

P1547.7

Submitter Email: thomas_basso@ieee.org
Type of Project: New IEEE Standard
PAR Request Date: 09-Dec-2008
PAR Approval Date: 30-Jan-2009
PAR Expiration Date: 31-Dec-2013
Status: PAR for a New IEEE Standard
Project Record: P1547.7

1.1 Project Number: P1547.7
1.2 Type of Document: Guide
1.3 Life Cycle: Full Use

2.1 Title: Guide to Conducting Distribution Impact Studies for Distributed Resource Interconnection

3.1 Working Group: P1547.7 Distributed Resources Impact Studies Working Group (SASB/SCC21/DRIS WG)
Contact Information for Working Group Chair

Name: Bob Saint
Email Address: robert.saint@nreca.coop
Phone: (703) 907-5863

Contact Information for Working Group Vice-Chair
None

3.2 Sponsoring Society and Committee: IEEE-SASB Coordinating Committees/SCC21 - Fuel Cells, Photovoltaics, Dispersed Generation, and Energy Storage (SASB/SCC21)

Contact Information for Sponsor Chair

Name: Richard De Blasio
Email Address: dick.deblasio@nrel.gov
Phone: 3032754333

Contact Information for Standards Representative

Name: Thomas Basso
Email Address: thomas_basso@ieee.org
Phone: (303) 275-3753

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 04/2012

4.3 Projected Completion Date for Submittal to RevCom: 10/2012

5.1 Approximate number of people expected to be actively involved in the development of this project: 40

5.2 Scope: This guide describes criteria, scope, and extent for engineering studies of the impact on area electric power systems of a distributed resource or aggregate distributed resource interconnected to an area electric power distribution system.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: The creation of IEEE Std 1547 "Standard for Interconnecting Distributed Resources with Electric Power Systems" has led to the increased adoption of distributed resources (DR) throughout distribution systems. This document describes a methodology for performing engineering studies of the potential impact of a distributed resource interconnected to an area electric power distribution system. Study scope and extent are described as functions of identifiable characteristics of the distributed resource, the area electric power system, and the interconnection. Criteria are described for determining the necessity of impact mitigation. Establishment of this guide allows distributed resource owners, interconnection contractors, area electric distribution power system owners and operators, and regulatory bodies to have a described methodology for when distribution system impact studies are appropriate, what data is required, how they are performed, and how the study results are evaluated. In the absence of such guidelines, the necessity and extent of DR interconnection impact studies has been widely and inconsistently defined and applied.

5.5 Need for the Project: With the advent of IEEE Std 1547, modern interconnection equipment has made great gains by having universal interconnection and test requirements focused at the point of common coupling. However, DR interconnection may contribute to conditions that could be beyond what was normally planned for and built into the distribution system.

The experience to decide whether or not, and to what extent it may be necessary, to conduct distribution systems impact studies generally lacks a transparent, broadly accepted and strong engineering foundation. Also, there are no universally accepted approaches and tools specific to the whole of assessing DR interconnection impacts and determining the necessity of impact mitigation.

This IEEE document is needed to provide a common technical platform for addressing such concerns. Since DR system impact studies are not yet common practice for most stakeholders, a guide document including successful alternatives and case studies is needed. This guide is needed to help determine the criteria, scope, and extent for engineering studies necessary to determine the impact a DR installation has on a utility distribution system from a technical perspective rather than from a regulatory perspective. And, this guide is needed to promote impact study consistency, and to help ensure that only the studies that are necessary for the proposed DR development are performed.

5.6 Stakeholders for the Standard: distributed resource owners; interconnection contractors; equipment manufacturers; system developers; area electric power system owners, planners and operators; and, regulatory bodies.

Intellectual Property

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

6.1.b. Is the Sponsor 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 Joint Development

Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes (Item Number and Explanation):