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28 February 2007

Bill Chiu
Southern California Edison
501 South Marengo Avenue
Alhambra, CA 91802
bill.chiu@sce.com

Re: PC57.123 - Guide for Transformer Loss Measurement

Dear Bill:

I am pleased to inform you that on 27 February 2007 the IEEE-SA Standards Board approved the above referenced project until 31 December 2011. A copy of the file can be found on our website at <http://standards.ieee.org/board/nes/projects/C57-123.pdf>.

Now that your project has been approved, please forward a roster of participants involved in the development of this project. This request is in accordance with the IEEE-SA Operations Manual, Clause 5.1.2i under Duties of the Sponsor which states:

"Submit annually to the IEEE Standards Department an electronic roster of individuals participating on standards projects"

For your convenience, an Excel spreadsheet for your use has been posted on our website at <http://standards.ieee.org/guides/par/roster.xls>. Please forward this list to me via e-mail at s.hampton@ieee.org no later than 28 May 2007.

Please visit our website, IEEE Standards Development Online (<http://standards.ieee.org/resources/development/index.html>), for tools, forms and training to assist you in the standards development process. Also, we strongly recommend that a copy of your draft be sent to this office for review prior to the final vote by the working group to allow for a quick review by editorial staff before sponsor balloting begins.

If you should have any further questions, please contact me at +1 732 562 6003 or by email at s.hampton@ieee.org.

Sincerely,

Sherry Hampton
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Standards Activities
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CC: donald.fallon@ieee.org, stds-pes-scc@ieee.org, ed.g.tenyenhuis@ca.abb.com BCC: s.hampton@ieee.org, t.t.lee@ieee.org, s.vogel@ieee.org

PAR Request Date: 08 January 2007**PAR Approval Date:** 27 February 2007**PAR Signature Page on File:** Yes**Type of PAR:** Revision to IEEE Standard**Status:** Revision to an Existing IEEE Std C57.123-2002**Root Project:****1.1 Project No.:** **C57.123****1.2 Type of Document:** Guide**1.3 Life Cycle:** Full-Use**1.4 Is this document in ballot now?** No**2.1 Title**

Guide for Transformer Loss Measurement

3.1 Working Group Name[Performance Characteristics - Xfrmr Loss Measurement Working Group](#)**Working Group Chair**[teNyenhuis, Ed](#)

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Working Group Vice Chair**3.2 Sponsor**[IEEE Power Engineering Society Transformers \(PE/TR\)](#)**Sponsor Chair**[Fallon, Don J](#)

Phone: 973-430-8191

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Name of Standards Liaison Representative (if applicable)[Chiu, Bill](#)

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Email: bill.chiu@sce.com

3.3 Joint Sponsor**4.1 Type of Ballot:** Individual**4.2 Expected Date of Submission for Initial Sponsor Ballot:** October 2007**4.3 Projected Completion Date for Submittal to RevCom:** December 2007**5.1 Approximate number of people expected to work on this project:** 10

5.2 Scope: This guide provides background information and general recommendations of instrumentation, circuitry, calibration and measurement techniques of no-load losses (excluding auxiliary losses), excitation current, and load losses of power and distribution transformers. The test codes, namely, IEEE Stds C57.12.90-1999, C57.12.91-2001, and the test code section of IEEE Std C57.15-1999, provide specifications and requirements for conducting these tests. This guide has been written to provide supplemental information for each test. More technical details of the measuring instruments and techniques presented in this guide can be found in the document developed by So [B13]. This guide applies to liquid-immersed-power and distribution transformers, dry-type transformers, and stepvoltage regulators. Additionally, it applies to both single- and three-phase transformers.

Old Scope: This guide applies to liquid-immersed-power and distribution transformers, dry-type transformers, and stepvoltage regulators. Additionally, it applies to both single- and three-phase transformers.

5.3 Is the completion of this document contingent upon the completion of another document? No

5.4 Purpose: The purpose of the guide is to: a) Describe the basis and methodology by which the accuracy requirements of (Clause 8 and Clause 9) of IEEE Std C57.12.90-1999 for liquid-immersed transformers and IEEE Std C57.12.91-2001 for dry-type transformers can be achieved. b) Explain why the test code specifies certain procedures and limits. c) Explain advantages and disadvantages of different test methods where alternative methods are available. d) Explain practical limitations and valid means of overcoming them. e) Give theoretical basis for interpolation/extrapolation of tested data and valid limits. f) Explain test anomalies—how they result, what they mean, and how to handle them. g) Give procedures for calibration, certification, and traceability of measurement processes to reference standards. h) Discuss procedures for grounding, shielding, safety precautions, etc. i) Provide schematics and examples to clarify concepts and demonstrate methodologies.

Old Purpose: The purpose of the guide is to: a) Describe the basis and methodology by which the accuracy requirements of (Clause 8 and Clause 9) of IEEE Std C57.12.90-1999 for liquid-immersed transformers and IEEE Std C57.12.91-2001 for dry-type transformers can be achieved. b) Explain why the test code specifies certain procedures and limits. c) Explain advantages and disadvantages of different test methods where alternative methods are available. d) Explain practical limitations and valid means of overcoming them. e) Give theoretical basis for interpolation/extrapolation of tested data and valid limits. f) Explain test anomalies—how they result, what they mean, and how to handle them. g) Give procedures for calibration, certification, and traceability of measurement processes to reference standards. h) Discuss procedures for grounding, shielding, safety precautions, etc. i) Provide schematics and examples to clarify concepts and demonstrate methodologies.

5.5 Need for the Project: The standard is being revised to first correct any errors and secondly to improve the explanation of some components of the present standard.

5.6 Stakeholders for the Standard: Manufacturers and purchasers of power and distribution transformers involved in testing will be affected.

6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitted this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes **Presented Date:** 2006-10-24

If no, please explain:

6.1.b. Is the Sponsor aware of any copyright permissions needed for this project? No

If yes, please explain:

6.1.c. Is the Sponsor aware of possible registration activity related to this project? No

If yes, please explain:

7.1 Are there other standards or projects with a similar scope? No

If yes, please explain:

Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

7.2 Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? ? Yes

Technical Committee Name and Number: IEC

Contact person: [Philip J Hopkinson](#)

Contact person Phone Number: 704-846-3290

Contact person Email Address: phopkinson@hvolt.com

7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety? No

7.4 Additional Explanatory Notes:

8.1 Sponsor Information:

Is the Scope of this project within the approved scope/definition of the Sponsor's Charter? Yes

If no, please explain: