P1679

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Type of Project: Revision to IEEE Standard 1679-2010
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Status: PAR for a Revision to an existing IEEE Standard
Root Project: 1679-2010

1.1 Project Number: P1679
1.2 Type of Document: Recommended Practice
1.3 Life Cycle: Full Use

2.1 Title: Recommended Practice for the Characterization and Evaluation of Emerging Energy Storage Technologies in Stationary Applications
Changes in title: IEEE Recommended Practice for the Characterization and Evaluation of Emerging Energy Storage Technologies in Stationary Applications

3.1 Working Group: Emerging Battery Technology Working Group (PE/ESSB/WG_1679)
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3.2 Sponsoring Society and Committee: IEEE Power and Energy Society/Energy Storage & Stationary Battery Committee (PE/ESSB)
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 10/2019
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 08/2020

5.1 Approximate number of people expected to be actively involved in the development of this project: 15
5.2 Scope: This document covers recommended information for an objective evaluation of an emerging energy storage technology by a potential user for any stationary application. Energy storage technologies are those that provide a means for the reversible storage of electrical energy, i.e., the device receives electrical energy and is able to discharge electrical energy at a later time. The storage medium may be electrochemical (e.g., batteries), kinetic (e.g., flywheels), electrostatic (e.g., electric double-layer capacitors [EDLCs]), thermal, or some other medium. Devices charged by non-electrical means, such as fuel cells, are beyond the scope of this document.
For the purposes of this document, "emerging" technologies are defined as those technologies recently, or soon to be, made available for sale under customary commercial terms (e.g., defined scope-of-supply, warranted performance). Stationary applications include both standby and cycling operation.
The document provides a common basis for the expression of performance characteristics and the treatment of life-testing data. A standard approach for analysis of failure modes is also provided, including assessment of safety attributes. The intent of this document is to ensure that characterization information, including test conditions and limits of applicability, is sufficiently complete to allow valid comparisons to be made. The document does not specify test methods, minimum requirements, or pass/fail criteria.
This recommended practice does not describe individual energy storage technologies, nor does it provide guidance on their suitability for a particular application. This document does not cover sizing, installation,
maintenance, and testing techniques, except insofar as they may influence the evaluation of a technology for its intended application.

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: This recommended practice describes a format for the characterization of emerging energy storage technologies in terms of performance, service life, and safety attributes. This format provides a framework for developers to describe their products. The resulting information assists users in evaluating the possible application of emerging energy storage technologies.

5.5 Need for the Project: Several new energy storage technologies have been developed recently and are being offered for use in stationary applications. Developers are frequently using conventions for published data that differ from established norms in the stationary battery field, which for many users forms a basis for their understanding of the field. In some cases only partial life testing data have been submitted and important information on failure modes is lacking. The proposed recommended practice would help to clarify this situation and aid users in evaluating these technologies for their needs.

5.6 Stakeholders for the Standard: The main stakeholders are technology developers, utilities and industrial facilities. Others include telecommunications companies, the military, and operators of large office buildings.

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: Routine revision within 10-year document life, as required by IEEE-SA.