

Town to further explore geothermal energy proposal

Cynthia Bigrigg • Thu, Jun 25, 2015

Hinton could be home to a geothermal energy research project in the new year.

Jonathan Banks, representing the University of Alberta was on hand at the standing committee meeting of council on June 23 to discuss the potential project.

The project would consist of three stages for 10 geothermal reservoirs. These reservoirs are used to produce energy by pumping hot water to the surface, extracting the heat from the water, and then converting the heat to electricity, or using it as-is.

First, a three-dimensional picture of the surface itself would be taken to determine the volume of energy available in the reservoir. Then a volumetric assessment of the total energy in megawatt hours would be conducted. Finally, the research team will complete a statistical measure of how much power can be produced out of the reservoir.

The total price tag for the entire project is around \$130,000, however Banks will be submitting his proposal to Alberta Innovates - Energy and Environment Solutions (AIEES) in the hopes that it will fund half of that cost, leaving the remaining \$65,000 up to the affected communities. Of the 10 top reservoirs, five exist in Yellowhead County around Hinton.

"The deepest units at the base are here in Hinton, with temperatures approaching 200 degrees [Celsius], which is hot – you can produce a lot of electricity," said Banks, who is looking for \$20,000 to \$25,000 from each community with a reservoir. He said Grande Prairie, Caroline, Rocky Mountain House and the County of Clearwater have already expressed interest in putting up their share of the funding.

Banks explained that the infrastructure that would be used for the project and eventual well is not innovative, but rather infrastructure that has been used successfully around the world. He added that the footprint of a geothermal system is approximately the size of a city block, and he believes there are "tens, if not hundreds of billions of dollars to be had." The cost of taking it a step

further and building a geothermal energy system in Hinton is an estimated \$20 million.

The catch is that there is no explicit regulatory framework in Alberta for building a geothermal system. There are, however, organizations that lobby for such projects, and with a new NDP government, geothermal energy production is something Banks believes will be on the table shortly. By being able to concretely show the provincial government what can be extracted from a geothermal well, Banks believes it will be easier to gain an exemption to be able to create the system.

Council appeared enthusiastic about the project, and Coun. Marcel Michaels hoped to be sold on the advantages by funding the entire project through the Town of Hinton.

"What's the advantage if we just pay the \$65,000?" he asked.

Banks replied that if one entity put up the entire \$65,000, the project could be tailored to suit that entity's needs.

"If we were to just focus on this area, we would do that in a six-month study, and then the next six months we could do initial production models from the reservoir," Banks replied.

This would leave the Town with knowledge of where the target reservoirs are, and what can be produced out of them. The Town would also have preliminary engineering data to show the provincial government in order to ask for an exemption to drill a test well.

Council said they needed to be cautious about committing to the funds, and administration asked council to allow them to create a project plan and put key steps into place with Banks. The plan would consider the possibility of other entities contributing to the price of the project.

Council directed administration to prepare a letter of intent for the project with details worked out on a full or partial partnership. The letter will be provided to Banks by Aug. 1.