

## Province pumps \$285M into coal gasification project

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SwanHills Synfuels received a commitment of \$285 million over 15 years from the province's carbon capture and storage (CCS) fund Tuesday for a project that could change the face of electrical power generation.

The goal is to turn very deep coal deposits into clean synthetic gas that can be used for power, and perhaps later petrochemicals.

And with the success of a demonstration project this summer, the plan is to now spend about \$1.5 billion to drill 20 pairs of injection and production wells in a one section area, build a gas processing plant to collect 1.3 million tonnes of carbon dioxide each year, and install a pipeline to take the syngas to a new 300 megawatt power plant in Whitecourt.

The whole project is scheduled to be operating by 2015. A 300MW plant would supply about one-quarter of Edmonton's current electrical demand.

Energy Minister Mel Knight believes synthetic gas from coal has a big future in Alberta.

"Over the next number of decades this may change base load generation (of electricity). But over the next couple of decades this system becomes a very nice fit with the rest of the generation capacity of the province," he told a gathering in Swan Hills, where the official announcement was made

Alberta's electrical capacity today is 12,500 MW--largely from turbines powered by surface-mined coal-- but Alberta will have to replace and add about 11,500 MW over the next 10 to 15 years, said Knight.

"So when you look at the possibility of knitting together what is in front of us today -- in situ gasification of coal--with more conventional gas-fired generation and other post-combustion technology as well as hydro, wind power, geothermal, solar and biomass, we think this is a very solid future for Alberta," he said.

As well, the recovered carbon dioxide will be used for enhanced oil recovery in depleted oil wells in the Swan Hills region, breathing new economic life into the area and earning the province additional royalties.

Synfuels president Doug Shaigec said while injecting pure oxygen and saline to create combustion--a process that chemically converts coal into gas--has been done for decades in other countries, it was only in the 1990s that European researchers achieved that from deep coal.

The synthetic gas is rich in hydrogen and lower in carbon, and will burn 50 per cent cleaner than conventional natural gas at the Whitecourt electrical power plant.

Knight said Alberta has 600 billion tonnes of coal, most if it too deep to mine. Only 30 million tonnes near the surface have been used.

"If we can tap into this resource in an environmentally friendly way, which this is, the opportunities are just tremendous," he said.

"This \$285 million is a rock solid investment for Alberta."

Local MLA Ken Kowalski told the gathering that Alberta's \$2 billion CCS fund compares well with the similar \$2.5 billion fund announced by the United States this spring.

"We are doing a very good share of the work in Alberta. This project will set the stage for future technological development and innovation."

Synfuels also announced that PCL Industrial Management Inc. will construct the syngas processing facility. The facility and 20 well pairs will cost about \$1 billion, said Shaigec.

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- Photo: Energy Minister Mel Knight

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