

Manitoba's hydro mess points to Canada's larger problem with megadams

Posted by Joan Russow

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As most of the Western world moves away from large-scale hydro projects, decommissioning dams across the planet, Canada is digging in with a trio of projects, the costs of which are spiralling out of control Sarah Cox Nov 22, 2018 12 For eight years, Graham Lane headed a watchdog commission that raised red flag after red flag about the Keeyask dam hydro project on Manitoba's Nelson River.

Politicians ignored the warnings and in 2012 Lane resigned as chair of Manitoba's Public Utilities Board, concerned that Manitoba Hydro had strayed far from its main purpose — to provide low cost energy to Manitobans.

Now the retired chartered accountant is speaking out in the hopes of stemming the losses from the Keeyask dam project and a related transmission line, which he calls “an albatross around the necks of Manitobans.”

“In Manitoba basically everything has gone wrong,” Lane told The Narwhal. “It's quite a disaster.”

Even though the utilities board kept flagging “runaway expenses and changing markets” as reasons to reassess the projects, Lane said the provincial government “just kept going” while the price tag for the dam and transmission line soared from \$9.8 billion to almost \$14 billion, with the dam's final cost potentially \$2 billion more.

“I'd had enough. I hung up my skates. I waited my year away. And then I started writing columns about it.”

‘Vast majority of Canadians don't even know what Keeyask is’

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The lesser known Keeyask dam joins B.C.'s Site C dam and Labrador's Muskrat Falls dam on the list of hugely over budget big hydro projects currently under construction in Canada.

"Keeyask seems to fly beneath the radar," said Garland Laliberte, a dean of engineering emeritus at the University of Manitoba. "Muskrat Falls gets a lot of exposure and even Site C gets more coverage. I think the vast majority of Canadians don't even know what Keeyask is let alone what problems it's causing in this province."

Four years into construction 730 kilometres northeast of Winnipeg, the Keeyask dam will inundate 93 square kilometres of the Nelson River and boreal taiga lands or "snow forests" of pine, spruce and larch. It will destroy spawning areas and other habitat for fish such as sturgeon and result in habitat loss, alteration and fragmentation for caribou, moose and beaver.

Like the Muskrat Falls and Site C dams, the Keeyask project will also have a significant impact on Indigenous peoples, eliminating trapping, fishing and hunting sites in the traditional territory of Treaty 5 nations. The dam, which will be built at Gull Rapids, is named after the Cree word for gull.

With three large dams in the works, Canada is bucking the trend in Europe and North America, where the unacceptable price tag and profound social and environmental impacts of large hydro projects means that more big dams are being dismantled than are being built.

Keeyask dam map. Image: Manitoba Hydro

Laliberte said the global energy market has changed far faster than Canada's politicians realized, as the price of wind and solar energy plummets, new energy storage options become available and the cost of building large hydro dams soars, in part because of hefty payouts to affected Indigenous communities.

Manitoba Hydro, for instance, has paid \$169 million to First Nations who will be impacted by

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the project and is expected to pay out another \$100 million.

“I think the main driver is politicians not understanding the market and thinking that it's good to be seen to be investing, in all three cases, in renewable energy and thinking it's going to fly,” Laliberte said in an interview.

“And our politicians were too busy doing other things and they believed that the market doesn't change. And, of course what happened is that the speed of change now is so much greater than it was even 10 years ago and these guys went out on a limb and they got caught.”

Coalition warns of ballooning Keeyask costs

LaLiberte is a founding member of a grassroots Manitoba group called the Bipole 111 Coalition. The coalition was established by engineers — most of them retired from careers in Manitoba Hydro, the University of Manitoba and the consulting world — to inform provincial hydro customers about the impacts of proceeding with construction of the transmission line and Keeyask dam.

The coalition's members include dozens of farmers in the Red River Valley whose land is being expropriated for a transmission line that will run through the heart of Manitoba's most productive agricultural region, dividing farm lands.

The coalition is named after the line that will carry Keeyask's energy southward, where Laliberte estimates it will be sold to U.S. markets for an average of \$36 per megawatt hour even though it will cost about \$140 per megawatt hour to produce. One consultant for the utilities board warns the Keeyask dam could balloon by another \$2 billion by the time it becomes partly operational in 2021.

Lane said coalition members call the Keeyask dam “our stranded white elephant.”

“The Americans will buy [the power.] Of course they'll buy it. But they'll only buy it at a price that works for them.”

Watchdogs undermined

The Keeyask, Site C and Muskrat Falls dam projects have much in common besides their hefty environmental footprint, which includes poisoning fish, a traditional food source for Canada's Indigenous peoples, with methylmercury.

In all three cases, the independent watchdog body that normally looks out for the public interest was removed, hamstrung or ignored by provincial politicians who were determined to push ahead with big hydro projects even though their electricity was not needed domestically.

B.C., for instance, has had so much extra power that BC Hydro has paid independent energy producers not to generate electricity. And as the Site C project moved forward, BC Hydro slashed its budget for energy conservation programs — programs that according to BC Hydro had saved about as much energy as the Site C dam would produce.

In each province, a change in government brought an opportunity to cancel the projects as costs surged and far cheaper, more nimble and less destructive renewable energy sources became readily available. Yet those opportunities went unseized, with newly elected governments of different political stripes continuing construction and approving cost overruns of billions of dollars.

That has led to another striking parallel: when the dams are complete, after seven to nine years of construction, their electricity will be sold for considerably less than it costs to produce, leaving hydro customers in all three provinces on the hook financially.

The impending pinch is already being felt in Newfoundland and Labrador, where the cost of the Muskrat Falls dam on the Churchill River, now nearing completion, has jumped from \$6.2 billion to \$12.7 billion. Hydro rates are expected to double as a result, and households can calculate how much their bills will likely increase.

Manitoba Hydro recently asked for annual 7.9 per cent rate hikes. Instead, a rate hike of 3.6

per cent was approved this year.

But it's only a matter of time before the "amazing amounts of money" spent on the Keeyask dam and transmission line need to be accounted for, Lane said.

"If costs get to the point where you've got government siphoning it off to the sides so that ratepayers aren't going to be too shocked when they go to the polls this is a bad thing."

In B.C., the \$10.7 billion bill for the Site C dam — which will flood 128 kilometres of the Peace River and its tributaries, destroying prime farmland, Indigenous burial sites and habitat for more than 100 species vulnerable to extinction — will only come due if the project becomes operational about five years from now.

In October, a B.C. Supreme Court judge ordered that a full civil trial, to determine whether or not the Site C project violates treaty rights, must take place before the reservoir is flooded, raising the possibility that British Columbians could be left with a stranded asset if two Treaty 8 First Nations win the case.

Site C

Site C dam construction along the Peace River, B.C. Photo: Garth Lenz / The Narwhal

Viability of large hydro dams a question in clean energy future

Lane and Laliberte question whether large hydro dams are still financially viable because there are much cheaper and faster ways to produce clean electricity.

"I can't see another dam being built in Manitoba," Lane said. "There's probably enough river opportunities to build a couple more. But they're gone. There's no need for them with the renewables and even with natural gas, the energy efficiencies and everything else under the sun."

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Laliberte pointed to a recent call for bids to replace coal plants in Pueblo, Colorado. Out of 430 bids, 350 were for renewables, he said. The median price for wind power was US \$18 per megawatt hour, and the median price for wind power with storage was US \$21 per megawatt hour.

The Site C dam's power, by comparison, will cost at least \$120 per megawatt hour to produce, according to independent energy experts such as Eoin Finn, a former partner with KPMG, one of the world's largest accounting and consulting firms.

"You've got too much electricity and you've got a lot of hydro in your system now in B.C.," Laliberte pointed out. "So you have a lot of storage already. Can you really justify Site C in the B.C. circumstance on the basis of storage? I would be surprised."

"So how are we going to sell this electricity? What are we doing in Canada just because we have hydro and we can claim that it's renewable, although many would challenge how renewable it is considering what the impact is on the environment?"

Among other environmental impacts, large dams are major emitters of greenhouse gas emissions during construction, due to vast amounts of concrete used to build them and the burning of slash piles when tracts of land are cleared for transmission lines. Reservoirs are also significant carbon emitters, with about 80 per cent of emissions coming from methane, a greenhouse gas 34 times more potent than carbon dioxide.

A November 7 statement from the Bipole 111 coalition and the Manitoba Energy Council noted that Manitoba Hydro's claim that the transmission line was needed for reliability has never been proven, pointing out that Manitoba Hydro's reputation as the "crown jewel" of the province is in "tatters."

"The proponents in the NDP provincial government and Manitoba Hydro who championed the expansion are long gone, living comfortably on pensions and termination benefits," noted the statement.

The energy council, established this month by Bipole 111 coalition members, aims to find ways to promote the “economic, efficient and beneficial” use of electricity moving forward.

Dams face costly retroactive scrutiny

Faced with Manitoba Hydro's insolvency, the Manitoba government recently announced a \$2.5 million review to examine if the projects were based on sound economics and why the Keeyask project — like the Site C and Muskrat Falls projects — was approved in the absence of domestic demand.

The Manitoba review comes on the heels of a \$37.5 million inquiry launched by the Newfoundland and Labrador government to determine why the Muskrat Falls dam proceeded, why it is so over budget, and whether the decision to exempt it from independent review was justified. As inquiry hearings continued last month, 500 workers were sent home from the Muskrat Falls construction site because there was no money to pay them.

The appointment of former B.C. premier Gordon Campbell to head the Manitoba review concerns Lane, who pointed out that Campbell has little experience in this area.

Campbell championed the Site C dam, announcing it as a \$6.6 billion project when he was premier.

Campbell's government also changed the law to remove the watchdog B.C. Utilities Commission (BCUC) from scrutinizing the Site C project to determine if it was in the financial interest of BC Hydro customers. A two-year BCUC review in the 1980s rejected the dam, which was also turned down in the early 1990s by BC Hydro's board of directors on the grounds that its energy was not needed and the project was too expensive and unnecessarily destructive.

Campbell, now the CEO of Hawkmuir International Partners, a company that appears to have no website, has until December 2019 to deliver his report.

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Lane said he believes the review is a “set up” to help Manitoba’s ruling Conservative government “whack the NDP before the next election.”

Manitoba’s NDP government approved the Keeyask project and the Conservative provincial government opted to continue the project after it was elected in 2016, despite repeated warnings that it was a boondoggle.

“You can just see it coming,” Lane said. “They’ll be labelling the waste and the cost...but it won’t necessarily be an open transparent process.”

Lane and other members of the Manitoba Energy Council are calling for a transparent, independent public inquiry to determine why the checks and balances of Manitoba’s system failed. Such an inquiry would allow the books to be “thrown open” and the ability to call witnesses so “people could actually understand what’s happened over this period of time,” said Lane.

In one column for the Winnipeg Sun, Lane wrote that, “Hard questions need to be asked about governance, political oversight, the influence of engineering contractors, the competence of executive managers, the advice provided by consultants, and the role of labour unions in this train wreck.”

“None of those parties will emerge looking good, but it is time to ensure a ‘never again’ future for key provincial infrastructure,” he wrote.

Lane also said that special attention needs to be placed on the “lack of action” by Manitoba Premier Brian Pallister, who had an opportunity to cancel the project after he was elected.

Pallister, along with his cabinet and advisors, failed to “grasp the immensity of the problem and take appropriate act