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By Email

February 22, 2021

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

Kyuquot Power Ltd. ("KPL") – BC Utilities Commission
Order No. G-39-21 – KPL's Response to Intervener's Submissions on KPL's Compliance Filings

Please find attached KPL's response to intervener written submissions on KPL's compliance filings.

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 KYUQUOT POWER LTD. ("KPL") SYSTEM RESPONSES TO KA:YU:'K'T'H' / CHE:K'TLES7ET'H' FIRST NATION ("KCFN") REPLY SUBMISSIONS TO KPL COMPLIANCE FILINGS

A. INTRODUCTION

Set out below are KPL's responses to the material in Exhibit C2-6 filed by the KCFN and written by TE Burns Engineering ("Burns").

Exhibit C2-6 consists of a cover letter, and two letters from Burns entitled:

- "*KCFN Electrical Energy Consumption vs KPL Energy Consumption & KPL/BC Hydro Point of Interconnection Loading vs Fuse Capability*" ("Burns Reply Letter A")
- "*TE Burns Engineering Technical Submission re KPL Compliance Findings*" ("Burns Reply Letter B").

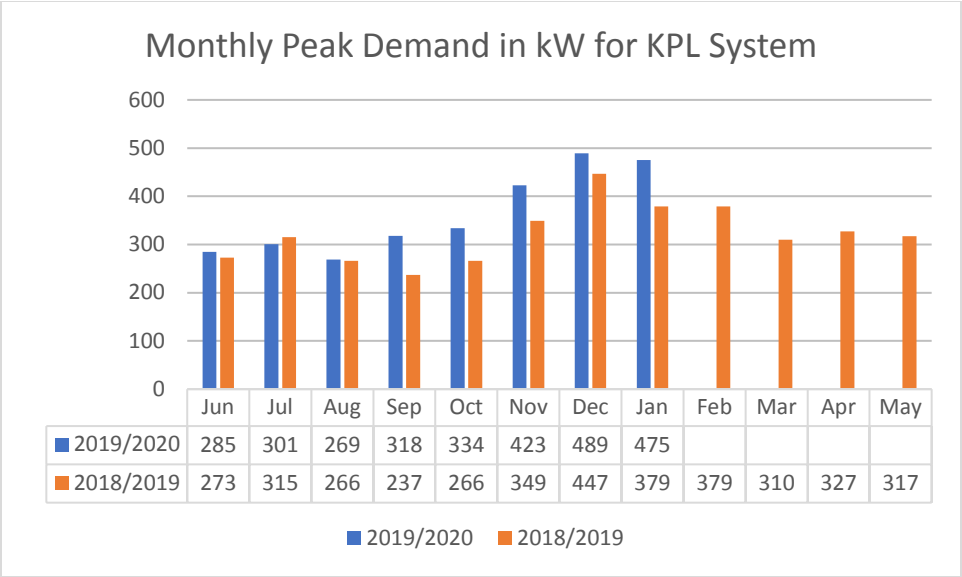
B. BURNS REPLY LETTER A

(1) KPL'S RESPONSES TO BURNS' DISCUSSION CONCERNING KCFN ELECTRICAL ENERGY CONSUMPTION VS KPL ENERGY CONSUMPTION

Pages 1 and 2 of Burns Reply Letter A contain graphs for the demand for electrical energy as expressed in kilowatt hours for the period 2013/14 to 2019/20 and September 2007 to September 2020 ("Graphs").

KPL's concern as expressed in Exhibit D-16[1] relates to the increase in the peak demand for capacity on the KPL system and not the increasing demand for energy which is the topic of the Graphs. KPL's ability to meet peak demand is constrained by the Electrical Service Agreement between it and BC Hydro[2] ("Service Agreement"). The following graph shows the increasing demand for capacity on the KPL system during the period June 1, 2018 to May 31, 2020. The graph shows an increase in demand commencing in September 2019. This increase was described earlier in the KPL's response to BCUC Information Request ("IR") No. 2, 11.1[3].

[1] Page 3 of 4, "F. Order 5", paragraph commencing "The peak electricity demand…"
[2] Exhibit D-3-1, Appendix D and see also Exhibit D-3-1, Appendix F which is KPL's application to raise the existing capacity limit in the Service Agreement
[3] Exhibit D-5.



	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
2019/2020	285	301	269	318	334	423	489	475				
2018/2019	273	315	266	237	266	349	447	379	379	310	327	317

KPL has asked its largest customer KCFN whether it can confirm if it has experienced an increase in the demand for capacity and KCFN has replied that it is not aware of any.

The conclusion on page 2 of Burns Reply Letter A that:

> "The graph does not support this hypothesis."

is not accurate because an increase in the demand for electrical energy and an increase in the demand for capacity is not an "apples to apples" comparison. The increase in the demand for capacity for the period June 1, 2018 to May 31, 2020 is correctly stated by KPL.

KPL will continue to monitor this increase to try to ascertain whether it is permanent and its source. Perhaps the installation of a demand meter at the point of interconnection with KCFN, KPL's largest customer, might be of assistance in assessing the situation. Currently there is only a demand meter at the point of interconnection with BC Hydro because under the Service Agreement KPL pays a demand charge and an energy charge. Under KPL's tariff, customers only pay an energy charge.

(2) KPL'S RESPONSES TO BURNS' DISCUSSION CONCERNING KPL/BC HYDRO POINT OF INTERCONNECTION LOADING VS FUSE CAPABILITY

Commencing on page 2 of Burns Reply Letter A, there is discussion about fuse sizing. It is important to note the Burns' discussion does not directly relate to KPL's Compliance Filings[4]. Despite this, KPL wishes to respond to it.

The same topic was addressed by KPL in response to KCFN IR No 1, 1.[5] as follows:

> *"There are a number of fuses within the Kyuquot Power Ltd. ("KPL") system ("KPL System") and within the BC Hydro System at Zeballos. Fuses are sized in order to limit the extent and damage of outages and are generally the smallest at the customer point of inter-connection e.g. between the BC Hydro and KPL*

[4] Exhibits D-16, D-20 and various weekly Progress Reports. The core of the Compliance Filings are reports prepared by Asplundh Canada ULC in relation to vegetation management and Primary Engineering and Construction Ltd. in relation to maintenance

[5] Exhibit D-5

systems and largest at the BC Hydro substation. In this case, the fuses protecting the BC Hydro system in Zeballos would be expected to be larger than the fuses on the KPL System. The KPL Field Service Representatives ("FSR's") communicate with BC Hydro technical staff regarding fusing, particularly during times of outage, and accordingly, the size of a fuse selected by the FSR is dependent on past and present understandings and communications with BC Hydro personnel. KPL's has not kept up to date records in relation to the size of fuses installed at the time of an outage. As noted immediately above the decision about fuse size has been left to the FSR. It is KPL's experience that this choice of fuse size has not been a determining factor in the number or duration of outages. In response to BCUC Order G-50-20, KPL engaged Prime Engineering to make a Primary Service Alteration Amendment Application on behalf of KPL to BC Hydro which includes material relating to the size of the fuse at the Point of Interconnection with BC Hydro. Please see KPL's response to BCUC IR 1.1.2".

The size of the fuse at the point of interconnection with BC Hydro is to prevent the load on the KPL system from exceeding BC Hydro's ability to supply it under the Service Agreement. KPL also wishes to note that fuses can be "blown" by electrical faults on the KPL system and by electrical faults in its customer's electrical equipment.

C. BURNS REPLY LETTER B

Burns Reply Letter B is segmented into three sections:

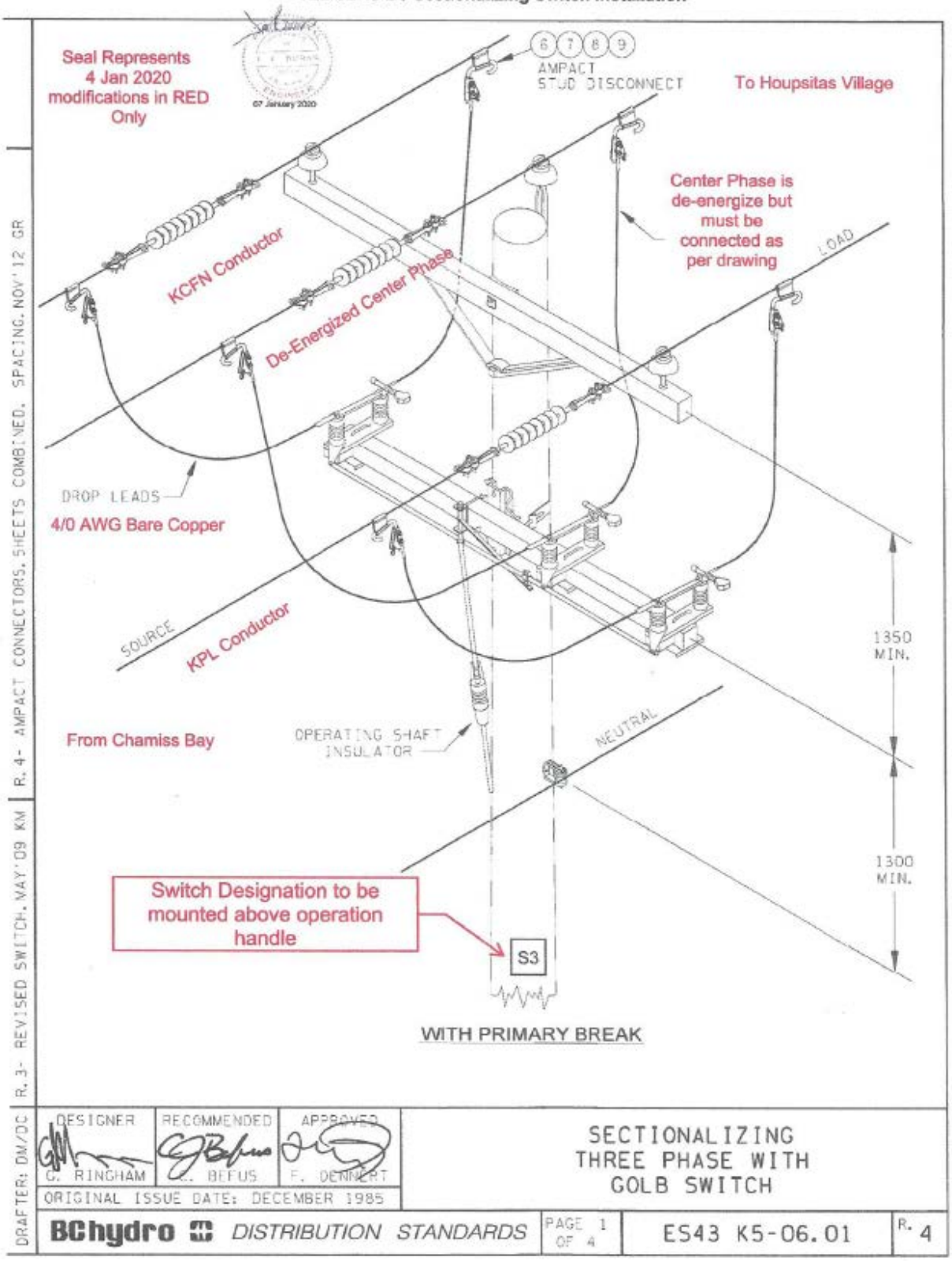
- GOLB Switch S3
- Maintenance Activities Affecting the Stability of the KPL Line
- Distribution Planning and Operational Issues – Load Management and System Protection

(1) KPL'S RESPONSES TO BURNS' DISCUSSION CONCERNING THE GOLB SWITCH S3

a) The switch, termed "GOLB Switch 3", is connected jointly to both KPL and KCFN conductors. The switch when operated controls a part of the KPL System and a part of the KCFN System. For clarity, below is a copy of a drawing provided by Burns[6] showing the KCFN conductor, the KPL conductor and the switch mechanism.

[6] Exhibit C2-5

TEB 92-19 D3 Sectionalizing Switch Installation



KPL's response to BCUC IR No. 2, 12.3.1[7] provided the agreement between KPL and KCFN covering KPL's right of access for private utility distribution. Below is an executed KCFN Band Council Resolution including joint pole use that was very recently uncovered and reviewed by KPL. Significant portions of this resolution have been superseded by the contents of the agreement for right of access for private utility distribution. There is a need to formalize a joint pole use agreement between KCFN and KPL which KPL is willing to commence discussions about with KCFN.

Ka:'yu:'k't'h'/Che:k:tles7et'h
First Nations

BAND COUNCIL RESOLUTION
RESOLUTION DE CONSEIL DE BANDE

Chronological no. – N° consecutive

File reference no. – N° de reference du dossier

NOTE: The words "from our band funds" "capital" or "revenue" whichever is the case, must appear in all resolutions requesting expenditures from band funds.
NOTA: Les mots "des fonds de notre bande" "capital" ou "revenue" selon les cas doivent paraître dans tous les résolutions portant sur des dépenses à même les fonds des bandes.

			Cash free balance
The council of the / Le conseil de	Ka:'yu:'k't'h'/Che:k:tles7et'h' First Nations		Capital account / Compte capital $
Date of duly convened meeting / Date de l'assemblée dument convoquée	27/02/2006 DD / MM / YYYY JJ / MM / AAAA	Province B.C.	Revenue account / Compte revenu $

DO HEREBY RESOLVE:
DÉCIDE PAR LES PRESENTES:

The Ka:'yu:'k't'h'/Che:k:tles7et'h' Fist Nations ("KCFN") hereby grant permission for Kyuquot Power Limited ("KPL") to access and occupy a 10 meter wide right of way through IR #6 Houpsitas, as per Sigma Engineering Drawing 202 Revision 4, for the purpose of surveying, constructing, operating, maintaining and repairing an overhead and underground power cable. The purpose of the powerline shall be to serve Houpsitas with electircal power and to transmit electrical power through Houpsitas to other customers of KPL. In granting right of access and occupation, the following conditions shall apply:

1. KCFN hereby waives the appraisal of the assets in question
2. Access to the site for emergency repairs shall be unlimited. KPL shall inform KCFN of any emergency repairs and the scope of work needed to effect the repairs at Houpsitas as soon as it is practical.
3. KPL shall utilise existing electrical power distribution structures owned by KCFN.
4. Prior to delivering power to Houpsitas and to other customers of KPL through Houpsitas, KPL shall negotiate a lease agreement with KCFN covering the access and occupation of the ten meter wide right of way and the use of electircal power distribution systems owned by KCFN.

Quorum: THREE

(Chief - Chef)

(Councillor - Conseiller) (Councillor - Conseiller) (Councillor - Conseiller)

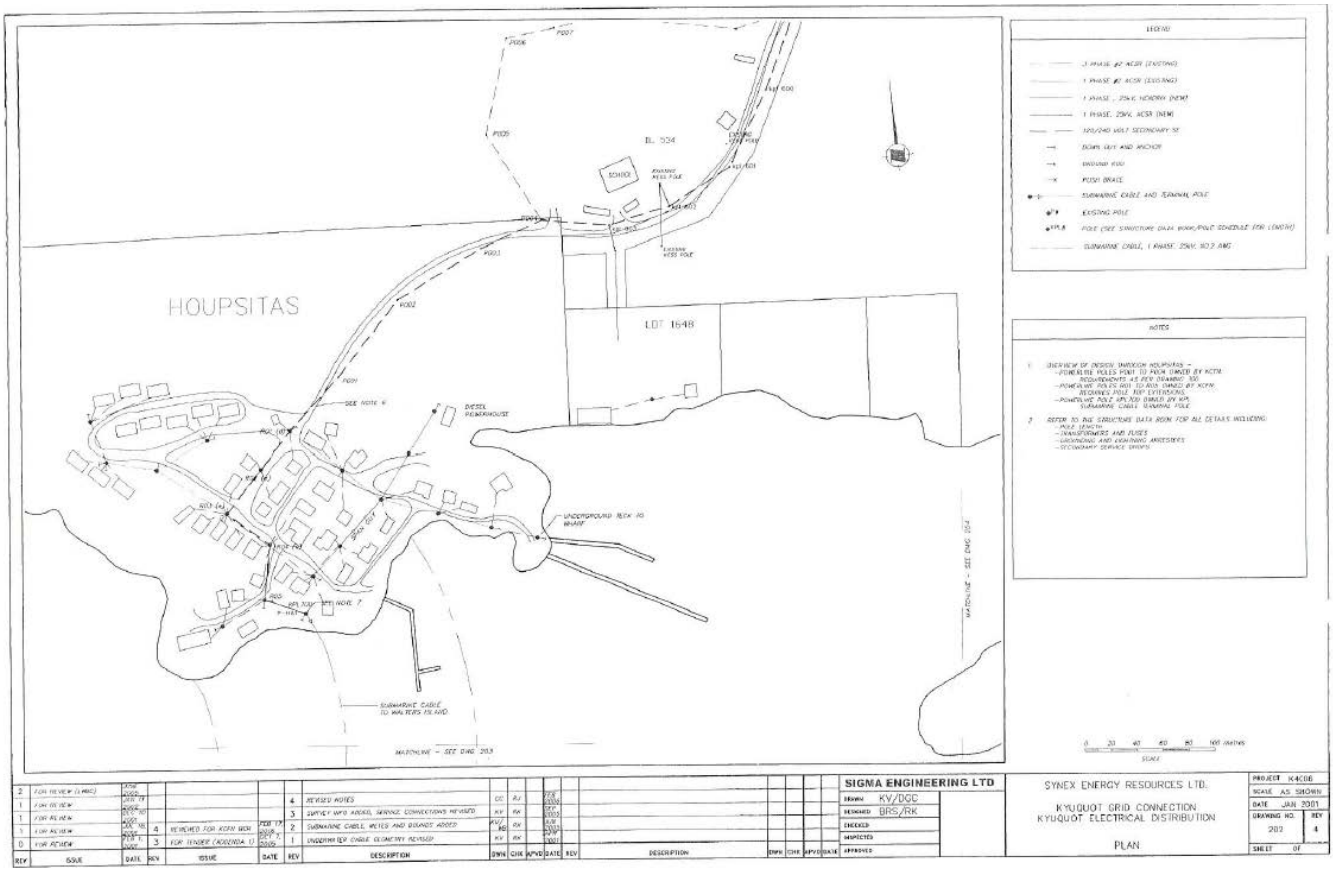
(Councillor - Conseiller) (Councillor - Conseiller) (Councillor - Conseiller)

(Councillor - Conseiller) (Councillor - Conseiller) (Councillor - Conseiller)

FOR DEPARTMENTAL USE ONLY – RÉSERVÉ AU MINISTRE

Expenditure - Depenses	Authority (Indian Act section) – Authorite (Article sur la loi des Indiens)	Source of Funds Sources des fonds ☐ Capital ☐ Revenue - Revenue	Expenditure - Depenses	Authority (Indian Act section) – Authorite (Article sur la loi des Indiens)	Source of Funds Sources des fonds ☐ Capital ☐ Revenue - Revenue
Recommending officer – Recommandé par			Recommending officer – Recommandé par		
Signature		Date	Signature		Date
Approving Officer – Approuvé par			Approving Officer – Approuvé par		
Signature		Date	Signature		Date

[7] Exhibit D-5, Appendix 2B



b) On Pages 2 and 3 of Burns Reply Letter B there is a discussion pertaining to Primary Engineering and Construction Ltd.'s ("Primary") letter about the GOLB switch (#3)[8] Set out below is Primary's response to this discussion.

[8] Exhibit D-26

Primary Engineering & Construction
#7-2250 Leckie Road, Kelowna
250-763-0401 | blee@primaryeng.com
www.primaryeng.com

Tanya DeAngelis
Kyuquot Power Ltd.

February 22, 2021

RE: Kyuquot Power Ltd. – Investigation into the Safety and Reliability of the KPL System – Project No. 1599094

Dear Sir/Madam,

In response to GOLB Switch S3 from TE Burns Engineering Technical Submission re KPL Compliance Findings dated February 16, 2021.

As stated in my previous response, the GOLB switch S3 installed by KCFN in January 2020 is a practical location to improve the safety & operability of KCFN's Houpsitas Village HV Network. While safety & operability is the main objective of the switch, it should also be noted that the operation of this switch will also directly affect KPL customers downstream in addition to KCFN's distribution system. My understanding is that prior to the switch being installed, KPL stated objections (around January 2020) to switch S3 unless KPL retained sole control of the KPL system. Currently, due to GOLB switch S3, KCFN has improper control of part of the KPL system and needs to be promptly addressed.

In Exhibit C 2-6, T E Burns response states that:

> *"My* [T E Burns] *recommendation is to proceed with creating the joint operating order. Once the joint order is signed by both parties, personnel from both KPL and KCFN could be issued keys to the existing lock."*

As well as:

> *"A dual key system will* ***not*** *be acceptable to KCFN."*

I agree with T E Burns that a joint operating order needs to be created. However, while issuing keys to the existing lock appears to be a viable solution, it will still allow KCFN control to KPL's system without the attendance of a KPL representative. KPL has strong objections to this arrangement. Each party should be physically present to operate switch S3. The operating order should formalize a procedure and contact information required so each party is present during the operation of the switch.

KPL is under a directive of a BCUC order to complete priority 1 maintenance work on the KPL System which includes the installation of the double lock. KPL has arranged for a double lock to be installed on the GOLB switch S3 such that the GOLB can only be activated by attendance of both KPL and KCFN; therefore, ensuring KPL control of their electrical distribution system and KCFN control of their electrical distribution system. KPL is currently being denied access to the lock mechanism on the GOLB by the KCFN.

Best Regards,

Ben Lee, P.Eng.
Professional of Record

c) On Page 3 of Burns Reply Letter B it states:

"*An alternative solution would be to reroute the "Fly Over" line so it does not contact KCFN structures or traverse the Village of Houpsitas"*

The original construction of the KPL system, including the joint use of power poles with KCFN and the traversing of the Village of Houpsitas, was completed at an affordable cost to the benefit of all KPL customers. There would be a significant cost to relocate, including no joint use of poles, the KPL system away from Houpsitas. There would be a material increase in the electricity rates of Houpsitas and non-Houpsitas customers.

(2) KPL'S RESPONSES TO BURN'S DISCUSSION CONCERNING MAINTENANCE ACTIVITIES AFFECTING THE STABILITY OF THE KPL LINE

a) On pages 3 and 4 of Burns Reply Letter B references are made to apparent deficiencies in KPL's vegetation management program. This reply letter also indicates that the line was patrolled by Burns and a Certified Utility Arborist.

KPL is following the recommendations of the Asplundh Report[9] ("Asplundh Report") which was prepared by its Certified Utility Arborist.

The work of the Certified Utility Arborist that patrolled the line with Burns has not been filed with the BCUC. Further, the proposals contained on pages 3 and 4 of Burns Reply Letter B do not address cost effectiveness. KPL has successfully completed vegetation management for the past 15 years without excessive planned outages. The use of local crews for vegetation management, amongst other benefits, enables clearing work to be done cost effectively and at opportunistic times (avoiding critical times and minimizing outages).

b) On page 5 of Burns Reply Letter B it states:

"*Notice in the first paragraph "The observed deficiencies along the distribution line are mainly caused by vegetation" – this is not surprising given the location of the line and the state of the vegetation growth. This further supports the need for aggressive professionally managed vegetation control."*

KPL is following the recommendations of the Asplundh Report[10] which was prepared by its Certified Utility Arborist.

c) On page 5 of Burns Reply Letter B it states:

"*The second paragraph talks about the need for a remedial action plan to follow up on damaged hardware.*"

The identified paragraph describes the remedial action being undertaken by KPL as part of the Primary Report[11].

[9] Exhibit D-16, Appendix 3A
[10] Exhibit D-16, Appendix 3A
[11] Exhibit D-16, Appendix 3B

d) On page 5 of Burns Reply Letter B the following question is posed:

"*Has KPL developed an outage management plan to ensure that the line is inspected following an outage and a plan to ensure that temporary fixes are rectified within 30 days."*

KPL can advise that line inspections are carried out at a minimum of once annually. Temporary fixes are reported by the electrical contractor and to be rectified within 30 days.

(3) KPL'S RESPONSES TO BURNS' DISCUSSION CONCERNING DISTRIBUTION PLANNING AND OPERATIONAL ISSUES –LOAD MANAGEMENT AND SYSTEM PROTECTION

a) On page 6 of Burns Reply Letter B it states:

"The response to 3.7 implies the KPL has effectively no process in place to determine the effect of a new load increase on its distribution system. In fact, prior to adding load the KPL Operating Permit holder, HB Energy should have determined the effect the new load would have on the distribution system. I do not believe any such analysis has taken place" (Emphasis added by KPL.)

KPL has a process in place for customers requesting new or revised electrical service. See KPL's Response to BCUC IR No. 1, 3.7[12].

b) On page 7 of Burns Reply Letter B it says :

"*Has KPL put in place an oversight process to ensure load growth is managed on their distribution network*?"

Please see KPL's response to BCUC IR No. 1, 3.7[13].

c) On page 7 of Burns Reply Letter B it says :

"What is the present fuse rating at the POI?"

The present fuse rating at the POI is 30T.

d) On page 7 of Burns Reply Letter B it says:

"*What is the status of the KPL/BC Hydro negotiation for a permanent fuse rating at the POI?"*

KPL's[14]application to amend the Service Agreement is under on-going review by BC Hydro.

e) On page 7 of Burns Reply Letter B it says:

"Will KPL be developing a Net Metering Tariff similar to BC Hydro's Rate Schedule 1289?"

As a very small utility, KPL does not have the resources to develop a net metering tariff but would be interested in reviewing any proposals funded and advanced by its customers provided they are cost effective for all KPL's customers.

[12] Exhibit D-3
[13] Exhibit D-3
[14] See Exhibit D-3-1, Appendix F

f) On page 8 of Burns Reply Letter B it says :

"*Will KPL be considering incentives for customers to connect battery storage systems (such as the Tesla Powerwall) to allow load shaping to limit peak demand"*

If KPL cannot accommodate the annual peak demand within the parameters of the Service Agreement, KPL would be interested in exploring the available alternatives to load shaping to limit annual peak demand, provided they are cost effective for all of KPL's customers.

g) On page 9 of Burns Reply Letter B It says:

"*Was there originally a 40T fuse installed at the POI?"*

KPL has not been able to determine the size of the original fuse from its records from 2006. KPL anticipates that the fuse originally (in May 2006) installed at the POI was sized in accordance with the Service Agreement**.**

h) On page 10 of Burns Reply Letter B it says:

"*When is KPL planning on completing an updated protection coordination study?"*

KPL does not have a current timetable to complete an updated protection coordination study. KPL's application for approval of a 30T fuse at the point of interconnection of the KPL and BC Hydro distribution systems is under review by BC Hydro.

i) On page 11 of Burns Reply Letter B it says:

"*Will KPL be creating an operating Single Line Diagram complete with accurate fuse sizing"*

BC Hydro and other North American utility practice strictly excludes providing the public access to its single line electrical and engineering drawings, unless directed by a responsible authority. KPL will provide the information, if directed to by the BCUC.

j) On page 11 of Burns Reply Letter B it says:

"*Will KPL supply the KCFN with a Single Line Diagram complete with fuse sizing."*

BC Hydro and other North American utility practice strictly excludes providing the public access to its single line electrical and engineering drawings, unless directed by a responsible authority. KPL will provide the information, if directed to by the BCUC.

k) On page 13 of Burns Reply Letter B it says:

"*Will KPL be providing a copy of this report [the Assessment Report] to the KCFN once it is completed?"*

KPL will be filing the report with the BCUC as directed under Orders G-309-20 and G-261-20.