

Potline Wet scrubbers based on Environ cost analysis, using Hatch's capital cost of scrubber and Environ's annual O&M costs

Purchased equipment %	multiplier	Value	
capital costs		\$	71,140,000
CEMS		\$	80,000
instrumentation	5%	\$	3,557,000
sales tax	7%	\$	4,624,100
freight	5%	\$	3,557,000
purch equipment cost		\$	82,958,100
Installation costs			
foundations	12%	\$	9,954,972
erection	80%	\$	66,366,480
electical	1%	\$	829,581
piping	30%	\$	24,887,430
inslulation	1%	\$	829,581
field painting	1%	\$	829,581
Ttal installaation costs		\$	103,697,625
Indirect costs			
engineering	5%	\$	4,147,905
constructin	10%	\$	8,295,810
Contractor fees	5%	\$	4,147,905
start-up	1%	\$	829,581
Performance test	1%	\$	829,581
continginces	0.03	\$	2,488,743
Total indirect costs		\$	20,739,525
Total capital costs		\$	207,395,250
Total annual costs		\$	21,069,945 Unchanged from Environ.
interest rate	7%		
amortization lifetme	15 years		
Capital recovery discount factor			0.1098
Annualized capital costs			22,771,998.45
Total annual cost			43,841,943.45
tons SO2 reduced			7875
Cost effecitiveness	\$/ton		5,567.23