Subject: Synergy feedback on WP metrology procedure - review of amendments

Western Power proposed changes to the Metrology Procedure

Background

Western Power (WP) initially submitted an amended metrology procedure to the Economic Regulation Authority (ERA) on 1 October 2021. Following submission, the ERA considered further changes were required to the procedure. As a result, WP consulted with interested parties and has submitted to the ERA on 29 November 2021 a revised metrology procedure for review. The ERA has invited public submissions on WP's revised metrology procedure.

The Metering Code clause 3.3C requires, for bi-directional electricity flows:
1. the separate measurement and separate recording of the electricity transferred into the network at the connection point (production); and
2. the separate measurements and separate recording of the electricity transferred out of the network at the connection point.

Consistency between the Electricity Industry Metering Code and the Metrology Procedure

The revised metrology procedure includes examples of how WP has configured its meters to record energy data for bi-directional electricity flows in relation to single phase and three phase supplies.
Based on the Metrology procedure examples Synergy understands the separate measurements for the three phase meters are being arithmetically derived (subtracted) before the resulting values are subsequently recorded in the respective registers and provided to users. If Synergy's understanding is correct, then:

1. The examples don't appear to be consistent with the Metering Code's requirements to separately measure and record the energy data being transferred through the connection point as netting off occurs prior to the measurement being recorded in the meter registers and the metering database.
2. The examples don't appear consistent with the requirement to measure throughput. It appears net (of actual) throughput is being measured and recorded.

An alternative view of the Metering Code's requirements (relative to the Metrology Procedure worked examples) results in different arithmetic values (refer green text below).

Table A3-2: Three Phase Interval Metering Data

Scenarios	Notes	Phase 1	Phase 2	Phase 3	Net Electricity Consumption (electricity transferred out of the network)		Net Electricity Production (electricity transferred into the network)		Throughput	
1		2	1	(3)	0	3	0	3	0	6
2	3	1	(1)	2	2	3	0	1	2	4
3		1	(2)	0	0	1	(1)	2	1	3
4	4	1	1	(1)	2	✓	(1)	✓	3	✓

Synergy has discussed with WP the above issues and we are working together to obtain a better understanding of the Metering Code requirements relative to WP's metering operational arrangements.

Kind regards,

Table A3-4: Three Phase Accumulation Metering

Scenarios	Notes	Phase 1	Phase 2	Phase 3	Net Electricity Consumption (electricity transferred out of the network)		Net Electricity Production (electricity transferred into the network)		Throughput	
1		2	1	(3)	0	3	0	3	0	6
2	3	1	(1)	2	2	3	0	1	2	4
3		1	(2)	0	0	1	(1)	2	1	3
4	4	1	1	(1)	2	✓	(1)	✓	3	✓