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The Canadian Geothermal Energy Association (CanGEA) is the collective voice of Canada's geothermal energy industry. As a non-profit industry association, we represent the interests of our member companies with the primary goal of unlocking the country's tremendous geothermal energy potential. Geothermal energy can provide competitively priced, renewable, round-the-clock energy to the Canadian and U.S. markets and a part of the solution to growing concerns about securing sustainable, cost-effective energy sources.

CanGEA promotes the industry and the potential of geothermal energy in Canada through outreach events, research, policy work and representation of Canadian interests internationally.

Honourable Bill Bennett, MLA
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Via e-mail: MEM.minister@gov.bc.ca

And

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November 27, 2014

Re: Correction of Inaccurate Information on Geothermal Energy in BC

The Canadian Geothermal Energy Association (CanGEA) would like to start by acknowledging the comments of Minister Bennett regarding to geothermal energy, which appear in an article in the Globe & Mail released on November 25, 2014. Specifically:

"In B.C. the market has been really slow to pick (geothermal) up (...) There have been a few licenses granted over the years and a few million dollars invested but **nobody has actually found a geothermal resource that you can convert into electricity. So we are a ways away from actually being able to use it. (...) It is a good resource, we do want to use it (...) It will be important in B.C. in the future. **It is not a replacement - it's not a way to get 1,100 megawatts of electricity that we need today.**"**

Minister Bennett's comments are simply not true. It is clear that the Minister has not had an opportunity to read, or been briefed in any meaningful way, on the report that CanGEA released on November 25th; *Geothermal Energy: The Renewable and Cost Effective Alternative to Site C.*

We are writing to correct this inaccurate information and make the following observations:

1. CanGEA has, since the development of its geothermal favourability maps, graphs, tables and datasets, reached out to

brief all relevant government officials and organizations. While certain government entities have taken the time to inform themselves of our report's findings, others have simply avoided them.

We did brief officials in the Ministry of Energy and Mines and BC Hydro on November 25, 2014. However, many key officials did not attend the meeting, or departed before we were able to complete a full and effective briefing.

2. The CanGEA report outlines a portfolio utilizing only geothermal power projects that matches the Site C project's output and has a Unit Energy Cost (UEC) of \$73/MWh compared to the Site C projected \$83/MWh. This would result in a capital expenditure of \$3.3 billion, compared to \$7.9 billion for Site C. Not only will these savings help BC ratepayers, but they will also contribute to ensuring that BC's excellent AAA credit rating remains intact. These estimates were prepared by well respected experts.

Geothermal projects can also be strategically located to avoid the exorbitant transmission costs associated with the Site C project, and can also reduce or eliminate the need for other transmission projects around the province.

Clearly, the pursuit of geothermal energy is in the best interests of BC Ratepayers and Taxpayers.

3. As our report notes, binary geothermal power plants, the type CanGEA advocates for use in BC in the near future, are internationally a very mature technology. They were developed in the 1980s and are currently operational around the world, including in the United States.

Moreover, the most conservative estimates released by CanGEA demonstrate the availability of 5,700 MW of potential geothermal power, verifiable from data obtained via oil and gas development. These estimates utilized internationally recognized procedures, and were peer reviewed by an international expert on the subject. The World Bank is considering adopting the estimation procedures used in the CanGEA report as best practices for use internationally.

4. CanGEA cites the Joint Review Panel of the Site C Project's finding that "available resources could provide adequate energy and capacity until at least 2028." We are confident that geothermal energy could be in production within the next 2-4 years, contrary to the claim that power plants could not be deployed in the required timeframe.
5. Your comments do not address concerns expressed by the citizens of BC that future energy strategies take into consideration the environmental footprints of generating

- technologies. In terms of this, hydroelectric power is NOT considered a renewable energy source by international standards. Geothermal power is, and has a smaller environmental footprint than any other renewable source of power.
6. There are numerous other economic and environmental benefits to geothermal energy that will be of interest to a range of ministries, not just the Ministry of Energy and Mines.
 7. In terms of policy impediments, the *Geothermal Resources Act (GRA)* requires immediate attention. Even when developers come to the table with stakeholder buy-in, wait times of years ensue. This does not occur to the same extent in regards to shale gas wells, or oil and gas development. Furthermore, if permits are granted, they are often not those originally requested by the permittee. The lack of a timely and effective regulatory framework is the main reason geothermal energy has not been expanded in British Columbia.

Governments around the world that are serious about developing geothermal energy have been quick to address such concerns. A recent example close to BC is the State of Washington, which just passed legislation streamlining the geothermal project permitting process.

8. It is also worthy of note that a Request for Proposals (RFP) for a study of “the Economic Viability of Geothermal Resources in British Columbia” was announced by Geoscience BC the day before CanGEA’s report was released. We are pleased to advise that the CanGEA report substantively addresses the economics of geothermal production in BC, rendering this RFP largely unnecessary in its present form. As well, with a December 11, 2014 deadline for the RFP, the quality of proposals that will be received is debatable.

Request to you

Considering the substantial positive implications of our report findings for BC Taxpayers and Ratepayers, we request an immediate opportunity to meet with you and the BC Cabinet to brief you on our report. We believe this is a prudent and essential course of action prior to Cabinet’s final decision on Site C.

We look forward to your early response to our request to meet with Cabinet.

Sincerely,



Alison Thompson, Chair and Co-Founder, CanGEA