

LG&E - KU - E. W. Brown Apportioned Costs Rev. B (Without SCR)

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

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

Section 1: Brown ⁸	Engineered Equipment Purchase		Variable O&M		Levelized Annual Cost ⁵	Equipment Demolition Cost ⁶	\$/KW ⁷	
	Total Project Cost ¹	Cost ²	Fixed O&M Cost	Cost ³				Total O&M Cost ⁴
Unit 1	90,029,403	10,801,804	363,340	2,012,578	2,375,918	13,332,497	405,472	818
Unit 2	97,594,313	14,138,894	364,976	4,124,955	4,489,931	16,367,158	452,135	542
Unit 3	96,693,913	22,849,720	383,260	6,344,701	6,727,961	18,495,611	735,000	212
Common Facilities	16,298,428	211,182	-	-	-	1,983,519	-	-
Total Ghent	300,616,056	48,001,601	1,111,576	12,482,234	13,593,810	50,178,784	1,592,607	1,572

Section 2: Brown ⁹	Engineered Equipment Purchase		Variable O&M		Levelized Annual Cost ⁵	Equipment Demolition Cost ⁶	\$/KW ⁷	
	Total Project Cost ¹	Cost ²	Fixed O&M Cost	Cost ³				Total O&M Cost ⁴
Unit 1								Apportioned
PJFF	84,872,643	9,551,804	319,340	313,925	633,265	10,962,266	405,472	772
PAC Injection	1,839,505	500,000	14,000	1,182,766	1,196,766	1,420,634	-	17
Sorbent Injection	2,105,287	750,000	30,000	465,887	495,887	752,100	-	19
Neural Network	1,211,968	-	-	50,000	50,000	197,496	-	11
Common Facilities	5,432,809	70,394	-	-	-	661,173	-	-
Total Brown 1	95,462,212	10,872,198	363,340	2,012,578	2,375,918	13,993,669	405,472	818
Unit 2								Apportioned
PJFF	91,999,393	12,888,894	320,976	627,534	948,510	12,144,836	452,135	511
PAC Injection	2,079,758	500,000	14,000	2,358,535	2,372,535	2,625,642	-	12
Sorbent Injection	2,337,924	750,000	30,000	1,088,885	1,118,885	1,403,411	-	13
Neural Network	1,177,238	-	-	50,000	50,000	193,270	-	7
Common Facilities	5,432,809	70,394	-	-	-	661,173	-	-
Total Brown 2	103,027,122	14,209,288	364,976	4,124,955	4,489,931	17,028,331	452,135	542
Unit 3								Apportioned
PJFF	92,421,952	22,149,720	369,260	777,703	1,146,963	12,394,715	735,000	202
PAC Injection	3,235,626	700,000	14,000	5,516,998	5,530,998	5,924,774	-	7
Neural Network	1,036,335	-	-	50,000	50,000	176,122	-	2
Common Facilities	5,432,809	70,394	-	-	-	661,173	-	-
Total Brown 3	102,126,722	22,920,114	383,260	6,344,701	6,727,961	19,156,783	735,000	212
Total Brown	300,616,056	48,001,601	1,111,576	12,482,234	13,593,810	50,178,784	1,592,607	1,572

Notes:

- 1 Total Project Cost = project capital cost for installed equipment + demolition cost (as applicable). O&M is not included.
- 2 Cost to purchase EPC Engineered materials and associated equipment. Does not include contractor bulk commodities and furnish and erect pricing.
- 3 Variable costs include auxiliary power costs.
- 4 The total O&M costs is the annual fixed O&M plus the annual variable O&M for when the unit and the new equipment are in service and not while the new equipment is under construction. These values (fixed, variable, and total) are the **incremental/differential** O&M above what may already be budgeted. This estimate excludes the cost of fuel, but considers the existing equipment being removed from service and the new equipment being added.
- 5 Levelized annual cost = Total Project Cost x Capital Recovery Factor (12.17%)+ Total O&M Costs
- 6 Cost to remove various existing equipment to accommodate installation of new AQC equipment.
- 7 Based on Total Project Cost. \$/KW = Total Project Cost / (Unit MW Capacity x 1000)
- 8 The cost data contained in this section are based on the May 2, 2011 E.W. Brown AQC Budgetary Cost Analysis Report Document.
- 9 The costs contained in this section for each piece of equipment have been apportioned from the Section 1 costs.