



COG and EPRI exchange knowledge, research and lessons learned for the benefit of each organization's members and the wider nuclear industry.
Image: EPRI

A CANDU portal to a world of nuclear knowledge

Through COG, CANDU operators gain economies of scale and strengthen their innovation leverage in their Electric Power Research Institute (EPRI) membership

For CANDU Owners Group (COG) and U.S.-based Electric Power Research Institute (EPRI), collaboration is a two-way street.

Between the two organizations, knowledge, research and lessons learned are reciprocally shared for the benefit of COG members and the wider nuclear industry.

“Through COG, our participating CANDU members can access the nuclear research conducted across the entire EPRI membership,” says John Sowagi, COG’s Director of Information Exchange. “The added value is we filter and collate information in a way most relevant to CANDU station operations. By doing that work once for everyone, our participating members saving money and resource.”

At the same time, EPRI can request access to select COG research, released with the approval of our members.

“There is a real benefit to this model because participating COG members are gaining access to research that’s already been done and the cost savings and

efficiencies lead to compounding improvement across the nuclear industry,” says Sowagi.

COG manages the EPRI membership through a cost-sharing agreement between participating COG members (COG’s Canadian members and SNN, Romania).

The COG team identifies information and provides analysis, from EPRI data, most relevant to its members. Conversely, COG serves as a conduit to help build EPRI’s global knowledge bank by providing collated CANDU information.

COG members also gain a direct link to expert global perspective from EPRI participation in many COG activities including peer groups, joint projects and working committees.

COG and EPRI share some commonalities. They are both not-for-profit, member-driven businesses that manage millions of dollars in research and development work and joint projects, annually. As well, both use collaboration to address technical and operational challenges and deliver value to their respective memberships through their collaborative activities.

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Building a bigger toolbox

By leveraging COG’s own collaboration model and joining it onto EPRI’s, the participating members gain a lower cost entry to additional innovation opportunities.

Liette Lemieux, COG’s Director of Research and Development says one example is the [Nuclear Plant Modernization Toolbox](#) released by EPRI in December 2020. The web-based toolbox contains examples, synopses and R&D reports of new applications of emerging technologies from nuclear plants around the world.

Lemieux, who represents COG on the EPRI Plant Modernization Committee, believes the toolbox is a valuable decision-making resource for COG members and one they helped develop.

“The toolbox reflects the value of the COG-EPRI relationship because COG members get access to a comprehensive listing of examples of where and how new technologies have been deployed at nuclear plants,” says Lemieux. “And some of those same members participated in the Modernization Technology Assessments (MTAs), contained within the toolbox.”

MTAs, which characterize potential plant modernization technologies or process improvements, are critical to the usability of the new EPRI resource.

Leveraging global experience

There are numerous examples of COG members incorporating EPRI research

and innovation to improve plant performance, safety and equipment reliability.

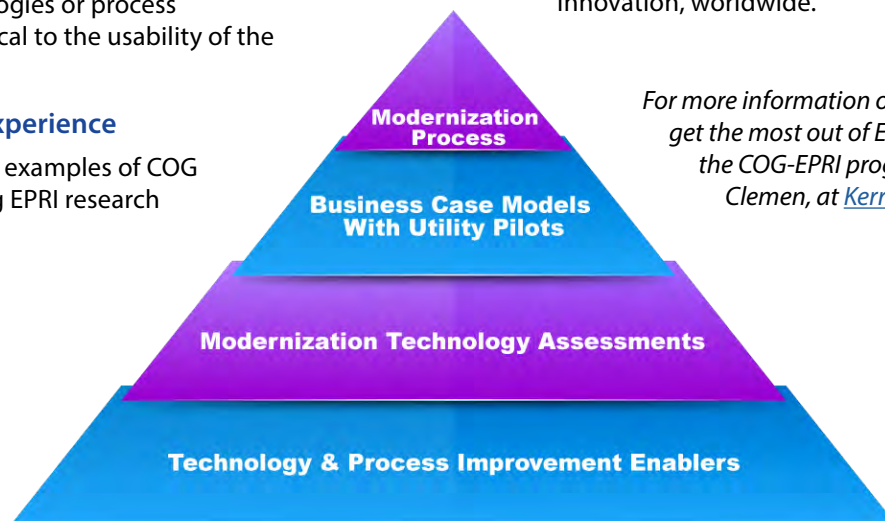
The lessons learned from EPRI’s Steam Generator Management Program have benefited COG members in strengthening a range of maintenance and mitigation activities from foreign object assessments to in-service inspections.

In 2019, OPG Darlington hosted EPRI’s SMART Chemistry Pressurized On-line Monitoring skid to analyze reactor coolant, main feedwater and the steam generator blowdown systems.

The project earned OPG an EPRI Technology Transfer Award but more importantly, the system was implemented by OPG, and other global nuclear utilities, because it supported operational efficiency improvements and provided cost savings as compared to other monitoring approaches.

Meanwhile, EPRI members have benefited from access to the COG Strategic Research and Development Program’s work on the use of robotics for decommissioning activities.

COG and EPRI recently signed a five-year agreement to continue collaborating for the benefit of each of their members and to advance nuclear research and innovation, worldwide.



For more information on how COG members can get the most out of EPRI membership, contact the COG-EPRI program manager, Kerry Clemen, at Kerry.Clemen@CANDU.org.

EPRI’s Nuclear Plant Modernization Toolbox reflects the value of the COG-EPRI relationship because COG members get access to a comprehensive listing of examples of where and how new technologies have been deployed at nuclear plants. Image: EPRI