

Annex E Transformers and Reactors for HVDC Applications Subcommittee

March 28, 2022, 4.15 pm local time – Centennial H at the Hyatt Regency at Denver Convention Center

Chair: Ulf Radbrandt (ulf.radbrandt@ieee.org)

Vice Chair: Les Recksiedler (absent)

Secretary: Klaus Pointner (klaus.pointner@ieee.org)

E.1 Introduction / Attendance / Approval of the Agenda / Essential Patent Issues

There was a total of 19 persons in the meeting, 5 members and 14 guests present. 4 new requests for membership were received. Qualification for membership in the SC will be verified by the SC Chair.

Actual membership prior the Spring 2022 meeting is shown below:

First Name	Last Name	Company
David	Caverly	Trench Limited
Solomon	Chiang	The Gund Company
Eric	Davis	Burns & McDonnell
Evgenii	Ermakov	Hitachi Energy
Alexander	Gaun	Coil Innovation GMBH
Peter	Heinzig	Weidmann Electrical Technology
John	John	Virginia Transformer Corp.
Christoph	Ploetner	t.b.a.
Klaus	Pointner	Trench Austria GmbH
Ulf	Radbrandt	Hitachi Energy
Leslie	Recksiedler	Manitoba Hydro
Pierre	Riffon	Pierre Riffon Consultant Inc.
Michael	Sharp	Trench Limited
Rogério	Verdolin	Verdolin Solutions Inc.
Waldemar	Ziomek	PTI Transformers

Only 5 members out of 15 members were present, thus quorum was not met. Minimum required members for a quorum are 8 members. Approval of the agenda will be done per E-Mail

The agenda for this meeting, that was distributed via E-mail on March 14, 2022, was presented.

The list of all attendees of the meeting is shown here:

Role	First Name	Last Name	Company	Spring22
Member	Eric	Davis	Burns & McDonnell	x
Member	Evgenii	Ermakov	Hitachi Energy	x
Guest	Thomas	Falkenburger	Coil Innovation USA, Inc.	x
Guest	Giovanni	Hernandez	Virginia Transformer Corp.	x
Guest	Kurt	Kaineder	Siemens Energy	x
Secretary	Klaus	Pointner	Trench Austria GmbH	x
Chair	Ulf	Radbrandt	Hitachi Energy	x
Guest	Adnan	Rashid	Measurement Canada / ISED	x
Member	Michael	Sharp	Trench Limited	x
Guest	Alexander	Doutrelepoint	Siemens Energy	x
Guest	Juan	Castellanos	Prolec GE	x
Guest	Adetokunbo	Shosanya	Xcel Energy	x
Guest	Eduardo	GomezHernig	Siemens Energy	x
Guest	Onome	Avanoma	MJ Consulting	x
Guest	Jennie	Aldenlio	Hitachi Energy	x
Guest	Shankar	Nambi	Bechtel Energy Inc	x
Guest	Sebastian	Rehkopf	Maschinenfabrik Reinhausen	x
Guest	Harry	Pepe	Phenix Technologies	x
Guest	David	Burks	Xcel Energy	x

E.2 Approval of the minutes of the November 2021 virtual meeting

As there was no quorum, approval of minutes and agenda will be done by sending an E-Mail to the members of the SC asking for approval.

E.3 Brief report on the meeting of the Administrative SC by Ulf Radbrandt

New officers of the IEEE Transformers Committee from 2022:

- Ed teNyenhuus is new chair
- David Wallach is vice chair.
- Bill Griesacker is secretary

Otherwise no further specific information from the administrative SC. For more information, please see the general meeting MoM.

E.4 Condition monitoring of HVDC transformers

Presentation by Evgenii Ermakov from Hitachi Energy Sweden has been held as scheduled. Handout of the presentation will be posted on the IEEE TC website under the SC HVDC section (password protected).

Discussion about efforts and planning of such site measurements. As e.g. 6 units are identical, measurements can be used a cross reference to see developing problems within a unit. Interval for such measurements have to be agreed individually, as considerable planning and efforts are imposed.

E.5 Working Group Reports

Currently no active working group. The IEEE1277 has been published 2020 (10 years stability until Dec 31, 2030). The dual logo standard IEC/IEEE 60076-57-129 was published 2017 and is good until Dec 31, 2027

E.6 Further Work

A presentation on condition monitoring for reactors (smoothing reactors and converter reactors) will be prepared for the Spring meeting 2023. Contribution by Trench and Coil Innovation. Details and scope need to be agreed.

Continue discussions about what to be included in our standards, when they will be revised, e.g. to introduce sections about condition monitoring.

E.7 Old Business

There was no old business

E.8 New Business

There is no new business

E.9 Adjournment

The meeting was adjourned at 5:35 pm.