FORT ST. JOHN
The Energetic City

City of Fort St. John
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Dec. 20, 2019

Sent via email/eFile

Mr. Patrick Wruck
Commission Secretary
BC Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3
Commission.Secretary@bcuc.com.

RE: Project Number 1599004 - British Columbia Hydro and Power Authority – Application to Amend Net Metering Service under Rate Schedule 1289 – BCUC Information Request No. 1 to the City of Fort St. John

Dear: Mr. Wruck:

As per the Regulatory Timetable, the City of Fort St. John is providing a response to the British Columbia Utilities Commission (BCUC) Information Request No. 1.

As per Intervenor Evidence:

> *"The City of Fort St. John is a large customer, with many meters under their corporate account, with only a single meter (the City's Micro-Hydro Project) with surplus energy. This surplus energy is a small percentage of the overall energy consumed by the City."*

BCUC requested that the City provide the total energy consumption for the meter associated with the City of Fort St. John's Micro- Hydro Project in 2018.

The following provides a summary of 2018 energy consumption and production for the City of Fort St. John's Micro-Hydro project in 2018:

Energy Outflow – Micro Hydro Meter	398,580 kWh
Energy Consumption – Micro Hydro Meter	900 kWh
Net Energy Outflow – Micro Hydro Meter	397,680 kWh

The attached Figure 1 is provided to provide context on the location of the micro-hydro facility, and the other meter identified in the previously submitted intervenor evidence.

The micro-hydro facility is located on the effluent discharge line from the South Sewage Treatment Facility. It was built near the bottom of the valley to provide sufficient head pressure to effectively operate the turbine generator. During design and construction of this facility there were two options available for connecting this facility to the power grid:

1. Install approximately 2.5 km of cable back to the aeration/blower building (which in 2018 had an annual consumption of 1,299,420 kWh), for an additional cost of over $250,000, or
2. Connect to the overhead BC Hydro distribution system that was less that 50 m away.

Option 2 was chosen. At that time there were no concerns expressed by BC Hydro about a facility/meter overproducing power, if there had been concerns then there may have been more justification to spend the extra money to connect back to a facility/meter where the produced power could be directly consumed.

These two meters are only associated with the Wastewater Treatment Plant. Overall, the City has 63 different meters across the entire service area and infrastructure. The two meters shown on the attached figure make up less than 6% (net) of the overall energy usage in the community.

It should be noted that in 2018, a landslide occurred, causing a disruption to the overhead hydropower lines upstream of the micro-hydro facility, and the entire community of Old Fort. As a result, there were approximately two months when the micro-hydro station was in bypass mode as BC Hydro could not permit electricity entering the grid (the grid was de-energized during this period). Further, there was no consumption during that period of time due to community wide evacuations and the de-energized grid.

Thank you for your consideration.

Sincerely,

Victor Shopland
General Manager of Integrated Services

Attachments: Figure 1

Building Locations

URBAN systems

Client/Project
City of Fort St. John BCUC

Scale	Revision Date	Figure
1:3000	2019-12-13	1

1958.0242.19	Title
	Micro Hydro, Disinfection Facility, Blower and Chlorination Locations

\\usl.urban-systems.com\projects\Projects_FS\1958\0242\19\02-Misc. Engineering\2019-07 BCUC Review\2019-12-10-Locations-Figure\FIG-1958024219-Micro-Hydro-Disinfection-Facility-Blower-Chlorination-Building-Locations.dwg, Fig 1, 2019/12/13 01:38 pm mroeske