

Chris Sandve

Chief Regulatory Officer

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July 6, 2021

Mr. Patrick Wruck
Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Wruck:

**RE: British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Response to BCUC Information Request No.1**

BC Hydro writes in accordance with BCUC Order No. G-181-21 to submit its responses to Information Request No. 1 regarding the E.C. Complaint received from the BCUC on June 21, 2021.

The responses are below:

**1.0 Reference: USE OF CITY OF VANCOUVER'S EASEMENT
British Columbia Hydro and Power Authority email dated
September 17, 2018
Denial of installation of new infrastructure on City of
Vancouver Easement**

On September 17, 2018, British Columbia Hydro and Power Authority (BC Hydro) noted within their correspondence with the complainant that two options for service connections were to be considered. A Low-Profile Transformer (LPT) with an underground connection to services located on Arbutus Street, or an overhead extension at the front of the property on W 51st Street. BC Hydro stated that the overhead extension had been denied by the City of Vancouver. The City of Vancouver had cited 3.9 of the Utilities design and construction manual that states the City does not permit any utility to install new pole lines or extension to existing pole line.

- 1.1. Has BC Hydro installed a new pole or an extension to an existing pole line on a City of Vancouver easement within the past 3 years? If yes, please offer why the City of Vancouver allowed the new infrastructure to be put in place.

RESPONSE:

BC Hydro has not installed any new, permanent poles on City of Vancouver easement or on public property in the last three years. BC Hydro installs temporary poles on public property for the purpose of providing construction power where the pole is removed at the end of construction.

**2.0 Reference: SERVICE OPTIONS
BC Hydro email dated May 3, 2018
Service options on current pole line**

On May 3, 2018, BC Hydro responded to the complainant that the reconnection of power services would require an installation of an LPT. BC Hydro noted that an LPT would be required as BC Hydro could no longer use the existing pole.

- 2.1. Please provide detailed information on the current capacity available on the transformer.

RESPONSE:

The existing transformer has a rated capacity of 50 kVA. Over the last two years, historical consumption data indicates that the coincidental peak load on the transformer was 18 kVA, leaving approximately 32 kVA of available capacity at the transformer's terminals.

While 32 kVA of capacity is available, a transformer's ability to provide its rated capacity depends on electrical variables such as conductor size and conductor length due to voltage drop, which is the decrease in electrical potential as a current travels along the wire. The distance of the transformer is located approximately 100 meters away from the Complainant's point of delivery and additional load would cause excessive voltage drop on the line.

BC Hydro uses a Distribution Analysis and Design (DAD) calculator to measure voltage and is unable to provide service when there is a voltage drop greater than 3 per cent. This maximum allowable voltage drop is determined by the Canadian Standards Association and is in place to ensure acceptable voltage levels are provided in order to allow for the proper operation of electrical equipment and household appliances. For a typical 200 AMP service, the voltage drop for this distance would be approximately 4.2 per cent.

- 2.2. Can the transformer on the line be updated to accommodate the 200 AMP service required for the Complainant's property while maintaining the existing pole on the complainant's property?

RESPONSE:

The existing transformer could be upgraded to accommodate the 200 AMP service request required for the Complainant's property while maintaining the existing pole but would require upgrading all of the conductors within the City of Vancouver utility easement to address the voltage drop on the line to the Complainant's property. An increase in conductor size would further necessitate the installation of additional pole anchors and down guys (support wires) to support the increased horizontal tensions caused by the larger conductors.

- 2.3. Have there been new connections to the existing infrastructure completed since April of 2018?

RESPONSE:

There have been no new, permanent connections made to the existing infrastructure since April 2018. The last connection made to this transformer was completed in September 2003.

- 2.4. Has an alternate location/property been considered for the location of the LPT? If not, please explain.

RESPONSE:

When supported by the municipality and technically feasible, the preferred approach is to locate infrastructure in public property. However, in this case, there is not adequate space on public property to locate the LPT to serve the Complainant's property. When infrastructure is to be installed on private property, BC Hydro's business practice is to locate equipment on the property causing the need for the infrastructure. Accordingly, no alternate private property location was considered for the location of the LPT.

**3.0 Reference: PROJECT COSTS
BC Hydro email dated August 18, 2020
Denial of fees to relocation gas and sewage lines**

On August 18, 2020, BC Hydro confirmed they would pay all costs regarding the arborist's fees for protected trees on the property and the installation of the LPT. BC Hydro further reduced the installation fees for the complainant from the initial \$100,000, approximated by BC Hydro, to the standard connection charges and meter installation of approximately \$1,451.00. However, BC Hydro denied the costs associated with the relocation of sewer and gas lines on the complainant's property.

- 3.1. Has BC Hydro paid costs to move gas and/or sewage lines in order to install an LPT in the past? If yes, why have these costs been denied in this instance?

RESPONSE:

No, BC Hydro has not paid to relocate underground services to install an LPT in the past. BC Hydro installs LPTs in response to a customer's request for a new or upgraded service and works with the customer to locate the necessary equipment in a mutually acceptable location in accordance with the applicable standards and regulations. If a mutually acceptable location cannot be agreed upon, BC Hydro is unable to provide service.

**4.0 Reference: POLE ACCESSIBILITY
BC Hydro email dated March 4, 2021
Pole accessibility for service**

On March 4, 2021, BC Hydro responded to BCUC staff questions regarding what technical limitations exist for BC Hydro to provide permanent service from the existing pole, stating the existing pole line is on a City of Vancouver easement and there are vegetation and access issues due to the pole locations on private property at the rear of the properties.

- 4.1. It was noted that this pole will continue to service the complainant's neighbor. Please explain how this pole will be accessible for service.

RESPONSE:

This pole will continue to have access issues for the duration of time BC Hydro maintains the neighbouring service. During planned or emergent maintenance, BC Hydro would incur costs associated with the removal of fences, trees or clearing of land to access BC Hydro infrastructure with equipment such as a bucket truck as well as work to restore the impacted properties after construction is complete.

If the neighbouring properties request new or upgraded service, they will similarly be required to take service from an accessible route and any infrastructure that is no longer required as a result of these requests will be removed.

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For further information, please contact Alicia Henderson at 604-623-4381 or by email at bchydroregulatorygroup@bchydro.com

Yours sincerely,



Chris Sandve
Chief Regulatory Officer

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