

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

J1.1

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 Forecast as Filed in EB-2017-0024 (\$000)				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
- 4 The increase in gross in-service additions is primarily driven by the Y2.1 section of the York Region Rapid Transit (“YRRT”) project.
- 5 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.
- 6 As explained in response to Interrogatory PRZ-Staff-60 c), Alectra Utilities considered an overhead distribution system compared to
- 7 an underground for the Y2 project. However, due to the limited boulevard space and the York Region Rapid Transit Corporation
- 8 (“YRRTC”) streetscape design, an overhead system was not a feasible option. Other contributing factors to the cost increases on
- 9 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.

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

14 The increase of \$1.1MM (Gross) on the H2W section of the project, was driven by the
15 requirement to relocate the Highway 400 crossing near Highway 7. Due to changes to the
16 ramps from Highway 400 at Highway 7, the existing overhead steel towers had to be relocated.
17 Figure 1 provides an illustration of the Highway 7 crossing at Highway 400 which shows the
18 significant width of the crossing and limited options for overhead steel tower locations north of
19 the crossing. Alectra Utilities considered alternative site locations for the steel towers, including
20 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.

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



2

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

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)

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

By way of example, Attachment_J.1.1_PurchaseOrder0000090879, Attachment_J.1.1_InterimInvoice26709 and Attachment_J.1.1_WorkOrderCostReview provide 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 October 19 2018; and the Work Order Analysis which provides the gross expenditure budget of \$3.2MM for the Highway 7 crossing at Highway 400, respectively.

Attachment_J.1.1_PurchaseOrder0000090879



Purchase Order 0000090879

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

Date	Revision	Dispatch via Print	Page
09/05/2017			1
Payment Terms	Freight Terms	Ship Via	
Due Now	Destination	INTERNAL	
Buyer	Adams, Sherri		
	Procurement Office		
	Telephone: 1 877 464 9675 ext 76957		
	Fax: (905) 895 6924		

Ship To: M033000000
3601 Highway 7 East, 12th Floor
Markham ON L3R 0M3
Canada

Bill To: Accounts Payable
Finance Department
The Regional Municipality of York
17250 Yonge St
Rm 40500
Newmarket ON L3Y 6Z1
Canada

Line-Sch	Item/Description	HST Registration:	Quantity	UOM	12476 1123 RT PO Price	Extended Amt	Due Date
1- 1	RFQ-17-026-RT H2 West Design and Construction of Utilities Relocation Work		1.00	EA	10,288,298.00	10,288,298.00	12/31/2018

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 invoices 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	10,288,298.00
Total HST	1,337,478.74

Total PO Amount	11,625,776.74
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All purchases are subject to the Terms AND Conditions of schedule "A" - attached.

Authorized Signature

JERRY PAGLIA

DISTRIBUTION: VENDOR

PURCHASING

ACCOUNTS PAYABLE

DEPARTMENT

Attachment_J.1.1_InterimInvoice26709



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

Terms: Due upon receipt

Work Order#: 316883

PO Number#: 90879

Description		Amount
Hwy 400 and Hwy #7 yrrtc-invoices@york.ca marco.lavernese@york.ca YRRTC like for Like \$ 700,000.00 Transpower OT 08/18 14,580.00 Interim Invoice-09/30/18 - H2W Hwy Crossing Less: Alectra's Share -		1,845,061.52 (1,130,481.52)
Remit To: Alectra Utilities Corporation 161 Cityview Blvd Vaughan ON L4H 0A9		Payment Inquiries to Accounting Department: Please contact Stephen S. at (905) 532-4623.
		Sub Total 714,580.00 HST 92,895.40 Total 807,475.40

Your Business may now pay electronically, please contact us for further details.
Please refer to invoice number 26709 when making inquiries.
Overdue balances are subject to a 2% per month interest charge.

HST#: 728604299 RT0001
E. & O.E.

Attachment_J.1.1_WorkOrderCostReview

**Alectra Utilities
WORK ORDER COST REVIEW**

TO: B O'Gay

DATE: 9-Oct-18

REMARKS

- PLEASE REVIEW THE ATTACHED WORK ORDER AND CONFIRM ALL COSTS HAVE BEEN INCLUDED
- PLEASE APPROVE INVOICE

Project Name H2W Hwy Crossing
Location Hwy 400 and Hwy 7
Work Order # 316883
Phase Code 15
P.O. # 90879
Technician J. Zhang
Supervisor B O'Gay
marco.tavernese@york.ca
YRRTC-INVOICES@YORK.CA

<u>LABOUR</u>	<u>MATERIAL</u>	<u>EQUIPMENT</u>	<u>CONTRACT</u>	<u>TOTAL</u>	<u>BUDGET</u>	<u>VARIANCE</u>
36,653.32	6,188.56	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	Direct Labour	Direct Labour	TOTAL	
Actual Cost	40%	54%	7%	5%		
	-	-	-	-	-	2016 Actual Design
	-	-	-	-	-	2017 Actual Design

	BUDGET	ACTUAL	VARIANCE
Outside Labour	70,923.00	36,653.32	34,269.68
Design Labour	11,447.00	-	11,447.00
Material	23,106.00	6,188.56	16,917.44
Contract Labour & Vehicle	3,048,659.00	1,794,183.78	1,254,475.22
Contract Material-1287			
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.I.	HST	TOTAL
1,845,061.52	(1,130,481.52)	714,580.00	92,895.40	807,475.40

PREPARED BY:

<u>1830</u>	<u>1835</u>	<u>1840</u>	<u>1845</u>	<u>TOTAL</u>	<u>VARIANCE</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%	
(2,376.44)	(14,536.15)	(304,428.52)	(393,238.90)	(714,580.00)	

WORK ORDER

316683

09/30/18

1830 - POLES

Contract - Rice aggregates	945.66
Alectra Vehicle	147.00
Alectra Labour	5,136.38
	<u>6,229.04</u>

1835 - OH CONDUCTOR

Alectra Vehicle	7,421.40
Alectra Labour	24,491.71
Alectra Material	6,188.56
	<u>38,101.67</u>

1840 - UNDERGROUND CONDUIT

Contract - NSM	31,002.22
Contract - Transpower	671,824.48
Contract - Material Transpower	77,173.02
Labour - Alectra	351.76
	<u>780,351.48</u>

1845 - UNDERGROUND CONDUCTOR/DEVICES

Contract - NSM	105,194.02
Contract - Transpower	437,495.63
Contract - Material Transpower	470,548.76
Alectra Material	
Labour - Alectra	6,679.46
Alectra Vehicle	467.46
	<u>1,020,379.33</u>

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

W/O CHARGES	LESS: 100% MATERIAL		LESS: 25%	LESS: PREV INVOIC	SUBTOTAL	NST	TO BE INVO
1,845,061.52	-		-				

Description	Document Number	Amount
TRANS POWER U. C. INC.		
2018 U/G Planned Capital	701789	639,832.84
2018 U/G Planned Capital	701789	73,498.11
2018 U/G Planned Capital	701789	416,662.50
2018 U/G Planned Capital	701789	448,141.68
Total: TRANS POWER U. C. INC.		<u>1,578,135.13</u>
NSM ENGINEERING INC		
Design Consulting Services	702590	3,132.43
Engineering Design Services	660893	3,842.90
Engineering Design Services	660894	3,145.34
Engineering Design Services	663432	10,484.79
Engineering Design Services	663458	2,309.61
Engineering Design Services	667597	4,456.80
Engineering Design Services	668303	2,298.03
Engineering Design Services	673236	47,943.20
Engineering Design Services	674468	14,452.00
Engineering Design Services	682127	4,680.61
Engineering Design Services	682426	1,151.82
Engineering Design Services	683887	7,428.00
Engineering Design Services	687541	6,300.12
Engineering Design Services	688638	4,485.96
Design Consulting Services	701261	13,599.09
Total: NSM ENGINEERING INC		<u>129,710.70</u>
RICE AGGREGATES LIMITED		
Aggregate Services	703304	900.63
Total: RICE AGGREGATES LIMITED		<u>900.63</u>
Total for Work Order		1,708,746.46

J1.2

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.

1 Table 1 – Detailed Work for Y2 (UPDATED)

Y2.1														
Phase	Description	Work	Poles Installed		Length of Underground Alignment (m)	Length of Cable/Conductor (m)						Switches		Underground Vaults
			Permanent	Temporary		1000 MCM CU	350 MCM CU	1/0 AL	556 MCM	3/0 AACSR (Neutral)	Transformers	LIS	Switchgear	
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														
Phase	Description	Work	Poles Installed		Length of Underground Alignment (m)	Length of Cable/Conductor (m)						Switches		Manhole
			Permanent	Temporary		1000 MCM CU	350 MCM CU	1/0 AL	556 MCM	3/0 AACSR (Neutral)	Transformers	LIS	Switchgear	
3	Yonge St- Temporary Gamble Creek Crossing	Installation of poles including OH equipment, Cable Installation and Temporary Terminations and Cutovers	39	5	60	750	125	-	300	50	0	-	-	-
5	Yonge St- East Side - Elgin Mills Rd. 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 Canyon 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. Crossing	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	400	1,029	343	-	-	-	0	-	1	-
8	Yonge St- East Side - Devonsleigh Blvd to 19th Ave	Concrete Encased Ductbank Installation, Cable Installation and Final Terminations and Cutovers	-	-	455	3,600	615	600	-	-	1	-	1	2
9	Yonge St- West Side - Nottingham Dr. to Tower Hill Rd.	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

1 Table 2 – Detailed Work for H2 (UPDATED)

H2 E															
Phase	Description	Work	Length of UG Alignment (m)	Poles Installed		Length of Cable/Conductor (m)							Switches		Underground Vaults
				Permanent	Temporary	1000 MCM CU	350 MCM CU	1/0 AL	2/0 AL	556 MCM	3/0 AACSR	Transformer	LIS	Switchgear	
1	Bathurst from Centre St. to Worth Blvd.	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.		42	1					9,180	1,530	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	Centre St. from Concord Rd. to Dufferin 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	-	-
H2 W															
Phase	Description	Work	Length of UG Alignment (m)	Poles Installed		Length of Cable/Conductor (m)							Switches		Underground Vaults
				Permanent	Temporary	1000 MCM CU	350 MCM CU	1/0 AL	2/0 AL	556 MCM	3/0 AACSR	Transformer	LIS	Switchgear	
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	Hwy 7 from west of Pine Valley Drive to Aberdeen Ave.	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.		34						7,620	1,100	3	7		
3.1	Hwy 7, from Weston Rd to West of Hwy 400	Installation of duct structure, underground equipment and cable pulling	485			2,910	970		3,960			1		2	1
3.2	Hwy 7, from Nova Star Dr. to Weston Rd	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.		37						14,730	1,720	2	12		
4.1	Hwy 7, from East of Hwy 400 to East of Commerce St.	Installation of poles including OH equipment.		13						2,340	390	1			
4.2	Hwy 7, from East of Hwy 400 to East of Commerce St. (H2W ph4.2 project area is inside H2W-ph4.1)	Connecting the installed wires at H2W-Ph4.1 to the energized circuits.								318	53	1			
4.3	Southeast off-ramp of Hwy 400 and Hwy 7	Relocation of assets to make way for the new Southeast off-ramp	305					915							
5.1	Hwy 7, from west of Wigwoss Dr to west of Pine Valley Drive	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.		11	3					4,230	470	2			
5.2	Hwy 7, from west of Bruce St. to west of Wigwoss Dr	Installation of poles including OH equipment, Cable Installation and Final Terminations/Cutovers.		12						4,545	505	2			
5.3	Hwy 7, from west of Wigwoss Dr to west of Pine Valley Drive (H2W ph5.3 project area is inside H2W-ph5.1)	Removal of 3 temporary poles installed in H2W-ph5.1 and replacing them with 3 permanent concrete poles		3											
Hwy 400 Cross	Hwy 400, parallel Hwy 7 on the north side	Four HDD under Hwy 400	500			3,000	1,000								
		Total H2W	1,290	150	4	5,910	1,970	915	3,960	41,283	5,488	16	19	2	1

J1.3

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

Response:

1 The table below provides a comparison of previous forecast to actual circuit length (km)
2 relocation in the YRRT project for 2016 and 2017. Circuit length (km) is a unit of measure that
3 is equal or less than cable and conductor length, since a circuit may include multiple phases of
4 conductor as well as a system neutral conductor. Further, the circuit length (km) includes the
5 circuit length of feeders in the YRRT project and does not include lengths of secondary services
6 nor other assets such as transformers, switchgear, poles and underground vaults that were
7 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**

Circuit Length (km)	Previous Forecast		Actual		Previous Forecast		Actual	
	2016 Underground	2016 Overhead	2016 Underground	2016 Overhead	2017 Underground	2017 Overhead	2017 Underground	2017 Overhead
	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.