Government suppressing dissent on nuclear energy

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Samuel Arnold & Susan O'Donnell

Opinion

REDERICTON—Innovation Minister Navdeep Bains and Natural Resources Minister Seamus O'Regan recently announced a \$20-million grant for an Ontario company to develop a prototype "small modular nuclear reactor" (SMR). The move aligns with NRCan's SMR Action Plan scheduled to be published in November. During the announcement, O'Regan stated that SMRs "have the potential to play a critical role in fighting climate change."

Within days of the announcement, more than 20 public interest groups across Canada issued a media release with a dissenting view: SMRs are "dirty, dangerous distractions" from tackling the climate crisis. Greenpeace Canada, the Canadian Association of Physicians for the Environment, Canadian Environmental Law Association, Canadian Coalition for Nuclear Responsibility, Environmental Defence, Mining Watch Canada, Friends of the Earth, and the Sierra Club Foundation, among others, charged that "the federal government is trying to save the nuclear industry rather than saving the environment and protecting health."

The government seems unable to engage with political dissent. The SMR action plan includes civil society engagement but the department has blocked groups from registering their concerns unless they first agree "to support the development and deployment of various SMR technologies in Canada." Any group opposed to SMRs cannot participate honestly in the action plan process.

Groups opposed to SMR development have been trying unsuccessfully for many months to meet with O'Regan. On the other hand, a search of the lobbyist registry shows that the Canadian Nuclear Association, the main lobbyist for the nuclear industry, met with senior officials in Natural Resources Canada an average of once a month this year, including CEO John Gorman's meeting with O'Regan on Feb. 27 about "energy, climate."

Anyone opposed to the proposed SMRs will also be unable to record their concerns in the public record of an environmental impact assessment (EIA). When available, the EIA mechanism allows public input on a proposed project with potential health, social, and economic effects related to the environment.



Natural Resources Minister Seamus O'Regan, pictured Feb. 27, 2020, delivering the opening keynote at the Canadian Nuclear Association's annual conference in Ottawa. Groups opposed to SMR development have been trying unsuccessfully for many months to meet with Mr. O'Regan. On the other hand, a search of the lobbyist registry, shows that the Canadian Nuclear Association, the main lobbyist for the nuclear industry, met with senior officials in Natural Resources Canada an average of once a month this year, including CEO John Gorman's meeting with O'Regan on Feb. 27 about 'energy, climate,' write Samuel Arnold and Susan O'Donnell. *The Hill Times photograph by Andrew Meade*

However, the new Impact Assessment Act (IAA), passed by the Trudeau government as part of Bill C-69 in June 2019, exempts SMRs below a certain thermal capacity or sited near an existing nuclear power reactor. This provision means that the two SMRs proposed to be built in New Brunswick next to the Lepreau reactor on the Bay of Fundy, one of the world's richest marine ecosystems, will not be required to undergo an environmental assessment.

One of many concerns that groups would raise in an impact assessment is that a low thermal capacity is not an appropriate reason to exempt SMRs. The hazards of nuclear reactor accidents are related not to the thermal capacity of the reactor, but rather to the inventory of radioactive poisons inside the reactor. The spent fuel of the proposed SMRs is more radioactive by weight than the spent fuel of the existing, larger, CANDU reactors. If this material is released into the environment, the consequences can be serious. It makes no sense to not have an environmental impact assessment prior to licensing the new reactors.

SMR prototypes are proposed for sites across Canada. The public needs to see the list of toxic emissions and CO2 they will produce that could be harmful to humans and wildlife during the construction, transportation, operation, and decommissioning phases as well as daring the millennia following retirement from service. This information is missing from nuclear industry and government documentation.

The climate crisis requires clear, effective government strategies in legislation to responsibly and effectively protect people and future generations from an inhospitable environment. This also applies to all nature that humans depend on for survival.

O'Regan has claimed, without evidence, that nuclear energy is necessary to reach

net-zero emissions targets. He should present to the public his plan to reach net-zero emissions with SMRs. O'Regan confirmed during the funding announcement that the new reactor prototypes will take more than a decade to develop and will contribute nothing toward meeting Canada's 2030 target for reducing greenhouse gas emissions.

Most groups working on climate action favour renewable energy and retrofit technologies that are working and available now. A focus on efficiency and energy storage systems is a much better investment to reach net zero with far more jobs for Canadians than with nuclear development. Investment in building efficiency and retrofits as well as research on passive buildings and solar technology would keep engineering, construction and small trades

busy in towns and cities across the country for decades as well as increasing the comfort of Canadians in their homes and work spaces.

The federal government's choice to allocate public funds to private-sector SMR development benefits a handful of small companies in the declining nuclear sector. At the same time, the decision decreases attention to and funding for renewable energy resources already scalable and providing safer, less costly, and more effective and socially acceptable sources of energy. In fact, research demonstrates that nuclear and renewables do not mix.

We agreed with Environment Minister Jonathan Wilkinson when he recently told Maclean's that SMRs will need to compete "with solar and wind and geothermal and hydrogen and a whole range of other things ... and the winner will be the one that can provide electrical energy at the lowest cost."

Nuclear energy is very expensive. New research demonstrates that SMRs make no sense for the intended targets for the new technology, remote Indigenous communities and resource extraction sites currently using expensive diesel fuel. "Energy costs associated with small modular reactors exceed those of diesel-based electricity," writes the research team.

We have specific concerns about the two SMRs proposed for New Brunswick. Both propose to reprocess the existing irradiated fuel from the Lepreau CANDU reactor to create plutonium-based fuel. Transporting SMRs and their fuel on Canadian roads, highways, rails or waterways to remote areas will create a new safety and security hazard.

Nuclear power has intrinsically been tied to nuclear military weapons since the 1943 Quebec Agreement between Canada, Great Britain, and the U.S. SMRs will needlessly increase the threat of nuclear war and nuclear terrorism. Funding SMRs conflicts with Canada's reputation of being a nation that promotes world peace. The next step in Canada's peacekeeping role would be to sign the new UN treaty ratified last week that makes nuclear weapons illegal.

Clearly, many dissenting voices are raising alarms about SMRs. We call on federal ministers to establish formal processes for citizens to participate and contribute their perspectives before decisions are made about our future energy choices.

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