

# Clarification of Start Up Payment Conditions

June 2024

# Background

- When the SEM went live in 2018 the settlement systems paid CSU based on whether a BOA was settled on complex COD in the first settlement period of a Period of Physical Operation (PPOP) only.
- As the market developed it was determined this was not correct as CSU should be paid based on whether a BOA, which is associated with a SYNC dispatch instruction (DI), is settled on complex COD.
- Consequently, SEMO raised a change request with its vendor to update the settlement system to reflect the above logic.
  - That is, instead of using just the BOAs from the first period in a PPOP, the system should instead use BOAs associated with a SYNC DI.
- This change request was implemented in Release J in December 2022.

# Background

- Unfortunately, after this change request was implemented, an unexpected outcome was observed which resulted in units, in rare scenarios, not receiving CSU payments when it was expected they should have.
- Following this and an investigation by SEMO, it was discovered this was due to how Instruction Profiling was calculating BOA volumes resulting from a SYNC DI in a rare scenario where a unit (which had been desynced from its FPN) was dispatched from 0 MW back to its FPN, and reached its FPN within a single settlement period.
- SEMO contacted its vendor for assistance and a workaround was determined which would ensure units would be remunerated correctly and SEMO implemented this workaround.
- SEMO then began engagement with the RAs on how best to proceed as it was determined a further system change, in addition to a modification, was needed.

# Background

- Following this engagement, SEMO has raised this modification and also raised a request to its vendor for an impact assessment of this proposed change.
- SEMO continues to apply the aforementioned workaround to ensure units are not negatively impacted by this.
- Note this modification is not a policy change. It is a clarification to the current ruleset to avoid ambiguity.

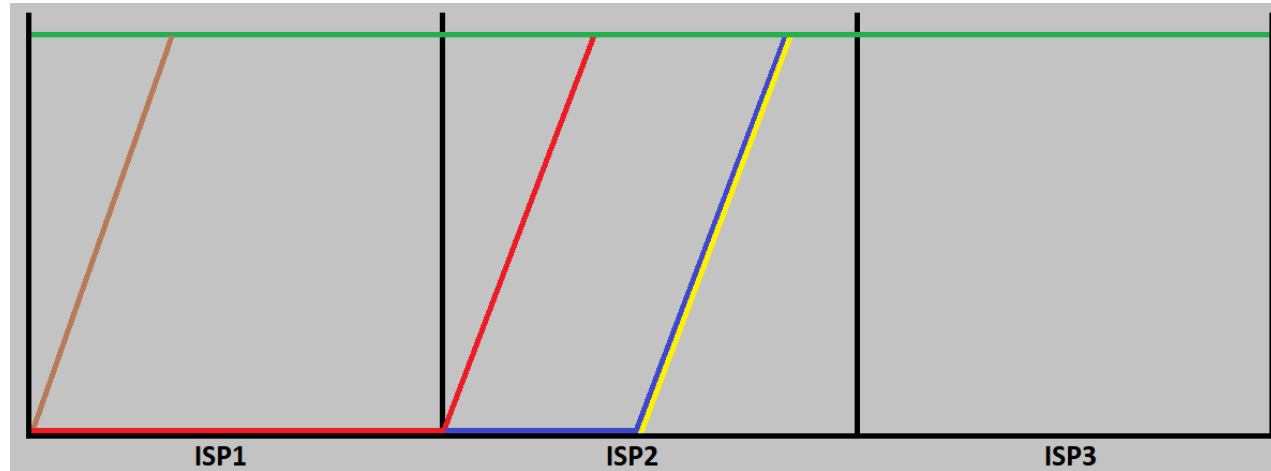
# Explanation of Issue - One Active Profile

- When Instruction Profiling is being carried out, there is only one “active” profile at any given time, and there is always an active profile (even when a unit is desync’d or on outage).
- This “active” profile is closed to the FPN once a new “active” profile is created. These profiles close to the FPN using a units *Technical Offer Data (TOD)*.
  - This new “active” profile can either be a “real” DI issued by the control centre, or a “pseudo” DI created by the settlement system for instruction profiling reasons.
- One of the core pseudo DI’s is the *PISP*. This pseudo DI is created on every half hour boundary if there is no ramping profile (I.E. an “active” real DI). This pseudo DI keeps a unit at a certain level until the unit is moved away from that level by a real DI.
  - For example, if a unit is de-sync’d from its FPN, a PISP is created at every settlement period boundary to keep the unit at 0 MW within the settlement profiling. Each time a new PISP is created the PISP from the previous period closes to the FPN.

## Explanation of Issue - Specific Scenario

- When a unit is desync'd and at 0 MW and assuming they have a non-zero FPN, PISPs are created every half hour to keep the unit at 0 MW and allow for BOA (QAB) volumes to be calculated from the FPN to 0 MW.
- If a unit receives a SYNC DI to its FPN within a settlement period, it causes the PISP to close to the FPN also. However, as both the PISP and SYNC DI are ramping to the units FPN using the same TOD set, the decremental volume is captured as a volume between the FPN and the PISP (as the PISP was “issued” before the SYNC DI).
- Consequently, the volume of BOA between the PISP and SYNC DI is zero, and therefore the settlement system cannot see a non-zero BOA volume which is associated with a SYNC DI settled on complex.

# Explanation of Issue - Illustration



- Scenario: Unit is dispatched to zero, has a non-zero FPN (green line) in all ISPs and is SYNC'd to its FPN in ISP2.
- A PISP (brown, red and blue lines) is issued at the beginning of ISP1 and ISP2 (and ISP0 also; not included in illustration) to keep the unit at zero. When a new PISP (blue line) is issued at the beginning of ISP2 it causes the previous PISP (red line) to close to the FPN.
- When the unit receives a SYNC DI (yellow line) in ISP2, it causes the PISP (blue line) opened at the beginning of ISP2 to close to the FPN at the same rate as the SYNC DI. Consequently, all of the BOA volume in ISP2 is captured between FPN (green line) and PISP (blue line) opened in ISP2.
- While there are BOAs calculated between the PISP (blue line) from ISP2 and the SYNC DI (yellow line), the volumes will be zero as they're ramping from same destination to the same target level with the same TOD set. Consequently, there is no BOAs, associated with a SYNC, settled on complex COD.

# Proposed Change

- The modification proposes to update F.11.2.2 to clarify exactly when CSU should be paid for unit starts (note this is only one aspect for determining CSU payments, the other aspects are not being changed with this modification).

F.11.2.2 In all circumstances not listed in paragraphs F.11.2.1, **where:**

- (i) ~~for~~ Any Bid Offer Acceptance, o, within the Period of Physical Operation which ~~is associated~~ has a Bid Offer Acceptance Time equal to the Instruction Issue Time ~~with a~~ of a Synchronise Dispatch Instruction;  
or
- (ii) Any Bid Offer Acceptance, o, within the first Imbalance Settlement Period,  $\gamma$ , within the Period of Physical Operation;

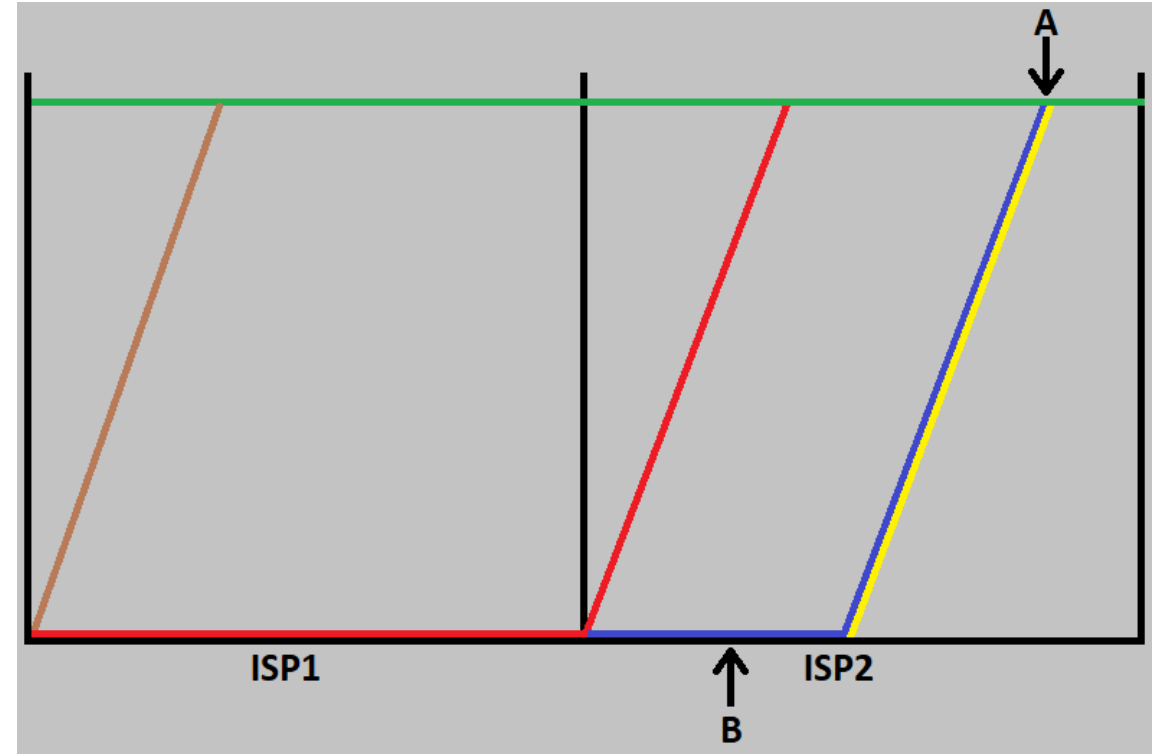
and for which Complex Bid Offer Data is to be used in accordance with section F.3.3:

- In plain English:
  - If any BOA volume associated with a SYNC DI, or any BOA volume in the first period of a PPOP, is settled on complex COD (and other CSU conditions are valid), then pay CSU.



# Proposed Change - Illustration

- **A - Current Scenario:** Only consider BOAs associated with a SYNC DI settled on complex COD when determining if CSU should be paid.
- **B - Proposed Scenario:** Consider any BOA in the first period of PPOP (ISP2 here), or any BOA associated with a SYNC DI, settled on complex COD when determining if CSU should be paid.
  - There can be BOAs associated with a SYNC DI settled on complex COD in a subsequent ISP.



Legend:  
Green - FPN  
Brown, Red, Blue - PISPs  
Yellow - SYNC DI

# Questions?