1. General meeting introductions and acknowledgments

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

Attendees introduced themselves. The following 16 people were in attendance:

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Member or Guest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richard Sévigny</td>
<td>Hydro-Québec</td>
<td>Chairman</td>
</tr>
<tr>
<td>Mike Hulse</td>
<td>Bonneville Power Administration</td>
<td>Vice Chairman</td>
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<tr>
<td>Tom Grebe</td>
<td>EnerNex</td>
<td>Webmaster</td>
</tr>
<tr>
<td>Gerard Winstanley</td>
<td>NEMA</td>
<td>Guest</td>
</tr>
<tr>
<td>Jan Paramalingam</td>
<td>Mitsubishi Electric</td>
<td>Member</td>
</tr>
<tr>
<td>Joe Meisner</td>
<td>American Electric Power</td>
<td>Member</td>
</tr>
<tr>
<td>Mark McVey</td>
<td>Dominion Energy</td>
<td>Member</td>
</tr>
<tr>
<td>Othmane Alaoui</td>
<td>ABB</td>
<td>Member</td>
</tr>
<tr>
<td>Biswajit Singh</td>
<td>ABB</td>
<td>Member</td>
</tr>
<tr>
<td>Eduardo Sanchez</td>
<td>Pacific Gas and Electric Company</td>
<td>Member</td>
</tr>
<tr>
<td>William Munn</td>
<td>Southern Company</td>
<td>Member</td>
</tr>
<tr>
<td>Seema Thakur</td>
<td>Dominion Energy</td>
<td>Guest</td>
</tr>
<tr>
<td>Loken Bam</td>
<td>General Electric</td>
<td>Member</td>
</tr>
<tr>
<td>Martin Monnig</td>
<td>Bonneville Power Administration</td>
<td>Guest</td>
</tr>
<tr>
<td>Thomas Callsem</td>
<td>Weldy-Lamont Associates</td>
<td>Member</td>
</tr>
<tr>
<td>Vincent Deslauriers</td>
<td>ABB</td>
<td>Secretary</td>
</tr>
</tbody>
</table>

* New Member or Guest, Welcome!

2. Approval of minutes of previous meeting

The minutes from the January 2018 Jacksonville, FL Joint Technical Committee Meeting were reviewed (live!). Minutes were unanimously approved as submitted by a motion from Mark McVey that was seconded by Joe Meisner.
3. Membership review

The membership roster was NOT sent around for review and correction since unavailable. However, a list of attendees was collected to be able to update the membership roster. The updated roster will have 3 new guests (hoping they will become active members!), 0 new observer and 1 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/

4. Chairman’s report

T&D – T&D Committee wants to reshuffle, and, for example, Task Forces may be impacted. Mike Hulse will replace Richard Sevigny at the next T&D Committee meeting (Tomorrow) so we should know more at our next Capacitor Subcommittee meeting in Anaheim, CA.

John Harder – John who has been very active on this committee passed away on March 23rd at the age of 87 years old. John was very knowledgeable and contributed a lot to the Power Capacitor world. He was appreciated by all and will be regretted. The Committee offers his condolences to the family.

(Details can be found at: https://www.chandlerfh.com/notices/John-Harder )

Steve Ashmore resigned from the T.F. on Low Voltage Shunt Capacitor Application. He will continue to participate but just can’t confirm he will be able to attend to the meetings. Steve will be replaced by Othmane Alaoui who accepted to take the lead of this T.F. – Thank you Othmane!)

5. Liaison reports:

- NEMA – Vincent Deslauriers

NEMA 8CP TC on Capacitors met on Monday evening (August 6th) with limited audience but one member, Glenn Pietschmann, showed up from Hubbell. Hubbell was always a member of the NEMA 8CP TC but did not participate for several years – at least. Glenn intends to participate on the NEMA 8CP TC from now on which is good news. NEMA 8CP TC Bill Chai (GE) retired and Vincent Deslauriers was elected as the new chairman. Since the NEMA CP1 standard was integrated to the IEEE std. 18, the NEMA 8CP TC is still active but looking for new opportunities for capacitors. Shunt Capacitor Bank Pancake design and new fuseless test to be discussed at the next meeting. The NEMA 8CP TC is trying to take advantage of time
and location used by the IEEE Capacitor Subcommittee and hold their meetings during the same period of time since most NEMA 8CP TC members are also members of the IEEE Capacitor Subcommittee.

- **IEC – Biswajit Singh**

  Nothing significant done in the last six months. Meeting was supposed to happen in the falls but is now postpone to next year, hopefully during Q1 and should be held in Brazil.

  There is a new working group that is formed, WG33, for high voltage self-healing capacitors. The working group has now 15 members. A complete new standard will be created. The WG is led by Mr Volker Geitner from Germany. Mark McVey volunteered to be part of this working group.

- **CIGRÉ – Biswajit Singh**

  There is a technical exhibition on August 26-31 with nothing specific to capacitors.

  Mark McVey mentions that the CIGRÉ W.G. C4/B5.41 is ongoing and the working group will meet on Sunday. The W.G. is 90% done with most of the simulations done also. Draft should be submitted around December.

6. **Working group reports:**

- **W.G. on Capacitor Technical Papers – Tom Grebe**

  From July 1st, 2017 to June 30th, 2018, 3 transaction papers were submitted. 2 papers were accepted, and 1 paper was rejected. 1 PES letter was also submitted and rejected. There is still one review ongoing.

- **W.G. on Capacitor Bibliography – Richard Sevigny**

  Nothing to report.

- **Shunt Capacitor Working Group – Mike Hulse**

  The W.G. met on Tuesday, August 7th with around 20 people. The main take away is
that the element fail safe test has been incorporated as Annex C of the document and is informative. Some other comments were also received from ABB (Biswaigit) and SCE. 2012 was the last revision so there are still plenty of time to discuss and ballot.

- **T.F. on Low Voltage Shunt Capacitor Application – Othmane Alaoui**

  It was decided that a Technical Report will be made. Othmane will make an Index to cover all the subjects to be covered for the Low Voltage Capacitor technology. This Index will be proposed and discussed, hopefully at the next meeting. The goal being to interest people contributing in helping to write the Technical Report.

- **W.G. on Standard for Series Capacitors – Mark McVey**

  The W.G. met on Monday, August 6th. IEEE Std. 824 was covered and is ready to be sent to editor with balloting that should start shortly. Also to be covered is IEEE Std. 1726 that is a good document in which maybe some rearrangements need to be done. Mark is looking for constructive thoughts and comments to make the document better.

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

The W.G. met on Tuesday, August 7th with 14 attendees. Balloting... All of the Must Satisfied technical and general comments were reviewed to the exception of 2 comments that Joe will figure out separately. Joe worked through the editorial comments and the updated draft documents should be sent out shortly. Joe hopes to have a standard by the next meeting. Schedule obviously depends on response time he will get from the W.G. and the different parties.

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

  The T.F. met on Monday, August 6th with 15 attendees. The draft paper was reviewed/discussed. Mark sent out a copy of the document to all the members. A Technical Report is probably now more appropriate for this document because the document is already too big for Technical Paper. Mark will make some more additions to the document and send it out again before the next meeting.

- **T.F. on Capacitor Discharge Limitation Application – Roy Alexander**
Roy Alexander was not able to attend so the meeting has been cancelled.


The W.G. met on Wednesday, August 8th with 12 attendees. Invitation to ballot closed on July 18th. Comments were received from people that signed up for the ballot. Some of those comments were reviewed during the meeting and the goal is to have the document reissued for the ballot again by September. 30 to 60 days should be allowed for balloting and the comments will be reviewed during the next JTCM meeting in 2019.

7. **Old business:**

Nothing to report.

8. **New business:**

- **Panel session on Series Compensation of Power Systems**

Mark McVey would like to organize a panel session on Series Compensation of Power Systems. Mark will write the basic scope and send it to Richard for review and then submit it. He is interested to also include other applications or case studies that are very important to people.

Proposed Topics:
- Series Compensation (Mark)
- Low voltage (Othmane)
- Case Study Harmonic Filter (Ian)
- 1036 Summary on what’s new (Joe?)

Our normal meeting schedule should allow Wednesday morning as tentative time slot to hold a panel session.

9. **Future meetings:**

- January 2019 - Anaheim, CA
- August 2019 – Atlanta GA
- January 2020 – Jacksonville, FL
- August 2020 – Montreal, QC, Canada
January 2021 – New Orleans, LA

Meeting is adjourned at 4:25 PM.

Minutes prepared by Vincent Deslauriers.