SYNCHROPHASOR STANDARDS UPDATE, October 2018

- P60255-118-1 Measuring Relays and Protection Equipment - Part 118-1: Synchrophasor for Power System – Measurements
  - Dual logo – IEEE and IEC
  - Approved by both entities
  - Expected publication in November 2018
P60255-118-1 (continued)

- This revision clarifies requirements and simplifies definitions from C37.118.1
- Testing for certification only required at 1 reporting rate
- Adds optional certification Annexes
  - Accuracy & extended measurement ranges
  - Bandwidth determination
- Introduces requirements for synchrophasors from sample values (for next revision)
C37.242  Guide for Synchronization, Calibration, Testing, and Installation of Phasor Measurement Units (PMUs) for Power System Protection and Control

- Originally published in 2013 (fast tracked from 3 NASPI reports)
- Testing section was made obsolete by IEEE TSS which triggered the early revision
- Guide should be ready for vote to go to sponsor ballot by the JTCM in January
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● C37.118.2 Standard for Synchrophasor Data Transfer for Power Systems

  ▪ Simplify some features and remove ambiguities
  ▪ Remove unused features
  ▪ Add some needed features (currently working on the details of the new, needed features)
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● PC37.247 Standard for Phasor Data Concentrators for Power Systems
  ▪ To replace C37.244 Guide for Phasor Data Concentrators
  ▪ Has gone through recirculation ballot #1
  ▪ Technical comments remain to be resolved so will need another recirculation ballot
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- IEEE 2664 Streaming Telemetry Transfer Protocol
  - New standard
  - PAR (Project Authorization Request) has been approved by IEEE SA
  - Outline for document in development
  - Majority of material exists in reports
  - Expect 1st draft in about a year
IEEE Report on Standard Mapping between C37.118.2 and IEC61850
- Working group doing final clean up
- Working group vote is needed for publication
- Expected by JTCM meeting in January
IEEE Phasor Measurement Unit
Conformity Assessment Program

- IEEE Certification of PMU’s gives Manufacturers the opportunity to demonstrate conformance to IEEE C37.118.1a – 2014
- Three certified PMUs to the 2014 version of C37.118 on the ICAP Certified Registry.


- Revision of the IEEE Synchrophasor Measurement Test Suite Specification (TSS) underway to align with revisions to the IEEE C37.118 standard.
- Consumers Energy (Jackson, MI) was the first ICAP Accredited Lab and offers complete testing capabilities to the TSS
  - More Info on Consumers Energy at www.laboratoryservices.com
- For more information about this program or any other ICAP related questions please contact Jason Allnutt <J.Allnutt@ieee.org>
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Upcoming IEEE Working Group meetings

IEEE PES JTCM (Joint Technical Committee Meeting)

January 13-17, 2019

Hyatt Regency Orange County
Garden Grove, California

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