

Meeting Agenda
Administrative Subcommittee of the
Transmission and Distribution Committee
San Diego, California
Thursday, July 26, 2012, 08:00 to 11:00
3rd Level - Del Mar AB

1. Introductions

Called to order at 8:05. Eleven members and 3 guest (IEEE-SA) present.

2. Previous Meeting Minutes

Review and Approval of July 27, 2011 (Detroit) Meeting Minutes

Minutes approved. Dan S motion and Tim U 2nd

Agenda approved with change to 8.9

Eballots

Combined TP&C and Insulators into OHL with a 10/11/11 electronic ballot with approval on 10/13/11.

3. IEEE-SA Update

IEEE-SA staff gave some updates as follows:

T&D Committee's O&P manual needs to be updated. Satish is currently working on it and the draft was discussed.

The following policy changes are now in affect: There are no more reaffirmations, on revisions. If a standard is not revised within 10 years, then it becomes inactive (even with an active ballot). Once a standard is revised, the new date is in effect for 10 years. There will also be no more interpretations. There is also no more match rule for scope and purpose between PAR and Standard. SA doesn't check this anymore, it is up to the balloter, but there is no problem as long as they are close (less, but not more in the standard is ok). Also, the balance rule is now no more than 1/3 in one group. For balloting, everything is now done thru MyBallot™.

4. Chairman's Report

Current Meeting:

From Tech Council. There is a new format for Conference (GM & T&D) papers. Maximum length is now 4 pages and panels will no longer require papers. Also, the program will be different – Presentations will only be made for Super and Panel Sessions. All conference papers will be in the Poster Session. The Top X% of papers will now be in a Paper Forum (or Combo Session). There will also be a slot every day for WG reports. Coordinating Committees are becoming popular.

Committee Membership - Updated Roster

Organization and Procedures Manual Update following Switchgear Committee Policies and Procedures for Standards Development, Submitted 14 June 2011 (See hand written notes & emails from SA)

Review of Objectives achieved and Advice Going Forward

Entity report from Tech Council – There is no Cooperation between PES and IEC/CIGRE. WG's can obtain Technical Brochures from CIGRE. There is an IEC and PQ process in place. IEC and Insulators are going to start.

5. Awards

T&D Committee - IEEE Fellow Recipients (Mark McGranaghan, Erich Gunther)

Excellence in Distribution Award (Rick Bush)

Doug Staszkesky DA Award (Anil Pahwa)

Uno Lam High Voltage DC Award

Nari Hingorani Custom Power Award

Nari Hingorani FACTS Award

Technical Committee Prize Paper Award

Technical Committee Distinguished Service Award (Betty Tobin)

Technical Committee Working Group Recognition Award (1410)
IEEE Fellow Nominations – Reminder, Endorsers Cannot Evaluate

When work is complete, especially standards, should be nominated to award. IEEE-SA also has a process and other awards.

6. Future Meetings

Comments on success of matching WG requirements to available spaces and time slots.
Smart Distribution WG 80 in a room for 50. Most other rooms adequate.
Schedule conflicts in the San Diego meeting that could be resolved in future grid requests. Some within PQ, one session was from another committee at same time as PQ SC meeting. But Corona & Field Effects and Insulators were not at same time, but no crossover in members.
2013 JTCM – Memphis, TN
2013 GM – Vancouver, BC

7. New Business

7.1 Coordination issues with regard to Geomagnetic Induced Current WG

By T&D ADCOM motion 15 July 2010 and approved by eballot, The General Systems GIC Working Group *“would seek to exchange and develop information on all aspects of how geomagnetic storms could interact with and impact electric power systems. This would include advanced methods for modeling the storms and how they interact with the exposed power grids, analysis of geomagnetic storm impacts to power networks and equipment, methods of mitigation of geomagnetic storm effects on power grids, methods of improved forecasting and situational awareness of geomagnetic storms and their impacts to power grids, and development of standards in related areas to better characterize storm environments, impacts and mitigation”*.

“Coordination would be required with the Power Systems Relay committee, PC37.113, and this is best achieved by appointing a PSRC member to be secretary or vice chair.”

The issue is that the Transformers committee and chair disagree with the expert risk assessment of the T&D General Systems WG chair, John Kappenman, who has given the GIC issue clear and effective prominence in communications such as the cover article “A Perfect Storm of Planetary Proportions” in IEEE Spectrum February 2012. Susceptibility of transformers and other equipment to damage from unexpected current flow through the low zero-sequence reactance of EHV and UHV systems relies on analysis of these current flows under typical and severe GIC events, which is the purpose and scope of the General Systems WG.

The Spectrum article of February 2012 has served as a stimulus to additional PES work, with coordination that is being monitored carefully at the Technical Council level and by the PES president. Bill Chu is coordinating a response to the article. John Kappenman and Mark McVey to be forwarded as T&D representatives, with a possibility from General Systems.

There was a late breaking sessions at the 2012 GM on this topic.

7.2 Lightning Working Groups and Subcommittee

The integration of the Insulators Working Group into the former Towers, Poles and Conductors Subcommittee included transfer of scope and re-naming the subcommittee as “Overhead Lines” to coordinate with the corresponding CIGRE nomenclature.

The previous scope of TPC was as follows:

“Treatment of all matters of economical and technical design, theoretical and experimental performance, installation, and service operation of transmission and distribution conductors and

overhead ground wires, their supporting structures, associated splicing and hardware components, and counter-poise and structure grounding.”

The transferred scope from the Insulators WG was as follows:

“Design, application, testing, evaluation and standards for all types of overhead line insulators including attachments to minimize arc damage and control of the electrostatic fields.”

The Overhead Lines chair is working to promote better coordination with Corona and Field Effects WG and Insulators WG on the final item of scope through meeting schedule adjustments.

The remaining scope in the Lightning Subcommittee is as follows:

“Treatment and investigation of lightning phenomena as they affect the operation and economics of overhead lines. Analysis of various means for mitigating or preventing lightning outages in power systems.”

The Distribution Lightning Protection Task Force is responsible for IEEE Std. 1410TM / 2010 and the Transmission Lightning Protection Task Force is responsible for revision of IEEE Std. 1243TM. The committee has been an important contributor, with for example well-attended panel sessions at many previous T&D Expos.

Please consider whether the Lightning Subcommittee could most effectively:

- Continue as a separate entity with its present scope,
- Divide the scope along transmission and distribution voltage levels or otherwise into one or more subcommittees, or
- Expand its scope from within the overall T&D family to form a larger subcommittee with a “normal” range of 4-10 working groups.

Working approved the offer to join General Systems SC. General Systems SC accepted Lightning Performance of Overhead Lines WG. Motion by John McDaniel, 2nd by Tim Unruh to accept this move. Will coordinate some lightning phenomenon with General Systems WG’s.

7.3 Coordination with CIGRE

Report on ESMOL/CGRE B2-AG-06 cooperation (Tampa, 2012)

-B2 was invited to the ESMOL/OHL meeting in February, 2012 in Tampa. Several CIGRE presentations were made. Thursday and Friday were just CIGRE meetings, which were attended by several ESMOL/OHL members. There were attendees from all over the world. There are roughly a dozen OHL members that are active in CIGRE. A few are US utility members.

Report on Study Committee B2 Technical Advisory Group B2-AG-06 cooperation (Tampa, 2012)

Report on CIREC cooperation (Distribution WG)

There is a US CIREC Committee (add URL). John McDonald is chair and Mark McG is the vice chair. John McDaniel is Distribution liaison and the Dan Sabin is the PQ liaison (now Tim Unruh). Dan maintains the US web site.

Web site crosslinks – technical brochures

Add links on OHL site to CIGRE brochures.

8. Officer Rotations

The normal rotation of ADCOM officers will occur at the end of 2012. Positions needing reappointment or officer rotation include:

- TCPC to Secretary (semi-traditional) Motion by John McDaniel and 2nd by Brian Johnson to formalize the process. TCPC is elected and then rotates to Secretary.
- Secretary to Vice Chair
- Vice Chair to Chair

- Chair to Past Chair and Awards
- Vice Chair – Standards
 - Karl to stay on for 2 more years. Michael Garrels, from OHL, to take over eventually. Karl to mentor Michael.
- Subcommittee Chairs:
 - Integration of Renewable Energy into the Transmission and Distribution Grids

8. Subcommittee Reports of Items Needing ADCOM Action

8.1 Capacitors

The officers for the Capacitor Subcommittee are Tom Grebe (Electrotek) as Chair, Richard Sevigny (Hydro Quebec) as Vice Chair, and Mike Hulse (BPA) as Secretary. The next officer rotation will take place in January 2014.

The subcommittee website and membership roster were updated during the first quarter of 2012.

IEEE Std 1036-2011 (Shunt Capacitor Application Guide) was completed and published. It is now available for sale on the standards website. A new working group (P1036) is forming to take up the next revision. Joe Meisner from AEP has agreed to chair the new working group.

IEEE Std 18 (Shunt Capacitors) was balloted before the General Meeting and the negative ballots and other comments were discussed during the working group meeting. A recirculation ballot will be completed shortly.

P1726 – A new standard (Guide for the Functional Specification of Fixed Transmission Series Capacitor Banks) for series capacitor applications (coordinated with SPD and Switchgear Committees) was balloted before the General Meeting and the negative ballots and other comments were discussed during the working group meeting. A recirculation ballot will be completed shortly.

A working group is completing a paper dealing with Reactor Applications for Capacitor Switching Technologies.

A new task force entitled Capacitor GMD Mitigation is forming. Mark McVey from Dominion Virginia Power has agreed to chair the Task Force and perhaps a future working group. The group is reviewing the effect of GMD on capacitor banks and it plans to provide guidance on the equipment ratings for GMD filter devices.

The subcommittee had five meetings at the General Meeting with attendance between 15 to 30. There were a number of new members in attendance. The subcommittee meeting was a combo session that included the technical presentation “Switching of Capacitor Banks against Underground Cables” by Dr. A. Kalyuzhny from The Israel Electric Corporation Ltd.

The subcommittee is planning to meet at the 2013 JTCM.

8.2 DC and Flexible AC Transmission – Ben Mehraban – New Chair, motion Satish, 2nd John McDaniel. Motion approved. Andrew Isaac will become the Vice Chair and Brian Johnson will become the Secretary.

8.3 Distribution – Larry Clark new chair of Smart Distribution

8.4 Engineering in the Safety, Maintenance and Operation of Lines

8.5 General Systems – Lightning WG is now under General Systems.

8.6 Integration of Renewable Energy into the Transmission and Distribution Grids

8.8 Power Quality

The meeting was opened at 9:00 AM on July 25, 2012 in Ford A of Manchester Grand Hyatt, San Diego, CA, USA.

- Introductions: Tim Unruh- chair, Rich Bingham- vice chair, Gary Chang- secretary, PQ Subcommittee members and meeting participants. There were 27 attendees participating the meeting.
- Minutes of previous meeting were approved.
- Time Unruh reported the current status of standard documents under each working group and discussed the next step of PQ Subcommittee.
- Reports from WGs
 - Monitoring PQ WG - Tim Unruh
 - 1159 -- no activity
 - 1159.3 -- Dan Sabin focused on work done in last year, getting new IDs and new tags for PQDIF users (due to regulatory bodies' requirement of providing measurement data like 10-minute values of THD, Pst, and Plt at distribution system level in countries such as Norway and China) and for next revision. No active PAR for now. Dan will contact the chair of each working group to liaison with his committee. Erich mentioned that any standard is still active today, the expiration date is 2018 or 10 years after that is actually approved. Erich read exact words of the extension rules for the standard during the new transition period. (PAR good for 4 years. Six months of work prior to submitting PAR. Standards are good for 10 years. PARs approved before Jan 2012 follow "old-rules". No longer any re-affirmations w/o ballot. PAR and reballoting required even if no changes.)
 - 1159.1 – Rich Bingham reported the scope of 1159.1 and the adoption of IEC 61000-4-30. Alex McEachern will chair the task force and lead the work. Ken Sedziol suggested get the PAR and get the IEC document for members. The task force members will start to work on the preparation of a PAR with identified tasks to be done in next January meeting.
 - Harmonics WG - Bill Moncrief reported that 519 was asked for ballot. October 3 will have a conference call for 519 and one on October 10 for 519.1 to resolve comments and then to get committee's agreement of the resolution. Re-ballot will be done before termination of PARs in Dec 2013.
 - Probabilistic Aspects of Harmonics TF plans to organize a panel session in 2013 and to prepare two task force papers.
 - Harmonics Modeling & Simulation TF has a new chair, Prof. Roberto Langella, and plan to organize a panel session on PQ Monitoring/Measurement for Smart Grid in 2013.
 - Wilsun Xu reported that ICHQP 2012 held in Hong Kong was successful.
 - Voltage Quality WG -
 - 1250 - Dennis Hansen reported members discussed the future revision of the guide. The WG received a proposal from Alex McEachern about including some specifications in the back of the standard which comes out with new widgets for devices survived in PQ environment for sags, harmonics, and flickers, etc. 1250 is categorized as a gateway document for voltage quality. Chair changed from Dennis Hansen to Theo Laughner.
 - 1453 - Ken Sedziol requested an update the changes of officers in PQ Subcommittee. He reported that the WG has been done in the past two and half years: the adoptions of 61000-4-15 and 61000-3-7. Present work will be pursuing 1453.2 Application Guide that looks at new technologies associated with light flickers itself or from renewable resources and hope to have a PAR in six months after gathering some ideas.
 - 1564 - Dan Sabin. Draft 17 has been posted on web site in July and will re-establish a new ballot group for PAR as soon as possible.

- Tim Unruh thanked Dan Sabin for paper review and to get IEEE documents out. Dan's contributions were acknowledged by PQ Subcommittee members.
- Power Quality Solutions WG - Dave Mueller
 - 1346 – is originally developed between IAS and through the application by PES. For IAS, it is an equipment sort of end user-based standard. At present no home for this standard in IAS (quoted Doug Dore's observation) and would happen in PES as well. More discuss will be in next joined task meeting.
 - 1409 – just got it approved recently and not much work foreseen for now. New areas such smart grid and microgrid within PQ solutions may be found, but need to have further discuss in next meeting.
 - Tim Unruh showed an article of PQ Investment Leads to Growing North America for Distribution Automation Equipment by Tasks. Open for discussions.
 - Wilsun Xu proposed to form Working Group on Power Disturbances Analysis that acts as a driving force for the new areas of research, development and applications of advanced analytics using PQ disturbance data. The proposal was approved. Wilsun will give an update of the new WG in the January meeting.
- PQ Activities- Wilsun Xu
 - Panel session update -- two sessions approved for General Meeting 2012: Wilson Xu and Dan Sabin -- emerging directions in PQ; Gary Chang -- Waveform Distortion in Power Systems.
 - For 2013, one confirmed super session for Tim Unruh – Power Quality in Your Future; potential panelists would be WG chairs and members under PQ Subcommittee associated with what they have done (Tim Unruh- Status of PQ Roadmap Update, Ken Sedziol- adoption of IEC standards, Mark Halpin or Bill Moncrief- Harmonics in the Future, Dave Mueller & Doug Dorr- possible future of 1346, and Alex McEachern- Unanswered Research Questions for PQ). One for Francisc Zavoda– PQ Monitoring and Measurement for Smart Grid; one for Paulo Ribeiro- Review of Time-Varying and Probabilistic Methods for Harmonics Aggregation Analysis in a Smart Grid Context. Francisc and Paulo's panels will be confirmed by Wilsun Xu later.

Tim Unruh motioned to adjourn at 10:40 AM.

8.9 Overhead Lines

9. Standards Activities

Coordination, PAR on Power Line Noise Mitigation (Ed Hare, W1RFI@arrl.org, SDCOM Secretary)
 Coordination, PAR 998 on Direct Lightning Stroke Protection of Substations – Mess that is currently in IEEE-SA legal.

Coordination, PARs on UHV transmission systems including BSR/IEEE 1860-201X, Standard for Voltage and Reactive Power in 1000kV or Greater (Ultra High Voltage) AC Systems (Lisa Yacone, l.yacone@ieee.org) – No Report on progress.

10. Technical Paper Reviews

11. Subcommittee Website Status

11.1 Web Site Cookie Issue

11.2 T&D Committee Website:

<http://grouper.ieee.org/groups/td/>
Maintained by Tom Grebe (tgrebe@ieee.org) / Revised: 5/23/2012.

11.3 Subcommittee Websites:

Administrative: <http://grouper.ieee.org/groups/td/admin/> Chair: William A. Chisholm
Maintained by Tom Grebe (tgrebe@ieee.org) / Revised: 5/22/2012.

Capacitor: <http://grouper.ieee.org/groups/td/cap/> Chair: Thomas Grebe
Maintained by Tom Grebe (tgrebe@ieee.org) / Revised: 5/23/2012.

DC & FACTS: <http://www.ece.uidaho.edu/hvdcfacts/> Chair: Robyn Koropatnick
Maintained by Brian Johnson (b.k.johnson@ieee.org) / Revised: 9/6/2009, **needs update**.

Distribution: <http://grouper.ieee.org/groups/td/dist/> Chair: John McDaniel
Maintained by Dan Sabin (d.sabin@ieee.org) / Revised: 5/14/2012.

ESMOL: <http://www.ieee-esmol.org/> Chair: Tom Buonincontri
Maintained by (centralia@msn.com) / Revised: 5/14/2012.

General Systems: <http://grouper.ieee.org/groups/td/gensys/> Chair: Juan Martinez (Albert Keri listed)
Maintained by Brian Johnson (b.k.johnson@ieee.org) / Revised: 6/28/2010, **needs update**.

Integration of Renewable Energy into the Transmission and Distribution Grids:
<http://grouper.ieee.org/groups/td/renew/> Chair: Ernst Camm. Maintained by Michael Starke
(mstarke@ieee.org) & Travis Smith (windman@ieee.org), Nominally Revised: 1/14/2010 but actually
up to date.

Lightning Subcommittee: www.ieee.org/pes-lightning, Chair Andrew Phillips.
Maintained by Tom Short (t.short@ieee.org) / Revised: 1/31/2011. **Update pending**.

Power Quality: <http://grouper.ieee.org/groups/td/pg/> Chair Timothy Unruh.
Maintained by Dan Sabin (d.sabin@ieee.org) / Revised: 2/27/2012.

Overhead Lines: <http://www.ieee-tpc.org> Chair Richard Collins
Maintained by Carol Douglass (math711@yahoo.com) / Revised: 6/9/2012.

12. Future Meeting Schedule

- Sept. 9-11 2012 (NAPS) in Champaign, IL
- Jan. 13-17 2013 (Joint Technical Committee Meeting) in Memphis, TN
- July 21-25, 2013 (General Meeting) in Vancouver, B.C.
- July, 2014 in Washington, DC

Motion to adjourn by Satish, 2nd by Rich Collins.