



## PC57.116

Submitter Email: wli@beld.com

Type of Project: Revision to IEEE Standard C57.116-2014

Project Request Type: Initiation / Revision

PAR Request Date: 13 Sep 2019 PAR Approval Date: 07 Nov 2019 PAR Expiration Date: 31 Dec 2023

PAR Status: Active

**Root Project:** C57.116-2014

**1.1 Project Number:** PC57.116 **1.2 Type of Document:** Guide

1.3 Life Cycle: Full Use

2.1 Project Title: Guide for Transformers Directly Connected to Generators

Change To Title: TEEE—Guide for Transformers Directly Connected to Generators

**3.1 Working Group:** Power Transformers - Directly Connected GSU Working Group(PE/TR/PwrTrans-

WGC57.116)

3.1.1 Contact Information for Working Group Chair:

Name: Weijun Li

Email Address: wli@beld.com

3.1.2 Contact Information for Working Group Vice Chair:

Name: Jason Varnell

Email Address: jason.r.varnell@ieee.org

**3.2 Society and Committee:** IEEE Power and Energy Society/Transformers(PE/TR)

3.2.1 Contact Information for Standards Committee Chair:

Name: Bruce Forsyth

Email Address: bruce.forsyth@ieee.org

3.2.2 Contact Information for Standards Committee Vice Chair:

None

3.2.3 Contact Information for Standards Representative:

Name: James Graham

Email Address: jimgraham@ieee.org

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE SA for Initial Standards Committee Ballot:

Dec 2022

4.3 Projected Completion Date for Submittal to RevCom: Oct 2023

## **5.1** Approximate number of people expected to be actively involved in the development of this project: 50

**5.2 Scope of proposed standard:** This guide describes selection and application considerations for the unit power transformer and unit auxiliary power transformer. Consideration is given to connections that include direct connection and connections through generator circuit breakers and load-break switches. The considerations referred to in this guide apply to hydroelectric and thermal electric generating stations. Various power transformer connections and possible operating problems under normal and abnormal conditions are treated. Phasing procedures, basic impulse insulation level selection, and loading practices are not covered.

**Change to scope of proposed standard:** This guide describes selection and application considerations for the unit power transformer and unit <u>auxiliaries <u>auxiliary</u> power transformer. Consideration is given to connections that include direct connection and connections through generator circuit breakers and load-break switches. The considerations referred to in this guide apply to hydroelectric and thermal electric generating stations. Various power transformer connections and possible operating problems under normal and abnormal conditions are treated. Phasing procedures, basic impulse insulation level selection, and loading practices are not covered.</u>

**5.3 Is the completion of this standard contingent upon the completion of another standard?** No **5.4 Purpose:** The terminology, function, application, theory of operation and protection, and design of unit power transformers and unit auxiliary power transformers are not covered by existing transformer standards and guides. The purpose of this document is to provide guidance for specifying, designing, and applying these types of power transformers.

**Change To Purpose:** The terminology, function, application, theory of operation and protection, and design of unit power transformers and unit <u>auxiliaries auxiliary</u> power transformers are not covered by existing transformer standards and guides. The purpose of this document is to provide guidance for specifying, designing, and applying these types of power transformers.

- **5.5 Need for the Project:** C57.116 has been proven to be a useful document to the producers and users of the material contain therein. It has been decided by the Transformers Committee that the document be be reviewed and revised after receiving comments from a reaffirmation ballot. The reaffirmation was withdrawn and hence this project is thereby requested.
- **5.6 Stakeholders for the Standard:** Stakeholders include electric utilities such as certain government owned utilities, Cooperatives, Investor Owned Utilities, non-regulated power producers, and industrial firms capable of generating power, manufacturers of power transformers, substation class circuit breakers, load interrupting switches, generators, and iso-phase ducts. Specifiers and designers of the above are also stakeholders.

## **6.1 Intellectual Property**

- **6.1.1** Is the Standards Committee aware of any copyright permissions needed for this project? No
- **6.1.2** Is the Standards Committee aware of possible registration activity related to this project? No
- 7.1 Are there other standards or projects with a similar scope? No
- 7.2 Is it the intent to develop this document jointly with another organization? No

## 8.1 Additional Explanatory Notes: