



TIP 415: CEATI – Asset Management in Generation Program (AMIG)

Context

A major Asset Management topic in the electricity industry is how to make the right asset investments to achieve strategic objectives while balancing costs, opportunities, and risks. Public regulatory bodies consistently press utilities to demonstrate a defensible, coordinated approach to justify capital and operating expenditures. The long lifetime of hydro-electric assets coupled with significant risks such as revenue variation and asset deterioration throughout this long lifetime reinforce the need for an overall management system for these assets. The hydro-electric industry is thus poised to benefit from the implementation of Asset Management practices.

The Asset Management Interest Group (AMIG) provides real life examples and direction to implementing Asset Management in hydro-electric utilities. AMIG builds upon work completed by the Asset Management Task Force that was initiated as part of the Hydraulic Plant Life Interest Group in 2011. The group covers all aspects of Asset Management, from the development of policies and strategies, to risk frameworks, asset management plans, and investment management, to achieve strategic objectives. The group considers inputs from all Asset Management standards and the diverse experience of international members to move asset management forward for all members. Topics and projects are user-driven to provide value to members at all stages of the Asset Management journey.

CEATI recognizes that the higher-level Asset Management processes are universal for all aspects of a utility, and AMIG works with the CEATI Transmission and Distribution groups on these shared aspects. This brings the added value of continuity of process and a large

Topics & Issues

1. Context of the Organization
2. Leadership
3. Planning
4. Support
5. Operations
6. Performance Evaluation
7. Improvement

Annual Activities

- Quarterly Conference Calls
- 2-Day Industry Conference
- General Meeting
- Surveys & Projects
- Webinars

Why It Matters

Asset Management is a complex and emerging practice. Utilities worldwide have aged assets requiring increased operations, maintenance and reinvestment costs while enduring pressures to keep rates low. Making informed asset management decisions and developing an asset management system based on asset condition, risk and criticality is difficult when information and experiences are limited to a single utility. The AMIG allows BPA to tap into expertise and share data with over 20 other utilities all pursuing the goal of optimizing the value of their assets.

Goals and Objectives

BPA's goals for participating in the AMIG are:

- 1) Learn how other utilities structure their Asset Management teams, strategies and plans.
- 2) Share and obtain information related to equipment condition, probability of failure and risk quantification in order to improve are existing capital, operations, and maintenance decision making capabilities.
- 3) Learn how other utilities are evaluating asset management and equipment performance.
- 4) Benchmark our asset management program and asset performance with other utilities.

These goals can be achieved through the sharing of information between member utilities or through projects funded by the member utilities.

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Project Start Date: January, 2020

Funding

Project End Date: December, 2020

BPA FY2020 Budget: \$ 5,000

Links

www.ceati.com/AMIG

For More Information Contact:

BPA Technical Representative:

Gordon Ashby
gsashby@bpa.gov

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.

Current AMIG Project Portfolio

TI82700-0601: [Hydro Generation Guideline for Enterprise Risk Management](#) - Ongoing Asset Management in Generation Project. **Project Objectives:** The purpose of this project is to provide the sponsoring organizations with a guideline for implementation of a risk management framework to enable asset management of hydro-generation assets. The guideline will meet the requirements of ISO 55000 and ISO 31000, and will consider additional requirements from IAM, and IIMM. The framework will consider work completed by leading member utilities. The generation risk management framework will consider the software requirements to allow implementation into investment management software such as C55, and work management software such as SAP or Maximo.

T192700-0602: [Key Performance Indicators for Hydro Generation Assets](#) - Ongoing Asset Management in Generation Project. **Project Objectives:** The purpose of this project is to provide sponsoring organizations a guideline documenting recommended KPIs for the effective asset management of hydro generation assets. The guideline will include benchmarks developed from industry research.

T112700-0374: [Technology Review: Asset Management Maturity Matrix](#) - Ongoing Hydraulic Plant Life Project

Project Abstract: This worksheet is designed to evaluate compliance to the ISO 55000: 2014 standards on Asset Management. Compliance to an ISO standard requires all program elements specified be implemented to a sufficient level to get the benefits standardization brings.

Scoring using this maturity matrix has been developed on a scale of maturity from 1 to 5. Every element or sub-element needs to be implemented for the benefits of the standard to be achieved. Using this compliance approach leads to having all the sub-element-processes equally weighted when developing averages and rolling results up to the main requirements of the stand.

