Meeting Opening – Introductions – Gary Chang

Approval of Previous Meeting Minutes – Gary Chang
The secretary presented the minutes from the meeting. Minutes were approved.

Status of PQ Subcommittee Documents
The status of each Working Group and/or Task Force that meets was discussed.

**Monitoring Electric Power Working Group - Steve Johnston**
1159-2009: Monitoring Electric Power Quality, Steve Johnston
- Group spent time reviewing chapters and February presentation from Math Bolen. Plan to get document ready for ballot around the GM in 2016.

1159.3-2003: Transferring Power Quality Data, Dan Sabin
- Gave outline of changes, goal of ballot by 2017. Ongoing review of comments and implementing changes. Sent out to members for review.

**Harmonics Working Group - Erich Gunther**
519-2014: Harmonic Control in Power Systems, Mark Halpin
- Two presentations, coordinating issues with 519, Panel session at T&D, Erich covering harmonic limits along with others. No PAR yet, gather more info before submitting. Getting application guide going again. Starting from scratch with existing material. Next meeting at GM. More on high order harmonics to go into 1250. Erich also provided update on Bill Moncrieff’s funeral to the group.

519.1: Applying Harmonic Limits on Power Systems, Mark Halpin
- Mark was not present to provide update.

**Voltage Quality Working Group - Theo Laughner**
1250-2011- Voltage Quality, Theo Laughner
- Discussion about name change, Theo to submit PAR change- “Guide to Electric Power Quality”. Reviewed Ch. 3&4 and discussion about outstanding chapters. Plan to meet at GM, room for 30 with projector requested.

1453-2015- Flicker, Harish Sharma
- Latest standard is published. Panel session at GM. Updated group on 1547 activity and received feedback to take back to group. Discussed short comings of latest standard. Gathering ideas for next version of the guide.
1564-2014- Voltage Sag Indices, Francisc Zavoda
- New secretary, Kevin Kittridge, starting next meeting. Action plan for next meeting, Bill Howe to provide report. Tom Cooke to use report to develop new chapter. Dan Sabin will start survey with utilities about aggregation.

**PQ Issues with Grid Modernization Technologies Working Group – Dave Mueller**
- Update on CIGRE C4/C4.24. Looking for reviewers for work already done and work to be completed. Discussed future role of the group including smart meter data and other smart grid related topics. Group still deciding its role moving forward. Dave discussed the future of the PQ Solutions working group which has not met recently. No plans to meet at the GM.

**SCC-22 Update - Theo Laughner**
- In the process of putting together a matrix of PQ phenomena and applicable standards. Still populating matrix. Conducted a vote - Scott Peale, Vice Chair, David Zech, Secretary voted in. Theo accepted appointment for continuation of term.

**Power Quality Analytics Working Group – Wilsun Xu**
- Power quality data analytics working group compared current waveforms, develop methods. Develop document of signatures published in literature. Review of methods to capture signatures. Group has existed for 2 years, Wilsun stated his workload is high and will step down as Chair. New Chair will be Surya Santoso. Unanimous approval of Surya by the PQ Subcommittee. Transition will take place at the GM.

**Panel Sessions Update –**

2016 T&D:
2. Power Quality Issues in Smart grids –Francisc Zavoda

2016 General Meeting:
2. Flicker Standard- Updates, Applications and Future Direction – Harish Sharma
3. Modeling and measurement of network and equipment impedance for harmonic studies – Roberto Langella
4. Electrical Signatures of Power Equipment Failures – Wilsun Xu
   - Gary discussed the time slots of each panel session. No comments.

**Other Business –**
1. WG/TF web page update.
   - Gary reviewed web pages and states they are not in good order after they were requested to be updated at the last meeting. Gary requests that each Chair look at their web page and update as it helps to attract new members by making contact information available.
   - Rich Bingham requested that templates be standardized with Dan Sabin’s green template.
   - Action item to Dan Sabin to send template to officers.
   - Gary requested updates prior to 2016 GM.
2. Transient Characterization - Math Bollen
   - Math Bollen mentioned his desire to work on Transient Characterization, this was confirmed by Steven Johnson.
   - Theo stated 1250 does not have such information, but feels that chapter should be built within 1159. Rich Bingham agrees.
3. A Guide to Understanding Power Quality Measurements: A group led by Rich Bingham to bring draft outline to JTCM.
   - Rich stated outline is still in progress, requesting information from Tom Cooke.
   - Action item for Rich to bring draft outline to 2016 GM.
4. Requirements for PQ Capabilities in Smart Meters - Tom Cooke
   - Discussed section in CIGRE report. Needs feedback from smart meter manufacturers. Feels it could land in 1159 or analytics.
   - Erich discussed need to build consensus in vendor community.
   - John Buffington, Itron stated that competitive pressure is too great to achieve the level of quality desired. Commented that “bell weather” meter approach may be a way to pull the industry along. Provided expected lifespan of 17 years for meters.
   - Erich warned that coordination with other groups is needed to come up with prioritized list of capabilities such as momentary interruptions. Stated that device specifications to capture PQ phenomena should be added to 1159.
   - Theo suggested that SCC-22 could organize a “Power Quality Measurement Interest Group” meeting at 2016 GM. Stated that meeting time is needed.
   - Wilsun Xu pointed out that data coming from “bell weather” meter would need to be differentiated from revenue data, Erich stated it likely would not be an issue.
   - Gary recommends keeping this issue open and add item to 1159. Requested Tom Cooke circulate his presentation ahead of GM 2016.
5. Guide on what are effects from PQ Phenomena on Equipment - Scott Peele
   - High Vthd levels causing UPS units to alarm, GFI nuisance tripping from voltage sags and capacitor switching causing VFDs to trip on overvoltage are examples of what needs to be investigated. Not aware of other comparable documents.
- Theo Laughner suggests Wiki, database, or SharePoint instead of guide as a repository. Feels it is easier manage due to the volume. Similar to DOE disturbance library or EPRI’s PQ Docs. Feels that 1250 should consider this.
- Bill Howe to check on status of PQ Docs.
- Dan Sabin stated that SCC-22 website could be location.

6. WG TF for Susceptibility of equipment to different types of disturbances
   - Theo to discuss Task Force at the 1250 meeting at the 2016 GM.

7. PES Committee Reorganizations –
   - Erich and others provided general changes in structure.

Meeting adjourned at 12:11PM
Next meeting on Wednesday at 11am at 2016 GM.

Minutes recorded by Matthew Norwalk.