



Sharon Samuels
Procurement Lead

MEMORANDUM

April 24, 2024

TO: Members Participating In the Refurbish, Repair, & Disposal
of Transformers Bid - ITB# 2024-105

FROM: Sharon Samuels

SUBJECT: Preliminary Analysis

Enclosed please find the Preliminary Analysis of the bids received for the Provision of Refurbish, Repair, & Disposal of Transformers Bid - ITB# 2024-105.

FMPA received bids from Electrical Engineering Enterprises of Tampa, FL; Emerald Transformers, Inc, of Defuniak Springs, FL; Miami Transformers of Homestead, FL; MP Predictive Technologies, Inc. of Orlando, FL; and Sunbelt Solomon Services, LLC of Temple, TX;

Included for your information are a copy of the vendor quote analysis and the bidders' clarifications & exceptions.

Please review the information and let me know how your city/utility would like to award this bid, no later than May 3rd. During your evaluation process, please be sure to consider any performance or other issues you may have experienced with these bidders.

If you have any questions or concerns about the bid, please give me a call.

FMPA
Provision of Refurbish, Repair, & Disposal of Transformers
ITB# 2024-105
Bidders Exceptions and Clarifications

ELECTRICAL ENGINEERING ENTERPRISES

- ❖ Offered payment discount 2% for payment made within 15 days of delivery.
- ❖ EEE will price rewinds on an individual basis.
- ❖ EEE priced recloser repair as a lump sum price under “base price”
- ❖ All replacement oil is assumed to be mineral oil; FR3 would be an adder.

EMERALD TRANSFORMERS, INC.

- ❖ Repair base price does not include new oil and parts. New oil and parts will be an additional cost.
 - FMPA spec Section 4 states “All reconditioned and remanufactured transformers are to be filled with new oil.
- ❖ Decommission of Substation Transformers cost is determined by type of metal winding (copper/aluminum), unit size, contents of the unit, and location it's broken down.
- ❖ Diagnostic testing on Substation Type Transformers is TBD - quoted individually.
- ❖ TBD is size and voltage dependent.
- ❖ Recloser Repair base pricing breakdown:

Single Phase Reclosers Repair		
Type	Repair Item ID	Repair Only
L	RCRLL	\$453.60
H	RCRLH	\$416.85
E-F2	RCRLE	\$453.60
V4L	RCRLV4L	\$489.30
V4H	RCRLV4H	\$453.60
4E	RCRL4E	\$489.30
4H	RCRL4H	\$416.85
V4E	RCRLV4E	\$489.30
NOVA TS	RCRLNOVATS	\$972.30

Single Phase Reclosers Sold from Stock		
Type	SFS Item ID	Sold from Stock
V4L	SFSRCRL1PV4L	\$2,088.45
L	SFSRCRL1PL	\$1,405.95
4H	SFSRCRL1P4H	\$1,085.70
V4H	SFSRCRL1PV4H	\$1,668.45
H	SFSRCRL1PH	\$980.70
V4E	SFSRCRL1PV4E	\$2,193.45
E-F2	SFSRCRL1PE	\$2,088.45

MIAMI TRANSFORMERS SERVICE AND REPAIR

- ❖ Cost of any parts will be billed as cost plus 10%.
- ❖ Full load/Miscellaneous loads will not incur any transportation cost.
- ❖ Diagnostic testing includes testing and reports only.
- ❖ This quote is based on that all transformers will have oil upon arrival.
- ❖ Repair based price includes new paint job and stainless steel hardware.
- ❖ Quote is based on all transformers will have oil upon arrival.
- ❖ Substation type units (*submittal noted as TBD1*) and Electric /water meters (*submittal noted as TBD2*) – require additional information to Quote.

MP PREDICTIVE TECHNOLOGIES

- ❖ Disposal of PCB oil, depends on how many gallons of oil will be disposed of. The quoted price of \$30/gal can increase; the more PCB oil there is to dispose of, the bigger the fees are for transporting it and disposing of it at a factory.

SUNBELT SOLOMON SERVICES

- ❖ Diagnostic testing cost for single phase polemounts, single phase padmounts, three phase padmounts, and substation type transformers are included in repair costs.
- ❖ PCB Disposal and associated costs are broken down as follows:
 - PCB oil test \$20.00/ea
 - DGA \$250/ea
 - PCB Wipe Test \$50.00/ea
 - Manifest Charge \$25.00/load
 - All Transformers 50-499ppm \$1.12/lb
 - All Transformers 500+ppm \$1.24/lb
 - PT/CT's 0-49ppm \$0.55/lb
 - PT/CT's 50-499ppm \$0.61/lb
 - PT/CT's 500+ppm and tar filled \$1.78/lb
 - 55 gal drum of oil 0-49ppm \$157.98 per drum (\$2.87 per gallon)
 - 55 gal drum of oil 50-499ppm \$353.80 per drum (\$6.43 per gallon)
 - 55 gal drum of oil 500+ppm \$353.80 per drum (\$6.43 per gallon)
 - 55 gal drum 1500+ppm \$546.10 per drum (\$9.93 per gallon)
- ❖ Recloser repair pricing is broken down as follows:

<u>1 phase type</u>	<u>base price</u>	<u>3 phase type</u>	<u>base price</u>
H, 4H, V4H	\$269	VLR, VSR	\$922
L, E, EF-2	\$285	R&W Class	\$1,843
V4L, 4E, V4E	\$305	VSA	\$7,961
Oil Switches	\$242	Nova	\$1,025
VXE (w/control)	\$1,210	NOVA TS (Bank)	\$1,309
NOVA-1	\$386		
- ❖ Oil, gaskets, tank wall liner, terminal plating, lead insulation kit, bushing, coil are included in recloser repair.
- ❖ Pricing for arrestors in recloser repair are dependent on needed parts.
- ❖ Decommissioning cost for substation transformers will be determined on a case by case basis. Factors including, but not limited to, kVA size, unit location (ease of access/surrounding structure, PCB contamination, and unit condition will be considered to achieve appropriate disposal pricing.

**FLORIDA MUNICIPAL POWER AGENCY
PROVISION OF REFURBISH, REPAIR, AND DISPOSAL OF TRANSFORMERS ITB# 2024-105
VENDOR QUOTE ANALYSIS**

ITEM	Electrical Engineering Enterprises Tampa, FL	Emerald Transformers Defuniak Springs, FL	Miami Transformers Homestead, FL	MP Predictive Technologies Orlando, FL	Sunbelt Solomon Services Temple, TX
	Charge for Service (\$)	Charge for Service (\$)	Charge for Service (\$)	Charge for Service (\$)	Charge for Service (\$)
Screen Tests (ea)	\$160.00	\$22.00	\$70.00	\$350.00	\$20.00
Disposal of PCB Oil	\$12/lb	\$3.61/gal	No Bid	\$30/gal	See Exceptions & Clarifications sheet
Credit for Decommission Transformers - Units that do not complete the repair process per specification.	(\$ per KVA)	(\$ per KVA)	(\$ per KVA)	(\$ per KVA)	(\$ per KVA)
Single Phase Pole Transformers	\$0.50	\$1.25	\$1.44	No Bid	\$3.50
Single Phase Padmount Transformers	\$0.50	\$1.50	\$1.32	No Bid	\$3.60
Three Phase Padmount Transformers	\$0.50	\$1.25	\$0.50	No Bid	\$1.55
Dual Voltage Transformers	\$0.50	\$1.25	\$0.50	No Bid	\$3.50
Substation Type Transformers	\$0.50	TBD	TBD1 requires additional data to quote	No Bid	\$1.50
Electric/Water Meters	\$.10/lb	\$.25/lbs	TBD2 requires additional data to quote	No Bid	\$0.10
DISPOSAL COSTS					
Line Regulators	\$1.50/lb	\$.85/kVA	\$0.00	No Bid	No Charge
OCRs and Oil Switches (ea)	\$3.50/lb	OCR \$45.63/ea.	\$0.00	No Bid	No Charge
Non-PCB Capacitors (lb.)	\$3.50/lb	\$3.61/lb	\$0.65/lb	No Bid	2.58/lb
PCB Capacitors (lb.) (0-49ppm PCB)			N/A	No Bid	2.58/lb
PCB Capacitors (lb.) (50-449ppm PCB)	\$15.00/lb	\$5.61/lb	N/A	No Bid	
PCB Capacitors (lb.) (500-3500ppm)			N/A	No Bid	4.87/lb
Decommissioning Cost for Substation Transformers	\$13,350.00	TBD	\$0.00	No Bid	See Exceptions & Clarifications sheet
RECLOSER REPAIR					
Base Price	\$5,384.00* See Exception & Clarifications	See Exceptions & Clarifications sheet	No Bid	No Bid	See Exceptions & Clarifications sheet
Oil		\$6.95/gal	No Bid	No Bid	Included
Gaskets			No Bid	No Bid	Included
Arrestor			No Bid	No Bid	price depends on parts
Tank Wall Liner			No Bid	No Bid	Included
Bolt Kit		TBD on size and voltage	No Bid	No Bid	\$76.00
Terminal Plating			No Bid	No Bid	Included
Lead Insulation Kit			No Bid	No Bid	Included
Bushing			No Bid	No Bid	Included
Coil			No Bid	No Bid	Included
REGULATOR REPAIR BASE PRICING					
<u>7620 Volts</u>					
38	\$4,460.00	\$1,713.03	\$1,350.00	No Bid	\$2,000.00
57	\$4,684.00	\$1,736.82	\$1,350.00	No Bid	\$2,250.00
76	\$4,907.00	\$1,760.62	\$1,350.00	No Bid	\$2,500.00
114	\$5,130.00	\$2,188.89	\$1,350.00	No Bid	\$2,700.00
167	\$5,333.00	\$2,358.34	\$1,350.00	No Bid	\$2,900.00
250	\$5,576.00	\$2,963.86	\$1,350.00	No Bid	\$3,200.00
333	\$5,799.00	\$3,704.84	\$1,350.00	No Bid	\$3,500.00
334	\$6,022.00	\$3,704.84	\$1,350.00	No Bid	\$3,500.00
<u>14400 Volts</u>					
72	\$4,460.00	\$2,141.32	\$1,350.00	No Bid	\$2,500.00
144	\$5,333.00	\$2,141.32	\$1,350.00	No Bid	\$2,750.00
288	\$5,576.00	\$2,141.32	\$1,350.00	No Bid	\$3,300.00
432	\$6,022.00	\$2,141.32	\$1,350.00	No Bid	\$4,000.00
576	\$6,245.00	\$3,786.42	\$1,350.00	No Bid	\$4,500.00
832	\$6,468.00	\$3,786.42	\$1,350.00	No Bid	\$5,100.00
<u>7960/13800</u>					
333	\$6,022.00	\$3,704.84	\$1,350.00	No Bid	\$3,500.00
Adder for units with taps or dual voltage	\$1,650.00	\$0.00	N/A	No Bid	none
TRANSPORTATION COSTS					
Transportation from Bidder's Facility to Zone 1	\$975.00	\$0.00	\$2,400.00	\$958.00	Included
Transportation from Bidder's Facility to Zone 2	\$975.00	\$0.00	\$1,700.00	\$719.00	Included
Transportation from Bidder's Facility to Zone 3	\$975.00	\$0.00	\$1,200.00	\$1,699.50	Included
Transportation from Bidder's Facility to Zone 4	\$2,145.00	\$0.00	\$700.00	\$2,620.00	Included
Transportation from Bidder's Facility to Zone 5	\$2,145.00	\$0.00	\$3,400.00	\$1,955.00	Included

FLORIDA MUNICIPAL POWER AGENCY
PROVISION OF REFURBISH, REPAIR, AND DISPOSAL OF TRANSFORMERS ITB# 2024-105
VENDOR QUOTE ANALYSIS

Electrical Engineering Enterprises				Emerald Transformers				Miami Transformers				MP Predictive Technologies				Sunbelt Solomon Services			
REPAIR BASE PRICING				REPAIR BASE PRICING				REPAIR BASE PRICING				REPAIR BASE PRICING				REPAIR BASE PRICING			
Single Phase Pole mounts				Single Phase Pole mounts				Single Phase Pole mounts				Single Phase Pole mounts				Single Phase Pole mounts			
KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind
10	\$2,662	\$5,923		10	\$468.31	\$468.31	\$873.11	10	No Bid	\$970.67	\$2,500.00	10	NO BID			10	\$390.00	\$382.50	\$2,160.90
15	\$2,662	\$5,923		15	\$594.72	\$594.72	\$1,049.66	15	No Bid	\$970.67	\$3,100.00	15				15	\$395.00	\$418.50	\$2,160.90
25	\$2,738	\$6,000		25	\$625.25	\$625.25	\$1,383.63	25	No Bid	\$1,027.00	\$3,450.00	25				25	\$400.00	\$459.00	\$2,160.90
37.5	\$2,969	\$6,231		37.5	\$771.14	\$771.14	\$1,779.88	37.5	No Bid	\$1,040.00	\$3,550.00	37.5				37.5	\$427.00	\$634.50	\$3,282.30
50	\$3,123	\$6,385		50	\$946.17	\$946.17	\$2,147.72	50	No Bid	\$1,137.50	\$3,850.00	50				50	\$499.00	\$783.00	\$3,282.30
75	\$3,123	\$6,385		75	\$1,162.00	\$1,162.00	\$2,938.12	75	No Bid	\$1,250.00	\$4,700.00	75				75	\$614.00	\$922.50	\$3,756.60
100	\$3,123	\$6,385		100	\$1,302.59	\$1,302.59	\$3,771.28	100	No Bid	\$1,650.00	\$5,900.00	100				100	\$635.00	\$1,404.00	\$4,069.80
167	\$3,354	\$7,308		167	\$1,764.65	\$1,764.65	\$5,775.99	167	No Bid	\$2,450.00	\$6,250.00	167				167	\$755.00	\$1,773.00	\$4,644.00
250	\$3,354	\$8,077		250	\$2,380.49	\$2,380.49	\$8,921.03	250	No Bid	\$3,500.00	\$6,950.00	250				250	\$1,253.00	\$2,974.50	\$7,772.40
333	\$3,354	\$8,462		333	\$3,142.73	\$3,142.73	\$10,943.12	333	No Bid	\$4,000.00	\$8,000.00	333				333	\$1,518.00	\$4,158.00	\$10,878.30
500	\$3,364	\$9,385		500	\$3,691.26	\$3,691.26	\$14,974.56	500	No Bid	\$4,450.00	\$10,300.00	500				500	\$1,750.00	\$5,854.50	\$15,284.70
Single Phase Pad mounts				Single Phase Pad mounts				Single Phase Pad mounts				Single Phase Pad mounts				Single Phase Pad mounts			
KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind
25	\$3,854	\$6,846		25	\$1,403.32	\$1,403.32	\$3,483.79	25	No Bid	\$2,240	\$3,675.00	25	\$1,980	NO BID		25	\$1,045.00	\$1,177.20	\$3,335.40
37.5	\$3,854	\$6,846		37.5	\$1,506.41	\$1,506.41	\$3,671.27	37.5	No Bid	\$2,280	\$3,750.00	37.5	\$1,980			37.5	\$1,095.00	\$1,305.00	\$3,697.20
50	\$3,854	\$6,846		50	\$1,789.42	\$1,789.42	\$4,531.62	50	No Bid	\$2,500	\$4,000.00	50	\$1,980			50	\$1,137.00	\$1,348.20	\$3,818.70
75	\$3,854	\$6,846		75	\$1,946.01	\$1,946.01	\$5,352.89	75	No Bid	\$2,850	\$4,950.00	75	\$1,980			75	\$1,386.00	\$1,544.40	\$4,375.80
100	\$3,854	\$7,154		100	\$2,122.03	\$2,122.03	\$6,335.56	100	No Bid	\$3,700	\$6,100.00	100	\$1,980			100	\$1,583.00	\$1,803.60	\$5,110.20
167	\$4,008	\$8,077		167	\$2,149.22	\$2,149.22	\$7,296.77	167	No Bid	\$4,250	\$6,500.00	167	\$1,980			167	\$1,845.00	\$3,496.50	\$9,838.80
Three Phase Pad mounts				Three Phase Pad mounts				Three Phase Pad mounts				Three Phase Pad mounts				Three Phase Pad mounts			
KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind	KVA	Minor	Recondition	Rewind
150	\$4,085	\$13,000		150	\$3,967.00	\$3,967.00	\$6,316.60	150	No Bid	\$8,800	\$22,900.00	150	\$2,580	NO BID		150	\$3,974.00	\$5,418.90	\$13,633.20
300	\$4,085	\$13,000		300	\$5,339.00	\$5,339.00	\$8,873.15	300	No Bid	\$13,500	\$27,000.00	300	\$2,580			300	\$4,157.00	\$6,052.50	\$16,096.50
500	\$4,538	\$13,154		500	\$6,389.00	\$6,389.00	\$11,236.80	500	No Bid	\$13,850	\$30,900.00	500	\$2,580			500	\$4,249.00	\$7,015.40	\$20,857.50
750	\$4,692	\$17,077		750	\$7,639.00	\$7,639.00	\$13,786.80	750	No Bid	\$14,500	\$38,950.00	750	\$2,580			750	\$6,556.00	\$8,199.90	\$24,262.20
1000	\$5,231	\$18,692		1000	\$8,874.62	\$8,874.62	\$15,086.80	1000	No Bid	\$18,200	\$43,212.00	1000	\$3,480			1000	\$8,863.00	\$9,824.40	\$25,624.80
1500	\$5,615	\$21,000		1500	\$10,389.00	\$10,389.00	\$22,570.00	1500	No Bid	\$19,350	\$49,995.00	1500	\$3,480			1500	\$12,500.00	\$13,050.00	\$32,134.50
2000	\$6,077	\$22,646		2000	\$11,539.00	\$11,539.00	\$26,538.89	2000	No Bid	\$24,500	\$56,450.00	2000	\$3,480			2000	\$15,750.00	\$15,960.00	\$40,833.90
2500	\$6,923	\$26,954		2500	\$14,347.27	\$14,347.27	\$31,486.80	2500	No Bid	\$29,125	\$63,735.00	2500	\$3,480			2500	\$1,800.00	\$18,673.20	\$45,709.20
1PH polemounts	\$33,826	\$76,464	No Bid	1PH polemounts	\$16,849	\$16,849	\$54,558	1PH polemounts	\$0	\$22,446	\$58,550	1PH polemounts	No Bid	NO BID		1PH polemounts	\$8,636.00	\$19,764.00	\$59,453.10
1PH padmounts	\$23,278	\$42,615	No Bid	1PH padmounts	\$10,916	\$10,916	\$30,672	1PH padmounts	\$0	\$17,820	\$28,975	1PH padmounts	\$11,880			1PH padmounts	\$8,091.00	\$10,674.90	\$49,396.50
3PH padmounts	\$41,246	\$145,523	No Bid	3PH padmounts	\$68,484	\$68,484	\$135,896	3PH padmounts	\$0	\$141,825	\$333,142	3PH padmounts	\$24,240			3PH padmounts	\$57,849.00	\$84,194.30	\$219,151.80
TOTALS	\$98,350	\$264,602	No Bid	TOTALS	\$96,250	\$96,250	\$221,126	TOTALS	\$0	\$182,091	\$420,667	TOTALS	No Bids			TOTALS	\$74,576.00	\$114,633.20	\$328,001.40

Note: All Parts and Oil are additional charge.

FLORIDA MUNICIPAL POWER AGENCY
PROVISION OF REFURBISH, REPAIR, AND DISPOSAL OF TRANSFORMERS ITB# 2021-105
VENDOR QUOTE ANALYSIS

Electrical Engineering Enterprises		Emerald Transformers		Miami Transformers		MP Predictive Technologies		Sunbelt Solomon Services	
DIAGNOSTIC TESTING PRICING		DIAGNOSTIC TESTING PRICING		DIAGNOSTIC TESTING PRICING		DIAGNOSTIC TESTING PRICING		DIAGNOSTIC TESTING PRICING	
Single Phase Pole mounts		Single Phase Pole mounts		Single Phase Pole mounts		Single Phase Pole mounts		Single Phase Pole mounts	
KVA	Price	KVA	Price	KVA	Price	KVA	Price	KVA	Price
10	\$275	10	\$468.21	10	\$455	10	\$1,380	10	Included in Repair Cost
15	\$275	15	\$594.72	15	\$455	15	\$1,380	15	Included in Repair Cost
25	\$275	25	\$625.25	25	\$455	25	\$1,380	25	Included in Repair Cost
37.5	\$275	37.5	\$771.14	37.5	\$455	37.5	\$1,380	37.5	Included in Repair Cost
50	\$275	50	\$946.17	50	\$455	50	\$1,380	50	Included in Repair Cost
75	\$275	75	\$1,162.00	75	\$455	75	\$1,380	75	Included in Repair Cost
100	\$275	100	\$1,302.59	100	\$455	100	\$1,980	100	Included in Repair Cost
167	\$275	167	\$1,764.65	167	\$455	167	\$1,980	167	Included in Repair Cost
250	\$275	250	\$2,380.49	250	\$455	250	\$2,580	250	Included in Repair Cost
333	\$275	333	\$3,142.73	333	\$455	333	\$2,580	333	Included in Repair Cost
500	\$275	500	\$3,691.26	500	\$455	500	\$2,580	500	Included in Repair Cost
Single Phase Pad mounts		Single Phase Pad mounts		Single Phase Pad mounts		Single Phase Pad mounts		Single Phase Pad mounts	
KVA	Price	KVA	Price	KVA	Price	KVA	Price	KVA	Price
25	\$275	25	\$1,403.32	25	\$550	25	\$1,380	25	Included in Repair Cost
37.5	\$275	37.5	\$1,506.41	37.5	\$550	37.5	\$1,380	37.5	Included in Repair Cost
50	\$275	50	\$1,789.42	50	\$550	50	\$1,380	50	Included in Repair Cost
75	\$275	75	\$1,946.01	75	\$550	75	\$1,380	75	Included in Repair Cost
100	\$275	100	\$2,122.03	100	\$550	100	\$1,980	100	Included in Repair Cost
167	\$275	167	\$2,149.22	167	\$550	167	\$1,980	167	Included in Repair Cost
Three Phase Pad mounts		Three Phase Pad mounts		Three Phase Pad mounts		Three Phase Pad mounts		Three Phase Pad mounts	
KVA	Price	KVA	Price	KVA	Price	KVA	Price	KVA	Price
150	\$385	150	\$3,967.00	150	\$750	150	\$1,380	150	Included in Repair Cost
300	\$385	300	\$5,339.00	300	\$750	300	\$1,380	300	Included in Repair Cost
500	\$495	500	\$6,389.00	500	\$750	500	\$1,380	500	Included in Repair Cost
750	\$495	750	\$7,639.00	750	\$750	750	\$1,980	750	Included in Repair Cost
1000	\$495	1000	\$8,874.62	1000	\$750	1000	\$1,980	1000	Included in Repair Cost
1500	\$605	1500	\$10,389.00	1500	\$750	1500	\$1,980	1500	Included in Repair Cost
2000	\$605	2000	\$11,539.00	2000	\$750	2000	\$1,980	2000	Included in Repair Cost
2500	\$605	2500	\$14,347.27	2500	\$750	2500	\$1,980	2500	Included in Repair Cost
Substation Type Transformers		Substation Type Transformers		Substation Type Transformers		Substation Type Transformers		Substation Type Transformers	
KVA	Price	KVA	Price	KVA	Price	KVA	Price	KVA	Price
No Bid		TBD - see Exceptions & Clarifications		300 - 5,000	No Bid	300 - 5,000	No Bid	300 - 5,000	Included in Repair Cost
1PH polemounts 1PH padmounts 3PH padmounts Substation Transformers	\$3,025	\$16,849		\$5,005		\$19,980			Included in Repair Cost
	\$1,650	\$10,916		\$3,300		\$9,480			Included in Repair Cost
	\$4,070	\$68,484		\$6,000		\$14,040			Included in Repair Cost
	No Bid	See Exceptions page		No Bid		No Bid			Included in Repair Cost
TOTALS	\$8,745	\$96,250		\$14,305		\$43,500			Included in Repair Cost