

**Capacitor Subcommittee
of the
Transmission and Distribution Committee
2015 IEEE PES General Meeting Minutes
Denver, CO**

Wednesday, July 30th, 2015

I. Introduction

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

Attendees introduced themselves. The following 18 people were in attendance:

<u>Name</u>	<u>Company</u>	<u>Member/ Guest</u>
*Ali Naderian	Kinetrics	Guest
Bill Chai	GE - CPQP	Member
Biswajit Singh	ABB Inc.	Member
*Edwardo Sanchez	PG&E	Guest
*Frédéric St-Hilaire	Hydro-Québec	Secretary-Incoming
Halim Malaj	ConEd	Member
*Jan Paramalingam	Mitsubishi Electric	Member
Jeff Peggs	Dominion Virginia Power	Member
Joe Meisner	AEP	Member
*John Houdek	Allied Industrial Marketing	Guest
Mike Hulse	Bonneville Power	Vice Chairman
Paul Marken	GE Energy Management	Secretary-Outgoing
Pratap Mysore	HDR	Member
Richard Sévigny	Hydro-Québec	Chairman
Roy Alexander	RWA Engineering LLC	Member
Sara Newton	American Transmission Co	Guest
Tom Grebe	EnerNex	Webmaster
Vincent Deslauriers	ABB Inc.	Member

* New Member – Welcome!

II. Previous Meeting Minutes

The minutes from the January 2015 Anaheim JTCM were reviewed. Minutes were unanimously approved as submitted by a motion from Vincent Deslauriers that was seconded by Mike Hulse.

III. Membership Review

Membership roster was sent around for review / correction.

There are currently 17 attendees in the subcommittee meeting,

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

This subcommittee is open to new members and guests.

IV. Chairman's Report

There has been no news from the IEC regarding using IEEE 1036 in conjunction with an IEC standard. Richard thanked Roy Alexander for starting the task force on LV capacitors. Paul Marken will be stepping down as Secretary of the capacitor subcommittee to chair the IEEE Standard 18. Richard asked for any interest to fill the secretary position. Tom Grebe explained the responsibilities of each position and time commitments. Frederic St-Hilaire proposed himself. Richard and Mike approved the new candidate. Frederic is now appointed as the new secretary. The structure of the numbering system on standards may be changing and Richard will be attending meetings July 30th regarding this issue.

V. Liaison Reports

A. NEMA – Bill Chai

Had a meeting in April to reconfirm the functions of the NEMA Capacitor CP1 group. He will continue trying to enlist members for the group. He will have a new program manager assigned for the group. For the next round of meetings, the group will consider a couple of new possible topics (Capacitor bank flat rack design, fuseless type test on element failures) for input to IEEE PES Capacitor Subcommittee.

B. IEC, CIGRE

IEC – Bill Chai

Next IEC meeting will be in 2016. Agreed to consider forming exploratory group for WG on HV capacitor applications (Input from the Chinese member and newly published IEEE 1036 guide) and a separate NWI on self-healing technology for HV/MV capacitor equipment. Also will discuss further on fuseless type test with failed element.

VI. Working Group Reports

A. Working Group on Capacitor Technical Papers – Tom Grebe

Three papers were reviewed during the past year. Two were rejected and one was accepted.

B. Working Group on Capacitor Bibliography – Richard Sévigny

Nothing to report. If there are any papers, please let Richard know.

C. Shunt Capacitor Working Group (Standard 18) – Paul Marken

Paul Marken has taken over the task force for Std. 18. The current requirement mandates that the standard be updated every 10 years. The parking lot items left over from the last revision were reviewed by 19 participants. A proposal was made to modify the scope to specifically list items that are not covered by the standard. It will be addressed during the next meeting.

Task force on LV shunt capacitors:

The range of directions and scope was discussed to create a WG. It was quickly realized that additional resources more familiar with LV would be required.

D. Series Capacitor Working Group (Standard 824) – Paul Marken

The next update of Std. 824 has started. The wording for the new PAR has been created. Some of the comments from the last ballot were addressed and resolved.

E. Working Group on the Application Guide for Shunt Power Capacitors (Standard 1036) – Joe Meisner

18 attendees reviewed submissions from Dr. Kulzy. He will be contacted and asked to reduce the content for incorporation of Std. 1036. Balloting should start next year.

F. Task Force on Capacitor Geomagnetic Disturbances (GMD) Mitigation – Tom Grebe

23 attendees viewed the presentation on GMD studies that included low flow GIC calculations and harmonic models. Transformer modeling was included and an upcoming paper should be coming out soon. Mark is approximately 75% complete with his paper and encourages comments, questions and contributors to his paper.

G. Working Group on Reactor Applications for Capacitor Switching Technologies – Roy Alexander

Roy gave a presentation on capacitor discharge current limitations as an improvement to Std. 1036, and also possible revisions to the discharge test in Std. 18. He plans to run discharge tests and have a new proposal by the Memphis Meeting. (FYI discharge tests are proceeding well. Have done more than 120,000 discharges so far on 5 different capacitor units 4 have been run to failure as of 10/07/2015) The 19 attendees listened to the proposals of a new type test and daily capabilities around capacitor discharge.

VII. Old Business

Tom is continuing to maintain the website.

The subcommittee website can be found at:

<http://grouper.ieee.org/groups/td/cap/>

VIII. New Business

2 new Task Force.

IX. Future Meetings

- The 2016 winter meeting will be in Memphis, TN Jan 10-14.
- The 2016 PES General Meeting will be in Boston, MA
- The 2017 PES General Meeting will be in Chicago, IL

Minutes prepared by Frédéric St-Hilaire.