



Kyuquot Power Ltd.

101-1444 Alberni Street
Vancouver, B.C. Canada V6G 2Z4
Tel (604) 688-8271 Fax (604) 688-1286

By Email

December 29, 2020

Ms. Marija Tresoglavic, Acting Commission Secretary
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

**Kyuquot Power Ltd. ("KPL") – BC Utilities Commission ("BCUC") Compliance with
Orders No. G-280-20 and G-309-20 ("Orders")**

Please find attached KPL's responses to the directives in the Orders.

The undersigned should be contacted directly, in respect of any questions or clarifications.

Yours truly,

Roshni Reddy
For Tanya L DeAngelis
KYUQUOT POWER LTD.

KYUQUOT POWER LTD.
INVESTIGATION INTO THE SAFETY AND RELIABILITY OF THE KPL SYSTEM
RESPONSES TO BRITISH COLUMBIA UTILITIES COMMISSION (“BCUC”)
DIRECTIVES IN ORDERS G-309-20 and G-261-20

A. INTRODUCTION

Pursuant to Order G-309-20 (“Order”) the British Columbia Utilities Commission (“BCUC”) granted an extension to the compliance directives contained in Order G-261-20. The BCUC directives contained in Order G-309-20 and Order G-261-20 are identical including numbering (collectively “Directives”) except that Order G-309-20 contains the following additional directive:

“7. KPL is directed to continue to provide the BCUC with weekly progress reports outlining the work undertaken until KPL has demonstrated compliance with all directives noted above in this order.”

The Directives required Kyuquot Power Ltd. (“KPL”) to respond to the BCUC by two separate dates, namely December 9, 2020 and December 29, 2020.

On December 9, 2020, KPL filed an initial response to the Directives and it has been marked as Exhibit D-16 in the proceedings. By this submission KPL is filing the below responses that are required to be filed by December 29, 2020.

As noted in Exhibit D-16, there are substantial differences in some of the terms in the Directives and those used by the consultants that were engaged by KPL to perform work described in the Directives.

For example the use of the words “urgent” and “priority” were used in the Directives. In the plan prepared by the vegetation management consultant Asplund Canada ULC (“Asplund”) words such as “Hot-Spotting or Hazard Tree Removals” are used. In the maintenance plan prepared by Primary Engineering and Construction Ltd. (“Primary”) words such as “High (Priority 1) Medium (Priority 2) and Low (Priority 3)” are used.

Irrespective of the language used, KPL understands the BCUC’s desire to have certain work completed by specified dates e.g. December 20, 2020 and accordingly has engaged consultants and contractors. The outcome of these efforts is described below.

B. DIRECTIVE 1

“KPL is directed to provide the BCUC with a vegetation management plan identifying all urgent vegetation work on the KPL System (Vegetation Plan) by December 9, 2020. The Vegetation Plan shall be approved by a qualified utility arborist and shall include;

- a. An action plan to complete priority items by December 20, 2020; and*
- b. An action plan and schedule to complete all remaining urgent vegetation work.”*

RESPONSE

Please refer to KPL’s response to Directive 1 in Exhibit D-16.

C. DIRECTIVE 2

“KPL is directed to provide the BCUC with a report demonstrating the completion of the action items identified in Directive 1.1 (a) (Vegetation Plan Completion Report) by no later than December 29, 2020. The Vegetation Plan Completion Report shall be approved by a qualified utility arborist.”

RESPONSE

Vegetation Plan Completion Report as at December 20, 2020.

As a part of KPL's existing annual vegetation management, and prior to the issuance of the Directives, KPL arranged on October 9, 2020 for a clearing contractor that is a local resident to provide vegetation management. The scope of work was for clearing mainly on Walter's Island and for the Amai Main section of the powerline. Total powerline length involved was about 11km.

The contractor was unable to commence work and on October 28, 2020 KPL arranged for another local resident contractor to do the same work except that a 2km section near Chamiss Bay was added. This addition was based on a recommendation from KPL's existing electrical contractor, HB Energy Ltd. In late November 2020, a further 6km section from Amai Main towards Fair Harbour was added. The work commenced on November 2, 2020 and was completed on November 29, 2020 for a total of about 18km cleared.

The Vegetation Plan by Asplundh did not identify any clearing, danger tree removal or other work that needed to be completed on or before December 20, 2020. The recommendations in this plan are for some work to be completed within six (6) months and the remaining work over a four (4) year period.

KPL had scheduled for some danger tree removal prior to December 20, 2020, however the work has been delayed because of adverse weather, contractor availability and COVID-19 concerns. At this time there is nothing for a certified utility arborist to approve.

A certified utility arborist is to perform an annual site inspection prior to the commencement of the annual trimming and brushing program. The site inspection will review and record the remaining vegetation work outstanding from the previous site inspection and determine additional vegetation work.

D. DIRECTIVE 3

"KPL is directed to provide the BCUC with a plan identifying all outstanding maintenance work on the KPL System (Maintenance Plan) by December 9, 2020. The Maintenance Plan shall be approved by a qualified professional engineer and shall include:

- a. An action plan to complete priority items by December 20, 2020; and*
- b. An action plan and schedule to complete all outstanding maintenance work "*

RESPONSE

Please refer to Response to KPL's response to Directive 3 in Exhibit D-16.

E. DIRECTIVE 4

"KPL is directed to provide the BCUC with a report demonstrating the completion action items identified in Directive 3(a) (Maintenance Plan Completion Report) by no later than December 29, 2020. The Maintenance Plan Completion Report shall be approved by a qualified professional engineer."

REPONSE

Maintenance Plan Completion Report as at December 20, 2020

The Management Plan in Exhibit D-16 as prepared by Primary included a table of identified deficiencies listed into three Priority levels (High-1, Medium-2 and Low-3). The table listed 111 total deficiencies with 36 being Priority 1, 62 being Priority 2 and 13 being Priority 3.

Of the 36 Priority 1 items, 18 were for the installation of temporary signage (requiring 34 signs (“Signs”). In addition, of the 13 Priority 3 items, 7 were for the replacement of identity numbers on power poles (“Pole Numberings”). KPL is using a local contractor for the Signs and Pole numbering. Due to COVID-19 restrictions, the Signs were not in Kyuquot until the afternoon of December 17, 2020. On December 28, 2020 the local contractor advised KPL that 18 Priority 1 items had been completed. In addition, a number of pole numbers had been mounted leaving about 3 Priority 3 items remaining.

After deduction of the Sign and Pole Numberings, the maintenance list prepared by Primary totalled 86 deficiencies with 18 Priority 1 items, 62 Priority 2 items and 6 Priority 3 items. KPL’s electrical contractor attended to deficiencies during two site visits, November 19, 2020 and during December 16-19, 2020. The site visits were delayed by adverse weather, BC Hydro outages and contractor availability. Appendix 3(D) is a list provided by the electrical contractor of the deficiencies addressed on each of the site visits. The contractor list includes maintenance completions of 17 Priority 1 items, 32 Priority 2 items and 1 Priority 3 items.

As at December 29, 2020, the outstanding deficiencies remaining on the Primary list includes 39 deficiencies with 1 Priority 1 item, 32 Priority 2 items and 4 Priority 3 items. The Priority 1 item outstanding is on Pole #488. KPL is required to add locks to the Ka:’yu:’k’t’h’/Che:k’tles7et’h’First Nations (“KFCN”) Gang Operated Load Break Switch restricting the operation to KPL personnel only. KPL’s electrical contractor decided against completing this work item to avoid any adverse reaction from the KFCN. KPL’s electrical contractor has provided a suitable lock to the KPL local representative for his installation at the appropriate time. The outstanding 32 Priority 2 items and 4 Priority 3 items are to be completed within 6 months at times of site visits to Kyuquot.

F. DIRECTIVE 5

“KPL is directed to provide the BCUC with a detailed scope and timeframe to complete KPL’s full safety and condition assessment report (Assessment Report), which was included in KPL’s March 30, 2020 System Stabilization Plan by December 9, 2020.”

RESPONSE

Please refer to KPL’s response to Directive 5 in Exhibit D-16

G. DIRECTIVE 6

“KPL is directed to conduct a review of its maintenance and safety management procedures under the guidance of a qualified professional engineer. KPL is directed to provide a report to the BCUC outlining the findings of the review and plans to implement any recommended changes to its maintenance and safety management procedures by December 29, 2020.”

RESPONSE

Review and Implementation of Maintenance and Safety Management Procedures

The review and implementation of changes arising from the Investigation into the Safety and Reliability of the KPL System are as follows:

- a) KPL has engaged Greg Sunell to provide on going operational management functions. Greg Sunell is a professional engineer with experience related to electrical distribution systems who acts in a consultancy role to KPL. Greg Sunell managed the KPL System since its inception in 2006 until 2018. Further, he previously managed utility systems at Field, Kwadacha and Tsay Keh as well as management of the Holberg Grid Connection (a 40km, 25kV distribution power line) and the Mears Generation Station power line (a 25km, 25kV power line).

- b) KPL has ceased using Technical Services British Columbia (“TSBC”), a well qualified government agency, to provide regulatory compliance and safety oversight and reviews because the regulating authority was determined to be the BCUC. Therefore, the annual inspection of TSBC together with a KPL electrical contractor was not performed in the summer/fall of 2020.
- c) Pursuant to a Directive, KPL engaged Primary, an independent electrical consultant, to inspect the KPL System and make recommendations regarding maintenance deficiencies. The interpretation of code requirements and best practices of Primary differs from TSBC and/or previous electrical consultants. KPL is addressing the maintenance deficiencies identified by Primary and anticipates satisfying Primary’s recommendations. KPL intends Primary to be on-site in Kyuquot at least once in every running 12 month period.
- d) Pursuant to a BCUC Directive, KPL engaged Asplundh, a independent utility arborist consultancy, to inspect the KPL System and make recommendations for vegetation management. Asplundh recommended a trimming and slashing program, substantially in accordance with the existing KPL program and also a Hot-Spotting and Hazard Tree assessment. KPL intends to proceed with Hazard Tree and Hot-Spotting removals over both the near term (6 months) as well as the longer term. KPL anticipates that Asplundh will be engaged annually, likely in the early fall of each calendar year, for an on-site inspection and recommendations regarding trim and slash areas as well as reporting and advising on past and future Hazard Tree and Hot-Spotting assessments.

KPL has determined that the continuation of its current electrical contractor(s) and local contractor(s) for the electrical maintenance and vegetation management work is appropriate and cost effective.

Separately, KPL is reviewing the capacity of the KPL system and longer term planning matters. The findings of this review may result in adjustments to the annual maintenance and vegetation plans, although this review is unlikely to materially affect the current plans.

H. DIRECTIVE 7

“KPL is directed to continue to provide the BCUC with weekly progress reports outlining the work undertaken until KPL has demonstrated compliance with all directives noted above in this order.”

RESPONSE

KPL will continue to provide weekly progress reports until advised otherwise by BCUC.

KYUQUOT POWER LTD.
Investigation into Safety and Reliability of the KPL System

APPENDICES
KPL RESPONSE TO BCUC ORDER G-309-20

APPENDIX 3D

REPORTS FROM ADDY POWER LTD.

LIST OF WORK COMPLETED FOR KYUQUOT POWER LTD. ON NOV 19, 2020
LIST OF WORK COMPLETED FOR KYUQUOT POWER LTD. ON DEC 16-19, 2020

Kyuquot Power
Nov 19/20
Work Completed

Pole #

10,11,15	Repairs due to downed trees
----------	-----------------------------

Repairs as per Primary Engineering Report & some not on the report	
19	Bent angle pin replaced
38	Replaced neutral spool
66	Installed 7' crossarm for neutral clearance
71	Removed tree branch from neutral
83	Replaced broken neutral tie
84	Replaced broken neutral tie
154	Replaced connections with proper sleeves
270	Replaced bent angle pin
271	Removed branch from neutral
303	Recommend removal of cutout as it is not required. Also, it is not wired correctly. The source is connected to the bottom of the cutout and it should be feeding the top of the cutout and the load on the bottom of the cutout.
311	Pin only slightly bent - no need to replace.
318	Ground was dug by machine - no erosion still plenty of good ground by pole. No issue at this time.
321	Tightened guy wire. Conductor not damaged as per note - old flagging on the conductor only.
324	Replaced broken neutral tie. Tightened guy wire.
325	Replaced broken neutral tie.
326	Pin okay - just repositioned on the pole and added anti-split bolt.
329	Replaced straight pin with angle pin.
369	Re-tensioned guy wires
384	Re-crimped ground wire - improper connector originally. Note - #4 aluminum ground wire not correct.
395	Re-tensioned guy wire
413	No action required
426	Re-tensioned guy wire
429	Re-tensioned guy wire. Angle pin ok.
434	Re-tensioned guy wire. Replaced neutral tie
435	Replaced broken neutral tie.
436	Pin okay - just bolted on pole a little crooked
438	Replaced broken neutral tie

Kyuquot Power**Dec 16-19 2020****Maintenance completed as per Primary Engineering Report****Pole # Page #**

Dec 16 2020		
1	1	Fixed locking mechanism & installed lock - see pictures. Note: switch is air-break only and should be load-break. May be able to buy parts to retro-fit existing to add load-break device. Key for switch is in the bottom of the operating pipe.
4	2	Re-tensioned guy wire
32	2	Re-tensioned guy wire
33	2	Re-tensioned guy wire
36	2	Re-tensioned guy wire
37	2	Re-tensioned guy wire
54	2	Re-tensioned guy wire
281	2	Re-tensioned guy wire
299	2	Replaced neutral tie
105	2	Push brace is already supported with crossarm & no action required. See pictures.
Dec 17 2020		
505	1	Replaced primary tie
509	1	Installed proper tension sleeves
510	2	Clean moss off wire
511	2	Re-tension guy wire
512	1	Install proper tension sleeves
513	1	Install proper tension sleeves
Dec 18 2020		
514	1 & 2	Install new primary ties; Connected ground; Re-tensioned guy wire
515	1	Cleaned insulators; Repaired neutral
516	1	Installed proper tension sleeves; Relocated neutral clevis so neutral not on pole.
517	1	Installed proper tension sleeves; Replaced pole top angle pin
518	2	Pole needs to be straightened for anchor to line up correctly. Push brace no required. Anchors are correct.
519	1	Repaired neutral; Straightened pin only - pin okay.
520	2	Re-tensioned guy wire
524		not on list - fixed two spans of neutral that were down due to downed tree.
254	1	Installed new screw anchor & guy wire
503	2	Angle pins are not bent - installed a little crooked when initially installed - no action required.
504	2	Angle pins are not bent - installed a little crooked when initially installed - no action required.
Lot 1670	1	Unable to get to island due to no dock - requires smaller boat to access island.
Dec 19 2020		
321	1	Repaired primary
353	1	Installed proper tension sleeves
354		not on the list - replaced straight pin with an angle pin