

Technology Innovation Project



Project Brief

TIP 418: CEATI – Infrastructure Protection & Security Interest Group (IPSIG)

Context

Owners and operators of dams, generating stations, and transmission and distribution systems are increasingly concerned with protecting their asset base and maintaining service reliability in the face of both physical and cyber threats. As it is susceptible to damage and loss due to natural causes, theft, deliberate destruction and mischief, electrical infrastructure is confronted with unique protection challenges. Utilities must take all necessary steps to reduce risk and ensure safe and secure power supply.

The *Infrastructure Protection and Security Interest Group (IPSIG)* brings together participants involved with physical and cyber security at utilities and the related industries to enhance the design and functioning of security operations for dams and power houses, substations, and transmission/distribution grids.

In addition, the group strives to deliver cost-effective technological solutions through collaboration on specific projects in order to meet today's industry needs. The scope of the interest group's efforts is detailed in the *Infrastructure Protection and Security Interest Group Business Plan*.

Topics & Issues

1. Operational Security
2. Physical Security
3. Cyber Security
4. NERC CIP and NIST Compliance
5. Substations, Buildings & Storage Yards
6. Security of Overhead Lines, Right of Ways & Linear Assets
7. Security of Dams, Power Houses & Generation Stations

Working Groups

- Physical Security Work Group
- Cyber Security Working Group

Annual Activities

- Face-to-Face Meetings & Quarterly Conference Calls
- Working Group Conference Calls
- On-Demand Information Exchanges
- Technical Tours
- Benchmarking Surveys

Why It Matters

The Infrastructure Protection and Security Interest Group is an international technical forum for engineers, operators, and security experts in the fields of generation, transmission, distribution and cyber security for the utility industry. BPA participation in program activities aim to enhance the design and functioning of security operations for Federal Columbia River Power System assets including dams and power houses, substations, and transmission / distribution grids.

Goals and Objectives

IPSIG Working Groups (WG) are formed in various areas of security in order to help identify, develop, screen and recommend projects that are beneficial to its participants. They also serve as a platform to share and disseminate information, activities and strategies that are of value to the other participants. The scope and life span of a working group is determined by IPSIG participants and CEATI management.

About CEATI

The Centre for Energy Advancement through Technological Innovation (CEATI) is a user-driven organization committed to providing technology solutions to its electrical utility participants, who are brought together to collaborate and act jointly to advance the industry through the sharing and developing of practical and applicable knowledge.

As of today, over one hundred and thirty (130) utilities from all six (6) of the world's continents are represented in CEATI's twenty (20) Programs. CEATI now boasts a library of over two thousand (2,000) published reports and is currently managing over one hundred and fifty (150) on-going projects in all areas related to the power grid. A significant amount of these reports have been adopted as national and international standards and numerous guides have been recognized as points of reference for practical information.

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Project Start Date: January 2020

Project End Date: December 2020

Links

www.ceati.com/IPSIG

Leverage

BPA's contributions are leveraged at a ratio of 15:1. This annual membership provides BPA access to reports and results of IPSIG projects.

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IPSIG Current Projects

T193700 3509 Physical Security Maturity Matrix (PSMM) Version 2

This project provides IPSIG members with an enhanced, customized, and up-to-date tool to evaluate their security programs. The PSMM will support the ongoing development and measurement of physical security capabilities within the electrical sector.

Projects have been completed in the following areas:

- Evaluation of Physical Security Risk Mitigation Techniques
- Electric Facility Access Control
- Secure Wireless Communications in the Electric Utility Industry
- Security of Right of Ways and Linear Assets
- Security System Design and Engineering Specification Templates for Electrical Utility Use
- Assessing Transmission Station Security Threats and Risks
- Practices & Products for Securing the Perimeter of Electrical Transmission Stations

