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**BRITISH COLUMBIA
UTILITIES COMMISSION**

**ORDER
NUMBER G-76-13**

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**IN THE MATTER OF
the Utilities Commission Act, R.S.B.C. 1996, Chapter 473**

and

**The Corporation of the City of Nelson
Service Extension Complaint by the Kootenay Lake Estates Development Corporation**

BEFORE: L.F. Kelsey, Commissioner
D.M. Morton, Commissioner
N.E. MacMurchy, Commissioner May 9, 2013
B.A. Magnan, Commissioner
C. van Wermeskerken, Commissioner

ORDER

WHEREAS:

- A. On April 11, 2012, Kootenay Lake Estates Development Corporation (KLE) filed a complaint with the British Columbia Utilities Commission (Commission) against the City of Nelson's electrical utility (Nelson Hydro). The complaint pertains to a service extension upgrade to KLE's Kootenay Lake Village development;
- B. Since April 11, 2012, various correspondences has been filed by both KLE and Nelson Hydro in regards to the complaint and Commission staff have requested additional information from both parties;
- C. On March 14, 2013, the Commission advised KLE and Nelson Hydro that it would adjudicate the complaint at both parties' request;
- D. Under section 83 of the *Utilities Commission Act*, the Commission has powers to determine whether a hearing or inquiry is to be had, and generally whether any action on its part is or is not to be taken;
- E. The Commission has reviewed all correspondence and information provided.

NOW THEREFORE pursuant to the Reasons for Decision attached as Appendix A to this order and section 82 of the *Utilities Commission Act*, the Commission orders as follows:

- 1. Nelson Hydro may upgrade only a portion of the existing line to three-phase however a Cold Load Pick Up Margin greater than 20 percent must be maintained.

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2. Nelson Hydro is to provide a Compliance Filing to the Commission and Kootenay Lake Estates Development Corporation (KLE), by May 24, 2013, as outlined in the attached Reasons for Decision.
3. After receipt and review of the Compliance Filing, the Commission will determine the division of costs of the line upgrade that are attributable to each of Nelson Hydro and KLE.

DATED at the City of Vancouver, in the Province of British Columbia, this 13th day of May 2013.

BY ORDER

Original signed by:

D.M. Morton
Commissioner

Attachment



IN THE MATTER OF

**THE CORPORATION OF THE CITY OF NELSON
SERVICE EXTENSION COMPLAINT BY THE
KOOTENAY LAKE ESTATES DEVELOPMENT CORPORATION**

REASONS FOR DECISION

May 10, 2013

BEFORE:

L.F. Kelsey, Commissioner
D.M. Morton, Commissioner
N.E. MacMurchy, Commissioner
B.A. Magnan, Commissioner
C. van Wermeskerken, Commissioner

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1.0 BACKGROUND

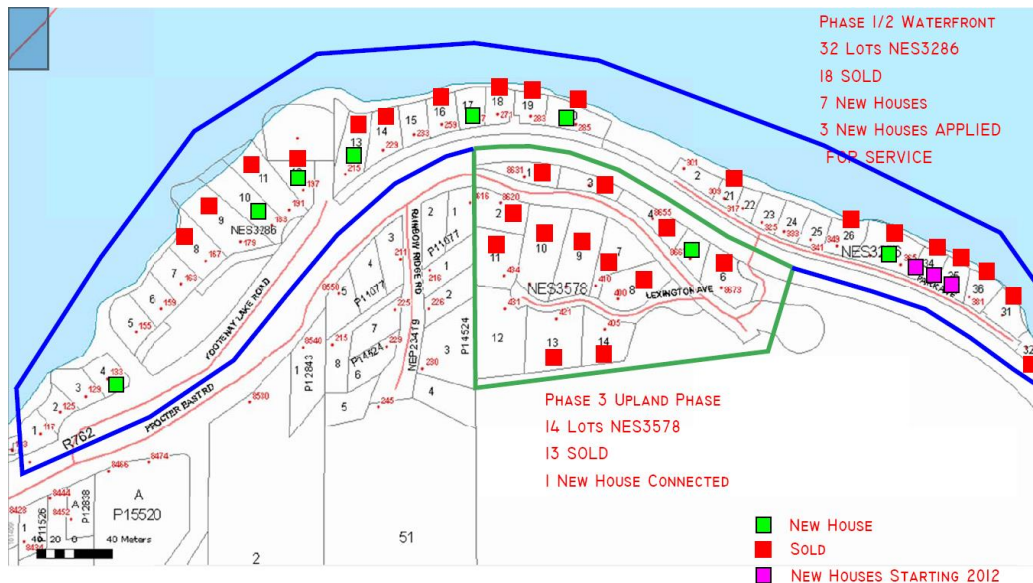
On April 11, 2012, Kootenay Lake Estates Development Corporation (KLE) filed a complaint with the British Columbia Utilities Commission (Commission) claiming the following:

- Nelson Hydro (NH) is not connecting electric service to any residential lots in two separate subdivisions completed by the developer in 2007 and 2008;
- NH is “forcing” a upgrade of the transmission line servicing these subdivisions from single phase to three phase to pass the maintenance cost of a pole upgrade required by TELUS;
- NH only raised the issue of making these upgrades after the developer sold the two subdivisions; and
- NH maintained that there would be no power supply issue (requiring an upgrade) until approximately 30-40 homes are built but there are currently only five homes built.¹

1.1 Kootenay Lake Development Corporation

KLE is a development company that purchased land and subdivided lots as part of its Kootenay Lake Village Development outside of Nelson, BC.

As shown by the map below, the current development consists of three Phases: Phases 1 and 2 – Waterfront, now under the governance of Strata Corporation NES3286; and Phase 3 - Upland, now under the governance of Strata Corporation NES3578. Both developments are approximately 1.7 km from the end of a three phase distribution line² and are served by an existing single-phase line. The two Stratas are separate legal entities³.



Source: NH letter to BCUC, May 18, 2012

¹ KLE letter to BCUC, April 11, 2012

² ZE Engineering, Power Supply Assessment, 14 December 2012, attached to email from KLE to BCUC, January 2, 2013

³ KLE Letter to BCUC, June 8, 2012

1.1.1 Phases 1 and 2 – Waterfront / Strata Plan NES3286

Strata Corporation NES3286 has 32 lots which were sold starting in August 2006 although the majority of Phase 1 was sold in 2006 and the majority of Phase 2 was sold in the summer of 2008⁴. As of April 12, 2013, some lots remain unsold. Titles were transferred to strata owners for these lots between August 2007 and January 2013.⁵ As of March 21, 2012, KLE had a four lot interest in the subdivision.⁶

KLE applied for electric service for Phases 1 and 2 in March 2006⁷ and received the NH design for this service on March 23, 2007.⁸ As of January 2, 2013, eight of the 32 lots were developed and connected to electrical service. Current electrical demand (in December 2012) is estimated at 80 KW.⁹

1.1.2 Phase 3 – Upland / Strata Plan NES3578

Phase 3 (Strata Corporation NES3578) has 14 lots. All lots were presold on the same day in October 2007 and titles were transferred to strata owners between November 2008 and January 2009.¹⁰ The developer has no legal interest in this strata.¹¹ As of February 18, 2013, one home is under construction and a second is planned for 2013.¹² Expected loading is 140 KW.¹³

KLE applied to NH for electric service for Phase 3 on March 14, 2008 and received the design from NH on December 10, 2008.¹⁴

NH received its first service request for Strata Corporation NES3578 in 2011.¹⁵

2.0 NH AND KLE CORRESPONDENCE PRIOR TO COMPLAINT BEING FILED

In March 2006, KLE applied for electric service with NH for Phases 1 and 2¹⁶ and the majority of Phase 1 was sold in 2006. As part of this application, on March 2, 2007, Utility Design Services, an engineering company contracted by KLE, prepared an Electrical Study for KLE. The study estimated total maximum operating load for Phases 1 and 2 (Strata Plan NES3286) at 388 kW.¹⁷

The foreword to the study states:

⁴ KLE email to BCUC, April 12, 2013

⁵ KLE email to BCUC, April 12, 2013

⁶ KLE letter to NH, March 21, 2012, attached to April 11, 2012 letter from KLE to BCUC

⁷ NH letter to BCUC, April 15, 2013

⁸ KLE email to BCUC, April 12, 2013

⁹ ZE Engineering, Power Supply Assessment, 14 December 2012, attached to email from KLE to BCUC, January 2, 2013

¹⁰ KLE Letter to BCUC, June 8, 2012, attached to email to BCUC, sent June 11, 2012; and KLE email to BCUC, April 12, 2013

¹¹ KLE letter to NH, March 21, 2012, attached to April 11, 2012 letter from KL to BCUC

¹² Strata Corporation NES3578 letter to BCUC, February 10, 2013, attached to email from KLE to BCUC, February 18, 2013

¹³ ZE Engineering, Power Supply Assessment, 14 December 2012, attached to email from KLE to BCUC, January 2, 2013

¹⁴ KLE letter to NH, November 24, 2008 attached to KLE letter to BCUC, April 11, 2012, and KLE email to BCUC, April 12, 2013; NH Letter to BCUC, April 15, 2013

¹⁵ NH letter to BCUC, May 18, 2012

¹⁶ NH letter to BCUC, April 15, 2013

¹⁷ Utility Design Services, Electrical Study, March 2, 2007, attached as Schedule C to NH letter to BCUC, July 11, 2012

“Several concepts for this project included the development of additional lots beyond the 31 lots in Phase 1 and Phase 2 [Strata Plan NES 3286]. We have recently been advised by the developer that due to the presence of a significant amount of bedrock throughout the rest of the property, it may not be economically feasible to proceed beyond 31 lots, and he has instructed us to prepare this report based on the projected electrical lots for Phase 1 and Phase 2 only.”

KLE received the NH electrical design for Phases 1 and 2 on March 23, 2007.¹⁸

All 14 lots in Phase 3 were presold on the same day in October 2007 while the majority of Phase 2 was sold in 2008.

On March 14, 2008, KLE submitted an application for service for Phase 3 to NH.¹⁹

On August 13, 2008, NH responded to KLE stating “the expected loading of phases 1 & 2 of your development will approach the limit of what we can handle on our current single phase distribution system ... there is a necessity to upgrade to 3-phase distribution.”²⁰

In November 2008 various emails were sent between KLE and NH wherein KLE requested NH’s engineering calculations and submitted that customer demand would not reach network capacity for at least fifty years. On November 20, 2008, NH wrote KLE an email in response stating “[NH is] not prepared to debate this issue anymore. Kootenay Lake Estates was advised in the early stages of development that load over a certain value would require distribution system upgrades. You will be exceeding that load with the installation of phase-3 development and you will be required to pay for the necessary line upgrade to support your load.”²¹

On November 24, 2008, KLE wrote to NH expressing its frustration that they had not had a response to their March 14, 2008 application for service and responded to NH’s August 13th letter with the following:

- Refusal to provide appropriate engineering calculations in support of the upgrade is unacceptable. KLE would like an opportunity to review and validate the calculations; and
- The proposal to upgrade the system now seems inefficient and unreasonable as it may take up to 10-20 years before existing capacities are exhausted. KLE suggests an upgrade of the system based on real demand and as demand for power will result only as individual home owners build, the project will not exceed 31 homes until 2016 but given current market conditions this projected build may be too aggressive as they have only had 1 home under construction in the past year.²²

On December 10, 2008, NH responded to KLE outlining two options for service to Phase 3 (Strata Plan NES3578). This letter states that 14 lots are to be serviced and that future development will take place that will “eventually require a 3 phase service extension through [Phase 3 – Strata Plan NES3578].” The options presented are:

¹⁸ NH letter to BCUC, April 15, 2013

¹⁹ KLE letter to NH, November 24, 2008 attached to KLE letter to BCUC, April 11, 2012

²⁰ NH letter to KLE, August 13, 2008, attached to NH letter to BCUC, July 11, 2012

²¹ KLE letter to BCUC, February 18, 2013, November 19 & 20th emails between NH and KLE attached

²² KLE letter to NH, November 24, 2008, attached to KLE letter to BCUC April 11, 2012

Option A:

Underground 3-phase system to accommodate future property development beyond the 14 lots. Estimate Cost \$125,000 not including civil work (this cost was revised in October 3, 2012 to \$163,114, pre-tax);²³

Option B:

Overhead Supply to Underground System, defers 3 Phase underground work to the future but “future development...would require upgrade to 3 Phase... at that time.” Estimated Cost \$60,000 not including civil work.²⁴

November 18, 2011 Letter

On November 18, 2011, NH sent a letter to KLE which refers to NH having various discussions with KLE over the past few years about “how and when the development would fund the required electrical service upgrade for your development ... as we have stated on numerous occasions, the existing power line is far from adequate to meet the needs of your development and must be upgraded.”²⁵

The letter presents a table of load calculations under various scenarios and explains that in determining the need for the three phase upgrade, there are two primary considerations: (i) voltage regulator capacity and (ii) ground current during cold load pickup. NH states that ground current during cold load pickup is the lower limiting factor but the addition of 41 lots on the single-phase line would also run into voltage regulator constraints. NH states that the Cold Load Pick up Margin should be at least 30 percent and not less than 20 percent otherwise excessive power restoration problems during cold weather could result. Based on this, NH estimated at that time that 5-10 lots could be connected before there is a technical need for the line to be upgraded to three-phase.

Cold Load Pick Up Margin under various conditions:

Development	Existing System	41 lots	5 lots	41 lots
Line		1 Phase	1 Phase	3 Phase
Cold Load Pickup Margin	39.43%	-57.43%	29.43%	33.00%

NH indicates in the letter that to postpone a project to when there is a technical need as KLE suggests, NH would require future security to protect the interests of the utility and/or future homeowners. NH indicates that KLE has suggested that a bond or a restriction over one of the lots may be possible but has not yet offered security arrangement for NH to consider.

NH proposes that KLE enter into a legally binding agreement with NH to provide, with appropriate security, that the Strata Corporation will pay for the power line upgrades at such time as they are required by load growth.

²³ NH letter to KLE, October 3, 2012, attached to email to BCUC dated October 4, 2012

²⁴ NH letter to KLE, December 10, 2008, attached to KLE letter to BCUC, April 11, 2012

²⁵ NH letter to KLE, November 18, 2011, attached to NH letter to BCUC, July 11

NH further states:

“[NH] sees no option other than to provide notice to the lot owners, the Strata corporation(s), and the Real Estate agent that while the power line upgrade remains unresolved there will be no further power connections in the development.”

However, NH agreed to connect the one partially completed home in Strata Plan NES3578 but no other until the situation is resolved.

KLE replied to NH on March 21, 2012, stating:

- NH first made KLE aware that 3 phase work may be required in the December 10, 2008 letter after all three phases of the subdivision were subdivided and Phase 3 (later Strata Corporation NES3578) completely sold out;
- NH stated on a number of occasions to both the developer and KLE's engineering staff that there were no off site upgrades required for Strata Corporation NES3286 and these residential lots were planned, sub divided and sold on that basis;
- KLE cannot plan and manage for a system upgrade after KL has complete construction and sold units;
- KLE has never acknowledged the need for an upgrade, as evidenced by November 14, 2008 letter;
- KLE's request to verify calculations was without response until November 18, 2011;
- KLE did not anticipate actual power demand would reach any critical point in the next twenty years based on NH's confirmation that a minimum of 32 homes could be built without capacity issues;
- KLE sees no value in upgrading a system that has sufficient capacity to meet the long term community demand; and
- At that point 42 of the 46 lots had been sold.²⁶

3.0 KLE's COMPLAINTS

KLE's complaint filed April 11, 2012 can be grouped as:

- NH's requirement of a three phase upgrade and responsibility for the costs of any upgrade needed; and
- NH not connecting service to strata owners in Strata's Corporations NES3286 and NES3578.

3.1 Requirement for a three phase upgrade

Much of the discussion in this complaint has centered on the actual need for a line upgrade, the timing of such need and the notice given by NH to KLE of this need.

²⁶ KLE letter to NH, March 21, 2012

3.1.1 Nelson Hydro's Position

NH states it requires a line upgrade to ensure reliability of service; if the line is not upgraded, existing and new customers would experience an unacceptable risk of extended duration outages especially in cold weather due to the unbalancing of the feeder caused by large single phase loads.²⁷

In its May 18, 2012 letter to the BCUC, NH states that Phases 1 and 2 [later Strata Corporation NES3286] do not require the line upgrade but Phase 3 [Strata Corporation NES3578] does require the line upgrade. As well, NH states that KLE was aware of the need for a three phase upgrade in December 2008 (by letter) so the developer was aware of the need for an upgrade before he proceeded with Phase 3.

NH states that the Utility Design Services Electrical Study provided by KLE in March 2007 "clearly identified the developer was not contemplating development beyond 31 lots in Phase 1 and Phase 2 ... This representation by the developer to Nelson Hydro in 2007 was relied on by Nelson Hydro. When the developer came back to Nelson Hydro proposing further development in Phase 3, Nelson Hydro made the developer fully aware of the cost consequences and need for an agreement with Nelson Hydro."²⁸

NH states that "[KLE] has had notice since August of 2008 that his Phase 3 development would put demands on the system which would cause the need for upgrades."²⁹

NH states, "had the development been limited to the first two phases only [NH] would stand by its assessment that the current infrastructure would be sufficient. Given that the development is larger than the first two phases Nelson Hydro also stands by its assessment that a line upgrade is required."³⁰ However, NH does agree that the technical need for the upgrade will occur in the future, possibly 10 years or more but has concerns about whether the developer will pay for the upgrade when it is technically needed. NH states its concerns are based, in part with the developer stating "he already has no legal interest in some of the properties and characterizes himself as the historic developer."³¹

On September 12, 2012, Commission staff held a conference call with KLE and NH. On October 3, 2012, NH sent a letter to KLE with action items arising out of the conference call. NH identified the trigger point at which a line upgrade was needed as a peak load of 73 kVA, which corresponds to a 25 percent Cold Load Pick Up Margin. NH states that as 10 services were then connected, "KLE may have reached the trigger point ... for greater certainty Nelson Hydro will clip the line (meaning to measure the actual load with an ammeter) this winter, which will provide a more accurate analysis of the actual load and when the upgrade will be needed."³² NH further states "...the complete line upgrade will be required for the 46 lots already developed. The line upgrade will terminate at the edge of the existing KLV development."³³

Regarding KLE's claim that TELUS required the upgrade, NH submits that it does not understand KLE's logic in the claim that the upgrade design was to force KLE to pay for the pole replacement for the TELUS line because NH has a blanket joint use agreement with TELUS that covers TELUS line upgrades for their infrastructure and the

²⁷ NH letter to BCUC, February 6, 2013

²⁸ NH letter to BCUC, July 11, 2012

²⁹ NH letter to BCUC, July 11, 2012

³⁰ NH letter to BCUC, May 18, 2012

³¹ NH letter to BCUC, May 18, 2012

³² NH letter to KLE, October 3, 2012, attached to email to BCUC October 4, 2012

³³ NH letter to KLE, October 3, 2012, attached to email to BCUC October 4, 2012

TELUS requested upgrades have been completed. NH further submits that the upgrade under discussion is for electrical supply, not TELUS upgrades.³⁴

3.1.2 KLE's Position

In June 2012, KLE's forecast was that it will take 25-35 years until the development reaches the capacity of the line given that of the five homes built, two are occupied full-time and of the two scheduled to start building, one is a holiday home and the other a guest house.³⁵ KLE states that the trigger for the upgrade was clearly Strata Corporation NES3578 and again states its preference that Strata Corporation NES3578 not be forced into upgrading the system in anticipation of unknown development needs.³⁶

KLE states they only became aware of the need for the three phase upgrade in December 2008, 15 months after the lots in Strata Corporation NES3578 were sold³⁷ and that "[a]t the end of the day we have added 14 more potential home connections beyond what was agreed with Nelson Hydro..."³⁸

3.1.3 ZE Engineering Study

In December 2012, KLE contracted ZE Engineering (ZE) to determine options "for ways of solving the issue of load imbalance without upgrading the single phase distribution line to three phases all the way east to the 14 lots of Upland Phase 1."³⁹

The study came up with 3 options:

- Option 1: Transfer Load from the Centre Phase to Outside Phases.

ZE acknowledges "There is potential for a situation where an outage on the single phase portion of the line serving Kootenay Lake Village could result in sufficient load imbalance to cause the entire circuit to trip, however the risk of such an occurrence is very low."

NH states this option will be problematic during high system loading and outage events and would result in longer outage times and greater restoration costs and they cannot consider this option.⁴⁰

- Option 2: Upgrade Single Phase to Three Phase on a Portion of the Line.

NH's view is that this option will protect existing customers and provide reduced cost for the developer and that it can support this option. NH states that this option was not considered in 2007 because at that time the development was limited to 31 lots.⁴¹

³⁴ NH letter to BCUC, April 15, 2013

³⁵ KLE Letter to BCUC, June 8, 2012, attached to email to BCUC, sent June 11, 2012

³⁶ KLE Letter to BCUC, February 14, 2013, attached to email dated February 18, 2013

³⁷ KLE letter to BCUC, August 13, 2012

³⁸ KLE email to BCUC, October 26, 2012

³⁹ ZE Engineering, Power Supply Assessment, 14 December 2012, attached to email from KLE to BCUC, January 2, 2013

⁴⁰ NH Letter to BCUC, February 6, 2013

⁴¹ NH letter to BCUC, February 6, 2013

- Option 3: Combination of Option 1 and 2.

NH states this option is not viable for NH because it carries the same risk as Option 1.⁴²

KLE prefers an option where NH protects their system without upgrading any portion of the single phase line.⁴³

3.2 Responsibility for costs of the upgrade

3.2.1 Utilities Commission Act and Nelson Hydro Bylaws

NH's service, outside the Nelson City limits, is regulated by the British Columbia Utilities Commission under the *Utilities Commission (UCA)* and by the Nelson Electrical Utility Regulatory Bylaws. Relevant sections of these documents are:

Section 28 of *UCA*, which states:

Utility must provide service if supply line near

- “28** (1) On being requested by the owner or occupier of the premises to do so, a public utility must supply its service to premises that are located within 200 metres of its supply line or any lesser distance that the commission prescribes suitable for that purpose.
- (2) Before supplying the service under subsection (1) or making a connection for the purpose, or as a condition of continuing to supply the service, the public utility may require the owner or occupier to give reasonable security for repayment of the costs of making the connection as set out in the filed schedule of rates.”

Pursuant to this section of the *UCA*, the City of Nelson has developed Bylaw 18(f) for Nelson Hydro which states:

Bylaw 18(f) **Subdivision** (amended by Bylaw No. 2646, 1994)

“The City will extend service to a subdivision upon application for service and execution of a contract by the developer, subject to terms and conditions contained in this Bylaw. The developer will contribute the full NET EXTENSION COSTS of providing service to the subdivision.

...**‘Line extension’** means the total length of distribution line from a point on an existing distribution line to an applicant’s Service Entrance...

...**‘Net extension cost’** is as defined above for ‘gross extension cost’, but excludes the uninstalled cost of transformers and metering equipment...

‘Gross extension cost’ means the cost of construction a distribution line extension including all labour, material, construction equipment costs, surveying, easements and clearing together with necessary transformers and metering equipment.”

⁴² NH letter to BCUC, February 6, 2013

⁴³ KLE letter to BCUC dated January 2, 2013, attached to email dated January 2, 2012

3.2.2 NH's Position

NH's position is that "line upgrade costs are borne 100% by the developer consistent with standard utility practice in British Columbia, the UCA and the Nelson Hydro Bylaws."⁴⁴ NH confirmed that it would be willing to accept "backstopping" by the Strata Corporations as acceptable security where backstopping means that the Strata Corporations will have a legal obligation to pay for the project costs in the event that the developer does not.⁴⁵

NH further submits that the normal process is for a developer to pay for line upgrades before the first customer is connected, however, most developments NH services have no power at all so line construction, at the developer's cost, is undertaken at the start of the project to provide service to the first customer.⁴⁶

However, NH has provided KLE with a second option for a rate rider. NH proposes a rate rider as follows:

1. NH would develop a new development rate rider that NH would apply to the basic monthly charge of all customers in the Kootenay Lake Village when the technical need to a line upgrade is reached. The rider would pay the cost of the line upgrade of \$130,000 over 15 years and 46 customers which would equal approximately \$40-50/ bi-monthly billing. Late-comers would pay a "catch-up fee" as part of their service connection charge to recover the share of the rate rider already seen by the other customers.
2. KLE will take whatever means necessary to ensure current and future property owners have legally understood and agreed that the rate rider will come into effect.
3. Nelson City Council and the BCUC must approve the rate rider. In the event the rate rider is not approved KLE will immediately fund the upgrade.
4. NH would not make any new customer connections until 1 or 3 come into effect.⁴⁷

NH submits that the rate rider is NH's least preferred option and that lot owners may end up paying for electrical service twice, once to the developer at lot purchase and then again to the utility through the rate rider but that this is an issue for the developer and the strata to sort out.⁴⁸

Earlier in May 2012, NH submitted that "[t]he only reasonable solution is that the 46 properties in this development causing the cost – share the cost."⁴⁹

3.2.3 KLE's Position

In June 2012, KLE disputed NH's position that future upgrades are borne entirely by the historic developer and that as KLE has no legal interest in Strata Corporation NES3578, "[NH] cannot reasonably expect the developer to bear costs and obligations after we no longer have any financial or legal interest."⁵⁰

⁴⁴ NH letter to BCUC, July 11, 2012

⁴⁵ NH letter to KLE, October 3, 2012

⁴⁶ NH letter to BCUC, May 18, 2012

⁴⁷ NH letter to BCUC, May 18, 2012 and concept re-offered in NH letter to KLE, October 3, 2012

⁴⁸ NH letter to KLE, October 3, 2012

⁴⁹ NH letter to BCUC, May 18, 2012

⁵⁰ KLE letter to BCUC, June 8, 2012, attached to email to BCUC, sent June 11, 2012

KLE re-iterates "... [I]f [NH] had informed us of additional works required before we sold the lots then we could have considered the economies and decided how to move forward. Like any other business we have a budget and we expect a unit cost. More work means higher unit cost and we reflect this in price If the upgrade is required and the commission decides that the cost needs to be passed on, then we will incorporate an upgrade into our future plans. Whether we are around to do that work or not is irrelevant."⁵¹

In August 2012, KLE appeared to support the option of a rate rider. "If as Nelson Hydro claims they are able to charge owners an increased tariff rate because of an incurred capital cost then that is what they should do, if and when that cost is incurred. We also believe that cost should be borne by everyone benefitting from the upgrade and not just the most recent subdivision."⁵²

However, on September 12, 2012, during the conference call organized by Commission staff, KLE accepted "responsibility for payment" and acknowledged that the "developer is responsible to take the line to the lot line."⁵³

However, in February 2013, KLE stated that the trigger for the upgrade was clearly Strata Corporation NES 3578.⁵⁴

Strata Corporation NES3286 supports this assessment and writes "[w]e understand that after [KLE] completed a second subdivision of lands beyond our own ... this additional unrelated but neighbouring subdivision triggered a demand from Nelson Hydro to upgrade a portion of offsite line into three phase in order to supply that proposed subdivision. Our review of Nelson Hydro's correspondence clearly shows that the justification for that upgrade was the additional new subdivision and had nothing to do with our community."⁵⁵

KLE also earlier makes the point that there are a multitude of homes and trailers that are already connected to the line outside Kootenay Lake Village that have created more demand than their subdivision.⁵⁶

3.2.4 NH's Proposal

In February 2013, NH proposed the following path to move the dispute forward:

1. KLE will nominate proposed development plans to NH for next 10 years;
2. KLE will nominate whether Strata Corp NES 3286 is considered part of the driver for the line upgrade or whether it is solely due to NES 3578;
3. NH will consider Option 2 from the ZE Engineering Study and provide a revised cost estimate;
4. The Commission will issue a decision on the customer complaint;
5. KLE will provide security to secure the upgrade costs.⁵⁷

⁵¹ KLE Letter to BCUC, June 8, 2012, attached to email to BCUC, sent June 11, 2012

⁵² KLE Letter to BCUC, August 13, 2012

⁵³ Final Conference Call Notes, Attached to email from BCUC dated October 31, 2012

⁵⁴ KLE Letter to BCUC, February 14, 2013, attached to email dated February 18, 2013

⁵⁵ Strata Corporation NES3286 letter to BCUC, dated December 14, 2012, attached to KLE email to BCUC, dated February 18, 2013

⁵⁶ KLE Letter to BCUC, June 8, 2012, attached to email to BCUC, sent June 11, 2012

⁵⁷ NH Letter to BCUC, February 6, 2013

Commission Determination

Requirement for a Three Phase Upgrade

In the Commission's view, there is no question that a line upgrade will be needed when the capacity is reached. The Commission also accepts NH's submission that the Cold Load Pick Up Margin cannot be less than 20 percent or excessive power restoration problems could occur during cold weather.

There is, however, a lack of clarity about the "trigger point" at which an upgrade to a three-phase line is required. NH approved KLE for electrical service without an upgrade for Phases 1 and 2 in March 2006. The development plan for Phases 1 and 2 is 31 lots and the electrical study KLE submitted in 2006 estimated maximum operating load at 388 KW. Thus, NH approved 31 lots and 388 KW for connection on the existing single-phase line. However, in August 2008, after it had received the application for service for Phase 3, NH informed KLE that an upgrade was required because the expected loading of Phases 1 and 2 would approach the system's current capacity. NH's November 2008 email stated Phase 3 caused the load on the system to be exceeded and estimated that five to 10 lots could be connected before the system capacity was reached. In October 2012, NH determined that the technical capacity of the single-phase line is 73 kVA, which corresponds to a Cold Load Pick Up Margin of 25 percent and that the 10 services already connected may have reached the line capacity. However, also in 2012, NH stated that it would stand by its assessment that Phases 1 and 2 do not require an upgrade. NH intended to "clip the line" in Winter 2012 to measure peak load and recently NH has said they are agreeable to Option 2 put forward by ZE Engineering to upgrade only a portion of the line to a three-phase line.

This sequence of correspondence is confusing and the "trigger point" is unclear. In November 2008, KLE requested NH's engineering calculations. While NH did not have an express obligation to provide these, perhaps the resolution of this dispute could have been achieved if NH had provided the calculations to KLE for transparency and to facilitate discussion. Although some calculations were eventually provided on November 18, 2011, a lack of clarity still exists.

The Commission therefore directs Nelson Hydro to provide a compliance filing, containing the information below, to the Commission and KLE, on or before May 24, 2013.

- Results from NH measuring the actual load on the line in winter 2012;
- Calculations showing:
 - The existing single-phase line capacity;
 - The range of peak loads that correspond to Cold Load Pick Up Margins ranging from 20-30% for:
 - i. the existing single-phase line;
 - ii. a line where the complete length of the line has been upgraded to three-phase; and
 - iii. a line where only a portion has been upgraded to three-phase (Option 2 from ZE Engineering's study);
- An explanation of why Phases 1 and 2 could be serviced on the existing single-phase line if the maximum load of these Phases is 388 KW and 31 lots are included in the development; and
- Any other information NH considers will provide clarity.

Responsibility for cost of the upgrade

NH's Bylaw 18(f) states:

“The City will extend service to a subdivision upon application for service and execution of a contract by the developer, subject to terms and conditions contained in this Bylaw. The developer will contribute the full NET EXTENSION COSTS of providing service to the subdivision.”

On July 24, 2012, Commission staff wrote to KLE stating “[r]equiring a developer to pay for a system extension or upgrade is the general practice for all utilities (electric and natural gas) in British Columbia. Based on the information submitted by both Nelson Hydro and the developer, it appears that the developer will be required to contribute to the cost of the required system upgrade ... In Commission staff's view, the two parties, Nelson Hydro and the developer, need to develop an agreement to determine the amount of the contribution, and when and how that contribution is to be paid.”

In the Commission's view, NH's Bylaw 18(f) clearly sets out that the developer will pay the full net extension costs to extend service. While the project in this case is an upgrade to a line that already exists, it is reasonable to consider it an extension as the upgrade falls within the concept of extending service. Based on this Bylaw, it is KLE's obligation to pay for the upgrade. It would be contrary to this Bylaw to have a rate rider implemented so that customers pay.

NH committed to service Phases 1 and 2 in 2006 without an upgrade. NH's requirements for the line upgrade since 2006 seem to indicate that the approval of Phases 1 and 2 without an upgrade was made in error and that Phases 1 and 2 are in fact causing some of the need for the upgrade. The Commission recognizes KLE's difficulty in that it has sold the majority of the lots without the upgrade cost included. Despite it being KLE's obligation to pay for the upgrade under Bylaw 18(f), given that NH committed to servicing Phases 1 and 2 without a line upgrade, the Commission finds it reasonable that the costs of the upgrade caused by Phases 1 and 2 should be split between NH and KLE. The Commission will determine this split after NH's Compliance Filing is submitted by May 24, 2013.

Regarding Phase 3, KLE's position is that “[NH] cannot reasonably expect the developer to bear costs and obligations after we no longer have any financial or legal interest” in Phase 3. However, KLE sold its interest in Phase 3 before it applied for electrical service for that Phase. Thus NH did not have the opportunity to inform KLE that an upgrade was needed for this Phase before KLE sold the lots. At the time KLE sold Phase 3 it was only approved for electrical service to the 31 lots of Phases 1 and 2. KLE should have applied for electrical service for Phase 3 before selling the 14 lots if it wished to include all costs in these sales. KLE is therefore fully responsible for the costs to upgrade the line for the need caused by Phase 3.

To facilitate the division of costs, NH must also include in its May 24, 2013 Compliance Filing:

- A revised cost estimate for a partially upgraded three-phase line as per Option 2 in ZE Engineering's study;
- Calculations showing the portion of this cost caused by Phases 1 and 2; and
- Calculations showing the portion of this cost caused by Phase 3.

Regarding KLE's concerns about existing customers bearing some of the cost, the accepted practice is for the persons creating new electrical load to pay for service it causes. The existing customers that are served by the single phase line do not have to pay for the upgrade because they are not causing the need for the upgrade. This aspect of "cost causation" is practiced in all major utilities in British Columbia. The existing customers receive the benefit of legacy service.

Timing of the upgrade

The timing of this upgrade seems to be the basis of much of this dispute. KLE's position is that the upgrade should not be implemented until there is need. NH is agreeable to this with acceptable security for payment. NH's May 24, 2013 Compliance Filing should provide clarity on when the capacity of the line will be reached, if it hasn't already, and when the upgrade will be needed.

Regarding the timing of payment, the Commission recognizes that it is normal and preferable utility practice in British Columbia for the utility to require the contribution from the developer prior to project construction to avoid a situation where the developer no longer has a legal obligation to the development. If NH and KLE wish to make security arrangements, it is a matter between the two parties. The Commission prefers payment to be made as soon as possible after the division of costs is determined by the Commission.

TELUS claim

Regarding the TELUS claim, the Commission is not persuaded that this played into this dispute at all. NH's evidence is that it has a Joint Use agreement with TELUS that covers line upgrades and the upgrades have been completed. As well, NH submits that this dispute is about the electrical service not the pole replacement for TELUS. The Commission accepts this evidence and finds that the TELUS upgrade has not played a part in the upgrade required for electrical service to the three Phases.

3.3 NH connecting service to Strata NES3286 and Strata NES3578

On June 29, 2012 NH sent letters to lot owners in NES3286 stating:

"... as you are aware there exists a concern about the upgrade of electrical service, to Kootenay Lake Village, that will eventually be required. Because the cost of the upgrade is to be borne by the customers causing the need for the upgrade this cost will ultimately be carried by the residents of Kootenay Lake Village. Therefore we need to advise you that there is a possibility that all lot owners including yourself may be required to contribute for a share of the distribution line upgrades at some future date."

The letter requests the lot owner to sign and acknowledge receipt.⁵⁸

KLE submits that NH has denied service to approximately 30 customers who have a line at their lot line which was installed up to six years ago at the developers cost.⁵⁹ Further, KLE submits that "[NH] has not provided any reference to its bylaws that allows it to refuse a connection on an existing line that has electrical capacity."⁶⁰

⁵⁸ KLE email to BCUC July 5, 2012, attachment

⁵⁹ KLE email to NH, June 7, 2012

KLE submits “[t]he [lot owners] have been living on their lot for two months in a trailer without power supply unable to commence works on construction of their home ... [NH’s] dispute with the developer of a different subdivision was not their concern. They have neighbours either side of them enjoying connection to the same power lines paid for by the developer.”⁶¹

NH does not characterize its actions as “suspending electrical connections” but rather it states it has required customers to acknowledge they have been notified that they may be required to pay a pro-rata share of the upgrade in the event the developer does not make a contribution.⁶²

NH also submits that one lot owner in NES3578 has been connected because that owner signed the waiver form on November 21, 2011.⁶³

Commission Determination

Section 28 of the *UCA* states:

“Utility must provide service if supply line near

“28 (1) On being requested by the owner or occupier of the premises to do so, a public utility must supply its service to premises that are located within 200 metres of its supply line or any lesser distance that the commission prescribes suitable for that purpose.

(2) Before supplying the service under subsection (1) or making a connection for the purpose, or as a condition of continuing to supply the service, the public utility may require the owner or occupier to give reasonable security for repayment of the costs of making the connection as set out in the filed schedule of rates.”

The utility must provide service to premises located within 200 meters of its supply line, but before supplying that service, the utility “may require the owner or occupier to give reasonable security for repayment of the costs of making the connection as set out in the filed schedule of rates.” However, NH does not have a Bylaw or schedule of rates that sets out that the utility can require security from the individual Strata owners. This dispute is between NH and KLE, and NH had other options for recourse against KLE, through the courts or the Commission. The Commission sees no grounds for NH to refuse service to individual lot owners.

The Commission expects that in the future, NH will consider recourse directly with the developer, as it is the party obligated to pay for the upgrade, through the Commission or the courts, rather than involving individual Strata owners.

⁶⁰ KLE Letter to BCUC, June 8, 2012

⁶¹ KLE email to BCUC, July 5, 2012

⁶² NH Letter to BCUC, February 6, 2013

⁶³ NH letter to BCUC, July 11, 2012, Signed waiver attached