## State of Florida



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TALLAHASSEE, FLORIDA 32399-0850

COMMISSION CLERK

-M-E-M-O-R-A-N-D-U-M-

DATE:

September 15, 2011

TO:

Ann Cole, Commission Clerk - PSC, Office of Commission Clerk

FROM:

Lisa Ray, Administrative Assistant, Division of Economic Regulation

RE:

Docket No. 110094-EI, Petition for approval of revised underground residential and

commercial differential tariffs, by Florida Power & Light Company.

Attached are revised supporting documents from FPL for inclusion in the docket file for the above referenced docket. These documents are back up materials related to FPL's June 22, 2011 response (and attachments) to Staff's First Data Request dated May 18, 2011.

DOCUMENT NUMBER - DATE

06646 SEP 15 =

FPSC-COMMISSION CLERK

APPENDIX 2 URD

DOCUMENT NUMBER -DATE
06646 SEP 15 =

FPSC-COMMISSION CLERK

# APPENDIX NO. 2 FPL 2011 Explanation of Proposed Revisions

This Appendix summarizes proposed revisions to the Rules and Regulations included in Section 10 (and applicable forms) of FPL's General Rules and Regulations for Electric Service. An explanation of FPL's proposed tariff charges for underground installations can be found in Appendix No. 3.

APPENDIX 3 URD

#### APPENDIX NO. 3

FPL - 2011

# BASIS FOR UNDERGROUND RESIDENTIAL DISTRIBUTION DIFFERENTIAL

New Underground Subdivision with Overhead Feeder Mains. The average differential costs for Underground Residential Distribution (URD) stated in the FPL Rules and Regulations were derived from cost estimates of underground facilities and their equivalent overhead designs. The high density subdivision used for these estimates was developed by the group of Florida Electric Utilities in response to Florida Public Service Commission Orders No. 6031 and 6031-B. The low density subdivision was also developed by the group of Florida Electric Utilities and was approved by Florida Public Service Commission Order No. PSC-96-0026-FOF-El. They represent average conditions in Florida Subdivisions served by FPL. Densities range from 0.5 to 6.0 lots per acre for low density subdivisions. The low density subdivision contains 210 lots; the high density subdivision 176 lots. Subdivision plats are shown in Exhibits IV and XI. Differential cost estimates were made from engineering layouts of underground and overhead facilities. These included primary laterals, transformers, secondary lines and services. but not three phase feeders. These estimates employed standard Company design and estimating practices and the system-wide unit cost for labor and material which were in use at the end of 2010. Design criteria included the following:

Design Customer Demand - 7.25 KVA, including 2 1/2 tons of air

conditioning for high density model and 9.35 KVA including 3 1/2 tons of air conditioning for low density model

according to DERM. (1)

Primary Voltage - 13200/7620 Volts

Underground Design - Rear/Front lot construction - All C-I-C (2)

Overhead Design - Front lot construction, extreme wind (145 MPH)

- (1) FPL Distribution Engineering Reference Manual
- (2) All cables are to be installed in PVC conduit.

For the per-service lateral charges, the tariff differentials reflect the net present value of operational costs, including average historical storm restoration, as contemplated by Rule 25-6.078(4), F.A.C. FPL has addressed operational cost differential as two separate components, covering non-storm and storm costs. For non-storm costs, FPL's proposed tariff charges reflect the terms of the "Stipulation and Settlement Agreement" in Docket Nos. 080244-EI, 070231-EI and 080522-EI. For storm costs, FPL's starting point was the same data on storm restoration costs that it presented to the Commission in justifying the 25% GAF Waiver for eligible governmental underground conversion projects.

One of the principal assumptions in calculating the storm restoration cost savings for GAF projects was that, because they covered large, contiguous areas, there would be no need for overhead restoration crews to go into the project neighborhoods and, hence, the savings would be maximized. However, because not all URD projects will involve a large, contiguous area like that of a GAF project, FPL has developed three tiers of storm cost differentials for the URD tariff. Tier 1 is for large "GAF-equivalent" projects, which would meet the GAF size and uniformity requirements.

The storm cost differential for Tier 1 projects reflects the same savings as were used to justify the GAF Waiver, expressed on a per lot basis. Tier 2 is for smaller projects (1-3 pole line miles) but otherwise meet the GAF eligibility criteria. Tier 2 projects receive 40% of the full GAF savings.

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GAF savings. FPL does not believe that there is a significant difference in the storm cost differentials for low-density versus high-density projects, so the Tier 1, 2 and 3 reductions apply regardless of the project density.

Estimates are broken down into a uniform format adopted as a standard by the participating companies (Exhibit I-X).

### Case 1. Low Density

Where density is 0.5 or greater, but less than 6 dwelling units per acre: Buildings that do not exceed four units, townhouses, and mobile homes -- per service lateral.

#### Case 2. High Density

Where density is 6.0 or more dwelling units per acre: Buildings that do not exceed four units, townhouses, and mobile homes -- per service lateral.

#### Case 3. Meter Pedestal

Where density is 6.0 or more dwelling units per acre: Mobile homes having Customer-owned services from meter centers installed adjacent to the FPL primary trench route -- per dwelling unit.

	One	rational C	oet / Lot		Cost
Low Donoity	Non-Storm		<u>Total</u>		<u>Differential</u>
Low Density Pro Operational Cost	NOII-Storiii	Otorni	<u>10tai</u>		\$466.55
Pre-Operational Cost					φ <del>4</del> 00.00
Post-Operational Cost	••	(0004)	(0004)		<b>#</b> 00 55
Tier 1 (Full GAF) - 200 or more lots	\$0	(\$384)	(\$384)		\$82.55
Tier 2 (40% GAF) - 85 to 199 lots	\$0	(\$154)	(\$154)		\$312.55
Tier 3 (20% GAF) - less than 85 lots	\$0	(\$77)	(\$77)		\$389.55
	One	rational C	ost / Lot		Cost
High Density	Non-Storm	Storm	Total		Differential
Pre-Operational Cost	<u> </u>	<u> </u>			\$148.88
Post-Operational Cost					<b>4.</b>
Tier 1 (Full GAF) - 300 or more lots	\$0	(\$384)	(\$384)		\$0.00
Tier 2 (40% GAF) - 100 to 299 lots	<b>\$</b> 0	(\$154)	(\$154)		\$0.00
· · · · · · · · · · · · · · · · · · ·		•	(\$77)		\$71.88
Tier 3 (20% GAF) - less than 100 lots	s <b>ಫ</b> ∪	(\$77)	(\$77)		φ1 1.0Ω
	_				
		<u>rational C</u>	ost / Lot		Cost
Meter Pedestal	Non-Storm	<u>Storm</u>	<u>Total</u>		<u>Differential</u>
Pre-Operational Cost				Note 1	\$0.00
Post-Operational Cost					
Tier 1 (Full GAF) - 300 or more lots	\$0	(\$384)	(\$384)		\$0.00
Tier 2 (40% GAF) - 100 to 299 lots	\$0	(\$154)	(\$154)		\$0.00
Tier 3 (20% GAF) - less than 100 lots	s \$0	(\$77)	(\$77)		\$0.00

Note 1: The 'Pre-Operational Cost' differential has been reduced to \$0 since it is a negative amount -(\$148.16). However, the negative amount has been applied to determine the "Post-Operational Cost" differentials. Since the "Post-Operational" Costs are also negative, the differentials have been set to \$0.

**10.4.2 UG Service Laterals from Overhead Lines.**Service lateral costs are included in the differential costs previously stated except in Case 3. The costs of service laterals were estimated separately to determine the differential cost between a standard overhead service and a similar length underground service from an overhead line. This differential cost was calculated by adding the differential service lateral cost to the pole-conduit terminal cost. The average pole-conduit terminal cost was found to be \$334.62 per service lateral.

Service lateral cost		\$407.01
Pole-conduit cost		\$334.62
Total cost		<u>\$741.63</u>
	Round To	\$741.63

A URD riser to a handhole at the base of the pole had a differential cost of \$737.05

## 10.5.4 Replacement of an Existing Service with an Underground Service.

Costs were also estimated for replacing existing services with underground service laterals. These costs were based on the applicant providing the trench because of the wide variations in the cost of excavating established, landscaped areas. Additional costs are associated with removal and premature retirement of existing services. Accordingly, adjustments were made to the cost of a new service lateral by adding the costs involved with the retirement of an existing service drop and subtracting trenching costs. The costs were estimated to be:

## A. Cost per service lateral to replace Company-owned Overhead Service with:

	Company UG <u>Service</u>	Riser to <u>Handhole</u>
UG service lateral cost	\$741.63	\$0.00
Riser to handhole cost	\$0.00	\$737.05
Less trenching credit	(\$211.20)	\$0.00
Less conduit installation credit	(\$36.41)	\$0.00
Remaining value of existing service	\$127.77	\$127.77
Removal cost of existing service	\$46.85	\$46.85
Salvage	<u>\$0.00</u>	\$0.00
Total cost	\$668.64	\$911.67
Round To	\$668.64	\$911.67

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# B. Cost per service lateral to replace Company-owned Underground Service.

	OH Source	UG Source
UG service lateral cost	\$407.01	\$407.01
Handhole for connection to existing riser X .25	\$94.17	\$0.00
Less trenching credit	(\$211,20)	(\$211.20)
Less conduit credit	(\$36.41)	(\$36.41)
Remaining value of existing service	\$417.19	<b>\$417</b> .19
Removal cost of existing service	\$29.34	\$29.34
Salvage	<u>\$0.00</u>	<u>\$0.00</u>
Total Cost	\$700.10	\$605.93
Round To	\$700.10	\$605.93

# C. Cost to replace Customer-owned Underground Service from an Overhead System.

UG service lateral cost	\$407.01
Pole-conduit cost	\$334.62
Less trenching credit	(\$211.20)
Less conduit installation credit	(\$36.41)
TOTAL	\$494.02
Round To	\$494.02

## D. Cost to replace Customer-owned Underground Service from an Underground System.

UG service lateral cost	\$407.01
Less trenching credit	(\$211.20)
Less conduit installation credit	(\$36.41)
TOTAL	\$159.40
Round To	\$159.40

**Underground Feeder/Lateral Cost.** Cost estimates were made for underground and overhead feeders and laterals necessary to serve residential communities in the model subdivisions. The average differential costs per foot were then determined. These results are shown in Exhibit XII.

Underground feeders/laterals were assumed to be installed in conduit with above grade switch cabinets. Overhead feeder costs included wood pole costs.

**Cumulative Overhead and Underground Customers.** The cumulative total of overhead and underground customers as of December 31, 2010 served by FPL are as follows:

Underground	3,183,570
Overhead	1,753,138
Total*	4.936.708

NOTES:

- 1. Many of the underground systems are supplied by overhead feeders and laterals.
- \*2. This figure includes inactive meters and outdoor lighting.

APPENDIX 4 URD **LOW DENSITY** 

# OVERHEAD VS. UNDERGROUND SUMMARY SHEET

# Low Density 210 Lot Subdivision Cost per Service Lateral

ITEM	OVERHEAD	UNDERGROUND	DIFFERENTIAL
LABOR	\$1,040.88	\$1,460.58	\$419.70
MATERIAL	\$983.77	\$1,030.62	\$46.85
TOTAL	\$2,024.65	\$2,491.20	\$466.55

EXHIBIT I

# COST PER SERVICE LATERAL OVERHEAD MATERIAL AND LABOR

# Low Density 210 Lot Subdivision

ITEM	MATERIAL(1)	LABOR(4)	TOTAL
Service(2)	\$123.35	\$153.02	\$276.37
Primary	\$31.47	\$115.29	\$146.76
Secondary	\$129.95	\$189.62	\$319.57
Initial Tree Trim			Now with this line had not not a felt und not use
Poles	\$207.62	\$322.15	\$529.77
Transformers	\$222.92	\$39.88	\$262.80
Sub-Total	\$715.31	\$819.96	\$1,535.27
Stores Handling(3)	\$59.66		\$59.66
SubTotal	\$774.97	\$819.96	\$1,594.93
Engineering(5)	\$208.80	\$220.92	\$429.72
TOTAL(6)	\$983.77	\$1,040.88	\$2,024.65

<sup>1 -</sup> Includes Sales Tax.

## **EXHIBIT II**

<sup>2 -</sup> Includes Meters.

<sup>3 - 8.34 %</sup> of All Material.

<sup>4 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>5 - 26.943 %</sup> of All Material and Labor.

<sup>6 -</sup> Does not include storm or operational costs.

# COST PER SERVICE LATERAL UNDERGROUND MATERIAL AND LABOR

# Low Density 210 Lot Subdivision

ITEM	MATERIAL(1)	LABOR(4)	TOTAL
Service(2)	\$166.32	\$311.48	\$477.80
Primary	\$243.97	\$242.12	\$486.09
Secondary	\$108.03	\$85.14	\$193.17
Transformers	\$231.06	\$21.76	\$252.82
Prim. & Sec. Trenching		\$259.67	\$259.67
Service Trenching		\$230.41	\$230.41
Sub-Total	\$749.38	\$1,150.58	\$1,899.96
Stores Handling(3)	\$62.50	************	\$62.50
SubTotal	\$811.88	\$1,150.58	\$1,962.46
Engineering(5)	\$218.74	\$310.00	\$528.74
TOTAL(6)	\$1,030.62	\$1,460.58	\$2,491.20

<sup>1 -</sup> Includes Sales Tax.

## **EXHIBIT III**

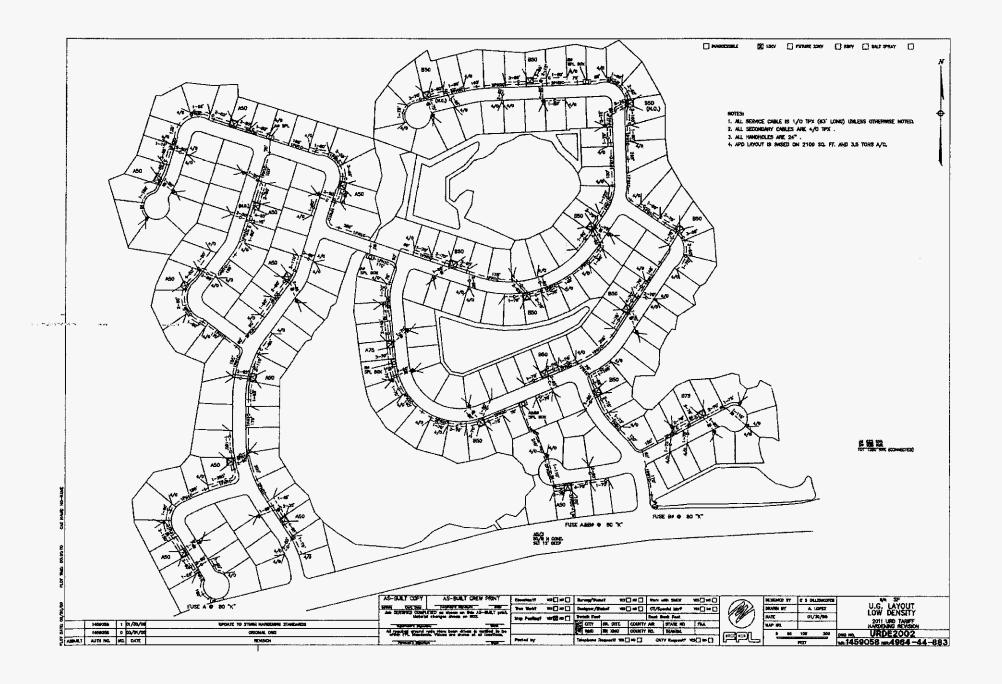
<sup>2 -</sup> Includes Meters.

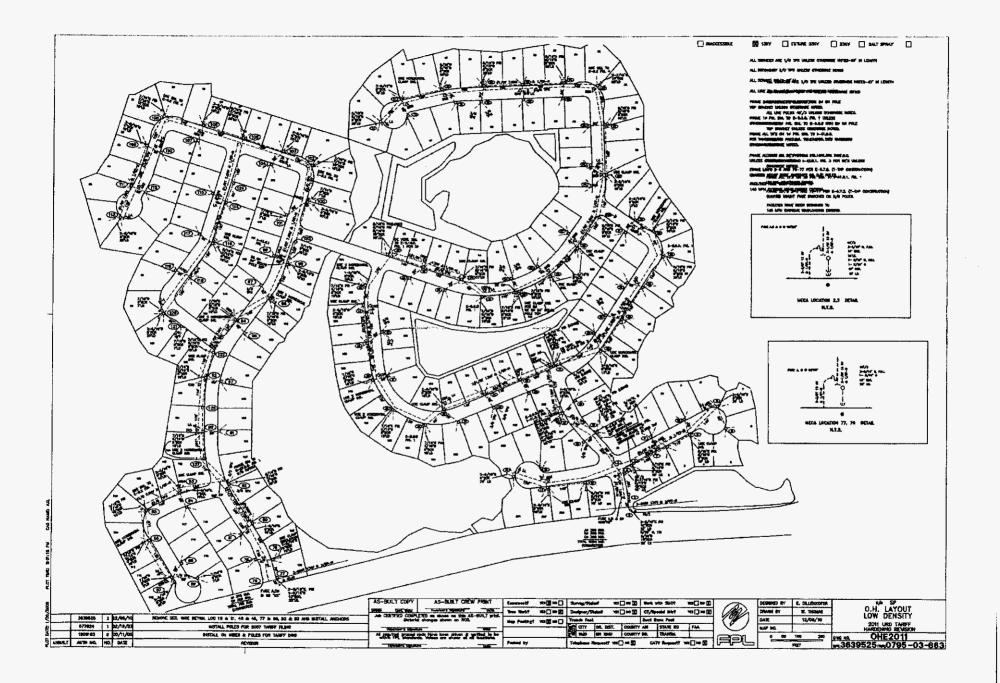
<sup>3 - 8.34 %</sup> of All Material.

<sup>4 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>5 - 26.943 %</sup> of All Material and Labor.

<sup>6 -</sup> Does not include storm or operational costs.





## 2011 OH LOW DENSITY LAYOUT WITH 3.5 TON A/C

WR Number: 3639525				2012	***						
3038323		NUMB	ER OF LOTS =	2010 210	2011 210						
		MECA STO	ORES LDG % =	6.24%	6.24%						
		ACTUAL STO	ORES LDG % =	7.11%	8.34%						
			ACTUAL EO =	27.26%	26.94%						
		Αſ	DJUSTED CO =	9.18%	9.10%						
CLASSIFICATION	ACCOUNT	MATERIAL W/O CO 2010	W/O CO 2011	MATERIAL COST/LOT WITH CO 2010	,	LABOR W/O CO 2010	LABOR W/O CO 2011	LABOR COST/LOT WITH CO 2010	COST/LOT		LABOR &
Service Overhead Meter Equip-1st Installation Expense Meter Cost (Material)	369.100 586.380	\$13,072.63	\$13,345.51		***	\$23,105.47 \$4,992.54	\$24,221.49 \$5,233.62				
SERVICE SUBT W/O STORES LDG		\$5,957.70 \$18,262.51	\$11,182.50 \$23,744.16	\$28.37 \$94.95	\$53.25 \$123.35	\$28,098.01	\$29,455.11	\$146.08	\$153.02	\$241.03	\$276.37
Cond, Primary, AL, thru 3/O PRIMARY SUBT W/O STORES LDG	365.002	\$5,931.51 \$5,583.12	\$6,435.59 \$6,057.59	\$29.03	\$31.47	\$20,461.07 \$20,461.07	\$22,191.83 \$22,191.83	\$106.38	\$115.29	\$135.41	<b>\$146.76</b>
Cond, Secondary, AL, thru 4/O Cable, Secondary, TPX, All Maintenance of Duct System Maintenance of Overhead Lines	365.040 365.091 594.680 593.180	\$4,054.31 \$22,464.08 \$0.98 \$0.00	\$4,400.20 \$22,173.24 \$1.00 \$0.00			\$14,002.96 \$20,590.64 \$21.40 \$0.00	\$15,187.45 \$21,198.87 \$22.42 \$90.75				
SEC SUBT W/O STORES LDG	333.100	\$24,961.76	\$25,013.59	\$129.78	\$129.95	\$34,614.99	\$36,499.49	\$179.96	\$189.62	\$309.74	\$319.57
Poles, Wood, 35/40/45 ft POLE SUBT W/O STORES LDG	364.135	\$47,200.86 \$44,428.52	\$42,459.14 \$39,965.30	\$230.99	\$207.62	\$58,682.82 \$58,682.82	\$62,010.51 \$62,010.51	\$305.09	\$322.15	\$536.08	\$529.77
Line Transformers-1st Installation Expense Transformer (Material)	583.280 368	\$0.00 \$ 38,906.61	\$0.00 \$ 42,909.87			\$7,322.35	\$7,675.85				
TRANSFORMER SUBTOTAL		\$38,906.61	\$42,909.87	\$202.28	\$222.92	\$7,322.35	\$7,675.85	\$38.07	\$39.88	\$240.35	\$262.80
SUB-TOTAL		\$132,142.52	\$137,690.51	\$687.03	\$715.31	\$149,179.24	\$157,832,79	\$775.58	\$819.96	\$1,462.61	\$1,535.27
MATERIAL SUBTOTAL MINUS METER MATERIAL STORES LDG. % METER STORES LDG % TOTAL STORES LDG \$				\$658.66 7.11% 7.11% \$48.85	\$662.06 8.34% 8.34% \$59.66	\$662.06 7.11% 7.11% \$50.86				<b>\$48.8</b> 5	\$59.66
SUBTOTAL				\$735.88	\$774.97	,		<b>\$775.58</b>	\$819.96	\$1,511.46	\$1,594.93
EO				\$200.59	\$208.80			\$211.41	\$220.92	\$412.00	\$429.72
TOTAL				\$936.47	\$983.77			\$986.99	\$1,040.88	\$1,923.46	\$2,024.65

## 2011 UG LOW DENSITY LAYOUT WITH 3.5 TON A/C

NUMBER OF LOTS =

WR	Numbe	a
1459	วกรล	

		HOME		2.0							
		MECA ST	ORES LDG % =	6.24%	6.24%						
		ACTUAL S	STORES LDG =	7.11%	8.34%						
			ACTUAL EO =	27.26%	26.94%						
		A	DJUSTED CO =	9.18%	9.10%						
CLASSIFICATION	ACCOUNT	MATERIAL W/O CO	MATERIAL W/O CO	MATERIAL COST/LOT WITH CO	COST/LOT	W/O CO	LABOR W/O CO	WITH CO	LABOR COST/LOT WITH CO	MATERIAL	
		2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
Service, UG, In Duct Meter Equip-1st Installation Expense	369.699 586.380		\$22,131.74			\$94,001.99 \$4,992.54	\$99,076.31 \$5,233.62				
Meter Cost (Material)		\$5,957.70	\$11,182.50	\$28.37	\$53.25						
Service Trench (Labor) SERVICE SUBT W/O STORES LDG		\$24,383.68	\$32,014.33	\$126.77	\$166.32	(\$42,000.35) \$56,994.18	\$44,352.25) \$59,957.68	\$296.31	\$311.48	\$423.08	\$477.80
Cond, Primary, AL, 343-1431	365,999		\$581.02			\$934.34	\$976.96				
Duct, Buried (PVC)	366.201		\$22,560.27			\$77,185.13 \$538.96					
Maintenance of Overhead Lines	593.180		\$193.35			\$336.96 \$13,378.64					
Cable, Primary, 1/C, 2/C, All	367.201	\$26,729.00	\$26,557.87			(\$47,333.73)					
PRI/SEC TRENCH PRIMARY SUBT W/O STORES LDG		\$43,237.59	\$46,962.08	\$224.79	\$243.97	\$44,703.33		\$232.41	\$242.12	\$457.20	\$486.09
Cable, 600V, AL, All SEC SUBT W/O STORES LDG	367.122	\$21,005.66 \$19,771.89	\$22,092.55 \$20,794.94	\$102.79	\$108.03	\$15,805.27 \$15,805.27	: :	\$82.17	\$85.14	\$184.96	\$193.17
Line Transformers-1st Installation Expense Pad, TX	583.280 366.801	\$2,337.40	\$2,386.71			\$1,655.18 \$1,865.37					
Transformer (Material) TRANSFORMER SUBTOTAL	368	\$ 41,736.78 \$43,936.89		\$228.43	\$231.06	\$3,520.55	\$4,189.32	\$18.30	\$21.76	\$246.73	\$252.82
PRI/SEC TRENCH SVC TRENCH						\$47,333.73 \$42,000.35		\$246.09 \$218.36		\$246.09 \$218.36	\$259.67 \$230.41
SUB-TOTAL		\$131,330.05	\$144,247.76	\$682.78	\$749.38	\$210,357.42	\$221,477.90	\$1,093.64	\$1,150.58	\$1,776.42	\$1,899.96
MATERIAL SUBTOTAL MINUS METER MA' STORES LIDG. %	TERIAL			\$654.41 7.11% 7.11%	8.34%						
METER STORES LDG % TOTAL STORES LDG				\$46.53						\$46.53	\$62.50
SUBTOTAL				\$729.31	\$811.88			\$1,093.64	\$1,150.58	\$1,822.95	\$1,962.46
EO				\$198.80	\$218.74			\$298.10	\$310.00	\$496.90	\$528.74
TOTAL				\$928.11	\$1,030.62			\$1,391.74	\$1,460.58	\$2,319.85	\$2,491.20

## **OPERATIONAL COSTS DIFFERENTIAL - LOW DENSITY**

	30-Year NP	V (\$ per pol	<u>e-line mile)</u>	Cost
Low Density	<u>0&amp;M</u>	<u>Capital</u>	<u>Total</u>	per Lot
Differential (Non-Storm) Note 1	-	_	-	\$0
Avoided Storm Restoration				
Tier 1 (Full GAF) - 200 or more lots	(\$33,091)		(\$33,091)	(\$384)
Tier 2 (40% GAF) - 85 to 199 lots	(\$13,236)		(\$13,236)	(\$154)
Tier 3 (20% GAF) - less than 85 lots	(\$6,618)		(\$6,618)	(\$77)
				Cost
Low Density				<b>Differential</b>
Pre-Operational Cost				\$466.55
Post-Operational Cost				
Tier 1 (Full GAF) - 200 or more lots	*************			\$82.55
Tier 2 (40% GAF) - 85 to 199 lots				\$312.55
Tier 3 (20% GAF) - less than 85 lots		· · · · · · · · · · · · · · · · · · ·		\$389.55

Note 1: The 30-year net present value of the estimated non-storm underground v. overhead operational costs differential - set at \$0 (zero) per pole-line mile of the existing overhead facilities as reflected in the terms of the "Stipulation and Settlement Agreement" in Docket Nos. 080244-Ei, 070231-Ei and 080522-EI.

**HIGH DENSITY** 

# OVERHEAD VS. UNDERGROUND SUMMARY SHEET

High Density 176 Lot Subdivision Company Owned Service Laterals Cost per Service Lateral

ITEM	OVERHEAD	UNDERGROUND	DIFFERENTIAL
LABOR	\$765.87	\$1,011.00	\$245.13
MATERIAL	\$770.16	\$673.91	(\$96.25)
TOTAL	\$1,536.03	\$1,684.91	\$148.88

EXHIBIT V

5.1

# COST PER SERVICE LATERAL OVERHEAD MATERIAL AND LABOR

# High Density 176 Lot Subdivision Company Owned Service Laterals

ITEM	MATERIAL(1)	LABOR(4)	TOTAL
Service(2)	\$108.18	\$138.12	\$246.30
Primary	\$14.01	\$59.27	\$73.28
Secondary	\$94.43	\$143.99	\$238.42
Initial Tree Trim	******		~~~~~
Poles	\$149.50	\$232.44	\$381.94
Transformers	\$193.88	\$29.50	\$223.38
Sub-Total	\$560.00	\$603.32	\$1,163.32
Stores Handling(3)	\$46.70	. der das viv van der van van van van der <sup>100</sup>	\$46.70
SubTotal	\$606.70	\$603.32	\$1,210.02
Engineering(5)	\$163.46	\$162.55	\$326.01
TOTAL(6)	\$770.16	\$765.87	\$1,536.03

- 1 Includes Sales Tax.
- 2 Includes Meters.
- 3 8.34 % of All Material.
- 4 Includes Payroll, Taxes, Insurance, P&W, & Transportation.
- 5 26.943 % of All Material and Labor.
- 6 Does not include storm or operational costs

**EXHIBIT VI** 

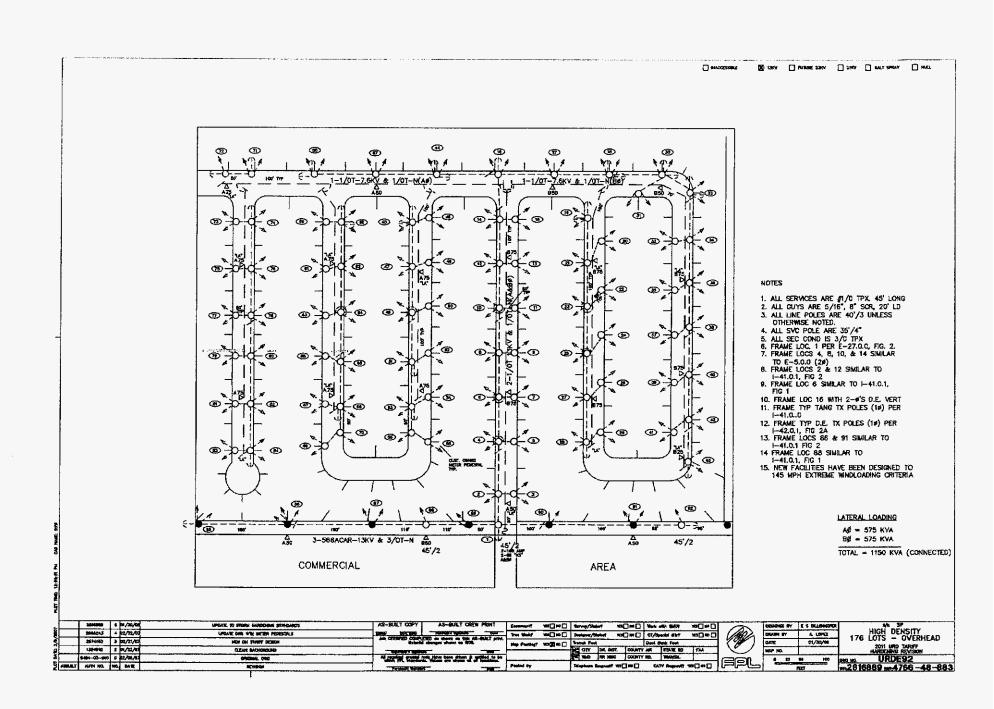
# COST PER SERVICE LATERAL UNDERGROUND MATERIAL AND LABOR

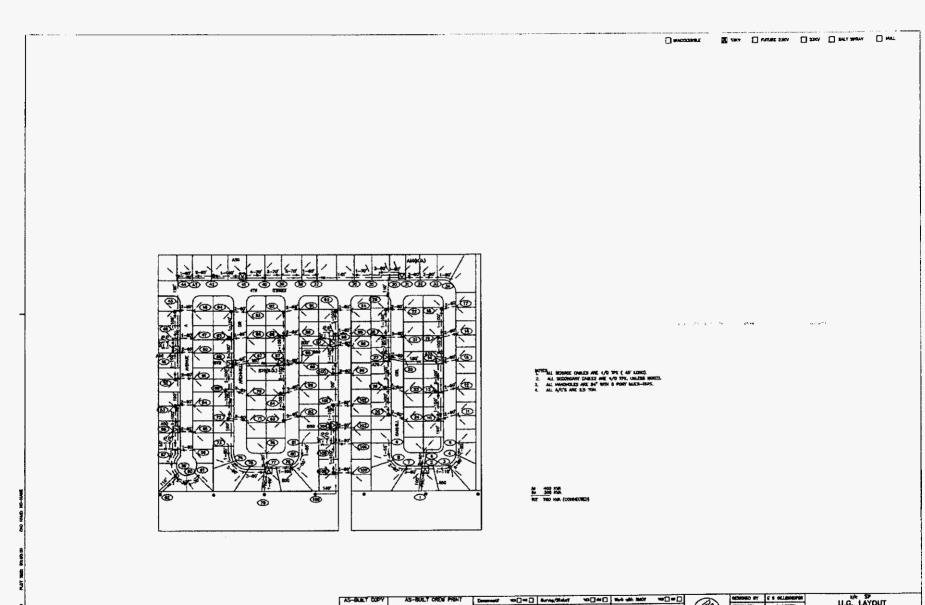
# High Density 176 Lot Subdivision Company Owned Service Laterals

ITEM	MATERIAL(1)	LABOR(4)	TOTAL
Service(2)	\$176.63	\$266.97	\$443.60
Primary	\$130.37	\$148.51	\$278.88
Secondary	\$37.87	\$46.60	\$84.47
Transformers	\$145.14	\$12.98	\$158.12
Prim. & Sec. Trenching		\$156.78	\$156.78
Service Trenching		\$164.58	\$164.58
Sub-Total	\$490.01	\$796.42	\$1,286.43
Stores Handling(3)	\$40.87		\$40.87
SubTotal	\$530.88	\$796.42	\$1,327.30
Engineering(5)	\$143.03	\$214.58	\$357.61
TOTAL(6)	\$673.91	\$1,011.00	\$1,684.91

- 1 Includes Sales Tax.
- 2 Includes Meters.
- 3 8.34 % of All Material.
- 4 Includes Payroll, Taxes, Insurance, P&W, & Transportation.
- 5 26.943 % of All Material and Labor.
- 6 Does not include storm or operational costs

## **EXHIBIT VII**





1328347 2 01/30/00 UPDATE TO STORM HAPDENING STANGARDS 1369347 1 01/04/05 MPERADE DES AND ADD MECA LUCATIONS 6467-02-010 0 DZ/DB/97 CONTRACT MAC ASSULT AND NO. NO. DATE

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U.G. LAYOUT HIGH DENSITY 01/30/00 2011 LINE TARRET HARDENING REVISION 176 LOT SUBDIVISION DIRECT URDE 94 un:1328347 nac1428 -44-883

#### 2011 OH HIGH DENSITY LAYOUT

WR Number: 2982370		NII IRADI	ER OF LOTS =	2010 176	2011 176						
		MECA STO	RES LDG % =	6.24%	6.24%						
		ACTUAL STO	RES LDG % =	7.11%	8.34%						
			ACTUAL EO =	27.26%	26.94%						
		AD	JUSTED CO =	9.18%	9.10%						
				MATERIAL	MATERIAL			LABOR	LABOR	TOTAL	TOTAL
CLASSIFICATION	ACCOUNT	MATERIAL W/O CO 2010	MATERIAL W/O CO 2011	COST/LOT WITH CO 2010	COST/LOT WITH CO 2011	LABOR W/O CO 2010	W/O CO 2011	COST/LOT WITH CO 2010	COST/LOT WITH CO 2011	LABOR & MATERIAL 2010	LABOR & MATERIAL 2011
Service Overhead Meter Equip-1st Installation Expense	369.100 586.380	\$8,359.98	\$8,584.42			\$17,071.92 \$4,184.22	\$17,896.51 \$4,386.27				
Meter Cost (Material) SERVICE SUBT W/O STORES LDG	000,000	\$4,993.12 \$12,862.08	\$9,372.00 \$17,452.21	\$28.37 \$79.79	\$53.25 \$108.18	\$21,256.14	\$22,282.78	\$131.86	\$138.12	\$211,65	\$246.30
Cond, Primary, AL, thru 3/O Maintenance of Overhead Lines PRIMARY SUBT W/O STORES LDG	365.002 593.180	\$2,268.56 \$0.00 \$2,135.31	\$2,401.76 \$0.00 \$2,260.70	<b>\$13.25</b>	\$14.01	\$8,990.51 \$110.08 \$9,100.59	\$9,375.35 \$186.63 \$9,561.98	\$56.45	\$59.27	<b>\$</b> 69.7 <b>0</b>	\$73.28
Cond, Secondary, AL, thru 4/O	365,040	\$1,936.22	\$2,049,94			\$7,673.53	\$8,002.01				
Cable, Secondary, TPX, All SECONDARY SUBT W/O STORES LDG	365,091	\$13,937.77 \$14,941.64	\$14,134.65 \$15,233.99	\$92.69	\$94.43	\$14,602.48 \$22,276.01	\$15,227.30 \$23,229.31	\$138.19	\$143.99	\$230.88	\$238.42
Poles, Wood, 35/40/45 ft POLE SUBT W/O STORES LDG	364.135	\$29,093.18 \$27,384.39	\$25,623.58 \$24,118.58	\$169.88	\$149.50	\$35,716.04 \$35,716.04	\$37,498,00 \$37,498.00	<b>\$221.56</b>	\$232.44	<b>\$</b> 391. <b>44</b>	\$381.94
Line Transformers-1st Installation Expense	583.280	\$0.00	\$0.00			\$4,539.63	\$4,758.78				
Transformer (Material) TRANSFORMER SUBTOTAL	368	\$ 29,716.47 \$29,716.47	\$ 31,277.03 \$31,277.03	\$184.34	\$193.88	\$4,539.63	\$4,758.78	\$28.16	\$29.50	\$212.50	\$223.38
SUB-TOTAL		\$87,039.89	\$90,342.51	\$539.95	\$560.00	\$92,888.41	\$97,330.65	\$576.22	\$603.32	\$1,116.17	\$1,163.32
MATSUB-MTR.(M) STORES LDG. %				\$511.58 7.11% 7.11%	\$506.75 8.34% 8.34%						
METER STORES LDG % TOTAL STORES LDG				\$38.39	\$46.70					\$38.39	\$46.70
SUBTOTAL				\$578.34	\$606.70			\$576.22	\$603.32	\$1,154.56	\$1,210.02
E0				\$157.64	\$163.46			\$157.07	\$162.55	\$314.71	\$326.01
TOTAL				\$735.98	\$770.16			\$733.29	\$765.87	\$1,469.27	\$1,536.03

#### 2011 UG HIGH DENSITY LAYOUT

WR Num	ibei
1328347	

1020041		NUMB	ER OF LOTS =	2010 176	2011 176							
		MECA STO	ORES LDG % =	6.24%	6.24%							
		ACTUAL STO	ORES LDG % =	7.11%	8.34%							
			ACTUAL EO =	27.26%	26.94%							
		AD	JUSTED CO =	9.18%	9.10%							
CLASSIFICATION	ACCOUNT	MATERIAL W/O CO 2010	MATERIAL W/O CO 2011	MATERIAL COST/LOT WITH CO 2010		LABOR W/O CO 2010	LABOR W/O CO 2011	LABOR COST/LOT WITH CO 2010	LABOR COST/LOT WITH CO 2011	TOTAL LABOR & MATERIAL 2010	TOTAL LABOR & MATERIAL 2011	
Service, UG, In Duct Meter Equip-1st Installation Expense Meter Cost (Material)	369.699 586.380	\$18,182.74 \$4,993.12	\$20,316.63 \$9,372.00	\$28.37	<b>\$</b> 53.25	\$61,934.12 \$4,184.22	\$65,233.88 \$4,386.27					
Service Trench (Labor) SERVICE SUBT W/O STORES LDG		\$22,107.90	\$28,495.33	\$137.14	\$176.63	(\$25,143.07) \$40,975.27	(\$26,551.01) \$43,069.14	\$254.19	\$266.97	\$391.33	<b>\$443</b> .60	
Duct, Buried (PVC) Maintenance of Overhead Lines Cond, Primary, AL, 343-1431 Cable, Primary, 1/C, 2/C, All Primary/Secondary Trench (Labor) PRIMARY SUBT W/O STORES LDG	366.201 593.180 365.999 367.201	\$9,837.26 \$68.04 \$687.24 \$9,714.20 \$19,114.03	\$11,897.98 \$71.40 \$704.76 \$9,670.16 \$21,031.91	<b>\$118</b> .57	\$130.37	\$37,161.79 \$8.08 \$1,183.92 \$8,344.49 (\$23,950.94) \$22,747.34	\$39,243.03 \$8.48 \$1,241.08 \$8,758.34 (\$25,292.12) \$23,958.80	\$141.11	\$148.51	\$259.68	\$278.88	
Cable, 600V, AL, Ali SECONDARY SUBT W/O STORES LDG	367.122	\$6,220.31 \$5,854.96	\$6,491.25 \$6,109.98	\$36.32	\$37.87	\$7,162.89 \$7,162.89	\$7,517.71 \$7,517.71	\$44.43	\$46.60	\$80.75	\$84.47	
Line Transformers-1st Installation Expense Pad, TX Transformer (Material) TRANSFORMER SUBTOTAL	583.280 366.801 368	\$67.92 \$1,168.68 \$ 21,426.44 \$22,590.41	\$79.32 \$1,193.40 \$ 22,216.84 \$23,414.81	\$140.14	\$145.14	\$1,050.96 \$932.76 \$1,983.72	\$1,109.76 \$984.96 \$2,094.72	\$58,80 \$52,20 \$12,31	\$4.90 \$4.35 \$12.98	\$152.45	\$158.12	
PRI/SEC TRENCH SVC TRENCH						\$23,950.94 \$25,143.07	\$25,292.12 \$26,551.01	\$148.58 \$155.97	\$156.78 \$164.58	\$148.58 \$155.97	\$156.78 \$164.58	
SUB-TOTAL		\$69,667.30	\$79,052.03	\$432.17	\$490.01	\$121,963.23	\$128,483.50	\$756.59	\$796.42	\$1,188.76	\$1,286.43	
MATSUB-MTR.(M) STORES LDG. % METER STORES LDG % TOTAL STORES LDG				\$403.80 7.11% 7.11% \$30.73	\$436.76 8.34% 8.34% \$40.87					\$30.73	\$40.87	
SUBTOTAL				\$462.90	\$530.88			\$756.59	<b>\$796.42</b>	\$1,219.49	\$1,327.30	
E0				\$126.18	\$143.03			\$206.23	\$214.58	\$332.41	\$357.61	
TOTAL				\$589.08	\$673.91			\$962.82	\$1,011.00		\$1,684.91	

## OPERATIONAL COSTS DIFFERENTIAL - HIGH DENSITY

	30-Year NP	V (\$ per pol	e-line mile)	Cost
High Density	<u>0&amp;M</u>	<u>Capital</u>	<u>Total</u>	per Lot
Differential (Non-Storm) Note 1	***	-	•	\$0
Avoided Storm Restoration				
Tier 1 (Full GAF) - 300 or more lots	(\$38,453)		(\$38,453)	(\$384)
Tier 2 (40% GAF) - 100 to 299 lots	(\$15,381)		(\$15,381)	(\$154)
Tier 3 (20% GAF) - less than 100 lots	(\$7,691)		(\$7,691)	(\$77)
				Cost
High Density				<u>Differential</u>
Pre-Operational Cost				\$148.88
Post-Operational Cost				
Tier 1 (Full GAF) - 300 or more lots				\$0.00
Tier 2 (40% GAF) - 100 to 299 lots				\$0.00
Tier 3 (20% GAF) - less than 100 lots				\$71.88

Note 1: The 30-year net present value of the estimated non-storm underground v. overhead operational costs differential - set at \$0 (zero) per pole-line mile of the existing overhead facilities as reflected in the terms of the "Stipulation and Settlement Agreement" in Docket Nos. 080244-EI, 070231-EI and 080522-EI.

Note 2: The Tier 2 (40% GAF) - 100 to 299 lots differential has been reduced to zero since it is not cost effective to collect such a small amount (\$0.50).

**METER PEDESTAL** 

# **OVERHEAD VS. UNDERGROUND SUMMARY SHEET**

# High Density 176 Lot Subdivision Customer Owned Service Laterals from Meter Centers Cost per Dwelling Unit

ITEM	OVERHEAD	UNDERGROUND	DIFFERENTIAL
LABOR	\$574.51	\$534.73	(\$39.78)
MATERIAL	\$648.95	\$540.57	(\$108.38)
TOTAL *	\$1,223.46	\$1,075.30	(\$148.16)

<sup>\*</sup> The differential has been reduced to \$0 in the URD filing since the differential is a negative amount.

**EXHIBIT VIII** 

# COST PER DWELLING UNIT OVERHEAD MATERIAL AND LABOR

# High Density 176 Lot Subdivision FPL Service Drop and Customer Owned Service Laterals from Meter Centers

ITEM	MATERIAL(1)	LABOR(4)	TOTAL
Service(2)	\$81.21	\$81.51	\$162.72
Primary	\$14.34	\$61.23	\$75.57
Secondary	\$72.66	\$122.30	\$194.96
Initial Tree Trim	parties with the parties of the said difference		
Poles	\$109.77	\$158.03	\$267.80
Transformers	\$193.88	\$29.50	\$223.38
Sub-Total	\$471.86	\$452.57	\$924.43
Stores Handling(3)	\$39.35		\$39.35
SubTotal	\$511.21	\$452.57	\$963.78
Engineering(5)	\$137.74	\$121.94	\$259.68
TOTAL(6)	\$648.95	\$574.51	\$1,223.46

- 1 includes Sales Tax.
- 2 Includes Meters.
- 3 8.34 % of All Material.
- 4 Includes Payroll, Taxes, Insurance, P&W, & Transportation.
- 5 26.943 % of All Material and Labor.
- 6 Does not include storm or operational costs

## **EXHIBIT IX**

# COST PER DWELLING UNIT UNDERGROUND MATERIAL AND LABOR

# High Density 176 Lot Subdivision Customer Owned Service Laterals from Meter Centers

ITEM	MATERIAL(1)	LABOR(4)	TOTAL
Service(2)	\$58.09	\$64.12	\$122.21
Primary	\$130.49	\$130.40	\$260.89
Secondary	\$77.05	\$86.25	\$163.30
Transformers	\$127.43	\$10.82	\$138.25
Prim. & Sec. Trenching	**************************************	\$129.65	\$129.65
Service Trenching			
Sub-Total	\$393.06	\$421.24	\$814.30
Stores Handling(3)	\$32.78		\$32.78
SubTotal	\$425.84	\$421.24	\$847.08
Engineering(5)	\$114.73	\$113.49	\$228.22
TOTAL(6)	\$540.57	\$534.73	\$1,075.30

<sup>1 -</sup> Includes Sales Tax.

## EXHIBIT X

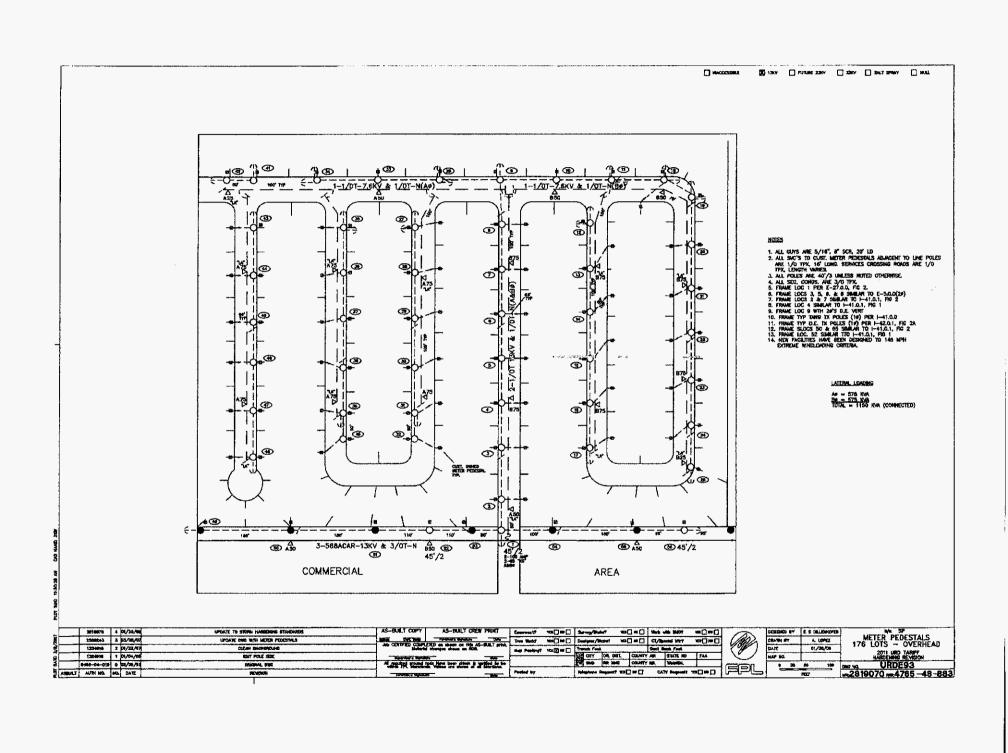
<sup>2 -</sup> Includes Meters.

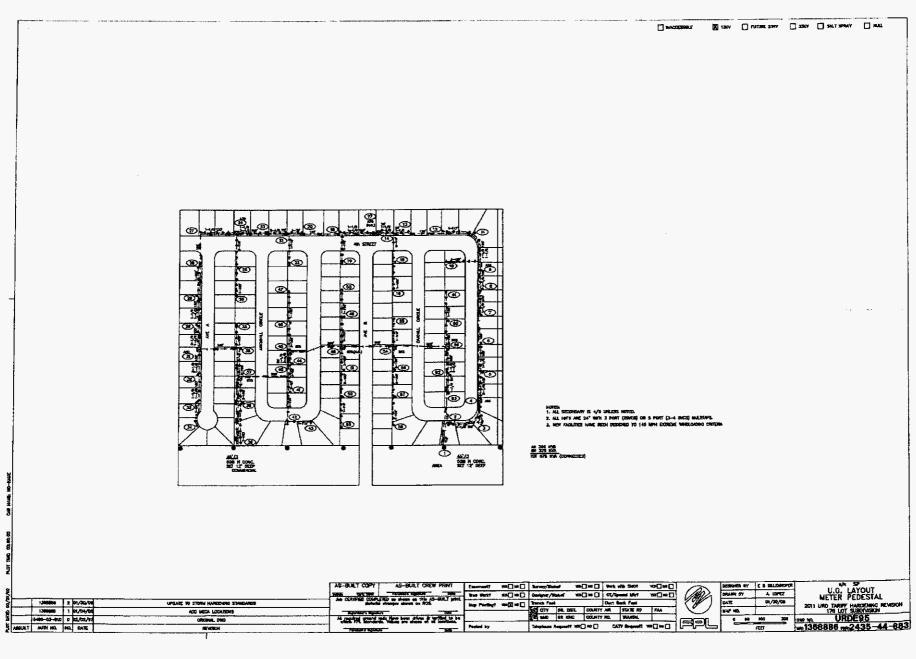
<sup>3 - 8.34 %</sup> of All Material.

<sup>4 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>5 - 26.943 %</sup> of All Material and Labor.

<sup>6 -</sup> Does not include storm or operational costs





## 2011 OH METER PEDESTAL LAYOUT

WR Number											
2983564	NUMBER OF LOTS =			2010 176	2011 176						
	MECA STORES LDG % =			6.24%	6.24%						
	ACTUAL STORES LDG % =		7.11%	8.34%							
	ACTUAL EO =			26.94%							
	ADJUSTED CO =			9.10%							
	ADJUSTED CO =						1.4505	1 4000	TOTAL	TOTAL	
CLASSIFICATION	ACCOUNT	MATERIAL W/O CO 2010	W/O CO 2011	COST/LOT		LABOR W/O CO 2010	W/O CO 2011	LABOR COST/LOT WITH CO 2010			LABOR &
Service Overhead Meter Equip-1st Installation Expense	369.100 586.380	\$3,859.14	\$3,961.35			\$8,359.62 \$4,184.22	\$8,763.58 \$4,386.27				
Meter Cost (Material) SERVICE SUBT W/O STORES LDG		\$4,993.12 \$8,625.59	\$9,372.00 \$13,100.68	\$28.37 \$53.51	\$53.25 <b>\$</b> 81.21	\$12,543.84	\$13,149.85	\$77.81	\$81.51	\$131.32	\$162.72
Cond, Primary, AL, thru 3/O Maintenance of Overhead Lines PRIMARY SUBT W/O STORES LDG	365.002 593.180	\$2,383.89 \$0.00 \$2,243.87	\$2,458.27 \$0,00 \$2,313.89	\$13.92	\$14.34	\$9,573.76 \$70.85 \$9,644.61	\$9,786.74 \$90.76 \$9,877.50	\$59.83	\$61.23	<b>\$73.75</b>	<b>\$</b> 75.57
Cond, Secondary, AL, thru 4/O	365.040	\$2,034.66	\$2,098.17			\$8,171.33	\$8,353.13				
Cable, Secondary, TPX, All SECONDARY SUBT W/O STORES LDG	365.091	\$10,483.08 \$11,782.52	\$10,354.64 \$11,721.40	\$73.09	\$72.66	\$11,129.46 \$19,300.79	\$11,377.06 \$19,730.18	\$119.73	\$122.30	\$192.82	\$194.96
Poles, Wood, 35/40/45 ft POLE SUBT W/O STORES LDG	364.135	\$21,416.59 \$20,158.69	\$18,813.84 \$17,708.81	\$125.05	\$109.77	\$24,395.06 \$24,395.06	\$25,494.69 \$25,494.69	<b>\$</b> 151,33	\$158.03	\$276.38	\$267.80
Line Transformers-1st Installation Expense Transformer (Material)	583.280	\$0.00 \$ 29,716.47	\$0.00			\$4,539.63	\$4,758.78				
TRANSFORMER SUBTOTAL	300	\$29,716.47	\$ 31,277.03 \$31,277.03	\$184.34	\$193.88	\$4,539.63	\$4,758.78	\$28.16	\$29.50	\$212.50	\$223.38
SUB-TOTAL		\$72,527.14	\$76,121.81	\$449.91	\$471.86	\$70,423.93	\$73,011.00	\$436.86	\$452.57	\$886.77	\$924.43
MATSUB-MTR.(M) STORES LDG. % METER STORES LDG %				\$421.54 7.11% 7.11%	\$418.61 8.34% 8.34%						
TOTAL STORES LDG				\$31,99	\$39.35					\$31.99	\$39.35
SUBTOTAL				\$481.90	\$511.21			\$436.86	\$452.57	\$918.76	\$963.78
E0				<b>\$13</b> 1.36	\$137.74			\$119.08	\$121.94	\$250.44	\$259.68
TOTAL				\$613.26	\$648.95			\$555.94	\$574.51	\$1,169.20	\$1,223.46

#### 2011 UG METER PEDESTAL LAYOUT

WR	Numbe
136	3886

1368886		NUMBE	R OF LOTS =	2010 176	2011 176						
	MECA STORES LDG % =			6.24%	6.24%						
		ACTUAL STORES LDG% =			8.34%						
		ACTUAL EO =			26.94%						
		ADJ	USTED CO =	9.18%	9.10%						
CLASSIFICATION	ACCOUNT	MATERIAL W/O CO 2010	MATERIAL W/O CO 2011	MATERIAL COST/LOT WITH CO 2010	MATERIAL COST/LOT WITH CO 2011	LABOR W/O CO 2010	LABOR W/O CO 2011	LABOR COST/LOT WITH CO 2010		TOTAL LABOR & MATERIAL 2010	
Service, UG, In Duct Meter Equip-1st Installation Expense	369.600 586.380	\$0.00	\$0.00			\$5,683.17 \$4,184.22	\$5,957.60 \$4,386.27				
Meter Cost (Material) Service Trench (Labor)		\$4,993.12	\$9,372.00	\$28.37	\$53.25	\$0.00	\$0.00				
SERVICE SUBT W/O STORES LDG		\$4,993.12	\$9,372.00	\$30.97	\$58.09	\$9,867.39	\$10,343.87	\$61.21	\$64.12	\$92.18	\$122.21
Duct, Buried (PVC) Cond, Primary, AL, 343-1431 Cable, Primary, 1/C, 2/C, All Maintenance of Overhead Lines Primary/Secondary Trench (Labor)	366.201 365.999 367.201 593.180	\$10,642.97 \$599.24 \$9,273.46 \$171.00	\$12,387.85 \$610.98 \$9,206.96 \$158.81			\$31,976.92 \$936.70 \$6,686.84 \$92.00 (\$19,806.41)	\$33,848.26 \$981.94 \$7,025.62 \$96.46 (\$20,915.51)				
PRIMARY SUBT W/O STORES LDG		\$19,471.64	\$21,051.01	\$120.79	\$130.49	\$19,886.05	\$21,036.78	\$123.36	\$130.40	\$244.15	\$260.89
Cable, 600V, AL, All SECONDARY SUBT W/O STORES LDG	367.122	\$12,598.87 \$11,858.87	\$13,205.00 \$12,429.41	\$73.57	\$77.05	\$13,243.48 \$13,243.48	\$13,913.74 \$13,913.74	\$82.15	\$86.25	\$155.72	\$163.30
Line Transformers-1st Installation Expense Pad, TX Transformer (Material)	583,280 366,801 368	\$56.60 \$973.90 \$ 18,351.40	\$66.10 \$994.50 \$ 19,559.89			\$875.80 \$777.30	\$924.80 \$820.80	\$49.00 \$43.50	\$4.90 \$4.35		
TRANSFORMER SUBTOTAL		\$19,321.37	\$20,558.20	\$119.86	\$127.43	\$1,653.10	\$1,745.60	\$10.25	\$10.82	\$130.11	\$138.25
PRI/SEC TRENCH SVC TRENCH						\$19,806.41 \$0.00	\$20,915.51 \$0.00	\$122.87 \$0.00	\$129.65 \$0.00	\$122.87	\$129. <del>6</del> 5
SUB-TOTAL		\$55,645.00	\$63,410.62	\$345.19	\$393.06	\$64,456.43	\$67,955.50	\$399.84	\$421.24	\$745.03	\$814.30
MATSUB-MTR.(M) STORES LDG. % METER STORES LDG % TOTAL STORES LDG				\$316.82 7.11% 7.11% \$24.54	\$339.81 8.34% 8.34% \$32.78					<b>\$24</b> .54	\$32.78
SUBTOTAL				\$369.73	\$425.84			\$399.84	\$421.24	\$769.57	\$847.08
E0				\$100.78	\$114.73			\$108.99	\$113.49	\$209.77	\$228.22
TOTAL				\$470.51	<b>\$</b> 540.57			\$508.83	\$534.73	\$979.34	\$1,075.30

#### OPERATIONAL COSTS DIFFERENTIAL - METER PEDESTAL

	30-Year NP	V (\$ per pol	e-line mile)	Cost
Meter Pedestal	<u>0&amp;M</u>	Capital	<u>Total</u>	per Lot
Differential (Non-Storm) Note 1	-	-	-	\$0
Avoided Storm Restoration				
Tier 1 (Full GAF) - 300 or more lots	(\$38,453)	•	(\$38,453)	(\$384)
Tier 2 (40% GAF) - 100 to 299 lots	(\$15,381)		(\$15,381)	(\$154)
Tier 3 (20% GAF) - less than 100 lots	(\$7,691)		(\$7,691)	(\$77)
				Cost
Meter Pedestal				<b>Differential</b>
Pre-Operational Cost			Note 2	\$0.00
Post-Operational Cost				
Tier 1 (Full GAF) - 300 or more lots				\$0.00
Tier 2 (40% GAF) - 100 to 299 lots				\$0.00
Tier 3 (20% GAF) - less than 100 lots				\$0.00

Note 1: The 30-year net present value of the estimated non-storm underground v. overhead operational costs differential - set at \$0 (zero) per pole-line mile of the existing overhead facilities as reflected in the terms of the "Stipulation and Settlement Agreement" in Docket Nos. 080244-EI, 070231-EI and 080522-EI.

Note 2: The "Pre-Operational Cost" differential has been reduced to \$0 since it is a negative amount (-148.16). However, the negative amount has been applied to determine the "Post-Operational Cost" differentials.

**FEEDER COST** 

COMPANY: FPL DATE: 06/17/11

# AVERAGE UNDERGROUND FEEDER COST

<u>Underground</u>	<u>Overhead</u>	<u>Difference</u>		
\$/Ft\$36.47	\$/Ft\$20.93	\$/Ft \$15.54		

# AVERAGE UNDERGROUND LATERAL COST

1 Phase Underground	<u>1 Phase Overhead</u>	<u>Difference</u>
\$/Ft\$8.85	\$/Ft\$7.47	\$/Ft\$1.38
2 Phase Underground	2 Phase Overhead	<u>Difference</u>
\$/Ft\$13.03	\$/Ft\$9.41	\$/Ft\$3.62
3 Phase Underground	<u>3 Phase Overhead</u>	<u>Difference</u>
\$/Ft\$17.05	\$/Ft\$11.59	\$/Ft\$5.46

NOTE: Feeder estimates based on three phase requirements. See Exhibit XIIA for details.

EXHIBIT XII

DATE: 06/17/11

#### **2011 URD TARIFF**

# FEEDER/LATERAL COST1

Feeder Length (Ft) =	25,428
UG Feeder Cost =	\$1,003,724.22
26 UG Lateral Risers not required if UG Feeder is used	
Cost of each Lateral Riser =	
26 Lateral Risers X \$2,937.27 =	(\$76,369.02)
Net UG Feeder Cost =	\$927,355.20
UG Feeder per foot cost =	\$36.47
OH Feeder Cost =	\$532,204.19
OH Feeder per foot cost =	\$20.93
Feeder Differential Cost =	\$15.54
Padmounted Switch cabinet weighted cost (Each) <sup>2</sup> =	\$25,290.09

#### NOTES:

- (1) These per foot costs include cable-in-conduit and cable pull boxes.
- (2) Differential cost based on padmounted switch vs. overhead switch average installed cost weighted by quantity of each switch installed. This cost is identical to the padmounted switch cost in the UCD Tariff.

EXHIBIT XIIA Page 1 of 2

DATE: 06/17/11

# **2011 URD TARIFF**

# LATERAL COST<sup>3</sup>

Lateral Length = 1000 Feet	
1 Phase UG Lateral Cost =	\$8,853.81
1 Phase UG Lateral Cost Per Foot =	\$8.85
1 Phase Overhead Lateral Cost =	\$7,468.49
1 Phase Overhead Lateral Cost Per Foot =	\$7.47
1 Phase Lateral Differential Cost =	\$1.38
2 Phase UG Lateral Cost =	\$13,031.18
2 Phase UG Lateral Cost Per foot =	\$13.03
2 Phase OH Lateral Cost =	\$9,412.54
2 Phase OH Lateral Cost Per foot =	\$9.41
2 Phase Lateral Differential Cost =	\$3.62
3 Phase UG Lateral Cost =	\$17,050.32
3 Phase UG Lateral Cost Per foot =	\$17.05
3 Phase OH Lateral Cost =	\$11,589.55
3 Phase OH Lateral Cost Per foot =	\$11.59
3 Phase Lateral Differential Cost =	\$5.46
NOTE: (3) These costs include cable-in-conduit only (no pull boxes).	

**EXHIBIT XIIA** Page 2 of 2



DATE: 06/17/11

# 2011 URD TARIFF

# **URD BASIS ADDENDUM TO APPENDIX NO. 3**

10.3.3		Conduit Installation Credits					
1. Low Density							
Pri/Sec =	174.09	мн х	\$115.60	/MH =	\$20,124.80 <u>210</u> \$ 95.83		
Svc =	102.9	MH X	\$115.60	/MH =	•	Lots	
2. High Density							
Pri/Sec =	91.04	MH X	\$115.60	/MH =	\$10,524.22 <u>176</u> \$ 59.80	Lots	
Svc =	70.4	мнх	\$115.60	/MH =		Lots	
3. Meter Pedestals							
Pri/Sec =	74.24	MH X	\$115.60	/MH =	-	Lots	

BACK-UP CALCULATIONS FOR CHANGES TO COSTS IN SEC. 10.2.11 OF **TWENTY-FIRST REVISED SHEET NO. 6.095** 

DATE: 06/17/11

10.5.4	Replace Existing Service	
2" PVC	0.005 MH X \$115.60 /MH X. 63	Ft.= \$36.41 /Lot
10.4.3	UG Service from OH Lines	
<u>2" PVC</u>	0.005 MH X \$115.60 /MH =	\$0.58 /Ft.
LARGER THAN 2" PVC	0.007 MH X \$115.60 /MH =	\$0.81 /Ft.
10.3.3.d.	Credit for Installation of Conduit	
<u>2" PVC</u>	0.005 MH X \$115.60 /MH =	\$0.58 /Ft.
LARGER THAN 2" PVC	0.007 MH X \$115.60 /MH =	\$0.81 /Ft.
10.2.11	Extensions of Service Beyond Point of De	livery
CABLE MATERIAL	\$0.79 /Ft. X 1.0834 Stores Loading	3 = \$0.85 /Ft.
	\$0.85 /Ft. X 1.26943 EO =	\$1.08 /Ft.
CABLE PULL	\$115.60 /MH X 0.003 MH =	\$ 0.35 /Ft.
	\$ 0.35 /Ft. X 1.26943 EO =	\$0.44 /Ft.
CONDUIT MATERIAL	\$0.40 /Ft. X 1.0834 Stores Loading	y = \$0.44 /Ft.
	\$0.44 /Ft. X 1.26943 EO =	\$0.56 /Ft.
CONDUIT LABOR	\$115.60 /MH X 0.005 MH =	\$0.58 /Ft.
	\$0.58 /Ft. X 1.26943 EO =	\$0.74 /Ft.
TRENCH	\$115.60 /MH X 0.029 MH =	\$3.35 /Ft.
	\$3.35 /Ft. X 1.26943 EO =	\$4.25 /Ft.
		TOTAL \$7.07 /Ft.
	When Customer Provides Trench and Con	duit Installation
	\$1.08 + \$0.44 + \$0.56 Cable Material + Pull Labor + Condu	5 = \$2.08 /Ft. it Material

TRENCH CREDITS

DATE: 06/17/11

# 2011 URD TARIFF

# TRENCH CREDITS

10.3.3

# 1. Low Density

	Pri/Sec =	432.39	МН	X	\$115.60	/MH	=					Lots /Lot
	Svc =	0.029	МН	X	\$115.60	/MH	X 6	53	Ft.	=,	\$211.20	/Lot
2.	High Density											
	Pri/Sec =	218.79	МН	X	\$115.60	/MH	=		*****	••••		Lots /Lot
	Svc =	0.029	МН	Χ	\$115.60	/MH	X 4	45	Ft.	=	\$150.86	/Lot
3.	Meter Pedestals											

Pri/Sec = 180.93 MH	Χ	\$115.60	/MH	=	\$20,915.51	
The state of the s					<u>176</u>	Lots
					\$118.84	/Lot

Feeder/Lateral Trench Credit =	***********			\$115.60	/MH X	0.029	MH =	\$3.35	/Ft.	
Feeder Splice Box Installation Credi	t =			\$115.60	/MH X	5.54	MH =	\$640.42	/Вох	
Primary Splice Box Installation Cred	lit =	•••••		\$115.60	/MH X	1.94	MH =	\$224.26	/Box	
Secondary Handhole Installation Cre	edit									
For 17" Handhole =	•••••		••	\$115.60	/MH X	0.18	MH =	\$20.81	/HH	
For 24" or 30" Handhole =		,,		\$115.60	/MH X	0.51	MH =	\$58.96	/HH	
Concrete Pad for Pad Mounted Transformer										
or Capacitor Bank Credit =	**********	•••••		\$115.60	/MH X	0.5	MH =	\$57.80	/Pad	
Flexible HDPE Conduit Installation (	Credit =	•••••		\$115.60	/MH X	0.001	MH =	\$0.12	/Ft.	
Concrete Pad and Cable Chamber for Feeder Switch Pad =	**********		••••	\$115.60	/MH X	4.71	MH =	\$544.48	/Pad	
Trench Credit for New UG Service	Latera	ls								
10.4.3				\$115.60	/MH X	0.029	MH =	\$3.35	/Ft.	
Trench Credit for Replacement of OH Service with UG Service										
10.5.4.	0.029	МН	Х	\$115.60	/MH X	63	Ft. =	\$211.20	/Svc	

Shown on Page 3 of Basis

RISER TO HANDHOLE COST AND SERVICE LATERAL DIFFERENTIAL

DATE: 06/17/11

# **2011 URD TARIFF**

# **RISER TO HANDHOLE COST**

Over	head
Over	IICau

	<u>Material</u>	<u>Labor</u>	<u>Total</u>		
	\$88.97	\$162.03	\$251.00		
Underground					
	<u>Material</u>	Labor			
	\$389.79	\$598.28	\$988.07		
			\$737.07		
DIFFERENTIAL =					

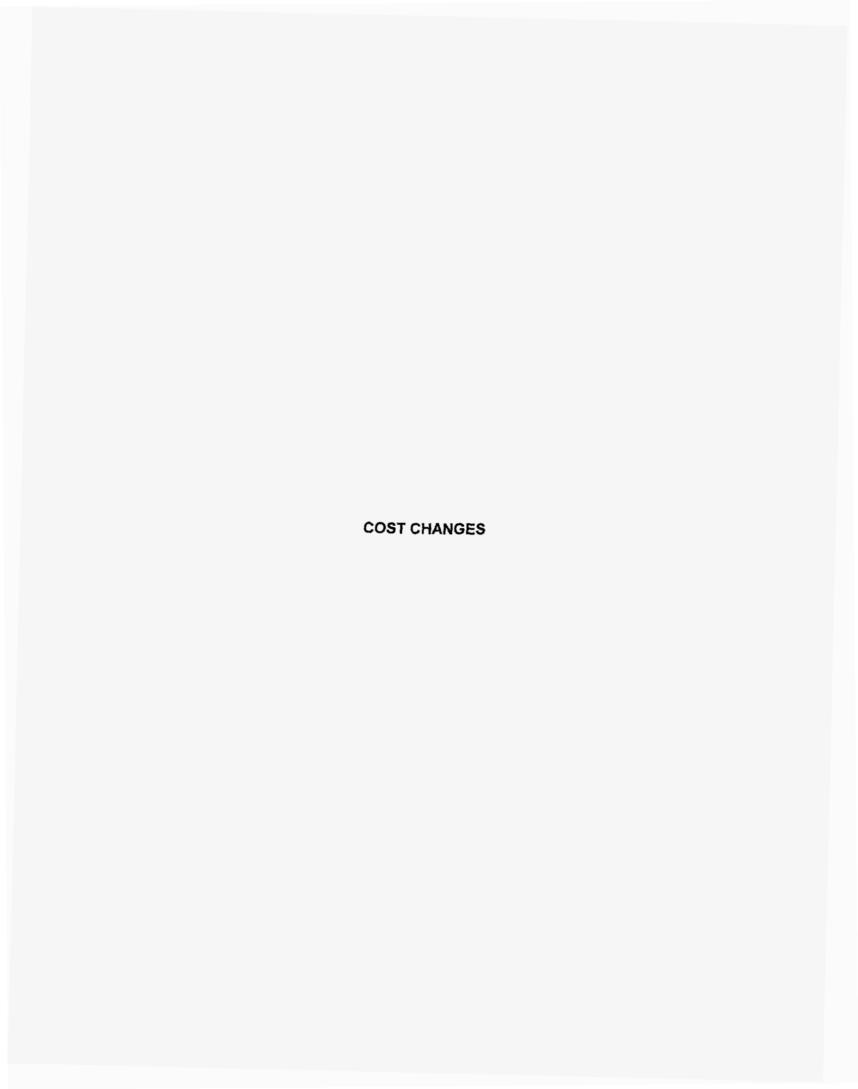
# SERVICE LATERAL DIFFERENTIAL - LOW DENSITY

	<u>Underground</u>		Overhead
Material	\$131.44		\$85.23
Labor	\$423.29		\$152.73
Stores loading	\$10.96		\$7.11
EO	<u>\$152.42</u>		<u>\$66.03</u>
Total	\$718.11		\$311.10
	UNDERGROUND	\$718.11	
	OVERHEAD	<u>(\$311.10)</u>	
	DIFFERENTIAL =	\$407.01	

DATE: 06/17/11

# 2011 URD TARIFF SERVICE LATERAL DIFFERENTIAL - HIGH DENSITY

	Underground		Overhead
Material	\$106.80		\$71.88
Labor	\$339.29		\$138.55
Stores loading	\$8.91		\$5.99
EO	<u>\$122.59</u>		<u>\$58.31</u>
Total	\$577.59		\$274.73
	UNDERGROUND	\$577.59	
	OVERHEAD	(\$274.73)	
	DIFFERENTIAL =	\$302.86	



# Low Density Major Changes

Item							
	Approved	Current	Difference	Total \$	Change per Lot (differential)	% of total change	
CIAC/Lot	\$396.39	\$466.55	\$ 70.16		\$ 70.16	100.00%	Remarks
OH Labor Rate	\$ 118.87	\$ 124.61	\$ 5.74	\$ 7,275.62	\$ (34.65)		- The UG hourly rate increasing more than the OH rate increased has an increasing impact on differential.
UG Labor Rate		\$ 115.60			\$ 55.17		- White UG manhours decreased and OH manhours increased (decreasing differential impact), it was not
Labor Impact	<b>⊉</b> (0⊅,+)	3 113.00	9 0.10	₽ 11,500.42	\$ 20.53	20 26%	enough to offset the hourly rates impact.
Labor Impact					\$ 20,93	40.4070	onough a direct the fleath) retent the training and the second se
Stores Loading cost/Lot - OH	\$48.85	\$59.66	\$ 10.81	\$ 2,270.10	\$ (10.81)		
Stores Loading cost/Lot - UG	\$46.53	\$62.50					The increased stores loading rate impacts UG more than OH due to the larger total material cost for the
Store Loading Impact	410.00	402.00	•	,	\$ 5.16	7.35%	UG design, which has an increasing Impact on differential.
Oldra addaming impact							
EO/Lot - OH	\$412.00	\$429.72	5 17.72		\$ (17.72)		<u> </u>
EO/Lot - UG	\$496.90	\$528.74	\$ 31.84		\$ 31.84		- The increased EO rate impacts UG more than OH due to the larger base cost for the UG design, which
EO Impact					\$ 14.12	20.13%	has an increasing impact on differential.
·							
Major material							Remarks
Transformer cost - OH	\$38,906.61	\$42,909,87	\$ 4,003.26		\$ (19.06)		Increased costs of metals increased TX costs
Poles cost	\$44,428.52	\$39,965.30	\$ (4,463.22)	,	\$ 21.25		Diversification of pole vendors resulted in decreased pole costs
Primary Conductor cost	\$5,583.12	\$6,057.59	\$ 474.47		\$ (2.26)		Increased cost of aluminum
Secondary Conductor cost	\$24,961.76	\$25,013.59	\$ 51.83		\$ (0.25)		Decreased footage not enough to offset increased cost of heat shrink connectors
Service Conductor & Meter cost	\$18,262.51	\$23,744.16	\$ 5,481.65		\$ (26.10)		Increased cost of aluminum, increased cost of oil and resins, increased cost of meters
							The state of the late to the state of the st
Transformer cost - UG	\$43,936.89	\$44,476.41			\$ 2.57		Increased costs of metals increased TX costs Increased cost of aluminum, and increased cost of oil and resins impacted plastic insulation costs
Primary Cable cost	\$43,237.59	\$46,962.08			\$ 17.74		Increased cost of aluminum, and increased cost of oil and resins impacted prastic insulation costs
Conduit cost (164-33100-6)		\$18,536.92			\$ 25.01		Increased costs of oil and resins increased plastic costs
Secondary Cable cost	\$19,771.89		\$ 1,023.05		\$ 4.87		Increased cost of aluminum, and increased cost of oil and resins impacted plastic insulation costs Increased cost of aluminum, increased cost of oil and resins, increased cost of meters
Service Cable & Meter cost	\$24,383.68	\$32,014.33	\$ 7,630.65		\$ 36.34		Increased cost of adminishin, increased cost of oil and resins, increased cost of freder
Other Material					\$ (29.75)		
Material impact					\$ 30.35	43,26%	
mainial impact					00,05	70(2074	
1		2010	2011				
Overhead Transformers	Size	Cost per	Cost per	\$ Change per	% Change per		Remarks
441-12500-5	25	\$768,77		\$61.81	8%		Increased costs of metals increased TX costs
441-15000-0	50	\$1,118,62	\$1,244.97	\$126.34	11%		
441-17500-2	75	\$1,695.71	\$1,741,76	\$46.04	3%		
ł.,		2010	2011				Damaka
Underground Transformers	Size	Cost per	Cost per		% Change per		Remarks  The second of the second TV costs
459-42000-9	50	Cost per \$1,724.50	Cost per 0 \$1,720.67	7 (\$3.83)	0%		Remarks Increased costs of metals increased TX costs
		Cost per	Cost per 0 \$1,720.67	7 (\$3.83)			
459-42000-9	50	Cost per \$1,724.50	Cost per 0 \$1,720.67	7 (\$3.83)	0%		
459-42000-9	50	Cost per \$1,724.50 \$1,909.55	Cost per 31,720,67 5 \$2,112.87	7 (\$3.83)	0%		
459-42000-9 459-42100-5	50 75	Cost per \$1,724.50	Cost per 0 \$1,720.67	7 (\$3.83) 7 \$203.32	0% 11%		
459-42000-9 459-42100-5 Poles	50	Cost per \$1,724.50 \$1,909.55	Cost per 31,720.67 5 \$2,112.87 2011 Cost per	7 (\$3.83) 7 \$203.32	0% 11% % Change per		Increased costs of metals increased TX costs
459-42000-9 459-42100-5 Poles 151-18000-0	50 75 Size	Cost per \$1,724.50 \$1,909.55 2010 Cost per	Cost per 3 \$1,720.67 5 \$2,112.87 2011 Cost per \$172.08	7 (\$3.83) 7 \$203,32 \$ Change per (\$27.19)	0% 11% % Change per -14%		Increased costs of metals increased TX costs  Remarks
459-42000-9 459-42100-5 Poles	50 75 Size 35/4	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27	Cost per 3 \$1,720.67 5 \$2,112.87 2011 Cost per \$172.08 \$243.02	7 (\$3.83) 7 \$203,32 \$ Change per	% Change per -14% -16%		Increased costs of metals increased TX costs  Remarks
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1	50 75 Size 35/4 40/3	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61	Cost per 3 \$1,720.67 5 \$2,112.87 2011 Cost per \$172.08 \$243.02	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.59)	% Change per -14% -16%		Increased costs of metals increased TX costs  Remarks
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1	50 75 Size 35/4 40/3	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61 \$396.91	Cost per \$1,720.67 \$2,112.87 2011 Cost per \$172.08 \$243.02 \$332.07	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.59)	% Change per -14% -16%		Increased costs of metals increased TX costs  Remarks
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1 151-19400-5	50 75 Size 35/4 40/3 45/2	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61 \$396.91	Cost per \$1,720.67 \$2,112.87 2011 Cost per \$172.08 \$243.02 \$332.07	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.53) (\$64.84)	0% 11% % Change per -14% -16% -16%		Increased costs of metals increased TX costs  Remarks  Diversification of pole vendors resulted in decreased pole costs
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1 151-19400-5	50 75 Size 35/4 40/3 45/2 Size	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61 \$396.91 2010 Cost/Ft	Cost per 51,720,67 \$2,112.87 2011 Cost per \$172.08 \$243.02 \$332.07 2011 Cost/Ft	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.59) (\$64.84) \$ Change per	0% 11% % Change per -14% -16% -16% % Change per		Increased costs of metals increased TX costs  Remarks  Diversification of pole vendors resulted in decreased pole costs  Remarks
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1 151-19400-5 Conduit and Cable 164-33100-6	50 75 Size 35/4 40/3 45/2 Size 2"	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61 \$396.91 2010 Cost/Ft \$0.25	Cost per \$1,720.67 \$2,112.87 2011 Cost per \$172.08 \$243.02 \$332.07 2011 Cost/Ft \$0.40	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.59) (\$64.84) \$ Change per 3 \$0.11	0% 11% % Change per -14% -16% -16% % Change per 40%		Increased costs of metals increased TX costs  Remarks  Diversification of pole vendors resulted in decreased pole costs
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1 151-19400-5 Conduit and Cable 164-33100-6 100-25000-5	50 75 Size 35/4 40/3 45/2 Size 2" 1/0 TPX (UG)	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61 \$396.91 2010 Cost/Ft \$0.25 \$0.2	Cost per \$1,720,67 \$2,112.87 2011 Cost per \$172.08 \$243.02 \$332.07 2011 Cost/Ft 9 \$0.46 3 \$0.75	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.59) (\$64.84) \$ Change per 0 \$0.11	0% 11%  % Change per -14% -16% -16% -16% -16% -16%		Increased costs of metals increased TX costs  Remarks  Diversification of pole vendors resulted in decreased pole costs  Remarks
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1 151-19400-5 Conduit and Cable 164-33100-6	50 75 Size 35/4 40/3 45/2 Size 2"	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61 \$396.91 2010 Cost/Ft \$0.25 \$0.2	Cost per \$1,720,67 \$2,112.87 2011 Cost per \$172.08 \$243.02 \$332.07 2011 Cost/Ft 9 \$0.46 3 \$0.75	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.59) (\$64.84) \$ Change per 0 \$0.11	0% 11% % Change per -14% -16% -16% % Change per 40%		Increased costs of metals increased TX costs  Remarks  Diversification of pole vendors resulted in decreased pole costs  Remarks
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1 151-19400-5 Conduit and Cable 164-33100-6 100-25000-5	50 75 Size 35/4 40/3 45/2 Size 2" 1/0 TPX (UG)	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61 \$396.91 2010 Cost/Ft \$0.25 \$0.2	Cost per \$1,720,67 \$2,112.87 2011 Cost per \$172.08 \$243.02 \$332.07 2011 Cost/Ft 9 \$0.46 3 \$0.75	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.59) (\$64.84) \$ Change per 0 \$0.11	0% 11%  % Change per -14% -16% -16% -16% -16% -16%		Remarks Diversification of pole vendors resulted in decreased pole costs  Remarks Increased costs of oil and resins increased plastic costs
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1 151-19400-5 Conduit and Cable 164-33100-6 100-25000-5 100-25300-4	50 75 Size 35/4 40/3 45/2 Size 2" 1/0 TPX (UG)	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61 \$396.91 2010 Cost/Ft \$0.25 \$0.2	Cost per \$1,720,67 \$2,112.87 2011 Cost per \$172.08 \$243.02 \$332.07 2011 Cost/Ft 9 \$0.46 3 \$0.75	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.59) (\$64.84) \$ Change per 0 \$0.11	0% 11%  % Change per -14% -16% -16% -16% -16% -16%		Remarks  Diversification of pole vendors resulted in decreased pole costs  Remarks  Remarks  Increased costs of oil and resins increased plastic costs
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1 151-19400-5 Conduit and Cable 164-33100-6 100-25000-5 100-25300-4 General Notes:	50 75 Size 35/4 40/3 45/2 Size 2" 1/0 TPX (UG)	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61 \$396.91 2010 Cost/Ft \$0.25 \$0.2	Cost per \$1,720,67 \$2,112.87 2011 Cost per \$172.08 \$243.02 \$332.07 2011 Cost/Ft 9 \$0.46 3 \$0.75	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.59) (\$64.84) \$ Change per 0 \$0.11	0% 11%  % Change per -14% -16% -16% -16% -16% -16%		Remarks Diversification of pole vendors resulted in decreased pole costs  Remarks Increased costs of oil and resins increased plastic costs
459-42000-9 459-42100-5 Poles 151-18000-0 151-18900-1 151-19400-5 Conduit and Cable 164-33100-6 100-25000-5 100-25300-4 General Notes:	50 75 Size 35/4 40/3 45/2 Size 2" 1/0 TPX (UG)	Cost per \$1,724.50 \$1,909.55 2010 Cost per \$199.27 \$290.61 \$396.91 2010 Cost/Ft \$0.25 \$0.2	Cost per \$1,720,67 \$2,112.87 2011 Cost per \$172.08 \$243.02 \$332.07 2011 Cost/Ft 9 \$0.46 3 \$0.75	7 (\$3.83) 7 \$203.32 \$ Change per (\$27.19) (\$47.59) (\$64.84) \$ Change per 0 \$0.11	0% 11%  % Change per -14% -16% -16% -16% -16% -16%		Remarks Diversification of pole vendors resulted in decreased pole costs  Remarks Increased costs of oil and resins increased plastic costs

# **2011 URD TARIFF LABOR CHANGES**

# LOW DENSITY

\$466.55	-	\$396.39	=	\$70.16	<del></del>	17.70%
LABOR		<u>2010</u>	<u>2011</u>	%INC	\$ Diff. Impact	% Diff. Impact
1. Labor Rate	OH	\$118.87	\$124.61	4.83%	(\$34.33)	-48.94%
(Per MH)	UG	\$109.47	\$115.60	5.60%	\$54.90	78.25%
2. Manhours	OH	1256.10	1267.53	0.91%	(\$6.47)	-9.22%
	UG	1898.10	1893.80	-0.23%	(\$11.84)	-16.88%
3. EO/CO Rate		38.94%	38.49%	-1.16%	(\$1.31)	-1.87%
Base		\$291.32	\$303.05	4.03%	\$4.57	6.51%
Lab	or Impact on Differential	41375171757777777		***************************************	\$5.52	7.86%

# **High Density Major Changes**

ltem .	Approved	Current	Difference	Total \$	Change per Lot (differential)	% of total change	
CIAC/Lot	\$82.63	\$148.68	\$ 66.25		\$ 66.25	100.00%   [	Remarks  The UG hourly rate increasing more than the OH rate increased has an increasing impact on
OH Labor Rate UG Labor Rate	\$ 118.87 \$ 109.47	\$ 124.61 \$ 115.60					differential.
Labor Impact	• (50.11		* ****	<b>*</b> 0,00 ii.to	\$ 10.47	15.81%	
Stores Loading cost/Lot - OH Stores Loading cost/Lot - UG Store Loading Impact	\$38.39 \$30,73	\$46.70 \$40,87					- The increased stores loading rate impacts UG more than OH due to the larger total material cost for the UG design, which has an increasing impact on differential.
EO/Let - OH EO/Let - UG EO impact	\$314.71 \$332.41	\$326,01 \$357,61			\$ (11.30) \$ 25.20 \$ 13.90	_	<ul> <li>The increased EO rate impacts UG more than OH due to the larger base cost for the UG design, which has an increasing impact on differential.</li> </ul>
Major material Transformer cost - OH Poles cost	\$29,716.47 \$27,384.39		\$ 1,560.56 \$ (3,265.81)	,	\$ (7.43) \$ 15.55		Remarks Increased costs of metals increased TX costs Diversification of pole vendors resulted in decreased pole costs
Primary Conductor cost	\$2,135.31	\$2,260.70		,	\$ (0.60)		Increased cost of aluminum
Secondary Conductor cost	\$14,941.64				\$ (1.39)		Increased cost of heat shrink connectors
Service Conductor & Meter cost	\$12,862.08	\$17,452.21	\$ 4,590.13		\$ (21.86)	l l	Increased cost of atuminum, increased cost of oil and resins, increased cost of meters
Transformer cost - UG	\$22,590.41	\$23,414.81	\$ 824.40		s 3.93		Increased costs of metals increased TX costs
Primary Cable cost	\$19,114,03				\$ 9.13	Ì	Increased cost of aluminum, and increased cost of oil and resins impacted plastic insulation costs
Conduit cost (164-33100-6)	\$ 6,999.11		\$ 2,766.81		\$ 13.18		Increased costs of oil and resins increased plastic costs
Secondary Cable cost Service Cable & Meter cost	\$5,854.96 \$22,107.90	\$6,109.98 \$28,495.33	\$ 255.02 \$ 6,387.43		\$ 1.21 \$ 30.42		Increased cost of aluminum, and increased cost of oil and resins impacted plastic insulation costs Increased cost of aluminum, increased cost of oil and resins, increased cost of meters
Other Material Material Impact					\$ {2.09 \$ 40.05		9765.9244
Overhead Transformers 441-12500-5 441-15000-0 441-17500-2	Size 25 50 75	2010 Cost per \$768.77 \$1,118.62 \$1,695.71	\$1,244,97	\$ Change per \$61.81 \$126.34 \$46.04	- % Change per 8% 11% 3%		Remarks Increased costs of metals increased TX costs
Underground Transformers	Size	2010 Cost per	2011 Cost per	€ Change ne	· % Change per		Remarks
459-42100-5	50 75	\$1,724.50 \$1,909.50	\$1,720.6	7 (\$3.83	) 0%		Increased costs of metals increased TX costs
Poles	Size	2010 Cost per	2011 Cost per	\$ Change per	r % Change per		Remarks
151-18000-0	35/4	\$199.27	\$172.08	(\$27.19	) -149		Diversification of pole vendors resulted in decreased pole costs
151-18900-1 151-19400-5	40/3 45/2	\$290.61 \$396.91	\$243.02 \$332.07				
Conduit and Cable	Size	2010 Cost/Ft	2011 Cost/Ft	\$ Change pe	r % Change per		Remarks
164-33100-6 100-25000-5 100-25300-4	2" 1/0 TPX (UG 4/0 TPX (UG		\$ \$0.7	9 \$0.06	89	6	Increased costs of oil and resins increased plastic costs
General Notes: Material Technology							Remarks

# **2011 URD TARIFF LABOR CHANGES**

# **HIGH DENSITY**

\$148.88	-	\$82.63	=	\$66.25	=	80.18%
LABOR		<u>2010</u>	<u>2011</u>	%INC	\$ Diff. Impact	% Diff. Impact
1. Labor Rate	OH	\$118.87	\$124.61	4.83%	( <b>\$2</b> 5.50)	38.48%
(Per MH)	UG	\$109.47	\$115.60	5.60%	<b>\$3</b> 7.60	-56.75%
2. Manhours	OH	781.73	781.38	-0.04%	\$0,24	-0.36%
	UG	1094.1	1093.27	-0.08%	(\$10.35)	15.63%
3. EO/CO Rate		38.94%	38.49%	-1.16%	(\$0.74)	1.12%
Base		\$165.20	\$177.00	7.14%	\$4.59	-6.93%
Lat	oor Impact on [	Differential	**************		\$5.84	-8.81%

#### Meter Pedestal Major Changes

item	Approved	Current	Difference	Total \$	Change per Lot	% of total change
CIAC/Lot	(\$189.86)	(\$148.16)	\$ 41.70		(differential) \$ 41.70	100,00%
					A (40.00)	
OH Labor Rate	\$ 118.87	\$ 124.61	\$ 5.74	\$ 3,364.16	\$ (16.02)	
UG Labor Rate	\$ 109.47	\$ 115.60	\$ 6.13	\$ 3,536.58	\$ 16.84	1.0721
Labor impact					\$ 0.62	1.97%
Stores Loading cost/Lot - OH	\$31.99	\$39.35	\$ 7.36	\$ 1,545.60	\$ (7.36)	
Stores Loading cost/Lot - UG	\$24.54	\$32.78	\$ 8.24	\$ 1,730.40	\$ 8,24	
Store Loading Impact					\$ 0.88	2.11%
EO/Lat - OH	\$250,44	\$259.68	\$ 9.24		\$ (9.24)	
EO/Lot - UG	\$209.77	\$228.22	\$ 18.45		\$ 18.45	
EO Impact					\$ 9.21	22.09%
Major material						
Transformer cost - OH	\$29,716.47	\$31,277.03	\$ 1,560.56		\$ (7.43)	
Poles cost	\$20,158.69	\$17,708.81	\$ (2,449.88)	i	\$ 11,67	
Primary Conductor cost	\$2,243.87	\$2,313.89	\$ 70.02	•	\$ (0.33)	
Secondary Conductor cost	\$11,782.52	\$11,721.40	\$ (61.12)	}	\$ 0.29	
Service Conductor & Meter cost	\$8,625.59	\$13,100.68	\$ 4,475.09		\$ (21.31)	
- 4 4 110	e40 004 07	ACO ECO OO	A 4 000 00		\$ 5,89	
Transformer cost - UG	\$19,321.37	\$20,558.20	\$ 1,236.83 \$ 1,579.37		\$ 7.52	
Primary Cable cost	\$19,471.64 \$ 3,877.28	\$21,051.01 \$5,468.33			\$ 7.58	
Conduit cost (164-33100-6) Secondary Cable cost	\$11,858.87	\$12,429.41	\$ .570.54		\$ 2.72	
Meter cost	\$4,993.12	\$9,372.00			\$ 20.85	
Other Material					\$ 3.35 \$ 30,79	73.83%
Material Impact					3 20112	73.03 %
I		2010	2011			
Overhead Transformers	Size	Cost per	Cost per	\$ Change per	% Change per	
441-12500-5	25	\$768.77		\$61.81	8%	
441-15000-0	50	\$1,118.62		\$126.34	11%	
441-17500-2	75	\$1,695.71	\$1,741.76	\$46.04	3%	
111111111111111111111111111111111111111		<b>4</b> 1,000.11	41,7	*		
		2010	2011			
Underground Transformers	Size	Cost per	Cost per	\$ Change per	% Change per	
459-42000-9	50	\$1,724.50				
459-42100-5	75	\$1,909.55	5 \$2,112,8	7 \$203,32	11%	ı
	6'	2010	2011 Cont.par	t Channa sa	W Chesas acc	
Poles	Size 35/4	Cost per \$199.27	Cost per \$172,08	\$ Change per (\$27.19)		
151-18000-0 151-18900-1	35/4 40/3	\$199.27 \$290.61		(\$47.59	,	
151-19400-5	45/2	\$396.91		(\$64.84		
,						
	01	2010	2011	A Ph	. W Charma	
Conduit and Cable	Size	Cost/Ft	Cost/Ft 9 \$0,44	\$ Change per \$0.11	r % Change per 40%	
164-33100-6	2" 1/0 TDY (UC	\$0.29 \$0.70				
100-25000-5 100-25300-4	1/0 TPX (UC 4/0 TPX (UC					
100*23300**	70 11 A (DC	, 41.0	, <b>41,</b> 0	φν.υυ	•	

General Notes: Material Technology

# **2011 URD TARIFF LABOR CHANGES**

# METER PEDESTAL

(\$148.16)	***	(\$189.86)	=	\$41.70	=	-21.96%
LABOR		<u>2010</u>	<u>2011</u>	%INC	\$ Diff. Impact	% Diff. <u>Impact</u>
1. Labor Rate	OH	\$118.87	\$124.61	4.83%	(\$19.33)	-46.35%
(Per MH)	UG	\$109.47	\$115.60	5.60%	\$19.96	47.86%
2. Manhours	OH	592.64	586.09	-1.11%	\$4.42	10.61%
	UG	579.85	579.72	-0.02%	(\$3.50)	-8.39%
3. EO/CO Rate		38.94%	38.49%	-1.16%	\$0.15	0.37%
Base		(\$33.91)	(\$28.72)	-15.31%	\$2.02	4.85%
Lab	or Impact on	Differential			\$3.73	8,94%

#### 2011 OVERHEAD LABOR COSTS

	<u>!</u>	LOW DENSITY		<u>H</u>	HIGH DENSITY				METER PEDESTAL		
	2010	<u>2011</u>	<u>%INC.</u>	2010	2011	<u>%INC.</u>	<u>2010</u>	<u>2011</u>	%INC.		
1. SERVICE	\$146.08	\$153.02	4.75%	\$131.86	\$138.12	4.75%	\$77.81	\$81.51	4.76%	1. SERVICE	
2. PRIMARY	\$106.38	\$115.29	8.38%	\$56.45	\$59,27	5.00%	\$59.83	\$61.23	2.34%	2. PRIMARY	
3. SECONDARY	\$179.96	\$189.62	5.37%	\$138.19	\$143.99	4.20%	\$119.73	\$122.30	2.15%	3. SECONDARY	
4. POLES	\$305.09	\$322.15	5.59%	\$221.56	\$232.44	4.91%	\$151.33	\$158.03	4.43%	4. POLES	
5. TRANSFORMER	\$38.07	\$39.88	4.75%	\$28.16	\$29,50	4.76%	\$28.16	\$29.50	4.76%	5. TRANSFORMER	
6. EO	<u>\$211.41</u>	\$220.92	<u>4.50%</u>	<u>\$157.07</u>	<u>\$162.55</u>	<u>3.49%</u>	\$119,08	<u>\$121.94</u>	<u>2.40%</u>	6. EO	
7. TOTAL	\$986.99	\$1,040.88	5.46%	733.29	765,87	4.44%	\$555,94	\$574.51	3.34%	7. TOTAL	

#### LOW DENSITY

- 1. INCREASED LABOR RATE (\$124.61 VS, \$118.87)
  2. INCREASED LABOR RATE & ADD'L LIGHTNING ARRESTERS
- 3. INCREASED LABOR RATE
- 4. INCREASED LABOR RATE
- 5. INCREASED LABOR RATE
- 6. HIGHER BASE \$775,58 VS. \$819.96

#### HIGH DENSITY

- 1. INCREASED LABOR RATE (\$124.61 VS. \$118.87)
- 2. INCREASED LABOR RATE
- 3. INCREASED LABOR RATE
- 4. INCREASED LABOR RATE
- 5. INCREASED LABOR RATE
- 6. HIGHER BASE \$576.22 VS. \$603.32

#### METER PEDESTAL

- 1. INCREASED LABOR RATE (\$124.61 VS. \$118.87)
- 2. INCREASED LABOR RATE
- 3. INCREASED LABOR RATE
- 4. INCREASED LABOR RATE
- 5. INCREASED LABOR RATE
- 6. HIGHER BASE \$436.86 VS. \$452.57

#### 2011 OVERHEAD MATERIAL COSTS

	LOW DENSITY			HIGH DENSITY			METER PEDESTAL			
	<u>2010</u>	2011	%INC.	2010	<u>2011</u>	%INC.	<u> 2010</u>	<u>2011</u>	%INC.	
1. SERVICE	\$94.95	\$123,35	29.91%	\$79.79	\$108.18	35.58%	\$53.51	\$81.21	51.77%	1. SERVICE
2. PRIMARY	\$29.03	\$31.47	8.41%	\$13.25	\$14.01	5.74%	\$13.92	\$14.34	3.02%	2. PRIMARY
3. SECONDARY	\$129.78	\$129.95	0.13%	\$92.69	\$94.43	1.88%	\$73.09	\$72.66	-0.59%	3. SECONDARY
4. POLES	\$230.99	\$207.62	-10.12%	\$169.88	\$149.50	-12.00%	\$125.05	\$109.77	-12.22%	4. POLES
5. TRANSFORMER	\$202.28	\$222.92	10.20%	\$184.34	\$193.88	5.18%	\$184.34	\$193.88	5,18%	5. TRANSFORMER
6. STORES LD	\$48.85	\$59.66	22.13%	\$38.39	\$46.70	21.65%	\$31.99	\$39.35	23.01%	6. STORES LD
7. EQ	\$200.59	\$208.80	<u>4.09%</u>	\$157.64	<u>\$163.46</u>	<u>3.69%</u>	<u>\$131.36</u>	\$137 <u>.74</u>	<u>4.86%</u>	7. EO
8. TOTAL	\$936.47	\$983.77	5.05%	\$735.98	\$770.16	4.64%	\$613.26	\$648.95	5.82%	8. TOTAL

#### LOW DENSITY

- 1. INCREASED COST OF METERS (\$28.37 AVG VS. \$53.25 AVG)
- 2. HIGHER COST OF 1/0 ALUMINUM CONDUCTOR (\$0.19 VS. \$0.20)
- 3. CHANGE NOT SIGNIFICANT
- 4. DECREASED COST OF POLES (\$258.78 AVG VS. \$219.34 AVG)
  5. (NCREASED COST OF TRANSFORMERS (\$1111.62 AVG VS. \$1226.00 AVG)
- 6. HIGHER TOTAL MATERIAL COST AND INCREASED RATE.
- 7. HIGHER BASE (\$735.88 VS. \$774.97)

LOWER EO RATE (27.258% VS. 26.943%)

#### HIGH DENSITY

- 1. INCREASED COST OF METERS (\$26.37 AVG VS. \$53.25 AVG)
- 2. HIGHER COST OF 1/0 ALUMINUM CONDUCTOR (\$0.19 VS. \$0.20)
- 3. CHANGE NOT SIGNIFICANT
- 4. DECREASED COST OF POLES (\$253.96 AVG VS. \$214.78 AVG)
  5. INCREASED COST OF TRANSFORMERS (\$1415.07 AVG VS. \$1489.38 AVG)
- 6. HIGHER TOTAL MATERIAL COST AND INCREASED RATE.
- 7. HIGHER BASE (\$578,34 VS. \$606.70)
- LOWER EO RATE (27.258% VS. 26.943%)

#### **METER PEDESTAL**

- 1. INCREASED COST OF METERS (\$28.37 AVG VS. \$53.25 A\
  2. HIGHER COST OF 1/0 ALUMINUM CONDUCTOR \$0.19 VS.
- 3. CHANGE NOT SIGNIFICANT
- 4. DECREASED COST OF POLES (\$293.33 AVG VS. \$245.52)
- 5. INCREASED COST OF TRANSFORMERS (\$1415.07 AVG V
- 6. HIGHER TOTAL MATERIAL COST AND INCREASED RATE.
- 7. HIGHER BASE (\$481.90 VS. \$511.21)

LOWER EO RATE (27.258% VS. 26.943%)

#### **2011 UNDERGROUND LABOR COSTS**

	<u>L</u> .	OW DENSITY		ŀ	HIGH DENSITY			METER PED		
	<u>2010</u>	<u> 2011</u>	<u>%INC.</u>	2010	<u>2011</u>	<u>%INC.</u>	2010	<u>2011</u>	%INC.	
1. SERVICE	\$296.31	\$311.48	5.12%	\$254.19	\$266,97	5.03%	\$61.21	\$64.12	4.75%	1. SERVICE
2. PRIMARY	\$232.41	\$242.12	4.18%	\$141.11	\$148,51	5.24%	\$123.36	\$130.40	5.71%	2. PRIMARY
3. SECONDARY	\$82.17	\$85.14	3.61%	\$44.43	\$46.60	4.88%	\$82.15	\$86.25	4.99%	3. SECONDARY
4. TRANSFORMER	\$18.30	\$21.76	18.91%	\$12.31	\$12,98	5.44%	\$10.25	\$10.82	5.56%	4. TRANSFORMER
5. P/S TRENCH	\$246.09	\$259.67	5.52%	\$148.58	\$156.78	5.52%	\$122.87	\$129.65	5.52%	5. P/S TRENCH
6. SVC TRENCH	\$218.36	\$230.41	5.52%	\$155.97	\$164.58	5.52%			N/A	6. SVC TRENCH
7. EO	\$298.10	\$310.00	<u>3.99%</u>	\$206,23	<u>\$214.58</u>	4.05%	<u>\$108.99</u>	<u>\$113.49</u>	<u>4.13%</u>	7. EO
8. TOTAL	\$1,391.74	\$1,460,58	4.95%	\$962.82	\$1,011,00	5.00%	\$508.83	\$534.73	5.09%	8. TOTAL

#### **LOW DENSITY**

- 1. INCREASED LABOR RATE (\$115.60 VS. \$109.47)
- 2. INCREASED LABOR RATE
- 3. INCREASED LABOR RATE
- 4. INCREASED LABOR RATE, 2010 VALUE ABNORMALLY LOW
- 5. INCREASED LABOR RATE
- 6. INCREASED LABOR RATE
- 7. HIGHER BASE (\$1,093.64 VS. \$1,150.58) LOWER EO RATE (27.258% VS. 26.943%)

#### **HIGH DENSITY**

- 1. INCREASED LABOR RATE (\$115.60 TO \$109.47)
- 2. INCREASED LABOR RATE
- 3. INCREASED LABOR RATE
- 4. INCREASED LABOR RATE
- 5. INCREASED LABOR RATE
- 6. INCREASED LABOR RATE
- 7. HIGHER BASE (\$756.59 VS. \$796.42) LOWER EO RATE (27.258% VS. 26.943%)

#### METER PEDESTAL

- 1, INCREASED LABOR RATE (\$115.60 TO \$109.47)
- 2. INCREASED LABOR RATE
- 3. INCREASED LABOR RATE
- 4. INCREASED LABOR RATE
- 5, INCREASED LABOR RATE
- 6. N/A
- 7. HIGHER BASE (\$399.84 VS. \$421.24) LOWER EO RATE (27.258% VS. 26.943%)

#### 2011 UNDERGROUND MATERIAL COSTS

	LOW DENSITY			<u>!</u>	HIGH DENSITY			METER PEI		
	<u> 2010</u>	<u>2011</u>	%INC.	<u>2010</u>	2011	%INC.	<u> 2010</u>	<u> 2011</u>	%INC.	
1. SERVICE	\$126.77	\$166.32	31.20%	\$137.14	\$176.63	28.80%	\$30.97	\$58.09	87.57%	1. SERVICE
2. PRIMARY	\$224.79	\$243.97	8.53%	\$118.57	\$130.37	9.95%	\$120.79	\$130.49	8.03%	2. PRIMARY
3. SECONDARY	\$102.79	\$108.03	5.10%	\$36.32	\$37.87	4.27%	\$73.57	\$77.05	4.73%	3. SECONDARY
4. TRANSFORMER	\$228.43	\$231.06	1.15%	\$140.14	\$145.14	3.57%	\$119.86	\$127.43	6.32%	4. TRANSFORMER
5. STORES LDG	\$46.53	\$62.50	34.32%	\$30.73	\$40.87	33.00%	\$24.54	\$32.78	33.58%	5. STORES LDG
6. EO	\$198.80	<u>\$218.74</u>	<u>10.03%</u>	<u>\$126.18</u>	\$143.03	<u>13.35%</u>	\$100.78	\$114.73	<u>13.84%</u>	6. EO
7. TOTAL	\$928.11	\$1,030.62	11.05%	\$589.08	\$673.91	14.40%	\$470.51	\$540.57	14.89%	7. TOTAL

#### **LOW DENSITY**

- 1.HIGHER COST OF 1/0 TPXB (\$0.73/FT VS. \$0.79/FT)
  HIGHER COST OF CONDUIT (\$0.29/FT VS. \$0.40/FT)
  INCREASED COST OF METERS (\$28.37 AVG VS. \$53.25 AVG)
- 2.HIGHER COST OF PRIMARY CABLE (\$1.36/FT VS. \$1.39/FT) HIGHER COST OF CONDUIT (\$0.29/FT VS. \$0.40/FT)
- 3.HIGHER COST OF 4/0 TPXB (\$1.03/FT VS. \$1.08/FT) HIGHER COST OF CONDUIT (\$0.29/FT VS. \$0.40/FT)
- 4. HIGHER COST OF TXS (\$1739.92 AVG VS. \$1753.35 AVG)
- 5. HIGHER TOTAL MATERIAL COST AND INCREASED RATE.
- 6. HIGHER BASE (\$729.31 VS. \$811.88)

LOWER EO RATE (27.258% VS. 26.943%)

#### **HIGH DENSITY**

- 1.HIGHER COST OF 1/0 TPXB (\$0.73/FT VS. \$0.79/FT)
  HIGHER COST OF CONDUIT (\$0.29/FT VS. \$0.40/FT)
  INCREASED COST OF METERS (\$28.37 AVG VS. \$53.25 AVG)
- 2.HIGHER COST OF PRIMARY CABLE (\$1.36/FT VS. \$1.39/FT) HIGHER COST OF CONDUIT (\$0.29/FT VS. \$0.40/FT)
- 3.HIGHER COST OF CONDUIT (\$0.29/FT VS. \$0.40/FT)
- HIGHER COST OF CONDUIT (\$0.29/FT VS. \$0.40/FT)
- 4. HIGHER COST OF TXS (\$1786.10 AVG VS. \$1851.40 AVG)
- 5. HIGHER TOTAL MATERIAL COST AND INCREASED RATE.
- 6. HIGHER BASE (\$462.90 VS. \$530.88)
- LOWER EO RATE (27.258% VS. 26.943%)

#### **METER PEDESTAL**

- 1. INCREASED COST OF METERS (\$28.37 AVG VS. \$53.)
- 2.HIGHER COST OF PRIMARY CABLE (\$1.36/FT VS. \$1.3 HIGHER COST OF CONDUIT (\$0.29/FT VS. \$0.40/FT)
- 3.HIGHER COST OF 4/0 TPXB (\$1.03/FT VS. \$1.08/FT)
- HIGHER COST OF CONDUIT (\$0.29/FT VS. \$0.40/FT)
  4. HIGHER COST OF TRANSFORMERS (\$1835.53 AVG V
- 5. HIGHER TOTAL MATERIAL COST AND INCREASED R
- 6. HIGHER BASE (\$369.73 VS. \$425.84)
- LOWER EO RATE (27.258% VS. 26.943%)

#### LOW DENSITY SUMMARY 1993 to 2011

	1993	1994	1995	1996	1997	1998	2001	2002	2005	2007	2008	2010	2011	% CHANGE 9	% CHANGE 93 TO 10
UG EFFECTIVE MECA RATE	\$52.12	\$51.46	\$53.49	\$53,49	\$59.90	\$55.92	\$66.17	\$63.29	\$78.20	\$89.82	\$97.48	\$109.47	\$115.60	5.60%	121.80%
OH EFFECTIVE MECA RATE	\$60.28	\$65.93	\$53.99	\$53,99	\$60.51	\$62.91	\$68.81	\$67.29	\$80.21	\$100.25	\$109.13	\$118.87	\$124.61	4.83%	106.72%
MANHOURS LD-OH	1060	1052	1052	1144	1144	1144	1227	1297	1288.27	1287.72	1284.08	1256.1	1267.53	0.91%	19.58%
MANHOURS LD-UG	1799	1863	1861	1775	1776	1801	1811	1955	1943.54	2006.63	1953.36	1898.1	1893.8	-0.23%	5.27%
OH-LABOR \$ PER LOT	\$310	\$340	\$278	\$327	\$358	\$370	\$429	\$446	\$526	\$653	\$713	\$776	\$820	5.72%	164.50%
UG-LABOR \$ PER LOT	\$457	\$473	\$487	\$502	\$551	\$519	\$615	\$632	\$774	\$919	\$987	\$1,094	\$1,151	5.21%	151.77%
OH-MATERIAL \$/LOT	\$306	\$316	\$342	\$412	\$383	\$390	\$406	\$390	\$425	\$501	\$541	\$687	\$715	4.12%	133.76%
UG-MATERIAL \$/LOT	\$372	\$378	\$398	\$457	\$447	\$465	\$489	\$501	\$543	\$704	\$730	\$683	\$749	9,75%	101.45%
DIFFERENTIAL \$/LOT	\$261	\$246	\$329	\$277	\$309	\$268	\$325	\$367	\$444	\$563	\$563	\$396	\$467	17.70%	78.75%
STORES LDG.\$/LOT	\$21.25	\$28.20	\$36.09	\$46.17	\$34.35	\$32.65	\$27.61	\$26.59	\$25.88	\$29.16	\$31.14	\$48.85	\$59.66	22.13%	180.75%
ENGINEERING & OH	\$125.99	\$153.23	\$143.14	\$181.46	\$136.92	\$124.29	\$161.57	\$174.53	\$184,33	\$197.70	\$245.18	\$412.00	\$429.72	4.30%	241.07%
HANDY-WHITMAN INDEX *	267	270	280	288	288	290	304	313	354	375	461	523	547	4.59%	104.87%
HANDY-WHITMAN %	N/A	1.12%	3.70%	2.86%	0.00%	0.69%	4.83%	2.96%	13.10%	5.93%	22.93%	13.45%	4.59%		
CPI INDEX **	141.9	145.8	149.7	153.5	158.6	161.3	174.0	176.7	190.3	201.8	210.0	215.9	219.2	1.50%	54.46%
CPI %	N/A	2.75%	2.67%	2.54%	3.32%	1.70%	7.87%	1.55%	7.70%	6.04%	4.08%	2.82%	1.50%		

<sup>\*</sup> HANDY-WHITMAN TABLE E-2 TOTAL DISTRIBUTION PLANT FOR JULY 1 OF PREVIOUS YEAR

<sup>\*\*</sup> CPI FOR ALL URBAN CONSUMERS (CPI-U) FOR DECEMBER OF PREVIOUS YEAR

2011 URD TARIFF HISTORICAL \$

						-											
LOW DENSITY	1990	<u>19</u> 91	<u>1992</u>	1993	1994	1995	1996	1997	1998	2001	2002	2005	2007	2008	2010	2011	6 Change 90 to 11
Overhead	\$743	\$737	\$763	\$764	\$837	\$799	\$967	\$913	\$916	\$989	\$1,037	\$1,161	\$1,380	\$1,530	\$1,923	\$2,025	172.50%
% Change OH	-1.46%	-0.81%	3.53%	0.13%	9,55%	-4.54%	21.03%	-5.58%	0.33%	7.97%	4.85%	11.93%	18.93%	10.84%	25.71%	5.26%	
Underground	\$1,078	\$1,100	\$1,092	\$1,025	\$1,083	\$1,129	\$1,244	\$1,222	\$1,184	\$1,365	\$1,403	\$1,605	\$1,943	\$2,093	\$2,320	\$2,491	131.09%
% Change UG	-0.19%	2.04%	-0.73%	-6.14%	5.66%	4.25%	10.19%	-1.77%	-3.11%	15.29%	2.78%	14.38%	21.09%	7.72%	10.82%	7.39%	
Differential	\$335	\$363	\$329	\$261	\$246	\$329	\$277	\$309	\$268	\$376	\$367	\$444	\$563	\$563	\$396	<b>\$4</b> 67	39.27%
% Change Diff	2.76%	8.36%	-9.37%	-20.67%	-5.75%	33.74%	-15.81%	11.55%	-13.27%	40.30%	-2.39%	20.98%	26.75%	0.08%	-29,62%	17.70%	
Handy-Whitman	255	263	267	267	270	280	288	288	290	304	313	354	375	461	523	547	114.51%
% Change H-W	5.81%	3.14%	1.52%	0.00%	1,12%	3.70%	2.86%	0.00%	0,69%	4.83%	2.96%	13.10%	5.93%	22.93%	13.45%	4.59%	
CPI	126.1	133.8	137.9	141.9	145.8	149.7	153.5	158.6	161.3	174	176.7	190.3	201.8	210.0	215.9	219.2	73.81%
% Change CPI	4.65%	6.11%	3.06%	2.90%	2,75%	2.67%	2.54%	3.32%	1,70%	7.87%	1.55%	7.70%	6.04%	4.08%	2.82%	1.50%	
HIGH DENSITY	1990	1991	1992	1993	1994	1995	1996	1997	1998	2001	2002	2005	2007	2006	2010	9 2011	% Change 90 to 11
Overhead	\$598	\$614	\$615	\$616	\$655	\$621	\$656	\$610	\$611	\$611	\$686	\$736	\$1,066	\$1,190	\$1,469	\$1,536	156.86%
% Change OH	-1.32%	2.68%	0,16%	0.16%	6,33%	-5.19%	5.64%	-7.01%	0.16%	0.00%	12.27%	7,33%	44.82%	11.58%	23.50%	4.54%	
Underground	\$823	\$877	\$861	\$778	\$791	\$804	\$849	\$835	\$801	\$930	\$885	\$973	\$1,153	\$1,330	\$1,552	\$1,685	104.73%
% Change UG	0.61%	6.56%	-1.82%	-9.64%	1.67%	1.64%	5,60%	-1,65%	-4.07%	16.10%	-4.84%	9.89%	18.55%	15,35%	16.69%	8.57%	
Differential	\$225	\$263	\$246	<b>\$</b> 162	\$136	\$183	\$193	\$224	\$190	\$309	\$199	\$236	\$87	\$140	\$83	\$149	-33.83%
% Change Diff	6.13%	16.89%	-8,46%	-34.15%	-16.05%	34.56%	5.46%	16.06%	-15.18%	62.63%	-35.60%	18.74%	-63.31%	61.70%	-41,06%	80.18%	
Handy-Whitman	255	263	267	267	270	280	288	288	290	304	313	354	375	461	523	547	114.51%
% Change H-W	5.81%	3.14%	1.52%	0.00%	1.12%	3.70%	2.86%	0.00%	0,69%	4.83%	2.96%	13.10%	5.93%	22.93%	13.45%	4,59%	
CPí	126.1	133.8	137.9	141.9	145.8	149.7	153.5	158.6	161.3	174	176.7	190,3	201.8	210.0	215.9	219.2	73,81%
% Change CP1	4.65%	6.11%	3,06%	2.90%	2.75%	2.67%	2.54%	3.32%	1.70%	7.87%	1.55%	7.70%	6.04%	4.08%	2.82%	1,50%	
						·					\sag						% Change
METER PEDESTAL	1990	1991	1992	1993	1994	1995	1996	1997	1998	2001	2002	<u>2005</u>	2007	2008	<u>2010</u>	2011	90 to 11
Overhead	\$518	\$530	\$527	\$527	\$559	\$528	\$556	\$516	\$516	\$559	\$582	\$620	\$823	\$890	\$1,169	\$1,223	136.19%
% Change OH	-2.08%	2.32%	-0,57%	0.00%	6.07%	~5.55 <b>%</b>	5.30%	-7.19%	0.00%	8.33%	4.11%	6.61%	32.61%	8.14%	31.40%	4.64%	
Underground	\$623	\$625	\$637	\$528	\$528	\$536	\$559	\$537	\$521	\$633	\$565	\$662	\$785	\$846	\$979	\$1,075	72.60%
% Change UG	5.41%	0.32%	1.92%	-17.11%	0.00%	1,52%	4.29%	-3.94%	-2.98%	21.50%	-10.74%	17.13%	18.57%	7.81%	15.77%	9.80%	
Differential	\$106	\$95	\$110	\$1	(\$31)	\$8	\$3	\$22	\$4	\$74	(\$17)	\$41	(\$38)	(\$44)	(\$190)	(\$148)	-241.10%
% Change Diff	69.35%	-9.52%	15.79%	-99.09%	-3200,00%	-125,81%	-62.50%	633.33%	-81.82%	1750,00%	-122.97%	-343.00%	-192.28%	15.03%	332.98%	-21.96%	
-landy-Whitman	256	263	267	267	270	280	288	288	290	304	313	354	375	461	523	547	114.51%
% Change H-W	5.81%	3,14%	1.52%	0.00%	1.12%	3.70%	2.86%	0.00%	0.69%	4.83%	2.96%	13.10%	5,93%	22.93%	13.45%	4.59%	
CPI	126.1	133.8	137.9	141.9	145,8	149.7	153.5	158.6	161.3	174	176.7	190.3	201.8	210.0	215.9	219.2	73.81%
% Change CPI	4.65%	6,11%	3.06%	2.90%	2.75%	2.67%	2.54%	3.32%	1.70%	7.87%	1.55%	7.70%	6.04%	4.08%	2.82%	1.50%	

APPENDIX 2 UCD

# Appendix No.2 FPL 2011 UCD Tariff Explanation of Proposed Revisions

This appendix is to summarize proposed revisions to Sections 11 and 13 of FPL's General Rules and Regulations for Electric Service. An explanation of FPL's proposed tariff changes for underground commercial installations can be found in Appendix No. 3.

11(4)

The following modifications have been made to these sections:

# 2011 UCD Tariff Basis Design Criteria and Assumptions

#### I. General

Voltage – 13.2 kV Overhead Distribution – wood poles

Underground Distribution – Cable–in-Conduit with aluminum conductor XPE-J insulated cables in direct buried conduit with above-grade appurtenances.

# II. Overhead Design - Modified Vertical Framing

# A. Primary lateral, transformer, and service

	1 Phase	2 Phase	3 Phase (150 KVA)	3 Phase (300 KVA)
Primary Length	150 feet	150 feet	150 feet	150 feet
Primary Conductors	2#1/0 AAAC	3#1/0 AAAC	,4#1/0 AAAC	4#1/0 AAAC
Primary Poles	1-40/3	1-40/3	1-45/2	1-45 III H
Service Length	50 feet	50 feet	50 feet	50 feet
Service Conductors	#3/0A TPX	336A QPX	2-336A QPX	2-556A QPX
Transformer	50 KVA	50 & 50 KVA	3-50KVA	3-100 KVA
Voltage	120/240V	120/240V	120/208V	120/208V
Manhours	19	29	39	42

# B. Secondary/Service Laterals

	Small 1 Phase	Large 1 Phase	Small 3 Phase	Large 3 Phase
Length	50 feet	50 feet	50 feet	50 feet
Conductor	#1/0A TPX	556A QPX	#1/0A QPX	556A QPX
Manhours	1	2	1	2

# C. Handholes and Pad Mounted Secondary Junction Box

No Overhead used

# D. Primary Splice Box

No Overhead Used

# E. Additional Charge for Underground Primary Lateral Exceeding Basic Length

Single Phase	1,000 feet 2#1/0 AAAC, 4 - 40'/3 Poles
Two Phase	1,000 feet 3#1/0 AAAC, 4 - 40'/3 Poles
Three Phase	1,000 feet 4#1/0 AAAC, 4 - 40'/2 Poles

# F. Additional Charge for Underground Primary Lateral to a Remote Point of Delivery

No Overhead Used

# III. Underground Design Criteria

# A.1 Primary lateral, riser, padmounted transformer and trench with Cable in Conduit

	1 Phase	2 Phase	3 Phase	3 Phase
Trench length (radial)	150 feet	150 feet	150 feet	150 feet
Trench length (loop)	300 feet	300 feet	300 feet	300 feet
Trench cover	36 inches	36 inches	36 inches	36 inches
Conductor size	#1/0A 25kV XPE	2#1/0A 25kV XPE	3#1/0A 25kV XPE	3#1/0A 25kV XPE
Conduit Size	1-2 inch	2-2 inch	1-5 inch	1-5 inch
Riser Length	30 feet	30 feet	30 feet	30 feet
Riser Size	2 inch U-guard	5 inch U-guard	5 inch U-guard	5 inch U-guard
Transformer Size	50 KVA	50 & 50 KVA	150 KVA	300 KVA
Voltage	120/240 V	120/240 V	120/208 V	120/208 V
Manhours (radial)	19	26	26	26
Manhours (loop)	26	37	34	36

# A.2 Primary lateral, UG source, padmounted transformer and trench with Cable in Conduit

	1 Phase	2 Phase	3 Phase	3 Phase
Transh laneth	200 foot	200 5	200 f1	0005
Trench length	300 feet	300 feet	300 feet	300 feet
Trench cover	36 inches	36 inches	36 inches	36 inches
Conductor size	#1/0A 25kV XPE	2#1/0A 25kV XPE	3#1/0A 25kV XPE	3#1/0A 25kV XPE
Conduit Size	1-2 inch	2-2 inch	1-5 inch	1-5 inch
Transformer Size	50 KVA	50 & 50 KVA	150 KVA	300 KVA
Voltage	120/240 V	120/240 V	120/208 V	120/208 V
Manhours (radial)	15	22	17	17
Manhours (loop)	21	30	26	26

#### B. Secondary/Service lateral and riser with multiple connectors.

	Small 1 Phase	Large 1 Phase	Small 3 Phase	Large 3 Phase
Trench length Trench cover	10 feet	10 feet	10 feet	10 feet
	24 inch	24 inch	24 inch	24 inch
Conductor Size	#4/0A TPX	3-750A	#4/0A QPX	4-750A
Conduit size Riser length	2 inch	5 inch	5 inch	5 inch
	30 feet	30 feet	30 feet	30 feet
Riser size	2 inch U-guard	5 inch U-guard	5 inch U-guard	5 inch U-guard
Manhours	3.9	5.0	4.6	6.4

# C. Handholes and Padmounted Secondary Junction Box and Cabinet

Small handhole - 24 inch handhole Intermediate Handhole - 30 inch handhole Large Handhole - 48 inch handhole

Secondary Junction box - Replacement cabinet and Connectors per I - 74.1

Sec. Junction Cabinet - Three-Phase Secondary Cabinet and Connectors (22-Port) per I - 75.0.0

# D. Primary Splice Box

Single Phase - 48" handhole with one molded splice and one pull set-up and basket Two Phase - 48" handhole with two molded splices and two pull set-ups and baskets Three Phase - 48" handhole with three molded splices and one pull set-up and basket

#### E. Additional Charge for Underground Primary Lateral Exceeding Basic Length

Single Phase – 1,000 feet 1#1/0A 25KV XPE, 1-2 inch pvc, 36 inch trench, pull labor Two Phase - 1000 feet 2#1/0A 25kv XPE, 2-2 inch PVC, 36 inch trench, pull labor Three Phase – 1,000 feet 3#1/0A 25KV XPE, 1-5 inch pvc, 36 inch trench, pull labor

#### F. Additional charge for Underground Primary Lateral to a Remote Point of Delivery

Single Phase - 1000 feet 1#1/0A 25kV XPE, 1-2 inch PVC, 36 inch trench, pull labor Two Phase - 1000 feet 2#1/0A 25kv XPE, 2-2 inch PVC, 36 inch trench, pull labor Three Phase -1000 feet 3#1/0A 25kv XPE, 1-5 inch PVC, 36 inch trench, pull labor

#### **FPL**

# **Basis for Underground Commercial Distribution Differential**

New Underground Commercial Development with Overhead Feeder Mains. The average differential costs for Underground Commercial Distribution stated in the FPL rules and Regulations were derived from cost estimates of underground commercial facilities and their equivalent overhead designs. These estimates employed the standard Company design and estimating practices and the system-costs, which were in use at the end of 2010. Design criteria include the following:

Primary Voltage 13,200/7,620 V

Phases, Secondary Voltage Single Phase, 120/240 V

Three phase, 120/240 V Three phase, 120/208 V Three phase, 277/480 V

Underground Design All cable-in-conduit

Overhead Design Wood Poles \*, Extreme Windload (145 MPH)

\* Concrete pole used for 300 KVA OH TX Bank

FPL 6/17/2011

# **OVERHEAD VS. UNDERGROUND**

# **SUMMARY SHEET**

# **COST PER TRANSFORMER BANK -**

# SINGLE PHASE RADIAL PAD MOUNTED TRANSFORMER

# INCLUDING RISER AND PRIMARY LATERAL TRENCH

# WITH CABLE-IN-CONDUIT

# <u>2011</u>

ITEM	OVERHEAD UND	ERGROUND	DIFFERENTIAL
LABOR	\$3,402.38	\$3,071.79	(\$330.59)
MATERIAL	\$3,454.84	\$4,421.37	\$966.53
TOTAL	\$6,857.22	\$7,493.16	\$635.94

# OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK SINGLE PHASE PRIMARY LATERAL POLE LINE INCLUDING TRANSFORMER AND SERVICE

# 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$83.44	\$151.71	\$235.15
Primary	\$253.31	\$708.12	\$961.43
Secondary	\$253.31	\$590.11	\$843.42
Poles	\$563.78	\$991.04	\$1,554.82
Transformers	\$1,358.22	\$239.26	\$1,597.48
Sub-Total	\$2,512.06	\$2,680.24	\$5,192.30
Stores Handling(2)	\$209.51	\$0.00	\$209.51
SubTotal	\$2,721.57	\$2,680.24	\$5,401.81
Engineering(4)	\$733.27	\$722.14	\$1,455.41
TOTAL	\$3,454.84	\$3,402.38	\$6,857.22

<sup>1 -</sup> Includes Sales Tax.

Note: See appendix B, page 1, IIA, single phase for design criteria and assumptions

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# UNDERGROUND MATERIAL AND LABOR COST PER TRANSFORMER BANK SINGLE PHASE RADIAL PAD MOUNTED TRANSFORMER INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$1,076.67	\$1,680.78	\$2,757.45
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$2,138.17	\$190.44	\$2,328.61
Trenching	\$0.00	\$548.60	\$548.60
Sub-Total	\$3,214.84	\$2,419.82	\$5,634.66
Stores Handling(2)	\$268.12	\$0.00	\$268.12
SubTotal	\$3,482.96	\$2,419.82	\$5,902.78
Engineering(4)	\$938.41	\$651.97	\$1,590.38
TOTAL	\$4,421.37	\$3,071.79	\$7,493.16

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, single phase, for design criteria and assumptions

#### **EXHIBIT III**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### SUMMARY SHEET

#### **COST PER TRANSFORMER BANK -**

#### TWO PHASE RADIAL PAD MOUNTED TRANSFORMER

### INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### 2011

ITEM	OVERHEAD U	NDERGROUND D	IFFERENTIAL
LABOR	\$5,136.94	\$4,337.35	(\$799.59)
MATERIAL	\$6,325.60	\$8,142.49	\$1,816.89
TOTAL	\$11,462.54	\$12,479.84	\$1,017.30

# OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK TWO PHASE PRIMARY LATERAL POLE LINE INCLUDING TRANSFORMER AND SERVICE

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$186.87	\$322.60	\$509.47
Primary	\$556.60	\$1,437.47	\$1,994.07
Secondary	\$278.38	\$598.96	\$877.34
Poles	\$861.16	\$1,209.09	\$2,070.25
Transformers	\$2,716.42	\$478.53	\$3,194.95
Sub-Total	\$4,599.43	\$4,046.65	\$8,646.08
Stores Handling(2)	\$383.59	\$0.00	\$383.59
SubTotal	\$4,983.02	\$4,046.65	\$9,029.67
Engineering(4)	\$1,342.58	\$1,090.29	\$2,432.87
TOTAL	\$6,325.60	\$5,136.94	\$11,462.54

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IIA, two phase, for design criteria and assumptions

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# UNDERGROUND MATERIAL AND LABOR COST PER TRANSFORMER BANK TWO PHASE RADIAL PAD MOUNTED TRANSFORMER INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$1,811.86	\$2,549.72	\$4,361.58
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$4,108.66	\$318.45	\$4,427.11
Trenching	\$0.00	\$548.60	\$548.60
Sub-Total	\$5,920.52	\$3,416.77	\$9,337.29
Stores Handling(2)	\$493.77	\$0.00	\$493.77
SubTotal	\$6,414.29	\$3,416.77	\$9,831.06
Engineering(4)	\$1,728.20	\$920.58	\$2,648.78
TOTAL	\$8,142.49	\$4,337.35	\$12,479.84

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, two phase for design criteria and assumptions

#### **EXHIBIT VI**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### **OVERHEAD VS. UNDERGROUND**

### SUMMARY SHEET

#### **COST PER TRANSFORMER BANK - 300 KVA**

### THREE PHASE RADIAL PAD MOUNTED TRANSFORMER

#### INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u> 2011</u>

ITEM	OVERHEAD U	NDERGROUND D	IFFERENTIAL
LABOR	\$8,147.48	\$4,117.87	(\$4,029.61)
MATERIAL	\$14,351.00	\$17,178.10	\$2,827.10
TOTAL	\$22,498.48	\$21,295.97	(\$1,202.51)

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK - 150 KVA**

### THREE PHASE RADIAL PAD MOUNTED TRANSFORMER

### INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### 2011

ITEM	OVERHEAD UN	NDERGROUND D	IFFERENTIAL
LABOR	\$6,814.12	\$4,245.23	(\$2,568.89)
MATERIAL	\$9,119.89	\$13,936.01	\$4,816.12
TOTAL	\$15,934.01	\$18,181.24	\$2,247.23

EXHIBIT VII(B)

# OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK THREE PHASE PRIMARY LATERAL POLE LINE INCLUDING TRANSFORMER AND SERVICE (300 KVA)

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$770.35	\$762.52	\$1,532.87
Primary	\$895.27	\$2,150.13	\$3,045.40
Secondary	\$298.42	\$597.27	\$895.69
Poles	\$2,318.51	\$2,190.51	\$4,509.02
Transformers	\$6,152.26	\$717.79	\$6,870.05
Sub-Total	\$10,434.81	\$6,418.22	\$16,853.03
Stores Handling(2)	\$870.26	\$0.00	\$870.26
SubTotal	\$11,305.07	\$6,418.22	\$17,723.29
Engineering(4)	\$3,045.93	\$1,729.26	\$4,775.19
TOTAL	\$14,351.00	\$8,147.48	\$22,498.48

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IIA, three phase (300 kva) for design criteria and assumptions

#### **EXHIBIT VIII (A)**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK THREE PHASE PRIMARY LATERAL POLE LINE INCLUDING TRANSFORMER AND SERVICE (150 KVA)

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$588.34	\$627.93	\$1,216.27
Primary	\$865.22	\$2,220.35	\$3,085.57
Secondary	\$288.41	\$616.77	\$905.18
Poles	\$1,282.52	\$1,185.02	\$2,467.54
Transformers	\$3,606.71	\$717.79	\$4,324.50
Sub-Total	\$6,631.20	\$5,367.86	\$11,999.06
Stores Handling(2)	\$553.04	\$0.00	\$553.04
SubTotal	\$7,184.24	\$5,367.86	\$12,552.10
Engineering(4)	\$1,935.65	\$1,446.26	\$3,381.91
TOTAL	\$9,119.89	\$6,814.12	\$15,934.01

<sup>1 -</sup> Includes Sales Tax.

#### EXHIBIT VIII (B)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# UNDERGROUND MATERIAL AND LABOR COST PER TRANSFORMER BANK THREE PHASE RADIAL PAD MOUNTED TRANSFORMER 300 KVA INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### 2011

WITH CABLE-IN-CONDUIT

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$2,768.68	\$2,493.47	\$5,262.15
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$9,721.76	\$201.80	\$9,923.56
Trenching	\$0.00	\$548.60	\$548.60
Sub-Total	\$12,490.44	\$3,243.87	\$15,734.31
Stores Handling(2)	\$1,041.70	\$0.00	\$1,041.70
SubTotal	\$13,532.14	\$3,243.87	\$16,776.01
Engineering(4)	\$3,645.96	\$874.00	\$4,519.96
TOTAL	\$17,178.10	\$4,117.87	\$21,295.97

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, three phase (300 KVA) for design criteria and assumptions

#### EXHIBIT IX (A)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# THREE PHASE RADIAL PAD MOUNTED TRANSFORMER 150 KVA INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u> 2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$2,791.13	\$2,593.80	\$5,384.93
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$7,341.93	\$201.80	\$7,543.73
Trenching	\$0.00	\$548.60	\$548.60
Sub-Total	\$10,133.06	\$3,344.20	\$13,477.26
Stores Handling(2)	\$845.10	\$0.00	\$845.10
SubTotal	\$10,978.16	\$3,344.20	\$14,322.36
Engineering(4)	\$2,957.85	\$901.03	\$3,858.88
TOTAL	\$13,936.01	\$4,245.23	\$18,181.24

<sup>1 -</sup> Includes Sales Tax.

#### EXHIBIT IX (B)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

#### SINGLE PHASE LOOP PAD MOUNTED TRANSFORMER

#### INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	OVERHEAD UNDERGROUND		DIFFERENTIAL	
LABOR	\$3,402.38	\$4,167.54	\$765.16	
MATERIAL	\$3,454.84	\$4,822.86	\$1,368.02	
TOTAL	\$6,857.22	\$8,990.40	\$2,133.18	

# OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK SINGLE PHASE PRIMARY LATERAL POLE LINE INCLUDING TRANSFORMER AND SERVICE

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$83.44	\$151.71	\$235.15
Primary	\$253.31	\$708.12	\$961.43
Secondary	\$253.31	\$590.11	\$843.42
Poles	\$563.78	\$991.04	\$1,554.82
Transformers	\$1,358.22	\$239.26	\$1,597.48
Sub-Total	\$2,512.06	\$2,680.24	\$5,192.30
Stores Handling(2)	\$209.51	\$0.00	\$209.51
SubTotal	\$2,721.57	\$2,680.24	\$5,401.81
Engineering(4)	\$733.27	\$722.14	\$1,455.41
TOTAL	\$3,454.84	\$3,402.38	\$6,857.22

<sup>1 -</sup> Includes Sales Tax.

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

<sup>5 -</sup> See Appendix B, page 1, IIA, Single Phase, for design criteria and assumptions

# UNDERGROUND MATERIAL AND LABOR COST PER TRANSFORMER BANK SINGLE PHASE LOOP PAD MOUNTED TRANSFORMER INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$1,361.75	\$1,995.36	\$3,357.11
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$2,145.02	\$190.44	\$2,335.46
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$3,506.77	\$3,283.00	\$6,789.77
Stores Handling(2)	\$292.46	\$0.00	\$292.46
SubTotal	\$3,799.23	\$3,283.00	\$7,082.23
Engineering(4)	\$1,023.63	\$884.54	\$1,908.17
TOTAL	\$4,822.86	\$4,167.54	\$8,990.40

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, single phase (loop), for design criteria and assumptions

#### **EXHIBIT XII**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

#### TWO PHASE LOOP PAD MOUNTED TRANSFORMER

#### INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	OVERHEAD UNDERGROUND		DIFFERENTIAL	
LABOR	\$5,136.94	\$5,947.13	\$810.19	
MATERIAL	\$6,325.60	\$9,131.37	\$2,805.77	
TOTAL	\$11,462.54	\$15,078.50	\$3,615.96	

# OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK TWO PHASE PRIMARY LATERAL POLE LINE INCLUDING TRANSFORMER AND SERVICE

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$186.87	\$322.60	\$509.47
Primary	\$556.60	\$1,437.47	\$1,994.07
Secondary	\$278.38	\$598.96	\$877.34
Poles	\$861.16	\$1,209.09	\$2,070.25
Transformers	\$2,716.42	\$478.53	\$3,194.95
Sub-Total	\$4,599.43	\$4,046.65	\$8,646.08
Stores Handling(2)	\$383.59	\$0.00	\$383.59
SubTotal	\$4,983.02	\$4,046.65	\$9,029.67
Engineering(4)	\$1,342.58	\$1,090.29	\$2,432.87
TOTAL	\$6,325.60	\$5,136.94	\$11,462.54

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IIA, two phase, for design criteria and assumptions

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

## UNDERGROUND MATERIAL AND LABOR COST PER TRANSFORMER BANK TWO PHASE LOOP PAD MOUNTED TRANSFORMER

### WITH CABLE-IN-CONDUIT

INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$2,536.03	\$3,282.22	\$5,818.25
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$4,103.51	\$305.46	\$4,408.97
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$6,639.54	\$4,684.88	\$11,324.42
Stores Handling(2)	\$553.74	\$0.00	\$553.74
SubTotal	\$7,193.28	\$4,684.88	\$11,878.16
Engineering(4)	\$1,938.09	\$1,262.25	\$3,200.34
TOTAL	\$9,131.37	\$5,947.13	\$15,078.50

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, two phase (loop)for design criteria and assumptions

#### **EXHIBIT XV**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### OVERHEAD VS. UNDERGROUND

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

### THREE PHASE 150 KVA LOOP PAD MOUNTED TRANSFORMER

#### INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### 2011

ITEM	OVERHEAD UN	NDERGROUND	DIFFERENTIAL
LABOR	\$6,814.12	\$5,634.14	(\$1,179.98)
MATERIAL	\$9,119.89	\$16,835.09	\$7,715.20
TOTAL	\$15,934.01	\$22,469.23	\$6,535.22

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

### THREE PHASE 300 KVA LOOP PAD MOUNTED TRANSFORMER

#### INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u> 2011</u>

ITEM	OVERHEAD UNDERGROUND		DIFFERENTIAL	
LABOR	\$8,147.48	\$5,634.14	(\$2,513.34)	
MATERIAL	\$14,351.00	\$19,476.97	\$5,125.97	
TOTAL	\$22,498.48	\$25,111.11	\$2,612.63	

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EXHIBIT XVI (B)

# OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK THREE PHASE PRIMARY LATERAL POLE LINE INCLUDING TRANSFORMER AND SERVICE (150 KVA)

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$588.34	\$627.93	\$1,216.27
Primary	\$865.22	\$2,220.35	\$3,085.57
Secondary	\$288.41	\$616.77	\$905.18
Poles	\$1,282.52	\$1,185.02	\$2,467.54
Transformers	\$3,606.71	\$717.79	\$4,324.50
Sub-Total	\$6,631.20	\$5,367.86	\$11,999.06
Stores Handling(2)	\$553.04	\$0.00	\$553.04
SubTotal	\$7,184.24	\$5,367.86	\$12,552.10
Engineering(4)	\$1,935.65	\$1,446.26	\$3,381.91
TOTAL	\$9,119.89	\$6,814.12	\$15,934.01

<sup>1 -</sup> Includes Sales Tax.

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

## OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK THREE PHASE PRIMARY LATERAL POLE LINE

#### **INCLUDING TRANSFORMER (300 TOTAL KVA) AND SERVICE**

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$770.35	\$762.52	\$1,532.87
Primary	\$895.27	\$2,150.13	\$3,045.40
Secondary	\$298.42	\$597.27	\$895.69
Poles	\$2,318.51	\$2,190.51	\$4,509.02
Transformers	\$6,152.26	\$717.79	\$6,870.05
Sub-Total	\$10,434.81	\$6,418.22	\$16,853.03
Stores Handling(2)	\$870.26	\$0.00	\$870.26
SubTotal	\$11,305.07	\$6,418.22	\$17,723.29
Engineering(4)	\$3,045.93	\$1,729.26	\$4,775.19
TOTAL	\$14,351.00	\$8,147.48	\$22,498.48

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IIA, 3 phase (300 KVA) for design criteria and assumptions

#### **EXHIBIT XVII (B)**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

## UNDERGROUND MATERIAL AND LABOR COST PER TRANSFORMER BANK THREE PHASE 150 KVA LOOP PAD MOUNTED TRANSFORMER

#### INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$4,060.17	\$3,139.32	\$7,199.49
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$8,180.86	\$201.80	\$8,382.66
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$12,241.03	\$4,438.32	\$16,679.35
Stores Handling(2)	\$1,020.90	\$0.00	\$1,020.90
SubTotal	\$13,261.93	\$4,438.32	\$17,700.25
Engineering(4)	\$3,573.16	\$1,195.82	\$4,768.98
TOTAL	\$16,835.09	\$5,634.14	\$22,469.23

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, three phase (300kva-loop) for design criteria and assumptions

#### EXHIBIT XVIII (A)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# UNDERGROUND MATERIAL AND LABOR COST PER TRANSFORMER BANK THREE PHASE 300 KVA LOOP PAD MOUNTED TRANSFORMER INCLUDING RISER AND PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$4,060.17	\$3,139.32	\$7,199.49
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$10,101.80	\$201.80	\$10,303.60
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$14,161.97	\$4,438.32	\$18,600.29
Stores Handling(2)	\$1,181.11	\$0.00	\$1,181.11
SubTotal	\$15,343.08	\$4,438.32	\$19,781.40
Engineering(4)	<b>\$4</b> ,133.89	\$1,195.82	\$5,329.71
TOTAL	\$19,476.97	\$5,634.14	\$25,111.11

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, three phase (300kva-loop) for design criteria and assumptions

#### EXHIBIT XVIII (B)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26,943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### SUMMARY SHEET

#### **COST PER TRANSFORMER BANK -**

#### SINGLE PHASE LOOP PAD MOUNTED TRANSFORMER

#### FROM EXISTING UNDERGROUND TERMINATION POINT

#### INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

### 2011

ITEM	OVERHEAD UNDERGROUN		DIFFERENTIAL
LABOR	\$3,402.38	\$3,260.05	(\$142.33)
MATERIAL	\$3,454.84	\$4,480.15	\$1,025.31
TOTAL	\$6,857.22	\$7,740.20	\$882.98

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

#### SINGLE PHASE RADIAL PAD MOUNTED TRANSFORMER

#### FROM EXISTING UNDERGROUND TERMINATION POINT

#### INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### <u> 2011</u>

ITEM	OVERHEAD UN	OVERHEAD UNDERGROUND	
LABOR	\$3,402.38	\$2,363.3 <del>6</del>	(\$1,039.02)
MATERIAL	\$3,454.84	\$4,088.48	\$633.64
TOTAL	\$6,857.22	\$6,451.84	(\$405.38)

## OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK SINGLE PHASE PRIMARY LATERAL POLE LINE

#### <u>2011</u>

**INCLUDING TRANSFORMER AND SERVICE** 

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$83.44	\$151.71	\$235.15
Primary	\$253.31	\$708.12	\$961.43
Secondary	\$253.31	\$590.11	\$843.42
Poles	\$563.78	\$991.04	\$1,554.82
Transformers	\$1,358.22	\$239.26	\$1,597.48
Sub-Total	\$2,512.06	\$2,680.24	\$5,192.30
Stores Handling(2)	\$209.51	\$0.00	\$209.51
SubTotal	\$2,721.57	\$2,680.24	\$5,401.81
Engineering(4)	\$733.27	\$722.14	\$1,455.41
TOTAL	\$3,454.84	\$3,402.38	\$6,857.22

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IIA single phase, for design criteria and assumptions

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# UNDERGROUND MATERIAL AND LABOR COST PER TRANSFORMER BANK SINGLE PHASE LOOP PAD MOUNTED TRANSFORMER FROM EXISTING UNDERGROUND TERMINATION POINT INCLUDING PRIMARY LATERAL AND TRENCH WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$1,112.56	\$1,280.48	\$2,393.04
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$2,145.02	\$190.44	\$2,335.46
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$3,257.58	\$2,568.12	\$5,825.70
Stores Handling(2)	\$271.68	\$0.00	\$271.68
SubTotal	\$3,529.26	\$2,568.12	\$6,097.38
Engineering(4)	\$950.89	\$691.93	\$1,642.82
TOTAL	\$4,480.15	\$3,260.05	\$7,740.20

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, single phase (loop), for design criteria and assumptions. Riser length and riser size are not applicable.

#### **EXHIBIT XXI**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# UNDERGROUND MATERIAL AND LABOR COST PER TRANSFORMER BANK SINGLE PHASE RADIAL PAD MOUNTED TRANSFORMER FROM EXISTING UNDERGROUND TERMINATION POINT INCLUDING PRIMARY LATERAL AND TRENCH WITH CABLE-IN-CONDUIT

#### <u> 2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$827.77	\$574.11	\$1,401.88
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$2,145.02	\$190.44	\$2,335.46
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$2,972.79	\$1,861.75	\$4,834.54
Stores Handling(2)	\$247.93	\$0.00	\$247.93
SubTotal	\$3,220.72	\$1,861.75	\$5,082.47
Engineering(4)	\$867.76	\$501.61	\$1,369.37
TOTAL	\$4,088.48	\$2,363.36	\$6,451.84

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, single phase (radial), for design criteria and assumptions. Riser length and riser size are not applicable.

#### **EXHIBIT XXI (A)**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

#### TWO PHASE LOOP PAD MOUNTED TRANSFORMER

#### FROM EXISTING UNDERGROUND TERMINATION POINT

#### INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### 2011

ITEM	OVERHEAD UNDERGROUND		DIFFERENTIAL	
LABOR	\$5,136.94	\$4,753.90	(\$383.04)	
MATERIAL	\$6,325.60	\$8,526.58	\$2,200.98	
TOTAL	\$11,462.54	\$13,280.48	\$1,817.94	

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#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

#### TWO PHASE RADIAL PAD MOUNTED TRANSFORMER

#### FROM EXISTING UNDERGROUND TERMINATION POINT

#### INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	OVERHEAD UNDERGROUND		DIFFERENTIAL
LABOR	\$5,136.94	\$3,525.49	(\$1,611.45)
MATERIAL	\$6,325.60	\$7,510.02	\$1,184.42
TOTAL	\$11,462.54	\$11,035.51	(\$427.03)

EXHIBIT XXII (A)

# OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK TWO PHASE PRIMARY LATERAL POLE LINE INCLUDING TRANSFORMER AND SERVICE

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$186.87	\$322.60	\$509.47
Primary	\$556.60	\$1,437.47	\$1,994.07
Secondary	\$278.38	\$598.96	\$877.34
Poles	\$861.16	\$1,209.09	\$2,070.25
Transformers	\$2,716.42	\$478.53	\$3,194.95
Sub-Total	\$4,599.43	\$4,046.65	\$8,646.08
Stores Handling(2)	\$383.59	\$0.00	\$383.59
SubTotal	\$4,983.02	\$4,046.65	\$9,029.67
Engineering(4)	\$1,342.58	\$1,090.29	\$2,432.87
TOTAL	\$6,325.60	\$5,136.94	\$11,462.54

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IIA, two phase, for design criteria and assumptions

#### **EXHIBIT XXIII**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# TWO PHASE LOOP PAD MOUNTED TRANSFORMER FROM EXISTING UNDERGROUND TERMINATION POINT INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$2,094.96	\$2,345.93	\$4,440.89
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$4,104.84	\$301.78	\$4,406.62
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$6,199.80	\$3,744.91	\$9,944.71
Stores Handling(2)	\$517.06	\$0.00	\$517.06
SubTotal	\$6,716.86	\$3,744.91	\$10,461.77
Engineering(4)	\$1,809.72	\$1,008.99	\$2,818.71
TOTAL	\$8,526.58	\$4,753.90	\$13,280.48

<sup>1 -</sup> Includes Sales Tax.

Note: Appendix B, page 2, IIIA, two phase (loop), for design criteria and assumptions. Riser length and riser size are not applicable.

#### **EXHIBIT XXIV**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# TWO PHASE RADIAL PAD MOUNTED TRANSFORMER FROM EXISTING UNDERGROUND TERMINATION POINT INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$1,348.39	\$1,354.98	\$2,703.37
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$4,112.25	\$325.04	\$4,437.29
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$5,460.64	\$2,777.22	\$8,237.86
Stores Handling(2)	\$455.42	\$0.00	\$455.42
SubTotal	\$5,916.06	\$2,777.22	\$8,693.28
Engineering(4)	\$1,593.96	\$748.27	\$2,342.23
TOTAL	\$7,510.02	\$3,525.49	\$11,035.51

<sup>1 -</sup> Includes Sales Tax.

Note: Appendix B, page 2, IIIA, two phase (radial), for design criteria and assumptions. Riser length and riser size are not applicable.

#### EXHIBIT XXIV (A)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

## THREE PHASE 150 KVA LOOP PAD MOUNTED TRANSFORMER FROM EXISTING UNDERGROUND TERMINATION POINT

### INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	OVERHEAD U	OVERHEAD UNDERGROUND		
LABOR	\$6,814.12	\$4,121.36	(\$2,692.76)	
MATERIAL	\$9,119.89	\$16,101.07	\$6,981.18	
TOTAL	\$15,934.01	\$20,222.43	\$4,288.42	

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

### THREE PHASE 300 KVA LOOP PAD MOUNTED TRANSFORMER

#### FROM EXISTING UNDERGROUND TERMINATION POINT

#### INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	OVERHEAD UNDERGROUND		DIFFERENTIAL	
LABOR	\$8,147.48	\$4,121.36	(\$4,026.12)	
MATERIAL	\$14,351.00	\$18,742.94	\$4,391.94	
TOTAL	\$22,498.48	\$22,864.30	\$365.82	

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

### THREE PHASE 150 KVA RADIAL PAD MOUNTED TRANSFORMER

### FROM EXISTING UNDERGROUND TERMINATION POINT

#### INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	OVERHEAD UNDERGROUND		D DIFFERENTIAL	
LABOR	\$6,814.12	\$2,654.72	(\$4,159.40)	
MATERIAL	\$9,119.89	\$13,101.85	\$3,981.96	
TOTAL	\$15,934.01	\$15,756.57	(\$177.44)	

EXHIBIT XXV (C)

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER TRANSFORMER BANK -**

### THREE PHASE 300 KVA RADIAL PAD MOUNTED TRANSFORMER

#### FROM EXISTING UNDERGROUND TERMINATION POINT

#### INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### 2011

ITEM	OVERHEAD UNDERGROUND		DIFFERENTIAL	
LABOR	\$8,147.48	\$2,651.84	(\$5,495.64)	
MATERIAL	\$14,351.00	\$16,329.12	\$1,978.12	
TOTAL	\$22,498.48	\$18,980.96	(\$3,517.52)	

EXHIBIT XXV (D)

## OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK THREE PHASE PRIMARY LATERAL POLE LINE INCLUDING TRANSFORMER (150 TOTAL KVA) AND SERVICE

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$588.34	\$627.93	\$1,216.27
Primary	\$865.22	\$2,220.35	\$3,085.57
Secondary	\$288.41	\$616.77	\$905.18
Poles	\$1,282.52	\$1,185.02	\$2,467.54
Transformers	\$3,606.71	\$717.79	\$4,324.50
Sub-Total	\$6,631.20	\$5,367.86	\$11,999.06
Stores Handling(2)	\$553.04	\$0.00	\$553.04
SubTotal	\$7,184.24	\$5,367.86	\$12,552.10
Engineering(4)	\$1,935.65	\$1,446.26	\$3,381.91
TOTAL	\$9,119.89	\$6,814.12	\$15,934.01

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IIA, three phase (150 KVA), for design criteria and assumptions

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

## OVERHEAD MATERIAL AND LABOR COST PER TRANSFORMER BANK THREE PHASE PRIMARY LATERAL POLE LINE INCLUDING TRANSFORMER (300 TOTAL KVA) AND SERVICE

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$770.35	\$762.52	\$1,532.87
Primary	\$895.27	\$2,150.13	\$3,045.40
Secondary	\$298.42	\$597.27	\$895.69
Poles	\$2,318.51	\$2,190.51	\$4,509.02
Transformers	\$6,152.26	\$717.79	\$6,870.05
Sub-Total	\$10,434.81	\$6,418.22	\$16,853.03
Stores Handling(2)	\$870.26	\$0.00	\$870.26
SubTotal	\$11,305.07	\$6,418.22	\$17,723.29
Engineering(4)	\$3,045.93	\$1,729.26	\$4,775.19
TOTAL	\$14,351.00	\$8,147.48	\$22,498.48

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IIA, three phase (300 KVA), for design criteria and assumptions

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# THREE PHASE LOOP PAD MOUNTED TRANSFORMER (150 KVA) FROM EXISTING UNDERGROUND TERMINATION POINT INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$3,526.45	\$1,947.62	\$5,474.07
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$8,180.86	\$201.80	\$8,382.66
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$11,707.31	\$3,246.62	\$14,953.93
Stores Handling(2)	\$976.39	\$0.00	\$976.39
SubTotal	\$12,683.70	\$3,246.62	\$15,930.32
Engineering(4)	\$3,417.37	\$874.74	\$4,292.11
TOTAL	\$16,101.07	\$4,121.36	\$20,222.43

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, three phase (150kva-loop) for design criteria and assumptions. Riser length and riser size are not applicable.

#### EXHIBIT XXVII (A)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# THREE PHASE LOOP PAD MOUNTED TRANSFORMER (300 KVA) FROM EXISTING UNDERGROUND TERMINATION POINT INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$3,526.45	\$1,947.62	\$5,474.07
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$10,101.80	\$201.80	\$10,303.60
Trenching	\$0,00	\$1,097.20	\$1,097.20
Sub-Total	\$13,628.25	\$3,246.62	\$16,874.87
Stores Handling(2)	\$1,136.60	\$0.00	\$1,136.60
SubTotal	\$14,764.85	\$3,246.62	\$18,011.47
Engineering(4)	\$3,978.09	\$874.74	\$4,852.83
TOTAL	\$18,742.94	\$4,121.36	\$22,864.30

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, three phase (300kva-loop) for design criteria and assumptions. Riser length and riser size are not applicable.

#### EXHIBIT XXVII (B)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

## UNDERGROUND MATERIAL AND LABOR COST PER TRANSFORMER BANK THREE PHASE RADIAL PAD MOUNTED TRANSFORMER (150 KVA) FROM EXISTING UNDERGROUND TERMINATION POINT INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$2,184.61	\$792.27	\$2,976.88
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$7,341.93	\$201.80	\$7,543.73
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$9,526.54	\$2,091.27	\$11,617.81
Stores Handling(2)	\$794.51	\$0.00	\$794.51
SubTotal	\$10,321.05	\$2,091.27	\$12,412.32
Engineering(4)	\$2,780.80	\$563.45	\$3,344.25
TOTAL	\$13,101.85	\$2,654.72	\$15,756.57

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, three phase (150kva-radial) for design criteria and assumptions. Riser length and riser size are not applicable.

#### EXHIBIT XXVII (C)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

# THREE PHASE RADIAL PAD MOUNTED TRANSFORMER (300 KVA) FROM EXISTING UNDERGROUND TERMINATION POINT INCLUDING PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$2,151.37	\$790.00	\$2,941.37
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$9,721.76	\$201.80	\$9,923.56
Trenching	\$0.00	\$1,097.20	\$1,097.20
Sub-Total	\$11,873.13	\$2,089.00	\$13,962.13
Stores Handling(2)	\$990.22	\$0.00	\$990.22
SubTotal	\$12,863.35	\$2,089.00	\$14,952.35
Engineering(4)	\$3,465.77	\$562.84	\$4,028.61
TOTAL	\$16,329.12	\$2,651.84	\$18,980.96

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIIA, three phase (300kva-radial) for design criteria and assumptions. Riser length and riser size are not applicable.

#### EXHIBIT XXVII (D)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### SUMMARY SHEET

#### **COST PER RISER -**

#### **SMALL SINGLE PHASE RISER**

#### 2011

ITEM	OVERHEAD UND	OVERHEAD UNDERGROUND	
LABOR	\$192.59	\$637.16	\$444.57
MATERIAL	\$83.85	\$294.39	\$210.54
TOTAL	\$276.44	\$931.55	\$655.11

#### **EXHIBIT XXVIII**

### OVERHEAD MATERIAL AND LABOR COST PER SERVICE SINGLE PHASE SMALL SERVICE

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$60.97	\$151.71	\$212.68
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$0.00	\$0.00	\$0.00
Poles	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Sub-Total	\$60.97	\$151.71	\$212.68
Stores Handling(2)	\$5.08	\$0.00	\$5.08
SubTotal	\$66.05	\$151.71	\$217.76
Engineering(4)	\$17.80	\$40.88	\$58.68
TOTAL	\$83.85	\$192.59	\$276.44

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, B, small single phase, for design criteria and assumptions

#### **EXHIBIT XXIX**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER RISER SMALL SINGLE PHASE RISER

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$214.06	\$501.93	\$715.99
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$214.06	\$501.93	\$715.99
Stores Handling(2)	\$17.85	\$0.00	\$17.85
SubTotal	\$231.91	\$501.93	\$733.84
Engineering(4)	\$62.48	\$135.23	\$197.71
TOTAL	\$294.39	\$637.16	\$931.55

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIB, small single phase, for design criteria and assumptions

#### **EXHIBIT XXX**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### SUMMARY SHEET

#### **COST PER RISER -**

#### LARGE SINGLE PHASE RISER

#### <u>2011</u>

ITEM	OVERHEAD UNDERGROUND		DIFFERENTIAL	
LABOR	\$409.52	\$921.12	\$511.60	
MATERIAL	\$414.91	\$1,049.34	\$634.43	
TOTAL	\$824.43	\$1,970.46	\$1,146.03	

**EXHIBIT XXXI** 

### OVERHEAD MATERIAL AND LABOR COST PER SERVICE SINGLE PHASE LARGE SERVICE

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$301.69	\$322.60	\$624.29
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$0.00	\$0.00	\$0.00
Poles	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Sub-Total	\$301.69	\$322.60	\$624.29
Stores Handling(2)	\$25.16	\$0.00	\$25.16
SubTotal	\$326.85	\$322.60	\$649.45
Engineering(4)	\$88.06	\$86.92	\$174.98
TOTAL	\$414.91	\$409.52	\$824.43

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IIB, large single phase, for design criteria and assumptions

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER RISER LARGE SINGLE PHASE RISER

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$762.99	\$725.62	\$1,488.61
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$762.99	\$725.62	\$1,488.61
Stores Handling(2)	\$63.63	\$0.00	\$63.63
SubTotal	\$826.62	\$725.62	\$1,552.24
Engineering(4)	\$222.72	\$195.50	\$418.22
TOTAL	\$1,049.34	\$921.12	\$1,970.46

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIB, large single phase, for design criteria and assumptions

#### EXHIBIT XXXIII

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER RISER -**

#### **SMALL THREE PHASE RISER**

#### <u>2011</u>

ITEM	OVERHEAD UNDERGROUND		DIFFERENTIAL	
LABOR	\$242.12	\$759.78	\$517.66	
MATERIAL	\$107.37	\$459.03	\$351.66	
TOTAL	\$349.49	\$1,218.81	\$869.32	

#### **EXHIBIT XXXIV**

### OVERHEAD MATERIAL AND LABOR COST PER SERVICE THREE PHASE SMALL SERVICE

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$78.07	\$190.73	\$268.80
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$0.00	\$0.00	\$0.00
Poles	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Sub-Total	\$78.07	\$190.73	\$268.80
Stores Handling(2)	\$6.51	\$0.00	\$6.51
SubTotal	\$84.58	\$190.73	\$275.31
Engineering(4)	\$22.79	\$51.39	\$74.18
TOTAL	\$107.37	\$242.12	\$349.49

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IfB, small three phase, for design criteria and assumptions

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER RISER SMALL THREE PHASE RISER

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$333.76	\$598.52	\$932.28
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$333.76	\$598.52	\$932.28
Stores Handling(2)	\$27.84	\$0.00	\$27.84
SubTotal	\$361.60	\$598.52	\$960.12
Engineering(4)	\$97.43	\$161.26	\$258.69
TOTAL	\$459.03	\$759.78	\$1,218.81

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIB, small three phase, for design criteria and assumptions

#### **EXHIBIT XXXVI**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER RISER -**

#### LARGE THREE PHASE RISER

#### <u> 2011</u>

ITEM	OVERHEAD UNI	DIFFERENTIAL	
LABOR	\$409.52	\$1,159.27	\$749.75
MATERIAL	\$414.91	\$1,328.12	\$913.21
TOTAL	\$824.43	\$2,487.39	\$1,662.96

### OVERHEAD MATERIAL AND LABOR COST PER SERVICE THREE PHASE LARGE SERVICE

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$301.69	\$322.60	\$624.29
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$0.00	\$0.00	\$0.00
Poles	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Sub-Total	\$301.69	\$322.60	\$624.29
Stores Handling(2)	\$25.16	\$0.00	\$25.16
SubTotal	\$326.85	\$322.60	\$649.45
Engineering(4)	\$88.06	\$86.92	\$174.98
TOTAL	\$414.91	\$409.52	\$824.43

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 1, IIB, large three phase, for design criteria and assumptions

#### **EXHIBIT XXXVIII**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER RISER LARGE THREE PHASE RISER

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$965.69	\$913.22	\$1,878.91
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$965.69	\$913.22	\$1,878.91
Stores Handling(2)	\$80.54	\$0.00	\$80.54
SubTotal	\$1,046.23	\$913.22	\$1,959.45
Engineering(4)	\$281.89	\$246.05	\$527.94
TOTAL	\$1,328.12	\$1,159.27	\$2,487.39

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIB, large three phase, for design criteria and assumptions

#### **EXHIBIT XXXIX**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER RISER SMALL HANDHOLE

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$98.51	\$64.96	\$163.47
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$98.51	\$64.96	\$163.47
Stores Handling(2)	\$8.22	\$0.00	\$8.22
SubTotal	\$106.73	\$64.96	\$171.69
Engineering(4)	\$28.76	\$17.50	\$46.26
TOTAL	\$135.49	\$82.46	\$217.95

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIC, small handhole, for design criteria and assumptions

#### **EXHIBIT XL**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER RISER INTERMEDIATE HANDHOLE

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$126.09	\$64.96	\$191.05
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$126.09	\$64.96	\$191.05
Stores Handling(2)	\$10.52	\$0.00	\$10.52
SubTotal	\$136.61	\$64.96	\$201.57
Engineering(4)	\$36.81	\$17.50	\$54.31
TOTAL	\$173.42	\$82.46	\$255.88

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIC, intermediate handhole for design criteria and assumptions

#### **EXHIBIT XLI (A)**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER RISER LARGE HANDHOLE

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$416.97	\$245.29	\$662.26
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$416.97	\$245.29	\$662.26
Stores Handling(2)	\$34.78	\$0.00	\$34.78
SubTotal	\$451.75	\$245.29	\$697.04
Engineering(4)	\$121.72	\$66.09	\$187.81
TOTAL	\$573.47	\$311.38	\$884.85

<sup>1 -</sup> Includes Sales Tax.

- 2 8.34 % of All Material.
- 3 Includes Payroll, Taxes, Insurance, P&W, & Transportation.
- 4 26.943% of All Material and Labor.

Note: See Appendix B, page 3, IIIC, large handhole for design criteria and assumptions

#### EXHIBIT XLI (B)

### PADMOUNTED SECONDARY JUNCTION BOX

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$1,800.49	\$422.62	\$2,223.11
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$1,800.49	\$422.62	\$2,223.11
Stores Handling(2)	\$150.16	\$0.00	\$150.16
SubTotal	\$1,950.65	\$422.62	\$2,373.27
Engineering(4)	\$525.56	\$113.87	\$639.43
TOTAL	\$2,476.21	\$536.49	\$3,012.70

<sup>1 -</sup> Includes Sales Tax.

Note: See Apendix B, page 3, IIIC, secondary junction box, for design criteria and assumptions

#### EXHIBIT XLII (A)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### PADMOUNTED SECONDARY JUNCTION CABINET

#### <u> 2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$0.00	\$0.00	\$0.00
Secondary	\$5,339.33	\$388.55	\$5,727.88
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$5,339.33	\$388.55	\$5,727.88
Stores Handling(2)	\$445.30	\$0.00	\$445.30
SubTotal	\$5,784.63	\$388.55	\$6,173.18
Engineering(4)	\$1,558.55	\$104.69	\$1,663.24
TOTAL	\$7,343.18	\$493.24	\$7,836.42

<sup>1 -</sup> Includes Sales Tax.

Note: See Apendix B, page 3, IIIC, secondary junction cabinet, for design criteria and assumptions

#### EXHIBIT XLII (B)

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER CABINET PADMOUNTED SECONDARY JUNCTION CABINET SECONDARY CONDUCTORS AND SERVICE TAPS

#### 2011

ITEM	MATERIAL(1)		LABOR(2)	TOTAL
350 MCM Al Wire (per set) \$ 500 MCM Cu Wire (per set) \$ 750 MCM Al Wire (per set) \$ 750 MCM Cu Wire (per set) \$	1,054.40 1,936.60 1,153.00 2,073.80		\$0.00 \$0.00 \$0.00 \$0.00	\$1,054.40 \$1,936.60 \$1,153.00 \$2,073.80
Pull Setup (one per cab) Pulling Cable (per set) Tap Wires in Transformer	\$0.00 \$0.00	\$ \$	171.30 73.64 166.56	\$171.30 \$73.64 \$166.56
and Cabinet (per set) Usage Statistics	\$0.00	₽	100.00	φ10 <b>0</b> .30
350 MCM Al Wire	0%			
500 MCM CU Wire	25%			
750 MCM Al Wire	50%			
750 MCM Cu Wire	25%			
Weighted Cost of Wire	\$1,579.10			
Number of Sets				
1 Set	15%			
2 Sets	30%			
3 Sets	30%			
4 Sets	25%			
Weighted Pulling Cost	\$0.00		\$366.45	
Weighted Wire Subtotal	\$4,184.62		\$441.38	
Total Cost of Secondary	\$4,992.45			

The first 12 sets of service conductors will be tapped, since they are included in a standard transformer installation (750 KVA or greater). Any sets greater than 12 will incur a differential cost per set: \$83.28

- 1 Includes Sales Tax, 8.34 % Stores Loading of All Material, and 26.943% Engineering Overhead of all Material.
- 2 Includes Payroll, Taxes, Insurance, P&W, & Transportation, and 26.943% Engineering Overhead of all Labor.
- 3 8 foot spacing between cabinet and transformer needs 20' of conductor per set.
- 4 Usage statistics based on all new installations during 2003 & 2004.

#### EXHIBIT XLII (C)

### UNDERGROUND MATERIAL AND LABOR COST PER HANDHOLE SINGLE PHASE PRIMARY 48" SPLICE BOX

#### WITH SPLICES AND PULL LABOR

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$497.46	\$630.28	\$1,127.74
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$497.46	\$630.28	\$1,127.74
Stores Handling(2)	\$41.49	\$0.00	\$41.49
SubTotal	\$538.95	\$630.28	\$1,169.23
Engineering(4)	\$145.21	\$169.82	\$315.03
TOTAL	\$684.16	\$800.10	\$1,484.26

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIID, single phase primary 48" splice box, for design criteria and assumptions

#### **EXHIBIT XLIII**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26,943%</sup> of All Material and Labor.

### TWO PHASE PRIMARY 48" SPLICE BOX

#### WITH SPLICES AND PULL LABOR

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$578.48	\$996.36	\$1,574.84
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$578.48	\$996.36	\$1,574.84
Stores Handling(2)	\$48.25	\$0.00	\$48.25
SubTotal	\$626.73	\$996.36	\$1,623.09
Engineering(4)	\$168.86	\$268.45	\$437.31
TOTAL	\$795.59	\$1,264.81	\$2,060.40

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIID, two phase primary 48" splice box for design criteria and assumptions

#### **EXHIBIT XLIV**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER HANDHOLE THREE PHASE PRIMARY 48" SPLICE BOX

#### WITH SPLICES AND PULL LABOR

<u> 2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$663.49	\$996.53	\$1,660.02
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$0.00	\$0.00
Sub-Total	\$663.49	\$996.53	\$1,660.02
Stores Handling(2)	\$55.34	\$0.00	\$55.34
SubTotal	\$718.83	\$996.53	\$1,715.36
Engineering(4)	\$193.67	\$268.50	\$462.17
TOTAL	\$912.50	\$1,265.03	\$2,177.53

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIID, three phase 48" primary splice box for design criteria and assumptions

**EXHIBIT XLV** 

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER FOOT -**

#### SINGLE PHASE PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	OVERHEAD UN	IDERGROUND	DIFFERENTIAL
LABOR	\$4,765.35	\$6,053.18	\$1,287.83
MATERIAL	\$2,703.14	\$2,800.63	\$97.49
TOTAL	\$7,468.49	\$8,853.81	\$1,385.32
PER FOOT TOTAL	\$7.47	\$8.85	\$1.38

### OVERHEAD MATERIAL AND LABOR COST PER FOOT SINGLE PHASE PRIMARY LATERAL POLE LINE

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$379.82	\$1,170.47	\$1,550.29
Secondary	\$379.82	\$1,170.47	\$1,550.29
Poles	\$1,205.85	\$1,412.99	\$2,618.84
Transformers	\$0.00	\$0.00	\$0.00
Sub-Total	\$1,965.49	\$3,753.93	\$5,719.42
Stores Handling(2)	\$163.92	\$0.00	\$163.92
SubTotal	\$2,129.41	\$3,753.93	\$5,883.34
Engineering(4)	\$573.73	\$1,011.42	\$1,585.15
TOTAL	\$2,703.14	\$4,765.35	\$7,468.49

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIE, single phase for design criteria and assumptions

#### **EXHIBIT XLVII**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### SINGLE PHASE PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$2,036.38	\$1,111.08	\$3,147.46
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$3,657.34	\$3,657.34
Sub-Total	\$2,036.38	\$4,768.42	\$6,804.80
Stores Handling(2)	\$169.83	\$0.00	\$169.83
SubTotal	\$2,206.21	\$4,768.42	\$6,974.63
Engineering(4)	\$594.42	\$1,284.76	\$1,879.18
TOTAL	\$2,800.63	\$6,053.18	\$8,853.81
PER FOOT TOTAL	\$2.80	\$6.05	\$8.85

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIE, single phase for design criteria and assumptions

#### **EXHIBIT XLVIII**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER FOOT -**

#### TWO PHASE PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u> 2011</u>

ITEM	OVERHEAD UN	NDERGROUND	DIFFERENTIAL
LABOR	\$6,087.34	\$7,429.99	\$1,342.65
MATERIAL	\$3,325.20	\$5,601.19	<b>\$2</b> ,275.99
TOTAL	\$9,412.54	\$13,031.18	\$3,618.64
PER FOOT TOTAL	\$9.41	\$13.03	\$3.62

### OVERHEAD MATERIAL AND LABOR COST PER FOOT TWO PHASE PRIMARY LATERAL POLE LINE

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$769.78	\$2,254.89	\$3,024.67
Secondary	\$384.89	\$1,127.45	\$1,512.34
Poles	\$1,263.13	\$1,412.99	\$2,676.12
Transformers	\$0.00	\$0.00	\$0.00
Sub-Total	\$2,417.80	\$4,795.33	\$7,213.13
Stores Handling(2)	\$201.64	\$0.00	\$201.64
SubTotal	\$2,619.44	\$4,795.33	\$7,414.77
Engineering(4)	\$705.76	\$1,292.01	\$1,997.77
TOTAL	\$3,325.20	\$6,087.34	\$9,412.54

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIE, two phase for design criteria and assumptions  $\ensuremath{\mathsf{B}}$ 

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER FOOT TWO PHASE PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$4,072.71	\$2,195.67	\$6,268.38
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$3,657.34	\$3,657.34
Sub-Total	\$4,072.71	\$5,853.01	\$9,925.72
Stores Handling(2)	\$339.66	\$0.00	\$339.66
SubTotal	\$4,412.37	\$5,853.01	\$10,265.38
Engineering(4)	\$1,188.82	\$1,576.98	\$2,765.80
TOTAL	\$5,601.19	\$7,429.99	\$13,031.18
PER FOOT TOTAL	\$5.60	\$7.43	\$13.03

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIE, two phase for design criteria and assumptions

#### **EXHIBIT LI**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **OVERHEAD VS. UNDERGROUND**

#### **SUMMARY SHEET**

#### **COST PER FOOT -**

#### THREE PHASE PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u> 2011</u>

ITEM	OVERHEAD UNDERGROUND		DIFFERENTIAL	
LABOR	\$7,409.16	\$6,406.98	(\$1,002.18)	
MATERIAL	\$4,290.66	\$9,661.83	\$5,371.17	
TOTAL	\$11,699.82	\$16,068.81	\$4,368.99	
PER FOOT TOTAL	\$11.70	\$16.07	\$4.37	

#### **EXHIBIT LII**

### OVERHEAD MATERIAL AND LABOR COST PER FOOT THREE PHASE PRIMARY LATERAL POLE LINE

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$1,226.67	\$3,317.71	\$4,544.38
Secondary	\$408.88	\$1,105.90	\$1,514.78
Poles	\$1,484.25	\$1,412.99	\$2,897.24
Transformers	\$0.00	\$0.00	\$0.00
Sub-Total	\$3,119.80	\$5,836.60	\$8,956.40
Stores Handling(2)	\$260.19	\$0.00	\$260.19
SubTotal	\$3,379.99	\$5,836.60	\$9,216.59
Engineering(4)	\$910.67	\$1,572.56	\$2,483.23
TOTAL	\$4,290.66	\$7,409.16	\$11,699.82

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 2, IIE, three phase for design criteria and assumptions

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER FOOT THREE PHASE PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$7,025.2 <del>5</del>	\$1,389.79	\$8,415.04
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$3,657.34	\$3,657.34
Sub-Total	\$7,025.25	\$5,047.13	\$12,072.38
Stores Handling(2)	\$585.91	\$0.00	\$585.91
SubTotal	\$7,611.16	\$5,047.13	\$12,658.29
Engineering(4)	\$2,050.67	\$1,359.85	\$3,410.52
TOTAL	\$9,661.83	\$6,406.98	\$16,068.81
PER FOOT TOTAL	\$9.66	\$6.41	\$16.07

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIE, three phase for design criteria and assumptions

#### **EXHIBIT LIV**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

## UNDERGROUND MATERIAL AND LABOR COST PER FOOT SINGLE PHASE PRIMARY LATERAL TRENCH WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$2,036.38	\$1,111.08	\$3,147.46
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$3,657.34	\$3,657.34
Sub-Total	\$2,036.38	\$4,768.42	\$6,804.80
Stores Handling(2)	\$169.83	\$0.00	\$169.83
SubTotal	\$2,206.21	\$4,768.42	\$6,974.63
Engineering(4)	\$594.42	\$1,284.76	\$1,879.18
TOTAL	\$2,800.63	\$6,053.18	\$8,853.81
PER FOOT TOTAL	\$2.80	\$6.05	\$8.85

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIF, single phase for design criteria and assumptions

#### **EXHIBIT LV**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### UNDERGROUND MATERIAL AND LABOR COST PER FOOT

#### TWO PHASE PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### <u>2011</u>

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$4,072.71	\$2,195.67	\$6,268.38
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$3,657.34	\$3,657.34
Sub-Total	\$4,072.71	\$5,853.01	\$9,925.72
Stores Handling(2)	\$339.66	\$0.00	\$339.66
SubTotal	\$4,412.37	\$5,853.01	\$10,265.38
Engineering(4)	\$1,188.82	\$1,576.98	\$2,765.80
TOTAL	\$5,601.19	\$7,429.99	\$13,031.18
PER FOOT TOTAL	\$5.60	\$7.43	\$13.03

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIF, two phase for design criteria and assumptions

#### **EXHIBIT LVI**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

### UNDERGROUND MATERIAL AND LABOR COST PER FOOT THREE PHASE PRIMARY LATERAL TRENCH

#### WITH CABLE-IN-CONDUIT

#### 2011

ITEM	MATERIAL(1)	LABOR(3)	TOTAL
Service	\$0.00	\$0.00	\$0.00
Primary	\$7,025.25	\$1,389.79	\$8,415.04
Secondary	\$0.00	\$0.00	\$0.00
Transformers	\$0.00	\$0.00	\$0.00
Trenching	\$0.00	\$3,657.34	\$3,657.34
Sub-Total	\$7,025.25	\$5,047.13	\$12,072.38
Stores Handling(2)	\$585.91	\$0.00	\$585.91
SubTotal	\$7,611.16	\$5,047.13	\$12,658.29
Engineering(4)	\$2,050.67	\$1,359.85	\$3,410.52
TOTAL	\$9,661.83	\$6,406.98	\$16,068.81
PER FOOT TOTAL	\$9.66	\$6.41	\$16.07

<sup>1 -</sup> Includes Sales Tax.

Note: See Appendix B, page 3, IIIF, three phase for design criteria and assumptions

#### **EXHIBIT LVII**

<sup>2 - 8.34 %</sup> of All Material.

<sup>3 -</sup> Includes Payroll, Taxes, Insurance, P&W, & Transportation.

<sup>4 - 26.943%</sup> of All Material and Labor.

#### **2011 UCD TARIFF**

#### **AVERAGE UCD UNDERGROUND FEEDER COST**

<u>Underground</u> \$/Ft\$36.47	Overhead \$/Ft\$20.93	<u>Difference</u> \$/Ft	\$15.54
	Round To	: \$/Ft	\$15.54
13 kV UG Switch Cabinet (9/3 cabin	et w/ all hardware & c	able) =	\$22,829.89
13 kV Salt Spray UG Switch Cabine	t (9/3 cabinet w/ all ha	irdware & cable) =	\$29,018.96
23 kV UG Switch Cabinet (9/3 cabin	et w/ all hardware & c	able) =	\$28,665.66
23 kV Salt Spray UG Switch Cabine	t (9/3 cabinet w/ all ha	ardware & cable) =	\$35,979.77
13 kV UG Switch Cabinet (6/6 cabin	et w/ all hardware & c	able) =	\$22,296.44
13 kV Salt Spray UG Switch Cabine	t (6/6 cabinet w/ all ha	ardware & cable) =	\$27,873.12
23 kV UG Switch Cabinet (6/6 cabin	et w/ all hardware & o	able) =	\$24,466.29
23 kV Salt Spray UG Switch Cabine	t (6/6 cabinet w/ all ha	ardware & cable) =	\$34,414.70

Based on data from Inventory Services on switch cabinet utilization (new construction only):

5 13 kV 9/3 cabinets

0 13 kV SS 9/3 cabinets

5 23 kV 9/3 cabinets

2 23 kV SS 9/3 cabinets

16 13 kV 6/6 cabinets

3 13 kV SS 6/6 cabinets

16 23 kV 6/6 cabinets

3 23 kV SS 6/6 cabinets

50 Weighted Average: \$25,290.09

\$/Switch Cabinet \$25,290.09

**NOTE:** All estimates based on three phase requirements.

See Exhibit LIX for details.

Note: See Appendix B, page 4, for design criteria and assumptions.

#### **EXHIBIT LVIII**

#### 2011 UCD TARIFF

#### FEEDER COST

For tool worth -	25,428
Feeder Length =	
UG Feeder Cost* (excluding UG switches) =	51,003,724.21
26 UG Lateral Risers not required if UG Feeder is used	
Cost of each Lateral Riser = \$2,937.27	
26 Lateral Risers X \$2,937.27 =	(\$76,369.02)
Net UG Feeder Cost =	\$927,355.19
UG Feeder per foot cost =	\$36,47
OH Feeder Cost (excluding OH switches & hardware) =	\$532,204.19
OH Feeder per foot cost =	\$20.93
Feeder Differential Cost (per foot) =	\$15.54
13 kV UG Switch Cabinet (9/3 cabinet w/ all hardware & cable) =	\$28,220.52 \$35,255.84 \$34,172.55 \$42,370.28 \$27,687.07 \$34,110.00 \$29,973.18 \$40,805.21 \$5,390.63 \$6,236.88 \$5,506.89 \$6,390.51 \$22,829.89 \$29,018.96 \$28,665.66 \$35,979.77 \$22,296.44 \$27,873.12 \$24,466.29 \$34,414.70
Switch Cabinet Differential (Weighted Average) =	\$25,290.09

<sup>\*</sup> These costs include cable-in-conduit and cable pull boxes.

Note: See Appendix B, page 4, for design criteria and assumptions

#### **2011 UCD TARIFF**

#### **SMALL COMMERCIAL SERVICES (1)**

#### WOOD POLE, ACCESSIBLE

	120 VOLT, 2-WIRE SERVICE OVERHEAD UNDERGROUND DIFFERENTIAL			120/240 VOLT, 3-WIRE SERVICE OVERHEAD UNDERGROUND DIFFERENTIAL		
MATERIAL (2)	\$22.98	\$123.18	\$100.20	\$71.67	\$209.26	\$137.59
LABOR(4)	\$106.04	\$604.48	\$498.44	\$118.27	\$625.33	\$507.06
STORES HANDLING (3	\$1.74	\$9.35	\$7.61	\$5.44	\$15.89	\$10.45
ENGINEERING (5)	\$35.23	\$198.58	\$163.35	\$52.65	\$229.14	\$176.49
TOTAL	\$165.99	\$935.59	\$769.60	\$248.03	\$1,079.62	\$831.59

#### WOOD POLE, INACCESSIBLE

	120 VOLT, 2-WIRE SERVICE			120/240 VOLT, 3-WIRE SERVICE		
	OVERHEAD UNDERGROUND DIFFERENTIAL			OVERHEAD UNDERGROUND DIFFERENTIAL		
MATERIAL (2)	\$22.98	\$123.18	\$100.20	\$71.67	\$209.26	\$137.59
LABOR(4)	\$125.12	\$713.30	\$588.18	\$139.56	\$737.90	\$598.34
STORES HANDLING (3	\$1.74	\$9.35	\$7.61	\$5.44	\$15.89	\$10.45
ENGINEERING (5)	\$40.37	\$227.89	\$187.52	\$58.38	\$259.47	\$201.09
TOTAL	\$190.21	\$1,073.72	\$883.51	\$275.05	\$1,222.52	\$947.47

#### CONCRETE POLE, ACCESSIBLE

	120 VOLT, 2-WIRE SERVICE			120/240 VOLT, 3-WIRE SERVICE			
(	OVERHEAD UNDERGROUND DIFFERENTIAL			OVERHEAD I	JNDERGROUND	DIFFERENTIAL	
MATERIAL (2)	\$22.98	\$134.40	\$111.42	\$71.67	\$228.68	\$157.01	
LABOR(4)	\$106.04	\$604.48	\$498.44	\$118.27	\$625.33	\$507.06	
STORES HANDLING (3	\$1.74	\$10.20	\$8.46	\$5.44	\$17.36	\$11.92	
ENGINEERING (5)	\$35.23	\$201.83	\$166.60	\$52.65	\$234.77	\$182.12	
TOTAL	\$165.99	\$950.91	\$784.92	\$248.03	\$1.106.14	\$858.11	

- 1 Conditions for FPL providing the UG service wire to a non-residential customer's meter can include:
  - A) Customer's Main Line Switch is to be less than or equal to 125 amps (120/240 Volt 3-wire service) or 60 amps (120 Volt 2-wire service) AND
  - B) The meter can is at least 5 feet, but not more than 100 feet, from the pole.
- 2 Includes Sales Tax.
- 3 8.34 % of All Material.
- 4 Includes Payroll, Taxes, Insurance, P&W, & Transportation.
- 5 26.943% of All Material and Labor.
- \* These costs include cable-in-conduit and cable pull boxes.

Note: See Appendix B, page 4, for design criteria and assumptions

#### **EXHIBIT LX**

APPENDIX 1 URD