

COMFORT ENGINEERED SYSTEMS, INC.

Return of investment analysis for Geothermal option: Smith Residence

Estimated annual heating and cooling costs for conventional high efficiency equipment				\$2,649.00
Estimated annual heating and cooling costs for geothermal equipment				\$1,118.00
		savings per year		\$1,531.00
Estimated energy savings for hot water generated by the geothermal equipment	(optional)			\$0.00
Estimated annual savings on equipment maintenance				\$60.00
		total annual savings		\$1,591.00
Base proposal for conventional (estimate)				\$19,035.00
Base proposal for geothermal				\$35,725.00
Additional front end investment for geothermal				\$16,690.00
		simple payback, years(includes tax rebate )		3.75
Inflation factor, % per year				2
Estimated product life is 25+ years.			annual savings	
	Twenty-five year cash flow:		(\$16,690.00)	
Federal tax credit ( 30% of geothermal installation)	\$10,717.50	\$1,591.00	\$12,308.50	
		\$1,622.82	\$1,622.82	
		\$1,655.28	\$1,655.28	
Estimated life of conventional air conditioning is 13-15 years.		\$1,688.38	\$1,688.38	
		\$1,722.15	\$1,722.15	
		\$1,756.59	\$1,756.59	
		\$1,791.72	\$1,791.72	
		\$1,827.56	\$1,827.56	
		\$1,864.11	\$1,864.11	
		\$1,901.39	\$1,901.39	
		\$1,939.42	\$1,939.42	
		\$1,978.21	\$1,978.21	
		\$2,017.77	\$2,017.77	
Add \$9,000 to replace one system year 14.	\$9,000.00	\$2,058.13	\$11,058.13	
		\$2,099.29	\$2,099.29	
		\$2,141.28	\$2,141.28	
		\$2,184.10	\$2,184.10	
		\$2,227.78	\$2,227.78	
		\$2,272.34	\$2,272.34	
		\$2,317.79	\$2,317.79	
		\$2,364.14	\$2,364.14	
		\$2,411.43	\$2,411.43	
		\$2,459.65	\$2,459.65	
		\$2,508.85	\$2,508.85	
	Total of cash flow		\$51,428.68	
	Calculated internal rate of return (IRR)		23.02%	
	Equivalent IRR for 28% income tax bracket.		31.98%	