

IEEE C37.303 Working Group
Meeting Minutes
Oklahoma City, OK
October 15th, 2024

1) Call to Order

Meeting was called to order at 2:00 pm CDT

2) Introduction of Participants

Participants provided self-introductions with affiliations.

There were 40 participants, plus the chair and the secretary.

3) Determination of Quorum

Not required because, as this was the first meeting of this WG, every participant had voting rights, i.e. quorum was met by default.

4) Approval of Meeting Agenda

Meeting agenda for this meeting was presented. Motion to approve the agenda as presented was made by Keith Flowers and seconded by Caryn Riley; motion carried with unanimous consent.

5) Presentation of the IEEE Policy Slides

IEEE Patent Policy: No issues reported

IEEE Copyright Policy: No issues reported

IEEE Participant Behavior: Reminder to behave provided

6) Work items

a. PAR scope: Review and approval

This covers work item (2) of the agenda.

The WG decided to review the contents of the PAR scope before any other work item of the agenda would be addressed. Particular focus was laid on whether any distinction between several product types that might be made in C37.303 was already covered by the contents of the PAR scope as sent out before the meeting.

The PAR scope was thusly presented as sent out before the meeting, and the WG reviewed it.

Motion to approve the PAR scope as presented was made by Keith Flowers and seconded by Donnie Swing; motion carried with unanimous consent.

Content of the PAR scope as accepted by the WG:

This guide presents field methods for detection, measurement, and localization of partial discharge (PD) in energized switchgear (above 1000 Vac) and the interpretations thereof. The main focus is put on:

- *Establishing a baseline for PD detection or measurement.*
- *Establishing trending based on PD measurements over time.*
- *Providing guidance on recording and reporting of PD measurements.*
- *Providing recommended actions.*

b. General outline: Review, discussion, modification and approval

This covers work items (1) and (3) of the agenda.

Draft D1 of the guide's general outline was presented as sent out before the meeting, which consisted of a list of the main chapters as a proposal by the WG officers.

The WG reviewed and discussed this draft.

During the discussion, the following comments were made:

- The guide should include a distinction of sorts between permanent measuring—e.g., online PD measuring—and non-permanent measuring—e.g., periodic inspections.
- The vast variety of equipment designs/shapes/dimensions/installation conditions/etc. that follows from the wording “above 1000 Vac” could be address by a matrix “Methods vs. Uses”; in any case, industry needs both MV and HV.
- Clarification is required whether “in the field” also covers commissioning PD measuring performed after installation of the equipment, and whether this should be addressed in C37.303.
- Clarification is required whether the guide should include some information on how factory PD test data compares to PD field test data, and whether this is relevant for C37.303.
- The term “method” used in the draft is to be understood as an umbrella term in order to convey the general idea of what chapter 4 should cover; i.e., “method” should be either substituted by more specific terms and/or given a clear definition in C37.303.
- The word “baseline” should be given a clear definition in C37.303.

Eventually, the WG decided to add 3 main chapters and 1 annex, thus creating general outline draft D2

Motion to approve draft D2 was subsequently made by Andreas Bartels and seconded by Nenad Uzelac; motion carried with unanimous consent.

General outline draft D2 as accepted by the WG:

1. Overview

1.1 Scope

1.2 Purpose

1.3 Word Usage

2. Normative References

3. Definitions, Acronyms, and Abbreviations

3.1 Definitions

3.2 Acronyms and Abbreviations

4. Field-applicable methods for detection and measurement of PD

4.1 General Considerations

4.2 Methods for Detection / Methods for Measurement

5. Types of Products/Product Categories being PD Tested

6. Environmental Considerations

7. Recording

8. Localization

9. Data Reporting

9.1 General Considerations

9.2 Establishing a trend based on a baseline and consecutive measuring

10. Data Interpretation and Recommended Actions

ANNEX A: Examples

c. Task groups: Forming task groups for content creation

This covers work items (4) and (5) of the agenda.

The WG decided to form the following task groups to create content for C37.303 based on the draft outline approved before:

- Task group 1: Covers chapters 4 and 8 of general outline draft D2; led by Sha Farhang
- Task group 2: Covers chapter 5 of general outline draft D2; led by Rama Lakshminarayana
- Task group 3: Covers chapter 6 of general outline draft D2; led by Jeffrey Ward
- Task group 4: Covers chapters 7 and 9 of general outline draft D2; led by Hubert Gagnon

The WG decided that the content creation for chapter 10, “Data Interpretation and Recommended Actions”, and annex A, “Examples”, shall be tabled until more data is available from the other task groups.

The task group leaders will organize their task groups autonomously. It is recommended to do this via a number of online meetings between this meeting and the next in-person meeting in April 2025 during the IEEE PES Switchgear Committee Spring Meeting in Orlando, FL. The task groups will present their results to the WG in said in-person meeting.

7) Meeting adjourned

The meeting adjourned at 16:30 pm CDT after every item of the agenda had been addressed.

Reported by Henning Milnikel, Secretary of C37.303 working group

LastName, FirstName	Employer	Affiliations other than employer	Participant type	Requested to remain voting member after the first WG meeting
Lopez, Adrian	Powell Industries	none	Chair	NO
Milnikel, Henning	Siemens AG	none	Secretary	
Bartels, Andreas	Powell Industries	none	Voting member by default (1 st WG meeting)	NO
Bouche, Nick	Switchgear Power Systems	none	Voting member by default (1 st WG meeting)	NO
Boyce, Russel	Eaton Corp.	none	Voting member by default (1 st WG meeting)	YES
Cantu, Jared	Omicron	none	Voting member by default (1 st WG meeting)	YES
Cohn, Bob	Powercon Corp.	none	Voting member by default (1 st WG meeting)	YES
DeGrate, Shelly	Grace Technologies	none	Voting member by default (1 st WG meeting)	YES
Door, Jeff	The HJ Family of Companies	none	Voting member by default (1 st WG meeting)	YES
Farhang, Sha	Megger	none	Voting member by default (1 st WG meeting)	YES
Flores, Sergio	Schneider Electric	none	Voting member by default (1 st WG meeting)	NO
Flowers, Keith	Siemens Industry	none	Voting member by default (1 st WG meeting)	NO
Gagnon, Hubert	NDB Technologies	none	Voting member by default (1 st WG meeting)	YES
Gariboldi, Nicola	Qualitrol	none	Voting member by default (1 st WG meeting)	NO
Harley, Jack	Firstpower Group	none	Voting member by default (1 st WG meeting)	NO
Hartmann, Oliver	Siemens Industry	none	Voting member by default (1 st WG meeting)	YES
Hartzel, Ron	Eaton Corp.	none	Voting member by default (1 st WG meeting)	NO
Hatfield, Ben	Trayer Engineering	none	Voting member by default (1 st WG meeting)	YES
Haynes, Gary	ABB	none	Voting member by default (1 st WG meeting)	YES
Hook, Dan	Group CBS	none	Voting member by default (1 st WG meeting)	NO
Jaggernauth, Sudesh	Florida Power & Light	none	Voting member by default (1 st WG meeting)	NO
Jain, Rahul	S&C Electric Company	none	Voting member by default (1 st WG meeting)	YES
Lakshminarayana, Rama	Doble Engineering	none	Voting member by default (1 st WG meeting)	YES
Leopard, Dakota	Eaton Corp.	none	Voting member by default (1 st WG meeting)	YES
McGlown, Kevin	JST Power	none	Voting member by default (1 st WG meeting)	NO
Mucha, Martin	G&W Electric	none	Voting member by default (1 st WG meeting)	YES
Page, Mike	Eaton Corp.	none	Voting member by default (1 st WG meeting)	YES
Patil, Lalit	Eaton Corp.	none	Voting member by default (1 st WG meeting)	NO
Pattison, Mark	The HJ Family of Companies	none	Voting member by default (1 st WG meeting)	NO
Riley, Caryn	GeorgiaTech/NEETRAC	none	Voting member by default (1 st WG meeting)	YES
Rohrer, Tim	Exiscan	none	Voting member by default (1 st WG meeting)	NO
Salinas, Alex	Doble/Vanguard	none	Voting member by default (1 st WG meeting)	YES
Schüpferling, Bernd	Siemens AG	none	Voting member by default (1 st WG meeting)	NO

LastName, FirstName	Employer	Affiliations other than employer	Participant type	Requested to remain voting member after the first WG meeting
Schwartz, Skyler	American Transmission Co.	none	Voting member by default (1 st WG meeting)	YES
Shiller, Paul	Firstpower Group	none	Voting member by default (1 st WG meeting)	YES
Shirode, Aniket	ABB	none	Voting member by default (1 st WG meeting)	NO
Sims, Garrett	Eaton Corp.	none	Voting member by default (1 st WG meeting)	YES
Solanki, Lokesh	ABB	none	Voting member by default (1 st WG meeting)	YES
Swing, Donnie	Avail Switchgear Systems	none	Voting member by default (1 st WG meeting)	YES
Trichon, Francois	Schneider Electric	none	Voting member by default (1 st WG meeting)	YES
Uzelac, Nenad	G&W Electric	none	Voting member by default (1 st WG meeting)	YES
Ward, Jeff	Retired	none	Voting member by default (1 st WG meeting)	YES