

Discover the possibilities

December 10, 2018

VIA RESS AND COURIER

Ms. Kirsten Walli Board Secretary Ontario Energy Board 2300 Yonge Street 26th Floor, Box 2319 Toronto, ON M4P 1E4

Dear Ms. Walli;

RE: ALECTRA UTILITIES – ANNUAL FILING UNDER BOARD-APPROVED CUSTOM INCENTIVE RATE SETTING ("CIR") AND INCENTIVE REGULATION MECHANISM ("IRM") EFFECTIVE JANUARY 1, 2019 (EB-2018-0016) – RESPONSES TO ORAL HEARING UNDERTAKINGS

Alectra Utilities is filing the remaining responses to undertakings from the Oral Hearing related to the above-captioned proceeding. The undertaking responses are being filed electronically through the OEB's RESS system. In addition, two hard copies are being provided via courier.

Alectra Utilities filed the first responses to undertakings under separate cover on December 7, 2018.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

[Original Signed By]

Indy J. Butany-DeSouza, MBA Vice President, Regulatory Affairs Alectra Utilities Corporation

cc: Crawford Smith, Torys Charles Keizer, Torys

Alectra Utilities Corporation 2019 EDR Application Responses to Oral Hearing Undertakings Delivered: December 10, 2018 Page 1 of 4

J.1.1

Provide a breakdown of the drivers causing the increase in gross capital additions from PRZ-Staff-60. Explain the increase of \$11.74MM for the project.

Response:

- 1 Table 1 Comparison of the In-Service Forecast for the YRRT Project from EB-2017-0024 to the Revised In-Service Forecast
- 2 as of August 31, 2018.

		In-Service For in EB-2017			Revised In-Service Forecast as of Aug 31, 2018 (\$000)					Variance				
Section	Gross	Contribution	Net	% Contribution	Gross	Contribution	Net	% Contribution	Gross	Contribution	Net	% Contribution		
Y2.1	28,500	14,500	14,000	50.9%	39,241	19,816	19,425	50.5%	10,741	5,316	5,425	(0.4%)		
Y2.2	12,393	6,074	6,319	49.0%	12,129	6,769	5,360	55.8%	(264)	695	(959)	6.8%		
H2-E	11,765	7,238	4,528	61.5%	11,963	6,627	5,336	55.4%	199	(610)	809	(6.1%)		
H2-W	16,345	10,385	5,959	63.5%	17,413	9,780	7,633	56.2%	1,069	(605)	1,674	(7.4%)		
Total	69,003	38,197	30,806	55.4%	80,747	42,992	37,755	53.2%	11,744	4,794	6,950	(2.1%)		

3

The increase in gross in-service additions is primarily driven by the Y2.1 section of the York Region Rapid Transit ("YRRT") project. An increase of \$10.7MM (Gross) in the Y2.1 section, was driven by higher costs to underground 2.8 km of the distribution system. As explained in response to Interrogatory PRZ-Staff-60 c), Alectra Utilities considered an overhead distribution system compared to an underground for the Y2 project. However, due to the limited boulevard space and the York Region Rapid Transit Corporation ("YRRTC") streetscape design, an overhead system was not a feasible option. Other contributing factors to the cost increases on the Y2.1 section of the project include, installing infrastructure at deeper depths than originally planned due to congestion on the

- 1 roadway, and incurring higher installation costs due to constructing civil infrastructure during the
- 2 winter season due to changes in the sequencing of work by the YRRTC. The increase in capital
- 3 contributions as a result of the incremental gross capital cost was proportionate to the level of
- 4 contributions originally forecasted for the Y2.1 section of the project.

5 The decrease of \$0.3MM (Gross) in the Y2.2 section as a result of scope changes was offset by 6 an increase in costs driven by a request from the YRRTC to underground a section on Gamble 7 Street. As the increase in costs was driven by a request from the YRRTC, the entire incremental 8 cost was borne by the YRRTC, thereby increasing the capital contribution for the Y2.2 section of 9 the project by \$0.695MM.

The increase of \$0.2MM (Gross) in the H2E section of the project, was driven by the installation of concrete poles, where initial estimates were based on wood poles. The increased cost of concrete poles was offset by reducing the number of poles to be relocated, thereby reducing the capital contributions from the YRRTC.

The increase of \$1.1MM (Gross) on the H2W section of the project, was driven by the requirement to relocate the Highway 400 crossing near Highway 7. Due to changes to the ramps from Highway 400 at Highway 7, the existing overhead steel towers had to be relocated. Figure 1 provides an illustration of the Highway 7 crossing at Highway 400 which shows the significant width of the crossing and limited options for overhead steel tower locations north of the crossing. Alectra Utilities considered alternative site locations for the steel towers, including a location further north on Highway 400.

21 Relocating the steel towers further north on Highway 400 introduced several new challenges 22 and difficulties for future maintenance, which would lead to increased costs of specialized trucks 23 capable of reaching the height of the steel towers, as well as additional costs of coordinating 24 with the road authorities to manage traffic on the Highway 400 to permit safe maintenance 25 practices for employees and the public. Further, relocating the steel towers further north 26 introduced new clearance conflicts with high mast lighting for Highway 400. Alectra Utilities 27 proposed a better alternative of relocating the overhead crossing at Highway 400 to an 28 underground crossing. While the undergrounding option to cross Highway 400 increased the 29 implementation cost, the benefit is a potential decrease to Alectra Utilities' future maintenance 30 costs. The YRRTC was unwilling to pay the increased costs of undergrounding the crossing.

Alectra Utilities Corporation 2019 EDR Application Responses to Oral Hearing Undertakings Delivered: December 10, 2018 Page 3 of 4



Figure 1 – Illustration of the Highway 7 crossing at Highway 400.

2

1

Project Section	Gross In- Service Variance (\$000)	Contribution Variance (\$000)	Previous Forecast % Contribution Allocation	Contribution Variance Based on Previous % Contribution Allocation (\$000)	Difference in Capital Contribution (\$000)
Y2.1	10,741	5,316	50.9%	5,465	(149)
Y2.2	-264	695	49.0%	(129)	824
H2-E	199	610	61.5%	122	(733)
H2-W	1,069	-605	63.5%	679	(1,285)
Total	11,744	4,794		6,137	(1,342)

1 Table 2 – Comparison of Previous Forecast Capital Contributions Allocation to Revised

2 Forecast Capital Contributions

3

4 Table 2 provides the comparison of the capital contribution variances calculated at the previous forecast percentage contribution allocation assumption. The Difference in Capital Contribution 5 6 column identifies that the increased contributions for the Y2.2 section of the project is offset by 7 reductions in the capital contributions for the Y2.1 and H2-E sections, and that the H2-W section 8 of the project is the main driver of the decreased capital contributions as it relates to the gross 9 in-service increases of \$11.7MM for the YRRT project. As explained above, Alectra determined 10 that the most prudent and effective approach on Highway 7 to cross Highway 400 was to 11 underground the crossing. As identified above, Alectra Utilities sought additional funding from 12 the YRRTC; however, YRRTC was not willing to contribute further. Thus, the incremental costs 13 of placing the crossing underground will be borne by Alectra Utilities. Alectra Utilities will benefit 14 from future decreased related OM&A costs.

15 By of Attachment_J.1.1_PurchaseOrder0000090879, way example, 16 Attachment J.1.1 InterimInvoice26709 and Attachment J.1.1 WorkOrderCostReview provide 17 the referenced Purchase Order for section H2-W of the project; the interim invoice which outlines the \$0.7MM capital contribution for the Highway 7 crossing of Highway 400 dated 18 19 October 19 2018; and the Work Order Analysis which provides the gross expenditure budget of 20 \$3.2MM for the Highway 7 crossing at Highway 400, respectively.



Vendor: 1016211 Alectra Utilities Corporation 161 Cityview Blvd. Vaughan ON L4H 0A9 Canada

1- 1 R*Q-17-026-RT H2 West Design and Construction of Utilities

Relocation Work

Line-Sch Item/Description

Purchase Order 0000090879

		Dispatch via Print							
Date		Revi	slon	Pag					
09/05/2									
Payment		Freight Terms		Ship Via					
Due Now		Destination		NTERNAL					
Buyer		Adams, Sherri							
		Procurement (
			877 464 9675 c	xt 76957					
		Fax: (905) 89	15 6924						
Ship To:	M03300	The second second second second							
		ghway 7 East, 12th	Floor						
		n ON L3R 0M3							
	Canada								
Bill To:	Account	ts Payable							
		Department							
		ional Municipality	of York						
	17250 Y								
	Rm 4050	00							
	Newman	ket ON L3Y 6Z1							
	Canada								
1107 D!	cuntuu	10170 1100 07							
HST Regi	stration:		F. d. d. d. d. d.	D					
HST Regi Quantity	stration:	12476 1123 RT PO Price	Extended Amt	Due Date					

RFQ-17-026-RT For Design and Construction Utilities Relocation Work Along the H2 West Corridor.

Total contract not to exceed \$10.288.298.00 excluding applicable taxes, without the prior approval of York Region's Procurement Office

Term. From notice to commence work to December 31, 2018.

YRRTC/The Region of York does not guarantee that this total amount will be spent during this time period.

This contract number must appear on all involces to ensure prompt payment.

YRRTC/The Region of York reserves the right to cancel all or any part of this contract at anytime.

Any changes to this contract must be authorized by the Procurement Office.

Vendor Contact: Jason Zhang YRRTC Contact: Matthew Hum 905-886-6767- ext. 71075

Submit all invoices to: Accounts Payable at YRRTC-invoices@york.ca York Region Rapid Transit Corporation 3601 Highway 7 E, 12th Floor Markham, ON L3R 0M3

> SUB Total Total HST

1,337,478.74

Total PO Amount

11,625,776.74

			\bigcirc		
All purchases are s	subject to the Terms A	ND Conditions of schedule "A" - atta	ched. Authorized Signatur	e	24
			XATI	ERRY PAGLIA	A
DISTRIBUTION:	VENDOR	PURCHASING	ACCOUNTS PARABLE	DEPARTMENT	



Alectra Utilities Corporation 161 Cityview Blvd Vaughan ON L4H 0A9

Invoice Number	26709
Customer Number	540568
Invoice Date	10/19/2018
Invoice Amount	807,475.40

York Region Rapid Transit Corp. 3601 Highway 7, 12th Floor Attn: Accounting & Compliance Clerk Markham ON L3R 0M3

alectra

utilities

Description			Amount
Hwy 400 and Hwy #7 yrrtc-invoices@york.ca marco.tavernese@york.ca YRRTC like for Like \$ 700,000.00 Transpower OT 08/18 14,580.00 Interim Invoice-09/30/18 - H2W Hwy 0 Less: Alectra's Share -	Crossing		1,845,061.52 (1,130,481.52)
emit To:	Payment Inquiries to Accounting Department:	Sub Total	714,580.00
emit To: ectra Utilities Corporation 11 Cityview Blvd aughan ON L4H 0A9	Payment Inquiries to Accounting Department: Please contact Stephen S. at (905) 532-4623.	Sub Total HST Total	714,580.00 92,895.40

C. D.G.W. D.G.W. D.G.W. P.G.H. EXAMA REVIEWED THE A TRACEED WORK CORRER AND CONFERM ALL COSTS HAVE BEEN INCLUDED PLAGEA REVIEWED THE A TRACEED WORK CORRER AND CONFERM ALL COSTS HAVE BEEN INCLUDED PLAGEA REVIEWED THE A TRACEED WORK CORRER AND CONFERM ALL COSTS HAVE BEEN INCLUDED PLAGEA REVIEWED THE ATRACEED WORK CORRER AND CONFERM ALL COSTS HAVE BEEN INCLUDED PLAGEA REVIEWED THE ATRACE DECK INVOLUTION CONFERM CORRER AND CONFERM ALL COSTS HAVE BEEN INCLUDED PLAGEA REVIEWED THE ATRACE DECK CONFERM CORRER AND CONFERM ALL COSTS HAVE BEEN INCLUDED PLAGE REVIEWED THE ATRACE DECK CONFERM CORRER AND CONFERM ALL COSTS HAVE BEEN INCLUDED DECK State And Conferm Conferm CONFERM CORRER AND CONFERM ALL COSTS HAVE BEEN INCLUDED DECK State And Conferm State And Co							EVIEW		Alectra ORK ORDER					alectra utilities
PLEASE REVIEW THE ATTACHED WORK ORDER AND CONFIRM ALL COSTS HAVE BEEN INCLUDED PLEASE APPROVE INVOICE Selence Approve A		8	-Oct-18	9.	:	DATE:							В О'):
NEASE APPROVE HAVORE Ideal Name H2W HWy Clossing Exation Exation Have States Base Code Same Code 13 Base Code Diametric Code 13 Base Code <td></td>														
Name HZW Hwy Crossing two diamages Salar 2003 Salar 2004 Salar 2004 Salar 2004 Salar 2004 Salar 2014 Salar 2015 Salar 2015 Salar 2016 Salar							DED	EN INC	OSTS HAVE BE	MALI	DER AND CONFIRM			
Lation Hwy 400 and Hwy 7 K Order # 35883 see Code 15 Jamos Merion 15 Jamos Merion O'Gay Description BUDGET Variance Jamos Merion BUDGET Variance Jamos Merion Jamos Merion Budget Mark Payroll burden Direct Labour Total Total 1016 Actual Cost Payroll burden Direct Labour Total Actual Cost 40% 54% 7% 1014 2018 Actual Design Marcial Budget Marcia 1/4700 1/4700 1/4700 Marcial 3.046,659.00 1.791,183.78 1.254,475.22 1.331,099.48 Marcial S.3.176,161.00 1.1,445.061.52 1.331,099.48 1.445.061.52 1.331,099.48 PARED BY:												E	VE INV	LEASE APPROV
Lation Hwy 400 and Hwy 7 MC Order # 35883 J.A 30637 Direct Jamos Birds A Private With Concert # Contract Lation # Direct Jamos A Contract A JA S05332 0.188.56 Actual Cost 6.188.56 8.035.86 1.794.183.78 TOTAL BUDGET VARIANCE JOINT Actual Cost 6.188.56 8.035.86 1.794.183.78 TOTAL BUDGET VARIANCE JOINT Actual Cost Actual Cost Actual Cost 1.016. 1.0174.100 1.031.099.48) Direct Labour TOTAL Actual Cost 0.005.22 1.044.000 1.0014.000 Direct Labour TOTAL 0.005.02 1.0174.100 1.0014.000 1.0014.000 Direct Labour 10.050.0 6.189.50 1.014.1000 1.0014.000 1.0014.000 Direct Labour 10.050.0 6.189.50 1.044.000 0.0014.000 1.0014.000 Direct Labour 10.050.00 6.189.50 1.044.000 0.0014.000 0.0014.000														
Add 9079 Broken 9079 B CGay B CGay market bench and bench and bench Vatic Invocated bench and bench 36.553.32 MATERUAL EQUIPMENT CONTRACT TOTAL BUDGET VARIANCE 3.176,161.00 (1,331,099.48) Image: Statistic and the statis and the statist and the statistic and the statis													Hwy 3168	ation rk Order #
envisor B O'Gay Instructivettant Berkan Static INVOCTSEPTORK.CA JABOUR 35.553.32 MATERIAL 6.188.56 EQUIPMENT 8.035.85 CONTRACT 1.794,183.78 IOTAL 1.845,061.52 BUDGET 3.176,161.00 VARIANCE (1.331,099.48) Image: Contract Labour Actual Cost 6.188.56 8.035.86 1.794,183.78 IOTAL 1.845,061.52 BUDGET VARIANCE 3.176,161.00 VARIANCE (1.331,099.48) Image: Contract Labour Metrial Cost 40% 54% 7% 5% TOTAL 2017 Actual Design 2017 Actual Des													9087	. #
36,553.32 6,186.56 8,035.86 1,794,183.78 1,845,061.52 3,176,161.00 (1,331,099.48) FOR ACCOUNTING Payroll burden Payroll burden Payroll burden Direct Labour Direct Labour Direct Labour ToTAL Actual Cost 40% 54% 7% 5% ToTAL Actual Cost 40% 54% 7% 5% ToTAL Outside Labour Dutside Labour 70,923.00 36,653.32 14,47.00 34,666.66 Contract Material-1287 22,026.00 5 1,845,061.52 1,339.014 Contract Material-1287 22,026.00 5 1,399.014 007,475.40 Vehicie 3,046,659.00 1,944,183.78 1,254,475.42 0,07,475.40 Vehicie 3,046,659.00 1,944,183.78 1,254,975.42 0,07,475.40 Vehicie 3,046,659.00 1,944,983.78 1,254,975.43 0,07,475.40												arnese@york.ca	B O'	
POR ACCOUNTING Payroll burden Payroll burden Direct Labour Direct Labour TOTAL 2016 Actual Cost 40% 1 7% 5% TOTAL 2016 Actual Design Dutside Labour 1 40% 1 40% 1 2017 Actual Design Dutside Labour 11,447.00 36,653.32 34,269.68 1 1,447.00 Dasign Labour 11,447.00 1,618.56 1,541.741 2017 Actual Design Contract Labour & Vehicle 3.046,659.00 1.794.183.76 1,547.752 20.026.00 8.035.66 13.990.14 Contract Labour & Vehicle 3.046,659.00 1.794.183.76 1,331.099.48 1.045.061.52 1.1,31.099.48		21	111111111111111111111111111111111111111		State State States					-			n	
Actual Cost 40% 54% 7% 5% TOTAL 2016 Actual Cost 2016 Actual Cost 2016 Actual Cost 2017 Actual Design Outside Labour 11,447.00 36,653.32 34,269.68 11,447.00 Design Labour 11,447.00 6,188.56 16,917.44 Contract Labour & Vehicle 20,306.659.00 17,94,183.76 1,254,475.22 Contract Labour & Vehicle 20,206.00 8,035.65 13,990.14 12,554,475.22 13,31,099.48 Will O CHARGES LESS: FLAT RATE T.B.L HST TOTAL \$ 007,475.40 Will O CHARGES LESS: FLAT RATE T.B.L HST TOTAL \$ 007,475.40 PARED BY: 1830 1254, 100.0 92,895.40 807,475.40 1,845,061.52		''	uss.46)	(1,331,6	10,101.00	3,17	1,045,061.52		1,794,183.7	U	8,035.86	0,188.56	2	30,053.32
Actual Cost 40% 54% 7% 5% TOTAL 2016 Actual Oesign 2017 Actual Design 2017 Actual Design 2017 Actual Design Outside Labour 70,923 00 36,653.32 34,269.66 11,447.00 Besign Labour 11,447.00 6,188.56 16,917.44 Contract Labour & Vehicle 20,066.00 Contract Labour & Vehicle 2,0026.00 8,035.66 13,990.14 1254,475.22 Vehicle \$ 3,176,161.00 \$ 1,845,061.52 \$ 1,331,099.48 1.985,061.52 \$ 1,331,099.48 WIO CHARGES LESS: FLAT RATE T.94. HST TOTAL \$ 07.475.40 1.845,061.52 LESS: FLAT RATE T.94. HST TOTAL \$ 07.475.40 VIO CHARGES LESS: FLAT RATE T.94. HST TOTAL \$ 07.475.40 0.00 2% 1840 1445 1.020.379.33 1.845.061.52 0.00 2% 42% 0.55 100% 1.985.100%				1		Ter	-	-		-	-			
Unitside Labour BUDGET ACTUAL VARIANCE Outside Labour 11,447.00 36,553.32 34,269.68 Material 11,447.00 6,108.56 15,917.44 Contract Labour & Vehicle 3,046,559.00 1,794,183.76 1,254,475.22 Contract Labour & Vehicle 3,046,559.00 1,794,183.76 1,254,475.22 Contract Labour & Vehicle 3,046,559.00 1,794,183.76 1,254,475.22 Vehicle 22,026.00 8,035.66 13,990.14 TOTAL \$ 3,176,161.00 \$ 1,845,061.52 \$ 1,331,099.48 1,254,475.22 WIO CHARGES LESS: FLAT RATE T.BJ. HST TOTAL 1,845,061.52 (1,130,481.52) 714,500.00 92,495.40 807,475.40				TOTAL				C		-				
Image: Contract Labour BUDGET ACTUAL VARIANCE Design Labour 11,447.00 36,653.32 34,269.68 Material 23,106.00 6,188.56 16,917.44 Contract Labour & Vehicle 3,046,659.00 1,794,183.76 1,264,475.22 Contract Material-1287 22,026.00 8,035.66 1,3,990.14 Vehicle 707.4L \$ 3,176,161.00 \$ 1,845,061.52 \$ 1,331,099.48 Milio CHARGES LESS: FLAT RATE T.BL HST TOTAL 1,040,061.52 (1,130,461.52) 714,580.00 \$ 2,895.40 607.475.40 MIC CHARGES 1,040,061.52 1,130,461.52) 714,580.00 \$ 2,895.40 607.475.40 TOTAL \$ 3,101.67 780,351.48 1,020.379.33 COM 1830 1835 1,845,061.52 0.00 2% 42% 0.05	5 Actual Design	2016 Actual	- :											
BUDGET ACTUAL VARIANCE Design Labour 11,447,00 36,653,32 34,269,68 Design Labour 11,447,00 36,653,32 11,447,00 Material 23,106,00 6,198,56 16,917,44 Contract Labour & Vehicle 3,046,659,00 1,724,183,76 1,254,475,22 Contract Material-1287 22,026,00 8,035,86 13,390,14 TOTAL \$ 3,176,161,00 \$ 1,845,061,52 \$ 1,31,099,48 Wio CHARGES LESS: FLAT RATE T.B.I. HST TOTAL 1,845,061,52 (1,130,481,52) 714,580,00 62,895,40 607,475,40 ISS								-		-				
Wio CharGES LESS: FLAT RATE T.B.I. HST TOTAL 1,845,061.52 (1,130,481.52) 714,580.00 92,895.40 807,475.40		1	1			1		+		-				
Wio CharGES LESS: FLAT RATE T.B.I. HST TOTAL 1,845,061.52 (1,130,481.52) 714,580.00 92,895.40 807,475.40						г		1						
Design Labour Material 11,447.00 23,106.00 - 11,447.00 6,188.56 - 11,447.00 16,917.44 Contract Labour & Vehicle Contract Material-1287 3,048,659.00 1,794,183.78 1,254,475.22 Vehicle 22,026.00 8,035.86 13,990.14 TOTAL \$ 3,176,161.00 \$ 1,845,061.52 \$ 1,331,099.48 W/O CHARGES LESS: FLAT RATE T.B.1 HST TOTAL 1,845,061.52 (1,130,481.52) 714,580.00 92,895.40 807,475.40 1,845,061.52 (1,130,481.52) 714,580.00 92,895.40 807,475.40 1 1,845,061.52 1,845,061.52 1,845,061.52 1,045,061.52 0,22,895.40 807,475.40 807,475.40 1,845,061.52 1,330 1,845,061.52 1,045,061.52 1,045,061.52 0,00 28,101.67 780,351.48 1,020,379.33 1,021,41.52 0,00 2% 42% 0.55 100%						4		-		-		Ishour	0	
WO CHARGES LESS: FLAT RATE T.B.L HST TOTAL 1.845,061.52 (1,130,481.52) 714,580.00 92,895.40 807,475.40							11,447.00		-		11,447.00		Desi	
Vehicle 22,026.00 8,035.86 13,990.14 TOTAL \$ 3,176,161.00 \$ 1,845,061.52 \$ 1,331,099.48 WIO CHARGES LESS: FLAT RATE T.B.I. HST TOTAL 1,845,061.52 (1,130,481.52) 714,580.00 92,895.40 607,475.40 1,845,061.52 (1,130,481.52) 714,580.00 92,895.40 607,475.40 -													Con	
W/O CHARGES LESS: FLAT RATE T.B.I. HST TOTAL 1.845.061.52 (1,130.481.52) 714.580.00 92.895.40 807.475.40 PARED BY: 1830 1835 1840 1845 6,229.04 38,101.67 780.351.48 1,020.379.33 1,845.061.52 0.00 2% 42% 0.55 100%														
PARED BY: 1830 1835 1840 1845 6,229.04 38,101.67 780,351.48 1,020,379.33 1,845,061.52 0.00 2% 42% 0.55 100%						1	1,551,055,40	•	1,043,081,57	12	a 3,170,101.00	IUTAL		
1.845.061.52 (1,130.481.52) 714.580.00 92.895.40 807.475.40 *ARED BY: . 1830 1835 1840 1845 6,229.04 38,101.67 780,351.48 1,020,379.33 0.00 2% 42% 0.55 100%						1		T		Т				
PARED BY: <u>1830 1835 1840 1845</u> 6,229.04 38,101.67 780,351.48 1,020,379.33 1,845,061.52 0.00 2% 42% 0.55 100%					OTAL	DT 80							-	
1830 1835 1840 1845 TOTAL 6,229.04 38,101.67 780,351.48 1,020,379.33 1,845,061.52 0.00 2% 42% 0.55 100%										-11		10101001.02	L	
1830 1835 1840 1845 TOTAL 6,229.04 38,101.67 780,351.48 1,020,379.33 1,845,061.52 0.00 2% 42% 0.55 100%														
1830 1835 1840 1845 TOTAL 6,229.04 38,101.67 780,351.48 1,020,379.33 1,845,061.52 0.00 2% 42% 0.55 100%														
1830 1835 1840 1845 TOTAL 6,229.04 38,101.67 780,351.48 1,020,379.33 1,845,061.52 0.00 2% 42% 0.55 100%														
1830 1835 1840 1845 TOTAL 6,229.04 38,101.67 780,351.48 1,020,379.33 1,845,061.52 0.00 2% 42% 0.55 100%														
1830 1835 1840 1845 TOTAL 6,229.04 38,101.67 780,351.48 1,020,379.33 1,845,061.52 0.00 2% 42% 0.55 100%														ARED BY
6,229.04 38,101.67 780,351.48 1,020,379.33 1,845,061.52 0.00 2% 42% 0.55 100%	TOTAL VARIAN	ΤΟΤΑ							1845		1840	1835		
	,845,061.52 100%	1,845,06						;	1,020,379.33		780,351.48	38,101.67		6,229.04

WORK ORDER	316683	09/30/18
1830 - POLES		
Contract Rice aggregatos	945.66	
Aloctra Vehicle	147.00	
Alocka Labour	5,136.38	-
	6,229.04	-
1835 - OH CONDUCTOR		
Alectra Vehicio	7.421.40	
Alectra Labour	24,491.71	
Alectra Material	6,188 56	
	38,101 67	•
1840 -UNDERGROUND CONDUIT		
Contract - NBM	31,002.22	
Contract - Transpower	671.824.48	
Contract - Material Transpower	77.173.02	
Labour - Alectra	351 76	
	760,351.48	•
1845 - UNDERGROUND CONDUCTOR/DEVICES		
Contract - NBM	105,194.02	
Contract - Transpower	437,495.63	
Contract - Material Transpower	470,548.76	
Alectra Material		
Labour Alectra	6.673.46	
Alectra Vehiclo	457.45	
	1,020,379.33	•
		_

TOTAL:	1,845,061.52
LESS: MATERIAL COST:	
LEBS: ALECTRA COST - LABOURVEHICLE Q 50%:	(1,130,481.52)
LESS: CONTRACT OVERTIME @ 25%:	
LESS: PREVIOUS INVOICE:	
TO BE INVOICED:	714,580.00

		 <u></u>				
W/O CHARGES	LESS: 100% MATERIAL	 1.858: 25%	LESO: PREV INVOIC	SUBTOTAL	HAT	TOSERVO
1,445,051,52						Totanto

Description TRANS POWER LL.C. INC.	Document Number	Amount
2018 U/G Planned Capital		
2018 U/G Planned Capital	701789	
• •	701789	
2018 U/G Planned Capital	701789	
2018 U/G Planned Capital	701789	
Total:TRANS POWER U. C. INC		1,578,135.13
NBM ENGINEERING INC		
Dasign Consulting Services	702590	3,132.43
Engineering Design Services	660893	3,842.90
Engineering Design Services	550894	3,145.34
Engineering Design Services	663432	10,484,79
Engineering Design Services	663458	2.309.51
Engineering Design Services	667597	4,456.80
Enginaering Design Services	668303	2.298.03
Enginearing Design Services	673236	47,943.20
Engineering Dasign Services	574468	14,452.60
Engineering Design Services	682127	4,680.61
Engineering Design Services	682425	1.151.82
Engineering Design Services	683887	7,428.00
Engineering Design Services	687541	6,300.12
Engineering Design Services	658638	4,485.96
Design Consulting Services	701261	13,599.09
Total:NBM ENGINEERING INC		129,710.70
RICE AGGREGATES LIMITED		
Aggregate Services	703304	900.63
Total:RICE AGGREGATES LIMITED		900.63
Total far Work Order		1,708,746.46

J.1.2

Update Table 1 – Detailed work for Y2 from page 7 of the YRRT business case filed as Attachment 31. Also update Table 2 for H2 in the business case.

Response:

- 1 Table 1 Detailed Work for Y2 and Table 2 Detailed Work for H2 of YRRT Project Business
- 2 Case from Attachment 31 are updated, below. The tables contain detailed counts of distribution
- 3 assets to be relocated as part of the YRRT project, by project phases. The count of assets
- 4 includes: number of permanent and temporary poles; length of cable and conductor;
- 5 transformers; load interrupting switches ("LIS"); switchgear; and underground vaults.

Alectra Utilities Corporation 2019 EDR Application Responses to Oral Hearing Undertakings Delivered: December 10, 2018 Page 2 of 3

					Y2.1									
			Poles Installed		Length of		Length of Ca	ble/Conduct	tor (m)			S	witches	Underground
Phase	Description	Work	Permanent	Temporary	Underground Alignment (m)	1000 MCM CU	350 MCM CU	1/0 AL	556 MCM	3/0 AACSR (Neutral)	Transformers	LIS	Switchgear	Vaults
1	Yonge St- Highway 7 to Scott Dr.	Installation of poles including OH equipment, concrete encased ductbank, Cable Installation and Final Terminations and Cutovers	35	4	300	-	-	1,855	12,702	1,193	5	6	-	-
2	Yonge St- Scott Dr. to Carrville Rd.	Installation of poles including OH equipment, concrete encased ductbank, Cable Installation and Final Terminations and Cutovers	28	-	330	-	-	1,320	9,726	1,011	6	4	-	-
3	Yonge St- Garden Ave. to Yonge Connector Rd. Yonge St- High Tech Rd. Yonge St- Carrville Rd. to Hillcrest Mall	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	860	6,300	2,100	441	-	-	-	-	-	1
4	Yonge St- West Side - Baif Blvd. to Major MacKenzie Dr. W.	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	1,785	13,542	4,514	8,454	-	-	5	-	4	6
5/6	Yonge St- East Side - High Tech Blvd. to 16th Ave.	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	1,435	10,641	2,500	3,135	-	-	-	-	-	10
7	Yonge St- East Side - 16th Ave. to Weldrick Rd. E.	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	775	9,885	3,295	1,065	-	-	1	-	2	4
8	Yonge St- East Side - Weldrick Rd. E. to Major Mackenzie Dr.	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	1,265	6,765	2,255	4,440	-	-	5	-	3	5
		Total Y2.1	63	4	6,750	47,133	14,664	20,710	22,428	2,204	22	10	9	26
					Y2.2									

1 Table 1 – Detailed Work for Y2 (UPDATED)

		Y2.2													
	Description	Work	Poles Installed		Length of	Length of			ngth of Cable/Conductor (m)			Switches			
Phase			Permanent	Temporary	Underground Alignment (m)	1000 MCM CU	350 MCM CU	1/0 AL	556 MCM	3/0 AACSR (Neutral)	Transformers	LIS	Switchgear	Manhole	
3		Installation of poles including OH equipment, Cable Installation and Temporary Terminations and Cutovers	39	5	60	750	125	-	300	50	0	-	-	-	
5	to Bernard Ave	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	865	4,374	815	2,439	-	-	2	-	2	3	
6	Yonge St- West Side - Elgin Mills Rd. to Canvon Hill Ave	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	770	2,112	704	4,329	-	-	2	1	1	1	
7	Gamble Rd. / 19th Ave Yonge St.	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	400	1,029	343	-	-	-	0	-	1	-	
8	Blvd to 19th Ave	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	455	3,600	615	600	-	-	1	-	1	2	
9		Installation of poles including OH equipment, Cable Installation and Final Terminations and Cutovers	22	-	40	-	-	295	3,000	1,000	4	5	-	-	
		Total Y2.2	61	5	2,590	11,865	2,602	7,663	3,300	1,050	9	6	5	6	

Alectra Utilities Corporation 2019 EDR Application Responses to Oral Hearing Undertakings Delivered: December 10, 2018 Page 3 of 3

1 Table 2 – Detailed Work for H2 (UPDATED)

				,		H2 E									
		Work	Length of UG	Poles Installed Length of Cable/Conductor (m)						Switches	Underground				
Phase	Description		Alignment		Temporary	1000 MCM CU	350 MCM CU	1/0 AL	2/0 AL	556 MCM	3/0 AACSR	Transformer	LIS	Switchgear	Vaults
1	Bathurst from Centre St. to Worth Blvd.	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.	(m)	Permanent 42	Temporary		350 MCM CO	1/0 AL	2/0 AL	9,180	3/0 AACSK 1,530	Hanstonner 4	4		
2	Centre St. from Bathurst St. to New Westminster Dr.	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.		33						11,760	980	3	6		
3.1/3.3	Bathurst St. from Hwy 407 to Summeridge Dr. including Bathurst connector	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.		29						9,420	1,030	2	6		
3.2	Bathurst St. from Worth Blvd. to Hwy 407	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers. This includes the Overhead Crossing at Hwy 407		19						5,160	790	2			
4	Centre St. from New Westminster Dr. to Concord Rd.	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.		26						11,796	983	4			
5	St.	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.	140	38		1,020	280			12,456	1,386	4	7		
	Hwy 7 from Bathurst. St to Yonge St.	Neutral Raising and Reinforcement of poles		7											
		Total H2 E	140	194	1	1,020	280	-	-	59,772	6,699	19	23	-	-
Phase	nase Description Work		Length of Poles Installed UG		H2 W Length of Cable/Conductor			(m)				Switches	Underground		
			Alignment (m)	Permanent	Temporary	1000 MCM CU	350 MCM CU	1/0 AL	2/0 AL	556 MCM	3/0 AACSR	Transformer	LIS	Switchgear	Vaults
1	Hwy 7 from Aberdeen Ave. to Nova Star Dr.	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.													
				40	1					7,500	1,250	4			
2	Aberdeen Ave.	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.		40 34	1					7,500 7,620	1,250	3	7		
2 3.1	Aberdeen Ave.		485		1	2,910	970		3,960					2	1
	Aberdeen Ave. Hwy 7, from Weston Rd to West of Hwy 400 Hwy 7, from Nova Star Dr. to Weston Rd	Installation and Final Terminations/Cutovers. Installation of duct structure, underground equipment and cable pulling Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.			1	2,910	970		3,960					2	1
3.1	Aberdeen Ave. Hwy 7, from Weston Rd to West of Hwy 400 Hwy 7, from Nova Star Dr. to Weston Ro Hwy 7, from East of Hwy 400 to East of Commerce St.	Installation and Final Terminations/Cutovers. Installation of duct structure, underground equipment and cable pulling Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers. Installation of poles including OH equipment.		34	1	2,910	970		3,960	7,620	1,100	3		2	1
3.1 3.2	Aberdeen Ave. Hwy 7, from Weston Rd to West of Hwy 400 Hwy 7, from Nova Star Dr. to Weston Rc Hwy 7, from East of Hwy 400 to East of	Installation and Final Terminations/Cutovers. Installation of duct structure, underground equipment and cable pulling Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers. Installation of poles including OH equipment. Connecting the installed wires at H2W-Ph4.1 to the	485	34	1	2,910	970		3,960	7,620	1,100	3		2	1
3.1 3.2 4.1	Aberdeen Ave. Hwy 7, from Weston Rd to West of Hwy 400 Hwy 7, from Nova Star Dr. to Weston Rd Hwy 7, from East of Hwy 400 to East of Commerce St. Hwy 7, from East of Hwy 400 to East of Commerce St. (H2W ph4.2 project area is inside H2W-	Installation and Final Terminations/Cutovers. Installation of duct structure, underground equipment and cable pulling Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers. Installation of poles including OH equipment. Connecting the installed wires at H2W-Ph4.1 to the energized circuits. Relocation of assets to make way for the new	485	34	1	2,910	970	915	3,960	7,620 14,730 2,340	1,100 1,720 390	3		2	1
3.1 3.2 4.1 4.2	Aberdeen Ave. Hwy 7, from Weston Rd to West of Hwy 400 Hwy 7, from Nova Star Dr. to Weston Rc Hwy 7, from East of Hwy 400 to East of Commerce St. Hwy 7, from East of Hwy 400 to East of Commerce St. (H2W ph4.2 project area is inside H2W- ph4.1)	Installation and Final Terminations/Cutovers. Installation of duct structure, underground equipment and cable pulling Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers. Installation of poles including OH equipment. Connecting the installed wires at H2W-Ph4.1 to the energized circuits. Relocation of assets to make way for the new	485	34	3	2,910	970	915	3,960	7,620 14,730 2,340	1,100 1,720 390	3		2	1
3.1 3.2 4.1 4.2 4.3	Aberdeen Ave. Hwy 7, from Weston Rd to West of Hwy 400 Hwy 7, from East of Hwy 400 to East of Commerce St. Hwy 7, from East of Hwy 400 to East of Commerce St. (H2W ph4.2 project area is inside H2W- ph4.1) Southeast off-ramp of Hwy 400 and Hwy Hwy 7, from west of Wigwoss Dr to west of Pine Valley Drive Hwy 7, from west of Bruce St. to west of Wigwoss Dr	Installation and Final Terminations/Cutovers. Installation of duct structure, underground equipment and cable pulling Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers. Installation of poles including OH equipment. Connecting the installed wires at H2W-Ph4.1 to the energized circuits. Relocation of assets to make way for the new Southeast off-ramp Installation of poles including OH equipment, Cable	485	34 37 13	3	2,910	970	915	3,960	7,620 14,730 2,340 318	1,100 1,720 390 53	3 1 1 1		2	1
3.1 3.2 4.1 4.2 4.3 5.1 5.2 5.3	Aberdeen Ave. Hwy 7, from Weston Rd to West of Hwy 400 Hwy 7, from Nova Star Dr. to Weston Rd Hwy 7, from East of Hwy 400 to East of Commerce St. Hwy 7, from East of Hwy 400 to East of Commerce St. (H2W ph4.2 project area is inside H2W- ph4.1) Southeast off-ramp of Hwy 400 and Hwy Hwy 7, from west of Wigwoss Dr to west of Pine Valley Drive Hwy 7, from west of Bruce St. to west of Wigwoss Dr Hwy 7, from west of Wigwoss Dr to west of Wigwoss Dr to west of Pine Valley Drive	Installation and Final Terminations/Cutovers. Installation of duct structure, underground equipment and cable pulling Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers. Installation of poles including OH equipment. Connecting the installed wires at H2W-Ph4.1 to the energized circuits. Relocation of assets to make way for the new Southeast off-ramp Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers. Installation of poles including OH equipment, Cable Installation of poles including OH equipment, Cable	485	34 37 13 11	3	2,910	970	915	3,960	7,620 14,730 2,340 318 4,230	1,100 1,720 390 53 470			2	1
3.1 3.2 4.1 4.2 4.3 5.1 5.2	Aberdeen Ave. Hwy 7, from Weston Rd to West of Hwy 400 Hwy 7, from Nova Star Dr. to Weston Rc Hwy 7, from East of Hwy 400 to East of Commerce St. Hwy 7, from East of Hwy 400 to East of Commerce St. (H2W ph4.2 project area is inside H2W- ph4.1) Southeast off-ramp of Hwy 400 and Hwy Hwy 7, from west of Wigwoss Dr to west of Pine Valley Drive Hwy 7, from west of Bruce St. to west of Wigwoss Dr to west of Pine Valley Drive Hwy 7, from west of Wigwoss Dr to west of Pine Valley Drive (H2W ph5.3 project area is inside H2W- ph5.1) Hwy 400, parallel Hwy 7 on the north side	Installation and Final Terminations/Cutovers. Installation of duct structure, underground equipment and cable pulling Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers. Installation of poles including OH equipment. Connecting the installed wires at H2W-Ph4.1 to the energized circuits. Relocation of assets to make way for the new Southeast off-ramp Installation of poles including OH equipment, Cable Installation of poles including OH equipment, Cable Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers. Installation and Final Terminations/Cutovers. Removal of 3 temporary poles installed in H2W- ph5.1 and replacing them with 3 permanent concrete poles	485	34 37 13 11 12	3	2,910	970 970	915	3,960	7,620 14,730 2,340 318 4,230	1,100 1,720 390 53 470			2	1

J.1.3

To update Table 2 – Detailed work to include 2016 and 2017 km of line (Ref: PRZ-AMPCO-1)

Response:

The table below provides a comparison of previous forecast to actual circuit length (km) relocation in the YRRT project for 2016 and 2017. Circuit length (km) is a unit of measure that is equal or less than cable and conductor length, since a circuit may include multiple phases of conductor as well as a system neutral conductor. Further, the circuit length (km) includes the circuit length of feeders in the YRRT project and does not include lengths of secondary services nor other assets such as transformers, switchgear, poles and underground vaults that were required to be relocated.

8 Table 2 – UPDATED – Comparison of previous and actual Overhead and Underground

9 Plant Relocation in Circuit Length (km) for the YRRT Project for 2016 and 2017

	Previous F	orecast	Actu	al	Previous F	orecast	Actual		
Circuit	2016 Underground	2016 Overhead	2016 Underground	2016 Overhead	2017 Underground	2017 Overhead	2017 Underground	2017 Overhead	
Length (km)	km Relocation	km relocation	km Relocation	km relocation	km Relocation	km relocation	km Relocation	km relocation	
Y2.1	0.00	0.00	0.00	0.00	13.93	12.33	2.00	9.01	
Y2.2	4.74	4.50	0.24	4.24	2.58	0.70	0.00	0.70	
H2- East	0.00	0.00	0.00	0.00	0.00	9.68	0.00	6.98	
H2- West	0.00	0.00	0.00	0.00	0.00	2.54	0.00	5.04	
Total	4.74	4.50	0.24	4.24	16.51	25.25	2.00	21.73	

J2.1

Examine purchase orders with the YRRTC for the YRRT (H2/Y2) which demonstrated negotiated price for the contributions. (Explain the change in the proportionate capital contributions in relation to the \$11MM increase. Provide an example or two of an invoice or PO)

Response:

1 Please see the Alectra Utilities' response to Undertaking J1.1.