

LG&E - KU- Ghent Common (Without SCR) rev. B

B&V PROJECT #: 168908
 PROJECT ESTIMATOR: Ron Fields
 PROJECT MANAGER: Tim Hillman
 PURPOSE OF ESTIMATE: Budgetary
 ESTIMATE DATE: April-11

LOCATION: Carroll County, KY
 PLANT TYPE: PC Fired Boiler
 CLIENT: LG&E - KU
 PARTNER: N/A
 CURRENCY: US Dollars

BLACK AND VEATCH CONFIDENTIAL AND PROPRIETARY INFORMATION

Contract Number	Description	PROJECT - TOTAL COSTS					% OF TOTAL C.V.
		Engr Equip	Commodities	Labor \$	Manhours	Other	
		Material \$	Material \$	Labor \$	Manhours	Other	TOTAL \$

ESTIMATE SUMMARY

Purchase Contracts:

63.0000	Electrical - Reserve Switchgear , MCC's, Raceway	\$100,000	\$2,876,090	\$0	0	\$0	\$2,976,090	12.40%
63.3002	VFDs, Motors and Couplings	\$0	\$0	\$0	0	\$0	\$0	0.00%
63.3603	Reserve Switchgear and MCCs	\$165,000	\$0	\$0	0	\$500,000	\$665,000	2.77%
63.3802	Reserve Aux Transformers	\$2,128,000	\$0	\$0	0	\$0	\$2,128,000	8.87%
63.3803	Aux Transformer	\$0	\$0	\$0	0	\$0	\$0	0.00%
63.4400	345 kV Transmission Lines Relocation	\$0	\$0	\$0	0	\$0	\$0	0.00%
64.0000	Control - Reserve I/O points	\$66,000	\$0	\$0	0	\$0	\$66,000	0.27%
65.3120	PJFF / Fabric Filter	\$0	\$0	\$0	0	\$0	\$0	0.00%
65.3210	Scrubber Island w/ Fabric filter	\$0	\$0	\$0	0	\$0	\$0	0.00%
65.3311	Catalyst	\$0	\$0	\$0	0	\$0	\$0	0.00%
65.3310	Selective Catalytic Reduction System	\$0	\$0	\$0	0	\$0	\$0	0.00%
65.3500	H-PAC Mercury Control	\$0	\$0	\$0	0	\$0	\$0	0.00%
66.1000	Piping and Tubing	\$0	\$0	\$0	0	\$0	\$0	0.00%
66.2070	Pipe Supports	\$0	\$0	\$0	0	\$0	\$0	0.00%
66.3000	Valves and Accessories	\$0	\$0	\$0	0	\$0	\$0	0.00%
67.9300	Compressors	\$0	\$0	\$0	0	\$0	\$0	0.00%
67.9532	ID Fans	\$0	\$0	\$0	0	\$0	\$0	0.00%
Subtotal Purchase Contracts:		\$2,459,000	\$2,876,090	\$0	0	\$500,000	\$5,835,090	24.31%

Construction Contracts:

71.0401	Civil / Structural Construction - Cast in-place Piling	\$0	\$0	\$0	0	\$49,000	\$49,000	0.20%
71.0402	Civil / Structural Construction - Super Structures	\$0	\$0	\$0	0	\$0	\$0	0.00%
71.0403	Civil / Structural Construction - Sub-Structures	\$0	\$138,465	\$418,707	7,464	\$18,200	\$575,371	2.40%
71.0822	Civil / Structural Construction - Fly Ash Silo	\$0	\$0	\$0	0	\$0	\$0	0.00%
72.0000	Mechanical / Chemical Construction	\$0	\$0	\$0	0	\$1,121,000	\$1,121,000	4.67%
73.0000	Electrical / Control Construction	\$0	\$0	\$4,697,536	75,185	\$0	\$4,697,536	19.57%
77.0000	Mechanical Construction	\$0	\$0	\$0	0	\$0	\$0	0.00%
78.0000	Service Contracts & Construction Indirects	\$0	\$637,995	\$734,938	15,769	\$2,275,720	\$3,648,654	15.20%
Subtotal Construction Contracts:		\$0	\$776,460	\$5,851,181	98,417	\$3,463,920	\$10,091,561	42.05%

Total Direct Costs

\$2,459,000	\$3,652,550	\$5,851,181	98,417	\$3,963,920	\$15,926,651	66.36%
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Indirect Costs:

99.1100	Engineering Costs (Includes G&A & Fee)	\$0	\$0	\$615,000	15,000	\$913,890	\$1,528,890	6.37%
99.1200	EPC Construction Management (Includes G&A & Fee)	\$0	\$13,594	\$1,061,161	23,272	\$1,482,019	\$2,556,773	10.65%
99.1500	Project Insurance	\$0	\$0	\$0	0	\$257,838	\$257,838	1.07%
99.1600	Performance Bond	\$0	\$0	\$0	0	\$110,502	\$110,502	0.46%
99.1900	Sales Tax 6% of Indirect materials and Services	\$0	\$11,691	\$0	0	\$0	\$11,691	0.05%
99.2500	Project Contingency 10%	\$0	\$0	\$0	0	\$2,039,235	\$2,039,235	8.50%
99.2600	EPC Profit	\$0	\$0	\$0	0	\$1,570,000	\$1,570,000	6.54%
Total Indirect Costs		\$0	\$25,285	\$1,676,161	38,272	\$6,373,483	\$8,074,929	33.64%

Total Overnight (April 2011) EPC Capital Costs:

\$2,459,000	\$3,677,835	\$7,527,342	136,689	\$10,337,404	\$24,001,580	100.00%
\$0	\$0	\$0	0	\$0	\$0	0.00%

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Contract Number	Description	PROJECT - TOTAL COSTS					% OF TOTAL C.V.
		Engr Equip Material \$	Commodities Material \$	Labor \$	Manhours	Other	

ESTIMATE SUMMARY

Purchase Contracts:

63.0000	Electrical	\$2,393,000	\$2,876,090	\$0	0	\$500,000	\$5,769,090	24.04%
64.0000	Control	\$66,000	\$0	\$0	0	\$0	\$66,000	0.27%

Subtotal Purchase Contracts: \$2,459,000 \$2,876,090 \$0 0 \$500,000 \$5,835,090 24.31%

Construction Contracts:

71.0402	Civil / Structural Construction -Substructures	\$0	\$138,465	\$418,707	7,464	\$67,200	\$624,371	2.60%
71.0403	Civil / Structural Construction -Superstructures	\$0	\$0	\$0	0	\$0	\$0	0.00%
72.0000	Mechanical / Chemical Construction	\$0	\$0	\$0	0	\$1,121,000	\$1,121,000	4.67%
73.0000	Electrical / Control Construction	\$0	\$0	\$4,697,536	75,185	\$0	\$4,697,536	19.57%
78.0000	Service Contracts & Construction Indirects	\$0	\$637,995	\$734,938	15,769	\$2,275,720	\$3,648,654	15.20%

Subtotal Construction Contracts: \$0 \$776,460 \$5,851,181 98,417 \$3,463,920 \$10,091,561 42.05%

Total Direct Costs \$2,459,000 \$3,652,550 \$5,851,181 98,417 \$3,963,920 \$15,926,651 66.36%

Indirect Costs:

99.1100	Engineering Costs (With G&A)	\$0	\$0	\$615,000	15,000	\$913,890	\$1,528,890	6.37%
99.1200	Construction Management (With G&A)	\$0	\$13,594	\$1,061,161	23,272	\$1,482,019	\$2,556,773	10.65%
99.1500	Project Insurance	\$0	\$0	\$0	0	\$257,838	\$257,838	1.07%
99.1600	Performance Bond	\$0	\$0	\$0	0	\$110,502	\$110,502	0.46%
99.1900	Sales Tax 6% of Indirect materials and Services	\$0	\$11,691	\$0	0	\$0	\$11,691	0.05%
99.2500	Project Contingency 10%	\$0	\$0	\$0	0	\$2,039,235	\$2,039,235	8.50%
99.2600	EPC profit	\$0	\$0	\$0	0	\$1,570,000	\$1,570,000	6.54%

Total Indirect Costs \$0 \$25,285 \$1,676,161 38,272 \$6,373,483 \$8,074,929 33.64%

Total Overnight (April 2011) EPC Capital Costs: \$2,459,000 \$3,677,835 \$7,527,342 136,689 \$10,337,404 \$24,001,580 100.00%

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Contract Number	Description	PROJECT - TOTAL COSTS					% OF TOTAL C.V.	
		Engr Equip Material \$	Commodities Material \$	Labor \$	Manhours	Other		TOTAL \$
Civil / Structural Purchase Contracts:								
	Subtotal - Civil / Structural Purchase Contracts:	\$0	\$0	\$0	0	\$0	\$0	0.00%
Mechanical Purchase Contracts:								
	Subtotal - Mechanical Purchase Contracts:	\$0	\$0	\$0	0	\$0	\$0	0.00%
Electrical Purchase Contracts:								
63.0801	Cable - 8-15KV Power	\$0	\$353,280	\$0	0	\$0	\$353,280	1.47%
63.0802	Cable and Raceway	\$0	\$4,250	\$0	0	\$0	\$4,250	0.02%
63.1202	Cable Bus	\$0	\$2,390,560	\$0	0	\$0	\$2,390,560	9.96%
63.3600	Switchgear and Motor Control Assemblies	\$100,000	\$0	\$0	0	\$0	\$100,000	0.42%
63.3603	Switchgear & MCCs	\$165,000	\$0	\$0	0	\$500,000	\$665,000	2.77%
63.3802	SUS Transformers	\$2,128,000	\$0	\$0	0	\$0	\$2,128,000	8.87%
63.5020	Raceway - Duct Bank Materials	\$0	\$128,000	\$0	0	\$0	\$128,000	0.53%
	Subtotal - Electrical Purchase Contracts:	\$2,393,000	\$2,876,090	\$0	0	\$500,000	\$5,769,090	24.04%
Control Purchase Contracts:								
64.0202	Common Reser Common Reserve I/O Points	\$66,000	\$0	\$0	0	\$0	\$66,000	0.27%
	Subtotal - Control Purchase Contracts:	\$66,000	\$0	\$0	0	\$0	\$66,000	0.27%
Chemical Purchase Contracts:								
	Subtotal - Chemical Purchase Contracts:	\$0	\$0	\$0	0	\$0	\$0	0.00%
	Subtotal Purchase Contracts:	\$2,459,000	\$2,876,090	\$0	0	\$500,000	\$5,835,090	24.31%

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		Engr Equip Material \$	Commodities Material \$	Labor \$	Manhours	Other		TOTAL \$
Civil / Structural Construction Contracts:								
71.0401	Cast In place Piling	\$0	\$0	\$0	0	\$0	\$49,000	0.20%
71.0402	General Construction - Substructures	\$0	\$138,465	\$418,707	7,464	\$18,200	\$575,371	2.40%
71.0822	Fly Ash Silo	\$0	\$0	\$0	0	\$0	\$0	0.00%
Subtotal - Civil / Structural Construction Contracts:		\$0	\$138,465	\$418,707	7,464	\$67,200	\$624,371	2.60%
Mechanical Construction Contracts:								
72.0800	Fire Protection & Detection Systems	\$0	\$0	\$0	0	\$0	\$1,121,000	4.67%
Subtotal - Mechanical Construction Contracts:		\$0	\$0	\$0	0	\$1,121,000	\$1,121,000	4.67%
Electrical / Control Construction Contracts:								
73.0201	Electrical Equipment Erection	\$0	\$0	\$0	0	\$0	\$4,673,544	19.47%
Subtotal - Electrical / Control Construction Contracts:		\$0	\$0	\$4,697,536	75,185	\$0	\$4,697,536	19.57%
Construction Indirects & Service Contracts:								
78.0000	Service Contracts & Construction Indirects	\$0	\$0	\$0	0	\$0	\$3,600,854	15.00%
78.4000	Warranty	\$0	\$637,995	\$734,938	15,769	\$2,227,920	\$3,600,854	15.00%
Subtotal - Construction Indirects & Service Contracts:		\$0	\$637,995	\$734,938	15,769	\$2,275,720	\$3,648,654	15.20%
Subtotal - Construction Costs:		\$0	\$776,460	\$5,851,181	98,417	\$3,463,920	\$10,091,561	42.05%
Subtotal - Direct Costs:		\$2,459,000	\$3,652,550	\$5,851,181	98,417	\$3,963,920	\$15,926,651	66.36%
Indirect Costs:								
99.1100	Engineering Costs (Includes G&A & Fee)	\$0	\$0	\$0	0	\$0	\$1,528,890	6.37%
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