



LETTER NO. L-60-10

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VIA EMAIL

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August 17, 2010

Ms. Joanna Sofield
Chief Regulatory Officer
British Columbia Hydro and Power Authority
17th Floor, 333 Dunsmuir Street
Vancouver, BC V6B 5R3

Dear Ms. Sofield:

Re: British Columbia Hydro and Power Authority
Reporting of Forced Outage (January 2009)
Power Surge in Mission/Stave Falls Area
Order G-54-09 / Surge Arrester Report

The Commission issued Order G-54-09 dated May 21, 2009. Directive 6 of this Order requested BC Hydro to provide a report on the effectiveness of its sacrificial surge arrester program, no later than May 1, 2010.

On May 5, 2010, BC Hydro submitted its Surge Arrester Report and on May 28, 2010, BC Hydro submitted its response to the Commission's letter of May 14, 2010 requesting further information with regard to the Surge Arrester Report filed by BC Hydro on May 5, 2010.

These reports were submitted in response to complaints received regarding a power outage and power surge (over-voltage event) in the Stave Falls area that occurred on January 5, 2009 and affected 775 customers out of which approximately 140 customers were severely impacted.

Commission Findings

Commission staff has completed their review of the reports and subsequent information. The Commission accepts the reports and responses as filed.

During the Commission staff review of these power surge events, Commission staff noted a safety issue in regard to the electrical system. The safety issue appears to lead to an increasing risk of fire from surge protectors that fail and damage to electronic equipment connected to alternating current receptacles as well as a potential threat to hard-wired smoke alarms.

Commission Directives

Having considered the risks, the Commission now directs BC Hydro to submit within 90 days of this letter a mitigation plan that deals with the risk to its customers from future incidents involving transmission lines having distribution underbuild.

The mitigation plan should include an examination of alternatives, their costs and provide a recommended course of action to reduce or eliminate the current level of damage from incidents where transmission lines come into contact with under-built distribution lines.

It is expected the mitigation plan will address each of the following:

1. The use of recloser pulse-closing technology on distribution underbuild to further mitigate the impact of power surges.
2. The separation of the primary distribution neutral and customers' secondary neutral in multi-neutral grounded electrical systems as permitted by the National Electrical Safety Code (NESC) to further mitigate the impact of power surges as a result of recloser operation onto a shorted station class surge arrester.
3. The resolution with British Columbia Safety Authority (BCSA), Underwriters Laboratories of Canada (ULC) and Canadian Standards Association (CSA), of the safe application of the impending CSA standard for whole-house residential surge suppressors (similar to UL 1449, 3rd edition) and provide a plan of how it intends to communicate this information to its customers.
4. The resolution with the BCSA and the Office of the Fire Commissioner for British Columbia, of the issue of the hard-wired residential smoke alarm functionally after a power surge of this type.

As BC Hydro indicated its business case for the installation of station-class arrestors is expected to be signed off shortly, the Commission would like to see the cost impact of pulse-closing technology for reclosers and the new CSA surge protection devices as part of this business plan. The Commission directs BC Hydro to include its business plan with the mitigation plan.

The Commission would appreciate BC Hydro's continuing cooperation with FortisBC in achieving a high level of mitigation for the issue of power surges, which have affected the customers of both utilities.

Yours truly,

Erica M. Hamilton

DJF/dg

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