

## Meeting Minutes

### C37.010 PAR Study Group

## Application Guide for AC High-Voltage Circuit Breakers > 1000 Vac Rated on a Symmetrical Current Basis

Chair: Carl Schuetz  
Secretary: Victor Hermosillo  
Time: 8:00 am – 9:45 AM, April 21, 2021  
Location: Online  
Participants: 32 participants, including Chair and Secretary

### 1. Agenda and Topics

- Introduction of members and guests
- IEEE SA patent policy review
- IEEE SA copyright policy review
- Objective and Deliverables
- Review of Draft PAR
- Document review and discussion
- Adjourn

### 2. Introduction

Welcome by Carl Schuetz, Chair of the PAR SG followed by introduction of participants by entering their name, affiliation and location in the chat box. Attendance to be recorded using list generated by Teams.

### 3. Review of IEEE SA Patent and Copyright Policies

IEEE SA patent and copyright policies were presented and reviewed. No patents or copyright claims were identified.

### 4. Objective and Deliverables

This is the first study group meeting, no previous meeting minutes to review. Document number: C37.010-2016, document expires December 31<sup>st</sup>, 2026. Balloting and resolution took approximately one year for the previous version.

**Objective:** Prepare a recommended PAR scope for presentation to the sponsor (HVCB SC).

**Deliverables:** Report addressing the criteria for consideration and, if appropriate, a draft PAR. The report should include a roster of participants and minutes of meeting.

## 5. PAR Draft Review and Discussion

Draft PAR contents were presented, including scope, purpose and proposed additional content. Regarding scope and content, the group agreed that it is adequate as written.

Additional proposed content includes:

- Updates associated to recent changes to C37.04 and C37.09.
- Implications of integration of inverters.
- Application considerations regarding operating voltage.
- Guidance regarding generator synchronization applications.
- Guidance regarding asset end of life

An entity PAR proposal for “Guide for the Application of Alternating Current High-voltage (Rated above 72.5 kV) - Short-circuit-current-restricting circuit breakers” submitted to the IEEE Switchgear Committee was presented. More information is requested about the specifics of the associated technology before assessing the implications for this document. Users in the group described the use of solid state devices at a few kV. No applications of such device were known to the participants. Attendees were not aware of any associated patent on the technology.

A motion was put forward to submit the PAR to the HVCB Subcommittee as drafted:

Motion: Mike Crawford

Second: Curtiss Frazier

Motion passed by consensus with none opposing, no abstentions.

Scope of PAR:

This application guide applies to the ac indoor and outdoor high-voltage circuit breakers rated in accordance with the methods given in IEEE Std C37.04 and tested in accordance with IEEE Std C37.09. Circuit breakers rated and manufactured to meet other standards should be applied in accordance with application procedures adapted to their specific ratings or applications.

Purpose of PAR:

The purpose of this document is to provide guidance for the application of high-voltage circuit breakers which are rated in accordance with IEEE Std C37.04 and which are tested in accordance with IEEE Std C37.09 and other related standards.

## 6. Adjourn

The meeting was adjourned by the Chair.

Submitted by:

Carl Schuetz, PAR SG Chair

Victor Hermosillo, PAR SG Secretary

## Attendance

	Full Name	Action	Timestamp
1	Hermosillo, Victor (GE Renewable Energy)	Joined	4/21/2021, 8:45:22 AM
2	Albert Livshitz	Joined	4/21/2021, 8:45:22 AM
3	CAVERLY, DAVID (SE GP T NP BIC S CL)	Joined	4/21/2021, 8:47:36 AM
4	Schuetz, Carl	Joined	4/21/2021, 8:48:13 AM
5	Schiffbauer, Daniel (TIC)	Joined	4/21/2021, 8:48:56 AM
6	Frazier, Curtiss C	Joined	4/21/2021, 8:53:29 AM
7	Bill Bergman (Guest)	Joined	4/21/2021, 8:55:30 AM
8	Collette, Lucas	Joined	4/21/2021, 8:56:28 AM
9	Stephen Cary (Guest)	Joined	4/21/2021, 8:57:23 AM
10	Jarnigan, Christopher K.	Joined	4/21/2021, 8:57:25 AM
11	Crawford, Mike (Guest)	Joined	4/21/2021, 8:57:31 AM
12	Young, Marcus	Joined	4/21/2021, 8:57:44 AM
13	Mauricio Aristizabal	Joined	4/21/2021, 8:57:57 AM
14	Ayers, Roy	Joined	4/21/2021, 8:58:06 AM
15	Richard York MEPP (Guest)	Joined	4/21/2021, 8:58:15 AM
16	Irwin, Todd (GE Renewable Energy)	Joined	4/21/2021, 8:59:09 AM
17	Westerdale, Matthew J	Joined	4/21/2021, 8:59:36 AM
18	Polchinski, Craig	Joined	4/21/2021, 8:59:57 AM
19	Bill Long (Guest)	Joined	4/21/2021, 9:00:06 AM
20	Hensberger, Jeremy	Joined	4/21/2021, 9:00:49 AM
21	(724) 772-2555 Greg Polchinsky	Joined	4/21/2021, 9:01:06 AM
22	Weisker, Jan (SE GP T SP PRO R&D TC HP)	Joined	4/21/2021, 9:01:43 AM
23	Steigerwalt, Don	Joined	4/21/2021, 9:02:08 AM
24	Will Zhang (Guest)	Joined	4/21/2021, 9:02:38 AM
25	Carl R. Kurinko	Joined	4/21/2021, 9:02:57 AM
26	Arben Bufi	Joined	4/21/2021, 9:03:09 AM
27	Devki Sharma (Guest)	Joined	4/21/2021, 9:03:20 AM
28	Edwards, Doug (RC-US SI DS EHS)	Joined	4/21/2021, 9:04:22 AM
29	Ward, Jeff	Joined	4/21/2021, 9:04:28 AM
30	Dilillo, Patrick	Joined	4/21/2021, 9:05:31 AM
31	Chovanec, Andrew (GE Renewable Energy)	Joined	4/21/2021, 9:07:43 AM
32	Dr. Razi-KAzemi, Ali A. (Guest)	Joined	4/21/2021, 9:22:00 AM