



**CALL FOR NOMINATION FOR
CANADIAN REPRESENTATIVE FOR CIGRE STUDY COMMITTEE A3
TRANSMISSION AND DISTRIBUTION EQUIPMENT
FOR THE TERM 2024-2026**

This document describes the criteria for nomination of a CIGRE Canada representative for Study Committee A3 – *Transmission and Distribution Equipment*.

BACKGROUND

The current SC representative for A3 will retire from his position after the 2024 CIGRE Paris Session. To continue Canadian participation and representation in this key CIGRE Study Committee, we are soliciting interested members provide their resume and a cover letter describing their interest and ability to commit to representing Canada for the term required.

Responses are required by January 22, 2024 with selection to be completed by January 29, 2024.

MISSION

To facilitate and promote the progress of engineering and the international exchange of information and knowledge in the field of equipment for distribution and transmission equipment above 1KV. To add value to this information and knowledge by means of synthesizing state-of-the-art practices and developing recommendations.

STUDY COMMITTEE A3 SCOPE OF WORK

SC A3 addresses topics throughout the asset management life-cycle phases; from conception, through research, development, design, production, deployment, operation, and end-of life. At all stages, technical, safety, economic, environmental, and social aspects are addressed as well as interactions with, and integration into, the evolving power system and the environment. All aspects of performance, specification, testing and the application of testing techniques are within scope, with a specific focus on the impact of changing interactions and demands due to evolution of the power system. Life cycle assessment techniques, risk management techniques, education and training are also important aspects.

MAIN AREAS OF ATTENTION

Study Committee A3 monitors the evolution of technology and socioeconomic factors in a changing Electric Power Industry. These factors have a direct impact on the progress and development of transmission and distribution systems and thus on Medium, High Voltage and Ultra High Voltage Equipment. The present trends, include the following:

- Impact of inverter-based technologies on T&D equipment.
- Changing equipment requirements under bilateral power flows, increased stresses on T&D equipment.



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- Influence of severe weather on the equipment.
- Impact of harmonics on T&D equipment.
- Implementing the intelligence inside the equipment.
- Reliability enhancement with advanced sensors and metering, lifetime management, virtual and augmented reality.
- The interaction of T&D equipment with future High Voltage Networks including the increased introduction of distributed generation.
- Deregulation and power trading requiring energy flow optimization in networks and increased focus on overload capabilities and properties.
- MVDC and some HVDC equipment.
- A growing demand for larger capacity equipment especially for UHV equipment.
- An increasing maximum short-circuit power in networks.
- The application of intelligent equipment that allows integration within advanced control and protection schemes.
- New technologies and possible alternatives to High Voltage Equipment used presently including new switching devices, fault limiters, insulation systems and the measurement of voltage and current.
- All aspects of Life Management, Condition assessment and Diagnostics.
- A growing awareness of environmental issues, including the concern over SF6 as a greenhouse gas.
- The reduced depth of expertise within the industry requiring greater international training and education cooperation.

RESPONSIBILITIES OF THE CANADIAN REPRESENTATIVE

Responsibilities are:

- To participate and bring to the Study Committee the experience that need to be considered when establishing Working Groups.
- To participate in the review of the reports produced by the Working Groups. However, this task is a coordination of collecting comments from Canadian experts in the subject matter and presenting them to the Working Group convenors.
- To participate in the Study Committee meeting (once per year). It is important to attend the meeting to be able to provide our Canadian experience and get first-hand information from the members of the Study Committee.



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- To disseminate the information from the Study Committee to the Canadian members of CIGRE who are interested in the field of SC A3. The names of the members will be provided by CIGRE Canada in addition to the candidate's knowledge of the Canadian experts in the industry.
- To approve Canadian members to the Study Committee Working Groups.
- To participate in Working Groups activities.
- Responsible for succession planning, which includes making recommendations for the next SC Representative to the Canadian National Committee.

The role of the Canadian representative is an important role, and it provides the candidate with the first-hand access to the latest technical information at an international level. It also allows the candidate to influence the decisions to be taken by the Study Committee internationally. It also provides the candidate and their organization with international exposure.

TERM OF OFFICE

The term of office of members is two (2) years, to be renewed no more than twice in the same Study Committee.

This term limitation applies also when a member has changed status: the total membership term (Regular and Observer) within a given Study Committee cannot be more than six (6) years.