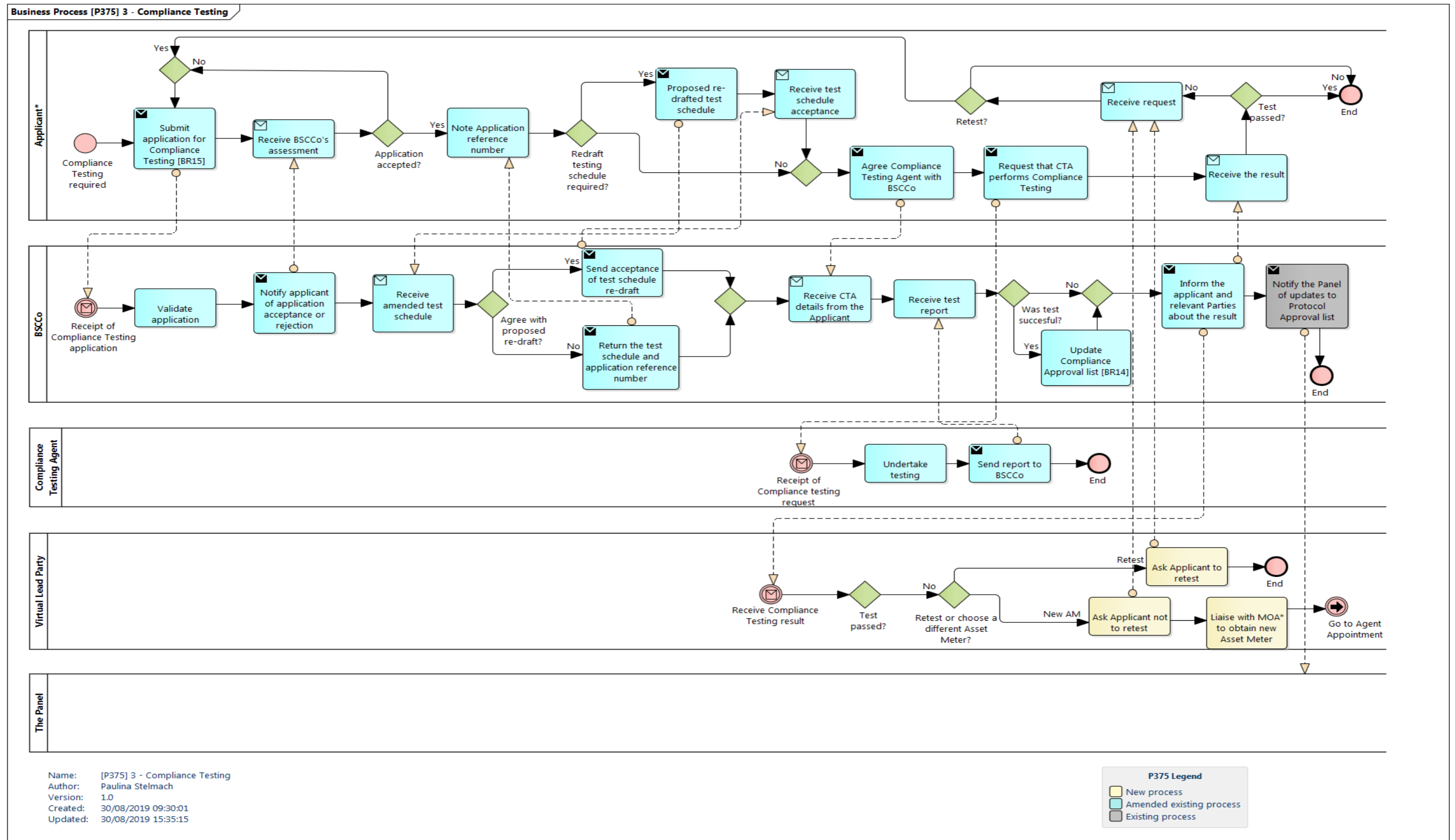
P375 BUSINESS REQUIREMENTS

APPENDIX F – Agent Appointment Process Map



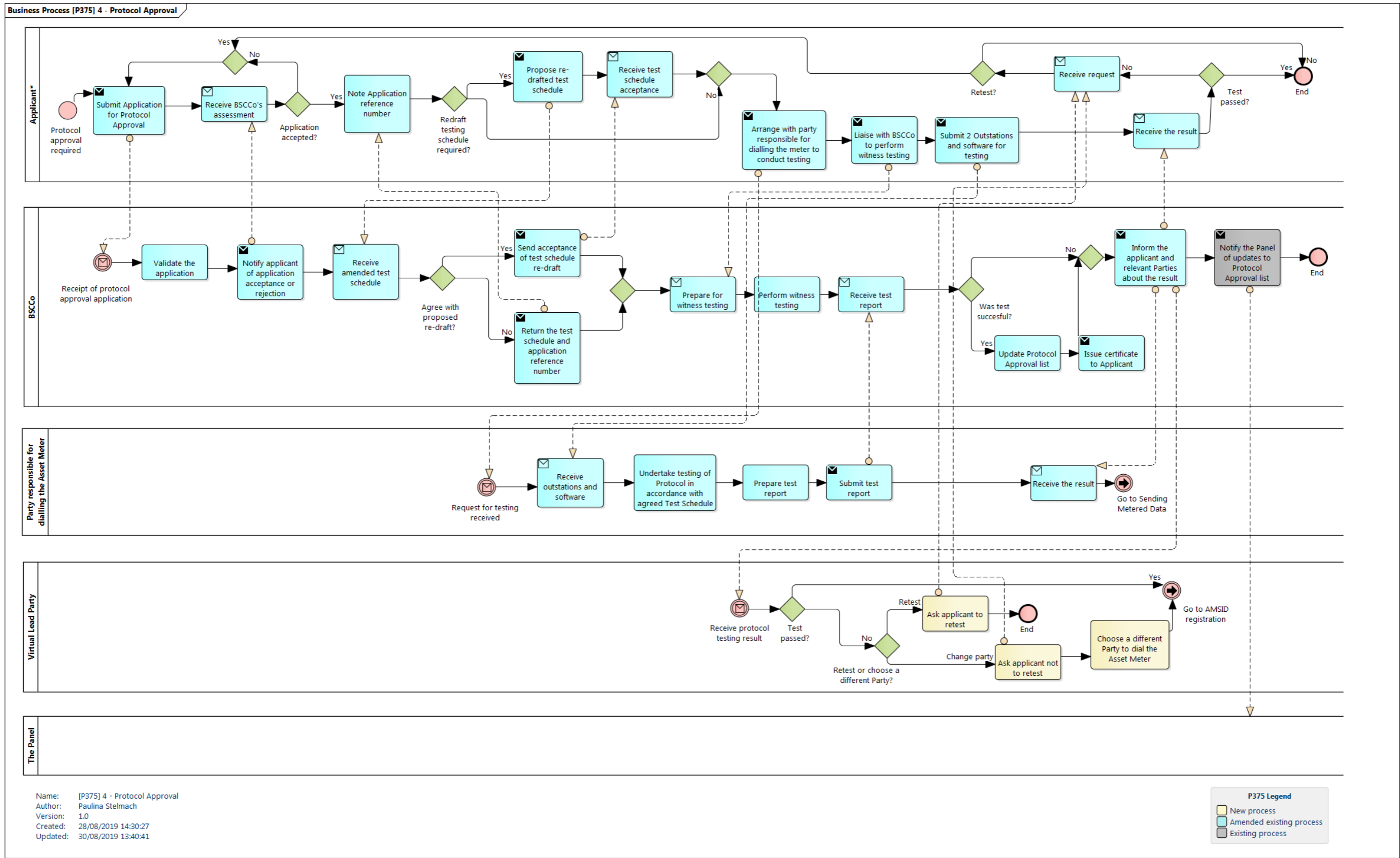
P375 BUSINESS REQUIREMENTS

APPENDIX G – Compliance Testing Process Map



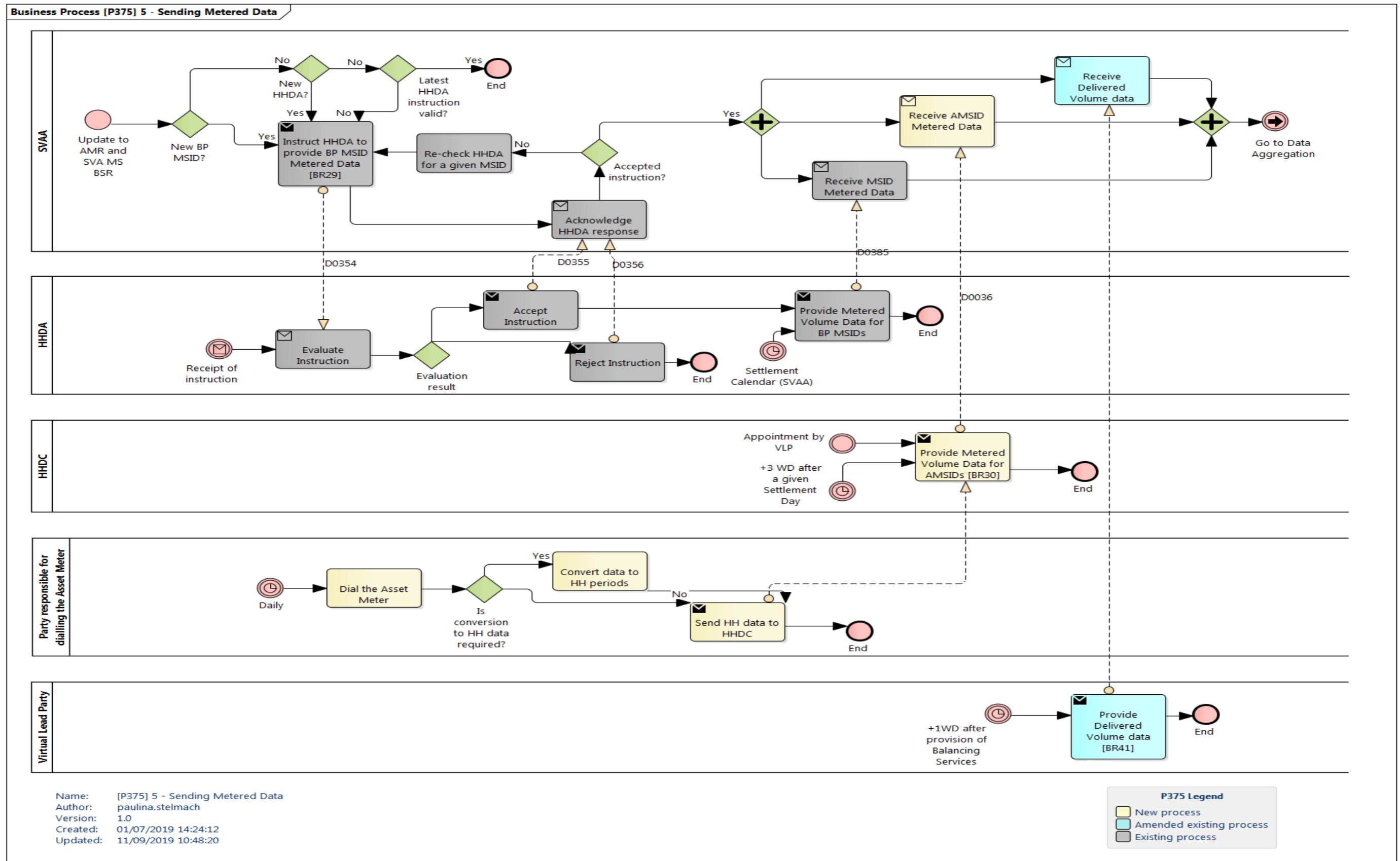
P375 BUSINESS REQUIREMENTS

APPENDIX H – Protocol Approval Process Map



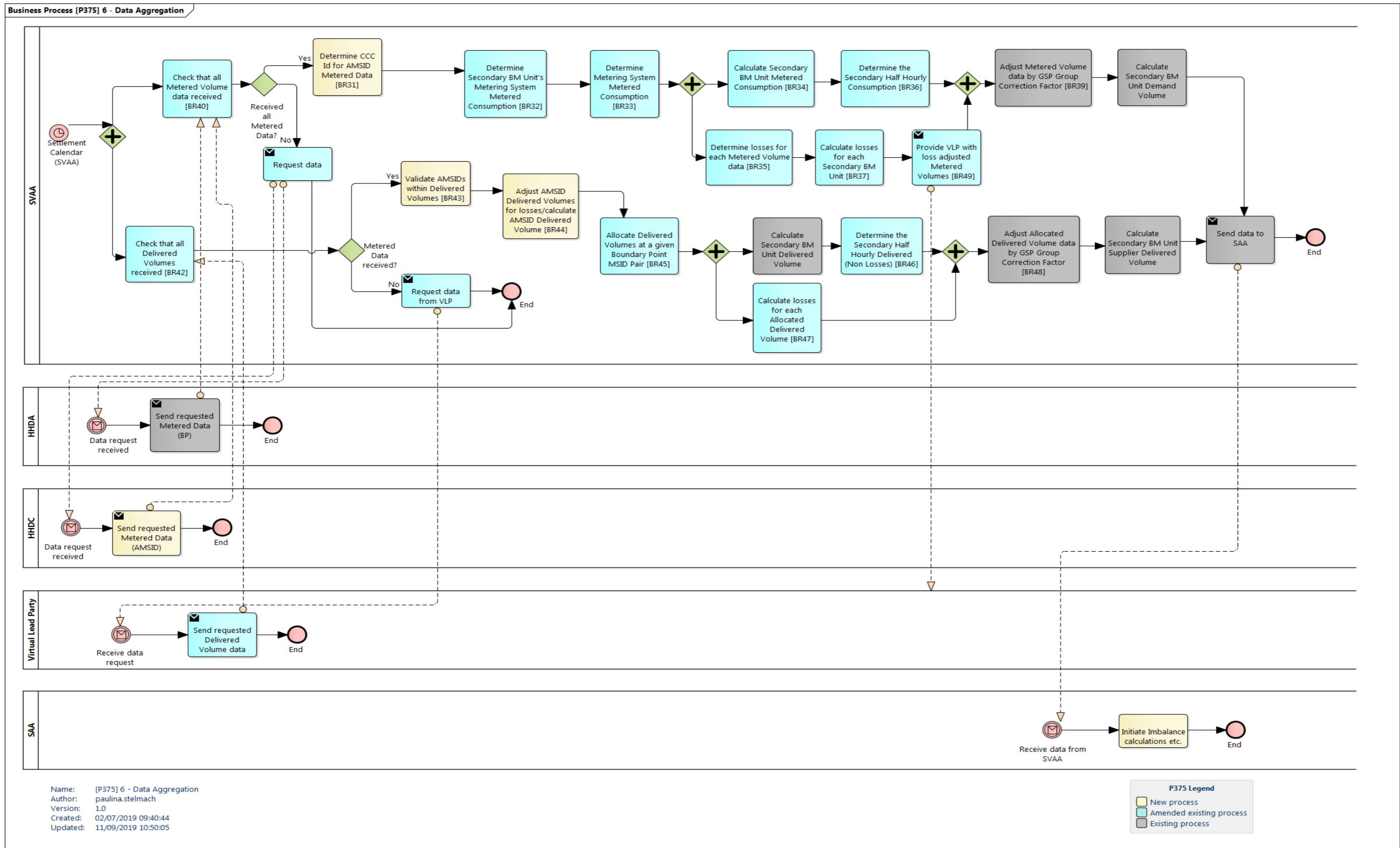
P375 BUSINESS REQUIREMENTS

APPENDIX I – Sending Metered Data Process Map



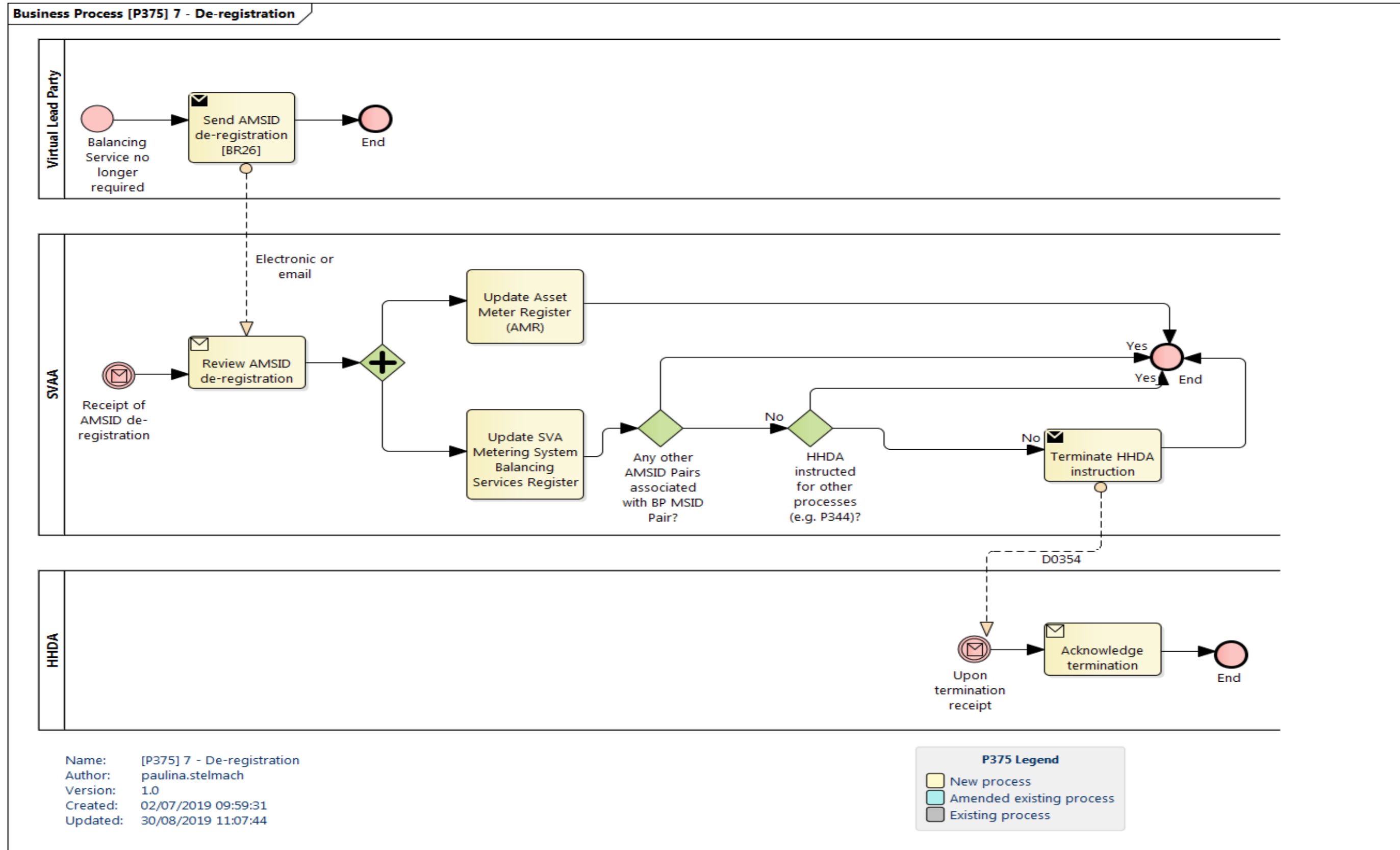
P375 BUSINESS REQUIREMENTS

APPENDIX J – Data Aggregation Process Map



P375 BUSINESS REQUIREMENTS

APPENDIX K – De-Registration process Map



P375 BUSINESS REQUIREMENTS

APPENDIX L – AMSID Dispute Process Map

