



Biogas Cleanup Survey & Cost Estimator Toolkit

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Cost Estimator Toolkit Training

- Need input for scheduling 2nd and final training session
- Comments/Feedback on Toolkit?

Cost Item	User Input	Default Value
Engine	kW or BHP	NA
Biogas		
Flow	SCFM	NA
Siloxanes	mg/M ³ (as Si)	NA
H ₂ S	ppmv	NA
Other sulfur compounds	ppmv	NA
VOCs	ppmv	NA
Halogenated hydrocarbons	ppmv	NA
DIRECT CAPITAL COSTS (DCC) ESTIMATION FACTORS		
(1) System Auxiliary Equipment (control panel, etc.)	%	5.0%
(2) Freight	%	5.0%
(3) Sales Tax	%	8.0%
Subtotal: Total Equipment Cost (TEC) Estimation Factors		
(a) Foundation and Structural Support	%	8.0%
(b) Handling & Erection	%	5.0%
(c) Electrical	%	16.0%
(d) Piping	%	16.0%
(e) Insulation	%	1.0%
INDIRECT CAPITAL COSTS (ICC) ESTIMATION FACTORS		
(1) Indirect Installation Costs		
(a) General Facilities	%	5.0%
(b) Engineering and Home Office Fees	%	5.0%
(c) Process Contingency	%	10.0%
(2) Other Indirect Costs		
(a) Emissions Monitoring	%	
(b) Performance Testing	%	1.0%
(c) Spare Parts	%	1.0%
(d) Contractor Fees	%	10.0%
PROJECT CONTINGENCY ESTIMATION FACTOR		
	%	15.0%
DIRECT OPERATING COSTS (DOC) ESTIMATION FACTORS		
(1) Operating Labor		
Operator		
hr per shift	# hrs	0.50
Labor cost per hour	\$	\$30
hrs per year	# hrs	8760
Supervisor	%	15.0%
(2) Maintenance (labor and material)	%	1.5%
(3) System Energy Requirement	%	TBD
(3) Removal Media Replacement	%	35.0%
(4) System Calibration	%	TBD
Total DOC:		
INDIRECT OPERATING COSTS (IOC) ESTIMATION FACTORS		
(1) Overhead	%	60.0%
(2) Property Taxes	%	1.0%
(3) Insurance	%	1.0%
(4) Administration	%	2.0%
CAPITAL RECOVERY COSTS (CRC) ESTIMATION FACTOR		
	%	9.4%

Questions/Contact

- Rule Development

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