

# Canada's SMR plan springs ahead

*Over a period of about two weeks, a number of small modular reactor (SMR) milestones and announcements have highlighted the excitement and momentum of the technology's rapid development in Canada*

**APRIL 1, 2021** —Several CANDU Owners Group (COG) members, supplier and small modular reactor (SMR) vendor participants have been involved in major SMR announcements so far this spring, illustrating the strength of the Canadian sector's commitment to SMR development.

Industry's interest in SMR technology has been buoyed by the December Canadian government release of Canada's SMR Action Plan and subsequent funding announcements for design vendors. But the three announcements below are just the latest in on-going activity that began to speed up significantly in 2020.



Photo: Terrestrial Energy

## Terrestrial Energy-Aecon announce SMR-focused engineering and construction services agreement

COG SMR vendor participant, Terrestrial Energy, and supplier participant, Aecon, signed an engineering and construction services agreement to support construction planning for Terrestrial's proprietary Integral Molten Salt Reactor (IMSR), Generation IV advanced nuclear power plant.

Under the agreement, announced April 1, Aecon will review Terrestrial Energy's construction costs and schedules for IMSR as well as a broad range of activities including plans for site development and heavy civil construction.

Aecon already plays a critical role in Ontario's ongoing nuclear refurbishment projects and maintains a nuclear quality management system compliant to the requirements of relevant nuclear standards including CSA standards.

"We are making consistent progress with engineering, procurement and regulatory programs, all needed for first Canadian deployment of an IMSR power plant as early as 2028," said Simon Irish, CEO of Terrestrial Energy.

"This agreement with Aecon ensures that IMSR deployment is supported by expert engineering and construction resources, particularly those to confirm construction costs, construction schedule and pre-construction plans."

[Click here](#) to read the full announcement.

## OPG joins forces with Moltex to advance recycling of CANDU fuel for next generation nuclear power

On March 30, Ontario Power Generation's (OPG) Centre for Canadian Nuclear Sustainability (CCNS) announced an investment of \$1 million in Moltex to explore innovation in recycling used nuclear fuel.

The funding will assist Moltex in demonstrating the technical viability of its Waste To Stable Salt (WATSS) process and technology to recycle used fuel from CANDU reactors.

The Moltex Stable Salt Reactor – Wasteburner (SSR-W) produces clean energy through its WATSS process. This recycles existing used nuclear fuel to produce non-carbon emitting energy. The technology has the potential to reduce storage needs for existing used nuclear fuel and could lead the way in establishing a first-of-its-kind system in Canada.

"Our goal is to advance solutions for nuclear materials, with a continued emphasis on minimizing our environmental footprint," said Carla Carmichael, Vice President, Nuclear Decommissioning Strategy, Lead for OPG's CCNS and COG Board Director.

"We know nuclear power has a key role to play as we work to achieve net-zero greenhouse gas emissions. We are committed to supporting innovation and responsible solutions aimed at developing the next generation of clean nuclear power."

The project involves several COG members, participants and partners including OPG, Canadian Nuclear Laboratories (CNL) and New Brunswick Power (NB Power). CNL, through its Canadian Nuclear Research Initiative, is supporting the design, construction and development of the project's testing system.

NB Power is interested in progressing the development and siting the first WATSS facility to power a 300 MW SSR-W at its Point Lepreau Nuclear site.

Moltex is a COG SMR vendor participant while COG is a partner in the CCNS, which launched in 2020, with a focus on advancing nuclear innovation, research and industry sustainability.

The University of New Brunswick is also involved in the project to provide research and testing capacity.

[Click here](#) to read the full announcement from OPG.



Photo: OPG



Photo: Moltex Energy

## Government of Canada invests \$56 million in Moltex, New Brunswick Power and University of New Brunswick to support SMR development

Three New Brunswick-based organizations, working on small modular reactor (SMR) development, received a significant financial boost from the federal government, March 18.

COG SMR vendor participant, Moltex Energy Canada, COG member, New Brunswick Power (NB Power) and the University of New Brunswick were granted a total of approximately \$56 million through the Government of Canada's Strategic Innovation Fund (SIF) and the Regional Economic Growth through Innovation (REGI) program.

NB Power received nearly \$5 million as part of the investment while the University of New Brunswick received \$561,750. The biggest share of the funding, \$50.5 million, went to Moltex, to support the SMR vendor's plans to build its technology at NB Power's Point Lepreau site by the early 2030s.

The Moltex funding is expected to enable the company to develop its Stable Salt Reactor – Wasteburner (SSR-W) and Waste To Stable Salt (WATSS) technologies.

[Click here](#) to read the full story.

[Click here](#) to read the full announcement from the Government of Canada.

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