SaskPower
Powering our future®

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Curtis Boyes
boyescm@gmail.com

Dear Curtis,

Thank you for your letter expressing interest regarding Saskatchewan's development work towards nuclear power from small modular reactors (SMRs). I apologize for the delay in responding.

Like many other power utilities across the continent, SaskPower is committed to a cleaner energy future, achieving net-zero greenhouse gas emissions by 2050 or sooner.

To reach this ambitious goal, SaskPower is evaluating and pursuing a wide range of zero emissions options, including increasing solar and wind generation, utility scale energy storage options, increased imports from outside Saskatchewan and nuclear power from SMRs.

In your correspondence, you raised concerns with SaskPower pursuing SMRs as a potential generation source over a larger reactor, such as the CANDU-6 design based on factors such as cost, regulatory compliance, and supply chain considerations. SaskPower's future supply planning shows that SMRs are a better fit for Saskatchewan's grid. There are a number of factors for this determination, including generation size and required transmission infrastructure to operate a plant of this size.

You are correct that to replace all coal fired generation will require approximately 1,400 megawatts (MW) of electricity, and that a facility such as a CANDU-6 would satisfy this requirement. However, with SaskPower's total generating capacity at approximately 5,400 MW total, to have nearly 25 per cent of this capacity at a single facility would create reliability concerns (during times when the station would need to be brought offline for refueling, maintenance, etc).

Also, large nuclear facilities typically require a level of transmission line capacity that simply doesn't exist in Saskatchewan currently. Saskatchewan's transmission line capacities range from 72 to 230 kilovolts (kV) and large reactors ideally require transmission lines rated for 500 kV or higher.

Ultimately, a decision whether or not to construct an SMR won't be made until 2029, but in order to keep this generation option viable, there is a formidable amount of preparation and regulatory work that needs to be done now.

It's important to note that SaskPower is also evaluating what role large reactors could play in our province's power future. The current SMR development project is to inform and plan for Saskatchewan's first nuclear facility. Looking at the decades to come, large reactors could very well play a significant role of our future power landscape.

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I want to thank you for participating in SaskPower's engagement activities around SMR development in Saskatchewan. SaskPower is committed to open and transparent communications and engagement with the people of Saskatchewan – and this is evident in our thorough and comprehensive engagement efforts that are ongoing regarding developing SMRs.

Throughout the entire project, SaskPower will meet and engage with Indigenous rightsholders, municipalities, communities, organizations, and SaskPower customers to gather perspectives, and to address concerns.

I invite you to visit saskpower.com/nuclear to find out more about SaskPower's upcoming engagement activities on the SMR project and how you can participate.

Sincerely,

Dustin Duncan
Minister Responsible for SaskPower

cc: Bronwyn Eyre, MLA, Saskatoon
Rupen Pandya, President and Chief Executive Officer, SaskPower
Troy King, Executive Vice President, Chief Strategy, Technology and Financial Officer
Cole Goertz, Director, Government Relations, Media & Issues, SaskPower