

**Capacitor Subcommittee
of the
IEEE PES Transmission and Distribution Committee
2017 IEEE PES General Meeting Agenda
Chicago, Illinois**

Wednesday, July 19, 2017

I. General meeting introductions and acknowledgments

The meeting was called to order by the Subcommittee Chairman Richard Sévigny.

Attendees introduced themselves. The following 19 people were in attendance:

| <u>Name</u> | <u>Company</u> | <u>Member or Guest</u> |
|---------------------|----------------------------------|------------------------|
| Richard Sévigny | Hydro-Québec | Chairman |
| Mike Hulse | Bonneville Power | Vice Chairman |
| Tom Grebe | EnerNex | Webmaster |
| Gerard Winstanley | NEMA | Guest |
| Bill Chai | GE - CPQP | Member |
| Hua Liu | Southern California Edison | Member |
| Jan Paramalingam | Mitsubishi Electric | Member |
| Joe Meisner | American Electric Power | Member |
| Mark McVey | Dominion Energy | Member |
| Othmane Alaoui | ABB Inc. | Member |
| Paul Marken | GE Grid Solutions | Member |
| Biswajit Singh | ABB Inc. | Member |
| Roy Alexander | RWA Engineering LLC | Member |
| Sarah Newton | American Transmission Company | Member |
| Stephen Ladd | Duke Energy | Member |
| Eduardo Sanchez | Pacific Gas and Electric Company | Member |
| William Munn | Southern Company | Member |
| Halim Malaj | Consolidated Edison Company | Member |
| Vincent Deslauriers | ABB Inc. | Secretary |

* New Member or Guest, Welcome!

II. Approval of minutes of previous meeting

The minutes from the January 2017 New Orleans, LA Joint Technical Committee Meeting were reviewed. Minutes were unanimously approved as submitted by a motion from Mark

McVey that was seconded by Tom Grebe.

III. Membership review

The membership roster was sent around for review and correction. The updated roster has 0 new observer and 0 new active member. This subcommittee is open to new members and guests.

Membership roster can be found at: <http://grouper.ieee.org/groups/td/cap/>

IV. Chairman's report

Richard mentioned that there was some issues with setting up the agenda for the General Meeting mainly because PES is now asking to have it sent one year in advance. Some discussions occurred around how important it is to advise the chairman as much in advance as possible so we the agenda can be properly setup. PES T&D committee requested that the subcommittees send the membership list (Action for Vincent) to be included in their annual report.

PES T&D is co-sponsoring a new project related to Lightning Overvoltage called IEEE P2426 Guide for Measurement and Classification of Lightning Overvoltage and Electrical Power System. The project will fall under the Power System Instrumentation & Measurements Committee.

Chairmanship of the Low Voltage Capacitor W.G is still an issue and has to be addressed. Othmane Alaoui shows him as interested to be the chairman of this W.G. Richard to check with the existing chairman – Steve Ashmore – if he is still interested. Co-chair could also be an option.

Richard Sévigny will be the chairman for another three years and Vincent Deslauriers is now secretary of the capacitor subcommittee.

V. Liaison reports:

A. NEMA – Bill Chai

NEMA 8CP TC on Capacitors met and have a good discussions on some of the items of the IEEE Capacitor Subcommittee meetings. The TC had pretty good recommendations but those recommendations were not submitted to the IEEE Capacitor Subcommittee. It looks like that another meeting will be required to

finalize the recommendations. The meeting should happen sometime this year. As requested by the TC members a NEMA meeting will happen tomorrow since all the NEMA members are attending to the IEEE Capacitor Subcommittee meetings here in Chicago. However Clay (Eaton-Cooper representative on the TC) has already left so the tomorrow meeting won't be technical.

Gerard Winstanley mentioned that NEMA is looking for opportunities to develop documentation on Switchgear and transformer connectivity and is interested to receive White papers, guides or technical advice related to this topic. Bill Chai mentioned that the NEMA 8CP TC on Capacitors is also looking for new opportunities for capacitors and encourage the Capacitor Subcommittee members to suggest ideas or submit documents to the NEMA TC accordingly.

B. IEC – Bill Chai

Nothing new to report except that a meeting should be held in Brazil but nothing is confirmed yet.

Paul Marken mentioned that there is a working group in CIGRÉ W.G C4/B5.41 looking at Challenges with series compensation application in power systems when overcompensating lines. Paul gave examples of existing situations where lines are overcompensated and challenges related to that. Lot of studies and reports are now done on that topic. The intent is to write a technical brochure. Hope was to be finished by 2018 that is now becoming more realistic for 2019.

C. CIGRÉ – Bill Chai, Paul Marken, Mark McVey

Refer to Paul Marken comment above.

VI. Working group reports:

A. W.G. on Capacitor Technical Papers – Tom Grebe

From July 1st 2016 to June 30th 2017, 1 papers reviewed. 1 paper rejected.

Tom Grebe raised an issue related to being able to reach reviewers or getting answer from them. Tom said that he should be able to sort it out but this is complicating the whole process.

B. W.G. on Capacitor Bibliography – Richard Sevigny

Nothing to report.

C. Shunt Capacitor Working Group – Paul Marken

The W.G. met on the 18th with 20 people. The working group had good discussions. Document is now fairly cleaned up and ready to go, questioning what additional test procedure we need to put in. It seems that it is the users against the manufacturers.

NEMA members are needed to make the shunt bank pancake diagram.

Paul mentioned that the W.G. has still time but should be able to go for balloting after the next few meetings. Roy Alexander mentioned that in the case the members really would like to add something to the standard, up to two amendments are allowed by IEEE.

D. T.F. on Low Voltage Shunt Capacitor Application – Steve Ashmore (Peter Goldstrass)

Steve Ashmore who was not able to attend and the meeting was cancelled.

E. W.G. on Standard for Series Capacitors – Mark McVey

The W.G. met on the 17th.

All proposed changes were covered. There are two outstanding changes reflected from the CIGRÉ W.G C4/B5.41 brochures related to TRV and Ferro-resonance for overcompensated banks. The intent is for Mark to send a copy to W.G. before the next meeting and then be ready to ballot out.

W.G. on the Application Guide for Shunt Capacitors (Std 1036) – Joe Meisner

The W.G. met on the 18th with 17 attendees. There were three items covered during the meeting. The document is now ready and should be sent out for balloting before the next meeting in January. There are about 47 participants to the ballot.

F. T.F. on Capacitor GMD Mitigation – Mark McVey

The T.F. met on the 17th. There were very good discussions by the members trying to

figure out for something written on neutral blocking devices to focus more specifically on the capacitor part of the blocking device because it is more in the scope of the Capacitor Subcommittee. Mark thinks that it is important for the IEEE Capacitor Subcommittee to state his position and have his work incorporated in what has already been published in order to avoid a one size fits all solutions.

G. T.F. on Capacitor Discharge Limitation Application – Roy Alexander

The T.F. met on the 19th with 15 attendees. Roy reviewed the recent work and test results that were done. Roy need some capacitors with element failure to see what all that impact the discharge capability. Roy is comfortable with a normal technical paper instead of a Technical Report (T.R.).

H. Guide for Application & Specification of Harmonic Filter – Jan Paramalingam

The W.G. met on the 19th with 14 members and 6 guests. There are actions items identified and included in the minutes of meeting. Everybody agreed that we are ready to go to ballot for the next meeting in January. There are about 50 participants to the ballot.

VII. Old business:

Nothing to report.

VIII. New business:

A. Panel session on Series Compensation of Power Systems

Mark McVey would like to organize a panel session on Series Compensation of Power Systems. Time frame and deadline to be clarified during the T&D meeting tomorrow (July 20th).

B. Presentation on low voltage capacitors

Othmane Alaoui proposed to present the low voltage capacitor technology and associated applications during one of the next meetings. This presentation will be part

of the meeting of the T.F. on Low Voltage Shunt Capacitor Application.

C. Presentation on Series Capacitors from the company NR

This presentation will be part of the IEEE Std. 824 W.G. meeting.

D. Miscellaneous

None.

IX. Future meetings:

- January 2018 – Jacksonville, FL
- August 2018 – Portland, OR
- January 2019 – Anaheim, CA

After Anaheim the rotation for the IEEE PES JTCMs should become Jacksonville/Anaheim/New Orleans.

Meeting is adjourned at 4:39 PM.

Minutes prepared by Vincent Deslauriers.