Updated Cost Estimate

Description		pdated RI	
		Advatech	Comments / Notes
bital (CWIP)		Estimate	
Contractor Total Cost	\$	279 240	Our Note 4
Contractor Total Cost	Þ	378,210	See Note 1
Owners Costs			
Ameren Engineering	\$	13,000	See Note 2
Ameren Supervision, Commissioning & Field OH	\$	-	Included Above
Owners Engineer	\$	8,000	N/C - See Note 2
Training (seat time)	\$	1,400	Based on Sioux Estimate
Capital Spare Parts / Commissioning Fills	\$	1,000	Reduced Based on Shorter Plant Life
Property Taxes	\$	20,000	N/C
OCIP	\$	11,000	N/C
Project Auditing	\$	1,000	N/C
Permit Fees	\$	1,000	N/C
Chimney Demo	\$	6,000	N/C
FGD Studies	\$	9,000	Expenditures to Date (LBD WO has ~\$2.8M)
Subtotal	\$	71,400	
Total Project w/o Overheads	\$	449,610	2011-2015 Dollars
Escalation	\$	61,147	See Note 3
Total Project w/o Overheads	\$	510,757	2021-2025 Dollars
Other Overheads			
AFUDC	\$	95,049	
Corporate Overheads	\$	40,861	Use 8% of Total Project
Subtotal	\$	135,910	
Total Project	\$	646,667	
Contingency	\$	129,333	See note 4
PROJECT GRAND TOTALS	\$	776,000	
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N/C - No Change

NOTES:

1 - Contractor Total Cost based estimate from 2009 Advatech study for Rush Island FGD (based on similar scope from Newton). While there would be some design changes such as a lower inlet SO2, it was decided for this exercise to use this cost as is as it represents a low cost WFGD option. For comparison Newton's estimate for Contractor Cost was \$409M and Sioux's was \$435M.

2 - Ameren project staff was reduced to approximately 15 (engineers, construction leads, commissioning and support) for the 4+ year construction period. With this reduction, it was assumed not to reduce the Owner Engineer less than about \$2M per year.

3 - The Total Project w/o Overheads was escalated from 2015 dollars to 2025 dollars using a factor of 1.136 (approximately 0.0136% annually) based on Handy-Whitman Index from Property Accounting. This does not account for current global supply chain or labor constraints. That will be accounted for in contingency.

4 - 20% contingency to account for significant risks: global supply chain issues, labor constraints, lack of engineering resources and WFGD expertise