Public

Issue 70 & 71

Behind the Meter & Baselining

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Objectives

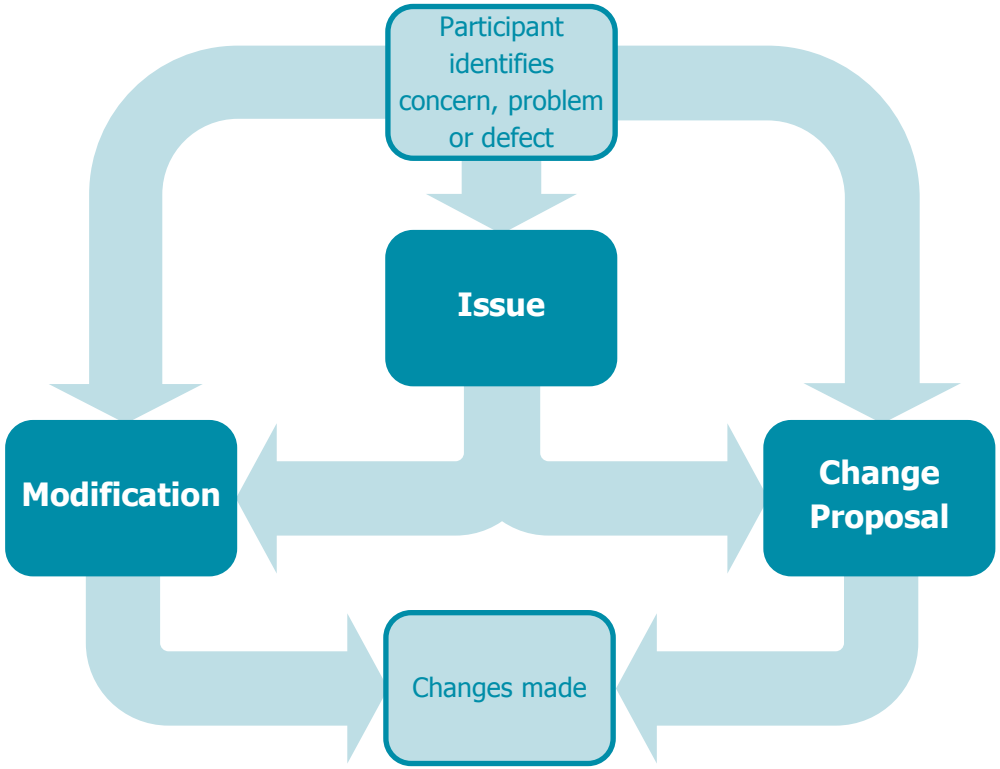
- Define the Issues:
  - identify clear Issue statements
- Outline the potential scope:
  - any further work required
  - are both Issues required (potential overlap)
- Identify key areas to consider
- Identify next steps

BSC Issue Process

Harry Parsons

BSC Change Process

		Will my solution amend the BSC?	
		Yes	**No**
Do I have a clear solution?	**Yes**	Modification	CP
	No	Issue	Issue



BSC Issue Process

- Raised if participant wants to discuss an issue or concern
- Issue Group convened to discuss the issue
- More of an informal, ad-hoc approach
- Group will consider any ways forward
  - e.g. solution, extra guidance, no change
- We will prepare a final report for the BSC Panel
- Any BSC Party can take forward the outcomes of an Issue e.g. BSC Modification can be raised at any point

Issue 70 'Settlement of Secondary BM Units using metering at the asset'

Damian Clough

ELEXON

Background

- P344 allows SVA Customers (or aggregators acting on their behalf) to participate in Project TERRE (and the Balancing Mechanism) independently of their electricity supplier. In order to do this, the participating party would:
- Register a Secondary BM Unit containing a portfolio of SVA Metering Systems (within a single GSP Group) with which they are able to deliver Replacement Reserve (RR) Acceptances and/or Bid Offer Acceptances (BOAs);
- Provide National Grid (prior to Gate Closure) with Final Physical Notifications (FPNs) that reflect the anticipated metered volume of the portfolio of SVA Metering Systems (in the absence of any RR Acceptances or BOAs);
- If the BM Unit does receive an RR Acceptance or BOA, despatch generation or demand side response to vary the aggregate output of the portfolio away from the FPN, in accordance with the instruction received from National Grid. If the aggregate metered output does not match the instruction, the party may have to pay Energy Imbalance Charges and Non-Delivery Charges.

Background

- P344 solution requires that metered data from the Supplier's Settlement metering (located at the boundary point) be used to verify delivery of acceptances issued to the Secondary BM Unit
- The P344 Workgroup acknowledged the potential that this could create barriers to participation by some customers, taking note of the following points:
  - End-user sites are often complex, containing assets capable of participating in TERRE (and the BM) and other equipment which is inflexible or operates independently from participating assets;
  - Given this complexity, the location of the meters most appropriate for Settlement may not be at the Boundary point, but at the individual participating assets;
  - There are associated difficulties submitting a Physical Notification (PN) for the entire site (including assets outside of the service provider's control), with any error in the PN creating a risk of non-delivery Charges; and
  - Where meters other than Boundary point meters are used, it is nevertheless necessary to ensure auditability, so that payment for delivery corresponds to the service provided.

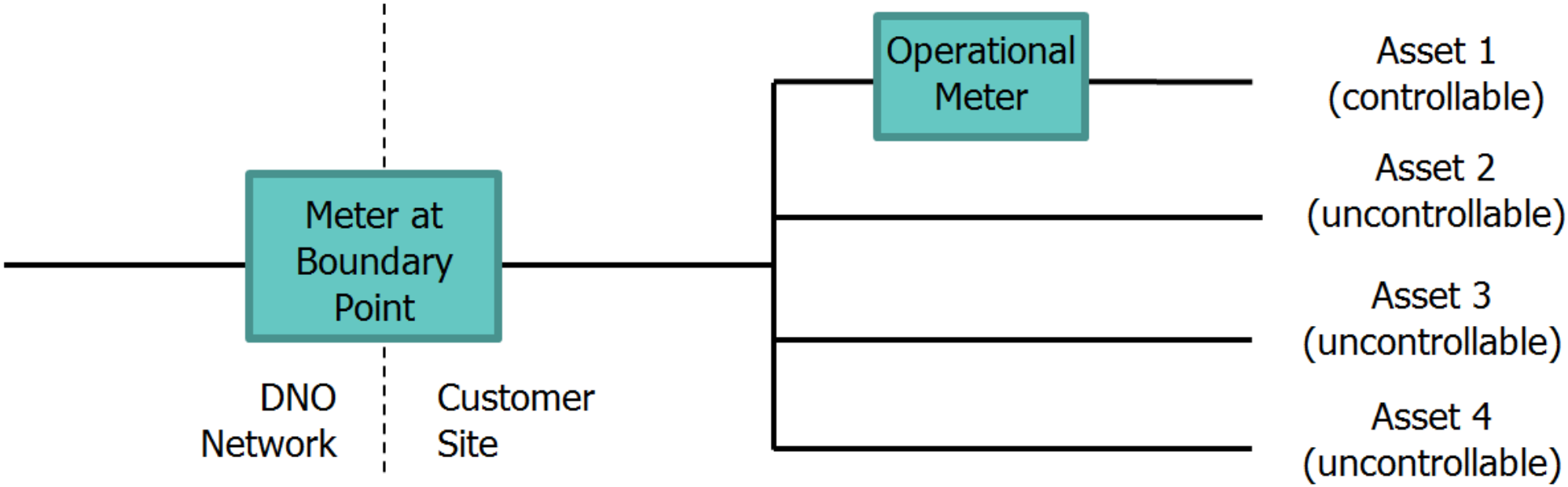
What is the Issue? (1 of 3)

- Requirements for the Virtual Lead Party (VLP) to construct FPNs that reflect the power flows at the boundary with the Distribution System may be problematic where the controllable asset delivering an acceptance shares a network connection with other uncontrollable assets (e.g. loads or generating units).

- VLPs required to submit FPNs that reflect power flows at the Boundary Point and the FPN for a Secondary BM Unit including the site above would need to include forecasted output not just for asset 1 (controllable), but for assets 2 to 4

- If the output of these assets was hard to forecast the result would be errors in the FPN, and hence Energy Imbalance Charges and Non-Delivery Charges for the VLP (even when asset 1 correctly delivered the required acceptance volume).

What is the Issue? (1 of 3)



Proposed Solution

- Allow the Secondary BM Unit to be settled using a meter installed close to the controllable asset (rather than the meter at the Boundary Point):
- The meter at the Boundary Point would still form an Supplier Volume Allocation (SVA) Metering System, and Metered Data collected from it would still be used in Settlement of the Supplier BM Unit; Metered Data will be used as a validation tool for the Delivered Volumes
- Settlement of the Secondary BM Unit would be based on a meter close to the controllable asset. This meter would therefore be "Settlement Metering" rather than "non-Settlement metering", and would form a new type of Metering System recognised under the BSC (not an SVA Metering System)

Items for Workgroup to consider

- Standard of Metering
  - Asset metering follows same standards as Settlement metering
- Independence of Assets
  - Does the service provided affect the System?
- Treatment of losses
- Does this create a new type of Secondary BM Unit (P363/4)
- Responsibility for data collection and meter operation:
  - proposed that VLPs should be required to appoint qualified HHDC and HHMOAs
- Process for allocating MSIDs
- Data flows
- Performance Assurance

Issue 71
'Introduction of a baselining methodology as an alternative to Physical Notifications'

Damian Clough

ELEXON

Background

- Balancing Service providers that want to participate in the BM must indicate at what mega-watt (MW) level they expect their BM Unit to be at for any given Settlement Period
- At Gate Closure this MW level is finalised and sent to Settlement where it is termed the BM Unit's Final Physical Notification (FPN) and acts as a baseline for any future deviation instructions from National Grid which is then subsequently used for Settlement

What is the Issue?

- The need to provide an accurate PN is seen as a blocker for potential new entrants as;
  - the expertise for participants lies in calculating the cumulative change for the customer's sites but not the cumulative change relative to total Demand for those customer sites
- Inaccurate PN's may lead to customers not being paid fully for delivery even if they had responded as requested, which will deter them from offering their services or pricing in this risk thus increasing cost. Where a site has demand which fluctuates and is not static or predictable further compounds the problem

Proposed Solution

Dispatch

- The Transmission Company would (as currently) dispatch a BM Unit by issuing a Bid Offer Acceptance (BOA) or RR Instruction (RRI) constructed with reference to the Physical Notification submitted by the Lead Party. Because this solution decouples the PN from the Non-Delivery calculation, it may be appropriate for Lead Parties to submit a different type of PN compared to current arrangements:
  - They could submit a PN that reflects the expected output only of the actual assets (demand or generation) delivering the response, not the site as a whole
  - Alternatively, it might be appropriate for them to submit a zero PN, in which case the BOA or RRI issued by the Transmission Company would become a 'delta' instruction (rather than an instruction to an absolute MW level)
- Regardless of how the PN is constructed, National Grid would send the Final Physical Notification (FPN) to Balancing Mechanism Reporting Agent (BMRA) and Settlement Administration Agent (SAA) as currently (for use in calculating the Bid Offer Volume)

Proposed Solution

Settlement

- Baseline volume could be used (instead of the Final Physical Notification) to calculate the Period Expected Metered Volume (QME_{ij}), and hence the Non-Delivery Volumes
  - Dispatch Data is added to QME_{ij}
- This solution recognises that the FPN for dispatch will be different from the FPN used for Settlement purposes and will therefore require changes to industry systems

Items for Workgroup to consider

- Is a non 0 PN value needed for the Dispatch of Secondary BM Units?
  - Can the PN be a 0 value or a delta?
  - Interaction with Grid Code and National Grid systems
- Do the PN's for Dispatch and Settlement need to be the same value
- Does metering at the asset negate the need for Baselining?
  - If the issue is being unable to forecast demand at site, by cutting out this demand from the PN do we still need baselining?
- Baselining Methodology
  - Created as part of this Issue Group or as a Standing Group?
    - Numerous methodologies
    - A large amount of time may be undertaken within the Issue Group discussing the detail of the Baselining methodology as opposed to the principles

Next Steps

Next Steps

- When is this needed for:
  - cross code considerations:
    - NG Balancing contract considerations
  - any future regulations or efficiencies to be considered

- Next steps:
  - further Issue Group meetings
  - prepare Issue Report for BSC Panel