

INDUSTRIAL CENTER OF EXCELLENCE



PROJECT HIGHLIGHTS

- Facility Investigations and Audits
- Insights and Guidance on Major Industry Developments
- Industrial Inquiry Service (Hotline) and other Knowledge-based Resources
- Strategic Industry Alliances
- Identification of Key Industrial Electrotechnology Opportunities

Background, Objectives, and New Learnings

EPRI's Industrial Center of Excellence (ICoE) was established in 2010 to promote energy and technology-related developments. The Center supports the application, demonstration, and commercialization of advanced efficient electric technologies aimed at helping industrial end users identify opportunities for energy efficiency and efficient load growth.

There is an expanding array of opportunities for large commercial and industrial (C&I) customers to use electricity more efficiently, eliminate or reduce fossil fuel use, and manage costs while reducing carbon emissions, decreasing power demands and increasing productivity. Large C&I customers continue to face increasingly complex energy-related issues and can be resistant to new technologies that have not yet been demonstrated reliable, proven and economical. This is especially true of any technology that will interface or affect industrial processes or production. Expert information on industrial energy efficiency technologies is needed to break down this barrier.

Current activities within ICoE focus on the following areas:

- Conducting electrification and energy efficiency assessments or audits for each funder. EPRI will conduct one deep dive audit or three small assessments for selected customers to assess potential opportunities for improvements on production processes and energy systems within each facility. Areas of focus for the audits will include industrial ovens, compressed air, boilers, motor and drives, etc. as well as identification of any waste heat recovery opportunities, thermal energy storage, and, where appropriate, power quality.
- Leveraging expertise from various fields to complement EPRI staff's technical strengths and providing expert resources and guidance on major industry developments including new industrial technologies and applications.
- Developing web-based resources through ICoE website and hotline inquiry service. Strategic meetings, webcasts and quarterly newsletters will be coordinated and conducted periodically to facilitate funder input and industry liaison.

Benefits

EPRI's Industrial Center of Excellence encourages specific energy and technology-related developments through the support of knowledge transfer, identification of applications, and opportunities for demonstrations and commercialization of advanced efficient electric technologies. These efforts will provide our members' customers with tools to improve productivity and decrease energy intensity through testing, training, education and outreach.

Project Approach and Summary

The objective of this work is to develop and staff the EPRI Industrial Center of Excellence for industrial technologies, processes, and applications and to provide expert resources and knowledge for assisting industrial customers in addressing their key needs. The proposed approach is to:

1. Provide expert electrification, energy efficiency and power quality auditing capabilities.
2. Assist in organization and managing research and development (R&D) that responds to the needs of electric utilities and their industrial customers.
3. Effectively leverage individuals and organizations with expertise in a particular field to complement the technical strengths of the EPRI staff.

Deliverables

The non-proprietary results of this work will be incorporated into the EPRI Program 199: Electrification and made available to the public, for purchase or otherwise.

Proposed deliverables include:

- Focused collaborative projects (one per utility) which could include industrial assessments, testing or training specific to each funder.
- Industrial case studies, technical briefs and collaborative resources acquired through the ICoE-focused collaborative projects and as prioritized by funders.
- Annual in-person meeting to facilitate collaborative knowledge sharing and technical support.

Price of Project

\$50,000 per participant per year. This project qualifies for self-directed and co-funding.

Optional Additional Deliverables

High-Level Walkthroughs: EPRI will conduct two week-long walkthroughs per year at industrial customer sites. Each week-long session will include visits for up to 8–10 customers, spending 1–2 hours at each site to identify 3–5 potential opportunities for energy efficiency and electrification. A brief report for each visit will be provided within 2–3 weeks of the site visits.

Price: Additional \$75,000 per participant per year

Industrial Audit Reporting Tool: EPRI will develop the framework of a web-based reporting tool that can assist utility members with a basic understanding of customer processes and potential needs. The output of this tool can be used to further explore customer opportunities through a more detailed industrial assessment as part of the core ICoE program.

Price: Additional \$25,000 per participant per year

Project Status and Schedule

Yearly recurring membership required to participate.

Who Should Join

Those seeking to expand their knowledge and abilities in the identification and application of industrial electrification and energy efficiency technologies as well as those looking for resources to address industrial challenges around these opportunities.

Contact Information

For more information, contact the EPRI Customer Assistance Center at 800.313.3774 (askepri@epri.com).

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