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October 5, 2022

ELECTRONIC MAIL

Ann McAllister, Roy Ries and Sam Arnold
Coalition for Responsible Energy Development in New Brunswick
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Dear Ann McAllister, Roy Ries and Sam Arnold,

**SUBJECT: Small Modular Reactor Demonstration Project, New Brunswick
and the Impact Assessment Act**

As indicated in our letter of July 20, 2022, before the Impact Assessment Agency of Canada (the Agency) was able to begin the designation request process for your request that the Minister of Environment and Climate Change (the Minister) designate the Small Modular Reactor (SMR) Demonstration Project, it had to evaluate whether or not the proposed activities are already described in the *Physical Activities Regulations* (the Project List). The Agency has completed this initial review, which included seeking information from Énergie NB Power (the Proponent).

The Proponent indicated that it is currently exploring two nuclear reactor designs from two separate vendors for commercial demonstrations at the Point Lepreau Nuclear Facility:

- Advanced Reactor Concepts (ARC) Clean Energy Canada Inc.'s ARC-100 sodium-cooled fast reactor; and
- Moltex Energy's molten salt reactor and accompanying spent fuel recovery system and fuel reprocessing facility.

The Proponent is currently in the pre-project phase for deployment of a single ARC SMR commercial demonstration unit. The ARC SMR would have a thermal output between 286 to 429 MWth (100 to 150 MWe). The Proponent anticipates submitting an application for a Licence to Prepare Site for the single ARC SMR to the Canadian Nuclear Safety Commission (CNSC) and environmental impact assessment documentation to the Province of New Brunswick in June 2023.

The Moltex SMR is currently in conceptual design and research and development phases. The Moltex SMR would have a thermal output of approximately 750 MWth (300 MWe) and would involve recycling spent

CANDU fuel for use in the reactor, and include a fuel reprocessing facility. The Proponent anticipates that deployment of a Moltex SMR commercial demonstration unit would not occur until the mid 2030's.

Designation Request Process

Under subsection 9(1) of the IAA, the Minister may, by order, designate a project if, in their opinion, the project may cause adverse effects within federal jurisdiction or adverse direct or incidental effects (resulting from federal decisions), or public concerns related to those effects warrant the designation. The Minister can only designate a project that is not already described on the Project List.

Based on the information provided by the Proponent, the Agency is of the view that the Moltex SMR commercial demonstration unit, should it proceed as the Proponent has described, would likely involve activities that are described on the Project List (subsections 26(a) and/or 26(c)), and would therefore be subject to the requirements of the IAA. Since the potential Moltex SMR demonstration unit would already be subject to the requirements of the IAA, subsection 9(1) of the IAA cannot apply.

On the other hand, the single ARC SMR commercial demonstration unit, as described by the Proponent, would not involve any activities that are described on the Project List and therefore, subsection 9(1) can apply.

Based on the information provided by the Proponent, the Agency is also of the view that the proposed ARC and Moltex SMR commercial demonstration units are separate projects. Although both are being proposed by the same Proponent and both would be at the Point Lepreau Nuclear Facility, the Agency notes that the two units would be supplied by separate vendors and use different technologies; neither project is subordinate or complementary to the other, nor are they functionally connected; and each would proceed independently. The projects are also at substantially different phases of development and each is progressing along separate timelines. The Agency also notes the Proponent's intention to submit separate licence applications to the CNSC and undergo separate provincial environmental assessment processes for the two projects.

Given the above analysis, on October 4, 2022, the Agency began the designation request process for the ARC SMR commercial demonstration project. The Agency will review information about the proposed project; any concerns expressed from the public (that the Agency is aware of) and Indigenous groups; and expert advice from federal authorities and input from provincial ministries in order to inform the Minister on whether the project should be designated. If designated, to proceed with the project the Proponent would be required to

-3-

submit an Initial Project Description, thereby commencing the planning phase of the IAA. In that case, the planning phase would include the Agency determining whether a federal impact assessment is required. In accordance with subsection 9(4) of the IAA, it is expected that the Minister will respond to your request with reasons for their decision by January 2, 2023.

Additional information regarding the process for designation requests can be found at the following link: <https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/designating-project-impact-assessment-act.html>.

A Registry page for the Project (Reference Number: [83998](#)) is now available on the Canadian Impact Assessment Registry Internet site. Please use the following email address Reactor-Reacteur@iaac-aeic.gc.ca, which will also be posted on the Project's Registry page, if you wish to provide further information to the Agency regarding this file.

Important Note: All records produced, collected or received in relation to the designation request process – unless prohibited under the *Access to Information Act* or *Privacy Act* – are considered public and may be released. If you have provided any comments or documents that contain confidential or sensitive information that you believe should be protected from release to the public, please contact the Agency as soon as possible. The Agency does not accept information marked as confidential without prior contact.

Further questions regarding the Project and this analysis can be directed to me at 902-229-9637 or Reactor-Reacteur@iaac-aeic.gc.ca.

Sincerely,



Joseph Vigder
Project Manager, Atlantic Region
Impact Assessment Agency of Canada

Cc: Auréa Cormier
New Brunswick Anti-Shale Gas Alliance
Imaginons la Péninsule acadienne autrement
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