

David Burke | 22 May 2008

Meager geothermal site awaits flow testing

Despite delays, firm remains fully committed to Pemberton-area project, official says

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The company working to develop a geothermal resource 70 kilometres northwest of Pemberton into Canada's first commercial geothermal energy project doesn't expect to begin construction of such a plant until at least 2010, and only then if planned flow tests on the three wells drilled so far prove the resource is viable.

But Vancouver-based Western Geopower remains fully committed to the South Meager project despite the fact that it's taking much longer to demonstrate its viability than originally anticipated, a company official said on May 9.

Craig Aspinall, the company's manager of public policy, said Western Geopower officials have asked their California-based geothermal consultant, GeothermEx, to provide a program and a budget estimate for the flow testing of two of the three wells that were drilled at the lease site near Mount Meager on 2004 and 2005. The third well is to be used as a re-injection well, Aspinall said.

"They have to say, 'This is the process that has to be followed to flow test the wells, the equipment you need, a schedule that you can expect to use to do the flow testing, what kind of a budget that would be required to source and transport the equipment,'" Aspinall said.

In 2002 and 2003, Western Geopower officials projected that the South Meager project would be producing electricity — somewhere between 100 and 200 megawatts — by 2007. However, the process of drilling the wells left the company "a little short of funds," Aspinall said, prompting officials to buy into a second project, The Geysers in California, as a way to generate

cash flow for shareholders and continued exploration of the South Meager resource.

The Geysers had produced some 900 mw of electricity in the past and, company officials felt, could be brought back on stream in a fairly short period of time, Aspinall said.

"We felt there would be a good prospect for getting a project up and running on a fast track, and that's just what has occurred. We can do that in California much more quickly than we can with the sort of project we have at Meager," he said.

The company has also recently announced the launch of a South American subsidiary and applied to the Chilean government for three geothermal leases in the northern part of country that were recently put up for competitive bids.

Three main criteria have to be met before a geothermal project — considered among the "greenest" sources of energy because it turns superheated underground water into steam that turns turbines — is considered viable. First, the underground water temperature has to be at least 180 degrees C. The resource at Meager has been measured at around 260 C, the highest measured temperature at 275 C.

Second, there has to be "permeability" in the underground formation — either fractured rock, or rock that can be fractured under the pressure of injected water. The third requirement is flow — the underground reservoir has to be of sufficient size to produce power for a long enough period of time.

"We've been involved (at South Meager) since 2001, and frankly a greenfield project of this nature needs a pretty steady flow of investment to get a project going," Aspinall said.

He said the company anticipates that the flow testing will most likely occur in 2009 and that if it is successful, construction on an initial generating plant of, say, 55 mw could begin in 2010. Initial discussions were that a second, similar plant could be built after the first is up and running, Aspinall said.

Aspinall has also been working with other potential power producers in the area — including Vancouver-based Gaea Energy Enterprises, which holds permits for two geothermal sites not far from South Meager — on potential power transmission routes.

Of the three that were under consideration, the recent completion of the Sea to Sky Land and Resource Management Plan pretty well eliminated the one that would have gone past Birkenhead Lake Provincial Park. The park boundary was expanded and a new conservancy was created next door as part of the LRMP.

A second potential route would to northeast over Hurley Pass to Lajoie Dam, and the third would follow the Lillooet River and then veer westward, skirting the Pemberton Meadows and Village of Pemberton part of the way up the mountains west of town. It would connect to the B.C. Hydro power grid at Rutherford Creek, Aspinall said.

Squamish Lillooet Regional District officials have stated a preference for the Hurley route, but it would require the installation of a 230-kilovolt transmission line up the Hurley to Lajoie and then on to Shalalth, where the existing line is only 69 kilovolts, he said.