

IMPORTANT:

Without any adequate consultation with Canadians, including First Nations, the Government of Canada is unilaterally moving ahead with the development and deployment of a whole new generation of nuclear reactors all over Canada, especially in the north, directly impinging on indigenous lands and rights. These “small modular nuclear reactors” (SMNRs, or SMRs) will ALL generate post-fission radioactive wastes of all varieties: the high level waste which is the irradiated nuclear fuel, and the low & intermediate level wastes such as decommissioning wastes (radioactive rubble from dismantling shut-down reactors or – more likely – just grouting them in place.)

Meanwhile we have learned that the CNSC has been trying to “rig the game” by getting the Canadian Government to EXCLUDE most of these new reactors from the requirement of having a FULL PANEL Environmental Assessment Review. This has been done by CNSC lobbying government officials behind closed doors without any public process, debate, oversight or discussion.

Most of us in the safe energy / renewable energy movement, who are fighting to have a more responsible approach to the long-term management of radioactive waste – including not producing more of this stuff -- believe that now is the time to speak up loud and clear in opposition to these dangerous and misguided initiatives.

There should be NO federal money (tax dollars) spent on the subsidization of new nuclear reactors, there should be WIDE-RANGING PUBLIC HEARINGS on the long-term management of radioactive waste, and there should be a requirement for a FULL PANEL Environmental Review for any new nuclear reactor project in Canada. In addition, First Nations should be fully consulted regarding each and every one of these initiatives.

As you can see from the following article, not only CNL & NRCan, but also OPG and Bruce Power and the provinces of Ontario and New Brunswick are also deeply involved in plans for SMNRs.

CNL is the same consortium of multinational corporations that is planning the MEGADUMP beside the Ottawa River, and the GROUTING AND ABANDONMENT of two shut-down nuclear reactors (the NPD reactor on the Ottawa River and the WR-1 reactor on the Winnipeg River).

CNL has also been working hard behind closed doors to get the Canadian Ministry of Natural Resources (NRCan) and the CNSC completely on board to finance (pay for) and approve (licence) the building of prototype SMNRs (Small Modular Nuclear Reactors) in Canada, at the two federal sites: Chalk River (ON) & Whiteshell (MB).

In early November, at the same time that the Anishinabek Lands and Resources Forum was taking place in North Bay (where Dr. Ole Hendrickson and I gave workshops on radioactive waste storage and transport issues) NRCan was releasing its "Roadmap" for SMNRs in Canada (we call them SMNRs; they like to leave out the "N" because they know that no one likes "nuclear" anymore).

The NRCan roadmap indicates a desire to build small modular nuclear reactors all over Canada, especially in the north, to support the accelerated exploitation of natural resources and to replace diesel generators with SMNRs in small northern communities, including indigenous communities.

Gordon Edwards.

**Canadian utilities build SMR alliances
as developers tackle licensing**

Nuclear Energy Insider, Jan 16, 2019
<https://tinyurl.com/y7onwkda>

Nuclear utilities are playing a growing role in Canadian SMR development and their operational expertise could support the first fleet deployment at mining sites, industry experts said.

Small Modular Nuclear Reactors – The Pied Piper Strikes Again!

Canada's large mining sector is seen as a key early market for SMR plants as operators look to reduce carbon emissions and costs.

In November, Bruce Power and Ontario Power Generation (OPG) signed development agreements with U.S. SMR developer NuScale to support the deployment of its IPWR design in Canada.

Bruce Power is Canada's largest private nuclear power generator, operating eight Candu reactors for a total capacity of 6.4 GW. Ontario government-owned OPG operates ten Candu reactors, representing 6.6 GW.

Bruce Power will support evaluation, planning and licensing activities for NuScale's light water reactor (LWR)-based design, the developer said. OPG will support the pre-licensing vendor design review (VDR) and help evaluate deployment opportunities.

The agreements show how Canada's nuclear utilities are stepping up their support for SMR deployment to meet future power needs and carbon reduction targets.

A national SMR roadmap, published in November, called on utilities to "advance strategic partnerships, joint ventures, and consortia" to accelerate deployment in Canada and open up potential export trade. Canada could deploy its first commercial SMRs by 2030 if sufficient federal funding and regulatory support is provided, the roadmap said. The report followed a 10-month engagement of industry, governments, utilities and other interested parties.

Canada's key SMR markets (Click image to enlarge)



Source: 'A Canadian Roadmap for Small Modular Reactors' (NRCAN, November 2018).

Bruce Power and OPG already have representatives on the advisory boards of several SMR technology developers and the companies are chairing working

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groups that will help define the business case for SMR deployment.

The utilities are currently focusing on helping SMR developers understand Canada's operating and regulatory regime, Frank Saunders, Bruce Power's Vice President of Nuclear Oversight and Regulatory Affairs, told Nuclear Energy Insider.

"Industry is assessing new designs for applicability to various markets, ease of construction, ability to license, and overall economic viability," Saunders said. "In the near term deployment of the new designs will likely be through established nuclear operators since the skill sets and the business knowledge is currently there," he said.

Early support

SMR developers will require government support to build the first commercial-scale plants. The estimated cost of a first of a kind (FOAK) reactor ranges between "several hundreds of millions to over \$1 billion," the Canadian Nuclear Laboratories (CNL) said following a recent request for expressions of interest (RFEOI).

To accelerate development, CNL has designated SMR technology a research priority and aims to build a demonstration plant on site by 2026. In June, four SMR designs advanced to the pre-qualification stage.

In parallel, some 10 SMR developers have applied to use the Canadian Nuclear Safety Commission's pre-licensing vendor design review process, submitting a range of LWR and advanced non-LWR designs: [chart follows]

(Click on the "tinyurl" link at the top of this posting to see the complete article including the chart that follows and a lot more text— Gordon Edwards)