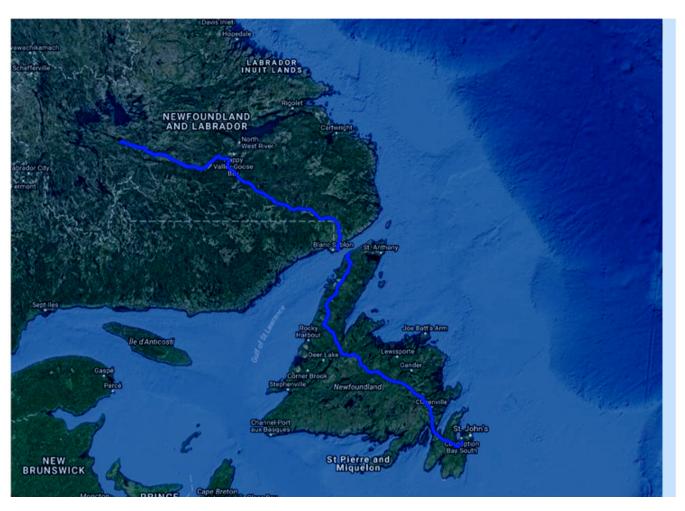
RUSSELL WANGERSKY: Muskrat Falls problems go right down the line

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The route of the Churchill Falls-Muskrat Falls and the Labrador-Island Transmission Link transmission lines. — Submitted illustration

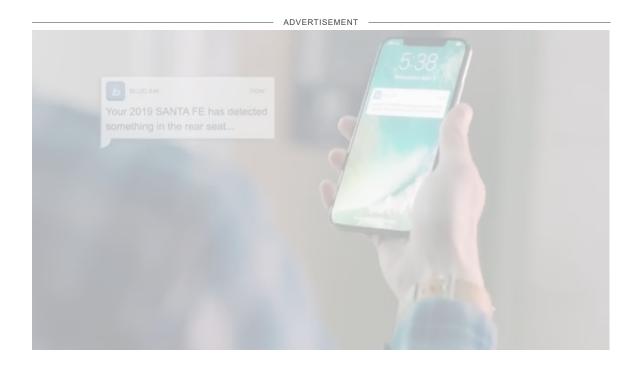
It's not just the dam and generating station.

Muskrat Falls transmission lines are having issues, too.

But while updates on the Muskrat Falls projects come from Nalcor Energy, the province's Public Utilities Board is keeping a weather eye on the Labrador-Island Link (LIL), the power line that brings Muskrat Falls power to the northeast Avalon Peninsula.

The PUB has hired consultants to monitor the progress of the LIL, as part of its mandate to make sure that another #DarkNL blackout doesn't occur.





What's becoming clear is that even if the Muskrat Falls generating station had been built on schedule, the system needed to bring that power to the mainland would not have been ready. The delay in commissioning the transmission system hasn't been talked about because it's been essentially hidden behind all the other construction delays.

And the delay is unusual. The plan was to bring up a single "pole" of the power supply from Labrador to make sure there was supply on that monopole system during the past winter. Once the LIL is fully operational, it will be a bipole supply line, with two separate wires (on the same towers) delivering power. But it started off as a monopole.

That monopole was supposed to be ready and commissioned by September 2018 after first power was transmitted in June. As the Liberty Consulting Group points out, "Typically, the duration from first power to the completion of commissioning of a pole takes no more than two months."

That's not been the case for the LIL.

"The commissioning process has not gone as planned, due to a number of problems. The first pole remained uncommissioned in late February," Liberty reports.

That's eight months now, something the consultant has described as "a problem-plagued process."

RUSSELL WANGERSKY: Muskrat Falls problems go right down the line | Columnists | Opinion | The Telegram CIMFP Exhibit P-03242

The commissioning process includes having the power line operate at a series of electrical loads, without shutting down, for a period of two full months.

That hasn't happened, primarily because of software problems and delays by the software provider, GE Grid Solutions. (I wrote a column in December about the fact the SydVastlanken power system in Sweden is four years behind schedule because of GE Grid Solutions software problems.)

It wasn't supposed to be that way: the line was supposed to have been crucial winter backup for the island's power system, with the potential to transport recall power from the Upper Churchill project if we needed it for winter power peak needs. Luckily, we didn't.

"Control and protection software required for operation, still available in a non-final form, has proven the primary source of commissioning delay," Liberty writes. "We have found surprising the large number of software problems found during the commissioning process. Such software should undergo rigorous factory testing prior to dispatch to site. At this stage, one cannot estimate when the trial operation period can commence."

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5/2/2019

"However, there were numerous issues encountered along the way and the monopole has still not been able to achieve maximum transfer limits (225MW) and is not fully commissioned, as of our latest monitoring meeting held on February 13, 2019," Liberty says.

"At this stage it is not possible to predict when the first pole will have completed the commissioning process," and, given GE's past record, Liberty is not convinced that new commitments — including having software for both lines in place by this August with commissioning starting in October — will be met.

"Based on GE's recent history on the LIL Pole 1 software/commissioning effort, we are very concerned that bipole commissioning will slip and run well into the winter operating period, increasing the probability of system outages."

Oh, and since the Liberty report was completed and filed with the PUB, the LIL has tripped again, again on March 7, and again on March 22, meaning the commissioning clock had to be restarted again.

It's already been a long road, and it's not done yet.

Russell Wangersky's column appears in 36 SaltWire newspapers and websites in Atlantic Canada. He can be reached at russell.wangersky@thetelegram.com — Twitter: @wangersky.

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