

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

Section 1: Ghent ⁹	Total Project Cost ¹	Engineered	Variable O&M		Levelized Annual	Equipment	\$ /KW ⁷
		Equipment	Fixed O&M Cost	Cost ³		Demolition	
		Purchase Cost ²		Cost ³	Cost ⁵	Cost ⁶	
Unit 1	122,234,594	29,678,322	360,500	11,966,598	12,327,098	-	226
Unit 2	127,950,512	29,574,192	410,500	14,804,391	15,214,891	350,000	247
Unit 3	143,828,446	37,865,622	339,500	12,243,679	12,583,179	30,087,100	275
Unit 4	132,236,607	35,664,318	310,500	11,497,485	11,807,985	27,901,180	251
Common Facilities	24,001,580	2,459,000	-	-	2,920,992	-	-
Total Ghent	550,251,739	135,241,455	1,421,000	50,512,153	51,933,153	118,898,790	1,032,838

Section 2: Ghent ⁹	Total Project Cost ¹	Engineered	Variable O&M		Levelized Annual	Equipment	\$ /KW ⁷
		Equipment	Fixed O&M Cost	Cost ³		Demolition	
		Purchase Cost ²		Cost ³	Cost ⁵	Cost ⁶	
Unit 1							
PJFF	117,741,102	28,678,322	347,500	1,980,798	2,328,298	16,657,390	218
PAC Injection	3,426,209	1,000,000	13,000	9,935,800	9,948,800	10,365,770	6
Neural Network	1,067,284	-	-	50,000	50,000	179,888	2
Common Facilities	6,000,395	614,750	-	-	730,248	-	-
Total Ghent 1	128,234,989	30,293,072	360,500	11,966,598	12,327,098	27,933,296	226
Unit 2							
PJFF	118,557,144	26,574,192	362,500	2,400,540	2,763,040	17,191,445	229
PAC Injection	3,469,131	1,000,000	13,000	8,503,760	8,516,760	8,938,953	7
Sorbent Injection	4,857,581	2,000,000	35,000	3,850,091	3,885,091	4,476,259	9
Neural Network	1,066,657	-	-	50,000	50,000	179,812	2
Common Facilities	6,000,395	614,750	-	-	730,248	-	-
Total Ghent 2	133,950,907	30,188,942	410,500	14,804,391	15,214,891	31,516,717	247
Unit 3							
PJFF	138,201,717	36,865,622	326,500	1,956,995	2,283,495	19,102,644	264
PAC Injection	4,622,576	1,000,000	13,000	10,236,683	10,249,683	10,812,251	9
Neural Network	1,004,154	-	-	50,000	50,000	172,205	2
Common Facilities	6,000,395	614,750	-	-	730,248	-	-
Total Ghent 3	149,828,841	38,480,372	339,500	12,243,679	12,583,179	30,817,349	275
Unit 4							
PJFF	126,692,085	34,664,318	297,500	1,809,061	2,106,561	17,524,988	241
PAC Injection	4,515,900	1,000,000	13,000	9,638,424	9,651,424	10,201,009	9
Neural Network	1,028,621	-	-	50,000	50,000	175,183	2
Common Facilities	6,000,395	614,750	-	-	730,248	-	-
Total Ghent 4	138,237,002	36,279,068	310,500	11,497,485	11,807,985	28,631,428	251
Total Ghent	550,251,739	135,241,455	1,421,000	50,512,153	51,933,153	118,898,790	1,032,838

Notes:

- Total Project Cost = project capital cost for installed equipment + demolition cost (as applicable). O&M is not included.
- Cost to purchase EPC Engineered materials and associated equipment. Does not include contractor bulk commodities and furnish and erect pricing.
- Variable costs include auxiliary power costs.
- 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.
- Levelized annual cost = Total Project Cost x Capital Recovery Factor (12.17%) + Total O&M Costs
- Cost to remove various existing equipment to accommodate installation of new AQC equipment.
- Based on Total Project Cost. \$/KW = Total Project Cost / (Unit MW Capacity x 1000)
- The cost data contained in this section are based on the April 11, 2011 Ghent AQC Budgetary Cost Analysis Report Document.
- The costs contained in this section for each piece of equipment have been apportioned from the Section 1 costs.