



Canadian Nuclear Isotope Council members Bruce Power, Framatome and Kinectrics join Ontario Premier Doug Ford to show off their socks which promote the life-saving power of medical isotopes in November 2019.

More than electricity

CANDU utilities continue their international leadership in medical isotope production

Nuclear plants are, not surprisingly, well associated with electricity production. But nuclear's essential service goes beyond keeping the lights on to saving lives through production of the materials used for life-saving drugs, medical diagnostics and treatments as well as food safety, worldwide.

In June, Bruce Power continued its medical isotope leadership announcing the launch of a Medical Isotope Advisory Panel consisting of experts and medical professionals to provide the company with an external perspective in the development of its isotope program and share emerging trends and solutions for a range of global health challenges. The panel will meet at an annual symposium with the first one scheduled later this year.

Bruce Power and OPG, along with New Brunswick Power and Canadian Nuclear Laboratories, are members of the Canadian Nuclear Isotope Council (CNIC), which seeks to strengthen Canada's leadership position on global medical isotope production and development. CNIC also has representatives from other industry organizations and various levels within the Canadian health-care sector as well as academic research bodies.

Bruce Power and Ontario Power Generation (OPG) produce approximately 50 per cent of the world's Cobalt-60 medical isotopes. Cobalt-60 is responsible for sterilizing approximately 40 per cent of the world's single-use medical devices, including syringes, gloves, implants and surgical instruments. This

medical equipment continues to be in high-demand as the second wave of COVID-19 impacts various countries.

Given that high demand, the need for irradiation increased during the COVID crisis and remains strong. Gamma irradiation technology can sterilize materials within a day, far faster than other methods.

OPG has been producing Cobalt-60 at Pickering Nuclear since the 1970s and last year announced it would expand production to Darlington as Pickering operations wind down.

OPG is also involved in an innovative collaboration between its subsidiary, Laurentis Energy Partners, and BWX Technologies (BWXT) which will see another medical isotope, Molybdenum-99, harvested at Darlington.

Molybdenum-99 is used in over 30 million diagnostic and medical imaging treatments around the world each year, helping to detect illnesses like cancer and heart disease. Darlington will be the only source of Molybdenum-99 in North America, ensuring a stable domestic supply of this critical product.

On July 10, the Canadian Nuclear Isotope Council (CNIC) released a video focused on how isotopes have played a critical role during the COVID-19 pandemic helping to keep hospitals clean and safe. [Watch it here.](#)