

ATTACHMENT Y

Kinder Morgan Inc
Solar T130 Turbine

Engine Cost Analysis	Interest Rate:	3.25%
All Units	Period (yrs):	20

Cost Effectiveness Summary using Stack Test Data Emission Factors

Control Equipment	Unit	Capital Cost	Total Annual Cost*	Emission Reduction	Cost Effectiveness
		(\$)	(\$)	(tpy)	(\$/ton)
Oxidation Catalyst	Solar T130 Example	1,284,300	164,472	1.4	117,714

* Total Annual Cost includes the annualized capital cost.

El Paso Natural Gas Company, LLC

Solar T130 Turbine

	Interest Rate:	3.25%	
	Period (yrs):	20	<-- EPA Air Pollution Control Cost Manual
Base Case			
VOC lb/hr:	1.06 lb/hr	Based on the published rate for VOC's from Solar Turbines	
VOC tpy:	4.65 tpy	Calculated based on annual hours of:	8760
Controlled Retrofit			
VOC lb/hr:	0.74 lb/hr	Per the manufacturer the reduction in VOC's would be guaranteed for 30%	
VOC tpy:	3.25 tpy	Calculated based on 8760 hours/year	
Total Capital Investment	\$	1,284,300	<-- EPNG Cost Estimate of just the exhaust equipment, does not include installation.
Annualized TCI:	\$	88,333	<-- Based on interest rate, year and TCI
Annual Admin, Taxes, Insurance Cost:	\$	51,372	<-- Per EPA Air Pollution Control Cost Manual, 7th Ed, annual admin, taxes, and insurance costs are 4% of TCI
Annual Operator Cost	\$	6,000	<-- Assume 100 hr/yr maintenance required at \$60/hr
Annual Acid Wash Cost	\$	3,080	<-- Assume 2 acid wash at a cost of \$5625/wash every 32,000 hours
Annual Catalyst Replacement Costs:	\$	15,688	<-- Based on quote from vendor, replacement every 32,000 hours
Total Annual Cost:	\$	164,472	
Emissions Reduction:		1.4 tpy	
Cost Effectiveness:	\$	117,713.82	\$/ton