

ANNEX A Bushings Subcommittee

Milwaukee, Wisconsin, USA
March 22nd, 2023, 09:30AM Eastern

Chair (presiding officer):	Eric Weatherbee, PCORE Electric, Inc. / Hubbell Power Systems
Vice-Chair:	Scott Digby, Duke Energy
Secretary:	Fabien (Durand) Stacy, Hitachi Energy

A.1 Opening of the Meeting

A.1.1 Call to Order / Chairman's Opening Remarks

The Chair presented and reviewed the proposed agenda that was circulated to the SC members by the Chair prior to the meeting. There were no comments concerning the proposed agenda.

The Chair requested that each person use the microphone, state their name and affiliation when addressing the subcommittee.

The Chair reminded the WG chairs and secretaries that their meeting minutes need to be submitted to the Subcommittee officers no later than 15 days after their WG or TF meetings took place.

The Chair noted that the replacement for the AMS system should be ready for use by the Fall-2023 meeting, but for now attendance and attendance records are to continue to be managed manually.

The Chair noted that WG Chair training that had previously been mandatory is now voluntary, however the IEEE-SA Antitrust, Competition, and Commercial Temp Policies training unit is still mandatory, which is required to be completed by SC and WG officers within 90-days of appointment or by December 31, 2023 (whichever is later).

A.1.2 Reminders of IEEE policies

The requisite IEEE-SA information concerning the Call for Patents, the Copyright Policy, and the Individual Participation Guidelines had been transmitted to SG Members and Participants along with the meeting Agenda prior to this meeting.

A.1.3 New Members

It was reported that 4 new members had been accepted into the Subcommittee, each of whom were recognized. These new members are Kayland Adams, Sami Debass, Jeffrey Door, and Jerzy Kazmierczak.

A.1.4 Attendance

Participant rosters were circulated during the meeting for recording the meeting attendance. The Chair presented a list of the 77 current voting members to perform a quorum check. Quorum was achieved. Per subsequent review of the rosters the meeting had 119 attendees, of which 46 were members and 73 guests, with 12 guests requesting membership. Refer to [Appendix A](#) for meeting participants, their affiliation, and voting member status.

Table 1 – Meeting Attendance

Total	120
Members – Quorum Achieved	47
Guests	73
Guests Requesting Membership*	12

*Review of the historical attendance records indicate that of the 12 guests requesting membership, 6 meet the eligibility requirements (Raymond Frazier, Ronald Hernandez, Daniel Posadas, Zoltan Roman, Eric Schleismann, William Solano) and will be added to the membership roster effective at the next SC meeting.

A.1.5 Agenda Approval

As 46 of the 77 members were in attendance a quorum was achieved. There were no comments to the proposed agenda. A motion was made by Sanjib Som and seconded by Hugo Flores to approve the agenda as proposed. This motion carried by unanimous consent.

A.1.6 Previous Meeting's Minutes Approval

There were no comments to the minutes that had been posted. A motion was made by Fabian (Durand) Stacy and seconded by Hugo Flores to approve the minutes as posted. This motion carried by unanimous consent.

A.1.7 Status of Bushing Standards

The Chair presented the Standards Status Report for standards and guides under the Bushing SC, see [Appendix B](#).

A.2 Working Group and Taskforce reports

A.2.1 WG PC57.19.00-2004 – Peter Zhao, Chair; **VACANT, Vice-Chair; Eric Weatherbee, Secretary**

No meeting was held due to the status of the balloting process. The WG Chair reported that balloting was complete and was going to RevCom for approval. The work of the WG is complete except for supporting the final editing that will take place with IEEE staff prior to publication.

A.2.2 WG C57.19.01-2017 – Dr. Shibao Zhang, Chair; **VACANT, Vice-Chair; **VACANT, Secretary****

No meeting held, with the current document having a 2027 expiration date. The WG Chair reported that after the call for comments made at the last SC meeting that some comments had been received. A motion was made by Sanjib Som and seconded by Kumar Mani to form a Task Force to prepare the PAR documentation to support the next revision cycle. The motion passed by unanimous consent.

A.2.3 WG PC57.19.02 Distribution Transformer Bushings – Steven Shull, Chair; Ed Smith, Vice-Chair, Rhett Chrysler, Secretary

The WG Chair was not present and there was not meeting of the WG this week. The document has completed the balloting process and is on the next RevCom agenda for approval. The work of the WG is complete except for supporting the final editing process that takes place with IEEE staff prior to publication.

A.2.4 IEC/IEEE 65700-19-03 Bushings for DC Application – Eric Weatherbee (IEEE) and Lars Jonsson (IEC), Co-Chairs; Sami Debass, Vice-Chair; J. Arturo Del Rio, Secretary

See complete WG minutes in [Appendix C](#) of this report.

The WG Chair reported that a complete reporting of WG meeting minutes is maintained by IEC, with the most recent IEC WG meeting having taken place February 7-8. It was reported that a third version

of the Draft document had been circulated for review. It was reported that there have been three (3) Task Forces under the WG: 1) Voltage source converters (work complete); 2) Altitude correction factors; and 3) Special tests. Editorial work is ongoing. The next IEC WG teleconference was scheduled for April 12-13.

A.2.5 WG C57.19.04-2018 – Scott Digby, Chair; **VACANT, Vice-Chair; Rich vonGemmingen, Secretary**

No meeting held as the latest revision was recently published and is not due for revision again until closer to the document's 2028 expiration date. The WG Chair noted that no comments regarding the document had been received thus far. The WG Chair requested that any comments regarding the current document be forwarded to him for consideration.

A.2.6 WG PC57.19.100-2012 – Tommy Spitzer, Chair; **VACANT, Vice-Chair; Fabian (Durand) Stacy, Secretary**

See complete WG minutes in Appendix D of this report.

The WG Chair reported that the Draft document was close to completion, and it was planned to solicit a vote of the WG for approving moving the document to Sponsor Ballot with the objective to go to ballot this year. It is expected that a PAR extension request will be likely, which would be its first PAR extension request.

PAR expires at the end of 2023.

A.3 External Liaison Reports

A.3.1 IEC Bushing Standards Activity – Bruno Mansuy, IEEE/IEC Liaison

Mr. Mansuy was not in attendance but did submit a summary report, of which Art Del Rio provided a brief description. This summary report is included in Appendix E of this report. It was noted that the group discussing dimensional standards has reached some consensus, a draft of an application guide is being prepared, the document associated with maintenance is out for review and comment by the respective national committees with possible revision cycle forthcoming, and the document associated with DGA in bushings is in the process of being withdrawn and its content transferred to other documents.

A.3.2 WG PC57.160 Guide for PD Meas. in Bushings and Inst. Trans. – Thang Hochanh, Chair

The WG Chair reported that the document was currently going through the balloting process and that there were more than 500 ballot comments that the WG was working to resolve.

A.3.3 Amendment to IEEE 693, Recommended Practice for the Seismic Design of Substations - Durand Stacy

Mr. Stacy reported that the document was in the Ballot comment resolution stage of the process.

A.4 Unfinished Business

A.4.1 Venting/PD in OIP Bushings during FAT

This topic currently resides within the TF for Continuous Revision of Low Frequency Tests (under the Dielectric Test SC), with a Study Group having been formed under that TF formed to review the comments from a 2020 survey on the topic and make further recommendations. The Study Group included volunteers that had been solicited from within the Bushing SC. The Study Group facilitator, Ajith Varghese, provided a summary of the group's activities and status. A more detailed reporting of the Study Group would be included under the minutes of that Task Force so is not reiterated in detail in these minutes. The primary points of the report are as follows:

Text is in development for proposed text for inclusion within C57.12.90.

Egon Kirchenmayer with Siemens repeated a presentation that had been given to the Study Group and again at the Low Frequency TF regarding a bushing test procedure to simulate the cooldown behavior and bubble evolution. The Low Frequency TF Chair, who was present at this SC meeting, indicated that the complete presentation will be posted on the TC website under the Low Frequency TF.

There were some comments and discussion regarding this presentation. It was noted that other bushing manufacturers were reviewing this bushing testing in more detail in order to provide a more complete peer review. It was noted that this test procedure only applies to OIP bushings. It was noted that it would be expected that this would be a “type” dependent test, thus a special or type test and not a routine test. Much additional discussion regarding the test procedure, including its benefit and impact to the industry, is anticipated.

The SC Chair expressed appreciation to Siemens for their work on this bushing test procedure and the testing they had completed.

A.5 New Business

Cihangir John Sen made a presentation proposing two items to be considered during the next revision cycle of the applicable standard documents.

The first was suggesting reviewing the test voltages and PD level limits for Dry Type Condenser Bushings within C57.19.01, mainly to define such voltage levels and PD limits within Table-5 of that standard. The presentation noted that there are newer technologies being used (such as RIS, RIF, RIG, SDC, etc.) today that are not specifically addressed by the document but that his utility was increasing population of these type bushings. It was noted that these bushings behave differently than OIP bushings.

With preparations for the next revision cycle for C57.19.01 in process, the information will be forwarded to the Chair of C57.19.01 for consideration during that process.

The second item was to consider the addition of the word “concentrically” within the definition of “capacitance graded bushing:” within C57.19.00, such that it would read “A bushing in which metallic or nonmetallic conducting layers are concentrically arranged within the insulating material for the purpose of controlling the distribution of the electric field of the bushing, both axially and radially.” The presentation noted that non-concentrically arranged layers creates concentrated stresses within the insulation system that could potentially cause breakdown.

C57.19.00 has just been completed its recent balloting process, so, while the issue is not able to be considered for the current, approved Draft, the information will be forwarded to the WG Chair of that document for consideration during its next revision cycle.

A.6 Adjournment

A.7 After meeting note

Following the meeting Fabien (Durand) Stacy, Hitachi Energy, volunteered to fill the vacant role of Secretary, which was accepted, thank you Durand.

A.8 Next Meeting: Spring 2023, Milwaukee, Wisconsin - March 19 – 23, 2023

First Name	Last Name	Affiliation	Role
Mubarak	Abbas	Siemens Energy	Member
Kayland	Adams	Prolec-GE Waukesha	Member
Barry	Beaster	H-J Family of Companies	Member
William	Boettger	Boettger Transformer Consulting LLC	Member
David	Calitz	Siemens Energy	Member
Juan	Castellanos	Prolec GE	Member
Arup	Chakraborty	Delta Star Inc.	Member
Juan Carlos	Cruz Valdes	Prolec GE	Member
Samson (Sami)	Debass	EPRI	Member
J. Arturo	Del Rio	Siemens Energy	Member
Scott	Digby	Duke Energy	Vice-Chair
Huan	Dinh	Hitachi Energy	Member
Jeffrey	Door	H-J Family of Companies	Member
Evgenii	Ermakov	Hitachi Energy	Member
Marco	Espindola	Hitachi Energy	Member
Eric	Euvrard	RHM International	Member
Hugo	Flores	Hitachi Energy	Member
Jose	Gamboa	H-J Family of Companies	Member
Eduardo	Garcia Wild	Siemens Energy	Member
Bill	Griesacker	W. Griesacker & Associates Inc.	Member
Niklas	Gustavsson	Hitachi Energy	Member
Roger	Hayes	General Electric	Member
Egon	Kirchenmayer	Siemens Energy	Member
Kumar	Mani	Duke Energy	Member
Robert	Middleton	RHM International	Member
Emilio	Morales-Cruz	Qualitrol Company LLC	Member
Poorvi	Patel	Electric Power Research Institute (EPRI)	Member
Ulf	Radbrandt	Hitachi Energy	Member
Scott	Reed	MVA	Member
Diego	Robalino	Megger	Member
Amitabh	Sarkar	Virginia Transformer Corp.	Member
Ewald	Schweiger	Siemens Energy	Member
Cihangir	Sen	Duke Energy	Member
Sanjib	Som	Pennsylvania Transformer	Member
Thomas	Spitzer	City Transformer Service Co.	Member
Fabian	Stacy	Hitachi Energy	Member
Brad	Staley	Leeward Renewable Energy	Member
Troy	Tanaka	Burns & McDonnell	Member
Ajith	Varghese	Prolec-GE Waukesha	Member
Jason	Varnell	Doble Engineering Co.	Member
Dharam	Vir	Prolec GE Waukesha Inc	Member
Hugh	Waldrop	Memphis Light, Gas & Water	Member

David	Wallach	Duke Energy	Member
Eric	Weatherbee	PCORE Electric	Chair
Christopher	Whitten	Hitachi Energy	Member
Shibao	Zhang	PCORE Electric	Member
Peter	Zhao	Hydro One	Member
Alex	Alahmed	Evergy - Wolf Creek	Guest
Stephen	Antosz	Stephen Antosz & Associates, Inc	Guest
Elise	Arnold	SGB	Guest
Kush	Arora	Reinhausen	Guest
Christopher	Baumgartner	We Energies	Guest
EDWIN	BETANCOURT	SIEMENS ENERGY	Guest
Sanket	Bolar	Oncor Electric Delivery	Guest
Susan	Bonfiglio	Western Area Power Admin.	Guest
Jeremiah	Bradshaw	Bureau of Reclamation	Guest
Deniss	Carr	GE Grid Solutions	Guest
Juan Alfredo	Carrizales	Prolec GE	Guest
Nikolaus	Dillon	Dominion Energy	Guest
Jesse	Duffy	Nashville Electric Service	Guest
Sanford	Fong	Georgia Power	Guest
Raymond	Frazier	Ameren	Guest
Ronald	Hernandez	Doble Engineering Co.	Guest
Jean	Hernandez-Mejia	Georgia Tech NEETRAC	Guest
Christopher	Johnson	Oncor	Guest
Akash	Joshi	Black & Veatch	Guest
Nathan	Lange	Siemens Energy, Inc.	Guest
Ryan	Musgrove	Oklahoma Gas & Electric	Guest
Anthony	Natale	HICO America	Guest
Anastasia	O'Malley	Consolidated Edison Co. of NY	Guest
Rakesh	Patel	Hitachi Energy	Guest
Sanjay	Patel	SGB SMIT	Guest
Homero	Portillo	Advanced Power Technologies	Guest
Daniel	Posadas	Prolec St de CV	Guest
Thomas	Prevost	Weidmann Electrical Technology	Guest
Clemens	Reiss IV	Custom Materials, Inc.	Guest
Tim	Rocque	SPX Transformer Solutions, Inc.	Guest
Zoltan	Roman	GE Grid Solutions	Guest
Markus	Schiessl	SGB	Guest
Eric	Schleismann	Southern Company Services	Guest
Salahuddin	Shaikh	Hitachi Energy	Guest
Christopher	Slattery	FirstEnergy Corp.	Guest
Jason	Snyder	FirstEnergy	Guest
William	Solano	Reinhausen Manufacturing	Guest
Brian	Sparling	Dynamic Ratings, Inc.	Guest

Mike	Spurlock	Spurlock Engineering Services, LLC	Guest
Kyle	Stechschulte	American Electric Power	Guest
Charles	Sweetser	OMICRON electronics Corp USA	Guest
Matthew	Sze	OMICRON electronics Canada Corp.	Guest
Richard	vonGemmingen	Dominion Energy	Guest
Barrett	Wimberly	GE Grid Solutions	Guest
Fei	Yang	Hitachi ABB Power Grids	Guest
Kwasi	Yeboah	GE Energy Management	Guest
Malia	Zaman	IEEE	Guest
Christpoh	Kerschenbauer	Siemens Energy	Guest
Michael	Richardson	Ameren	Guest
Daniel	Crockett	Ameren	Guest
Rafal	Kowalski	Hitachi Energy	Guest
Jusuf	Krvavac	Sargent & Lundy	Guest
Oliver	Uhlmann	Reinhausen Canada Inc.	Guest
Mark	Newbill	Hitachi Energy	Guest
Toni	Mellin	Vaisala	Guest
Scott	Thomas	Hitachi Energy	Guest
Kevin	Mazzei	Black & Veatch	Guest
Bertrand	Poulin	Hitachi Energy	Guest
Monil	Patel	PG&E	Guest
Jacob	Thielbar	WAPA	Guest
Jose Luis	Machain	Prolec-GE	Guest
Marta	Munoz	Hitachi Energy	Guest
Vivek	Bhatt	Prole-GE Waukesha	Guest
Tiffany	Lucas	Prolec-GE Waukesha	Guest
Alaor	Scardazzi	Siemens Energy	Guest
Abdulmajid	Shaikh	Delta Star Inc.	Guest
Bernard	LaBean	Consumers Energy	Guest
Chris	Rutledge	Dynamic Ratings	Guest
Mark	Cheatham	GE	Guest
Jeremy	Sewell	Quality Switch	Guest
Alan	Sbravati	Hitachi Energy	Guest
Sam	Sharpless	Rimkus	Guest
Ethan	Steiger	Qualitrol	Guest

S23 Unofficial Standards Status Report

Standard Project	Title	WG Chair	Pub Year Rev. Due Date	PAR Issue Par Expiration	Comments
PC57.19.00	IEEE Standard General Requirements and Test Procedure for Power Apparatus Bushings	P. Zhao	2004 12/2020	2018 12/2022	Document was approved Feb 16th, on to IEEE editors.
C57.19.01	IEEE Standard Performance Characteristics and Dimensions for Outdoor Apparatus Bushings	S. Zhang	2017 12/2027		Not Active
PC57.19.02	Standard for the Design and Performance Requirements of Bushings Applied to Liquid Immersed Distribution Transformers	S. Shull	New	2016 12/2022	Recirculation 4 passed balloting with 97% approval rate. RevCom will review at the May 15th meeting
P65700-19-03	IEC/IEEE International Standard -- Bushings for DC application	Eric Weatherbee	2014 12/2024	2021 12/2025	WG Draft Development - Mtg6 IEEE/IEC teleconference 4/12 - 4/13/23 8am EST, 1st draft 1st quarter of 2023
C57.19.04	Standard Performance Characteristics and Dimensions for High Current Power Transformer Bushings with Rated Continuous Current in Excess of 5000 A in Bus Enclosures	S. Digby	2018 12/2028		Not Active
PC57.19.100	IEEE Guide for Application of Power Apparatus Bushings	T. Spitzer	2012 12/2022	2019 12/2023	WG Draft Development

IEC/IEEE 65700_19_03 DC Bushings WG

Minutes of 2023 Spring Meeting
Tuesday, March 21st, 2023- 9:30 – 10:45 AM
HYATT Regency - Milwaukee (2) - Milwaukee, WI.

Eric Weatherbee - Chair
Vacant – Vice Chair **J. Arturo Del Rio – Secretary**

The WG met on Tuesday, March 21st, 2023, at 9:30 am in the Milwaukee room.

1. Welcoming and Call for Patents, Copyrights

- The meeting was called to order at 9:30 AM by the WG Chair.
- The call for potentially essential patents and copyrights issues was made. None were reported.

2. Quorum

- Total of 24 participants: 5 members and 19 guests.
- 5 Members of the 10 WG Members were present and quorum was not met. Agenda and previous meeting minutes could not be approved. Membership roster will be updated since 4 members have not attended the last 3 meetings.
- Sammy Debass has volunteered for the role of WG Vice Chair.

3. Liaison Update on Join Team activity

Full JMT meeting minutes to be posted in the Transformer Committee website.

Previous meeting: February 7th and 8th, 2023.

3rd Draft in the working group was submitted. Further topics addressed and will be discussed in the upcoming meeting.

TF1; review the draft CD re. Voltage Source Converter (VSC).

⇒ Finished, incorporated in the next CD.

TF2; review updates incl. examples re. altitude corrections and pollution parameters.

⇒ Some minor changes will be prepared for the next meeting.

TF3; review the draft CD re. the special tests section (even and uneven wetting) incl. reference documents.

⇒ Finished, incorporated in the next CD.

Editorial; Review the status of draft 3rd CD including, e.g.:

- Wording for tests.
- Replace oil with liquid.
- Remove the old reference to IEC 62199.

4. New business:

4.1 No new business or comments

Meeting was adjourned at 9:45 am

Next JMT JOINT IEC Meeting

Next meeting: April 12th and 13th, 2023, to be held by Zoom teleconference service on two consecutive days @ 14:00 to 16:00 (Central European Time).

Next IEEE WG Meeting

Fall 2023 – Kansas City (Westin at Crown Center), Missouri USA, Oct 22 – 26, 2023.

Respectfully submitted,

Chair: Eric Weatherbee (eweatherbee@ieee.org)

Secretary: Art Del Rio (a.delrio@ieee.org)

Attendance and status:

Status	First Name	Last Name	Affiliation
Guest	Mubarak	Abbas	Siemens Energy
Guest	Kush	Arora	Reinhausen
Guest	Eunyoung	Cho	HICO America
Guest	Samson	Debass	EPRI
Secretary	J. Arturo	Del Rio	Siemens Energy
Guest	Hassan	Elkassem	Siemens Energy
Guest	Eric	Euvrard	RHM International
Guest	Esseddik	Ferdjallah	Siemens Energy
Guest	Marc	Foata	Reinhausen
Guest	Sanford	Fong	GA Power
Guest	Juan Carlos	Hernandez-Mejia	GT-Neetrac
Member	Kurt	Kaineder	Siemens Energy
Guest	Jusuf	Krvavac	Sargent Lundy
Guest	Justin	Minikel	EATON Corporation
Guest	Verena	Pellon	FPL
Guest	Daniel	Posadas	Prolec Celeco
Member	Ulf	Radbrandt	Hitachi Energy
Guest	Brian	Sparling	Dynamic Ratings, Inc.
Member	Fabian	Stacy	Hitachi Energy
Guest	Oliver	Uhlmann	Reinhausen
Chair	Eric	Weatherbee	PCORE Electric
Guest	Elliot	White	SD Myers
Guest	Christopher	Whitten	Hitachi Energy

Guest	Malia	Zaman	IEEE-SA
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The following members will be moved to Guest status as they have not attended the last 3 meetings.

First Name	Last Name	Company
Hugo	Flores	Hitachi Energy
Eduardo	Garcia Wild	Siemens Energy
David	Geibel	Retired
Peter	Werelius	Megger

IEEE C57.19.100

Guide for Application of Power Apparatus Bushing WG

Minutes of 2023 Spring Meeting

Monday, March 20th, 2023- 3:15-4:30 PM

HYATT Regency - Regency A (2) - Milwaukee, WI.

Tommy Spitzer– Chair

Durand Stacy – Secretary

The WG met on Monday, March 20th, 2023, at 3:15 PM in the Regency A (2) room.

5. Welcoming and Call for Patents, Copyrights

- The meeting was called to order at 3:15 PM by the WG Chair.
- The call for potentially essential patents and copyrights issues were made, and none were reported.

6. Quorum

- Total of 53 participants: 12 members and 41 guests.
- 12 Members of the 23 WG Members were present, but never more than 11 at one time so a quorum was not met. No official business was conducted.

7. Reconsolidation document

Document “Copy of CommentProposalForm Spring 2023 comments from Draft 5 R1.xls” was reviewed Much discueesion was had about the overload ability of bushing Durand Stacy offered to propose language for this. I have included it below for review

8. New business:

4.1 No new business or comments

Meeting was adjourned at 4:30 PM

Purpose language for overload of bushings.

“Per standard, bushings are not required to have an inherent overload capability. Any overload capability a bushing might have is individual to that bushings design and is not indicative of all bushing of that type of construction or even of that manufacturer across their product portfolio. Contact the bushing manufacturer with questions about a particular design. “

Next IEEE WG Meeting

Fall 2023 – Kansas City (Westin at Crown Center), Missouri USA, Oct 22 – 26, 2023.

Respectfully submitted,

Chair: Tommy Spitzer (t.spitzer@sbcglobal.net)

Secretary: Durand Stacy (durand.stacy@hitachienergy.com)

Attendance and status:

First Name	Last Name	Company	Status
Murarak	Abbas	Siemens Energy	Guest
Alex	Alahmed	Evergy	Guest
Barry	Beaster	H-J Family of Companies	Guest
Edwin	Betancourt	Siemens Energy	Guest
Vivek	Bhatt	Prolec GE	Guest
Juan Carlos	Cruz Valdes	Prolec GE	Guest
Samson	Debass	EPRI	Guest
Yasiu	Demip	Prolec GE	Guest
J. Arturo	Del Rio	Siemens Energy	Member
Scott	Digby	Duke Energy	Member
Huan	Dinh	Hitachi Energy	Guest
Jeffrey	Door	H-J Family of Companies	Guest
Jesse	Duffy	Nashville Electric	Guest
Salih	Durmus	Siemens Energy	Guest
Hassum	Elkussem	Siemens Energy	Guest
Eric	Euvrard	RHM International	Member
Essedoik	Ferdjallah	Siemens Energy	Guest
Jose	Gamboa	H-J Family of Companies	Guest
Andrew	Gregory	ITEC	Guest
Jean	Hernandez-Mejia	GT-NEETRAC	Guest
Kurt	Kaineder	Siemens Energy	Guest
Chrisloph	Kerschamboer	Siemens Energy	Guest
Nathan	Lange	Siemens Energy	Guest
Junho	Lee	Hyundai	Guest
Soyoung	Lee	Hyundai	Guest
Mario	Locarno	Doble Engineering Co.	Member
Tiffany	LUCAS	Prolec GE	Guest
Robert	Middleton	RHM International	Member
Hugo	Murillo	H-J Family of Companies	Guest

Next IEEE WG Meeting

Fall 2023 – Kansas City (Westin at Crown Center), Missouri USA, Oct 22 – 26, 2023.

Respectfully submitted,

Chair: Tommy Spitzer (t.spitzer@sbcglobal.net)

Secretary: Durand Stacy (durand.stacy@hitachienergy.com)

Attendance and status:

First Name	Last Name	Company	Status
Murarak	Abbas	Siemens Energy	Guest
Alex	Alahmed	Evergy	Guest
Barry	Beaster	H-J Family of Companies	Guest
Edwin	Betancourt	Siemens Energy	Guest
Vivek	Bhatt	Prolec GE	Guest
Juan Carlos	Cruz Valdes	Prolec GE	Guest
Samson	Debass	EPRI	Guest
Yasiu	Demip	Prolec GE	Guest
J. Arturo	Del Rio	Siemens Energy	Member
Scott	Digby	Duke Energy	Member
Huan	Dinh	Hitachi Energy	Guest
Jeffrey	Door	H-J Family of Companies	Guest
Jesse	Duffy	Nashville Electric	Guest
Salih	Durmus	Siemens Energy	Guest
Hassum	Elkussem	Siemens Energy	Guest
Eric	Euvrard	RHM International	Member
Essedoik	Ferdjallah	Siemens Energy	Guest
Jose	Gamboa	H-J Family of Companies	Guest
Andrew	Gregory	ITEC	Guest
Jean	Hernandez-Mejia	GT-NEETRAC	Guest
Kurt	Kaineder	Siemens Energy	Guest
Chrisloph	Kerschamboer	Siemens Energy	Guest
Nathan	Lange	Siemens Energy	Guest
Junho	Lee	Hyundai	Guest
Soyoung	Lee	Hyundai	Guest
Mario	Locarno	Doble Engineering Co.	Member
Tiffany	LUCAS	Prolec GE	Guest

SPRING 2023 MEETING OF IEEE TRANSFORMER BUSHINGS

Location: MILWAUKEE

Date: MARCH 19 – 23, 2023

BUSHINGS SUBCOMMITTEE WORKING GROUP AND TASK FORCE MEETINGS

Liaison Reports - IEC Bushing Standardization Activities

INTERNATIONAL ELECTROTECHNICAL COMMISSION TECHNICAL COMMITTEE No.36A: Insulated Bushing

MEETING TO BE HELD IN MILAN (ITALY), WITH REMOTE PARTICIPATION, ON THURSDAY JUNE 15, 2023

Potential New Work item Bushing dimensional standardization PWI 36A1-ED1 JWG 7	Update on the first Committee draft (CD) part1: LV and MV bushing and part 2: HV bushings
Potential New Work item Application guide for Bushings above 1 kV PWI 36-A2-ED1 JAHG8	Update on the work done by joint ad hoc group 8 and on the comments received after circulation of the doc 36A/223/DC
Revision of IEC 65700 Bushings for DC application	update about the status of the document revision in dual logo with IEEE
Maintenance Team for revision of IEC 60137 Bushings above 1kV.	The questionnaire 36A/224/Q has been sent to national committees for comments about the revision of the standard IEC 60137 A report on the project of revision will be presented.
Withdrawal of TR 61464 Guide for DGA in bushings	Transfer to IEC 60599 (guidance on the interpretation of dissolved and free gases analysis) and IEC 60475 (Method of sampling insulating liquids) the corresponding contents of IEC TR 61464 Report on the work done together with TC10