

# P1827

---

**Submitter Email:** davebapps@hotmail.com

**Type of Project:** New IEEE Standard

**PAR Request Date:** 05-May-2010

**PAR Approval Date:** 17-Jun-2010

**PAR Expiration Date:** 31-Dec-2014

**Status:** PAR for a New IEEE Standard

**Project Record:** No Project Record

---

**1.1 Project Number:** P1827

**1.2 Type of Document:** Guide

**1.3 Life Cycle:** Full Use

---

**2.1 Title:** Guide for Electrical & Control Design of Hydroelectric Water Conveyance Facilities

---

**3.1 Working Group:** Hydroelectric Power Subcommittee (PE/ED&PG/HPS)

**Contact Information for Working Group Chair**

**Name:** George Girgis

**Email Address:**

**Phone:** 303 445 2310

**Contact Information for Working Group Vice-Chair**

None

---

**3.2 Sponsoring Society and Committee:** IEEE Power & Energy Society/Energy Development & Power Generation (PE/ED&PG)

**Contact Information for Sponsor Chair**

**Name:** Louis Wozniak

**Email Address:** lwozniak@illinois.edu

**Phone:** 217-333-3413

**Contact Information for Standards Representative**

**Name:** J Agee

**Email Address:** jagee@ieee.org

**Phone:** 3034452309

---

**4.1 Type of Ballot:** Individual

**4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot:** 12/2013

**4.3 Projected Completion Date for Submittal to RevCom:** 05/2014

---

**5.1 Approximate number of people expected to be actively involved in the development of this project:** 20

**5.2 Scope:** This guide describes the electrical and control design of water conveyance facilities associated with hydroelectric projects including associated penstocks, valves, and gates. The guide includes guidance to plan and prepare designs; however, it does not include details of installation, operation or maintenance guidelines and methodologies. This guide is applicable to design of new facilities and rehabilitation or replacement of existing facilities.

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

**5.4 Purpose:** This guide provides a description of the terminology as well as the design practices and principles used in modern electrical and control design of water conveyance facilities associated with hydroelectric projects. The practices and principles are not covered by other guides associated with hydroelectric facilities. This guide is for use by practicing engineers and provides guidance for facility owners and operators. The guide does not cover every possible variation that can be encountered, but it provides a working familiarity with the terminology and principles involved.

**5.5 Need for the Project:** The proposed guide will provide principles, outline a control hierarchy and specify interfaces with other systems. It will provide guidance in electrical and instrumentation work unique to water conveyance systems. The principles and guidelines proposed for this guide are not covered by other guides associated with hydroelectric facilities.

**5.6 Stakeholders for the Standard:** Hydroelectric facility owners, operators, equipment specifiers and vendors.

---

**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 International Activities**

**a. Adoption**

**Is there potential for this standard (in part or in whole) to be adopted by another national, regional or international organization?: No**

**b. Joint Development**

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

**c. Harmonization**

**Are you aware of another organization that may be interested in portions of this document in their standardization development efforts?: No**

---

**8.1 Additional Explanatory Notes (Item Number and Explanation):**