

**Date Submitted:** April 03, 2019

**Proceeding name:** Nelson Hydro 2019 Rural Rate Application

**Are you currently registered as an intervener or interested party:** Yes, Interested Party

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**Province:** British Columbia

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**Comment:**

I see Nelson hydro spending money for something that has no value to ratepayers.

## Nelson Hydro installing underwater Fiberoptic Cable

City council received a business case for the community solar garden from the manager of Nelson hydro. Stating it would pay back in 10 or 15 years even though the consulting engineer came up with a 25 year payback and that was with faulty inputs, it will never payback.

Has the hydro general manager produced a business case for the underwater fiber crossing?

Nelson hydro is installing underwater fiberoptic cable to the north shore, reasons given future growth, sewage lift station monitoring, electric grid security, voltage optimization.

The contract shows a 288 strand single mode optic fibre underwater cable to the north shore.

To help you put that in perspective. One strand bandwidth is 10GB.

2500 people could simultaneously watch a high definition movie on one strand.

This leaves 287 strands for what purpose?

Estimated cost I am hearing suggests \$200,000.

Council can only make its best decisions from the information provided them by their experts.

Is council confident they received all the information necessary to make the decision to install this underwater fiber cable?

According to the CAO this was approved by city council. I can't find any public council meeting information where this was discussed or approved? How was this done?

### REASONS FOR NELSON HYDRO INSTALLING THIS CABLE

Reason #1

#### FUTURE GROWTH

What future growth? The useful land is fully built out, very little room for new growth.

The Nelson hydro underwater fibre will serve parts of Regional district Areas E and F.

Latest known population census figures.

Area	2016	2011	%change	# of occupied dwellings
E	3772	3781	-0.2%	1736
F	3976	3963	-0.3%	1707

Total potential connections (occupied dwellings) 3443

Not all of the above are on the North shore.

The North shore already has Shaw Fiber, cablevision and Telus, likely all internet customers are taken. Now Telus is spending \$20M to bring purefiber to the home.

Shaw and Telus suspend their cables under the bridge available for repair.

Nelson hydro fiber underwater certainly creates an expensive repair proposition and risk.

In the past 6 years NelsonFiber has possibly 50 private customers. They haven't been competitive in the city why would this change on the north shore?

The Ministry of Education contracts the province schools with their Next Gen fibre, now that Telus is coming here won't the schools join the rest of the province on the Telus NextGen fiber system?

Reason # 2

To monitor the sewage lift station

Installed on the north shore in 1992. This is a city sewer responsibility. It didn't need fiber since 1992, why now? I see a telephone line and a SCADA antenna on the building.

This is a feeder line to the city main sewer line, will the main sewer pumping station also need fiber?

Reason # 3

For hydro grid reliability

The suggestion appears to be monitoring, as far as I know the only Nelson hydro monitoring on the north shore is a substation 17 km out, its using a satellite dish, it doesn't need fiber. Fortis use a satellite dish at their sub south of the city.

Where could one find more reliability than the north shore which has the option of Fortis backfeeding power which is now being done while the new submarine cables are being installed.

Reason # 4

Voltage Optimization

in its simplest form the electrical equivalent of the water pressure reducing valve in your house, it needs no monitoring.

In its most sophisticated form, from my investigation, a cellphone service could provide the necessary connection, no need for a high speed fibre cable.

The well liked competent engineer that was working on this project left Nelson hydro, who will be doing this now? A couple months earlier another manager left. There is no one left in Nelson hydro other than the general manager.

Could it be to join the CBBC (Columbia Basin Broadband Corp.) fiber at Balfour?

The only logical reason. Why would Nelson hydro pay for this crossing?

Just how much has Nelson hydro spent on the cities NelsonFiber utility?

Nelson Fibre had its beginnings around 2014 when Nelson hydro buried its power lines in the Baker Street alley and included conduit to run fibre. Was this paid for with NH funds?

A newspaper item statement when RDCK hooked up to fiber, "**with the help of Nelson hydro**".

Recent **\$90,000 over budget** for the NelsonFiber COLO came from the Water Licence Reserve fund a line item under **Nelson Hydro**.

Nelson hydro **linemen** have done **work for Nelsonfiber** can that be found under a separate budget item?

Does Nelson hydro do all the SCADA (supervisory control and data acquisition) monitoring for city sewer, water and other utilities? The only line item in the city budget I can see for SCADA comes under the Nelson hydro budget.

**Nelson hydro claims two full time IT** city persons. The recent public video presentation by the manager of **Nelson fiber claims two full time IT** persons.

The city only has **4 full time IT persons**, that leaves **0** IT persons to do the cities IT work.

And last years Nelson hydro submission claimed 12.5% of the IT manager \$97,000/yr.

Was city council being given all the information when they apparently OK'd it according to the CAO?  
Were any alternatives costed for what Hydro claims this fiber if for?

Putting the fiber underwater is pretty risky. If it were on the bridge like Telus and Shaw communications, repair would be easy. Also anything compromising the submarine cable power lines might involve the fiber, if it were on the bridge, it would still monitor the north shore grid, that likely would be Fortis backfeeding power.

I don't think city council has the knowledge to ask the questions and must rely on their experts who bring their recommendations forward.

Norm Yanke  
Nelson BC