

Feasibility study into burying power line adds fuel to furor

BY DARCY HENTON, EDMONTON JOURNAL FEBRUARY 25, 2010

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Some Edmontonians applaud a new study that suggests it's feasible to bury a portion of a proposed 65-kilometre, 500,000-volt transmission line to feed electricity to the industrial heartland.

Bruce Johnson, who represents a large group of vocal residents, said the study commissioned by the Alberta Electric System Operator or AESO not only shows burying the line is technically feasible, but also indicated the cost won't be nearly as much as initially feared.

"The good news is all the data are in. It's feasible, it's affordable, so let's get on with it," he said.

Johnson said his group, Responsible Electrical Transmission for Albertans or RETA, calculated the cost of burying the lines will be 30 cents per month per household, an amount he believes is not onerous.

He pegged the cost to industrial electricity users at \$5 million to \$6 million annually, but contended that's a reasonable cost.

"It's industry that needs the power," he said. "Perhaps they should foot part of the bill."

But Sheldon Fulton, executive director of the Industrial Power Consumers of Alberta, said the study shows that burying the line will cost \$600 million to \$1 billion more and will add years to the construction process.

"It's not fair to allocate the extra cost to ratepayers if it's not necessary," he said. "Other than esthetics, there's no particular value to it. It's just another billion dollars that ratepayers have to pick up."

Fulton said the study also suggests there are issues with the reliability of buried high-voltage lines and higher line losses.

AESO senior planner Neil Brausen says that while the study by the British firm, Cable Consulting International, suggested the project is technically feasible, it calls for more testing to ensure a high voltage line can be buried in such a cold climate.

He said there's a concern the silicone connectors used to splice the underground cable could fail in severely cold temperatures and it may require a year or more of testing before AESO is satisfied that won't happen.

"None of the manufacturers that we could get information from have been able to verify reliable equipment operation in the cold weather temperatures we could expect in Alberta," he said.

He said a 20-kilometre line would have hundreds of splices.

Brausen said initial estimates set the cost of underground lines at between four and 20 times more than overhead lines, but the Cable Consulting study suggest the cost would more likely be double or triple.

He said the cost of the Heartland line just northeast of Edmonton is about \$400 million, but that would balloon to \$750 million if 10 kilometres of line is buried and \$1 billion if 20 kilometres of line is buried.

Brausen said the study also shows repairing an underground line could take as much as 30 days.

Epcor senior vice-president Guy Bridgeman said his company has pledged to present the Alberta Utilities Commission with an underground option when it applies -- likely in May -- to build the line.

"That will go through a public hearing process," he said. "We're going to receive information on aerial solutions and we'll receive information on underground and the commission will have to sort out the trade-offs and decide whether the additional costs of