Financial Analysis of Efficiency Improvements Simulating Streams of Cash Inflows and Outflows

SAMPLE ANALYSIS

Discount Rate: Finance Rate: Reinvestment Rate:	10% 10% 10%										
Inflation Rate	3%										
	Today	End of YR 1	End of YR 2	End of YR 3	YR 4	End of YR 5	End of YR 6	End of YR 7	End of YR 8	YR 9	End of YR 10
Date:	0	1	2	3	4	5	6	7	8	9	10
CASH OUTFLOWS (after Date 0 rebates)											
Single investment \$	(65,400.00)										
Phased investment											
Financed investment		-				-	-	-	-		
Subtotal \$	(65,400.00)	\$-	\$ -	\$-	\$-	\$ - \$	\$-	\$-	\$	\$ - \$	
Rebate/incentive rec'd at Date 0 '	15,400.00	<u>^</u>	•	^	^	<u>^</u>	•	<u>^</u>	^	<u> </u>	
SUBIOIAL OUTFLOWS \$	(50,000.00)	\$-	\$ -	\$-	\$ -	\$ - 3	5 -	5 - 3	∳ -	\$ - \$	- ·
CASH INFLOWS											
Energy savings		\$ 10,000.00	\$ 10,300.00	\$ 10,609.00	\$ 10,927.27	\$ 11,255.09	\$ 11,592.74	\$ 11,940.52	\$ 12,298.74	\$ 12,667.70 \$	5 13,047.73
Maintenance savings		\$ 5,000.00	\$ 5,150.00	\$ 5,304.50	\$ 5,463.64	\$ 5,627.54	\$ 5,796.37	\$ 5,970.26	\$ 6,149.37	\$ 6,333.85 \$	6,523.87
Non-utility-cost financial savings		\$-	\$ -	\$ -	\$-	<mark>\$ - 3</mark>	\$	<mark>\$ - (</mark>	\$ -	<u>\$</u> -\$	<u>-</u>
Rebates/incentives considered "cash inflow"			A 15 150 00	A 15 0 10 50		* 40.000.00					10 574 00
SUBTOTAL INFLOWS \$	-	\$ 15,000.00	\$ 15,450.00	\$ 15,913.50	\$ 16,390.91	\$ 16,882.63	\$ 17,389.11	\$ 17,910.78	\$ 18,448.11	\$ 19,001.55 \$	5 19,571.60
Annual Cash Flow \$	(50,000.00)	\$ 15,000.00	\$ 15,450.00	\$ 15,913.50	\$ 16,390.91	\$ 16,882.63	\$ 17,389.11	\$ 17,910.78	\$ 18,448.11	\$ 19,001.55 \$	6 19,571.60
PV of Outflows (for SIR calculation) \$	(50,000,00)	¢ _	¢ _	¢ _	¢ _	¢	¢ _	¢	¢ _	¢ _ ¢	
PV of Inflows (for SIR calculation) \$	(50,000.00)	\$ 13 636 36	\$ 12 768 60	s 11 956 05	\$ 11 195 21	\$ 10 482 79	s 981570	\$ 9191.06	s 860618	\$ 805851 \$	5 7 545 70
		\$ 10,000.00	\$ 12,100.00	¢ 11,000.00	¢ 11,100.21	\$ 10,10 <u>2.</u> 10	¢ 0,070.70	¢ 0,101.00 .	\$ 0,000.70	φ 0,000.01 φ	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Annual Present Value \$	(50,000.00)	\$ 13,636.36	\$ 12,768.60	\$ 11,956.05	\$ 11,195.21	\$ 10,482.79	\$ 9,815.70	\$ 9,191.06	\$ 8,606.18	\$ 8,058.51 \$	5 7,545.70
	Γ	NOTE THAT CERTAIN RETURNS VARY DEPENDING ON THE LENGTH OF THE ANALYSIS TERM									
	10-YEAR	1-YEAR 2-YEAR 3-YEAR 4-YEAR 5-YEAR 6-YEAR 7-YEAR 8-YEAR 9-YEAR 10-YEAR									10-YEAR
NPV \$	53,256.16	(\$36,363.64)	(\$23,595.04)	(\$11,638.99)	(\$443.78)	\$10,039.00	\$19,854.70	\$29,045.77	\$37,651.94	\$45,710.46	\$53,256.16

		(\$00,000.0.)	(\$20,000.0.)	(\$11,000.00)	(\$1.0.0)	φ.ο,οοο.οο	φ.ο,οοο	φ=0,0.0	φ01,001.01	φ.ο.,	\$00,200.10
SPP	3.3										
ROI	30.0%										
IRR	30.1%	-70.0%	-27.4%	-3.6%	9.6%	17.4%	22.3%	25.5%	27.6%	29.1%	30.1%
MIRR	18.3%	-70.0%	-20.1%	0.7%	9.8%	14.1%	16.3%	17.4%	18.0%	18.2%	18.3%
SIR	2.1	0.3	0.5	0.8	1.0	1.2	1.4	1.6	1.8	1.9	2.1

NOTE 1: SIR calc removes any rebate/incentive received at Date 0 from first cost prior to calculating SIR.

10-year Cash Flow



Cumulative 10-year Cash Flow



10-year Present Value



Cumulative 10-year Present Value

