

## Meeting Minutes

# WG 824: Series Capacitor Working Group of the Transmission and Distribution Committee Calgary, Alberta July 28, 2009

**Date:** July 28, 2009, 08:00-11:00 AM, 2:00-5:00 PM

**Place:** Calgary Telus Convention Center, Calgary, Alberta

### 1. Introduction

The meeting was called to order by Mark McVey, acting chair. The following people were in attendance:

Name	Company
Roy Alexander	PPL-EU
Bill Chai	GE Energy
Rajiv Chopra	Areva T&D
Bruce English	GE Energy
Matthew Gardner	Dominion
Luther Holloman	Dominion
Lauri Latipaa	Areva T&D
Per Lindberg	ABB
Dan Luke	Cooper Power
Paul Marken	GE Energy
Reg Mendis	Areva T&D
Mark McVey	Dominion
Jeff Peggs	Dominion
Richard Sevigny	Hydro Quebec
John Skliutas	GE Energy
Lisa Vovan	Hydro Quebec

### 2. Previous Meeting Minutes

The minutes from the January 2009 meeting in Atlanta were not available. Previous meeting was discussed briefly.

### 3. Additional Agenda Items

Reminder of website hosting for the series capacitor working group (<http://grouper.ieee.org/groups/td/cap/seriescap/>).

### 4. Draft Guide for the Specification of Fixed Series Capacitor Banks for Transmission Systems

Most recent document, P1726D9.1, can be found at:  
[http://grouper.ieee.org/groups/td/cap/seriescap/IEEEP1726D9p1\\_20090728\\_FSCSpecGuide.doc](http://grouper.ieee.org/groups/td/cap/seriescap/IEEEP1726D9p1_20090728_FSCSpecGuide.doc)

Overall format and organization is set. No draft history required for this document since it hasn't been balloted yet.

Removed special annex on "Impact of line harmonics on the design and protection of FSC banks" and moved relevant discussion of harmonics to Annex B.6.6

Discussion on 8.4, “Reliability, availability, and maintainability.” Mark McVey and Per Lindberg will investigate methods used and required.

Discussion on 9.4 and B.6.4, “Thyristors and thyristor reactors.” No volunteers to write TPSC portions of guide, will ask for volunteers to write this section, may drop TPSC from scope of the document if no volunteers.

9.5, Table 1, 2, and 3 need to be improved. Air clearance tables 6 and 7 as well.

9.6, include harmonic content in Section 7, short description of considerations of harmonic content in 9.6, and calculation guidance in B.6.6. Lauri Latipaa volunteered to write this description.

9.8, need something for external bypass disconnect switches. Mark McVey volunteered to write section.

9.9.1, CT’s, Mark McVey volunteered to draft a few paragraphs for this section.

9.10, Platforms, support structures, seismic design requirements—need to check SVC guide to see if language is generic enough to cover FSC’s.

11, Engineering studies. Bruce English volunteered to draft this section. Discussed gapped versus gapless and discussion that needs to go into Annex B.8.

12, Tests and quality assurance. Bruce English volunteered to draft this section. Check the SVC guide to see if language is generic enough.

16, Balance of plant. P&C building specs and AC/DC power supplies, batteries, chargers, backup generation.

17, Site services. Refer back to scope split (section 5)

18, Technical fill-in data. Lisa Vovan and Richard Sevigny agreed to provide a generic (non-confidential) example of technical questionnaire.

B.1.1.1: add voltage profile figure.

B.5.5.2: candidate for deletion, unsure of purpose of this section.

B.6.3, Triggered bypass gaps. Per Lindberg agreed to draft this section.

B.6.5, Insulation and air clearances. Need to coordinate with 9.5 to remove redundancies.

B.10, Safety. Reference IEEE 824

B.11 to B.16. May not need mirror passage in Annex B for these sections (Clause 14-18). Some of these may be self explanatory.

E, Impact of series capacitors on line overvoltages and secondary arc extinction. May be candidate for deletion if no volunteers to write it come forward.

## **5. Old Business**

## **6. New Business**

Winter meeting scheduled January 2010 in Orlando, Florida.

## **7. Meeting Adjourned**

*Respectfully submitted,  
Bruce English  
July 28, 2009*