Standards Report

March 11, 2024 – Spring Meeting
Vancouver, BC
Stephen Shull

Location of Standards Report

PES Transformers Committee

IEEE

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HOME

WELCOME TO THE TRANSFORMERS COMMITTEE WEBSITE!

The Transformers Committee is one of the largest and most active of the 17 technical committees within the IEEE Power and Energy Society (PES). The Committee is comprised of technical and managerial representatives from manufacturers, consultants, vendors and end users of electrical transformers and components. The continuing scope of the Committee is to develop and update standards and guidelines for the design, testing, repair, installation, operation and maintenance of transformers, reactors and associated components that are used within electric utility and industrial power systems.

NOTICES:

link for the upcoming Spring 2024 Vancouver meeting, March 10 – 14, is now available.

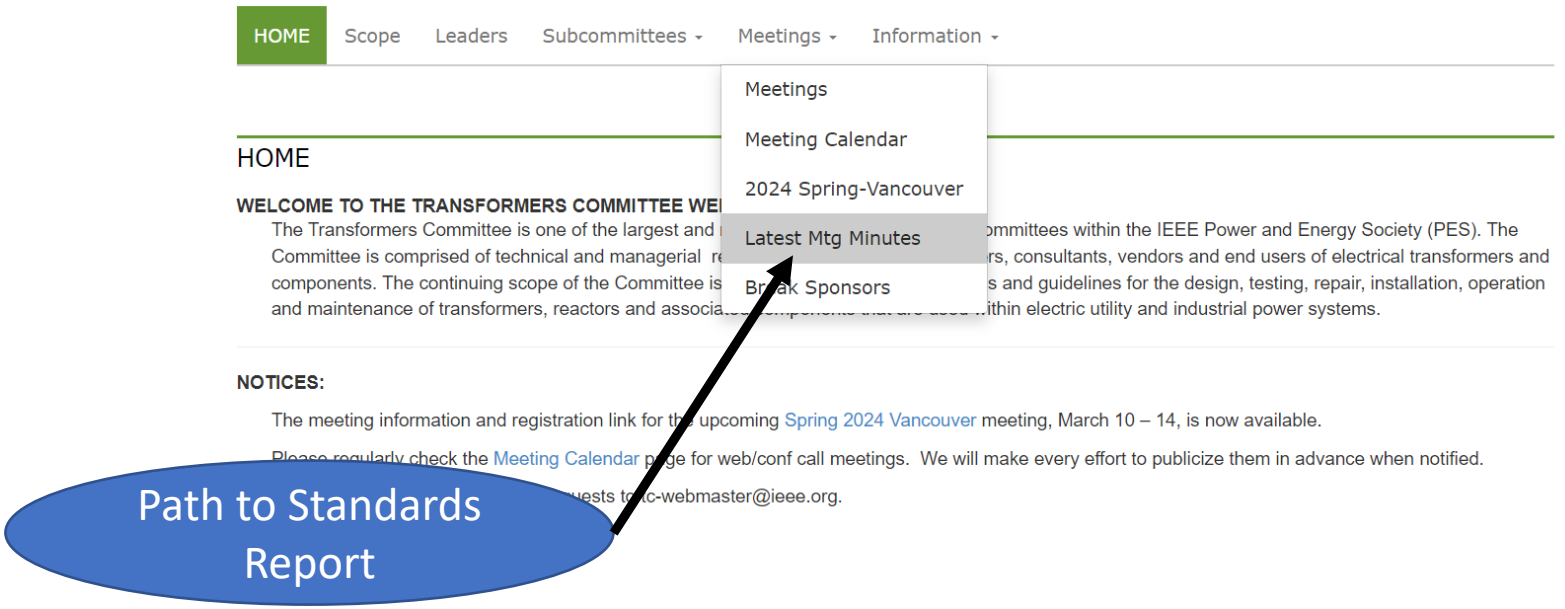
page for web/conf call meetings. We will make every effort to publicize them in advance when notified.

quests to tc-webmaster@ieee.org.

Path to Standards Report

Location of Standards Report

PES Transformers Committee



Path to Standards Report

Location of Standards Report

Latest Mtg Minutes

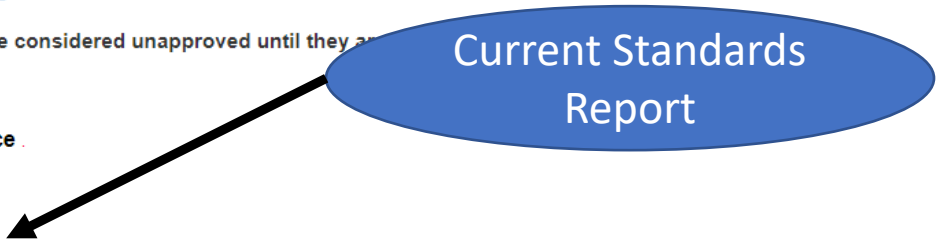
LATEST COMMITTEE MINUTES – SPRING 2024 VANCOUVER, BC, CANADA MEETING

Minutes of previous meetings

NOTE: Meeting minutes are considered unapproved until they a

Executive Reports:

- Main Minutes, Attendance
- Chair's Report
- Vice Chair's Report
- Secretary's Report
- Standards Status Report 23Feb2024
- IEEE Standards Association Report
- Treasurer's Report
- Recognition and Awards: Report / Presentation: PDF



The next date for submission to NesCom ends on

March 26 2024.

There are 22 documents in “Inactive-Reserve” status.

Of the Standards in the “Inactive-Reserve” status, there are three without PARs.

- C57.13.2 – IEEE Conformance Test Procedure for Instrument Transformers
- C57.13.6 – Standard for High Accuracy Instrument Transformers; and
- C57.144 – Guide to Metric Conversion of Transformer Standards.

Standards Status

60076-57-1202	IEC/IEEE International Standard Power transformers --Part 57-1202: Liquid immersed phase-shifting transformers	31 Dec 2026
C57.12.10	IEEE Standard Requirements for Liquid-Immersed Power Transformers	31 Dec 2027
C57.12.58	IEEE Guide for Conducting a Transient Voltage Analysis of a Dry-Type Transformer Coil	31 Dec 2027
C57.120	IEEE Guide for Loss Evaluation of Distribution and Power Transformers and Reactors	31 Dec 2027
C57.140	IEEE Guide for Evaluation and Reconditioning of Liquid Immersed Power Transformers	31 Dec 2027
C57.19.01	IEEE Standard for Performance Characteristics and Dimensions for Power Transformer and Reactor Bushings	31 Dec 2027

PAR/Standards Status

60076-16	IEC/IEEE International Standard - Power transformers - Part 16: Transformers for wind turbine applications	2028
C57.109	IEEE Guide for Liquid-Immersed Transformers Through-Fault-Current Duration	2028
C57.110	IEEE Recommended Practice for Establishing Liquid Immersed and Dry-Type Power and Distribution Transformer Capability when Supplying Non-sinusoidal Load Currents.	2028
C57.119	IEEE Recommended Practice for Performing Temperature Rise Tests on Liquid-Immersed Power Transformers at Loads Beyond Nameplate Ratings	2028
C57.13.7	IEEE Standard for Current Transformers with Maximum Milliampere Secondary Current of 250 mA	2028
C57.147	IEEE Guide for Acceptance and Maintenance of Natural Ester Insulating Liquid in Transformers	2028
C57.161	IEEE Guide for Dielectric Frequency Response Test	2028
C57.19.04	IEEE Standard for Performance Characteristics and Dimensions for High Current Power Transformer Bushings with Rated Continuous Current in Excess of 5000 A in Bus Enclosures	2028
60214-2	IEEE/IEC International Standard for TAP-changers --Part 2: Application guidelines	2029
C57.104	IEEE Guide for the Interpretation of Gases Generated in Mineral Oil-Immersed Transformers	2029
C57.105	IEEE Guide for Application of Transformer Connections in Three-Phase Electrical Systems	2029
C57.12.51	IEEE Guide for Mechanical Interchangeability of Ventilated Dry-Type Transformers	2029
C57.123	IEEE Guide for Transformer Loss Measurement	2029
C57.13.5	IEEE Standard for Performance and Test Requirements for Instrument Transformers of a Nominal System Voltage of 115 kV and Above	2029
C57.93	IEEE Guide for Installation and Maintenance of Liquid-Immersed Power Transformers	2029

Some Comments from the Standards Coordinator

- Comment resolution of a document should normally be completed within a 6 month time period.

Some Comments from the Standards Coordinator

- Comment resolution of a document should normally be completed within a 6 month time period.
- When the Working Group moves the document to Ballot, the Comment Resolution Group (CRG) should be formed in the same meeting. This would be accomplished by a motion with the volunteer members listed. In that same motion, the CRG should be *"given the authority to resolve editorial issues and comments where consensus is reached by the CRG. If any of the comments cannot be resolved to a consensus point, they will be brought back to the Working Group for resolution."*

Task Force (Subgroup)

5.0 Subgroups of the Working Group

The Working Group may, from time to time, form subgroups for the conduct of its business. *Voting Membership in the subgroup is granted to any participant of the Working Group. Such formation shall be explicitly noted in the meeting minutes. At the time of formation,* ***the Working Group shall determine the scope and duties delegated to the subgroup****, and may decide to allow participation of persons who are not Working Group members and specify the terms and conditions under which they participate in the subgroup. Any changes to its scope and duties will require the approval of the Working Group. Any resolution of a subgroup shall be subject to confirmation by the Working Group.*

The Chair of the Working Group shall appoint, and may dismiss, the Chair of the subgroup.

Formation of a Task Force (Subgroup)

7.1.1 Actions Requiring Approval by a Majority Vote

The following actions require approval by a majority vote:

a) ***Formation or modification of a subgroup including its procedures, scope, and duties***
b) *Disbandment of subgroups*
c) *Approval of minutes*
d) *Approval of subgroup results and/or recommendations.*

PAR Study Group

5.0 Subgroups Created by the Sponsor
The formation and disbandment of subgroups (e.g., Responsible Subcommittees, Executive committees (ExCom), Administrative committees (AdCom), ad hocs, ***PAR study groups****,* ***Working Groups****, and other subgroups, such as writing groups)* ***requires approval by a majority vote of the Sponsor*** *as described in clause 7.1. Sponsor subgroups, other than Working Groups and their subgroups, operate under these Sponsor P&P.*

The Sponsor is either the Transformer Committee or a Subcommittee that has be delegated this authority.

PAR Study Group

7.1.1 Actions Requiring Approval by a Majority Vote
The following actions require approval by a majority vote:

a) Formation or modification of a subgroup, including its procedures, scope, and duties
b) Disbandment of subgroups
c) Approval of minutes
d) Delegation to a subgroup for Authorization for submittal of a PAR, modification of a PAR, withdrawal of a PAR, or Sponsor balloting
e) Approval to co-sponsor a project (PAR).

The PAR Study Group

5.5.2 Criteria for Consideration of a PAR by the Sponsor
The Sponsor should consider, and the PAR Study Group or Working group should therefore address, the following issues when evaluating a project proposal:

a) *Potential market acceptance of the standards project, including technical feasibility*
b) *Relationship to related standards, if known, including its distinct identity from other projects*
c) *Viable volunteer leadership and participation*
d) *Realistic scope and objectives*

PAR Study Group Report

5.5.4 Submission of a PAR to the Sponsor:
The PAR Study Group or Working Group shall report its recommendations on the formation of the project to the Sponsor. The deliverable from the PAR Study Group or Working Group to the Sponsor should be a report addressing the criteria for consideration and, if appropriate, a draft PAR. The report should include a roster of participants and minutes.

The PAR study group's task is to investigate the topic and determine one of the following:

1. Determine that the topic has no merit and should not be pursued;
2. Determine if the subject could or should be a part of an existing Guide, Recommend Practice or Standard and thus be referred to that Working Group; or
3. Develop the Title, Scope of the PAR.

(Side Note: A Purpose can be provided but is not required.)

External Proposal Management (EPM) Committee Report

Proposal ID Number	Project Type	Title of Proposal/Project	Proposal Description	Status / TCR
P0060r1	ENTITY	Recommended Practice on Digital Twin Modeling and Analysis based on Spatial-temporal Data of Switch Cabinet and Transformer with 110kV and Below	This recommended practice applies to digital twin modeling and analysis based on spatial-temporal data of switch cabinet and transformer in substations (110kV or lower). It covers deployment, management, architecture, data processing, and application services about switch cabinet and transformer in DT system, with a focus on 1) the spatial-temporal data structure, 2) the unified characterization of virtual entities, 3) the extraction of high-dimensional/deep features, and 4) the construction of DT-SA index systems.	ACCEPTED BY POWER XFMR SUBCOMMITTEE TCR: Brian Sparling
P0103	ENTITY	Guide for vibration test of Direct-Current(DC) converter transformer	This guide specifies the principle, safety precautions, requirements of test instrument, test method, test procedures, and data analysis of vibration test in the type test, factory test, or on-site test of DC converter transformer. This guide is applicable to vibration test, data analysis and evaluation of DC converter transformers for high-voltage direct-current transmission systems with voltage levels up to 500kV and above.	ACCEPTED BY HVDC SUBCOMMITTEE TCR: Ulf Radbrandt
P0106	ENTITY	Guide for General Technical Requirements and Test Methods for Converter Valve Anode Saturation Reactor in High Voltage Direct Current(HVDC,±500kV) Transmission System	This guide provides technical requirements and test methods for converter valve anode saturation reactor in HVDC transmission system, and specifies the use conditions, rating values, allowable deviation, insulation level, test, nameplate, packaging, storage, transportation and installation of anode saturation reactor. This guide is applicable to converter valve anode saturation reactor in HVDC transmission system with voltage level of ± 500kV. Reactors with other voltage levels could be implemented with reference to this guide.	ACCEPTED BY HVDC SUBCOMMITTEE TCR: Ulf Radbrandt

External Proposal Management (EPM) Committee Report

Proposal ID Number	Project Type	Title of Proposal/Project	Proposal Description	Status / TCR
P0120	ENTITY	Guide for Power Transformers for Low-frequency (20Hz) Power Transmission	This guide provides technical guidance for the design and application of power transformers for low-frequency (20Hz) power transmission. It includes general requirements, design concepts, electrical, physical and mechanical characteristics, as well as test items and methods of low-frequency power transformers.	ACCEPTED BY POWER XFMR SUBCOMMITTEE TCR: Ryan Musgrove
P0137	ENTITY	Guide for composite current switching test of vacuum-type on load tap changer for converter transformer	This guide describes the test principle, general requirements, test samples, test circuits and test instruments, test process, test result evaluation and test report of the composite current switching test of vacuum on load tap changer for converter transformer. This guide is applicable to vacuum on load tap changer for High Voltage Direct Current(HVDC) transmission or back-to-back HVDC converter transformer with voltage level of ± 800kV and below.	ACCEPTED BY HVDC SUBCOMMITTEE TCR: Ulf Radbrandt
P0148	ENTITY	Guide for arc test of liquid-Immersed High-Voltage Direct-Current (HVDC) converter transformers	This guide specifies the principle of testing, test site, test specimen, test instrumentation, testing methods and procedures of internal arc test. The applicable tests are outlined for type testing or special testing of a tank, and an oil chamber of on-load tap-changer(OLTC) for liquid-immersed HVDC converter transformer with voltage levels up to +/-160kV and above. Test results are outlined to determine pass or failure of the test specimen.	ACCEPTED BY HVDC SUBCOMMITTEE TCR: Ulf Radbrandt

External Proposal Management (EPM) Committee Report

Proposal ID Number	Project Type	Title of Proposal/Project	Proposal Description	Status / TCR
P0163	INDIVIDUAL	Unique IDs and Smart Tags for Supply Chain and Asset Traceability for the Electric Grid	The scope of this standard is unique identification numbers for electric grid assets including generation, transmission, substation, distribution, storage, and electric vehicle charging stations. The unique identifiers include a universal catalog identifier, manufacturer identifier, and traceability identifier.	PENDING CONSIDERATION DISTRIBUTION SUBCOMMITTEE AS CO-SPONSOR