

# ALBERTA MUNICIPAL AFFAIRS

## UPDATE OF ELECTRICAL POWER SYSTEMS ASSESSMENT ESTIMATES

June 30, 2006 to June 30, 2007

Colt Job No: 07E3723

REV.	DATE	DESCRIPTION	PREPARED	REVIEWED	CLIENT APPROVED
A	July 30, 2007	Issued for Approval	Daryl Hildebrandt	Nick Stefaniuk	

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PREPARED BY  
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**Appendix A Percentage Cost Difference Summary June 30, 2006 to June 30, 2007**

## **1. GENERAL**

The percentage cost differences shown here are for the price differences from June 30, 2006 to June 30, 2007. The June 2006 prices were based on the data calculated in the Update of Electrical Power Systems Assessment Estimate Study for June 2005 to June 2006.

A percentage factor increase for June 30, 2006 to June 30, 2007 has been developed for the following areas and can be seen in Appendix A:

- Electrical Power Distribution Underground, Overhead, Urban and Rural
- Street Lighting
- Oil and Gas Field Service
- Electrical Power Transmission Lines
- Labour
- Equipment

The percentage cost differences were developed using a combination of pricing obtained from suppliers, contractors and the CPI Index (overall and transportation) for Alberta for the past year. Within each model the main materials (i.e., transformers, poles and wire) were identified and a quote was obtained from suppliers. The suppliers used in the previous study were used to maintain price consistency. For the remaining material within the model, the Alberta CPI Index was utilized. A weighted average was used to combine the main materials with the remaining items.

## **2. LABOUR COSTS**

The labour cost increases were obtained from three contractors. The contractors' labour cost increases varied between 5% and 20%. Based on discussions with the contractors and Colt's estimating department we recommend using 10% as the percentage costs increase for the labour component.

## **3. EQUIPMENT COSTS**

The percent increase for equipment costs is 2.8%, which is based on the Alberta CPI index for transportation for the period June 2006 to June 2007.

## **4. DISTRIBUTION MATERIAL COSTS (EDS AND OIL AND GAS FIELD SERVICE MODELS)**

A single percentage cost increase was provided for all the EDS 10 thru EDS 80 models (underground, overhead Urban and Rural) and the EFS 10 thru EFS 80 models.

The majority of the customer base for the Utilities (over 95%) falls in the EDS 10 models and the EFS 10 model categories. Since the majority of the customers are in the EDS 10 and EFS 10 models the percentage increase for all the models was based on the average of the

percentage cost increases for the eight different ESD 10 models (Urban and Rural for each of these categories; Underground, Overhead, Residential and Commercial) only. The major common piece of equipment in these models is the transformers.

To calculate the percentage increase for the EDS 10 models quotes were requested from two suppliers for the different types of transformers. Only one supplier provided quotes for June 2007 and this supplier was also the same supplier who provided quotes in 2006. The percentage increase for each EDS 10 model was calculated by using the actual transformer costs for June 2007 compared to the transformer cost of June 2006. The Alberta CPI was used to increase the costs of all the remaining items. A weighted average was then calculated, for each EDS 10 model, based on the overall costs to determine the percentage increase. Finally, an overall average of all the EDS 10 models was then calculated to determine the percentage increase indicated in Appendix A.

The percentage change for material was determined to be 9.7%

## **5. STREET LIGHTING**

A separate material percent increase number was developed for each of the street lighting models. Supplier quotes were received from two suppliers for the pole, davit, street lighting cable, and luminaire. One supplier quote was received for the precast base. The Alberta CPI was applied to the miscellaneous items within the model. Where two quotes were received the average of the two quotes was used to calculate the total cost for June 2007. Percentage increases for the street lighting components were then compared to the June 2006 figures to determine the percentage increase for the period June 30, 2006 to June 30, 2007.

This represents a percentage change on material of 12.5% for ESL 10 and a percent change on material of 15.5% for ESL 20.

## **6. TRANSMISSION LINES**

### **6.1 Steel Tower Models ET31, ET40 and ET70**

The percentage increase for the steel tower costs for June 2007 are based on information provided by a supplier and compared to the costs used in June 30, 2006. The steel tower costs have increased 20% from June 30, 2006 to June 30, 2007.

Quotes for the conductors were requested from three suppliers. The lowest conductor quote was used to determine conductor costs as of June 30, 2007 as the second quote was non-competitive. The conductor price from the third supplier was not provided.

The concrete (foundations) costs for June 2007 are based on information from a supplier to the costs used in June 30, 2006. Concrete costs have increased 11.5% from June 30, 2006 to June 30, 2007.

Alberta CPI was applied to the remaining items in the model.

To calculate the June 30, 2007 costs the quoted costs for the conductors and percentage increase were applied to concrete, steel and the remaining items. This cost was then compared to the June 30, 2006 costs to determine the percentage increase for each model. The average of all the models was then calculated to determine the average overall percentage for Transmission Lines with steel towers.

There is a percentage change on material of 14.9% for the models that have steel towers.

## **6.2 Wood Pole Models ET10, ET12, ET20, ET21, ET30, ET50, ET51, ET60 and ET61**

The percentage increase for the wood poles is based on the supplier quotes for poles and conductors and the Alberta CPI being applied to the remaining items in the model. Quotes for the poles were requested from two suppliers and only one supplier responded. Quotes for the conductors were requested from three suppliers and two responded. The lowest conductor quotes were used to determine conductor costs as of June 30, 2007 as the second supplier's quote was considered non-competitive.

The actual costs for the conductors and poles were used to calculate the June 30, 2007 costs along with the Alberta CPI being applied to the remaining items. This cost was then compared to the June 30, 2006 costs to determine the percentage increase for each model. Finally, the average of all the models was then calculated to determine the overall average percentage for Transmission Line with wood poles.

There is a percentage change on material of 14.9% for the Transmission models with wood poles.

## **6.3 Underground Transmission Line Models ET80 and ET90**

The percentage increase for the underground transmission lines is based on the increase in conductor costs, increase in concrete costs, and the remaining components. As conductors are an engineered product it is difficult to obtain pricing. The percent increase for conductors was therefore based on the increase in wire and cables insulated over 1000V from the Industrial Product Price Indexes Catalogue No. 62-011 (Table 2-17) from June 2006 to May 2007 (The figure for June 2007 is not currently available). Conductor costs decreased 1.3%.

The concrete (duct banks and manholes) costs for June 2007 are based on information from a supplier compared to the costs used in June 30, 2006. Concrete costs have increased 11.5% from June 30, 2006 to June 30, 2007.

The percentage increases were applied to the June 30, 2006 figure to determine the June 30, 2007 figures and an average cost of the two underground Transmission models was calculated to determine the overall percentage increase.

There is a percentage change on material of 9.9% for the underground models.

**APPENDIX A**  
**PERCENTAGE COST DIFFERENCE SUMMARY**  
**JUNE 30, 2006 to JUNE 30, 2007**

**ALBERTA MUNICIPAL AFFAIRS  
UPDATE OF ELECTRICAL POWER SYSTEMS ASSESSMENT ESTIMATES  
JUNE 30, 2006 TO JUNE 30, 2007**

**COST MODELS**

**ELECTRICAL POWER DISTRIBUTION SYSTEMS UNDERGROUND - URBAN**

Code/Area	Percentage Increase		
	Material	Labour	Equipment
ALL	9.7%	10.0%	2.8%

**ELECTRICAL POWER DISTRIBUTION SYSTEMS UNDERGROUND - RURAL**

Code/Area	Percentage Increase		
	Material	Labour	Equipment
ALL	9.7%	10.0%	2.8%

**ELECTRICAL POWER DISTRIBUTION SYSTEMS OVERHEAD - URBAN**

Code/Area	Percentage Increase		
	Material	Labour	Equipment
ALL	9.7%	10.0%	2.8%

**ELECTRICAL POWER DISTRIBUTION SYSTEMS OVERHEAD - RURAL**

Code/Area	Percentage Increase		
	Material	Labour	Equipment
ALL	9.7%	10.0%	2.8%

**STREET LIGHTING**

Code/Area	Percentage Increase		
	Material	Labour	Equipment
ESL10	12.5%	10.0%	2.8%
ESL20	15.5%	10.0%	2.8%

**OIL AND GAS FIELD SERVICES**

Code/Area	Percentage Increase		
	Material	Labour	Equipment
ALL	9.7%	10.0%	2.8%

**ELECTRICAL POWER TRANSMISSION LINES**

Code/Area	Percentage Increase		
	Material	Labour	Equipment
ET10-1	14.9%	10.0%	2.8%
ET11-1	N/A	N/A	N/A
ET12-1	14.9%	10.0%	2.8%
ET20-1	14.9%	10.0%	2.8%
ET21-1	14.9%	10.0%	2.8%
ET30-1	14.9%	10.0%	2.8%
ET31-1	14.9%	10.0%	2.8%
ET32-2	N/A	N/A	N/A
ET33-1	N/A	N/A	N/A
ET40-1	14.9%	10.0%	2.8%
ET41-1	N/A	N/A	N/A
ET50-1	14.9%	10.0%	2.8%
ET51-1	14.9%	10.0%	2.8%
ET52-1	N/A	N/A	N/A
ET60-1	14.9%	10.0%	2.8%
ET61-1	14.9%	10.0%	2.8%
ET70-1	14.9%	10.0%	2.8%
ET71-1	N/A	N/A	N/A
ET80-1	9.9%	10.0%	2.8%
ET90-1	9.9%	10.0%	2.8%
ET100-1	N/A	N/A	N/A

TRANSMISSION INFLATION FACTORS 2007 (WOODEN STRUCTURES)

MODEL	ITEM	COSTS 2006	TOTAL COSTS 2006	% OF TOTAL COSTS	INFLATION SOURCE	INFLATION FACTOR PER ITEM	PER ITEM INFLATION CONTRIBUTION	OVERALL INFLATION FACTOR	TOTAL COSTS JUNE 30, 2007 PER ITEM	TOTAL COSTS JUNE 30, 2007
ET10	POLES 10@40H CI 4	\$ 4,440	\$ 20,757	21.39%	SUPPLIERS	14.19%	3.04%	9.14%	5,070.00	22,646.63
	CONDUCTOR #10 ACSR "Raven" - 3,000m	\$ 3,507		16.90%	SUPPLIERS	12.92%	2.18%		3,960.00	
ET12	REMAINING ITEMS	\$ 12,810	\$ 47,252	61.71%	CPI	6.30%	3.89%	13.69%	13,616.63	53,720.85
	POLES 7@55H	\$ 5,824		12.33%	SUPPLIERS	36.54%	4.50%		7,952.00	
ET20	CONDUCTOR #795 MCM ACSR "Drake" - 3,000m	\$ 28,852	\$ 39,274	61.06%	SUPPLIERS	12.30%	7.51%	14.47%	32,400.00	38,089.07
	REMAINING ITEMS	\$ 12,677		26.62%	CPI	6.30%	1.89%		13,368.85	
ET21	POLES 7@55H	\$ 5,824	\$ 39,986	17.50%	SUPPLIERS	36.54%	6.40%	13.97%	7,952.00	45,569.66
	CONDUCTOR #477 MCM ACSR "Partridge" - 3000m	\$ 10,170		30.56%	SUPPLIERS	14.75%	4.51%		11,670.00	
ET30	SHIELD 6/16" O.H.S.W. - 1000m	\$ 1,140	\$ 123,588	3.43%	SUPPLIERS	14.91%	0.51%	10.35%	1,310.00	136,376.61
	REMAINING ITEMS	\$ 16,140		48.51%	CPI	6.30%	3.08%		17,157.07	
ET50	POLES 10@60H	\$ 5,824	\$ 47,109	14.57%	SUPPLIERS	36.54%	5.32%	16.51%	7,952.00	54,896.94
	CONDUCTOR #477 MCM ACSR "Hawk" - 3000m	\$ 17,040		42.62%	SUPPLIERS	13.38%	5.70%		19,320.00	
ET51	SHIELD 6/16" O.H.S.W. - 2000m	\$ 2,280	\$ 54,452	2.85%	SUPPLIERS	14.91%	0.43%	18.14%	1,310.00	63,150.13
	REMAINING ITEMS	\$ 15,981		39.97%	CPI	6.30%	2.62%		16,987.66	
ET60	POLES 8@70H	\$ 24,080	\$ 59,207	19.48%	SUPPLIERS	16.24%	3.16%	14.91%	27,990.00	70,158.15
	CONDUCTOR #477 MCM ACSR "Hawk" - 6000m	\$ 34,080		27.58%	SUPPLIERS	13.38%	3.69%		38,640.00	
ET61	SHIELD 6/16" O.H.S.W. - 2000m	\$ 2,280	\$ 476,902	1.84%	SUPPLIERS	14.91%	0.28%	14.91%	2,620.00	
	REMAINING ITEMS	\$ 63,148		51.10%	CPI	6.30%	3.22%		67,128.61	
AVERAGE	POLES 8@70H	\$ 28,152	\$ 476,902	69.76%	SUPPLIERS	22.56%	13.48%	14.91%	34,504.00	
	CONDUCTOR #10 ACSR "Raven" - 3000m	\$ 3,507		7.44%	SUPPLIERS	12.92%	0.96%		3,960.00	
ET51	REMAINING ITEMS	\$ 15,450	\$ 62,178	32.80%	CPI	6.30%	2.07%	19.47%	16,422.94	62,338.74
	POLES 8@70H	\$ 27,312		51.10%	SUPPLIERS	26.33%	13.46%		34,504.00	
ET60	CONDUCTOR #266 MCM ACSR "Partridge" - 3000m	\$ 10,170	\$ 59,207	19.03%	SUPPLIERS	14.75%	2.81%	18.50%	11,670.00	70,158.15
	REMAINING ITEMS	\$ 15,970		29.88%	CPI	6.30%	1.88%		16,976.13	
ET61	POLES 7@75H	\$ 25,536	\$ 476,902	49.94%	SUPPLIERS	29.85%	14.61%	14.91%	33,159.00	
	CONDUCTOR #266 MCM ACSR "Partridge" - 3000m	\$ 10,170		19.49%	SUPPLIERS	14.75%	2.87%		17,509.74	
AVERAGE	POLES 7@75H	\$ 16,472	\$ 476,902	31.57%	CPI	6.30%	1.99%	14.91%	33,159.00	
	CONDUCTOR #477 MCM ACSR "Hawk" - 3000m	\$ 25,536		43.13%	SUPPLIERS	29.85%	12.88%		19,320.00	
AVERAGE	CONDUCTOR #477 MCM ACSR "Hawk" - 3000m	\$ 17,040	\$ 476,902	28.78%	SUPPLIERS	13.38%	3.85%	14.91%	19,320.00	
	REMAINING ITEMS	\$ 16,631		28.09%	CPI	6.30%	1.77%		17,579.15	

**TRANSMISSION INFLATION FACTORS 2007 (STEEL STRUCTURES)**

MODEL	ITEM	COSTS 2006	TOTAL COSTS 2006	% OF TOTAL COSTS	INFLATION SOURCE	INFLATION FACTOR PER ITEM	PER ITEM INFLATION CONTRIBUTION	OVERALL INFLATION FACTOR	TOTAL COSTS JUNE 30, 2007 PER ITEM	TOTAL COSTS JUNE 30, 2007
ET40	TOWER	\$ 125,403	\$ 327,152	38.33%	SUPPLIERS	20.00%	7.67%	14.58%	150,483.08	\$ 374,837
	CONDUCTOR #636 MCM ACSR "Grosbeak" - 12000m	\$ 91,442		27.95%	SUPPLIERS	12.20%	3.41%		102,600.00	
	SHIELD 5/16" O.H.S.W. - 2000m	\$ 2,280		0.70%	SUPPLIERS	14.91%	0.10%		2,620.00	
	FOUNDATIONS	\$ 82,711		25.28%	SUPPLIERS	11.50%	2.91%		92,223.13	
	REMAINING ITEMS	\$ 25,316		7.74%	CPI	6.30%	0.49%		26,910.57	
ET31	TOWER	\$ 100,322	\$ 222,834	45.06%	SUPPLIERS	20.00%	9.01%	15.19%	120,386.46	\$ 266,455
	CONDUCTOR #477 MCM ACSR "Hawk" - 6000m	\$ 34,080		15.31%	SUPPLIERS	13.38%	2.05%		38,640.00	
	SHIELD 5/16" O.H.S.W. - 2000m	\$ 2,280		1.02%	SUPPLIERS	14.91%	0.15%		2,620.00	
	FOUNDATIONS	\$ 66,171		29.72%	SUPPLIERS	11.50%	3.42%		73,781.08	
	REMAINING ITEMS	\$ 19,781		8.88%	CPI	6.30%	0.56%		21,027.13	
ET70	TOWER	\$ 66,881	\$ 162,158	41.24%	SUPPLIERS	20.00%	8.25%	14.85%	80,257.64	\$ 186,244
	CONDUCTOR 477 MCM ACSR "Hawk" - 6000m	\$ 34,080		21.02%	SUPPLIERS	13.38%	2.81%		38,640.00	
	FOUNDATIONS	\$ 44,110		27.20%	SUPPLIERS	11.50%	3.13%		49,183.09	
	REMAINING ITEMS	\$ 17,087		10.54%	CPI	6.30%	0.66%		18,163.20	
	<b>AVERAGE</b>				\$ 711,945					

**TRANSMISSION INFLATION FACTORS 2007 (U/G TRANSMISSION)**

MODEL	ITEM	COSTS 2006	TOTAL COSTS 2006	% OF TOTAL COSTS	INFLATION SOURCE	INFLATION FACTOR PER ITEM	PER ITEM INFLATION CONTRIBUTION	OVERALL INFLATION FACTOR	TOTAL COSTS JUNE 30, 2007 PER ITEM	TOTAL COSTS JUNE 30, 2007
ET80	DUCT BANK	\$ 991,348	\$ 1,828,076	60.89%	SUPPLIERS	11.50%	7.00%	10.08%	1,105,353.37	\$ 1,792,249
	CONDUCTOR	\$ 362,943		21.68%	Industrial CPI	-1.30%	-0.28%		348,354.35	
	MANHOLES	\$ 169,945		10.44%	SUPPLIERS	28.00%	2.92%		217,530.14	
	MISC HARDWARE	\$ 113,839		6.99%	CPI	6.30%	0.44%		121,011.14	
	DUCT BANK	\$ 991,348		59.36%	SUPPLIERS	11.50%	6.83%		1,105,353.37	
ET90	CONDUCTOR	\$ 394,960	\$ 1,670,093	23.65%	Industrial CPI	-1.30%	-0.31%	9.80%	389,825.11	\$ 1,833,720
	MANHOLES	\$ 169,945		10.18%	SUPPLIERS	28.00%	2.85%		217,530.14	
	MISC HARDWARE	\$ 113,839		6.82%	CPI	6.30%	0.43%		121,011.14	
<b>AVERAGE</b>			\$ 3,296,168				<b>9.94%</b>			

ERHEAD DISTRIBUTION URBAN

MODEL	ITEM	COSTS 2006	TOTAL COSTS 2006	% OF TOTAL COSTS	INFLATION SOURCE	INFLATION FACTOR PER ITEM	PER ITEM INFLATION CONTRIBUTION	OVERALL INFLATION FACTOR	TOTAL COSTS JUNE 30, 2007 PER ITEM	TOTAL COSTS JUNE 30, 2007	EDS 10 Model Inflation Numbers Only
10-O-U Jurnal	50 KVA Transformer - 1-PH, 12 services	\$ 157.70	\$ 449.80	35.05%	Supplier	15.00%	5.28%	9.35%	181.36	491.85	9.35%
	Poles	\$ 127.34		28.31%	CPI	6.30%	1.78%		135.36		
	OH Primary Line	\$ 5.09		1.13%	CPI	6.30%	0.07%		5.41		
	#10 Secondary Cable	\$ 49.71		11.05%	CPI	6.30%	0.70%		52.84		
	Service Cable	\$ 43.19		9.60%	CPI	6.30%	0.60%		45.91		
	Metering	\$ 43.19		9.60%	CPI	6.30%	0.60%		45.91		
	Misc. Hardware & Grounding	\$ 23.58		5.24%	CPI	6.30%	0.33%		25.07		
	50 KVA Transformer - 1PH, 12 services	\$ 157.70		34.45%	Supplier	15.00%	5.17%		181.36		
	Poles	\$ 127.34		27.82%	CPI	6.30%	1.78%		135.36		
	OH Primary Line	\$ 6.08		1.11%	CPI	6.30%	0.07%		5.41		
10-O-U Jurnal	#10 Secondary Cable	\$ 49.71	\$ 467.76	10.86%	CPI	6.30%	0.88%	9.30%	52.84	600.31	9.30%
	Service Cable	\$ 51.14		11.17%	CPI	6.30%	0.70%		54.36		
	Metering	\$ 43.19		9.43%	CPI	6.30%	0.69%		45.91		
	Misc. Hardware & Grounding	\$ 23.58		5.15%	CPI	6.30%	0.32%		25.07		

ERHEAD DISTRIBUTION RURAL

MODEL	ITEM	COSTS 2006	TOTAL COSTS 2006	% OF TOTAL COSTS	INFLATION SOURCE	INFLATION FACTOR PER ITEM	PER ITEM INFLATION CONTRIBUTION	OVERALL INFLATION FACTOR	TOTAL COSTS JUNE 30, 2007 PER ITEM	TOTAL COSTS JUNE 30, 2007	EDS 10 Model Inflation Numbers Only
10-O-R Jurnal	25 KVA Transformer - 1-PH, 2 services	\$ 647.50	\$ 4,466.05	14.50%	Supplier	15.06%	2.18%	7.57%	745.00	4,804.12	7.57%
	Poles	\$ 3,068.48		68.71%	CPI	6.30%	4.33%		3,281.79		
	OH Primary Line	\$ 479.59		10.74%	CPI	6.30%	0.88%		509.81		
	Service Cable	\$ 85.24		1.91%	CPI	6.30%	0.12%		90.61		
	Metering	\$ 43.19		0.97%	CPI	6.30%	0.08%		45.91		
	Misc. Hardware & Grounding	\$ 142.06		3.18%	CPI	6.30%	0.20%		151.01		
	25 KVA Transformer - 1-PH, 2 services	\$ 647.50		37.46%	Supplier	15.06%	5.84%		745.00		
	Poles	\$ 767.12		44.40%	CPI	6.30%	2.80%		815.45		
	OH Primary Line	\$ 42.62		2.47%	CPI	6.30%	0.16%		45.30		
	Service Cable	\$ 85.24		4.93%	CPI	6.30%	0.31%		90.61		
10-O-R Jurnal	Metering	\$ 43.19	\$ 1,727.72	2.50%	CPI	6.30%	0.16%	9.59%	45.91	1,893.27	9.59%
	Misc. Hardware & Grounding	\$ 142.06		8.22%	CPI	6.30%	0.52%		151.01		

DERGROUND DISTRIBUTION URBAN

MODEL	ITEM	COSTS 2006	TOTAL COSTS 2006	% OF TOTAL COSTS	INFLATION SOURCE	INFLATION FACTOR PER ITEM	PER ITEM INFLATION CONTRIBUTION	OVERALL INFLATION FACTOR	TOTAL COSTS JUNE 30, 2007 PER ITEM	TOTAL COSTS JUNE 30, 2007	EDS 10 Model Inflation Numbers Only
10-U-U metal	50 KVA Transformer 1-PH, 12 services	\$ 330.76	\$ 867.78	38.11%	Supplier	15.09%	5.74%	9.84%	380.56	\$ 1,265.45	11.47%
	Precast pad & Grounding	\$ 47.16		5.43%	CPI	6.30%	0.34%				
	Service Distribution Pedestal	\$ 127.85		14.73%	CPI	6.30%	0.93%				
	#1 AL primary cable - 1PH	\$ 113.19		13.04%	CPI	6.30%	0.82%				
	#4/0 Secondary Cable	\$ 56.60		6.52%	CPI	6.30%	0.41%				
	#2 Service Cable	\$ 33.96		3.91%	CPI	6.30%	0.25%				
	Metering	\$ 43.19		4.99%	CPI	6.30%	0.31%				
	Trenching, duct, and backfilling	\$ 20.75		2.39%	CPI	6.30%	0.15%				
	Misc hardware, terminations	\$ 94.33		10.87%	CPI	6.30%	0.89%				
	50 KVA Transformer 1-PH, 6 services	\$ 665.50		59.09%	Supplier	15.09%	8.90%				
	Precast pad & Grounding	\$ 94.90		8.43%	CPI	6.30%	0.83%				
	#1 AL primary cable - 1PH	\$ 113.67		10.11%	CPI	6.30%	0.64%				
Metering	\$ 43.19	3.93%	CPI	6.30%	0.24%						
Trenching, duct, and backfilling	\$ 18.98	1.69%	CPI	6.30%	0.11%						
Misc hardware, terminations	\$ 189.79	15.85%	CPI	6.30%	1.09%						

DERGROUND DISTRIBUTION RURAL

MODEL	ITEM	COSTS 2006	TOTAL COSTS 2006	% OF TOTAL COSTS	INFLATION SOURCE	INFLATION FACTOR PER ITEM	PER ITEM INFLATION CONTRIBUTION	OVERALL INFLATION FACTOR	TOTAL COSTS JUNE 30, 2007 PER ITEM	TOTAL COSTS JUNE 30, 2007	EDS 10 Model Inflation Numbers Only
10-U-R metal	25 KVA Transformer 1-PH, 4 services	\$ 791.25	\$ 1,882.83	42.02%	Supplier	15.01%	6.31%	9.98%	910.00	\$ 2,070.35	10.87%
	Precast pad & Grounding	\$ 142.06		7.54%	CPI	6.30%	0.48%				
	Service Distribution Pedestal	\$ 127.85		6.79%	CPI	6.30%	0.43%				
	#1 AL primary cable - 1PH	\$ 340.94		18.11%	CPI	6.30%	1.14%				
	#4/0 Secondary Cable	\$ 90.92		4.83%	CPI	6.30%	0.30%				
	Metering	\$ 43.19		2.28%	CPI	6.30%	0.14%				
	Trenching, duct, and backfilling	\$ 62.51		3.32%	CPI	6.30%	0.21%				
	Misc hardware, terminations	\$ 264.12		15.09%	CPI	6.30%	0.95%				
	25 KVA Transformer 1-PH, 4 services	\$ 791.25		52.43%	Supplier	15.01%	7.87%				
	Precast pad & Grounding	\$ 142.06		9.41%	CPI	6.30%	0.89%				
	#1 AL primary cable - 1PH	\$ 213.09		14.12%	CPI	6.30%	0.89%				
	Metering	\$ 43.19		2.86%	CPI	6.30%	0.18%				
Trenching, duct, and backfilling	\$ 35.51	2.35%	CPI	6.30%	0.15%						
Misc hardware, terminations	\$ 294.12	18.83%	CPI	6.30%	1.19%						

Average ESD 10 Models Only 9.72%

**STREET LIGHTING FACTORS 2007 (STEEL POLE, DAVIT & LUMINAIRE)**

MODEL	ITEM	COSTS 2006	TOTAL COSTS 2006	% OF TOTAL COSTS	INFLATION SOURCE	INFLATION FACTOR PER ITEM	PER ITEM INFLATION CONTRIBUTION	OVERALL INFLATION FACTOR	TOTAL COSTS JUNE 30, 2007 PER ITEM	TOTAL COSTS JUNE 30, 2007
ESL10	30 ft POLE & 8 ft DAVIT	\$ 1,602	\$ 2,634	60.79%	SUPPLIERS	13.96%	8.48%	12.52%	1,825.00	\$ 2,964
	PRECAST BASE	\$ 286		10.86%	SUPPLIERS	0.00%	0.00%		286.00	
	100W LUMINAIRE	\$ 325		12.34%	SUPPLIERS	13.23%	1.63%		368.00	
	#4 AL STREET LIGHT CABLE (30m)	\$ 140		5.32%	SUPPLIERS	32.55%	1.73%		185.70	
MISC. ITEMS	\$ 282		10.70%	CPI	6.30%	0.67%		299.65		
<b>AVERAGE</b>				100.00%				12.52%		

**STREET LIGHTING FACTORS 2007 (DAVIT & LUMINAIRE)**

MODEL	ITEM	COSTS 2006	TOTAL COSTS 2006	% OF TOTAL COSTS	INFLATION SOURCE	INFLATION FACTOR PER ITEM	PER ITEM INFLATION CONTRIBUTION	OVERALL INFLATION FACTOR	TOTAL COSTS JUNE 30, 2007 PER ITEM	TOTAL COSTS JUNE 30, 2007
ESL10	8ft DAVIT	\$ 180	\$ 721	24.97%	SUPPLIERS	10.00%	2.50%	15.45%	198.00	\$ 832
	100W LUMINAIRE	\$ 325		45.08%	SUPPLIERS	13.23%	5.96%		368.00	
	#4 AL STREET LIGHT CABLE (30m)	\$ 140		19.43%	SUPPLIERS	32.55%	6.32%		185.70	
	MISC. ITEMS	\$ 76		10.53%	CPI	6.30%	0.66%		80.67	
MISC. ITEMS	\$ -		0.00%			0.00%		-		
<b>AVERAGE</b>				100.00%				15.45%		

<b>2006 Cost Breakdown (based on %'s received)</b>							
<b>Material 2006 (increases vary)</b>	<b>Labour 2006 (12.5%)</b>	<b>Equipment 2006 (5.2%)</b>	<b>Subtotal 2006</b>	<b>New Rate</b>	<b>Total Increase in rate</b>	<b>2006 Cost Change Modifier</b>	
\$22,875	\$9,108	\$2,771	\$34,753	\$34,752	1.04	4.47%	4.47%
\$36,091	\$14,737	\$3,634	\$54,462	\$54,462	1.05	4.51%	4.51%
\$108,562	\$23,046	\$5,682	\$137,291	\$137,291	1.03	3.35%	3.35%
\$256,558	\$80,700	\$11,369	\$348,627	\$348,627	1.07	6.58%	6.58%
\$36,069	\$20,180	\$2,249	\$58,498	\$58,498	1.05	5.19%	5.19%
\$42,888	\$6,856	\$5,281	\$55,025	\$55,025	1.03	3.10%	3.10%
\$134,322	\$29,531	\$2,732	\$166,585	\$166,585	1.06	6.18%	6.18%
\$1,461,945	\$169,798	\$41,866	\$1,673,608	\$1,673,608	1.09	8.89%	
\$1,674,518	\$188,664	\$46,517	\$1,909,700	\$1,909,700	1.09	8.89%	

2006 Cost Breakdown (based on %'s received)								
Material 2006 (21.5%)	Labour 2006 (12.5%)	Equipment 2006 (5.2%)	Subtotal 2006	New Rate	Total Increase in rate	2006 Cost Change Modifier		
\$7,483	\$2,670	\$684	\$10,838	\$1,276	1.18	18.02%	18.02%	
\$4,930	\$1,323	\$339	\$6,592	\$1,444	1.19	18.65%	18.65%	
\$13,019	\$2,557	\$655	\$16,231	\$5,004	1.19	19.25%	19.25%	
\$14,235	\$2,557	\$655	\$17,446	\$9,626	1.19	19.41%	19.41%	
\$16,791	\$2,734	\$700	\$20,224	\$21,228	1.20	19.57%	19.57%	
\$20,650	\$2,734	\$700	\$24,083	\$25,140	1.20	19.87%	19.87%	
\$28,342	\$3,263	\$835	\$32,440	\$33,591	1.20	20.06%	20.06%	
\$77,496	\$4,321	\$1,106	\$82,923	\$71,048	1.21	20.75%	20.75%	
\$116,223	\$5,203	\$1,332	\$122,757	\$111,488	1.21	20.89%		
\$6,504	\$2,372	\$607	\$9,483	\$2,709	1.18	17.97%		
\$4,928	\$2,039	\$522	\$7,489	\$2,183	1.18	17.67%		
\$13,648	\$2,767	\$708	\$17,123	\$5,338	1.19	19.20%		
\$14,864	\$2,943	\$753	\$18,560	\$10,240	1.19	19.24%		
\$17,420	\$3,120	\$798	\$21,338	\$22,588	1.19	19.41%		
\$21,279	\$3,120	\$798	\$25,197	\$26,533	1.20	19.73%		
\$28,971	\$3,649	\$934	\$33,554	\$35,006	1.20	19.94%		
\$78,126	\$4,707	\$1,205	\$84,037	\$72,864	1.21	20.69%		
\$116,852	\$5,589	\$1,430	\$123,871	\$113,737	1.21	20.85%		

2006 Cost Breakdown (based on %'s received)								
Material 2006 (9.3%)	Labour 2006 (12.5%)	Equipment 2006 (5.2%)	Subtotal 2006	New Rate	Total Increase in rate	2006 Cost Change Modifier		
\$2,146	\$682	\$366	\$3,194	\$3,194	1.09	9%	9%	

2006 Cost Breakdown (based on %'s received)								
Material 2006 (21.5%)	Labour 2006 (12.5%)	Equipment 2006 (5.2%)	Subtotal 2006	New Rate	Total Increase in rate	2006 Cost Change Modifier		
\$5,943	\$2,976	\$1,597	\$10,516	\$10,423	1.16	16%	16%	

2006 Cost Change Modifier Median **16.14%**