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December 8th, 2017

Commission Secretary
Sixth Floor, 900 Howe Street
Vancouver, BC V6Z 2N3

Via: upload to <http://www.bcuc.com/>

Attention: Commission Secretary

RE: Submission for Approval of Electrical Utility Amendment Bylaw No.3387, 2017

Please find attached an electronic copy of bylaw No. 3387, 2017. We are requesting approval from the BC Utilities Commission of this rate schedule as it applies to our rural residential and rural commercial customers.

This bylaw amendment is to implement a 2.25% general rate increase to all classes including Urban effective April 01, 2018, which will result in an effective rate increase of approximately 1.56% for the calendar year.

Supporting information that may be of assistance to the Commission is as follows and attached.

Customer mix

When looking at the consumption of energy between the Urban and Rural customers, it averages out to about a 60/40 ratio. The following are the electricity sales for 2017 as of November 30th.

	Customers	Revenue	Sales(Kwh)	Sales Converted to GW.h
City of Nelson- Urban	6039	9,705,206.44	85,066,932.40	85.1
City of Nelson- Rural	4427	6,829,655.64	62,689,721.68	62.6
	10466	16,534,862.08	147,756,654.08	147.7

As of November 30th 2017, Nelson Hydro has a customer count of 10,466. This includes 6039 Urban customers and 4427 Rural customers. A breakdown of the customer counts by rate classification is as follows:

E1 Municipal	87
F2 Commercial Flat Rural	63
F3 Commercial Flat Urban	34
C4 Large Commercial Rural	36
C1 Large Commercial Urban	106
A3 Residential Rural	4099
A1 Residential Urban	5019
B4 Small Commercial Rural	205
B1 Small Commercial Urban	752
G4 Outdoor Lighting Rural	24
G3 Outdoor Lighting Urban	41

Budget Revisions 2017 to 2018

See attached operating budget table of data. For information the table includes:

- 2016 Actual vs Budget
- 2017 Q3 Year End Forecast vs Budget
- 2018 Budget vs 2017 Budget

For information the Capital Budget is also attached.

2018 Budget highlights:

Operating costs are reduced (2018 = 98% of 2017 budget) primarily due to efficiencies in substations operation. Infrastructure upgrades, including a series of voltage conversion projects and the rebuild of the Rosemont substation have allowed Nelson Hydro to de-commission two older substations and thus their operating costs are being eliminated.

Power Purchase costs are expected to decrease slightly (2018 = 99% of 2017 budget) compared to 2017 even though wholesale rate increases by FortisBC of 0.17% are expected. This is because we forecast a lower volume of energy purchase and demand charges in the 2018 budget which is in turn related to the load forecast anticipating a declining volume of energy sales.

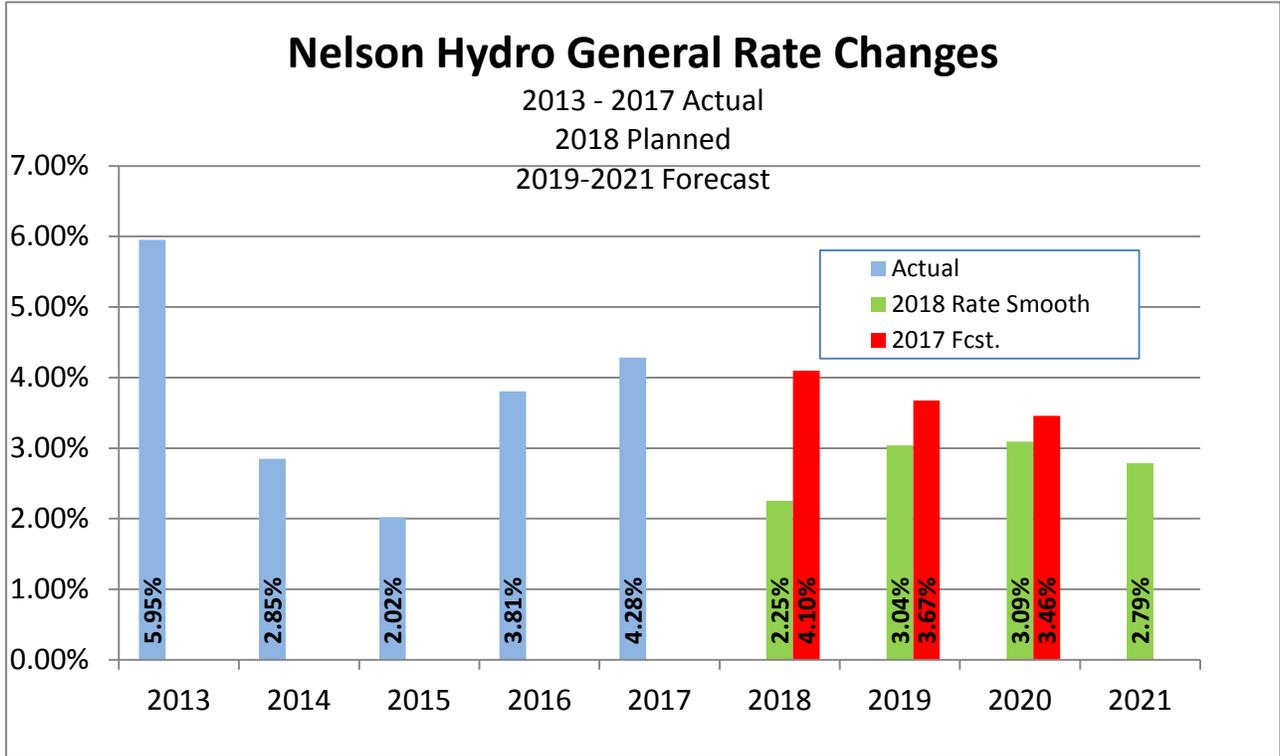
Capital Reserve transfer budget has increased (2018 = 108% of 2017 budget). This is because based on experience Nelson Hydro is forecasting sustaining capital at \$2.75 - \$3.00 million / year which is up from our previous business plan estimates of \$2.5 million per year. Over the next several years Nelson Hydro needs to move toward an annual contribution to Capital Reserve in the range of \$2.75 million or higher. The 2018 budget moves this planned transfer amount up to \$2.48 million.

2018 Rates

Rate Smoothing:

The transfer to Capital Reserve in 2017 will be about \$3.35 million vs budgeted \$2.29 million. 2017 was a year with strong energy sales, due to cold weather in January and February, coupled with a very good spring freshet which resulted in the 2017 Q3 Revenue forecast being well above budget. This extra revenue applied to the Capital reserve results in a reserve balance higher than expected at 2017 year end compared to the 2017 Business plan. This higher capital reserve balance reduces rate pressure in 2018 onward.

The 2018 draft BP initially contemplated rate changes (Apr 01) of 1.55% in 2018 followed by 3.92% in 2019. In discussion with council the option of rate smoothing was reviewed and council agreed that they would like a rate smoothing option. This Rate smoothing option developed increased the 2018 rate change from 1.55 to 2.25% and reduced the forecast 2019 rate change from 3.92 to 3.04%. Chart below shows the 2017 forecast rate changes and 2018 forecast rate changes. Effectively the higher revenue from 2017 is reducing rate changes that otherwise would have been seen in 2018 – 2021.



A rate change of 2.25%, Apr 01, to support the revenue requirement is indicated, this is equivalent to an annual rate change of 1.56%

Nelson Hydro 2018 Rate Change Calculation			
2017 Rev Q3 Fcst.	a	\$17,940,000	
2018 Revenue Requirement	b	\$17,404,107	
2017 Energy Vol Q3 Fcst.	c	173,665,000	kWh
2018 Energy Vol Fcst.	d	165,893,763	kWh
Apr 01, % Energy Sales yet to come	e	69.21%	
2018 Fcst. Rev (before Rate Change)	$f = a \times (d / c)$	\$17,137,213	
2018 Full Year Rate Change Rqd.	$g = (b / f) - 1$	1.56%	
2018 Apr Rate Change	$h = g / e$	2.25%	

BCUC Questions

In our previous rate application, the BCUC delivered final Order G-119-17 with reasons for decision and as part of that document, requested Nelson Hydro to address several questions in our subsequent rate application.

Nelson Hydro had anticipated filing a COSA study in the fall of 2017 but has not been able to complete that study to point of being ready to file. Nelson Hydro does anticipate that the study will be ready in early 2018. As all of these questions relate to the business model of Nelson Hydro they will also all be addressed in the COSA study. We are intending to provide a fulsome response to the allowed return, water rights agreement and capital reserve questions as part of the COSA filing.

These questions we can cover at this time are:

Q3 How is the incremental power generated in accordance with the Water Rights Agreement distinguishable from the other power generated by Nelson Hydro, and why should the cost of this generation be priced at FBC's rate given that the actual cost to generate this power is less than the FBC rate?

WRA power is distinguishable from other energy generated by Nelson Hydro only by accounting for the amount of water available to use for electricity generation. 256 cfs of water will produce an estimated 11,642 MWh of energy annually and 1,402 kW of capacity. This energy and capacity is valued at the current rate of energy and capacity purchase from FortisBC.

The WRA power is valued at the FBC rates because that is the practical market alternative to sourcing the power. If Nelson had not made an agreement and obtained the WRA the power would be obtained by purchase from FBC. Nelson has an intangible asset in the form of the WRA and to turn it into value it must be used to produce power (and water rights licenses require the water to be beneficially used). If the WRA power was valued at the cost of production there would be no value to Nelson. To produce value to Nelson the WRA power must be valued at higher than the cost of production.

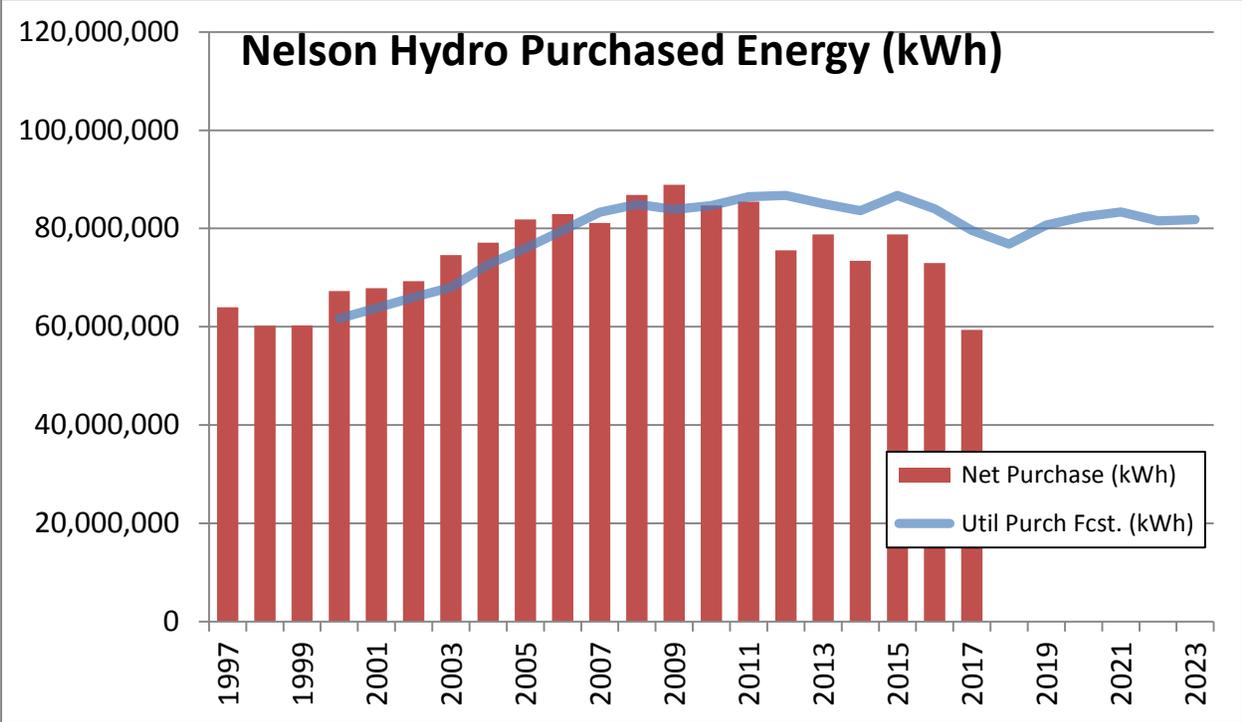
Q5 As described in Section 3.2 of these reasons for decision, the appropriateness of Nelson Hydro's power purchase forecasting method and whether adjustments should be made to the forecast going forward.

Nelson Hydro has considered making adjustments to the load forecasting of which power purchase forecasting is a component. From time to time we do make adjustments e.g. to adjust the amount of load growth expected. It has happened several times in the last few years that power purchase costs have been noticeably less than forecast. This is not from a systemic strategy but from a coincidence of factors including significantly the weather. We note that in the 2017 Q3 Year End Forecast it appears that the power purchase for the calendar year will be almost exactly the forecast amount from the 2017 business planning of nearly a year ago (\$6.71 million Fcst. vs \$6.76 million budget – see operating budget table).

The forecasting method includes averaging of the previous years which does introduce lag into adjusting for changes and Nelson Hydro is seeing changes. Total utility load is dropping and so is the load and power purchase forecast which is why we see reduced energy volume in the load forecast and

power purchase forecast. In fact the 2018 power purchase budget is lower than the 2017 power purchase budget (\$6.62 million 2018 vs 6.76 million 2017) as a result of this forecasting method.

For reference the chart below shows the Power Purchase Energy forecast vs Actual. 2017 is a partial year and it is expected that the full year actual energy will be slightly above the forecast energy of 80 GWh. The chart indicates how the forecasting method is predicting reduced energy purchases and a similar effect is noticed in the gross utility load forecast as well. With the 2017 full year actual results we believe the forecasting method will graphically look pretty reasonable as the actuals and forecast will be nearly the same.



In summary yes we could change the load forecasting mechanism and there are probably several other equally good options that could be used but we feel we would be likely be trading one set of imperfections for another set of imperfections. If there is another easy to implement forecasting algorithm that someone can propose we would be pleased to consider it.

Q6 As described in Section 3.3 of these reasons for decision, details regarding the “DES – operating expense” and “DES – revenue” line items, how these items relate to the District Energy project and the Solar Garden project (if at all), and the appropriateness of the \$2,000 annual maintenance cost being recovered from all ratepayers.

District Energy System (DES): This is a new business opportunity that would be completely built within and operated as a City of Nelson Asset. It has not yet been determined if this project will proceed. If it does proceed the costs and revenues would both be attributed to the urban part of the utility.

There is also a standalone DES project that was put in service in 2011 to provide heat to a college dormitory. Similar to the main DES project, this project is also part of the urban operations of the

utility. This project incurs about \$10,000/ year in operating costs which are billed at a mark-up to the college for a small positive revenue to Nelson Hydro.

Nelson Community Solar Garden (NCSG): This project was completed in spring of 2017 and has rate payers from both the urban and rural parts of the utility investing for a 25 year term. The buy in model for the NCSG was reviewed and approved by BCUC in prior rate applications. The NCSG delivers benefits to those rate payers buying in and the project (240 panels) has sold out. Nelson Hydro a receives benefits and provides the annual maintenance estimated at \$2,000 / year because;

- a) The NCSG is an excellent opportunity for Nelson Hydro to get hands on operating experience with distributed generation which is certain to become a big part of utility operations over the coming years. The operating experience is of value to the utility and hence also the ratepayers,
- b) At the end of the 25 year term for rate payer buy-in the NCSG energy production becomes a Nelson Hydro asset. The equipment will be fully depreciated by then however it is expected the NCSG will remain a fully functional energy producing asset for many years afterward – producing energy at low cost to the benefit of all Nelson Hydro rate payers.

There is no relation between the DES project and the NCSG project.

Public Consultation

The opportunities for Public awareness and comment on this rate change include:

Nov 24th, 2017	Nelson Hydro Business plan presentation to City of Nelson Council (public meeting) - One member of public attended
Nov 27th, 2017	Review of Nelson Hydro draft 2018 budget with City of Nelson Council (public meeting) – No public attended
December 4 th , 2017	First three reading of Hydro rates bylaw by City of Nelson Council. (public meeting with many agenda items) – Several members of public in attendance and media coverage.
Mid-Late December	Print Newspaper ads & Social Media articles will be run advising of planned rate change and how comment can be provided to Nelson Hydro.
TBD	City of Nelson Budget Open House – Public Input Invited.
Mid-March	After the bylaw receives BCUC approval and final adoption from the City of Nelson Council an advisory of the rate change will be printed on the Nelson Hydro bills.

Thank you for your consideration, if there are any questions, please advise and we will respond accordingly.

Sincerely,



GENERAL MANAGER

Alex Love
General Manager for Nelson Hydro

Nelson Hydro 2018 Business Plan – Operating Budget

Type	Function Description	2016 YTD Act.	2016 Budget	2016 Act. / Budget	2017 Q3 YEF	2017 Budget	2017 YEF / Budget	Draft 2018 Budget	2018 / 2017 Budget
Expense									
Debt Serv.		\$499,363	\$499,364	100%	\$499,364	\$499,364	100%	\$499,364	100%
Op Exp.									
Distribution		\$1,243,383	\$1,343,100	93%	\$1,429,524	\$1,336,667	107%	\$1,377,963	103%
Electrical Administration		\$1,081,852	\$1,110,000	97%	\$1,190,650	\$1,319,563	90%	\$1,222,173	93%
Electrical Billing & Collections		\$695,081	\$688,699	101%	\$698,769	\$706,030	99%	\$725,078	103%
Electrical Debt Charges									
Electrical Supply		\$467,793	\$437,857	107%	\$410,542	\$454,080	90%	\$457,107	101%
Electrical Transmission		\$8,747	\$128,500	7%	\$148,335	\$99,369	149%	\$102,215	103%
Metering		\$88,428	\$88,950	99%	\$68,726	\$97,454	71%	\$100,567	103%
Operation		\$511,963	\$462,810	111%	\$456,505	\$500,450	91%	\$526,626	105%
Share of General Administration		\$114,145	\$113,871	100%	\$118,366	\$117,857	100%	\$121,982	104%
Substations		\$149,475	\$245,189	61%	\$233,973	\$185,084	126%	\$86,673	47%
District Heating Operations		\$9,083	\$7,803	116%	\$12,500	\$7,959	157%	\$10,500	132%
Allow-Small Acct Write-off		\$1,598	\$10,000	16%	\$5,000	\$10,000	50%	\$10,300	103%
Op Exp. Total		\$4,371,549	\$4,636,779	94%	\$4,772,890	\$4,834,511	99%	\$4,741,184	98%
Power Purch. Total		\$5,839,284	\$6,774,683	86%	\$6,711,088	\$6,756,716	99%	\$6,662,610	99%
Transfers									
Transfer - Dividend Pymt.		\$2,860,000	\$2,700,000	106%	\$2,700,000	\$2,700,000	100%	\$2,754,000	102%
Transfer - Major Capital Resv		\$3,152,000	\$2,269,904	139%	\$3,349,705	\$2,293,194	146%	\$2,486,307	108%
Transfer - Water License Reserve		\$568,868	\$568,867	100%	\$658,266	\$658,266	100%	\$658,266	100%
Contribution to Community Complex		\$90,000	\$90,000	100%	\$90,000	\$90,000	100%	\$90,000	100%
Transfers Total		\$6,670,868	\$5,628,771	119%	\$6,797,971	\$5,741,460	118%	\$6,289,313	110%
Expense Total		\$17,381,064	\$17,539,596	99%	\$18,781,313	\$17,832,051	105%	\$17,891,730	100%
Revenue									
Energy Exports									
Revenue - Other		-\$594,207	-\$454,597	131%	-\$841,313	-\$477,495	176%	-\$487,624	102%
Revenue - Rates		-\$16,778,032	-\$17,085,000	98%	-\$17,940,000	-\$17,150,555	105%	-\$17,404,106	101%
Contributions						-\$204,000	0%		
Revenue Total		-\$17,372,239	-\$17,539,597	99%	-\$18,781,313	-\$17,832,050	105%	-\$17,891,730	100%
Grand Total		\$8,825	\$0		\$0	\$0		\$0	

Nelson Hydro – 2018 Business Plan - Capital Budget

Project Description	WO Area	WO# Description	WO#	2013 YTD Act	2014 YTD Act.	2015 YTD Act.	2016 YTD Act	Current Q3 YEF	2017 Budget	Draft 2018 Budget	Draft 2019 Budget	Draft 2020 Budget	Draft 2021 Budget	Draft 2022 Budget
Bonnington Falls Upgrades														
Power Plant														
		Forebay Gate Upgrade	6953	\$191	\$0	\$6,902	\$4,389	\$148,888	\$133,200					
		G4 Rewind & Automation	6950	\$47,675	\$1,910				\$0					
		Vibration Monitoring Upgrade	6952						\$0					
		G3 Rewind	6951	\$49	\$16,775	\$168,759	\$8,850		\$0					
		Rock Scaling and Stabilization	6947				\$17,141	\$167,826	\$130,500					
		Dam Safety Study	6916				\$18,070	\$13,000	\$30,000	\$0				
		G5 P&C Upgrade	6961	\$560	\$0	\$0	\$184,979	\$500	\$5,000					
		G5 Auxiliary Systems Upgrade	6966					\$1,000	\$90,000	\$89,000				
		Penstock Condition Assessment	6969											
		Penstock & Tunnel Condition As	6948					\$90,000	\$176,000					
		Power Plant Water Intake Repairs	6949					\$238,000	\$85,229					
		Power Plant Intake Repairs - Archways	6972					\$0		\$120,000				
		Power Plant Intake Repairs - G0 to Dam	6972a									\$450,000		
		Power Plant Intake Repairs - Dam Face	6972b										\$350,000	\$350,000
		Power Plant Wood Decking Replacement							\$0	\$80,000			\$120,000	\$120,000
		For Unidentified Power Plant Upgrades 3 + years out	WO PP										\$250,000	\$250,000
Bonnington Falls Upgrades Sum				\$48,476	\$18,685	\$175,661	\$233,429	\$659,214	\$649,929	\$289,000		\$450,000	\$720,000	\$600,000
Distribution Upgrades														
City														
		Pole Replacement - City	6901	\$259,494	\$496,209	\$280,363	\$67,130	\$2,727	\$125,000	\$200,000	\$207,000	\$214,245	\$221,744	\$229,505
		Downtown Loop Feed	6914		\$34,574	\$37,533		\$0	\$0					
		Hall St Primary U/G Upgrade	7418					\$10,000	\$100,000	\$90,000				
North Shore														
		25F71 Re-Conductor	6957	\$0	\$984	\$241	\$518	\$355,000	\$355,000	\$493,000				
		Harrop/Procter Submarine Cable	6930	\$18,634	\$75,942	\$834,693	-\$7,851	\$0	\$0	\$0				
		Pole Replacement - N/S	6903	\$137,324	\$241,232	\$214,223	\$192,936	\$125,000	\$125,000	\$200,000	\$207,000	\$214,245	\$221,744	\$229,505
		F51/52 Bridge Duct	6929		\$0			\$5,000	\$0	\$240,000	\$800,000			
		Cutouts & Arrestors - Replace Porcelain with Poly	6900		\$43,053	\$233,569	\$67,243	\$10,000	\$80,000	\$80,000	\$82,800	\$85,698	\$88,697	\$91,802
		NS Volt-Var Optimization	6965					\$70,000	\$20,000	\$100,000	\$20,000			
South Shore														
		Pole Replacement - SS	6902	\$51,947	\$21,960	\$97,911	\$30,872	\$107,500	\$107,500	\$107,500	\$111,263	\$115,157	\$119,187	\$123,359
		ShasheenKennel/BlewettRelocate	6964				\$0	\$0	\$0			\$60,000		
Utility Wide														
		3 Phase Gang Disconnect Switch	6962	\$0	\$22,556	\$28,758	\$0	\$5,000	\$5,000	\$25,000				
		1/0 Reclose Installs (4)	6956	\$26,325	\$80,224	\$32,288	\$8,911	\$0	\$0	\$0				
		FBC Crossings	6915				\$23,634	\$0	\$50,000	\$50,000	\$50,000			
		For Unidentified Dist 5 + years out	WO Dist						\$0	\$0			\$250,000	\$250,000

Project Description	WO Area	WO# Description	WO#	2013 YTD Act	2014 YTD Act.	2015 YTD Act.	2016 YTD Act	Current Q3 YEF	2017 Budget	Draft 2018 Budget	Draft 2019 Budget	Draft 2020 Budget	Draft 2021 Budget	Draft 2022 Budget
Distribution Upgrades Sum				\$493,724	\$1,016,733	\$1,759,579	\$383,393	\$690,227	\$967,500	\$1,585,500	\$1,478,063	\$689,345	\$901,372	\$924,170
New Customer Services														
City														
		New Services - Flat Rate	6416	\$128,031	\$51,189	\$162,584	\$94,497	\$110,000	\$138,590	\$130,000	\$134,550	\$139,259	\$144,133	\$149,178
North Shore														
		New Services - Flat Rate	6436	\$66,164	\$96,284	\$79,253	\$104,387	\$101,000	\$105,328	\$105,000	\$108,675	\$112,479	\$116,415	\$120,490
South Shore														
		New Services - Flat Rate	6426	\$68,433	\$26,047	\$50,694	\$96,037	\$90,000	\$63,197	\$65,000	\$67,275	\$69,630	\$72,067	\$74,589
New Customer Services Sum				\$262,628	\$173,520	\$292,531	\$294,922	\$301,000	\$307,115	\$300,000	\$310,500	\$321,368	\$332,615	\$344,257
Substation Upgrades														
City														
		Bonnington Sub P&C Upgrade	6959		\$300		\$44,480	\$205,000	\$162,500					
		Mill St Sub Upgrade	6958					\$0	\$0		\$50,000	\$1,500,000		
		Rosemont Substation	6931	\$2,106,238	\$362,512	\$5,948	\$642	\$200	\$0					
		Bonnington 60CB10 Replacement	6967					\$0	\$20,000	\$132,000				
North Shore														
		Coffee Creek Transformer	6960						\$0					\$500,000
		Lakeside Terminal Switchgear	6943						\$0	\$0	\$100,000			
		Six Mile Sub V Regs	WO 6 Mile V Reg						\$0	\$100,000				
Utility Wide														
		For Unidentified Substation Upgrades 3 + years out	WO SS										\$250,000	\$250,000
Substation Upgrades Sum				\$2,106,238	\$362,812	\$5,948	\$45,122	\$205,200	\$182,500	\$232,000	\$150,000	\$1,500,000	\$250,000	\$750,000
Transmission Upgrades														
Transmission														
		27L Breaker	6924	\$1,104	\$387	\$74			\$0					
		60L1 Rebuild	6920	\$0	\$4,821	\$9,610	\$0	\$0	\$0					
		60L2 Rebuild	6921	\$287,790	\$604,930	\$29,583	\$18,918	\$0	\$0	\$396,000				
		60L3 Rebuild	6922	\$40,902	\$0	\$10,556	\$50,320	\$0	\$0	\$400,000				
		60L3 YMIR Hwy Crossing	6923	\$13,277	\$89			\$0	\$0					
		For Unidentified Transmission 4 + years out	WO Trans						\$0	\$0				\$250,000
Transmission Upgrades Sum				\$343,073	\$610,227	\$49,823	\$69,238	\$0	\$0	\$796,000				\$250,000
Voltage Conversions														
City														
		Voltage Conv. - Gyro (4F29)	6909		\$131	\$0	\$695	\$0	\$0					
		Voltage Conv. - Uphill (4F21, 4F22)	6910	\$191,355	\$80,989	\$658,075	\$291,206	\$0	\$0					
		Voltage Conv. - Downtown (4F25 & 4F21)	6911	\$687,320	\$573,795	\$31,562	\$3,360	\$0	\$0					

Project Description	WO Area	WO# Description	WO#	2013 YTD Act	2014 YTD Act.	2015 YTD Act.	2016 YTD Act	Current Q3 YEF	2017 Budget	Draft 2018 Budget	Draft 2019 Budget	Draft 2020 Budget	Draft 2021 Budget	Draft 2022 Budget
		Voltage Conv. - City (4kV)	6913			\$393	\$148	\$633,172	\$763,000					
	South Shore	Voltage Conv. - Southshore	6912	\$3,919	-\$224	\$85,184		\$0	\$0					
Voltage Conversions Sum				\$882,593	\$654,691	\$775,214	\$295,409	\$633,172	\$763,000					
Equipment Capital														
	Utility Wide	Infrared Camera	6942					\$0	\$0	\$0				
		Rubber Truck Tools	6954		\$3,899	\$2,624	\$45,448	\$0	\$0	\$0				
Equipment Capital Sum					\$3,899	\$2,624	\$45,448	\$0	\$0	\$0				
System General														
	Admin	Office Reno Hydro	6946		\$37,919	\$133,142			\$0					
	City	Electric Vehicle Charging Station	6963	\$0		\$12,573	\$12,644	\$13,000	\$0				\$75,000	
	Revenue - Rates	CIS E-Billing Module	6941			\$0		\$5,000	\$5,000		\$400,000			
		Meters Replacement	6940	\$6,688	\$8,434	\$12,959	\$33,567	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
	Utility Wide	SCADA Upgrade	6955	\$0	\$326	\$84,482	\$48,804	\$0	\$0					
		Hydro Generation Studies	6968											
		For Unidentified System Upgrades 3 + years out	WO Syst						\$0	\$0			\$100,000	\$100,000
	0	Hydro Generation Studies	6722	\$0		\$0	\$86	\$25,000	\$55,000	\$30,000				\$0
	EcoSave	Solar Garden - new	7330			\$37,676	\$216,373	-\$201,140	-\$84,520					\$0
		Solar Garden (2014) Design - (Do not use)	7326					\$0	\$0					\$0
System General Sum				\$6,688	\$46,679	\$280,833	\$311,474	-\$143,140	-\$9,520	\$45,000	\$415,000	\$15,000	\$190,000	\$115,000
New Energy														
	City	Hall St PRV Generation	WO Hall St PRV						\$0	\$126,500				
	Studies	District Heating System Prelim Est.	6970	\$75,801	\$45,505	-\$3,828	\$4,572	\$5,000	\$75,000	\$40,000				
		Co-Gen System	6971			\$3,828	\$0	\$5,000	\$25,000	\$25,000	\$0	\$0	\$0	\$0

Project Description	WO Area	WO# Description	WO#	2013 YTD Act	2014 YTD Act.	2015 YTD Act.	2016 YTD Act	Current Q3 YEF	2017 Budget	Draft 2018 Budget	Draft 2019 Budget	Draft 2020 Budget	Draft 2021 Budget	Draft 2022 Budget
New Energy Sum				\$75,801	\$45,505	\$0	\$4,572	\$10,000	\$100,000	\$191,500	\$0	\$0	\$0	\$0
Grand Total				\$4,219,220	\$2,932,752	\$3,342,212	\$1,683,006	\$2,355,673	\$2,960,524	\$3,439,000	\$2,353,563	\$2,975,712	\$2,393,987	\$2,983,427

THE CORPORATION OF THE CITY OF NELSON REQUEST FOR DECISION

DATE: December 4, 2017 Regular Council

TOPIC: Electrical Utility Amendment Bylaw No.3387, 2017 (2018 Electrical Rates)

PROPOSAL: Introduction and first three readings

PROPOSED BY: Staff

ANALYSIS SUMMARY:

At the November 24th, 2017 Council meeting, Council was presented with background information on the 2018 electrical rate changes for the utility. At the November 27th, 2017 Council meeting, Council was provided with further information on several rate increase options including a modified rate smoothing and the advantages and disadvantages.

The utility rate amendment bylaw is being brought forward to Council for consideration prior to the completion of the 2018-2022 Financial Plan. This will allow Nelson Hydro to communicate these changes to customers prior to the rates going into effect on April 1, 2018. Also, the BC Utilities Commission must approve any increase for the rural customers before adoption of the amendment.

General Rate Increase:

Staff recommends a 2.25% general rate increase in Nelson Hydro electrical rates for all classes effective April 1, 2018.

Increasing the 2018 rate change from 1.55% to 2.25% (Apr 01) as discussed November 27th in council, results in an estimated reduced rate pressure in subsequent years specifically reducing the forecast 2019 rate changes from 3.92 down to 3.04%

This rate increase will see a reduction in the operating expense budget from 2017 of 2.18%, and our dividend increasing from \$2,700,000 to \$2,754,000.

This rate increase will also help fund the longer term capital requirements, while the water license reserve transfer will remain static at \$658,266.

A 2.25% general rate increase effective April 01, 2018 will result in a revenue increase of about 1.56% to the utility for 2017 and a transfer to the Capital Reserve of \$2,787,047, which is in line with our long term sustaining needs of \$2.75-\$3.00 million.

BACKGROUND:

General Rate Increase:

FortisBC has a proposed increase of .17% discussed in the Annual review but this has been deferred until approximately February of 2018. When a rate change is put into effect, it will be retroactive to January 1, 2018. BC Hydro may be under a rate freeze by the Provincial Government and with the above noted information, this enables Nelson Hydro to apply for a lower general rate increase than originally anticipated.

BENEFITS, DISADVANTAGES AND NEGATIVE IMPACTS:

After the 2018 rate increases, Nelson Hydro will still continue to have the lowest residential rates of FortisBC and the other Municipal hydro utilities.

LEGISLATIVE IMPACTS, PRECEDENTS, POLICIES:

It is within Council's authority to review rate changes and increase Hydro rates when necessary. Prior to adoption, this increase must also be approved by the BC Utilities Commission for the rural customers

OPTIONS AND ALTERNATIVES:

1. Proceed with the bylaw and increase the electrical utility rates by 2.25% for all classes.
2. Refer the matter back to staff with direction to look at higher rates for further review and report.
3. Refer the matter back to staff with direction to look at lower rates for further review and report.

COSTS AND BUDGET IMPACT - REVENUE GENERATION:

The increase will cover Nelson Hydro's projected revenue requirement as well as fund the long term capital requirements and dividend to the City of Nelson.

STAFF RECOMMENDATION:

That Council pass the following resolutions:

1. That the "Electrical Utility Amendment Bylaw (Hydro Rates 2018) No.3387, 2017" be introduced and read a first time and a second time by title only.
2. That the "Electrical Utility Amendment Bylaw (Hydro Rates 2018) No.3387, 2017" be read a third time.

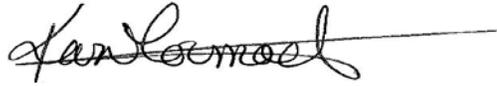
AUTHOR:



GENERAL MANAGER

NELSON HYDRO

REVIEWED BY:



CITY MANAGER

THE CORPORATION OF THE CITY OF NELSON

BYLAW NO. 3387

A BYLAW TO AMEND "THE CORPORATION OF THE CITY OF NELSON HYDRO SERVICES BYLAW NO. 3196, 2012"

WHEREAS it is deemed desirable and expedient to amend "The Corporation of the City of Nelson Hydro Services Bylaw No. 3196, 2012" to increase rates to cover the costs of operating the City of Nelson's hydro system;

NOW THEREFORE the Council of the Corporation of the City of Nelson, in open meeting assembled, enacts as follows:

1. Schedule "B" of "The Corporation of the City of Nelson Hydro Services Bylaw No. 3196, 2012" is hereby rescinded and Schedule "B" attached hereto and forming part of this Bylaw is hereby substituted.
2. This Bylaw shall receive the approval of the British Columbia Utilities Commission prior to adoption.
3. This Bylaw may be cited as the "**Electrical Utility Amendment (Hydro Rates 2018) Bylaw No. 3387, 2017.**"
4. This Bylaw shall come into force and effect on April 1st, 2018.

READ A FIRST TIME the day of , 2017

READ A SECOND TIME the day of , 2017

READ A THIRD TIME the day of , 2017

RECEIVED approval of the British Columbia Utilities Commission on
The day of per order No.

FINALLY PASSED AND ADOPTED the day of , 2018

Mayor

Corporate Officer

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATES & CHARGES

RATE A-1

Residential Service Rates - Urban

Applicable to Urban Customers

Applicable to residential or domestic use

Applicable to domestic water systems with connected load of 5HP or less

Rate:

Energy Charge – Bi- Monthly

Basic Charge \$15.98 per period

All kWh per period @ 10.36 cents per kWh

Demand Charge

First 20 kW - nil

Each additional kW per period @ \$7.26 per kW

Minimum Charge

The minimum charge per period shall be \$15.98

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATE A-3

Residential Service Rates - Rural

Applicable to Rural Customers

Applicable to residential or domestic use

Applicable to common residential use

Applicable to domestic water systems with connected load of 5HP or less

Rate:

Energy Charge - Bi-monthly

Basic Charge \$15.98 per period

All kWh per period @ 10.36 cents per kWh

Demand Charge

First 20 kW - nil

All additional kW @ \$7.26 per kW

Minimum Charge

The minimum charge per period shall be \$15.98

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATE B-1

Small Commercial Service Rates - Urban

Applicable to Urban Customers

Applicable to small non-residential customers of loads up to 25 KVA where no Demand Meter is installed

Rate:

Energy Charge - Bi-monthly

Basic Charge \$ 36.63 per period.

All kWh per period @ 11.80 cents per kWh

Minimum Charge

The minimum charge per period shall be \$ 36.63

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATE B-4

Commercial Service Rates - Rural

Applicable to Rural Customers

Applicable to small non-residential customers of loads up to 25 KVA where no Demand Meter is installed

Rate:

Energy Charge - Bi-monthly

Basic Charge \$ 37.75 per period

All kWh per period @ 12.16 cents per kWh

Minimum Charge

The minimum charge per period shall be \$ 37.75

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATE C-1

General Service Rates - Urban

Rate:

Energy Charge – Monthly

Basic Charge \$ 36.63 per month

First 15,000 kWh per month @ 10.58 cents per kWh

All additional kWh per month over 15,000 @ 10.58 cents per kWh

Demand Charge

\$ 7.76 per KVA of billing demand above 25 KVA

Minimum Charge

The minimum charge per period shall be the greater of:

- a) \$ 36.63 per month, or
- b) the demand charge

Billing Demand

The greatest of:

- a) The maximum demand in KVA the current billing month, or
- b) Seventy-five percent (75%) of the maximum demand in KVA registered during the months in the previous eleven month period

Discounts

- a) If service under this rate is metered at Primary Voltage, a metering discount of 1.5% shall apply
- b) If the Customer supplies the necessary step down transformers and transmission line voltage protective equipment and installs the same on his premises, a further discount of 63.64 cents per KVA of Billing Demand shall apply

SCHEDULE "B"

SERVICE DESCRIPTIONS AND RATES

RATE C-4

General Service Rates - Rural

Rate:

Energy Charge – Monthly

Basic Charge \$ 37.75 per month
First 15,000 kWh per month @ 10.90 cents per kWh
All additional kWh per month over 15,000 @ 10.90 cents per kWh

Demand Charge

\$7.99 per KVA. of billing demand above 25 KVA

Minimum Charge

- a) \$ 37.75 per month, or
- b) the demand charge

Billing Demand

The greatest of:

- a) The maximum demand in KVA the current billing month, or
- b) Seventy-five percent (75%) of the maximum demand in KVA registered during the months in the previous eleven month period

Discounts

- a) If service under this rate is metered at Primary Voltage, a metering discount of 1.5% shall apply

- b) If the Customer supplies the necessary step down transformers and transmission line voltage protective equipment and installs the same on his premises, a further discount of 63.64 cents per KVA of Billing Demand shall apply

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATE E-1

City of Nelson Service Rate

Applicable for all City of Nelson (company) accounts for electrical consumption billed bi-monthly

Rate:

Energy Charge - Monthly

All kWh per month @ 9.95 cents per kWh

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATE F-1

Commercial Flat Service Rates - Urban

Applicable to Urban Customers

Applicable to Commercial Utilities with usage of energy estimated to be less than 400 kWh per billing period

Rate:

\$55.45 bi-monthly

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATE F-2

Commercial Flat Service Rates - Rural

Applicable to Rural Customers

Applicable to Commercial Utilities with usage of energy estimated to be less than 400 kWh per billing period

Rate:

\$61.03 bi-monthly

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATE G-3

Street or Outdoor Lighting - Urban

Applicable to Urban Customers where the City owns, installs and maintains the lamps.

Applicable only to high intensity distribution lamps as may be approved by the City.

A surcharge of \$ 8.71 per Month will apply if the City installs a pole for the above lighting.

For fixtures with lamp rates different from those above, the Monthly rate shall be 1.5% of the installed cost of the fixtures plus 2.73 cents per watt of the rating of the lamp and ballast.

Maintenance will be conducted by City crews during regular working hours. The customer will be responsible for any willful damage caused by any person or thing.

The original term of the contract shall be for three years and may be renewed for periods of one year until terminated by written notice of at least 30 days by the City or the customer.

Rate:

<u>Lamp Size in Watts</u>	<u>Monthly Charge</u>
150	\$22.51
250	\$28.21

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATE G-4

Street or Outdoor Lighting - Rural

Applicable to Rural Customers where the City owns, installs and maintains the lamps.

Applicable only to high intensity distribution lamps as may be approved by the City.

A surcharge of \$ 8.71 per Month will apply if the City installs a pole for the above lighting.

For fixtures with lamp rates different from those above, the Monthly rate shall be 1.5% of the installed cost of the fixtures plus 3.23 cents per watt of the rating of the lamp and ballast.

Maintenance will be conducted by City crews during regular working hours. The customer will be responsible for any willful damage caused by any person or thing.

The original term of the contract shall be for three years and may be renewed for periods of one year until terminated by written notice of at least 30 days by the City or the customer.

Deposit

The minimum deposit shall be an amount equal to 2 1/2 times the average monthly invoice.

Rate:

<u>Lamp Size in Watts</u>	<u>Monthly Charge</u>
150	\$24.76
250	\$30.99

SCHEDULE "B"
SERVICE DESCRIPTIONS AND RATES

RATES & CHARGES

RATE M-1

Manual Meter Reading

Applicable to Urban Residential Customers
Applicable to Rural Residential Customers

An optional service is offered to those customers who prefer not to have a radio read meter at their service entrance. A digital non-radio read meter will be installed as an alternate to the standard digital radio read meter.

The customer will be required to pay a onetime "Setup Charge". For each billing cycle thereafter, the customer will be required to pay a "Manual Read Charge" along with the regular residential service rates applicable under Schedule A-1 or Schedule A-3 of this bylaw.

This service may be discontinued if it is not compatible with the Technology, Practices, Procedures or Capacity of the Electric Utility. In the event of program cancellation a refund of the setup fee will be made to any customer who subscribed to the service less than two years prior.

Rate:

Setup Charge

Each electric meter \$178.42

Manual Read Charge

Manual Read for each billing cycle \$24.60

Nelson Hydro 2018 Budget

Type	Type 1	Function Description	WO# Description	2015 YTD Act.	2016 YTD Act	Current YTD	Current Q3 YEF	Sum of Merged 2017 Budget	Draft 2018 Budget	Draft 2019 Budget	Draft 2020 Budget	Draft 2021 Budget	Draft 2022 Budget
Expense													
	Debt Serv.			\$499,363	\$499,363	\$462,613	\$499,364	\$499,364	\$499,364	\$499,364	\$499,364	\$499,364	\$499,364
	Op Exp.												
	Distribution			\$2,022,418	\$1,243,383	\$787,511	\$1,429,524	\$1,336,667	\$1,377,963	\$1,420,676	\$1,464,857	\$1,510,558	\$1,557,834
	Electrical Administration			\$1,098,511	\$1,081,852	\$839,842	\$1,190,650	\$1,334,263	\$1,222,173	\$1,258,937	\$1,289,041	\$1,320,010	\$1,351,871
	Electrical Billing & Collections			\$677,510	\$695,081	\$531,969	\$698,769	\$705,530	\$725,078	\$745,209	\$765,939	\$787,288	\$809,275
	Electrical Debt Charges			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Electrical Supply			\$521,779	\$467,793	\$349,049	\$410,542	\$439,380	\$457,107	\$475,582	\$494,838	\$514,910	\$535,832
	Electrical Transmission			\$118,972	\$8,747	\$23,214	\$148,335	\$99,369	\$102,215	\$105,146	\$108,166	\$111,277	\$114,482
	Metering			\$93,065	\$88,428	\$55,006	\$68,726	\$97,454	\$100,567	\$103,787	\$107,117	\$110,561	\$114,122
	Operation			\$607,008	\$511,963	\$417,240	\$456,505	\$510,700	\$526,626	\$540,974	\$555,757	\$570,987	\$586,679
	Share of General Administration			\$102,514	\$114,145	\$84,936	\$118,366	\$117,857	\$121,982	\$126,251	\$130,670	\$135,243	\$139,977
	Substations			\$114,263	\$149,475	\$98,397	\$233,973	\$185,084	\$86,673	\$88,830	\$91,058	\$93,358	\$95,735
	Transfers	Allow-Small Acct Write-o		\$2,131	\$1,598	\$2,329	\$5,000	\$10,000	\$10,300	\$10,609	\$10,927	\$11,255	\$11,593
	Op Exp. Total			\$5,358,171	\$4,362,466	\$3,189,492	\$4,760,390	\$4,836,302	\$4,730,684	\$4,876,001	\$5,018,370	\$5,165,448	\$5,317,400
	Power Purch.												
	Electrical Supply			\$5,925,459	\$5,839,284	\$4,572,092	\$6,711,088	\$6,756,716	\$6,662,610	\$6,895,802	\$7,137,155	\$7,386,955	\$7,645,498
	Power Purch. Total			\$5,925,459	\$5,839,284	\$4,572,092	\$6,711,088	\$6,756,716	\$6,662,610	\$6,895,802	\$7,137,155	\$7,386,955	\$7,645,498
	Transfers												
	Transfers	Transfer - Dividend Pymt		\$2,600,000	\$2,860,000	\$1,350,000	\$2,700,000	\$2,700,000	\$2,754,000	\$2,809,080	\$2,865,262	\$2,922,567	\$2,981,018
		Transfer - Water Licence		\$551,654	\$568,868	\$329,133	\$658,266	\$658,266	\$658,266	\$671,431	\$684,860	\$698,557	\$712,528
		Contribution to Communi		\$90,000	\$90,000	\$0	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000
	Transfers Total			\$3,241,654	\$3,518,868	\$1,679,133	\$3,448,266	\$3,448,266	\$3,502,266	\$3,570,511	\$3,640,122	\$3,711,124	\$3,783,546
	Op Exp. - DES			\$5,557	\$9,083	\$9,801	\$12,500	\$7,959	\$10,500	\$10,710	\$10,924	\$11,143	\$11,366
	Expense Total			\$15,030,204	\$14,229,064	\$9,913,132	\$15,431,608	\$15,548,607	\$15,405,423	\$15,852,388	\$16,305,934	\$16,774,033	\$17,257,174
Revenue													
	Energy Exports			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Revenue - Other												
	Capital - System Upgrade	Telus Pole Purchase - C;		-\$28,260	-\$27,810	\$0	\$0	-\$30,000	-\$30,000	-\$30,000	-\$30,000	-\$30,000	-\$30,000
		Non Government Grants		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Elec Other Revenue of Own Sources			-\$148,295	-\$147,574	-\$129,481	-\$162,150	-\$133,563	-\$136,872	-\$141,168	-\$145,602	-\$150,178	-\$154,900
	Electrical Sale of Services			-\$248,033	-\$253,756	-\$176,784	-\$309,921	-\$227,712	-\$230,944	-\$234,272	-\$237,700	-\$241,231	-\$244,868
	Export Sales	NH Energy Export		-\$4,919	-\$35,824	-\$263,402	-\$265,000	\$0	\$0	\$0	\$0	\$0	\$0
	Export Sales - Freshette	BC Hydro Generation		-\$9,230	\$0	\$0	\$0	-\$37,696	-\$39,016	-\$40,381	-\$41,795	-\$43,257	-\$44,772
		FortisBC Export Power		-\$3,918	-\$107,816	-\$87,278	-\$88,000	-\$33,262	-\$34,426	-\$35,631	-\$36,878	-\$38,168	-\$39,504
	Energy Retrofit Revenue	Energy Retrofit Loan Int l		-\$8,323	-\$11,210	-\$7,363	-\$6,242	-\$6,242	-\$6,367	-\$6,495	-\$6,624	-\$6,757	-\$6,892
	Revenue - Other Total			-\$450,979	-\$583,989	-\$664,307	-\$831,313	-\$468,475	-\$477,624	-\$487,947	-\$498,599	-\$509,592	-\$520,936
	Revenue - Rates												
	Electrical Sale of Services			-\$15,964,873	-\$16,778,032	-\$13,349,542	-\$17,940,000	-\$17,150,555	-\$17,704,846	-\$18,147,467	-\$18,601,154	-\$19,066,183	-\$19,542,837
	Revenue - Rates Total			-\$15,964,873	-\$16,778,032	-\$13,349,542	-\$17,940,000	-\$17,150,555	-\$17,704,846	-\$18,147,467	-\$18,601,154	-\$19,066,183	-\$19,542,837
	Contributions			\$0	\$0	\$0	\$0	-\$204,000	\$0	\$0	\$0	\$0	\$0
	Revenue - DES			-\$6,549	-\$10,219	-\$9,413	-\$10,000	-\$9,020	-\$10,000	-\$10,200	-\$10,404	-\$10,612	-\$10,824
	Revenue Total			-\$16,422,401	-\$17,372,239	-\$14,023,262	-\$18,781,313	-\$17,832,050	-\$18,192,470	-\$18,645,614	-\$19,110,157	-\$19,586,387	-\$20,074,598
	Grand Total			-\$1,392,197	-\$3,143,175	-\$4,110,130	-\$3,349,705	-\$2,283,444	-\$2,787,047	-\$2,793,226	-\$2,804,223	-\$2,812,353	-\$2,817,424

Nelson Hydro 2018 Budget

Type Capital

Project Description		WO Area	WO# Description	WO#	Data										Sum of Merged 2017 Budget	Draft 2018 Budget	Draft 2019 Budget	Draft 2020 Budget	Draft 2021 Budget	Draft 2022 Budget
					2011 Act	2012 YTD Act.	2013 YTD Act	2014 YTD Act.	2015 YTD Act.	2016 YTD Act	Current YTD	Current Q2 YEF	Current Q3 YEF							
Bonning																				
Power																				
			Forebay Gate Upgrade	6953			\$191	\$0	\$6,902	\$4,389	\$316,960	\$147,000	\$148,888	\$133,200						
			G4 Rewind & Automation	6950	\$268,945	\$47,867	\$47,675	\$1,910			\$0			\$0						
			Vibration Monitoring Upgrade	6952	\$31,713	\$216					\$0			\$0						
			G3 Rewind	6951			\$49	\$16,775	\$168,759	\$8,850	\$0			\$0						
			Rock Scaling and Stabilization	6947						\$17,141	\$2,189	\$130,500	\$167,826	\$130,500						
			Dam Safety Study	6916						\$18,070	\$3,445	\$30,000	\$13,000	\$30,000	\$0					
			G5 P&C Upgrade	6961			\$560	\$0	\$0	\$184,979	\$307	\$500	\$500	\$5,000						
			G5 Auxillary Systems Upgrade	6966							\$0	\$90,000	\$1,000	\$90,000	\$89,000					
			Penstock Condition Assessment	6969							\$0			\$0						
			Penstock & Tunnel Condition As	6948							\$3,619	\$60,000	\$90,000	\$176,000						
			Power Plant Water Intake Repairs	6949							\$16,173	\$200,000	\$238,000	\$85,229						
			Power Plant Intake Repairs - Achways	6972							\$17,243		\$0	\$120,000						
			Power Plant Intake Repairs - G0 to Darr	6972a													\$450,000			
			Power Plant Intake Repairs - Dam Face	6972b														\$350,000	\$350,000	
			Power Plant Wood Decking Replacemer	WO PP Wood Deck							\$0			\$0	\$80,000			\$120,000	\$250,000	
			For Unidentified Power Plant Upgrades	WO PP														\$250,000	\$250,000	
ides Sum					\$300,658	\$48,083	\$48,476	\$18,685	\$175,661	\$233,429	\$359,935	\$658,000	\$659,214	\$649,929	\$289,000		\$450,000	\$720,000	\$600,000	
Distribut																				
City																				
			Pole Replacement - City	6901	\$33,469	\$17,965	\$259,494	\$496,209	\$280,363	\$67,130	\$2,727	\$125,000	\$2,727	\$125,000	\$200,000	\$207,000	\$214,245	\$221,744	\$229,505	
			Downtown Loop Feed	6914				\$34,574	\$37,533		\$0	\$0	\$0	\$0						
			Hall St Primary U/G Upgrade	7418							\$0	\$60,000	\$10,000	\$100,000	\$90,000					
North :																				
			25F71 Re-Conductor	6957		\$0	\$0	\$984	\$241	\$518	\$125,703	\$355,000	\$355,000	\$355,000	\$493,000					
			Harrop/Procter Submarine Cable	6930	\$0	\$15,550	\$18,634	\$75,942	\$834,693	-\$7,851	\$0	\$0	\$0	\$0	\$0					
			Pole Replacement - N/S	6903	\$269,875	\$52,056	\$137,324	\$241,232	\$214,223	\$192,936	\$122,556	\$125,000	\$125,000	\$125,000	\$200,000	\$207,000	\$214,245	\$221,744	\$229,505	
			F51/52 Bridge Duct	6929			\$0	\$0			\$4,685	\$5,000	\$5,000	\$0	\$240,000	\$800,000				
			Cutouts & Arrestors - Replace Porcelain	6900			\$43,053	\$233,569	\$67,243	\$941	\$80,000	\$10,000	\$80,000	\$80,000	\$82,800	\$85,698	\$88,697	\$91,802		
			NS Volt-Var Optimization	6965						\$46,856	\$60,000	\$70,000	\$20,000	\$100,000	\$20,000					
South																				
			Pole Replacement - SS	6902	\$106,938	\$27,424	\$51,947	\$21,960	\$97,911	\$30,872	\$48,782	\$107,500	\$107,500	\$107,500	\$107,500	\$111,263	\$115,157	\$119,187	\$123,359	
			ShasheenKennel/BlewettRelocate	6964						\$0	\$0	\$0	\$0	\$0	\$60,000					
Utility \																				
			3 Phase Gang Disconnect Switch	6962			\$0	\$22,556	\$28,758	\$0	\$0	\$5,000	\$5,000	\$5,000	\$25,000					
			1/0 Reclose Installs (4)	6956	\$11,534	\$123,688	\$26,325	\$80,224	\$32,288	\$8,911	\$264	\$0	\$0	\$0	\$0					
			FBC Crossings	6915						\$23,634	\$0	\$50,000	\$0	\$50,000	\$50,000	\$50,000				
			For Unidentified Dist 5 + years out	WO Dist							\$0		\$0	\$0				\$250,000	\$250,000	
ides Sum					\$421,816	\$236,682	\$493,724	\$1,016,733	\$1,759,579	\$383,393	\$352,513	\$967,500	\$690,227	\$967,500	\$1,585,500	\$1,478,063	\$689,345	\$901,372	\$924,170	
New Cust																				
City																				
			New Services - Flat Rate	6416	\$131,865	\$98,449	\$128,031	\$51,189	\$162,584	\$94,497	\$84,764	\$138,590	\$110,000	\$138,590	\$130,000	\$134,550	\$139,259	\$144,133	\$149,178	
North :																				
			New Services - Flat Rate	6436	\$109,758	\$87,090	\$66,164	\$96,284	\$79,253	\$104,387	\$82,795	\$105,331	\$101,000	\$105,328	\$105,000	\$108,675	\$112,479	\$116,415	\$120,490	
South																				
			New Services - Flat Rate	6426	\$44,066	\$55,053	\$68,433	\$26,047	\$50,694	\$96,037	\$71,984	\$63,197	\$90,000	\$63,197	\$65,000	\$67,275	\$69,630	\$72,067	\$74,589	
ides Sum					\$285,690	\$240,591	\$262,628	\$173,520	\$292,531	\$294,922	\$239,543	\$307,118	\$301,000	\$307,115	\$300,000	\$310,500	\$321,368	\$332,615	\$344,257	
Substati																				
City																				
			Bonnington Sub P&C Upgrade	6959				\$300		\$44,480	\$133,718	\$190,000	\$205,000	\$162,500						
			Mill St Sub Upgrade	6958						\$0	\$0	\$0	\$0	\$0	\$50,000	\$1,500,000				
			Rosemont Substation	6931	\$175,989	\$470,832	\$2,106,238	\$362,512	\$5,948	\$642	\$190	\$200	\$0	\$0						
			Bonnington 60CB10 Replacement	6967						\$0	\$0	\$0	\$20,000	\$132,000						
North :																				
			Coffee Creek Transformer	6960							\$0	\$0	\$0	\$0					\$500,000	
			Lakeside Terminal Switchgear	6943							\$0	\$0	\$0	\$0	\$0	\$100,000				
			Six Mile Sub V Regs	WO 6 Mile V Reg							\$0	\$0	\$0	\$100,000						
Utility \																				
			For Unidentified Substation Upgrades 3	WO SS														\$250,000	\$250,000	

Nelson Hydro 2018 Budget

Project Description	WO Area	WO# Description	WO#	2011 Act	2012 YTD Act.	2013 YTD Act	2014 YTD Act.	2015 YTD Act.	2016 YTD Act	Current YTD	Current Q2 YEF	Current Q3 YEF	Sum of Merged 2017 Budget	Draft 2018 Budget	Draft 2019 Budget	Draft 2020 Budget	Draft 2021 Budget	Draft 2022 Budget	
Upgrades																			
Index Sum					\$175,989	\$470,832	\$2,106,238	\$362,812	\$5,948	\$45,122	\$133,908	\$190,000	\$205,200	\$182,500	\$232,000	\$150,000	\$1,500,000	\$250,000	\$750,000
Transmi:																			
Transn																			
		27L Breaker	6924			\$1,104	\$387	\$74		\$0			\$0						
		60L1 Rebuild	6920		\$738	\$0	\$4,821	\$9,610	\$0	\$0			\$0	\$0					
		60L2 Rebuild	6921		\$1,188	\$287,790	\$604,930	\$29,583	\$18,918	\$0			\$0	\$0	\$396,000				
		60L3 Rebuild	6922			\$40,902	\$0	\$10,556	\$50,320	\$171			\$0	\$0	\$400,000				
		60L3 YMIR Hwy Crossing	6923		\$130,335	\$13,277	\$89			\$0			\$0	\$0					
		For Unidentified Transmission 4 + years	WO Trans							\$0			\$0	\$0				\$250,000	
Index Sum					\$132,261	\$343,073	\$610,227	\$49,823	\$69,238	\$171			\$0	\$0	\$796,000			\$250,000	
Voltage																			
City																			
		Voltage Conv. - Gyro (4F29)	6909				\$131	\$0	\$695	\$95,423			\$0	\$0					
		Voltage Conv. - Uphill (4F21, 4F22)	6910	\$59,169	\$231,669	\$191,355	\$80,989	\$658,075	\$291,206	\$208,159			\$0	\$0					
		Voltage Conv. - Downtown (4F25 & 4F2)	6911	\$2,591,648	\$127,933	\$687,320	\$573,795	\$31,562	\$3,360	\$0			\$0	\$0					
		Voltage Conv. - City (4kV)	6913					\$393	\$148	\$314,107	\$763,000	\$633,172	\$763,000						
South																			
		Voltage Conv. - Southshore	6912			\$3,919	-\$224	\$85,184		\$0			\$0	\$0					
Index Sum					\$2,650,816	\$359,603	\$882,593	\$654,691	\$775,214	\$295,409	\$617,689	\$763,000	\$633,172	\$763,000					
Equipme																			
Utility \																			
		Infrared Camera	6942							\$0			\$0	\$0	\$0				
		Rubber Truck Tools	6954				\$3,899	\$2,624	\$45,448	\$0			\$0	\$0	\$0				
Capital Sum							\$3,899	\$2,624	\$45,448	\$0			\$0	\$0	\$0	\$0			
System																			
Admin																			
		Office Reno Hydro	6946				\$37,919	\$133,142		\$0			\$0						
City																			
		Electric Vehicle Charging Station	6963			\$0		\$12,573	\$12,644	\$13,076	\$12,000	\$13,000	\$0				\$75,000		
Reven																			
		CIS E-Billing Module	6941					\$0		\$0	\$55,000	\$5,000	\$5,000		\$400,000				
		Meters Replacement	6940	\$12,384	\$95,569	\$6,688	\$8,434	\$12,959	\$33,567	\$7,731	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	
Utility \																			
		SCADA Upgrade	6955	\$15,831	\$0	\$0	\$326	\$84,482	\$48,804	\$13,478	\$13,478	\$0	\$0						
		Hydro Generation Studies	6968							\$0									
		For Unidentified System Upgrades 3 + y	WO Syst							\$0			\$0	\$0			\$100,000	\$100,000	
0																			
		Hydro Generation Studies	6722			\$0		\$0	\$86	\$15,897	\$55,000	\$25,000	\$55,000	\$30,000				\$0	
EcoSa																			
		Solar Garden - new	7330					\$37,676	\$216,373	\$19,860	-\$69,520	-\$201,140	-\$84,520					\$0	
		Solar Garden (2014) Design - (Do not u:	7326						\$187	\$0	\$0	\$0	\$0					\$0	
General Sum					\$28,215	\$95,569	\$6,688	\$46,679	\$280,833	\$311,474	\$70,228	\$80,958	-\$143,140	-\$9,520	\$45,000	\$415,000	\$15,000	\$190,000	\$115,000
New Enr																			
City																			
		Hall St PRV Generation	WO Hall St PRV							\$0			\$0	\$126,500					
Studie:																			
		District Heating System Prelim Est.	6970	\$25,379	\$2,348	\$75,801	\$45,505	-\$3,828	\$4,572	\$3,324	\$40,000	\$5,000	\$75,000	\$40,000					
		Co-Gen System	6971					\$3,828	\$0	\$0	\$25,000	\$5,000	\$25,000	\$25,000	\$0	\$0	\$0	\$0	
Energy Sum					\$25,379	\$2,348	\$75,801	\$45,505	\$0	\$4,572	\$3,324	\$65,000	\$10,000	\$100,000	\$191,500	\$0	\$0	\$0	\$0
Grand Total					\$3,888,563	\$1,585,968	\$4,219,220	\$2,932,752	\$3,342,212	\$1,683,006	\$1,777,311	\$3,031,576	\$2,355,673	\$2,960,524	\$3,439,000	\$2,353,563	\$2,975,712	\$2,393,987	\$2,983,427