

AEIC's Cable Engineering Committee - Developing Specifications and Guidelines Used Around the World

AEIC's Cable Engineering Committee (CEC) creates specifications and guidelines that are highly sought after by utilities, engineers, and consulting firms around the globe.



The Cable Engineering Committee's overall goal is to improve service and reliability, reduce costs (both material and operating costs), and improve the quality of the cable systems that are being installed. Additionally, the CEC may be considered as a watchdog, because it pays attention to industry issues and takes action to address them whenever the need arises.

The Arduous Process of Developing CEC Documents

Cable Engineering Committee documents are developed to address what the Committee believes to be deficiencies in industry standards, improve business efficiencies, extend the life of underground cables, and provide information for those that lack a detailed knowledge of underground cables. Whenever the CEC identifies an area that needs to be addressed, the CEC's Committee Chair establishes a Task Group to address the specific issue. A Chair and Vice-Chair are assigned to lead the Task Group, and interested CEC members volunteer to participate on the Task Group. The Task Group develops the specific document (specification or guide) based on the experience of those on the Task Group and, as required, the input from knowledgeable outside sources.



After the Task Group approves their document, the Task Group Chair will submit it to the entire CEC for ballot. After acceptance by the CEC, the document is forwarded by the Task

Group Chair to the document Editor for a final review. The Editor then forwards the document to AEIC Headquarters for publication. Notice of the revision or establishment of a new document is shown on the AEIC Web page.

Collaborating to Improve Industry Standards

The CEC has been very proactive in recent years. The CEC has been working with the cable manufacturers and cable standards engineers to develop an open exchange of information. This information exchange benefits Cable Engineering Committee members, as well as the cable manufacturers. As a result of this exchange of information, the Committee has seen many of the CEC requirements incorporated directly into the standards that are written by the cable manufacturers.



Member Information Exchange -- Like Having a Staff of 30 Consulting Engineers

One of the major benefits of the CEC is the exchange of information. This may include information about problems that have occurred or what to do to prevent problems from occurring.

The information shared at the Committee's regular meetings is not always cable related. Thanks to the vast and varied experiences of the CEC members, the Committee has access to a wide range of valuable information.

Just recently, a member of the CEC had to place a large shipment of cable on hold because it was being shipped from a plant that was not approved. The CEC member sent a rush e-mail inquiry to all the CEC members to find out what was known about this particular plant.

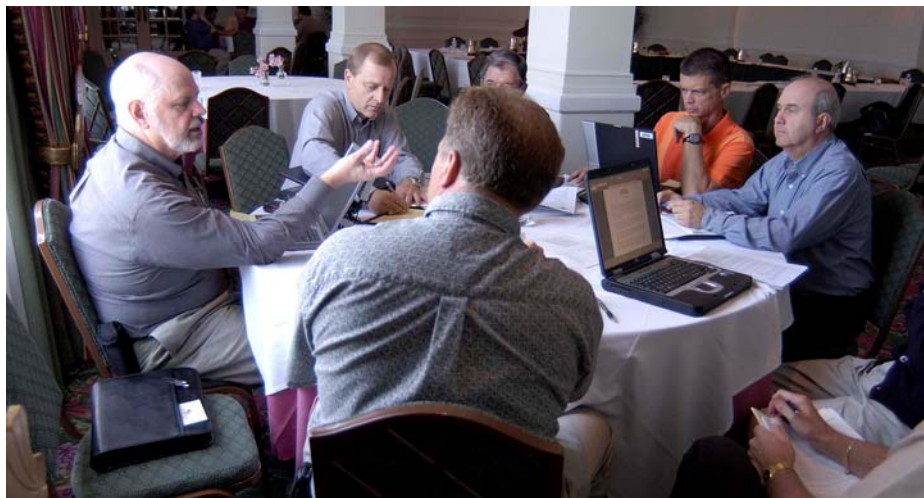
This is just one way that the CEC members help one another and benefit their respective companies. In this case, an inspection trip was avoided, along with the expense and time associated with such a trip.



Membership on the CEC translates into having approximately 30 consulting engineers on your staff without the cost associated with having these “consultants”.

Committee Members are Involved in the Industry

CEC members are involved in many different industry activities. Most CEC members are members of the IEEE Insulated Conductors Committee, where they serve on working groups, discussion groups, and standards writing committees. Many CEC members also serve on regional utility exchanges or committees. The Committee has members serving on ANSI and IEEE standards writing committees, members that interface with international standards writing groups, and members involved with the National Electric Safety Code, EPRI, and NEETRAC. What all of this means is that members of the CEC have access to an extensive number of resources.



Addressing Special Issues

Increased interest in the use of high stress (reduced diameter) cables prompted the CEC to develop a guide for reduced diameter cables. This was done in an effort to help those trying to find an acceptable replacement for their aging Paper Insulated Lead Covered (PILC) cables.

The CEC realizes that underground transmission is expanding, and the reliability of this underground system depends not only on the cables, but also on the associated accessories.

Therefore, the CEC has taken on the task of expanding transmission cable specifications to cover cables and accessories through 345 kV.

One of the CEC members has been directly involved in identifying the contaminants in TR-XLPE cables. This individual's efforts have been supported by the CEC and the cable manufacturers. A Contamination Task Group has been formed to further study the effects of contaminants on TR-XLPE cables. By supporting these efforts and working with the compound suppliers and cable suppliers, the quality of cable should be improved.



Reducing Costs

Do you want to reduce costs? If so, the CEC Best Practices/Cost Reduction Task Group may have the answer. The CEC recently formed this Task Group to brainstorm cost reduction strategies and to identify activities that would have the greatest impact on costs. The first cost reduction item addressed by the Task Group is cable cost reduction. The Task Group is developing a guide for minimizing the cost of extruded dielectric shielded power cables rated 5 kV through 46 kV. This guide should be published by the end of 2005.

The Value of Cable Engineering Committee Membership

Anyone looking at the price of membership in the AEIC and the Cable Engineering Committee specifically should look at the total value of that membership fee. That single fee provides a staff of engineers just an email away, extensive knowledge and experience to help overcome or prevent problems, and up-to-date and available information about industry trends and activities. And within the single cost of a year's membership in AEIC, qualified members have the potential to affiliate with the five other AEIC technical, working committees.

What more could one ask for from a single membership?

Article by Cable Engineering Committee Chairman, Harry Hayes

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AEIC - Looking Ahead - Working for the Industry