

My Try At the Case

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Fictitious Project Costs for Brewery Reduction of Toxics					
	Time Frame In Days	Equipment Materials Costs	Labor Effort hours	Fully loaded Hourly Rate	Cost
Consulting Expertise					
2 Consultants full time	120	\$ -	1,920	\$ 150	\$ 288,000
Analysis/Research (Old and New approach)					
Research of non-Toxic solution	5	\$ -	40	\$ 80	\$ 3,200
Market - Customer value Analysis – Sustainability/Green	5	\$ -	40	\$ 80	\$ 3,200
Vendor analysis - for old and New cleaning	2	\$ -	16	\$ 80	\$ 1,280
Safety analysis - Chemical analysis	5	\$ -	40	\$ 80	\$ 3,200
Operations analysis	5	\$ -	40	\$ 80	\$ 3,200
Equipment analysis - New – Refitted – disposal – Depreciation	5	\$ -	40	\$ 80	\$ 3,200
Testing or process equipment / ~10 Rounds of Testing -	15	\$ -	120	\$ 80	\$ 9,600
Procedures adjusted and rewritten	3	\$ -	24	\$ 80	\$ 1,920
Training program set up	5	\$ -	40	\$ 80	\$ 3,200
OSHA fines analysis	1	\$ -	8	\$ 80	\$ 640
Disposal/Environment analysis	3	\$ -	24	\$ 80	\$ 1,920
Materials/Equipment/Planning					
New materials for Test/Pilot	0	\$ 5,000	-	\$ -	\$ 5,000
Safety signage updated	2	\$ 10,000	16	\$ 80	\$ 11,280
Change management plan & execution	2	\$ 1,000	16	\$ 80	\$ 2,280
Update P&ID - (Piping & Instrument diagrams) of the plant	5	\$ 2,000	40	\$ 80	\$ 5,200
Change/Install Piping & Instrument	20	\$ 150,000	160	\$ 80	\$ 162,800
Communication plan & execution – Phased shut down the plant	5	\$ -	40	\$ 80	\$ 3,200
New Equipment costs	20	\$ 200,000	160	\$ 80	\$ 212,800
Advertising plan – to get the word out to Industry and Customers	2	\$ 5,000	16	\$ 80	\$ 5,640
Shut down lost revenue and production to make changes to plant	0	\$ 100,000	-	\$ 80	\$ 100,000
Total Project Costs to go live	230	\$ 473,000	2,800		\$ 830,760
20% Contingency for Overall Plan	46	\$ 94,600	560		\$ 166,152
Total Plus Contingency	276	\$ 567,600	3,360		\$ 996,912

Fictitious Annual Cash Flow after Go Live for 4 years					
	Year 1	Year 2	Year 3	Year 4	Total
Projected Revenue Increased	\$200,000	\$ 200,000	\$200,000	\$ 200,000	\$ 800,000
Projected Net Cost Savings	\$100,000	\$ 100,000	\$100,000	\$ 100,000	\$ 400,000
Net Income Change	\$300,000	\$ 300,000	\$300,000	\$ 300,000	\$1,200,000

Key Project Metrics	
Payback in years	3.3
Internal Rate of Return (IRR) - Over 4 years	7.9%
Modified Internal Rate of Return (MIRR) - Over 4 years (WACC = 7%)	7.5%
Net Present Value (NPV) using Discount rate of 7%	\$ 17,992