**NYISO** - **David Hooper Senior Stakeholder Services Representative**

CCVTs are not allowed to be used in revenue metering. NY Meter Eng. Com. Guide for Uniform Practices in Revenue Quality Metering Section 4.9.

**CALISO** – **Priyanka Namburie** **Senior Advisor**

CCVTs are allowed to be used in revenue metering with no additional testing requirements. Business Practice Manual for Metering per

**SPP**- **Drew McGilvray Supervisor Market Forensics**

I am not aware of anyone reporting on metering drift. Previous versions of the protocols did not allow CCVTs in new installations, but this was removed with the last Appendix C update in 2019/2020 as participants felt their accuracy was adequate. The Integrated Marketplace Protocols Appendix C.7.3.3 covers in service testing. Per Drew McGilvray Supervisor Market Forensics

C.7.3.3 In-Service Testing

The accuracy of all meters shall be periodically verified by tests conducted by the Market

Participant or their designated party.

• The test interval, not to exceed three years, shall be determined by mutual agreement of the

Market Participant and Meter Equipment Owner. The Market Participant, Meter

Equipment Owner, or their designated party shall provide reasonable advance notification

to other affected parties of this periodic test and provide the test results to them, if

requested.

• In-service testing of the magnitude and phase angles for each of the phase voltages and

currents at the meter test switch shall be measured to ensure the proper metering connection

at the time of installation, replacement of the meter, voltage transformer or current

transformer, or metering circuits wiring changes.

• If tests identify or other indications show a meter is out of service or inaccurate, the Market

Participant of the Meter Settlement Location must restore the meter to correct operation

within a reasonable period of time. In the interim, backup metering or integrated Real-Time

metering may be used as described in Secion C.7.4.1. The reasonable period of time should

not exceed a period of 30 days from the date of discovery, unless a later date is mutually

agreed upon by the Market Participant and Meter Equipment Owner. If equipment

installation or replacement is required to resolve the inaccuracy, all Metering Equipment

must be correctly operating at a date mutually agreed upon by the Market Participant and

Meter Equipment Owner. SPP will be notified of the inaccuracy, interim procedures, and

resolution for auditing purposes by the Market Participant of the Meter Settlement

Location. Authentication of existing Metering Equipment and validations of newly

installed or repaired Metering Equipment are required as described in Section C.5.1 of this

Appendix.

**PJM- Janelle Williams Client Manager**

• Two points to consider:

* M01 5.1.3 defines how a member/equipment owner/operator can determine or calculate their system effective accuracy, to verify if they make the standard.
* M01 5.3 sets the accuracy requirement for *revenue* (billing) metering.

So, the fact that it is a CCVT, a certain kind of voltage transformer, is not directly consequential to whether or not it makes the requirement. If the device has commonly accepted manufacture documentation that it is rated for sufficient accuracy at the nominal voltage levels expected, PJM has no other preference for VT device type over another, and members are free to pursue whatever works best for them.

**ISO-NE** - **Sofia Chlastawa**

I believe the only requirements we have are minimum accuracy standards listed in Appendix C of OP-18 per Sofia Chlastawa Participant Support and Solutions

**MISO – No Response**