



OSPE Statement on Canada's Investment in CANDU Modernization:

The Ontario Society of Professional Engineers (OSPE) welcomes the Government of Canada's investment in the modernization of CANDU technology through the MONARK reactor initiative. This investment represents a significant step in strengthening Canada's energy security, economic growth, and technological leadership in nuclear power. As Canada navigates the transition to a cleaner energy future, modernized CANDU reactors will continue to provide a reliable, non-emitting source of electricity, support high-quality jobs, and bolster homegrown innovation in the nuclear sector.

Investing in the MONARK reactor is a nation-building initiative that positions Canada as a leader in domestically developed nuclear technology. Unlike Ontario's selected Small Modular Reactor (SMR) technology, which relies on U.S. intellectual property and non-domestic fuel, CANDU reactors are a Canadian-made innovation, designed and supported by a robust domestic supply chain. The continued development of this technology strengthens Canada's energy independence and expands opportunities to export CANDU expertise globally. This is of particular importance given the current climate of US trade and tariff policies aimed at reducing imports from Canada.

While OSPE strongly supports this investment, we urge policymakers to prioritize design requirements that allow for overall efficiency improvements and increased revenue generation afforded by the productive use of vast amounts of thermal energy generated by nuclear power plants that is currently wasted. Currently, nuclear reactors discharge vast amounts of waste heat into bodies of water, such as Lake Ontario and Lake Huron. Heat that could instead be harnessed for district heating and industrial applications. Current nuclear reactor technology typically only converts approximately 30% to 35% of the energy from the reactor is generated as electricity and the remaining 2/3 is rejected as cooling water into the lake that could be used for heating buildings. Therefore, researching and exploring the possibilities of Incorporating Combined Heat and Power (CHP) solutions into future reactor design could increase efficiency, reduce emissions, provide additional economic benefits and boost the national economy.

To fully capitalize on this investment, **OSPE calls on policymakers to:**

- Ensure the modernization of CANDU technology maximizes energy efficiency through design requirements that make use of waste thermal energy.
- Streamline regulatory processes to support timely nuclear deployment without unnecessary delays.

- Expand nuclear research and development funding to keep Canada at the forefront of global energy innovation.
- Leverage homegrown nuclear expertise to drive economic diversification and reduce reliance on foreign technology.

OSPE will continue to advocate for engineering-driven solutions that enhance Canada's energy system. We encourage continued collaboration between government, industry, and the engineering community to ensure that nuclear investments are strategic, efficient, and aligned with long-term sustainability goals and support domestic supply chains.

For further discussion or to contribute insights, please contact advocacy@ospe.on.ca.