

Present Value Factors

SPV – Single Present Value (without escalation)

And

UPV – Uniform Present Value (without escalation)

SPV
Formula:

$$\frac{1}{(1 + d)^n}$$

d = discount rate
n = year

UPV
Formula:

$$\frac{(1 + d)^n - 1}{d (1 + d)^n}$$

d = discount rate
n = year

Life Cycle Costing - Present Value Factors: SPV and UPV

Discount Rate 1.00%			Discount Rate 2.00%		
Year	Single Present Value (SPV)	Uniform Present Value (UPV)	Year	Single Present Value (SPV)	Uniform Present Value (UPV)
1	0.9901	0.9901	1	0.9804	0.9804
2	0.9803	1.9704	2	0.9612	1.9416
3	0.9706	2.9410	3	0.9423	2.8839
4	0.9610	3.9020	4	0.9238	3.8077
5	0.9515	4.8534	5	0.9057	4.7135
6	0.9420	5.7955	6	0.8880	5.6014
7	0.9327	6.7282	7	0.8706	6.4720
8	0.9235	7.6517	8	0.8535	7.3255
9	0.9143	8.5660	9	0.8368	8.1622
10	0.9053	9.4713	10	0.8203	8.9826
11	0.8963	10.3676	11	0.8043	9.7868
12	0.8874	11.2551	12	0.7885	10.5753
13	0.8787	12.1337	13	0.7730	11.3484
14	0.8700	13.0037	14	0.7579	12.1062
15	0.8613	13.8651	15	0.7430	12.8493
16	0.8528	14.7179	16	0.7284	13.5777
17	0.8444	15.5623	17	0.7142	14.2919
18	0.8360	16.3983	18	0.7002	14.9920
19	0.8277	17.2260	19	0.6864	15.6785
20	0.8195	18.0456	20	0.6730	16.3514
21	0.8114	18.8570	21	0.6598	17.0112
22	0.8034	19.6604	22	0.6468	17.6580
23	0.7954	20.4558	23	0.6342	18.2922
24	0.7876	21.2434	24	0.6217	18.9139
25	0.7798	22.0232	25	0.6095	19.5235
26	0.7720	22.7952	26	0.5976	20.1210
27	0.7644	23.5596	27	0.5859	20.7069
28	0.7568	24.3164	28	0.5744	21.2813
29	0.7493	25.0658	29	0.5631	21.8444
30	0.7419	25.8077	30	0.5521	22.3965
31	0.7346	26.5423	31	0.5412	22.9377
32	0.7273	27.2696	32	0.5306	23.4683
33	0.7201	27.9897	33	0.5202	23.9886
34	0.7130	28.7027	34	0.5100	24.4986
35	0.7059	29.4086	35	0.5000	24.9986
36	0.6989	30.1075	36	0.4902	25.4888
37	0.6920	30.7995	37	0.4806	25.9695
38	0.6852	31.4847	38	0.4712	26.4406
39	0.6784	32.1630	39	0.4619	26.9026
40	0.6717	32.8347	40	0.4529	27.3555
41	0.6650	33.4997	41	0.4440	27.7995
42	0.6584	34.1581	42	0.4353	28.2348
43	0.6519	34.8100	43	0.4268	28.6616
44	0.6454	35.4555	44	0.4184	29.0800
45	0.6391	36.0945	45	0.4102	29.4902
46	0.6327	36.7272	46	0.4022	29.8923
47	0.6265	37.3537	47	0.3943	30.2866
48	0.6203	37.9740	48	0.3865	30.6731
49	0.6141	38.5881	49	0.3790	31.0521
50	0.6080	39.1961	50	0.3715	31.4236

Life Cycle Costing - Present Value Factors: SPV and UPV

Discount Rate 3.00%				Discount Rate 4.00%			
	Single Present Value (SPV)	Uniform Present Value (UPV)		Single Present Value (SPV)	Uniform Present Value (UPV)		
Year 1	0.9709	0.9709	Year 1	0.9615	0.9615		
2	0.9426	1.9135	2	0.9246	1.8861		
3	0.9151	2.8286	3	0.8890	2.7751		
4	0.8885	3.7171	4	0.8548	3.6299		
5	0.8626	4.5797	5	0.8219	4.4518		
6	0.8375	5.4172	6	0.7903	5.2421		
7	0.8131	6.2303	7	0.7599	6.0021		
8	0.7894	7.0197	8	0.7307	6.7327		
9	0.7664	7.7861	9	0.7026	7.4353		
10	0.7441	8.5302	10	0.6756	8.1109		
11	0.7224	9.2526	11	0.6496	8.7605		
12	0.7014	9.9540	12	0.6246	9.3851		
13	0.6810	10.6350	13	0.6006	9.9856		
14	0.6611	11.2961	14	0.5775	10.5631		
15	0.6419	11.9379	15	0.5553	11.1184		
16	0.6232	12.5611	16	0.5339	11.6523		
17	0.6050	13.1661	17	0.5134	12.1657		
18	0.5874	13.7535	18	0.4936	12.6593		
19	0.5703	14.3238	19	0.4746	13.1339		
20	0.5537	14.8775	20	0.4564	13.5903		
21	0.5375	15.4150	21	0.4388	14.0292		
22	0.5219	15.9369	22	0.4220	14.4511		
23	0.5067	16.4436	23	0.4057	14.8568		
24	0.4919	16.9355	24	0.3901	15.2470		
25	0.4776	17.4131	25	0.3751	15.6221		
26	0.4637	17.8768	26	0.3607	15.9828		
27	0.4502	18.3270	27	0.3468	16.3296		
28	0.4371	18.7641	28	0.3335	16.6631		
29	0.4243	19.1885	29	0.3207	16.9837		
30	0.4120	19.6004	30	0.3083	17.2920		
31	0.4000	20.0004	31	0.2965	17.5885		
32	0.3883	20.3888	32	0.2851	17.8736		
33	0.3770	20.7658	33	0.2741	18.1476		
34	0.3660	21.1318	34	0.2636	18.4112		
35	0.3554	21.4872	35	0.2534	18.6646		
36	0.3450	21.8323	36	0.2437	18.9083		
37	0.3350	22.1672	37	0.2343	19.1426		
38	0.3252	22.4925	38	0.2253	19.3679		
39	0.3158	22.8082	39	0.2166	19.5845		
40	0.3066	23.1148	40	0.2083	19.7928		
41	0.2976	23.4124	41	0.2003	19.9931		
42	0.2890	23.7014	42	0.1926	20.1856		
43	0.2805	23.9819	43	0.1852	20.3708		
44	0.2724	24.2543	44	0.1780	20.5488		
45	0.2644	24.5187	45	0.1712	20.7200		
46	0.2567	24.7754	46	0.1646	20.8847		
47	0.2493	25.0247	47	0.1583	21.0429		
48	0.2420	25.2667	48	0.1522	21.1951		
49	0.2350	25.5017	49	0.1463	21.3415		
50	0.2281	25.7298	50	0.1407	21.4822		

Life Cycle Costing - Present Value Factors: SPV and UPV

Discount Rate 5.00%				Discount Rate 6.00%			
	Single Present Value (SPV)	Uniform Present Value (UPV)		Single Present Value (SPV)	Uniform Present Value (UPV)		
Year			Year				
1	0.9524	0.9524	1	0.9434	0.9434		
2	0.9070	1.8594	2	0.8900	1.8334		
3	0.8638	2.7232	3	0.8396	2.6730		
4	0.8227	3.5460	4	0.7921	3.4651		
5	0.7835	4.3295	5	0.7473	4.2124		
6	0.7462	5.0757	6	0.7050	4.9173		
7	0.7107	5.7864	7	0.6651	5.5824		
8	0.6768	6.4632	8	0.6274	6.2098		
9	0.6446	7.1078	9	0.5919	6.8017		
10	0.6139	7.7217	10	0.5584	7.3601		
11	0.5847	8.3064	11	0.5268	7.8869		
12	0.5568	8.8633	12	0.4970	8.3838		
13	0.5303	9.3936	13	0.4688	8.8527		
14	0.5051	9.8986	14	0.4423	9.2950		
15	0.4810	10.3797	15	0.4173	9.7122		
16	0.4581	10.8378	16	0.3936	10.1059		
17	0.4363	11.2741	17	0.3714	10.4773		
18	0.4155	11.6896	18	0.3503	10.8276		
19	0.3957	12.0853	19	0.3305	11.1581		
20	0.3769	12.4622	20	0.3118	11.4699		
21	0.3589	12.8212	21	0.2942	11.7641		
22	0.3418	13.1630	22	0.2775	12.0416		
23	0.3256	13.4886	23	0.2618	12.3034		
24	0.3101	13.7986	24	0.2470	12.5504		
25	0.2953	14.0939	25	0.2330	12.7834		
26	0.2812	14.3752	26	0.2198	13.0032		
27	0.2678	14.6430	27	0.2074	13.2105		
28	0.2551	14.8981	28	0.1956	13.4062		
29	0.2429	15.1411	29	0.1846	13.5907		
30	0.2314	15.3725	30	0.1741	13.7648		
31	0.2204	15.5928	31	0.1643	13.9291		
32	0.2099	15.8027	32	0.1550	14.0840		
33	0.1999	16.0025	33	0.1462	14.2302		
34	0.1904	16.1929	34	0.1379	14.3681		
35	0.1813	16.3742	35	0.1301	14.4982		
36	0.1727	16.5469	36	0.1227	14.6210		
37	0.1644	16.7113	37	0.1158	14.7368		
38	0.1566	16.8679	38	0.1092	14.8460		
39	0.1491	17.0170	39	0.1031	14.9491		
40	0.1420	17.1591	40	0.0972	15.0463		
41	0.1353	17.2944	41	0.0917	15.1380		
42	0.1288	17.4232	42	0.0865	15.2245		
43	0.1227	17.5459	43	0.0816	15.3062		
44	0.1169	17.6628	44	0.0770	15.3832		
45	0.1113	17.7741	45	0.0727	15.4558		
46	0.1060	17.8801	46	0.0685	15.5244		
47	0.1009	17.9810	47	0.0647	15.5890		
48	0.0961	18.0772	48	0.0610	15.6500		
49	0.0916	18.1687	49	0.0575	15.7076		
50	0.0872	18.2559	50	0.0543	15.7619		

Life Cycle Costing - Present Value Factors: SPV and UPV

Discount Rate 7.00%				Discount Rate 8.00%			
	Single Present Value (SPV)	Uniform Present Value (UPV)		Single Present Value (SPV)	Uniform Present Value (UPV)		
Year			Year				
1	0.9346	0.9346	1	0.9259	0.9259		
2	0.8734	1.8080	2	0.8573	1.7833		
3	0.8163	2.6243	3	0.7938	2.5771		
4	0.7629	3.3872	4	0.7350	3.3121		
5	0.7130	4.1002	5	0.6806	3.9927		
6	0.6663	4.7665	6	0.6302	4.6229		
7	0.6227	5.3893	7	0.5835	5.2064		
8	0.5820	5.9713	8	0.5403	5.7466		
9	0.5439	6.5152	9	0.5002	6.2469		
10	0.5083	7.0236	10	0.4632	6.7101		
11	0.4751	7.4987	11	0.4289	7.1390		
12	0.4440	7.9427	12	0.3971	7.5361		
13	0.4150	8.3577	13	0.3677	7.9038		
14	0.3878	8.7455	14	0.3405	8.2442		
15	0.3624	9.1079	15	0.3152	8.5595		
16	0.3387	9.4466	16	0.2919	8.8514		
17	0.3166	9.7632	17	0.2703	9.1216		
18	0.2959	10.0591	18	0.2502	9.3719		
19	0.2765	10.3356	19	0.2317	9.6036		
20	0.2584	10.5940	20	0.2145	9.8181		
21	0.2415	10.8355	21	0.1987	10.0168		
22	0.2257	11.0612	22	0.1839	10.2007		
23	0.2109	11.2722	23	0.1703	10.3711		
24	0.1971	11.4693	24	0.1577	10.5288		
25	0.1842	11.6536	25	0.1460	10.6748		
26	0.1722	11.8258	26	0.1352	10.8100		
27	0.1609	11.9867	27	0.1252	10.9352		
28	0.1504	12.1371	28	0.1159	11.0511		
29	0.1406	12.2777	29	0.1073	11.1584		
30	0.1314	12.4090	30	0.0994	11.2578		
31	0.1228	12.5318	31	0.0920	11.3498		
32	0.1147	12.6466	32	0.0852	11.4350		
33	0.1072	12.7538	33	0.0789	11.5139		
34	0.1002	12.8540	34	0.0730	11.5869		
35	0.0937	12.9477	35	0.0676	11.6546		
36	0.0875	13.0352	36	0.0626	11.7172		
37	0.0818	13.1170	37	0.0580	11.7752		
38	0.0765	13.1935	38	0.0537	11.8289		
39	0.0715	13.2649	39	0.0497	11.8786		
40	0.0668	13.3317	40	0.0460	11.9246		
41	0.0624	13.3941	41	0.0426	11.9672		
42	0.0583	13.4524	42	0.0395	12.0067		
43	0.0545	13.5070	43	0.0365	12.0432		
44	0.0509	13.5579	44	0.0338	12.0771		
45	0.0476	13.6055	45	0.0313	12.1084		
46	0.0445	13.6500	46	0.0290	12.1374		
47	0.0416	13.6916	47	0.0269	12.1643		
48	0.0389	13.7305	48	0.0249	12.1891		
49	0.0363	13.7668	49	0.0230	12.2122		
50	0.0339	13.8007	50	0.0213	12.2335		

Life Cycle Costing - Present Value Factors: SPV and UPV

Discount Rate 9.00%			Discount Rate 10.00%		
Year	Single Present Value (SPV)	Uniform Present Value (UPV)	Year	Single Present Value (SPV)	Uniform Present Value (UPV)
1	0.9174	0.9174	1	0.9091	0.9091
2	0.8417	1.7591	2	0.8264	1.7355
3	0.7722	2.5313	3	0.7513	2.4869
4	0.7084	3.2397	4	0.6830	3.1699
5	0.6499	3.8897	5	0.6209	3.7908
6	0.5963	4.4859	6	0.5645	4.3553
7	0.5470	5.0330	7	0.5132	4.8684
8	0.5019	5.5348	8	0.4665	5.3349
9	0.4604	5.9952	9	0.4241	5.7590
10	0.4224	6.4177	10	0.3855	6.1446
11	0.3875	6.8052	11	0.3505	6.4951
12	0.3555	7.1607	12	0.3186	6.8137
13	0.3262	7.4869	13	0.2897	7.1034
14	0.2992	7.7862	14	0.2633	7.3667
15	0.2745	8.0607	15	0.2394	7.6061
16	0.2519	8.3126	16	0.2176	7.8237
17	0.2311	8.5436	17	0.1978	8.0216
18	0.2120	8.7556	18	0.1799	8.2014
19	0.1945	8.9501	19	0.1635	8.3649
20	0.1784	9.1285	20	0.1486	8.5136
21	0.1637	9.2922	21	0.1351	8.6487
22	0.1502	9.4424	22	0.1228	8.7715
23	0.1378	9.5802	23	0.1117	8.8832
24	0.1264	9.7066	24	0.1015	8.9847
25	0.1160	9.8226	25	0.0923	9.0770
26	0.1064	9.9290	26	0.0839	9.1609
27	0.0976	10.0266	27	0.0763	9.2372
28	0.0895	10.1161	28	0.0693	9.3066
29	0.0822	10.1983	29	0.0630	9.3696
30	0.0754	10.2737	30	0.0573	9.4269
31	0.0691	10.3428	31	0.0521	9.4790
32	0.0634	10.4062	32	0.0474	9.5264
33	0.0582	10.4644	33	0.0431	9.5694
34	0.0534	10.5178	34	0.0391	9.6086
35	0.0490	10.5668	35	0.0356	9.6442
36	0.0449	10.6118	36	0.0323	9.6765
37	0.0412	10.6530	37	0.0294	9.7059
38	0.0378	10.6908	38	0.0267	9.7327
39	0.0347	10.7255	39	0.0243	9.7570
40	0.0318	10.7574	40	0.0221	9.7791
41	0.0292	10.7866	41	0.0201	9.7991
42	0.0268	10.8134	42	0.0183	9.8174
43	0.0246	10.8380	43	0.0166	9.8340
44	0.0226	10.8605	44	0.0151	9.8491
45	0.0207	10.8812	45	0.0137	9.8628
46	0.0190	10.9002	46	0.0125	9.8753
47	0.0174	10.9176	47	0.0113	9.8866
48	0.0160	10.9336	48	0.0103	9.8969
49	0.0147	10.9482	49	0.0094	9.9063
50	0.0134	10.9617	50	0.0085	9.9148

Life Cycle Costing - Present Value Factors: SPV and UPV

Discount Rate 11.00%			Discount Rate 12.00%		
Year	Single Present Value (SPV)	Uniform Present Value (UPV)	Year	Single Present Value (SPV)	Uniform Present Value (UPV)
1	0.9009	0.9009	1	0.8929	0.8929
2	0.8116	1.7125	2	0.7972	1.6901
3	0.7312	2.4437	3	0.7118	2.4018
4	0.6587	3.1024	4	0.6355	3.0373
5	0.5935	3.6959	5	0.5674	3.6048
6	0.5346	4.2305	6	0.5066	4.1114
7	0.4817	4.7122	7	0.4523	4.5638
8	0.4339	5.1461	8	0.4039	4.9676
9	0.3909	5.5370	9	0.3606	5.3282
10	0.3522	5.8892	10	0.3220	5.6502
11	0.3173	6.2065	11	0.2875	5.9377
12	0.2858	6.4924	12	0.2567	6.1944
13	0.2575	6.7499	13	0.2292	6.4235
14	0.2320	6.9819	14	0.2046	6.6282
15	0.2090	7.1909	15	0.1827	6.8109
16	0.1883	7.3792	16	0.1631	6.9740
17	0.1696	7.5488	17	0.1456	7.1196
18	0.1528	7.7016	18	0.1300	7.2497
19	0.1377	7.8393	19	0.1161	7.3658
20	0.1240	7.9633	20	0.1037	7.4694
21	0.1117	8.0751	21	0.0926	7.5620
22	0.1007	8.1757	22	0.0826	7.6446
23	0.0907	8.2664	23	0.0738	7.7184
24	0.0817	8.3481	24	0.0659	7.7843
25	0.0736	8.4217	25	0.0588	7.8431
26	0.0663	8.4881	26	0.0525	7.8957
27	0.0597	8.5478	27	0.0469	7.9426
28	0.0538	8.6016	28	0.0419	7.9844
29	0.0485	8.6501	29	0.0374	8.0218
30	0.0437	8.6938	30	0.0334	8.0552
31	0.0394	8.7331	31	0.0298	8.0850
32	0.0355	8.7686	32	0.0266	8.1116
33	0.0319	8.8005	33	0.0238	8.1354
34	0.0288	8.8293	34	0.0212	8.1566
35	0.0259	8.8552	35	0.0189	8.1755
36	0.0234	8.8786	36	0.0169	8.1924
37	0.0210	8.8996	37	0.0151	8.2075
38	0.0190	8.9186	38	0.0135	8.2210
39	0.0171	8.9357	39	0.0120	8.2330
40	0.0154	8.9511	40	0.0107	8.2438
41	0.0139	8.9649	41	0.0096	8.2534
42	0.0125	8.9774	42	0.0086	8.2619
43	0.0112	8.9886	43	0.0076	8.2696
44	0.0101	8.9988	44	0.0068	8.2764
45	0.0091	9.0079	45	0.0061	8.2825
46	0.0082	9.0161	46	0.0054	8.2880
47	0.0074	9.0235	47	0.0049	8.2928
48	0.0067	9.0302	48	0.0043	8.2972
49	0.0060	9.0362	49	0.0039	8.3010
50	0.0054	9.0417	50	0.0035	8.3045

Life Cycle Costing - Present Value Factors: SPV and UPV

		Discount Rate 13.00%	
	Single Present Value (SPV)	Uniform Present Value (UPV)	
Year 1	0.8850	0.8850	
2	0.7831	1.6681	
3	0.6931	2.3612	
4	0.6133	2.9745	
5	0.5428	3.5172	
6	0.4803	3.9975	
7	0.4251	4.4226	
8	0.3762	4.7988	
9	0.3329	5.1317	
10	0.2946	5.4262	
11	0.2607	5.6869	
12	0.2307	5.9176	
13	0.2042	6.1218	
14	0.1807	6.3025	
15	0.1599	6.4624	
16	0.1415	6.6039	
17	0.1252	6.7291	
18	0.1108	6.8399	
19	0.0981	6.9380	
20	0.0868	7.0248	
21	0.0768	7.1016	
22	0.0680	7.1695	
23	0.0601	7.2297	
24	0.0532	7.2829	
25	0.0471	7.3300	
26	0.0417	7.3717	
27	0.0369	7.4086	
28	0.0326	7.4412	
29	0.0289	7.4701	
30	0.0256	7.4957	
31	0.0226	7.5183	
32	0.0200	7.5383	
33	0.0177	7.5560	
34	0.0157	7.5717	
35	0.0139	7.5856	
36	0.0123	7.5979	
37	0.0109	7.6087	
38	0.0096	7.6183	
39	0.0085	7.6268	
40	0.0075	7.6344	
41	0.0067	7.6410	
42	0.0059	7.6469	
43	0.0052	7.6522	
44	0.0046	7.6568	
45	0.0041	7.6609	
46	0.0036	7.6645	
47	0.0032	7.6677	
48	0.0028	7.6705	
49	0.0025	7.6730	
50	0.0022	7.6752	

		Discount Rate 14.00%	
	Single Present Value (SPV)	Uniform Present Value (UPV)	
Year 1	0.8772	0.8772	
2	0.7695	1.6467	
3	0.6750	2.3216	
4	0.5921	2.9137	
5	0.5194	3.4331	
6	0.4556	3.8887	
7	0.3996	4.2883	
8	0.3506	4.6389	
9	0.3075	4.9464	
10	0.2697	5.2161	
11	0.2366	5.4527	
12	0.2076	5.6603	
13	0.1821	5.8424	
14	0.1597	6.0021	
15	0.1401	6.1422	
16	0.1229	6.2651	
17	0.1078	6.3729	
18	0.0946	6.4674	
19	0.0829	6.5504	
20	0.0728	6.6231	
21	0.0638	6.6870	
22	0.0560	6.7429	
23	0.0491	6.7921	
24	0.0431	6.8351	
25	0.0378	6.8729	
26	0.0331	6.9061	
27	0.0291	6.9352	
28	0.0255	6.9607	
29	0.0224	6.9830	
30	0.0196	7.0027	
31	0.0172	7.0199	
32	0.0151	7.0350	
33	0.0132	7.0482	
34	0.0116	7.0599	
35	0.0102	7.0700	
36	0.0089	7.0790	
37	0.0078	7.0868	
38	0.0069	7.0937	
39	0.0060	7.0997	
40	0.0053	7.1050	
41	0.0046	7.1097	
42	0.0041	7.1138	
43	0.0036	7.1173	
44	0.0031	7.1205	
45	0.0027	7.1232	
46	0.0024	7.1256	
47	0.0021	7.1277	
48	0.0019	7.1296	
49	0.0016	7.1312	
50	0.0014	7.1327	

Life Cycle Costing - Present Value Factors: SPV and UPV

Discount Rate 15.00%				Discount Rate 16.00%			
	Single Present Value (SPV)	Uniform Present Value (UPV)		Single Present Value (SPV)	Uniform Present Value (UPV)		
Year			Year				
1	0.8696	0.8696	1	0.8621	0.8621		
2	0.7561	1.6257	2	0.7432	1.6052		
3	0.6575	2.2832	3	0.6407	2.2459		
4	0.5718	2.8550	4	0.5523	2.7982		
5	0.4972	3.3522	5	0.4761	3.2743		
6	0.4323	3.7845	6	0.4104	3.6847		
7	0.3759	4.1604	7	0.3538	4.0386		
8	0.3269	4.4873	8	0.3050	4.3436		
9	0.2843	4.7716	9	0.2630	4.6065		
10	0.2472	5.0188	10	0.2267	4.8332		
11	0.2149	5.2337	11	0.1954	5.0286		
12	0.1869	5.4206	12	0.1685	5.1971		
13	0.1625	5.5831	13	0.1452	5.3423		
14	0.1413	5.7245	14	0.1252	5.4675		
15	0.1229	5.8474	15	0.1079	5.5755		
16	0.1069	5.9542	16	0.0930	5.6685		
17	0.0929	6.0472	17	0.0802	5.7487		
18	0.0808	6.1280	18	0.0691	5.8178		
19	0.0703	6.1982	19	0.0596	5.8775		
20	0.0611	6.2593	20	0.0514	5.9288		
21	0.0531	6.3125	21	0.0443	5.9731		
22	0.0462	6.3587	22	0.0382	6.0113		
23	0.0402	6.3988	23	0.0329	6.0442		
24	0.0349	6.4338	24	0.0284	6.0726		
25	0.0304	6.4641	25	0.0245	6.0971		
26	0.0264	6.4906	26	0.0211	6.1182		
27	0.0230	6.5135	27	0.0182	6.1364		
28	0.0200	6.5335	28	0.0157	6.1520		
29	0.0174	6.5509	29	0.0135	6.1656		
30	0.0151	6.5660	30	0.0116	6.1772		
31	0.0131	6.5791	31	0.0100	6.1872		
32	0.0114	6.5905	32	0.0087	6.1959		
33	0.0099	6.6005	33	0.0075	6.2034		
34	0.0086	6.6091	34	0.0064	6.2098		
35	0.0075	6.6166	35	0.0055	6.2153		
36	0.0065	6.6231	36	0.0048	6.2201		
37	0.0057	6.6288	37	0.0041	6.2242		
38	0.0049	6.6338	38	0.0036	6.2278		
39	0.0043	6.6380	39	0.0031	6.2309		
40	0.0037	6.6418	40	0.0026	6.2335		
41	0.0032	6.6450	41	0.0023	6.2358		
42	0.0028	6.6478	42	0.0020	6.2377		
43	0.0025	6.6503	43	0.0017	6.2394		
44	0.0021	6.6524	44	0.0015	6.2409		
45	0.0019	6.6543	45	0.0013	6.2421		
46	0.0016	6.6559	46	0.0011	6.2432		
47	0.0014	6.6573	47	0.0009	6.2442		
48	0.0012	6.6585	48	0.0008	6.2450		
49	0.0011	6.6596	49	0.0007	6.2457		
50	0.0009	6.6605	50	0.0006	6.2463		

Life Cycle Costing - Present Value Factors: SPV and UPV

		Discount Rate 17.00%	
	Single Present Value (SPV)	Uniform Present Value (UPV)	
Year 1	0.8547	0.8547	
2	0.7305	1.5852	
3	0.6244	2.2096	
4	0.5337	2.7432	
5	0.4561	3.1993	
6	0.3898	3.5892	
7	0.3332	3.9224	
8	0.2848	4.2072	
9	0.2434	4.4506	
10	0.2080	4.6586	
11	0.1778	4.8364	
12	0.1520	4.9884	
13	0.1299	5.1183	
14	0.1110	5.2293	
15	0.0949	5.3242	
16	0.0811	5.4053	
17	0.0693	5.4746	
18	0.0592	5.5339	
19	0.0506	5.5845	
20	0.0433	5.6278	
21	0.0370	5.6648	
22	0.0316	5.6964	
23	0.0270	5.7234	
24	0.0231	5.7465	
25	0.0197	5.7662	
26	0.0169	5.7831	
27	0.0144	5.7975	
28	0.0123	5.8099	
29	0.0105	5.8204	
30	0.0090	5.8294	
31	0.0077	5.8371	
32	0.0066	5.8437	
33	0.0056	5.8493	
34	0.0048	5.8541	
35	0.0041	5.8582	
36	0.0035	5.8617	
37	0.0030	5.8647	
38	0.0026	5.8673	
39	0.0022	5.8695	
40	0.0019	5.8713	
41	0.0016	5.8729	
42	0.0014	5.8743	
43	0.0012	5.8755	
44	0.0010	5.8765	
45	0.0009	5.8773	
46	0.0007	5.8781	
47	0.0006	5.8787	
48	0.0005	5.8792	
49	0.0005	5.8797	
50	0.0004	5.8801	

		Discount Rate 18.00%	
	Single Present Value (SPV)	Uniform Present Value (UPV)	
Year 1	0.8475	0.8475	
2	0.7182	1.5656	
3	0.6086	2.1743	
4	0.5158	2.6901	
5	0.4371	3.1272	
6	0.3704	3.4976	
7	0.3139	3.8115	
8	0.2660	4.0776	
9	0.2255	4.3030	
10	0.1911	4.4941	
11	0.1619	4.6560	
12	0.1372	4.7932	
13	0.1163	4.9095	
14	0.0985	5.0081	
15	0.0835	5.0916	
16	0.0708	5.1624	
17	0.0600	5.2223	
18	0.0508	5.2732	
19	0.0431	5.3162	
20	0.0365	5.3527	
21	0.0309	5.3837	
22	0.0262	5.4099	
23	0.0222	5.4321	
24	0.0188	5.4509	
25	0.0160	5.4669	
26	0.0135	5.4804	
27	0.0115	5.4919	
28	0.0097	5.5016	
29	0.0082	5.5098	
30	0.0070	5.5168	
31	0.0059	5.5227	
32	0.0050	5.5277	
33	0.0042	5.5320	
34	0.0036	5.5356	
35	0.0030	5.5386	
36	0.0026	5.5412	
37	0.0022	5.5434	
38	0.0019	5.5452	
39	0.0016	5.5468	
40	0.0013	5.5482	
41	0.0011	5.5493	
42	0.0010	5.5502	
43	0.0008	5.5510	
44	0.0007	5.5517	
45	0.0006	5.5523	
46	0.0005	5.5528	
47	0.0004	5.5532	
48	0.0004	5.5536	
49	0.0003	5.5539	
50	0.0003	5.5541	

Life Cycle Costing - Present Value Factors: SPV and UPV

Discount Rate 19.00%		
Year	Single Present Value (SPV)	Uniform Present Value (UPV)
1	0.8403	0.8403
2	0.7062	1.5465
3	0.5934	2.1399
4	0.4987	2.6386
5	0.4190	3.0576
6	0.3521	3.4098
7	0.2959	3.7057
8	0.2487	3.9544
9	0.2090	4.1633
10	0.1756	4.3389
11	0.1476	4.4865
12	0.1240	4.6105
13	0.1042	4.7147
14	0.0876	4.8023
15	0.0736	4.8759
16	0.0618	4.9377
17	0.0520	4.9897
18	0.0437	5.0333
19	0.0367	5.0700
20	0.0308	5.1009
21	0.0259	5.1268
22	0.0218	5.1486
23	0.0183	5.1668
24	0.0154	5.1822
25	0.0129	5.1951
26	0.0109	5.2060
27	0.0091	5.2151
28	0.0077	5.2228
29	0.0064	5.2292
30	0.0054	5.2347
31	0.0046	5.2392
32	0.0038	5.2430
33	0.0032	5.2462
34	0.0027	5.2489
35	0.0023	5.2512
36	0.0019	5.2531
37	0.0016	5.2547
38	0.0013	5.2561
39	0.0011	5.2572
40	0.0010	5.2582
41	0.0008	5.2590
42	0.0007	5.2596
43	0.0006	5.2602
44	0.0005	5.2607
45	0.0004	5.2611
46	0.0003	5.2614
47	0.0003	5.2617
48	0.0002	5.2619
49	0.0002	5.2621
50	0.0002	5.2623

Discount Rate 20.00%		
Year	Single Present Value (SPV)	Uniform Present Value (UPV)
1	0.8333	0.8333
2	0.6944	1.5278
3	0.5787	2.1065
4	0.4823	2.5887
5	0.4019	2.9906
6	0.3349	3.3255
7	0.2791	3.6046
8	0.2326	3.8372
9	0.1938	4.0310
10	0.1615	4.1925
11	0.1346	4.3271
12	0.1122	4.4392
13	0.0935	4.5327
14	0.0779	4.6106
15	0.0649	4.6755
16	0.0541	4.7296
17	0.0451	4.7746
18	0.0376	4.8122
19	0.0313	4.8435
20	0.0261	4.8696
21	0.0217	4.8913
22	0.0181	4.9094
23	0.0151	4.9245
24	0.0126	4.9371
25	0.0105	4.9476
26	0.0087	4.9563
27	0.0073	4.9636
28	0.0061	4.9697
29	0.0051	4.9747
30	0.0042	4.9789
31	0.0035	4.9824
32	0.0029	4.9854
33	0.0024	4.9878
34	0.0020	4.9898
35	0.0017	4.9915
36	0.0014	4.9929
37	0.0012	4.9941
38	0.0010	4.9951
39	0.0008	4.9959
40	0.0007	4.9966
41	0.0006	4.9972
42	0.0005	4.9976
43	0.0004	4.9980
44	0.0003	4.9984
45	0.0003	4.9986
46	0.0002	4.9989
47	0.0002	4.9991
48	0.0002	4.9992
49	0.0001	4.9993
50	0.0001	4.9995

Life Cycle Costing - Present Value Factors: SPV and UPV

		Discount Rate 21.00%	
	Single Present Value (SPV)	Uniform Present Value (UPV)	
Year 1	0.8264	0.8264	
2	0.6830	1.5095	
3	0.5645	2.0739	
4	0.4665	2.5404	
5	0.3855	2.9260	
6	0.3186	3.2446	
7	0.2633	3.5079	
8	0.2176	3.7256	
9	0.1799	3.9054	
10	0.1486	4.0541	
11	0.1228	4.1769	
12	0.1015	4.2784	
13	0.0839	4.3624	
14	0.0693	4.4317	
15	0.0573	4.4890	
16	0.0474	4.5364	
17	0.0391	4.5755	
18	0.0323	4.6079	
19	0.0267	4.6346	
20	0.0221	4.6567	
21	0.0183	4.6750	
22	0.0151	4.6900	
23	0.0125	4.7025	
24	0.0103	4.7128	
25	0.0085	4.7213	
26	0.0070	4.7284	
27	0.0058	4.7342	
28	0.0048	4.7390	
29	0.0040	4.7430	
30	0.0033	4.7463	
31	0.0027	4.7490	
32	0.0022	4.7512	
33	0.0019	4.7531	
34	0.0015	4.7546	
35	0.0013	4.7559	
36	0.0010	4.7569	
37	0.0009	4.7578	
38	0.0007	4.7585	
39	0.0006	4.7591	
40	0.0005	4.7596	
41	0.0004	4.7600	
42	0.0003	4.7603	
43	0.0003	4.7606	
44	0.0002	4.7608	
45	0.0002	4.7610	
46	0.0002	4.7612	
47	0.0001	4.7613	
48	0.0001	4.7614	
49	0.0001	4.7615	
50	0.0001	4.7616	

		Discount Rate 22.00%	
	Single Present Value (SPV)	Uniform Present Value (UPV)	
Year 1	0.8197	0.8197	
2	0.6719	1.4915	
3	0.5507	2.0422	
4	0.4514	2.4936	
5	0.3700	2.8636	
6	0.3033	3.1669	
7	0.2486	3.4155	
8	0.2038	3.6193	
9	0.1670	3.7863	
10	0.1369	3.9232	
11	0.1122	4.0354	
12	0.0920	4.1274	
13	0.0754	4.2028	
14	0.0618	4.2646	
15	0.0507	4.3152	
16	0.0415	4.3567	
17	0.0340	4.3908	
18	0.0279	4.4187	
19	0.0229	4.4415	
20	0.0187	4.4603	
21	0.0154	4.4756	
22	0.0126	4.4882	
23	0.0103	4.4985	
24	0.0085	4.5070	
25	0.0069	4.5139	
26	0.0057	4.5196	
27	0.0047	4.5243	
28	0.0038	4.5281	
29	0.0031	4.5312	
30	0.0026	4.5338	
31	0.0021	4.5359	
32	0.0017	4.5376	
33	0.0014	4.5390	
34	0.0012	4.5402	
35	0.0009	4.5411	
36	0.0008	4.5419	
37	0.0006	4.5426	
38	0.0005	4.5431	
39	0.0004	4.5435	
40	0.0004	4.5439	
41	0.0003	4.5441	
42	0.0002	4.5444	
43	0.0002	4.5446	
44	0.0002	4.5447	
45	0.0001	4.5449	
46	0.0001	4.5450	
47	0.0001	4.5451	
48	0.0001	4.5451	
49	0.0001	4.5452	
50	0.0000	4.5452	

Present Value Factors

SPV* – Modified Single Present Value (with escalation)

Formula:

$$\left[\frac{1 + e}{1 + d} \right]^n$$

d = discount rate
e = escalation rate
n = year

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 1.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.990	1.000	1.010	1.020	1.030	1.040	1.050	1.059	1.069	1.079	1.089	1.099	1.109
2	0.980	1.000	1.020	1.040	1.060	1.081	1.101	1.122	1.143	1.165	1.186	1.208	1.230
3	0.971	1.000	1.030	1.061	1.092	1.124	1.156	1.189	1.223	1.257	1.292	1.327	1.364
4	0.961	1.000	1.040	1.082	1.124	1.168	1.213	1.260	1.307	1.357	1.407	1.459	1.512
5	0.951	1.000	1.050	1.103	1.158	1.214	1.273	1.334	1.398	1.464	1.532	1.603	1.677
6	0.942	1.000	1.061	1.125	1.192	1.262	1.336	1.414	1.495	1.580	1.669	1.762	1.859
7	0.933	1.000	1.071	1.147	1.227	1.312	1.402	1.498	1.599	1.705	1.818	1.936	2.062
8	0.923	1.000	1.082	1.170	1.264	1.364	1.472	1.587	1.709	1.840	1.980	2.128	2.287
9	0.914	1.000	1.093	1.193	1.301	1.418	1.545	1.681	1.828	1.986	2.156	2.339	2.536
10	0.905	1.000	1.104	1.217	1.340	1.475	1.621	1.781	1.954	2.143	2.348	2.570	2.812
11	0.896	1.000	1.114	1.241	1.380	1.533	1.701	1.887	2.090	2.313	2.557	2.825	3.118
12	0.887	1.000	1.126	1.265	1.421	1.594	1.786	1.999	2.235	2.496	2.785	3.105	3.457
13	0.879	1.000	1.137	1.290	1.463	1.657	1.874	2.117	2.390	2.694	3.033	3.412	3.834
14	0.870	1.000	1.148	1.316	1.506	1.722	1.967	2.243	2.555	2.907	3.304	3.750	4.252
15	0.861	1.000	1.159	1.342	1.551	1.791	2.064	2.376	2.732	3.137	3.598	4.121	4.715
16	0.853	1.000	1.171	1.369	1.597	1.862	2.166	2.518	2.922	3.386	3.919	4.529	5.228
17	0.844	1.000	1.182	1.396	1.645	1.935	2.274	2.667	3.124	3.654	4.268	4.978	5.798
18	0.836	1.000	1.194	1.423	1.694	2.012	2.386	2.826	3.341	3.944	4.648	5.471	6.429
19	0.828	1.000	1.206	1.451	1.744	2.092	2.504	2.994	3.572	4.256	5.062	6.012	7.129
20	0.820	1.000	1.218	1.480	1.796	2.174	2.628	3.171	3.820	4.593	5.513	6.607	7.906
21	0.811	1.000	1.230	1.509	1.849	2.261	2.759	3.360	4.085	4.957	6.005	7.262	8.767
22	0.803	1.000	1.242	1.539	1.904	2.350	2.895	3.559	4.368	5.349	6.540	7.981	9.721
23	0.795	1.000	1.254	1.570	1.961	2.443	3.038	3.771	4.670	5.773	7.123	8.771	10.780
24	0.788	1.000	1.267	1.601	2.019	2.540	3.189	3.995	4.994	6.231	7.757	9.639	11.954
25	0.780	1.000	1.279	1.633	2.079	2.641	3.347	4.232	5.340	6.724	8.449	10.594	13.256
26	0.772	1.000	1.292	1.665	2.140	2.745	3.512	4.484	5.710	7.257	9.201	11.642	14.700
27	0.764	1.000	1.305	1.698	2.204	2.854	3.686	4.750	6.106	7.831	10.021	12.795	16.301
28	0.757	1.000	1.318	1.732	2.270	2.967	3.869	5.032	6.529	8.452	10.914	14.062	18.076
29	0.749	1.000	1.331	1.766	2.337	3.084	4.060	5.331	6.982	9.121	11.887	15.454	20.045
30	0.742	1.000	1.344	1.801	2.406	3.207	4.261	5.648	7.466	9.844	12.946	16.984	22.228
31	0.735	1.000	1.357	1.837	2.478	3.334	4.472	5.983	7.983	10.623	14.100	18.666	24.649
32	0.727	1.000	1.371	1.873	2.551	3.466	4.694	6.339	8.536	11.465	15.356	20.514	27.333
33	0.720	1.000	1.384	1.910	2.627	3.603	4.926	6.715	9.128	12.373	16.725	22.545	30.310
34	0.713	1.000	1.398	1.948	2.705	3.745	5.170	7.114	9.761	13.353	18.215	24.777	33.611
35	0.706	1.000	1.412	1.986	2.786	3.894	5.426	7.537	10.437	14.411	19.838	27.231	37.272
36	0.699	1.000	1.426	2.026	2.868	4.048	5.694	7.984	11.161	15.552	21.606	29.927	41.331
37	0.692	1.000	1.440	2.066	2.954	4.208	5.976	8.459	11.934	16.784	23.531	32.890	45.833
38	0.685	1.000	1.454	2.107	3.041	4.375	6.272	8.961	12.761	18.113	25.628	36.146	50.824
39	0.678	1.000	1.468	2.148	3.132	4.548	6.583	9.494	13.646	19.548	27.911	39.725	56.360
40	0.672	1.000	1.483	2.191	3.225	4.728	6.908	10.058	14.591	21.096	30.399	43.658	62.498
41	0.665	1.000	1.498	2.234	3.320	4.916	7.250	10.655	15.603	22.767	33.107	47.981	69.305
42	0.658	1.000	1.513	2.279	3.419	5.110	7.609	11.288	16.684	24.571	36.057	52.731	76.853
43	0.652	1.000	1.528	2.324	3.521	5.313	7.986	11.959	17.840	26.517	39.270	57.952	85.223
44	0.645	1.000	1.543	2.370	3.625	5.523	8.381	12.669	19.077	28.617	42.770	63.690	94.505
45	0.639	1.000	1.558	2.417	3.733	5.742	8.796	13.422	20.399	30.884	46.581	69.996	104.797
46	0.633	1.000	1.573	2.465	3.844	5.969	9.232	14.219	21.813	33.330	50.732	76.926	116.211
47	0.626	1.000	1.589	2.513	3.958	6.206	9.689	15.064	23.324	35.970	55.252	84.543	128.867
48	0.620	1.000	1.605	2.563	4.075	6.451	10.168	15.959	24.941	38.819	60.176	92.913	142.902
49	0.614	1.000	1.621	2.614	4.196	6.707	10.672	16.907	26.670	41.894	65.538	102.112	158.466
50	0.608	1.000	1.637	2.666	4.321	6.973	11.200	17.911	28.518	45.212	71.378	112.223	175.725

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 1.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.119	1.129	1.139	1.149	1.158	1.168	1.178	1.188	1.198	1.208	1.218	1.228	1.238
2	1.252	1.274	1.296	1.319	1.342	1.365	1.388	1.412	1.435	1.459	1.483	1.507	1.532
3	1.400	1.438	1.476	1.515	1.555	1.595	1.636	1.677	1.719	1.762	1.806	1.851	1.896
4	1.567	1.623	1.681	1.740	1.801	1.863	1.927	1.993	2.060	2.129	2.200	2.272	2.346
5	1.753	1.832	1.914	1.998	2.086	2.177	2.271	2.368	2.468	2.572	2.679	2.789	2.904
6	1.961	2.068	2.179	2.295	2.417	2.543	2.675	2.813	2.957	3.106	3.262	3.425	3.594
7	2.194	2.334	2.481	2.636	2.799	2.971	3.152	3.342	3.542	3.752	3.973	4.204	4.448
8	2.455	2.634	2.825	3.028	3.243	3.471	3.714	3.971	4.243	4.532	4.838	5.162	5.504
9	2.747	2.973	3.217	3.477	3.756	4.056	4.376	4.718	5.084	5.475	5.892	6.337	6.812
10	3.073	3.356	3.662	3.994	4.352	4.738	5.155	5.605	6.090	6.613	7.175	7.780	8.431
11	3.438	3.788	4.170	4.587	5.041	5.536	6.074	6.660	7.296	7.988	8.738	9.552	10.435
12	3.847	4.276	4.748	5.268	5.839	6.467	7.157	7.913	8.741	9.649	10.642	11.727	12.914
13	4.304	4.826	5.406	6.050	6.765	7.556	8.432	9.401	10.472	11.655	12.960	14.398	15.983
14	4.815	5.447	6.156	6.949	7.836	8.828	9.935	11.170	12.546	14.078	15.782	17.677	19.781
15	5.387	6.148	7.009	7.981	9.078	10.314	11.705	13.271	15.030	17.005	19.220	21.702	24.481
16	6.027	6.940	7.980	9.166	10.516	12.050	13.791	15.767	18.006	20.541	23.407	26.644	30.298
17	6.743	7.833	9.087	10.527	12.181	14.078	16.249	18.733	21.572	24.812	28.505	32.712	37.498
18	7.544	8.841	10.346	12.091	14.111	16.447	19.145	22.258	25.844	29.970	34.714	40.161	46.408
19	8.441	9.979	11.780	13.887	16.347	19.216	22.557	26.445	30.961	36.202	42.276	49.307	57.436
20	9.444	11.263	13.413	15.949	18.936	22.450	26.577	31.419	37.092	43.729	51.484	60.535	71.084
21	10.566	12.713	15.272	18.318	21.936	26.228	31.314	37.330	44.437	52.821	62.699	74.320	87.975
22	11.821	14.349	17.389	21.038	25.411	30.643	36.895	44.352	53.236	63.804	76.356	91.245	108.880
23	13.226	16.196	19.800	24.163	29.436	35.801	43.470	52.696	63.778	77.070	92.988	112.023	134.753
24	14.797	18.281	22.544	27.751	34.099	41.827	51.217	62.609	76.407	93.094	113.243	137.533	166.774
25	16.555	20.634	25.669	31.872	39.501	48.867	60.345	74.387	91.538	112.451	137.909	168.853	206.403
26	18.522	23.290	29.227	36.606	45.759	57.092	71.099	88.381	109.664	135.831	167.949	207.304	255.449
27	20.722	26.288	33.279	42.043	53.008	66.702	83.770	105.007	131.380	164.073	204.532	254.512	316.150
28	23.185	29.671	37.891	48.286	61.405	77.929	98.700	124.760	157.395	198.188	249.083	312.470	391.275
29	25.939	33.490	43.144	55.458	71.133	91.045	116.290	148.230	188.563	239.395	303.339	383.627	484.251
30	29.021	37.801	49.124	63.694	82.401	106.370	137.015	176.115	225.902	289.170	369.413	470.987	599.321
31	32.469	42.667	55.933	73.153	95.455	124.274	161.433	209.245	270.635	349.295	449.879	578.242	741.733
32	36.327	48.158	63.686	84.018	110.577	145.191	190.204	248.608	324.226	421.920	547.873	709.921	917.987
33	40.643	54.357	72.514	96.496	128.094	169.629	224.101	295.376	388.429	509.647	667.211	871.586	1136.122
34	45.472	61.353	82.566	110.827	148.386	198.181	264.040	350.942	465.346	615.613	812.544	1070.066	1406.092
35	50.874	69.250	94.010	127.286	171.893	231.538	311.097	416.961	557.494	743.611	989.534	1313.744	1740.213
36	56.919	78.164	107.042	146.190	199.123	270.510	366.540	495.399	667.888	898.224	1205.076	1612.914	2153.729
37	63.681	88.224	121.879	167.902	230.667	316.041	431.864	588.593	800.143	1084.983	1467.568	1980.211	2665.506
38	71.247	99.580	138.773	192.837	267.209	369.236	508.830	699.319	958.588	1310.573	1787.237	2431.150	3298.893
39	79.712	112.397	158.009	221.477	309.539	431.385	599.512	830.874	1148.407	1583.069	2176.536	2984.779	4082.789
40	89.183	126.864	179.911	254.369	358.575	503.994	706.356	987.177	1375.814	1912.222	2650.632	3664.481	5052.957
41	99.779	143.193	204.850	292.147	415.378	588.825	832.241	1172.883	1648.253	2309.813	3227.998	4498.967	6253.659
42	111.634	161.624	233.245	335.535	481.181	687.934	980.561	1393.525	1974.640	2790.071	3931.126	5523.484	7739.677
43	124.898	182.427	265.576	385.367	557.408	803.725	1155.315	1655.673	2365.657	3370.184	4787.411	6781.307	9578.808
44	139.737	205.908	302.388	442.600	645.710	939.005	1361.212	1967.136	2834.104	4070.916	5830.213	8325.565	11854.961
45	156.339	232.411	344.303	508.332	748.001	1097.055	1603.805	2337.191	3395.313	4917.344	7100.161	10221.485	14671.981
46	174.914	262.325	392.028	583.827	866.496	1281.708	1889.631	2776.861	4067.652	5939.762	8646.731	12549.150	18158.393
47	195.696	296.090	446.369	670.534	1003.762	1497.441	2226.397	3299.241	4873.128	7174.762	10530.177	15406.878	22473.258
48	218.947	334.200	508.242	770.118	1162.774	1749.486	2623.181	3919.890	5838.104	8666.544	12823.879	18915.375	27813.438
49	244.961	377.216	578.691	884.493	1346.976	2043.954	3090.678	4657.295	6994.164	10468.498	15617.199	23222.836	34422.572
50	274.065	425.769	658.906	1015.853	1560.359	2387.985	3641.492	5533.420	8379.147	12645.117	19018.965	28511.205	42602.194

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 2.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.980	0.990	1.000	1.010	1.020	1.029	1.039	1.049	1.059	1.069	1.078	1.088	1.098
2	0.961	0.980	1.000	1.020	1.040	1.060	1.080	1.100	1.121	1.142	1.163	1.184	1.206
3	0.942	0.971	1.000	1.030	1.060	1.091	1.122	1.154	1.187	1.220	1.254	1.289	1.324
4	0.924	0.961	1.000	1.040	1.081	1.123	1.166	1.211	1.257	1.304	1.353	1.402	1.454
5	0.906	0.952	1.000	1.050	1.102	1.156	1.212	1.270	1.331	1.394	1.459	1.526	1.596
6	0.888	0.943	1.000	1.060	1.124	1.190	1.260	1.333	1.409	1.489	1.573	1.661	1.753
7	0.871	0.933	1.000	1.071	1.146	1.225	1.309	1.398	1.492	1.591	1.696	1.807	1.925
8	0.853	0.924	1.000	1.081	1.168	1.261	1.360	1.466	1.580	1.701	1.830	1.967	2.113
9	0.837	0.915	1.000	1.092	1.191	1.298	1.414	1.538	1.673	1.817	1.973	2.140	2.320
10	0.820	0.906	1.000	1.102	1.214	1.336	1.469	1.614	1.771	1.942	2.128	2.329	2.548
11	0.804	0.897	1.000	1.113	1.238	1.376	1.527	1.693	1.875	2.075	2.295	2.535	2.798
12	0.788	0.888	1.000	1.124	1.262	1.416	1.587	1.776	1.986	2.218	2.475	2.759	3.072
13	0.773	0.880	1.000	1.135	1.287	1.458	1.649	1.863	2.102	2.370	2.669	3.002	3.373
14	0.758	0.871	1.000	1.146	1.312	1.501	1.713	1.954	2.226	2.533	2.878	3.267	3.704
15	0.743	0.863	1.000	1.158	1.338	1.545	1.781	2.050	2.357	2.706	3.104	3.555	4.067
16	0.728	0.854	1.000	1.169	1.364	1.590	1.851	2.150	2.496	2.892	3.347	3.869	4.466
17	0.714	0.846	1.000	1.180	1.391	1.637	1.923	2.256	2.642	3.091	3.610	4.210	4.903
18	0.700	0.837	1.000	1.192	1.418	1.685	1.998	2.366	2.798	3.303	3.893	4.582	5.384
19	0.686	0.829	1.000	1.204	1.446	1.735	2.077	2.482	2.962	3.529	4.198	4.986	5.912
20	0.673	0.821	1.000	1.215	1.475	1.786	2.158	2.604	3.137	3.772	4.527	5.426	6.492
21	0.660	0.813	1.000	1.227	1.503	1.838	2.243	2.732	3.321	4.030	4.883	5.904	7.128
22	0.647	0.805	1.000	1.239	1.533	1.892	2.331	2.866	3.517	4.307	5.265	6.425	7.827
23	0.634	0.797	1.000	1.252	1.563	1.948	2.422	3.006	3.723	4.603	5.678	6.992	8.594
24	0.622	0.789	1.000	1.264	1.594	2.005	2.517	3.154	3.942	4.918	6.124	7.609	9.437
25	0.610	0.782	1.000	1.276	1.625	2.064	2.616	3.308	4.174	5.256	6.604	8.281	10.362
26	0.598	0.774	1.000	1.289	1.657	2.125	2.719	3.470	4.420	5.617	7.122	9.011	11.378
27	0.586	0.766	1.000	1.301	1.689	2.187	2.825	3.640	4.680	6.002	7.681	9.807	12.493
28	0.574	0.759	1.000	1.314	1.722	2.252	2.936	3.819	4.955	6.414	8.283	10.672	13.718
29	0.563	0.751	1.000	1.327	1.756	2.318	3.051	4.006	5.247	6.854	8.933	11.613	15.063
30	0.552	0.744	1.000	1.340	1.791	2.386	3.171	4.203	5.555	7.325	9.633	12.638	16.540
31	0.541	0.737	1.000	1.353	1.826	2.456	3.295	4.409	5.882	7.827	10.389	13.753	18.162
32	0.531	0.730	1.000	1.366	1.861	2.528	3.424	4.625	6.228	8.365	11.204	14.967	19.942
33	0.520	0.722	1.000	1.380	1.898	2.603	3.559	4.851	6.594	8.939	12.082	16.287	21.897
34	0.510	0.715	1.000	1.393	1.935	2.679	3.698	5.089	6.982	9.552	13.030	17.725	24.044
35	0.500	0.708	1.000	1.407	1.973	2.758	3.843	5.339	7.393	10.208	14.052	19.288	26.401
36	0.490	0.701	1.000	1.421	2.012	2.839	3.994	5.600	7.828	10.908	15.154	20.990	28.990
37	0.481	0.695	1.000	1.435	2.051	2.923	4.151	5.875	8.288	11.657	16.343	22.843	31.832
38	0.471	0.688	1.000	1.449	2.092	3.009	4.313	6.163	8.776	12.457	17.624	24.858	34.953
39	0.462	0.681	1.000	1.463	2.133	3.097	4.483	6.465	9.292	13.311	19.007	27.051	38.379
40	0.453	0.674	1.000	1.477	2.174	3.188	4.658	6.782	9.839	14.225	20.497	29.438	42.142
41	0.444	0.668	1.000	1.492	2.217	3.282	4.841	7.114	10.418	15.201	22.105	32.036	46.273
42	0.435	0.661	1.000	1.506	2.260	3.379	5.031	7.463	11.030	16.244	23.839	34.862	50.810
43	0.427	0.655	1.000	1.521	2.305	3.478	5.228	7.829	11.679	17.359	25.709	37.939	55.791
44	0.418	0.648	1.000	1.536	2.350	3.580	5.433	8.213	12.366	18.551	27.725	41.286	61.261
45	0.410	0.642	1.000	1.551	2.396	3.686	5.646	8.615	13.094	19.824	29.899	44.929	67.267
46	0.402	0.636	1.000	1.566	2.443	3.794	5.868	9.037	13.864	21.184	32.244	48.893	73.862
47	0.394	0.629	1.000	1.582	2.491	3.906	6.098	9.480	14.679	22.638	34.773	53.207	81.103
48	0.387	0.623	1.000	1.597	2.540	4.020	6.337	9.945	15.543	24.192	37.501	57.902	89.055
49	0.379	0.617	1.000	1.613	2.590	4.139	6.585	10.433	16.457	25.852	40.442	63.011	97.786
50	0.372	0.611	1.000	1.629	2.640	4.260	6.844	10.944	17.425	27.626	43.614	68.571	107.372

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 2.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.108	1.118	1.127	1.137	1.147	1.157	1.167	1.176	1.186	1.196	1.206	1.216	1.225
2	1.227	1.249	1.271	1.293	1.316	1.338	1.361	1.384	1.407	1.431	1.454	1.478	1.502
3	1.360	1.396	1.433	1.471	1.509	1.548	1.588	1.628	1.669	1.711	1.754	1.797	1.840
4	1.506	1.560	1.616	1.673	1.731	1.791	1.853	1.916	1.980	2.047	2.115	2.184	2.255
5	1.669	1.744	1.822	1.902	1.986	2.072	2.161	2.254	2.349	2.448	2.550	2.655	2.764
6	1.849	1.949	2.054	2.163	2.278	2.397	2.522	2.651	2.787	2.928	3.075	3.228	3.387
7	2.048	2.178	2.316	2.460	2.613	2.773	2.942	3.119	3.306	3.502	3.708	3.924	4.151
8	2.269	2.435	2.611	2.798	2.997	3.208	3.432	3.670	3.922	4.189	4.471	4.771	5.087
9	2.514	2.721	2.944	3.182	3.438	3.711	4.004	4.317	4.652	5.010	5.392	5.800	6.234
10	2.785	3.041	3.319	3.619	3.943	4.294	4.672	5.079	5.519	5.992	6.502	7.050	7.640
11	3.085	3.399	3.742	4.116	4.523	4.967	5.450	5.976	6.547	7.167	7.841	8.571	9.363
12	3.418	3.799	4.219	4.681	5.188	5.746	6.359	7.030	7.766	8.573	9.455	10.420	11.474
13	3.786	4.246	4.756	5.323	5.951	6.648	7.418	8.271	9.213	10.254	11.402	12.667	14.061
14	4.195	4.745	5.363	6.054	6.827	7.690	8.655	9.730	10.929	12.264	13.749	15.399	17.232
15	4.647	5.304	6.046	6.884	7.830	8.897	10.097	11.448	12.965	14.669	16.580	18.721	21.118
16	5.148	5.928	6.817	7.829	8.982	10.292	11.780	13.468	15.380	17.545	19.993	22.759	25.880
17	5.703	6.625	7.685	8.904	10.303	11.907	13.743	15.844	18.245	20.985	24.109	27.667	31.715
18	6.318	7.404	8.665	10.126	11.818	13.774	16.034	18.641	21.644	25.100	29.073	33.635	38.867
19	7.000	8.275	9.769	11.516	13.556	15.935	18.706	21.930	25.675	30.022	35.059	40.889	47.631
20	7.755	9.249	11.014	13.097	15.549	18.435	21.824	25.800	30.458	35.908	42.276	49.708	58.371
21	8.591	10.337	12.418	14.894	17.836	21.326	25.461	30.353	36.132	42.949	50.980	60.430	71.533
22	9.517	11.553	14.001	16.938	20.459	24.672	29.705	35.709	42.862	51.370	61.476	73.464	87.663
23	10.544	12.912	15.785	19.263	23.468	28.542	34.656	42.011	50.846	61.443	74.133	89.309	107.430
24	11.681	14.432	17.797	21.907	26.919	33.019	40.432	49.425	60.318	73.491	89.396	108.572	131.655
25	12.941	16.129	20.065	24.914	30.878	38.198	47.170	58.147	71.553	87.901	107.801	131.989	161.341
26	14.336	18.027	22.622	28.334	35.418	44.190	55.032	68.408	84.882	105.136	129.996	160.457	197.722
27	15.882	20.148	25.506	32.223	40.627	51.122	64.204	80.480	100.693	125.751	156.759	195.066	242.307
28	17.595	22.518	28.756	36.645	46.601	59.141	74.905	94.683	119.450	150.408	189.033	237.139	296.945
29	19.493	25.167	32.421	41.675	53.455	68.418	87.389	111.391	141.700	179.900	227.952	288.286	363.903
30	21.595	28.128	36.554	47.395	61.316	79.151	101.954	131.049	168.095	215.174	274.883	350.466	445.959
31	23.924	31.437	41.212	53.900	70.333	91.567	118.946	154.175	199.407	257.365	331.477	426.056	546.519
32	26.504	35.136	46.465	61.299	80.676	105.930	138.771	181.382	236.552	307.829	399.722	517.951	669.753
33	29.362	39.269	52.387	69.712	92.540	122.546	161.899	213.391	280.615	368.187	482.018	629.666	820.776
34	32.528	43.889	59.064	79.280	106.148	141.769	188.882	251.048	332.887	440.381	581.257	765.476	1005.853
35	36.036	49.053	66.591	90.162	121.758	164.008	220.362	295.350	394.895	526.730	700.927	930.578	1232.663
36	39.923	54.824	75.079	102.537	139.664	189.734	257.090	347.471	468.454	630.010	845.236	1131.291	1510.617
37	44.228	61.274	84.647	116.611	160.203	219.497	299.938	408.790	555.715	753.542	1019.255	1375.295	1851.246
38	48.998	68.482	95.436	132.616	183.762	253.928	349.927	480.929	659.231	901.295	1229.101	1671.928	2268.684
39	54.282	76.539	107.599	150.819	210.786	293.759	408.249	565.799	782.029	1078.020	1482.152	2032.540	2780.250
40	60.135	85.544	121.313	171.519	241.784	339.839	476.290	665.645	927.701	1289.396	1787.301	2470.931	3407.169
41	66.621	95.607	136.774	195.061	277.340	393.147	555.672	783.112	1100.508	1542.219	2155.274	3003.876	4175.452
42	73.805	106.855	154.206	221.834	318.126	454.817	648.284	921.309	1305.504	1844.615	2599.007	3651.771	5116.975
43	81.765	119.427	173.860	252.282	364.909	526.161	756.331	1083.892	1548.687	2206.304	3134.097	4439.408	6270.803
44	90.582	133.477	196.019	286.909	418.572	608.696	882.386	1275.168	1837.167	2638.913	3779.352	5396.928	7684.808
45	100.351	149.180	221.001	326.289	480.127	704.178	1029.451	1500.197	2179.385	3156.346	4557.454	6560.971	9417.657
46	111.173	166.731	249.168	371.073	550.734	814.638	1201.026	1764.938	2585.349	3775.238	5495.753	7976.082	11541.246
47	123.163	186.346	280.925	422.005	631.724	942.424	1401.197	2076.397	3066.933	4515.480	6627.232	9696.414	14143.684
48	136.445	208.269	316.729	479.927	724.625	1090.255	1634.730	2442.821	3638.225	5400.869	7991.662	11787.797	17332.946
49	151.159	232.771	357.097	545.799	831.187	1261.275	1907.184	2873.907	4315.933	6459.863	9637.004	14330.263	21241.355
50	167.461	260.156	402.609	620.713	953.421	1459.123	2225.048	3381.067	5119.882	7726.502	11621.093	17421.104	26031.073

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 3.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.971	0.981	0.990	1.000	1.010	1.019	1.029	1.039	1.049	1.058	1.068	1.078	1.087
2	0.943	0.962	0.981	1.000	1.020	1.039	1.059	1.079	1.099	1.120	1.141	1.161	1.182
3	0.915	0.943	0.971	1.000	1.029	1.059	1.090	1.121	1.153	1.185	1.218	1.252	1.286
4	0.888	0.925	0.962	1.000	1.039	1.080	1.122	1.165	1.209	1.254	1.301	1.349	1.398
5	0.863	0.907	0.952	1.000	1.049	1.101	1.154	1.210	1.267	1.327	1.389	1.454	1.520
6	0.837	0.889	0.943	1.000	1.060	1.122	1.188	1.257	1.329	1.405	1.484	1.566	1.653
7	0.813	0.872	0.934	1.000	1.070	1.144	1.223	1.306	1.393	1.486	1.584	1.688	1.797
8	0.789	0.855	0.925	1.000	1.080	1.166	1.258	1.356	1.461	1.573	1.692	1.819	1.955
9	0.766	0.838	0.916	1.000	1.091	1.189	1.295	1.409	1.532	1.665	1.807	1.961	2.125
10	0.744	0.822	0.907	1.000	1.101	1.212	1.333	1.464	1.606	1.762	1.930	2.113	2.311
11	0.722	0.806	0.898	1.000	1.112	1.236	1.371	1.521	1.684	1.864	2.061	2.277	2.513
12	0.701	0.790	0.890	1.000	1.123	1.260	1.411	1.580	1.766	1.973	2.201	2.454	2.733
13	0.681	0.775	0.881	1.000	1.134	1.284	1.452	1.641	1.852	2.088	2.351	2.644	2.971
14	0.661	0.760	0.872	1.000	1.145	1.309	1.495	1.705	1.942	2.209	2.511	2.850	3.231
15	0.642	0.745	0.864	1.000	1.156	1.334	1.538	1.771	2.036	2.338	2.681	3.071	3.513
16	0.623	0.731	0.855	1.000	1.167	1.360	1.583	1.840	2.135	2.474	2.863	3.310	3.820
17	0.605	0.717	0.847	1.000	1.179	1.387	1.629	1.911	2.239	2.618	3.058	3.567	4.154
18	0.587	0.703	0.839	1.000	1.190	1.414	1.677	1.985	2.347	2.771	3.266	3.844	4.517
19	0.570	0.689	0.831	1.000	1.202	1.441	1.725	2.062	2.461	2.932	3.488	4.142	4.912
20	0.554	0.676	0.823	1.000	1.213	1.469	1.776	2.143	2.581	3.103	3.725	4.464	5.341
21	0.538	0.662	0.815	1.000	1.225	1.498	1.827	2.226	2.706	3.284	3.978	4.811	5.808
22	0.522	0.650	0.807	1.000	1.237	1.527	1.881	2.312	2.837	3.475	4.248	5.184	6.315
23	0.507	0.637	0.799	1.000	1.249	1.556	1.935	2.402	2.975	3.678	4.537	5.587	6.867
24	0.492	0.625	0.791	1.000	1.261	1.587	1.992	2.495	3.119	3.892	4.845	6.021	7.467
25	0.478	0.612	0.784	1.000	1.273	1.617	2.050	2.592	3.271	4.118	5.175	6.488	8.119
26	0.464	0.601	0.776	1.000	1.286	1.649	2.110	2.693	3.430	4.358	5.526	6.992	8.829
27	0.450	0.589	0.768	1.000	1.298	1.681	2.171	2.797	3.596	4.612	5.902	7.536	9.600
28	0.437	0.578	0.761	1.000	1.311	1.713	2.234	2.906	3.771	4.881	6.303	8.121	10.439
29	0.424	0.566	0.754	1.000	1.323	1.747	2.299	3.019	3.954	5.165	6.731	8.752	11.351
30	0.412	0.555	0.746	1.000	1.336	1.781	2.366	3.136	4.146	5.466	7.189	9.431	12.343
31	0.400	0.545	0.739	1.000	1.349	1.815	2.435	3.258	4.347	5.785	7.677	10.164	13.422
32	0.388	0.534	0.732	1.000	1.362	1.850	2.506	3.384	4.558	6.121	8.199	10.953	14.594
33	0.377	0.524	0.725	1.000	1.376	1.886	2.579	3.516	4.779	6.478	8.756	11.804	15.870
34	0.366	0.513	0.718	1.000	1.389	1.923	2.654	3.652	5.011	6.855	9.352	12.721	17.256
35	0.355	0.503	0.711	1.000	1.402	1.960	2.732	3.794	5.254	7.255	9.987	13.709	18.764
36	0.345	0.494	0.704	1.000	1.416	1.998	2.811	3.942	5.510	7.677	10.666	14.774	20.404
37	0.335	0.484	0.697	1.000	1.430	2.037	2.893	4.095	5.777	8.125	11.391	15.921	22.187
38	0.325	0.475	0.690	1.000	1.444	2.077	2.977	4.254	6.057	8.598	12.165	17.158	24.125
39	0.316	0.465	0.684	1.000	1.458	2.117	3.064	4.419	6.351	9.099	12.992	18.490	26.233
40	0.307	0.456	0.677	1.000	1.472	2.158	3.153	4.591	6.660	9.629	13.875	19.926	28.525
41	0.298	0.448	0.670	1.000	1.486	2.200	3.245	4.769	6.983	10.190	14.817	21.474	31.018
42	0.289	0.439	0.664	1.000	1.501	2.243	3.340	4.954	7.322	10.783	15.824	23.142	33.728
43	0.281	0.430	0.657	1.000	1.515	2.286	3.437	5.146	7.678	11.411	16.900	24.939	36.675
44	0.272	0.422	0.651	1.000	1.530	2.331	3.537	5.346	8.050	12.076	18.048	26.877	39.880
45	0.264	0.414	0.645	1.000	1.545	2.376	3.640	5.554	8.441	12.780	19.275	28.964	43.365
46	0.257	0.406	0.638	1.000	1.560	2.422	3.746	5.770	8.851	13.524	20.585	31.214	47.154
47	0.249	0.398	0.632	1.000	1.575	2.469	3.855	5.994	9.280	14.312	21.984	33.638	51.274
48	0.242	0.390	0.626	1.000	1.590	2.517	3.967	6.226	9.731	15.146	23.478	36.251	55.754
49	0.235	0.383	0.620	1.000	1.605	2.566	4.083	6.468	10.203	16.028	25.074	39.066	60.626
50	0.228	0.375	0.614	1.000	1.621	2.616	4.202	6.719	10.699	16.961	26.778	42.101	65.923

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 3.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.097	1.107	1.117	1.126	1.136	1.146	1.155	1.165	1.175	1.184	1.194	1.204	1.214
2	1.204	1.225	1.247	1.268	1.290	1.312	1.335	1.357	1.380	1.403	1.426	1.449	1.473
3	1.320	1.356	1.392	1.428	1.466	1.504	1.542	1.581	1.621	1.662	1.703	1.745	1.787
4	1.449	1.501	1.554	1.609	1.665	1.723	1.782	1.842	1.905	1.968	2.034	2.101	2.169
5	1.589	1.661	1.735	1.812	1.891	1.973	2.058	2.146	2.237	2.331	2.429	2.529	2.632
6	1.744	1.838	1.937	2.040	2.148	2.261	2.378	2.501	2.628	2.761	2.900	3.044	3.195
7	1.913	2.035	2.163	2.298	2.440	2.590	2.748	2.913	3.088	3.271	3.463	3.665	3.877
8	2.099	2.252	2.415	2.588	2.772	2.967	3.175	3.394	3.627	3.874	4.136	4.412	4.705
9	2.302	2.492	2.696	2.915	3.149	3.399	3.668	3.955	4.261	4.589	4.939	5.312	5.710
10	2.526	2.759	3.010	3.283	3.577	3.894	4.237	4.607	5.006	5.435	5.898	6.395	6.930
11	2.771	3.053	3.361	3.697	4.063	4.462	4.896	5.368	5.881	6.438	7.043	7.699	8.410
12	3.040	3.379	3.753	4.163	4.615	5.111	5.656	6.254	6.908	7.626	8.410	9.269	10.206
13	3.335	3.740	4.190	4.689	5.242	5.856	6.535	7.286	8.116	9.032	10.043	11.158	12.386
14	3.659	4.139	4.678	5.281	5.955	6.709	7.550	8.488	9.534	10.698	11.994	13.433	15.032
15	4.014	4.582	5.223	5.947	6.764	7.685	8.723	9.889	11.200	12.672	14.322	16.172	18.243
16	4.404	5.071	5.831	6.698	7.684	8.805	10.078	11.521	13.157	15.009	17.104	19.469	22.139
17	4.832	5.612	6.511	7.543	8.728	10.087	11.643	13.423	15.457	17.778	20.425	23.439	26.868
18	5.301	6.212	7.269	8.495	9.915	11.556	13.452	15.638	18.158	21.058	24.391	28.218	32.607
19	5.815	6.875	8.116	9.567	11.262	13.239	15.541	18.219	21.331	24.942	29.127	33.971	39.572
20	6.380	7.609	9.062	10.775	12.793	15.167	17.955	21.227	25.059	29.543	34.782	40.897	48.024
21	6.999	8.422	10.117	12.135	14.532	17.376	20.745	24.730	29.438	34.992	41.536	49.235	58.281
22	7.679	9.322	11.296	13.666	16.507	19.906	23.967	28.812	34.583	41.447	49.601	59.273	70.730
23	8.425	10.317	12.612	15.391	18.751	22.805	27.690	33.567	40.626	49.093	59.233	71.358	85.837
24	9.242	11.419	14.082	17.334	21.299	26.126	31.991	39.107	47.726	58.149	70.734	85.907	104.171
25	10.140	12.638	15.722	19.522	24.194	29.931	36.961	45.562	56.067	68.876	84.469	103.422	126.421
26	11.124	13.988	17.554	21.986	27.483	34.290	42.702	53.082	65.865	81.581	100.871	124.508	153.424
27	12.204	15.482	19.599	24.761	31.219	39.283	49.336	61.843	77.375	96.630	120.457	149.893	186.194
28	13.389	17.135	21.883	27.886	35.462	45.004	57.000	72.050	90.897	114.455	143.847	180.453	225.963
29	14.689	18.965	24.432	31.405	40.282	51.558	65.854	83.941	106.782	135.567	171.778	217.245	274.227
30	16.115	20.991	27.278	35.369	45.757	59.067	76.084	97.796	125.442	160.575	205.134	261.537	332.800
31	17.680	23.233	30.456	39.833	51.977	67.669	87.903	113.937	147.364	190.196	244.965	314.861	403.884
32	19.396	25.714	34.005	44.861	59.041	77.523	101.557	132.742	173.117	225.280	292.531	379.055	490.150
33	21.279	28.460	37.966	50.523	67.066	88.813	117.333	154.651	203.371	266.837	349.334	456.339	594.843
34	23.345	31.499	42.390	56.899	76.182	101.747	135.560	180.176	238.911	316.059	417.165	549.378	721.896
35	25.612	34.863	47.328	64.081	86.537	116.565	156.618	209.914	280.663	374.362	498.168	661.388	876.088
36	28.099	38.586	52.842	72.168	98.299	133.540	180.947	244.560	329.711	443.419	594.900	796.234	1063.213
37	30.827	42.707	58.999	81.277	111.661	152.988	209.055	284.924	387.330	525.214	710.414	958.573	1290.307
38	33.819	47.268	65.872	91.535	126.838	175.268	241.529	331.950	455.019	622.098	848.359	1154.010	1565.907
39	37.103	52.316	73.547	103.088	144.078	200.792	279.049	386.738	534.537	736.854	1013.089	1389.293	1900.373
40	40.705	57.904	82.115	116.100	163.661	230.034	322.396	450.569	627.951	872.779	1209.805	1672.547	2306.277
41	44.657	64.087	91.682	130.753	185.906	263.534	372.477	524.934	737.690	1033.777	1444.719	2013.552	2798.880
42	48.993	70.932	102.364	147.256	211.175	301.912	430.337	611.574	866.607	1224.474	1725.247	2424.082	3396.699
43	53.749	78.507	114.290	165.841	239.879	345.880	497.186	712.513	1018.053	1450.347	2060.246	2918.313	4122.208
44	58.968	86.891	127.605	186.773	272.483	396.251	574.418	830.112	1195.965	1717.887	2460.294	3513.308	5002.680
45	64.693	96.171	142.471	210.346	309.520	453.958	663.649	967.121	1404.968	2034.779	2938.021	4229.614	6071.213
46	70.973	106.441	159.070	236.895	351.591	520.068	766.740	1126.743	1650.497	2410.127	3508.511	5091.962	7367.977
47	77.864	117.809	177.602	266.794	399.380	595.806	885.845	1312.711	1938.933	2854.713	4189.775	6130.129	8941.720
48	85.424	130.391	198.294	300.467	453.664	682.574	1023.452	1529.372	2277.776	3381.311	5003.323	7379.962	10851.602
49	93.717	144.316	221.396	338.390	515.327	781.978	1182.435	1781.792	2675.834	4005.048	5974.842	8884.614	13169.419
50	102.816	159.728	247.190	381.099	585.372	895.858	1366.114	2075.874	3143.455	4743.843	7135.006	10696.040	15982.305

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 4.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.962	0.971	0.981	0.990	1.000	1.010	1.019	1.029	1.038	1.048	1.058	1.067	1.077
2	0.925	0.943	0.962	0.981	1.000	1.019	1.039	1.059	1.078	1.098	1.119	1.139	1.160
3	0.889	0.916	0.943	0.971	1.000	1.029	1.059	1.089	1.120	1.151	1.183	1.216	1.249
4	0.855	0.890	0.925	0.962	1.000	1.039	1.079	1.120	1.163	1.207	1.252	1.298	1.345
5	0.822	0.864	0.907	0.953	1.000	1.049	1.100	1.153	1.208	1.265	1.324	1.385	1.449
6	0.790	0.839	0.890	0.944	1.000	1.059	1.121	1.186	1.254	1.325	1.400	1.478	1.560
7	0.760	0.815	0.873	0.935	1.000	1.069	1.143	1.220	1.302	1.389	1.481	1.578	1.680
8	0.731	0.791	0.856	0.926	1.000	1.080	1.165	1.255	1.352	1.456	1.566	1.684	1.809
9	0.703	0.768	0.840	0.917	1.000	1.090	1.187	1.292	1.404	1.526	1.657	1.797	1.948
10	0.676	0.746	0.824	0.908	1.000	1.100	1.210	1.329	1.458	1.599	1.752	1.918	2.098
11	0.650	0.725	0.808	0.899	1.000	1.111	1.233	1.367	1.515	1.676	1.853	2.047	2.260
12	0.625	0.704	0.792	0.891	1.000	1.122	1.257	1.407	1.573	1.757	1.960	2.185	2.433
13	0.601	0.684	0.777	0.882	1.000	1.132	1.281	1.447	1.633	1.841	2.073	2.332	2.621
14	0.577	0.664	0.762	0.873	1.000	1.143	1.306	1.489	1.696	1.930	2.193	2.489	2.822
15	0.555	0.645	0.747	0.865	1.000	1.154	1.331	1.532	1.761	2.023	2.319	2.657	3.039
16	0.534	0.626	0.733	0.857	1.000	1.165	1.356	1.576	1.829	2.120	2.453	2.836	3.273
17	0.513	0.608	0.719	0.849	1.000	1.177	1.382	1.622	1.899	2.222	2.595	3.026	3.525
18	0.494	0.590	0.705	0.840	1.000	1.188	1.409	1.668	1.973	2.329	2.745	3.230	3.796
19	0.475	0.573	0.691	0.832	1.000	1.199	1.436	1.717	2.048	2.440	2.903	3.447	4.088
20	0.456	0.557	0.678	0.824	1.000	1.211	1.464	1.766	2.127	2.558	3.070	3.680	4.402
21	0.439	0.541	0.665	0.816	1.000	1.223	1.492	1.817	2.209	2.681	3.247	3.927	4.741
22	0.422	0.525	0.652	0.809	1.000	1.234	1.521	1.869	2.294	2.810	3.435	4.192	5.106
23	0.406	0.510	0.640	0.801	1.000	1.246	1.550	1.923	2.382	2.945	3.633	4.474	5.499
24	0.390	0.495	0.627	0.793	1.000	1.258	1.580	1.979	2.474	3.086	3.843	4.775	5.922
25	0.375	0.481	0.615	0.785	1.000	1.270	1.610	2.036	2.569	3.235	4.064	5.096	6.377
26	0.361	0.467	0.604	0.778	1.000	1.282	1.641	2.095	2.668	3.390	4.299	5.439	6.868
27	0.347	0.454	0.592	0.770	1.000	1.295	1.672	2.155	2.770	3.553	4.547	5.805	7.396
28	0.333	0.441	0.581	0.763	1.000	1.307	1.705	2.217	2.877	3.724	4.809	6.196	7.965
29	0.321	0.428	0.569	0.756	1.000	1.320	1.737	2.281	2.988	3.903	5.087	6.613	8.577
30	0.308	0.416	0.558	0.748	1.000	1.333	1.771	2.347	3.103	4.091	5.380	7.058	9.237
31	0.296	0.404	0.548	0.741	1.000	1.345	1.805	2.415	3.222	4.287	5.690	7.533	9.948
32	0.285	0.392	0.537	0.734	1.000	1.358	1.840	2.484	3.346	4.493	6.019	8.040	10.713
33	0.274	0.381	0.527	0.727	1.000	1.371	1.875	2.556	3.474	4.709	6.366	8.581	11.537
34	0.264	0.370	0.517	0.720	1.000	1.385	1.911	2.630	3.608	4.936	6.733	9.159	12.425
35	0.253	0.359	0.507	0.713	1.000	1.398	1.948	2.706	3.747	5.173	7.122	9.775	13.380
36	0.244	0.349	0.497	0.706	1.000	1.411	1.985	2.784	3.891	5.422	7.532	10.433	14.409
37	0.234	0.339	0.487	0.699	1.000	1.425	2.023	2.864	4.041	5.683	7.967	11.136	15.518
38	0.225	0.329	0.478	0.693	1.000	1.439	2.062	2.947	4.196	5.956	8.427	11.885	16.712
39	0.217	0.319	0.469	0.686	1.000	1.452	2.102	3.032	4.357	6.242	8.913	12.685	17.997
40	0.208	0.310	0.460	0.679	1.000	1.466	2.142	3.119	4.525	6.542	9.427	13.539	19.381
41	0.200	0.301	0.451	0.673	1.000	1.480	2.184	3.209	4.699	6.857	9.971	14.450	20.872
42	0.193	0.292	0.442	0.666	1.000	1.495	2.226	3.302	4.880	7.186	10.546	15.423	22.478
43	0.185	0.284	0.434	0.660	1.000	1.509	2.268	3.397	5.067	7.532	11.155	16.461	24.207
44	0.178	0.276	0.426	0.654	1.000	1.524	2.312	3.495	5.262	7.894	11.798	17.569	26.069
45	0.171	0.268	0.417	0.647	1.000	1.538	2.356	3.596	5.465	8.274	12.479	18.751	28.074
46	0.165	0.260	0.409	0.641	1.000	1.553	2.402	3.699	5.675	8.671	13.199	20.014	30.234
47	0.158	0.253	0.401	0.635	1.000	1.568	2.448	3.806	5.893	9.088	13.960	21.361	32.560
48	0.152	0.245	0.394	0.629	1.000	1.583	2.495	3.916	6.120	9.525	14.766	22.798	35.064
49	0.146	0.238	0.386	0.623	1.000	1.598	2.543	4.029	6.355	9.983	15.617	24.333	37.762
50	0.141	0.231	0.379	0.617	1.000	1.614	2.592	4.145	6.600	10.463	16.518	25.971	40.666

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 4.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.087	1.096	1.106	1.115	1.125	1.135	1.144	1.154	1.163	1.173	1.183	1.192	1.202
2	1.181	1.202	1.223	1.244	1.266	1.287	1.309	1.331	1.354	1.376	1.399	1.422	1.445
3	1.283	1.317	1.352	1.388	1.424	1.461	1.498	1.536	1.575	1.614	1.654	1.695	1.736
4	1.394	1.444	1.495	1.548	1.602	1.657	1.714	1.773	1.832	1.894	1.957	2.021	2.087
5	1.514	1.583	1.653	1.726	1.802	1.880	1.961	2.045	2.132	2.221	2.314	2.410	2.508
6	1.645	1.735	1.828	1.926	2.027	2.133	2.244	2.360	2.480	2.606	2.737	2.873	3.015
7	1.788	1.902	2.021	2.148	2.281	2.421	2.568	2.723	2.886	3.057	3.237	3.425	3.624
8	1.942	2.084	2.235	2.396	2.566	2.747	2.938	3.142	3.358	3.586	3.828	4.084	4.355
9	2.111	2.285	2.472	2.672	2.887	3.116	3.362	3.625	3.906	4.207	4.527	4.870	5.235
10	2.293	2.504	2.733	2.980	3.247	3.536	3.847	4.183	4.545	4.935	5.354	5.806	6.292
11	2.492	2.745	3.022	3.324	3.653	4.012	4.402	4.826	5.288	5.789	6.333	6.923	7.562
12	2.707	3.009	3.342	3.708	4.110	4.552	5.037	5.569	6.152	6.791	7.490	8.254	9.089
13	2.942	3.299	3.695	4.135	4.624	5.165	5.763	6.426	7.158	7.966	8.858	9.841	10.924
14	3.196	3.616	4.086	4.613	5.202	5.860	6.595	7.414	8.328	9.345	10.476	11.734	13.130
15	3.473	3.963	4.518	5.145	5.852	6.649	7.546	8.555	9.689	10.962	12.390	13.990	15.782
16	3.773	4.345	4.996	5.738	6.583	7.544	8.634	9.871	11.273	12.859	14.654	16.681	18.968
17	4.100	4.762	5.525	6.401	7.406	8.559	9.879	11.390	13.115	15.085	17.331	19.888	22.798
18	4.455	5.220	6.109	7.139	8.332	9.711	11.304	13.142	15.259	17.696	20.497	23.713	27.402
19	4.840	5.722	6.755	7.963	9.373	11.019	12.935	15.164	17.754	20.759	24.242	28.273	32.935
20	5.259	6.272	7.469	8.882	10.545	12.502	14.800	17.497	20.656	24.352	28.671	33.711	39.585
21	5.714	6.875	8.260	9.906	11.863	14.185	16.935	20.189	24.032	28.566	33.908	40.193	47.578
22	6.209	7.537	9.133	11.049	13.346	16.094	19.378	23.295	27.960	33.511	40.103	47.923	57.186
23	6.746	8.261	10.099	12.324	15.014	18.261	22.172	26.878	32.531	39.311	47.430	57.139	68.733
24	7.330	9.056	11.167	13.746	16.891	20.719	25.370	31.013	37.849	46.114	56.095	68.127	82.611
25	7.964	9.926	12.348	15.333	19.003	23.508	29.030	35.785	44.035	54.096	66.343	81.229	99.293
26	8.653	10.881	13.655	17.102	21.378	26.673	33.217	41.290	51.233	63.458	78.463	96.849	119.342
27	9.402	11.927	15.099	19.075	24.050	30.263	38.007	47.642	59.608	74.442	92.798	115.474	143.440
28	10.216	13.074	16.696	21.276	27.056	34.337	43.489	54.972	69.352	87.326	109.751	137.681	172.404
29	11.100	14.331	18.462	23.731	30.438	38.959	49.762	63.429	80.688	102.440	129.802	164.158	207.216
30	12.060	15.709	20.414	26.469	34.243	44.204	56.939	73.188	93.877	120.170	153.516	195.727	249.058
31	13.104	17.219	22.574	29.523	38.524	50.154	65.151	84.447	109.223	140.968	181.562	233.367	299.348
32	14.238	18.875	24.961	32.930	43.339	56.906	74.548	97.439	127.076	165.367	214.732	278.245	359.794
33	15.470	20.690	27.601	36.729	48.757	64.566	85.300	112.430	147.849	193.988	253.962	331.753	432.444
34	16.809	22.679	30.521	40.967	54.851	73.258	97.603	129.727	172.016	227.563	300.359	395.552	519.765
35	18.263	24.860	33.749	45.694	61.708	83.120	111.680	149.684	200.134	266.948	355.232	471.620	624.717
36	19.844	27.250	37.318	50.967	69.421	94.309	127.788	172.713	232.848	313.151	420.130	562.316	750.862
37	21.561	29.871	41.265	56.848	78.099	107.004	146.219	199.284	270.910	367.350	496.885	670.454	902.479
38	23.427	32.743	45.630	63.407	87.861	121.409	167.308	229.943	315.193	430.930	587.662	799.387	1084.710
39	25.454	35.891	50.456	70.723	98.844	137.752	191.439	265.319	366.715	505.514	695.023	953.115	1303.738
40	27.657	39.342	55.793	78.883	111.199	156.296	219.051	306.137	426.659	593.007	821.998	1136.407	1566.993
41	30.050	43.125	61.694	87.985	125.099	177.335	250.645	353.235	496.402	695.643	972.171	1354.947	1883.405
42	32.651	47.272	68.220	98.138	140.736	201.207	286.795	407.579	577.544	816.042	1149.779	1615.513	2263.707
43	35.476	51.817	75.435	109.461	158.328	228.293	328.160	470.284	671.951	957.280	1359.835	1926.189	2720.802
44	38.546	56.800	83.414	122.091	178.119	259.025	375.491	542.635	781.789	1122.963	1608.266	2296.610	3270.195
45	41.882	62.261	92.236	136.179	200.384	293.894	429.648	626.117	909.581	1317.323	1902.084	2738.266	3930.523
46	45.507	68.248	101.992	151.892	225.432	333.456	491.617	722.443	1058.263	1545.321	2249.580	3264.855	4724.186
47	49.445	74.810	112.780	169.418	253.611	378.344	562.523	833.588	1231.248	1812.780	2660.561	3892.712	5678.108
48	53.724	82.004	124.708	188.966	285.313	429.275	643.656	961.833	1432.509	2126.530	3146.626	4641.310	6824.649
49	58.373	89.888	137.899	210.770	320.977	487.063	736.491	1109.807	1666.670	2494.584	3721.490	5533.870	8202.703
50	63.424	98.532	152.484	235.089	361.099	552.629	842.716	1280.546	1939.106	2926.339	4401.377	6598.076	9859.019

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 5.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.952	0.962	0.971	0.981	0.990	1.000	1.010	1.019	1.029	1.038	1.048	1.057	1.067
2	0.907	0.925	0.944	0.962	0.981	1.000	1.019	1.038	1.058	1.078	1.098	1.118	1.138
3	0.864	0.890	0.917	0.944	0.972	1.000	1.029	1.058	1.088	1.119	1.150	1.181	1.214
4	0.823	0.856	0.891	0.926	0.962	1.000	1.039	1.078	1.119	1.161	1.205	1.249	1.295
5	0.784	0.823	0.865	0.908	0.953	1.000	1.049	1.099	1.151	1.206	1.262	1.320	1.381
6	0.746	0.792	0.840	0.891	0.944	1.000	1.059	1.120	1.184	1.251	1.322	1.396	1.473
7	0.711	0.762	0.816	0.874	0.935	1.000	1.069	1.141	1.218	1.299	1.385	1.475	1.571
8	0.677	0.733	0.793	0.857	0.926	1.000	1.079	1.163	1.253	1.349	1.451	1.560	1.676
9	0.645	0.705	0.770	0.841	0.917	1.000	1.089	1.185	1.289	1.400	1.520	1.649	1.788
10	0.614	0.678	0.748	0.825	0.909	1.000	1.099	1.208	1.325	1.453	1.592	1.743	1.907
11	0.585	0.652	0.727	0.809	0.900	1.000	1.110	1.231	1.363	1.509	1.668	1.843	2.034
12	0.557	0.627	0.706	0.794	0.892	1.000	1.120	1.254	1.402	1.566	1.748	1.948	2.169
13	0.530	0.604	0.686	0.779	0.883	1.000	1.131	1.278	1.442	1.626	1.831	2.059	2.314
14	0.505	0.581	0.666	0.764	0.875	1.000	1.142	1.302	1.483	1.688	1.918	2.177	2.468
15	0.481	0.558	0.647	0.749	0.866	1.000	1.153	1.327	1.526	1.752	2.009	2.301	2.633
16	0.458	0.537	0.629	0.735	0.858	1.000	1.164	1.352	1.569	1.819	2.105	2.433	2.808
17	0.436	0.517	0.611	0.721	0.850	1.000	1.175	1.378	1.614	1.888	2.205	2.572	2.996
18	0.416	0.497	0.593	0.707	0.842	1.000	1.186	1.404	1.660	1.960	2.310	2.719	3.195
19	0.396	0.478	0.577	0.694	0.834	1.000	1.197	1.431	1.708	2.035	2.420	2.874	3.408
20	0.377	0.460	0.560	0.681	0.826	1.000	1.209	1.458	1.757	2.112	2.536	3.039	3.636
21	0.359	0.442	0.544	0.668	0.818	1.000	1.220	1.486	1.807	2.193	2.656	3.212	3.878
22	0.342	0.426	0.528	0.655	0.810	1.000	1.232	1.515	1.858	2.276	2.783	3.396	4.136
23	0.326	0.409	0.513	0.643	0.802	1.000	1.244	1.543	1.912	2.363	2.915	3.590	4.412
24	0.310	0.394	0.499	0.630	0.795	1.000	1.255	1.573	1.966	2.453	3.054	3.795	4.706
25	0.295	0.379	0.484	0.618	0.787	1.000	1.267	1.603	2.022	2.546	3.200	4.012	5.020
26	0.281	0.364	0.471	0.607	0.780	1.000	1.279	1.633	2.080	2.643	3.352	4.241	5.355
27	0.268	0.350	0.457	0.595	0.772	1.000	1.292	1.664	2.140	2.744	3.511	4.483	5.712
28	0.255	0.337	0.444	0.584	0.765	1.000	1.304	1.696	2.201	2.849	3.679	4.740	6.093
29	0.243	0.324	0.431	0.573	0.758	1.000	1.316	1.728	2.264	2.957	3.854	5.010	6.499
30	0.231	0.312	0.419	0.562	0.750	1.000	1.329	1.761	2.328	3.070	4.037	5.297	6.932
31	0.220	0.300	0.407	0.551	0.743	1.000	1.342	1.795	2.395	3.187	4.230	5.599	7.394
32	0.210	0.289	0.396	0.540	0.736	1.000	1.354	1.829	2.463	3.308	4.431	5.919	7.887
33	0.200	0.278	0.384	0.530	0.729	1.000	1.367	1.864	2.534	3.434	4.642	6.258	8.413
34	0.190	0.267	0.373	0.520	0.722	1.000	1.380	1.899	2.606	3.565	4.863	6.615	8.974
35	0.181	0.257	0.363	0.510	0.715	1.000	1.393	1.936	2.680	3.701	5.095	6.993	9.572
36	0.173	0.247	0.352	0.500	0.709	1.000	1.407	1.972	2.757	3.842	5.337	7.393	10.210
37	0.164	0.238	0.342	0.491	0.702	1.000	1.420	2.010	2.836	3.988	5.591	7.815	10.891
38	0.157	0.229	0.332	0.482	0.695	1.000	1.434	2.048	2.917	4.140	5.858	8.262	11.617
39	0.149	0.220	0.323	0.472	0.689	1.000	1.447	2.087	3.000	4.298	6.137	8.734	12.391
40	0.142	0.211	0.314	0.463	0.682	1.000	1.461	2.127	3.086	4.462	6.429	9.233	13.217
41	0.135	0.203	0.305	0.455	0.675	1.000	1.475	2.168	3.174	4.632	6.735	9.761	14.099
42	0.129	0.196	0.296	0.446	0.669	1.000	1.489	2.209	3.265	4.808	7.056	10.318	15.039
43	0.123	0.188	0.288	0.437	0.663	1.000	1.503	2.251	3.358	4.991	7.392	10.908	16.041
44	0.117	0.181	0.279	0.429	0.656	1.000	1.518	2.294	3.454	5.181	7.744	11.531	17.111
45	0.111	0.174	0.271	0.421	0.650	1.000	1.532	2.337	3.553	5.379	8.112	12.190	18.251
46	0.106	0.168	0.264	0.413	0.644	1.000	1.547	2.382	3.654	5.584	8.499	12.887	19.468
47	0.101	0.161	0.256	0.405	0.638	1.000	1.561	2.427	3.759	5.796	8.903	13.623	20.766
48	0.096	0.155	0.249	0.397	0.632	1.000	1.576	2.474	3.866	6.017	9.327	14.402	22.150
49	0.092	0.149	0.242	0.390	0.626	1.000	1.591	2.521	3.976	6.246	9.772	15.225	23.627
50	0.087	0.143	0.235	0.382	0.620	1.000	1.606	2.569	4.090	6.484	10.237	16.095	25.202

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 5.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.076	1.086	1.095	1.105	1.114	1.124	1.133	1.143	1.152	1.162	1.171	1.181	1.190
2	1.158	1.179	1.200	1.220	1.242	1.263	1.284	1.306	1.328	1.350	1.372	1.395	1.417
3	1.246	1.280	1.314	1.348	1.384	1.419	1.456	1.493	1.530	1.569	1.607	1.647	1.687
4	1.341	1.390	1.439	1.490	1.542	1.595	1.650	1.706	1.764	1.823	1.883	1.945	2.009
5	1.444	1.509	1.576	1.646	1.718	1.793	1.870	1.950	2.032	2.118	2.206	2.297	2.391
6	1.554	1.638	1.726	1.818	1.914	2.014	2.119	2.228	2.342	2.460	2.584	2.713	2.847
7	1.672	1.778	1.890	2.009	2.133	2.264	2.402	2.546	2.699	2.859	3.027	3.204	3.389
8	1.799	1.931	2.070	2.219	2.377	2.544	2.722	2.910	3.110	3.322	3.546	3.783	4.034
9	1.936	2.096	2.268	2.451	2.648	2.859	3.085	3.326	3.584	3.860	4.154	4.468	4.803
10	2.084	2.276	2.484	2.708	2.951	3.213	3.496	3.801	4.130	4.484	4.866	5.276	5.718
11	2.243	2.471	2.720	2.992	3.288	3.611	3.962	4.344	4.759	5.210	5.700	6.231	6.807
12	2.414	2.683	2.979	3.305	3.664	4.058	4.490	4.965	5.485	6.054	6.677	7.358	8.103
13	2.598	2.913	3.263	3.652	4.083	4.560	5.089	5.674	6.320	7.034	7.822	8.690	9.646
14	2.795	3.162	3.574	4.034	4.549	5.125	5.768	6.485	7.284	8.173	9.163	10.263	11.484
15	3.008	3.433	3.914	4.457	5.069	5.760	6.537	7.411	8.393	9.496	10.733	12.120	13.671
16	3.238	3.728	4.287	4.924	5.649	6.473	7.408	8.470	9.672	11.034	12.573	14.313	16.275
17	3.484	4.047	4.695	5.440	6.294	7.274	8.396	9.680	11.146	12.820	14.729	16.902	19.375
18	3.750	4.394	5.142	6.009	7.014	8.175	9.516	11.063	12.845	14.896	17.254	19.961	23.066
19	4.035	4.771	5.632	6.639	7.815	9.187	10.784	12.643	14.802	17.308	20.212	23.573	27.460
20	4.343	5.180	6.168	7.335	8.708	10.324	12.222	14.449	17.058	20.110	23.676	27.839	32.690
21	4.674	5.624	6.756	8.103	9.703	11.602	13.852	16.513	19.657	23.366	27.735	32.876	38.917
22	5.030	6.106	7.399	8.952	10.812	13.039	15.699	18.872	22.652	27.149	32.490	38.825	46.329
23	5.413	6.629	8.104	9.890	12.048	14.653	17.792	21.568	26.104	31.544	38.060	45.851	55.154
24	5.826	7.197	8.876	10.926	13.425	16.467	20.164	24.649	30.082	36.652	44.584	54.147	65.659
25	6.269	7.814	9.721	12.070	14.959	18.506	22.853	28.171	34.666	42.586	52.227	63.945	78.166
26	6.747	8.484	10.647	13.335	16.669	20.797	25.900	32.195	39.948	49.480	61.180	75.517	93.055
27	7.261	9.211	11.661	14.732	18.574	23.372	29.353	36.794	46.036	57.492	71.668	89.181	110.779
28	7.814	10.001	12.771	16.275	20.697	26.266	33.267	42.051	53.051	66.800	83.954	105.319	131.880
29	8.410	10.858	13.988	17.980	23.062	29.518	37.703	48.058	61.134	77.615	98.346	124.377	157.000
30	9.051	11.789	15.320	19.864	25.698	33.173	42.730	54.924	70.450	90.181	115.206	146.883	186.905
31	9.740	12.799	16.779	21.945	28.635	37.280	48.427	62.770	81.185	104.782	134.955	173.462	222.506
32	10.482	13.896	18.377	24.244	31.907	41.895	54.884	71.737	93.557	121.747	158.091	204.850	264.888
33	11.281	15.087	20.127	26.783	35.554	47.082	62.202	81.985	107.813	141.458	185.192	241.918	315.343
34	12.140	16.381	22.044	29.589	39.617	52.912	70.495	93.697	124.241	164.361	216.939	285.694	375.409
35	13.065	17.785	24.143	32.689	44.145	59.463	79.895	107.082	143.173	190.972	254.129	337.391	446.915
36	14.061	19.309	26.443	36.114	49.190	66.825	90.547	122.380	164.990	221.891	297.693	398.443	532.042
37	15.132	20.964	28.961	39.897	54.812	75.098	102.620	139.863	190.132	257.816	348.727	470.542	633.383
38	16.285	22.761	31.719	44.077	61.076	84.396	116.303	159.843	219.104	299.558	408.508	555.688	754.027
39	17.526	24.712	34.740	48.694	68.056	94.845	131.810	182.678	252.492	348.057	478.538	656.241	897.652
40	18.861	26.830	38.049	53.796	75.834	106.588	149.385	208.775	290.966	404.409	560.573	774.989	1068.633
41	20.298	29.130	41.673	59.431	84.500	119.785	169.303	238.600	335.304	469.885	656.672	915.225	1272.182
42	21.845	31.627	45.641	65.658	94.158	134.615	191.877	272.685	386.398	545.962	769.244	1080.837	1514.502
43	23.509	34.338	49.988	72.536	104.919	151.282	217.460	311.640	445.278	634.356	901.114	1276.417	1802.979
44	25.300	37.281	54.749	80.135	116.909	170.012	246.455	356.160	513.130	737.061	1055.591	1507.388	2146.404
45	27.228	40.476	59.963	88.530	130.270	191.061	279.315	407.040	591.321	856.395	1236.550	1780.153	2555.243
46	29.302	43.946	65.674	97.805	145.158	214.716	316.557	465.189	681.427	995.049	1448.530	2102.276	3041.955
47	31.535	47.712	71.929	108.051	161.748	241.300	358.765	531.645	785.263	1156.152	1696.849	2482.688	3621.375
48	33.937	51.802	78.779	119.371	180.233	271.175	406.600	607.594	904.923	1343.339	1987.737	2931.936	4311.161
49	36.523	56.242	86.282	131.876	200.831	304.749	460.814	694.393	1042.816	1560.832	2328.492	3462.477	5132.335
50	39.306	61.063	94.499	145.692	223.784	342.480	522.256	793.592	1201.721	1813.538	2727.662	4089.021	6109.922

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 6.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.943	0.953	0.962	0.972	0.981	0.991	1.000	1.009	1.019	1.028	1.038	1.047	1.057
2	0.890	0.908	0.926	0.944	0.963	0.981	1.000	1.019	1.038	1.057	1.077	1.097	1.116
3	0.840	0.865	0.891	0.917	0.944	0.972	1.000	1.029	1.058	1.087	1.118	1.148	1.180
4	0.792	0.824	0.857	0.892	0.927	0.963	1.000	1.038	1.078	1.118	1.160	1.202	1.246
5	0.747	0.785	0.825	0.866	0.909	0.954	1.000	1.048	1.098	1.150	1.203	1.259	1.317
6	0.705	0.748	0.794	0.842	0.892	0.945	1.000	1.058	1.119	1.182	1.249	1.319	1.391
7	0.665	0.713	0.764	0.818	0.875	0.936	1.000	1.068	1.140	1.216	1.296	1.381	1.470
8	0.627	0.679	0.735	0.795	0.859	0.927	1.000	1.078	1.161	1.250	1.345	1.446	1.553
9	0.592	0.647	0.707	0.772	0.842	0.918	1.000	1.088	1.183	1.286	1.396	1.514	1.641
10	0.558	0.617	0.681	0.750	0.827	0.910	1.000	1.098	1.206	1.322	1.448	1.586	1.734
11	0.527	0.588	0.655	0.729	0.811	0.901	1.000	1.109	1.228	1.359	1.503	1.660	1.832
12	0.497	0.560	0.630	0.709	0.796	0.892	1.000	1.119	1.251	1.398	1.560	1.739	1.936
13	0.469	0.534	0.606	0.689	0.781	0.884	1.000	1.130	1.275	1.437	1.619	1.821	2.046
14	0.442	0.508	0.584	0.669	0.766	0.876	1.000	1.140	1.299	1.478	1.680	1.907	2.162
15	0.417	0.484	0.562	0.650	0.751	0.867	1.000	1.151	1.324	1.520	1.743	1.996	2.284
16	0.394	0.462	0.540	0.632	0.737	0.859	1.000	1.162	1.349	1.563	1.809	2.091	2.413
17	0.371	0.440	0.520	0.614	0.723	0.851	1.000	1.173	1.374	1.607	1.877	2.189	2.550
18	0.350	0.419	0.500	0.596	0.710	0.843	1.000	1.184	1.400	1.653	1.948	2.292	2.694
19	0.331	0.399	0.481	0.580	0.696	0.835	1.000	1.195	1.426	1.699	2.021	2.401	2.847
20	0.312	0.380	0.463	0.563	0.683	0.827	1.000	1.207	1.453	1.747	2.098	2.514	3.008
21	0.294	0.363	0.446	0.547	0.670	0.820	1.000	1.218	1.481	1.797	2.177	2.632	3.178
22	0.278	0.345	0.429	0.532	0.658	0.812	1.000	1.229	1.509	1.848	2.259	2.757	3.358
23	0.262	0.329	0.413	0.517	0.645	0.804	1.000	1.241	1.537	1.900	2.344	2.887	3.548
24	0.247	0.314	0.397	0.502	0.633	0.797	1.000	1.253	1.566	1.954	2.433	3.023	3.749
25	0.233	0.299	0.382	0.488	0.621	0.789	1.000	1.265	1.596	2.009	2.524	3.165	3.961
26	0.220	0.285	0.368	0.474	0.609	0.782	1.000	1.277	1.626	2.066	2.620	3.315	4.185
27	0.207	0.271	0.354	0.461	0.598	0.774	1.000	1.289	1.656	2.125	2.719	3.471	4.422
28	0.196	0.258	0.341	0.448	0.587	0.767	1.000	1.301	1.688	2.185	2.821	3.635	4.672
29	0.185	0.246	0.328	0.435	0.576	0.760	1.000	1.313	1.720	2.246	2.928	3.806	4.937
30	0.174	0.235	0.315	0.423	0.565	0.752	1.000	1.325	1.752	2.310	3.038	3.986	5.216
31	0.164	0.224	0.303	0.411	0.554	0.745	1.000	1.338	1.785	2.375	3.153	4.174	5.512
32	0.155	0.213	0.292	0.399	0.544	0.738	1.000	1.350	1.819	2.443	3.272	4.371	5.824
33	0.146	0.203	0.281	0.388	0.533	0.731	1.000	1.363	1.853	2.512	3.395	4.577	6.153
34	0.138	0.193	0.270	0.377	0.523	0.724	1.000	1.376	1.888	2.583	3.523	4.793	6.501
35	0.130	0.184	0.260	0.366	0.513	0.718	1.000	1.389	1.924	2.656	3.656	5.019	6.870
36	0.123	0.176	0.250	0.356	0.504	0.711	1.000	1.402	1.960	2.731	3.794	5.256	7.258
37	0.116	0.167	0.241	0.346	0.494	0.704	1.000	1.415	1.997	2.808	3.937	5.503	7.669
38	0.109	0.159	0.232	0.336	0.485	0.698	1.000	1.429	2.035	2.888	4.086	5.763	8.103
39	0.103	0.152	0.223	0.326	0.476	0.691	1.000	1.442	2.073	2.970	4.240	6.035	8.562
40	0.097	0.145	0.215	0.317	0.467	0.684	1.000	1.456	2.112	3.054	4.400	6.320	9.047
41	0.092	0.138	0.207	0.308	0.458	0.678	1.000	1.470	2.152	3.140	4.566	6.618	9.559
42	0.087	0.131	0.199	0.299	0.449	0.672	1.000	1.483	2.193	3.229	4.739	6.930	10.100
43	0.082	0.125	0.191	0.291	0.441	0.665	1.000	1.497	2.234	3.320	4.917	7.257	10.671
44	0.077	0.119	0.184	0.283	0.433	0.659	1.000	1.512	2.276	3.414	5.103	7.599	11.275
45	0.073	0.114	0.177	0.275	0.424	0.653	1.000	1.526	2.319	3.511	5.295	7.957	11.914
46	0.069	0.108	0.170	0.267	0.416	0.647	1.000	1.540	2.363	3.610	5.495	8.333	12.588
47	0.065	0.103	0.164	0.259	0.408	0.641	1.000	1.555	2.407	3.713	5.703	8.726	13.301
48	0.061	0.098	0.158	0.252	0.401	0.634	1.000	1.569	2.453	3.818	5.918	9.137	14.053
49	0.058	0.094	0.152	0.245	0.393	0.628	1.000	1.584	2.499	3.926	6.141	9.568	14.849
50	0.054	0.089	0.146	0.238	0.386	0.623	1.000	1.599	2.546	4.037	6.373	10.020	15.689

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 6.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.066	1.075	1.085	1.094	1.104	1.113	1.123	1.132	1.142	1.151	1.160	1.170	1.179
2	1.136	1.157	1.177	1.198	1.218	1.239	1.260	1.282	1.303	1.325	1.346	1.368	1.391
3	1.211	1.244	1.277	1.311	1.345	1.380	1.415	1.451	1.487	1.525	1.562	1.601	1.640
4	1.291	1.338	1.385	1.434	1.484	1.536	1.588	1.642	1.698	1.755	1.813	1.873	1.934
5	1.377	1.439	1.503	1.569	1.638	1.710	1.783	1.859	1.938	2.020	2.104	2.191	2.280
6	1.468	1.547	1.631	1.718	1.808	1.903	2.002	2.105	2.212	2.324	2.441	2.563	2.689
7	1.565	1.664	1.769	1.880	1.996	2.119	2.247	2.383	2.526	2.675	2.833	2.998	3.171
8	1.668	1.790	1.919	2.057	2.203	2.358	2.523	2.698	2.883	3.079	3.287	3.507	3.740
9	1.778	1.925	2.082	2.251	2.432	2.625	2.832	3.054	3.291	3.544	3.814	4.102	4.410
10	1.896	2.070	2.259	2.463	2.684	2.923	3.180	3.457	3.757	4.079	4.426	4.799	5.200
11	2.021	2.226	2.451	2.696	2.963	3.253	3.570	3.914	4.288	4.695	5.136	5.614	6.133
12	2.154	2.394	2.659	2.950	3.270	3.622	4.008	4.431	4.895	5.403	5.959	6.567	7.232
13	2.296	2.575	2.885	3.228	3.609	4.032	4.499	5.016	5.588	6.219	6.915	7.683	8.528
14	2.448	2.769	3.130	3.533	3.984	4.488	5.051	5.679	6.378	7.157	8.024	8.987	10.057
15	2.610	2.978	3.395	3.866	4.397	4.996	5.670	6.429	7.281	8.238	9.311	10.513	11.859
16	2.782	3.203	3.684	4.231	4.854	5.562	6.366	7.278	8.311	9.481	10.804	12.299	13.985
17	2.966	3.445	3.996	4.630	5.357	6.191	7.147	8.239	9.487	10.912	12.537	14.387	16.492
18	3.162	3.705	4.336	5.067	5.913	6.892	8.023	9.327	10.830	12.559	14.547	16.830	19.448
19	3.370	3.985	4.704	5.545	6.527	7.673	9.007	10.559	12.363	14.455	16.881	19.688	22.934
20	3.593	4.285	5.103	6.068	7.204	8.541	10.112	11.954	14.112	16.637	19.588	23.031	27.045
21	3.830	4.609	5.536	6.640	7.952	9.508	11.352	13.533	16.109	19.148	22.729	26.942	31.892
22	4.083	4.957	6.007	7.267	8.777	10.585	12.744	15.320	18.389	22.039	26.374	31.517	37.609
23	4.353	5.331	6.517	7.952	9.688	11.783	14.307	17.343	20.991	25.365	30.604	36.869	44.350
24	4.640	5.733	7.070	8.703	10.694	13.117	16.062	19.634	23.961	29.194	35.513	43.130	52.300
25	4.947	6.166	7.670	9.524	11.803	14.602	18.031	22.227	27.352	33.601	41.208	50.454	61.674
26	5.273	6.631	8.321	10.422	13.028	16.255	20.243	25.163	31.222	38.673	47.817	59.022	72.729
27	5.622	7.131	9.028	11.405	14.380	18.095	22.725	28.486	35.641	44.510	55.486	69.044	85.765
28	5.993	7.670	9.794	12.481	15.872	20.143	25.512	32.249	40.684	51.228	64.384	80.769	101.138
29	6.389	8.248	10.626	13.659	17.519	22.424	28.641	36.508	46.441	58.961	74.710	94.484	119.267
30	6.810	8.871	11.528	14.947	19.337	24.962	32.154	41.330	53.013	67.861	86.692	110.529	140.645
31	7.260	9.540	12.507	16.357	21.344	27.788	36.097	46.788	60.515	78.104	100.595	129.298	165.855
32	7.740	10.260	13.569	17.901	23.559	30.934	40.524	52.968	69.079	89.893	116.728	151.254	195.584
33	8.251	11.035	14.721	19.589	26.004	34.436	45.494	59.964	78.854	103.462	135.449	176.938	230.641
34	8.796	11.868	15.971	21.437	28.703	38.334	51.074	67.883	90.013	119.079	157.172	206.985	271.983
35	9.376	12.763	17.327	23.460	31.681	42.674	57.337	76.849	102.750	137.053	182.378	242.133	320.734
36	9.996	13.727	18.798	25.673	34.969	47.505	64.369	86.999	117.290	157.740	211.628	283.250	378.224
37	10.656	14.763	20.394	28.095	38.598	52.883	72.264	98.489	133.888	181.550	245.568	331.349	446.019
38	11.359	15.877	22.126	30.745	42.603	58.870	81.126	111.497	152.834	208.954	284.952	387.616	525.966
39	12.110	17.075	24.004	33.646	47.024	65.534	91.076	126.223	174.462	240.494	330.652	453.437	620.243
40	12.909	18.364	26.042	36.820	51.904	72.953	102.245	142.894	199.150	276.795	383.681	530.436	731.418
41	13.762	19.750	28.253	40.294	57.290	81.212	114.785	161.767	227.332	318.576	445.214	620.510	862.522
42	14.671	21.240	30.652	44.095	63.235	90.406	128.862	183.133	259.501	366.663	516.617	725.879	1017.125
43	15.639	22.843	33.255	48.255	69.797	100.641	144.666	207.320	296.223	422.008	599.470	849.142	1199.440
44	16.672	24.567	36.078	52.807	77.041	112.034	162.408	234.702	338.141	485.707	695.612	993.336	1414.433
45	17.773	26.421	39.142	57.789	85.035	124.717	182.326	265.700	385.991	559.021	807.172	1162.015	1667.964
46	18.947	28.415	42.465	63.241	93.860	138.836	204.687	300.793	440.613	643.402	936.624	1359.339	1966.939
47	20.198	30.560	46.070	69.207	103.600	154.553	229.790	340.520	502.964	740.519	1086.837	1590.170	2319.503
48	21.532	32.866	49.982	75.736	114.351	172.050	257.972	385.495	574.138	852.296	1261.141	1860.199	2735.263
49	22.954	35.347	54.226	82.881	126.218	191.527	289.610	436.409	655.384	980.944	1463.400	2176.082	3225.546
50	24.470	38.015	58.830	90.700	139.316	213.210	325.128	494.048	748.127	1129.011	1698.096	2545.605	3803.710

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 7.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.935	0.944	0.953	0.963	0.972	0.981	0.991	1.000	1.009	1.019	1.028	1.037	1.047
2	0.873	0.891	0.909	0.927	0.945	0.963	0.981	1.000	1.019	1.038	1.057	1.076	1.096
3	0.816	0.841	0.866	0.892	0.918	0.945	0.972	1.000	1.028	1.057	1.086	1.116	1.147
4	0.763	0.794	0.826	0.859	0.892	0.927	0.963	1.000	1.038	1.077	1.117	1.158	1.200
5	0.713	0.749	0.787	0.827	0.867	0.910	0.954	1.000	1.048	1.097	1.148	1.201	1.257
6	0.666	0.707	0.750	0.796	0.843	0.893	0.945	1.000	1.057	1.118	1.180	1.246	1.315
7	0.623	0.668	0.715	0.766	0.819	0.876	0.936	1.000	1.067	1.138	1.214	1.293	1.377
8	0.582	0.630	0.682	0.737	0.797	0.860	0.928	1.000	1.077	1.160	1.248	1.341	1.441
9	0.544	0.595	0.650	0.710	0.774	0.844	0.919	1.000	1.087	1.181	1.283	1.391	1.508
10	0.508	0.562	0.620	0.683	0.752	0.828	0.910	1.000	1.097	1.203	1.319	1.443	1.579
11	0.475	0.530	0.591	0.658	0.731	0.813	0.902	1.000	1.108	1.226	1.355	1.497	1.653
12	0.444	0.500	0.563	0.633	0.711	0.797	0.893	1.000	1.118	1.249	1.393	1.553	1.730
13	0.415	0.472	0.537	0.609	0.691	0.782	0.885	1.000	1.129	1.272	1.433	1.611	1.811
14	0.388	0.446	0.512	0.587	0.672	0.768	0.877	1.000	1.139	1.296	1.473	1.672	1.895
15	0.362	0.421	0.488	0.565	0.653	0.753	0.869	1.000	1.150	1.320	1.514	1.734	1.984
16	0.339	0.397	0.465	0.544	0.634	0.739	0.861	1.000	1.160	1.345	1.556	1.799	2.077
17	0.317	0.375	0.443	0.523	0.617	0.726	0.852	1.000	1.171	1.370	1.600	1.866	2.174
18	0.296	0.354	0.423	0.504	0.599	0.712	0.844	1.000	1.182	1.396	1.645	1.936	2.275
19	0.277	0.334	0.403	0.485	0.583	0.699	0.837	1.000	1.193	1.422	1.691	2.008	2.382
20	0.258	0.315	0.384	0.467	0.566	0.686	0.829	1.000	1.204	1.448	1.739	2.083	2.493
21	0.242	0.298	0.366	0.449	0.550	0.673	0.821	1.000	1.216	1.475	1.787	2.161	2.609
22	0.226	0.281	0.349	0.432	0.535	0.660	0.813	1.000	1.227	1.503	1.837	2.242	2.731
23	0.211	0.265	0.333	0.416	0.520	0.648	0.806	1.000	1.239	1.531	1.889	2.326	2.859
24	0.197	0.250	0.317	0.401	0.505	0.636	0.798	1.000	1.250	1.560	1.942	2.413	2.992
25	0.184	0.236	0.302	0.386	0.491	0.624	0.791	1.000	1.262	1.589	1.996	2.503	3.132
26	0.172	0.223	0.288	0.371	0.477	0.612	0.783	1.000	1.274	1.618	2.052	2.597	3.279
27	0.161	0.211	0.275	0.357	0.464	0.601	0.776	1.000	1.286	1.649	2.110	2.694	3.432
28	0.150	0.199	0.262	0.344	0.451	0.590	0.769	1.000	1.298	1.680	2.169	2.794	3.592
29	0.141	0.188	0.250	0.331	0.438	0.579	0.762	1.000	1.310	1.711	2.230	2.899	3.760
30	0.131	0.177	0.238	0.319	0.426	0.568	0.755	1.000	1.322	1.743	2.292	3.007	3.936
31	0.123	0.167	0.227	0.307	0.414	0.557	0.747	1.000	1.334	1.776	2.357	3.120	4.120
32	0.115	0.158	0.216	0.295	0.403	0.547	0.740	1.000	1.347	1.809	2.423	3.236	4.312
33	0.107	0.149	0.206	0.284	0.391	0.537	0.734	1.000	1.359	1.843	2.491	3.357	4.514
34	0.100	0.141	0.196	0.274	0.380	0.526	0.727	1.000	1.372	1.877	2.560	3.483	4.725
35	0.094	0.133	0.187	0.264	0.370	0.517	0.720	1.000	1.385	1.912	2.632	3.613	4.945
36	0.088	0.125	0.179	0.254	0.359	0.507	0.713	1.000	1.398	1.948	2.706	3.748	5.176
37	0.082	0.118	0.170	0.244	0.349	0.498	0.707	1.000	1.411	1.984	2.782	3.888	5.418
38	0.076	0.112	0.162	0.235	0.339	0.488	0.700	1.000	1.424	2.021	2.860	4.034	5.672
39	0.071	0.105	0.155	0.226	0.330	0.479	0.693	1.000	1.437	2.059	2.940	4.184	5.937
40	0.067	0.099	0.147	0.218	0.321	0.470	0.687	1.000	1.451	2.098	3.022	4.341	6.214
41	0.062	0.094	0.141	0.210	0.312	0.461	0.680	1.000	1.464	2.137	3.107	4.503	6.504
42	0.058	0.089	0.134	0.202	0.303	0.453	0.674	1.000	1.478	2.177	3.194	4.671	6.808
43	0.055	0.084	0.128	0.194	0.294	0.444	0.668	1.000	1.492	2.217	3.284	4.846	7.126
44	0.051	0.079	0.122	0.187	0.286	0.436	0.662	1.000	1.506	2.259	3.376	5.027	7.459
45	0.048	0.075	0.116	0.180	0.278	0.428	0.655	1.000	1.520	2.301	3.471	5.215	7.808
46	0.044	0.070	0.111	0.173	0.270	0.420	0.649	1.000	1.534	2.344	3.568	5.410	8.173
47	0.042	0.066	0.105	0.167	0.263	0.412	0.643	1.000	1.548	2.388	3.668	5.612	8.555
48	0.039	0.063	0.101	0.161	0.255	0.404	0.637	1.000	1.563	2.432	3.771	5.822	8.955
49	0.036	0.059	0.096	0.155	0.248	0.397	0.631	1.000	1.577	2.478	3.876	6.040	9.373
50	0.034	0.056	0.091	0.149	0.241	0.389	0.625	1.000	1.592	2.524	3.985	6.266	9.811

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 7.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.056	1.065	1.075	1.084	1.093	1.103	1.112	1.121	1.131	1.140	1.150	1.159	1.168
2	1.115	1.135	1.155	1.175	1.196	1.216	1.237	1.258	1.279	1.300	1.321	1.343	1.365
3	1.178	1.209	1.241	1.274	1.307	1.341	1.376	1.411	1.446	1.482	1.519	1.556	1.594
4	1.244	1.288	1.334	1.381	1.430	1.479	1.530	1.582	1.635	1.690	1.746	1.804	1.863
5	1.314	1.373	1.434	1.498	1.563	1.631	1.701	1.774	1.849	1.927	2.007	2.090	2.176
6	1.387	1.463	1.541	1.623	1.709	1.799	1.892	1.990	2.091	2.197	2.307	2.422	2.542
7	1.465	1.558	1.657	1.760	1.869	1.984	2.104	2.231	2.365	2.505	2.652	2.807	2.970
8	1.547	1.660	1.780	1.908	2.044	2.188	2.340	2.503	2.674	2.856	3.049	3.253	3.469
9	1.634	1.769	1.913	2.069	2.235	2.413	2.603	2.807	3.024	3.257	3.505	3.770	4.053
10	1.726	1.885	2.057	2.243	2.444	2.661	2.895	3.148	3.420	3.713	4.029	4.369	4.734
11	1.822	2.008	2.210	2.431	2.672	2.934	3.220	3.530	3.867	4.234	4.632	5.063	5.531
12	1.925	2.139	2.376	2.636	2.922	3.236	3.581	3.959	4.373	4.827	5.324	5.868	6.461
13	2.033	2.279	2.553	2.857	3.195	3.568	3.982	4.440	4.946	5.504	6.120	6.800	7.548
14	2.146	2.428	2.744	3.098	3.493	3.935	4.429	4.979	5.593	6.276	7.036	7.880	8.818
15	2.267	2.587	2.949	3.358	3.820	4.340	4.925	5.584	6.324	7.156	8.088	9.132	10.301
16	2.394	2.756	3.170	3.641	4.177	4.786	5.478	6.263	7.152	8.159	9.297	10.583	12.034
17	2.528	2.937	3.407	3.947	4.567	5.278	6.092	7.024	8.088	9.302	10.687	12.264	14.059
18	2.670	3.129	3.661	4.279	4.994	5.821	6.775	7.877	9.146	10.606	12.285	14.213	16.424
19	2.820	3.333	3.935	4.639	5.461	6.419	7.535	8.834	10.343	12.093	14.122	16.471	19.187
20	2.978	3.552	4.229	5.029	5.971	7.079	8.380	9.907	11.696	13.789	16.234	19.088	22.414
21	3.145	3.784	4.546	5.452	6.529	7.807	9.320	11.111	13.226	15.722	18.662	22.121	26.185
22	3.321	4.031	4.886	5.911	7.139	8.609	10.365	12.461	14.957	17.926	21.452	25.635	30.590
23	3.507	4.295	5.251	6.408	7.806	9.494	11.528	13.975	16.914	20.439	24.660	29.708	35.736
24	3.704	4.576	5.643	6.947	8.536	10.470	12.821	15.673	19.127	23.304	28.347	34.428	41.747
25	3.912	4.876	6.065	7.531	9.334	11.547	14.259	17.577	21.629	26.571	32.586	39.898	48.770
26	4.131	5.195	6.519	8.164	10.206	12.734	15.858	19.712	24.459	30.295	37.459	46.237	56.975
27	4.363	5.534	7.006	8.851	11.160	14.043	17.636	22.107	27.659	34.542	43.060	53.583	66.559
28	4.607	5.896	7.530	9.596	12.203	15.486	19.614	24.793	31.278	39.385	49.499	62.096	77.756
29	4.866	6.282	8.093	10.403	13.343	17.078	21.814	27.805	35.371	44.906	56.901	71.961	90.837
30	5.139	6.693	8.698	11.278	14.590	18.834	24.260	31.183	39.999	51.201	65.409	83.394	106.118
31	5.427	7.131	9.348	12.226	15.954	20.770	26.981	34.972	45.232	58.379	75.190	96.644	123.969
32	5.731	7.598	10.047	13.255	17.445	22.906	30.007	39.221	51.151	66.563	86.434	111.999	144.824
33	6.052	8.095	10.799	14.370	19.075	25.260	33.372	43.986	57.843	75.894	99.358	129.793	169.187
34	6.392	8.624	11.606	15.578	20.858	27.857	37.115	49.330	65.412	86.534	114.216	150.414	197.648
35	6.750	9.188	12.474	16.889	22.807	30.721	41.277	55.324	73.970	98.665	131.295	174.312	230.897
36	7.129	9.789	13.406	18.309	24.939	33.879	45.907	62.045	83.648	112.496	150.927	202.006	269.739
37	7.528	10.430	14.409	19.849	27.269	37.362	51.055	69.584	94.593	128.267	173.496	234.101	315.116
38	7.951	11.112	15.486	21.519	29.818	41.203	56.781	78.038	106.970	146.248	199.439	271.294	368.126
39	8.396	11.839	16.644	23.329	32.605	45.439	63.149	87.519	120.966	166.750	229.262	314.397	430.054
40	8.867	12.614	17.888	25.291	35.652	50.111	70.231	98.152	136.793	190.126	263.544	364.348	502.400
41	9.364	13.439	19.225	27.418	38.984	55.262	78.107	110.077	154.691	216.779	302.953	422.235	586.916
42	9.890	14.318	20.663	29.725	42.627	60.943	86.867	123.451	174.931	247.169	348.254	489.319	685.649
43	10.444	15.255	22.208	32.225	46.611	67.208	96.609	138.449	197.819	281.819	400.329	567.061	800.992
44	11.030	16.253	23.868	34.935	50.967	74.118	107.443	155.270	223.702	321.326	460.192	657.155	935.738
45	11.648	17.316	25.653	37.874	55.731	81.737	119.493	174.135	252.972	366.372	529.005	761.563	1093.152
46	12.301	18.449	27.571	41.060	60.939	90.140	132.894	195.292	286.071	417.733	608.109	882.559	1277.047
47	12.991	19.656	29.632	44.513	66.634	99.407	147.798	219.019	323.500	476.293	699.041	1022.779	1491.877
48	13.720	20.942	31.847	48.257	72.862	109.626	164.374	245.628	365.828	543.063	803.571	1185.276	1742.847
49	14.489	22.312	34.229	52.316	79.671	120.896	182.808	275.471	413.693	619.194	923.731	1373.591	2036.036
50	15.301	23.771	36.788	56.717	87.117	133.325	203.310	308.939	467.821	705.997	1061.859	1591.825	2378.547

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 8.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.926	0.935	0.944	0.954	0.963	0.972	0.981	0.991	1.000	1.009	1.019	1.028	1.037
2	0.857	0.875	0.892	0.910	0.927	0.945	0.963	0.982	1.000	1.019	1.037	1.056	1.075
3	0.794	0.818	0.842	0.867	0.893	0.919	0.945	0.972	1.000	1.028	1.057	1.086	1.115
4	0.735	0.765	0.796	0.827	0.860	0.893	0.928	0.963	1.000	1.038	1.076	1.116	1.157
5	0.681	0.715	0.751	0.789	0.828	0.869	0.911	0.955	1.000	1.047	1.096	1.147	1.199
6	0.630	0.669	0.710	0.752	0.797	0.844	0.894	0.946	1.000	1.057	1.116	1.179	1.244
7	0.583	0.626	0.670	0.718	0.768	0.821	0.877	0.937	1.000	1.067	1.137	1.211	1.290
8	0.540	0.585	0.633	0.684	0.739	0.798	0.861	0.928	1.000	1.077	1.158	1.245	1.338
9	0.500	0.547	0.598	0.653	0.712	0.776	0.845	0.920	1.000	1.086	1.180	1.280	1.387
10	0.463	0.512	0.565	0.622	0.686	0.754	0.830	0.911	1.000	1.097	1.201	1.315	1.439
11	0.429	0.478	0.533	0.594	0.660	0.734	0.814	0.903	1.000	1.107	1.224	1.352	1.492
12	0.397	0.447	0.504	0.566	0.636	0.713	0.799	0.894	1.000	1.117	1.246	1.389	1.547
13	0.368	0.418	0.476	0.540	0.612	0.693	0.784	0.886	1.000	1.127	1.269	1.428	1.604
14	0.340	0.391	0.449	0.515	0.590	0.674	0.770	0.878	1.000	1.138	1.293	1.468	1.664
15	0.315	0.366	0.424	0.491	0.568	0.655	0.755	0.870	1.000	1.148	1.317	1.508	1.725
16	0.292	0.342	0.401	0.468	0.547	0.637	0.742	0.862	1.000	1.159	1.341	1.550	1.789
17	0.270	0.320	0.378	0.447	0.526	0.619	0.728	0.854	1.000	1.170	1.366	1.593	1.856
18	0.250	0.299	0.357	0.426	0.507	0.602	0.714	0.846	1.000	1.180	1.391	1.638	1.924
19	0.232	0.280	0.338	0.406	0.488	0.586	0.701	0.838	1.000	1.191	1.417	1.683	1.996
20	0.215	0.262	0.319	0.387	0.470	0.569	0.688	0.830	1.000	1.202	1.443	1.730	2.070
21	0.199	0.245	0.301	0.370	0.453	0.553	0.675	0.823	1.000	1.214	1.470	1.778	2.146
22	0.184	0.229	0.284	0.352	0.436	0.538	0.663	0.815	1.000	1.225	1.497	1.827	2.226
23	0.170	0.214	0.269	0.336	0.420	0.523	0.651	0.807	1.000	1.236	1.525	1.878	2.308
24	0.158	0.200	0.254	0.321	0.404	0.509	0.639	0.800	1.000	1.248	1.553	1.930	2.394
25	0.146	0.187	0.240	0.306	0.389	0.494	0.627	0.793	1.000	1.259	1.582	1.984	2.482
26	0.135	0.175	0.226	0.292	0.375	0.481	0.615	0.785	1.000	1.271	1.611	2.039	2.574
27	0.125	0.164	0.214	0.278	0.361	0.467	0.604	0.778	1.000	1.283	1.641	2.095	2.670
28	0.116	0.153	0.202	0.265	0.348	0.454	0.593	0.771	1.000	1.294	1.672	2.154	2.768
29	0.107	0.143	0.191	0.253	0.335	0.442	0.582	0.764	1.000	1.306	1.703	2.213	2.871
30	0.099	0.134	0.180	0.241	0.322	0.430	0.571	0.756	1.000	1.319	1.734	2.275	2.977
31	0.092	0.125	0.170	0.230	0.310	0.418	0.560	0.749	1.000	1.331	1.766	2.338	3.088
32	0.085	0.117	0.161	0.219	0.299	0.406	0.550	0.743	1.000	1.343	1.799	2.403	3.202
33	0.079	0.110	0.152	0.209	0.288	0.395	0.540	0.736	1.000	1.355	1.832	2.470	3.321
34	0.073	0.102	0.143	0.200	0.277	0.384	0.530	0.729	1.000	1.368	1.866	2.538	3.444
35	0.068	0.096	0.135	0.190	0.267	0.373	0.520	0.722	1.000	1.381	1.901	2.609	3.571
36	0.063	0.090	0.128	0.182	0.257	0.363	0.510	0.715	1.000	1.393	1.936	2.681	3.703
37	0.058	0.084	0.121	0.173	0.247	0.353	0.501	0.709	1.000	1.406	1.972	2.756	3.841
38	0.054	0.078	0.114	0.165	0.238	0.343	0.491	0.702	1.000	1.419	2.008	2.833	3.983
39	0.050	0.073	0.108	0.157	0.229	0.333	0.482	0.696	1.000	1.433	2.045	2.911	4.130
40	0.046	0.069	0.102	0.150	0.221	0.324	0.473	0.689	1.000	1.446	2.083	2.992	4.283
41	0.043	0.064	0.096	0.143	0.213	0.315	0.465	0.683	1.000	1.459	2.122	3.075	4.442
42	0.039	0.060	0.091	0.137	0.205	0.306	0.456	0.677	1.000	1.473	2.161	3.161	4.606
43	0.037	0.056	0.086	0.130	0.197	0.298	0.448	0.670	1.000	1.486	2.201	3.248	4.777
44	0.034	0.052	0.081	0.124	0.190	0.290	0.439	0.664	1.000	1.500	2.242	3.339	4.954
45	0.031	0.049	0.076	0.118	0.183	0.281	0.431	0.658	1.000	1.514	2.284	3.431	5.137
46	0.029	0.046	0.072	0.113	0.176	0.274	0.423	0.652	1.000	1.528	2.326	3.527	5.328
47	0.027	0.043	0.068	0.108	0.170	0.266	0.415	0.646	1.000	1.542	2.369	3.625	5.525
48	0.025	0.040	0.064	0.103	0.163	0.259	0.408	0.640	1.000	1.556	2.413	3.725	5.730
49	0.023	0.037	0.061	0.098	0.157	0.251	0.400	0.634	1.000	1.571	2.457	3.829	5.942
50	0.021	0.035	0.057	0.093	0.152	0.244	0.393	0.628	1.000	1.585	2.503	3.935	6.162

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 8.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.046	1.056	1.065	1.074	1.083	1.093	1.102	1.111	1.120	1.130	1.139	1.148	1.157
2	1.095	1.114	1.134	1.154	1.174	1.194	1.214	1.235	1.255	1.276	1.297	1.318	1.340
3	1.145	1.176	1.207	1.239	1.271	1.304	1.338	1.372	1.406	1.441	1.477	1.514	1.550
4	1.198	1.241	1.286	1.331	1.377	1.425	1.474	1.524	1.576	1.628	1.682	1.738	1.795
5	1.254	1.310	1.369	1.429	1.492	1.557	1.624	1.694	1.765	1.839	1.916	1.995	2.077
6	1.312	1.383	1.458	1.535	1.616	1.701	1.790	1.882	1.978	2.078	2.182	2.291	2.404
7	1.373	1.460	1.552	1.649	1.751	1.859	1.972	2.091	2.216	2.347	2.485	2.630	2.782
8	1.436	1.541	1.653	1.771	1.897	2.031	2.173	2.323	2.483	2.651	2.830	3.020	3.220
9	1.503	1.627	1.760	1.902	2.055	2.219	2.394	2.581	2.781	2.995	3.224	3.467	3.727
10	1.572	1.717	1.874	2.043	2.226	2.424	2.638	2.868	3.116	3.383	3.671	3.981	4.314
11	1.645	1.813	1.995	2.195	2.412	2.649	2.906	3.187	3.491	3.822	4.181	4.571	4.993
12	1.721	1.913	2.125	2.357	2.613	2.894	3.202	3.541	3.911	4.318	4.762	5.248	5.779
13	1.801	2.020	2.262	2.532	2.831	3.162	3.529	3.934	4.382	4.877	5.423	6.025	6.688
14	1.884	2.132	2.409	2.719	3.067	3.455	3.888	4.371	4.910	5.509	6.176	6.918	7.741
15	1.972	2.250	2.565	2.921	3.322	3.775	4.284	4.857	5.501	6.224	7.034	7.943	8.960
16	2.063	2.375	2.731	3.137	3.599	4.124	4.720	5.397	6.163	7.030	8.011	9.119	10.370
17	2.158	2.507	2.908	3.370	3.899	4.506	5.201	5.996	6.905	7.942	9.124	10.470	12.002
18	2.258	2.646	3.097	3.619	4.224	4.923	5.731	6.662	7.736	8.971	10.391	12.022	13.892
19	2.363	2.793	3.298	3.887	4.576	5.379	6.315	7.403	8.667	10.134	11.834	13.803	16.078
20	2.472	2.949	3.511	4.175	4.957	5.877	6.958	8.225	9.710	11.448	13.478	15.847	18.609
21	2.587	3.112	3.739	4.485	5.370	6.421	7.666	9.139	10.879	12.932	15.350	18.195	21.538
22	2.706	3.285	3.981	4.817	5.818	7.016	8.447	10.155	12.189	14.608	17.482	20.891	24.929
23	2.832	3.468	4.239	5.174	6.303	7.665	9.308	11.283	13.656	16.502	19.910	23.986	28.853
24	2.963	3.661	4.514	5.557	6.828	8.375	10.256	12.537	15.300	18.641	22.675	27.539	33.394
25	3.100	3.864	4.807	5.968	7.397	9.151	11.300	13.930	17.141	21.057	25.825	31.619	38.651
26	3.244	4.079	5.118	6.410	8.013	9.998	12.451	15.477	19.204	23.787	29.411	36.303	44.735
27	3.394	4.305	5.450	6.885	8.681	10.924	13.719	17.197	21.516	26.870	33.496	41.682	51.776
28	3.551	4.544	5.803	7.395	9.405	11.935	15.116	19.108	24.106	30.354	38.149	47.857	59.926
29	3.715	4.797	6.179	7.943	10.188	13.040	16.656	21.231	27.008	34.288	43.447	54.946	69.359
30	3.887	5.063	6.580	8.532	11.037	14.248	18.353	23.590	30.259	38.733	49.481	63.087	80.276
31	4.067	5.345	7.006	9.163	11.957	15.567	20.222	26.211	33.901	43.754	56.354	72.433	92.912
32	4.255	5.642	7.461	9.842	12.954	17.008	22.281	29.123	37.981	49.426	64.181	83.164	107.538
33	4.453	5.955	7.944	10.571	14.033	18.583	24.551	32.359	42.553	55.833	73.095	95.484	124.465
34	4.659	6.286	8.459	11.354	15.202	20.304	27.051	35.955	47.675	63.071	83.247	109.630	144.056
35	4.874	6.635	9.007	12.195	16.469	22.184	29.807	39.950	53.414	71.246	94.809	125.872	166.732
36	5.100	7.004	9.591	13.099	17.842	24.238	32.842	44.388	59.844	80.482	107.976	144.519	192.977
37	5.336	7.393	10.213	14.069	19.328	26.482	36.188	49.320	67.047	90.915	122.973	165.929	223.353
38	5.583	7.803	10.875	15.111	20.939	28.934	39.873	54.801	75.118	102.700	140.053	190.512	258.510
39	5.842	8.237	11.579	16.231	22.684	31.613	43.934	60.889	84.159	116.013	159.504	218.735	299.202
40	6.112	8.694	12.330	17.433	24.574	34.541	48.409	67.655	94.290	131.052	181.658	251.141	346.298
41	6.395	9.178	13.129	18.724	26.622	37.739	53.340	75.172	105.639	148.040	206.888	288.347	400.808
42	6.691	9.687	13.980	20.111	28.841	41.233	58.773	83.525	118.355	167.230	235.623	331.065	463.898
43	7.001	10.226	14.886	21.601	31.244	45.051	64.759	92.805	132.602	188.908	268.348	380.111	536.919
44	7.325	10.794	15.851	23.201	33.848	49.222	71.354	103.117	148.563	213.397	305.619	436.424	621.434
45	7.664	11.393	16.878	24.920	36.669	53.780	78.622	114.574	166.446	241.059	348.066	501.080	719.253
46	8.019	12.026	17.972	26.765	39.724	58.760	86.630	127.305	186.481	272.307	396.408	575.314	832.469
47	8.390	12.694	19.137	28.748	43.035	64.200	95.453	141.450	208.928	307.607	451.465	660.545	963.505
48	8.779	13.400	20.378	30.878	46.621	70.145	105.175	157.166	234.076	347.481	514.168	758.404	1115.168
49	9.185	14.144	21.699	33.165	50.506	76.640	115.888	174.629	262.252	392.525	585.580	870.760	1290.704
50	9.610	14.930	23.105	35.621	54.715	83.736	127.691	194.033	293.820	443.408	666.911	999.762	1493.870

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 9.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.917	0.927	0.936	0.945	0.954	0.963	0.972	0.982	0.991	1.000	1.009	1.018	1.028
2	0.842	0.859	0.876	0.893	0.910	0.928	0.946	0.964	0.982	1.000	1.018	1.037	1.056
3	0.772	0.796	0.819	0.844	0.869	0.894	0.920	0.946	0.973	1.000	1.028	1.056	1.085
4	0.708	0.737	0.767	0.797	0.829	0.861	0.894	0.929	0.964	1.000	1.037	1.075	1.115
5	0.650	0.683	0.718	0.753	0.791	0.829	0.870	0.912	0.955	1.000	1.047	1.095	1.145
6	0.596	0.633	0.671	0.712	0.754	0.799	0.846	0.895	0.946	1.000	1.056	1.115	1.177
7	0.547	0.586	0.628	0.673	0.720	0.770	0.823	0.878	0.938	1.000	1.066	1.136	1.209
8	0.502	0.543	0.588	0.636	0.687	0.741	0.800	0.862	0.929	1.000	1.076	1.157	1.243
9	0.460	0.504	0.550	0.601	0.655	0.714	0.778	0.846	0.920	1.000	1.086	1.178	1.277
10	0.422	0.467	0.515	0.568	0.625	0.688	0.756	0.831	0.912	1.000	1.096	1.199	1.312
11	0.388	0.432	0.482	0.536	0.597	0.663	0.736	0.816	0.904	1.000	1.106	1.221	1.348
12	0.356	0.401	0.451	0.507	0.569	0.638	0.715	0.801	0.895	1.000	1.116	1.244	1.385
13	0.326	0.371	0.422	0.479	0.543	0.615	0.696	0.786	0.887	1.000	1.126	1.267	1.423
14	0.299	0.344	0.395	0.453	0.518	0.592	0.677	0.772	0.879	1.000	1.136	1.290	1.462
15	0.275	0.319	0.369	0.428	0.494	0.571	0.658	0.757	0.871	1.000	1.147	1.314	1.503
16	0.252	0.295	0.346	0.404	0.472	0.550	0.640	0.744	0.863	1.000	1.157	1.338	1.544
17	0.231	0.274	0.324	0.382	0.450	0.530	0.622	0.730	0.855	1.000	1.168	1.362	1.587
18	0.212	0.254	0.303	0.361	0.429	0.510	0.605	0.717	0.847	1.000	1.179	1.387	1.630
19	0.194	0.235	0.283	0.341	0.410	0.491	0.588	0.703	0.839	1.000	1.189	1.413	1.675
20	0.178	0.218	0.265	0.322	0.391	0.473	0.572	0.690	0.832	1.000	1.200	1.439	1.721
21	0.164	0.202	0.248	0.305	0.373	0.456	0.557	0.678	0.824	1.000	1.211	1.465	1.769
22	0.150	0.187	0.232	0.288	0.356	0.439	0.541	0.665	0.816	1.000	1.223	1.492	1.817
23	0.138	0.173	0.217	0.272	0.340	0.423	0.526	0.653	0.809	1.000	1.234	1.519	1.867
24	0.126	0.161	0.203	0.257	0.324	0.408	0.512	0.641	0.802	1.000	1.245	1.547	1.919
25	0.116	0.149	0.190	0.243	0.309	0.393	0.498	0.629	0.794	1.000	1.256	1.575	1.971
26	0.106	0.138	0.178	0.229	0.295	0.378	0.484	0.618	0.787	1.000	1.268	1.604	2.026
27	0.098	0.128	0.167	0.217	0.281	0.364	0.471	0.607	0.780	1.000	1.280	1.634	2.081
28	0.090	0.118	0.156	0.205	0.269	0.351	0.458	0.595	0.773	1.000	1.291	1.664	2.139
29	0.082	0.110	0.146	0.194	0.256	0.338	0.445	0.584	0.765	1.000	1.303	1.694	2.198
30	0.075	0.102	0.137	0.183	0.244	0.326	0.433	0.574	0.758	1.000	1.315	1.725	2.258
31	0.069	0.094	0.128	0.173	0.233	0.314	0.421	0.563	0.751	1.000	1.327	1.757	2.320
32	0.063	0.087	0.120	0.163	0.223	0.302	0.409	0.553	0.745	1.000	1.339	1.789	2.384
33	0.058	0.081	0.112	0.154	0.212	0.291	0.398	0.543	0.738	1.000	1.352	1.822	2.450
34	0.053	0.075	0.105	0.146	0.203	0.281	0.387	0.533	0.731	1.000	1.364	1.856	2.517
35	0.049	0.069	0.098	0.138	0.193	0.270	0.377	0.523	0.724	1.000	1.377	1.890	2.586
36	0.045	0.064	0.092	0.130	0.184	0.260	0.366	0.513	0.718	1.000	1.389	1.924	2.658
37	0.041	0.060	0.086	0.123	0.176	0.251	0.356	0.504	0.711	1.000	1.402	1.960	2.731
38	0.038	0.055	0.080	0.116	0.168	0.242	0.346	0.495	0.705	1.000	1.415	1.996	2.806
39	0.035	0.051	0.075	0.110	0.160	0.233	0.337	0.486	0.698	1.000	1.428	2.032	2.883
40	0.032	0.047	0.070	0.104	0.153	0.224	0.327	0.477	0.692	1.000	1.441	2.069	2.963
41	0.029	0.044	0.066	0.098	0.146	0.216	0.318	0.468	0.685	1.000	1.454	2.107	3.044
42	0.027	0.041	0.062	0.093	0.139	0.208	0.310	0.459	0.679	1.000	1.468	2.146	3.128
43	0.025	0.038	0.058	0.088	0.133	0.200	0.301	0.451	0.673	1.000	1.481	2.185	3.214
44	0.023	0.035	0.054	0.083	0.127	0.193	0.293	0.443	0.667	1.000	1.495	2.226	3.302
45	0.021	0.032	0.050	0.078	0.121	0.186	0.285	0.435	0.661	1.000	1.508	2.266	3.393
46	0.019	0.030	0.047	0.074	0.115	0.179	0.277	0.427	0.654	1.000	1.522	2.308	3.487
47	0.017	0.028	0.044	0.070	0.110	0.173	0.269	0.419	0.648	1.000	1.536	2.350	3.583
48	0.016	0.026	0.041	0.066	0.105	0.166	0.262	0.411	0.642	1.000	1.550	2.393	3.681
49	0.015	0.024	0.039	0.062	0.100	0.160	0.255	0.404	0.637	1.000	1.564	2.437	3.783
50	0.013	0.022	0.036	0.059	0.096	0.154	0.248	0.396	0.631	1.000	1.579	2.482	3.887

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Discount Rate 9.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.037	1.046	1.055	1.064	1.073	1.083	1.092	1.101	1.110	1.119	1.128	1.138	1.147
2	1.075	1.094	1.113	1.133	1.152	1.172	1.192	1.212	1.232	1.253	1.273	1.294	1.315
3	1.114	1.144	1.174	1.205	1.237	1.269	1.301	1.334	1.368	1.402	1.437	1.472	1.508
4	1.155	1.197	1.239	1.283	1.328	1.373	1.421	1.469	1.519	1.569	1.621	1.675	1.730
5	1.197	1.251	1.307	1.365	1.425	1.487	1.551	1.617	1.686	1.757	1.830	1.905	1.983
6	1.241	1.309	1.379	1.453	1.530	1.610	1.693	1.780	1.871	1.966	2.065	2.168	2.275
7	1.287	1.369	1.455	1.546	1.642	1.743	1.849	1.960	2.077	2.201	2.330	2.466	2.608
8	1.334	1.432	1.535	1.645	1.762	1.886	2.018	2.158	2.306	2.463	2.629	2.805	2.991
9	1.383	1.497	1.620	1.751	1.892	2.042	2.203	2.376	2.560	2.757	2.967	3.191	3.430
10	1.434	1.566	1.709	1.863	2.030	2.211	2.405	2.615	2.842	3.086	3.348	3.630	3.934
11	1.487	1.638	1.803	1.983	2.179	2.393	2.626	2.879	3.155	3.454	3.778	4.130	4.511
12	1.541	1.713	1.902	2.110	2.339	2.591	2.867	3.170	3.502	3.865	4.263	4.698	5.174
13	1.598	1.792	2.007	2.246	2.511	2.805	3.130	3.490	3.887	4.326	4.811	5.345	5.933
14	1.656	1.874	2.117	2.390	2.695	3.037	3.417	3.842	4.315	4.842	5.429	6.080	6.804
15	1.717	1.960	2.234	2.544	2.893	3.287	3.731	4.230	4.791	5.420	6.126	6.917	7.803
16	1.780	2.050	2.357	2.707	3.106	3.559	4.073	4.657	5.318	6.066	6.913	7.869	8.948
17	1.845	2.144	2.487	2.881	3.334	3.853	4.447	5.127	5.903	6.790	7.801	8.952	10.262
18	1.913	2.242	2.624	3.066	3.578	4.171	4.855	5.644	6.553	7.600	8.803	10.184	11.768
19	1.983	2.345	2.768	3.263	3.841	4.515	5.300	6.214	7.275	8.506	9.933	11.585	13.495
20	2.056	2.452	2.920	3.472	4.123	4.888	5.786	6.841	8.076	9.521	11.209	13.180	15.476
21	2.132	2.565	3.081	3.695	4.425	5.291	6.317	7.531	8.965	10.656	12.649	14.993	17.748
22	2.210	2.682	3.251	3.933	4.750	5.728	6.897	8.291	9.952	11.927	14.273	17.057	20.353
23	2.291	2.805	3.430	4.185	5.099	6.201	7.530	9.128	11.047	13.350	16.107	19.404	23.341
24	2.375	2.934	3.618	4.454	5.473	6.713	8.220	10.049	12.263	14.942	18.176	22.074	26.767
25	2.462	3.069	3.818	4.740	5.875	7.268	8.975	11.063	13.614	16.724	20.510	25.112	30.696
26	2.552	3.209	4.028	5.045	6.306	7.868	9.798	12.179	15.112	18.718	23.144	28.568	35.202
27	2.646	3.357	4.249	5.368	6.769	8.517	10.697	13.408	16.776	20.951	26.117	32.499	40.370
28	2.743	3.511	4.483	5.713	7.265	9.220	11.678	14.762	18.623	23.449	29.471	36.971	46.295
29	2.844	3.672	4.730	6.080	7.799	9.982	12.750	16.251	20.673	26.246	33.257	42.059	53.091
30	2.948	3.840	4.990	6.471	8.371	10.806	13.919	17.891	22.949	29.376	37.528	47.847	60.884
31	3.056	4.016	5.265	6.886	8.985	11.698	15.196	19.697	25.476	32.880	42.348	54.432	69.821
32	3.169	4.201	5.555	7.328	9.645	12.664	16.590	21.685	28.280	36.802	47.788	61.922	80.070
33	3.285	4.393	5.861	7.799	10.353	13.710	18.112	23.873	31.394	41.191	53.926	70.444	91.824
34	3.405	4.595	6.183	8.300	11.113	14.842	19.774	26.282	34.850	46.103	60.852	80.138	105.303
35	3.530	4.806	6.524	8.833	11.928	16.067	21.588	28.935	38.687	51.602	68.668	91.166	120.760
36	3.660	5.026	6.883	9.400	12.804	17.394	23.569	31.855	42.946	57.756	77.487	103.711	138.486
37	3.794	5.257	7.262	10.004	13.743	18.830	25.731	35.069	47.674	64.645	87.440	117.984	158.814
38	3.933	5.498	7.661	10.646	14.752	20.385	28.092	38.608	52.922	72.355	98.670	134.220	182.127
39	4.078	5.750	8.083	11.330	15.835	22.068	30.669	42.505	58.748	80.984	111.344	152.691	208.861
40	4.227	6.014	8.528	12.058	16.997	23.890	33.483	46.794	65.216	90.643	125.645	173.703	239.519
41	4.383	6.289	8.998	12.832	18.245	25.863	36.554	51.516	72.396	101.453	141.783	197.607	274.678
42	4.543	6.578	9.493	13.656	19.584	27.998	39.908	56.715	80.366	113.553	159.993	224.801	314.998
43	4.710	6.880	10.015	14.533	21.021	30.310	43.569	62.439	89.214	127.096	180.543	255.737	361.236
44	4.883	7.195	10.567	15.466	22.564	32.813	47.566	68.740	99.035	142.255	203.732	290.930	414.262
45	5.062	7.525	11.148	16.460	24.220	35.522	51.930	75.677	109.938	159.221	229.899	330.966	475.071
46	5.248	7.871	11.762	17.517	25.997	38.455	56.695	83.314	122.042	178.211	259.428	376.512	544.806
47	5.441	8.232	12.409	18.641	27.906	41.630	61.896	91.722	135.477	199.465	292.749	428.325	624.777
48	5.640	8.609	13.093	19.839	29.954	45.068	67.574	100.978	150.392	223.254	330.349	487.269	716.488
49	5.847	9.004	13.813	21.113	32.152	48.789	73.774	111.169	166.949	249.881	372.780	554.325	821.660
50	6.062	9.417	14.574	22.469	34.512	52.817	80.542	122.388	185.329	279.683	420.659	630.608	942.271

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 10.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.909	0.918	0.927	0.936	0.945	0.955	0.964	0.973	0.982	0.991	1.000	1.009	1.018
2	0.826	0.843	0.860	0.877	0.894	0.911	0.929	0.946	0.964	0.982	1.000	1.018	1.037
3	0.751	0.774	0.797	0.821	0.845	0.870	0.895	0.920	0.946	0.973	1.000	1.028	1.056
4	0.683	0.711	0.739	0.769	0.799	0.830	0.862	0.895	0.929	0.964	1.000	1.037	1.075
5	0.621	0.653	0.686	0.720	0.755	0.792	0.831	0.871	0.912	0.955	1.000	1.046	1.094
6	0.564	0.599	0.636	0.674	0.714	0.756	0.801	0.847	0.896	0.947	1.000	1.056	1.114
7	0.513	0.550	0.589	0.631	0.675	0.722	0.772	0.824	0.879	0.938	1.000	1.065	1.134
8	0.467	0.505	0.547	0.591	0.638	0.689	0.744	0.802	0.863	0.930	1.000	1.075	1.155
9	0.424	0.464	0.507	0.553	0.604	0.658	0.717	0.780	0.848	0.921	1.000	1.085	1.176
10	0.386	0.426	0.470	0.518	0.571	0.628	0.690	0.758	0.832	0.913	1.000	1.095	1.197
11	0.350	0.391	0.436	0.485	0.540	0.599	0.665	0.738	0.817	0.904	1.000	1.105	1.219
12	0.319	0.359	0.404	0.454	0.510	0.572	0.641	0.718	0.802	0.896	1.000	1.115	1.241
13	0.290	0.330	0.375	0.425	0.482	0.546	0.618	0.698	0.788	0.888	1.000	1.125	1.264
14	0.263	0.303	0.347	0.398	0.456	0.521	0.595	0.679	0.773	0.880	1.000	1.135	1.287
15	0.239	0.278	0.322	0.373	0.431	0.498	0.574	0.660	0.759	0.872	1.000	1.145	1.310
16	0.218	0.255	0.299	0.349	0.408	0.475	0.553	0.642	0.746	0.864	1.000	1.156	1.334
17	0.198	0.234	0.277	0.327	0.385	0.453	0.533	0.625	0.732	0.856	1.000	1.166	1.358
18	0.180	0.215	0.257	0.306	0.364	0.433	0.513	0.608	0.719	0.848	1.000	1.177	1.383
19	0.164	0.198	0.238	0.287	0.344	0.413	0.495	0.591	0.706	0.841	1.000	1.188	1.408
20	0.149	0.181	0.221	0.268	0.326	0.394	0.477	0.575	0.693	0.833	1.000	1.198	1.434
21	0.135	0.167	0.205	0.251	0.308	0.376	0.459	0.560	0.680	0.825	1.000	1.209	1.460
22	0.123	0.153	0.190	0.235	0.291	0.359	0.443	0.544	0.668	0.818	1.000	1.220	1.486
23	0.112	0.140	0.176	0.220	0.275	0.343	0.427	0.529	0.656	0.811	1.000	1.231	1.514
24	0.102	0.129	0.163	0.206	0.260	0.327	0.411	0.515	0.644	0.803	1.000	1.243	1.541
25	0.092	0.118	0.151	0.193	0.246	0.313	0.396	0.501	0.632	0.796	1.000	1.254	1.569
26	0.084	0.109	0.140	0.181	0.233	0.298	0.382	0.487	0.621	0.789	1.000	1.265	1.598
27	0.076	0.100	0.130	0.169	0.220	0.285	0.368	0.474	0.609	0.781	1.000	1.277	1.627
28	0.069	0.092	0.121	0.159	0.208	0.272	0.354	0.461	0.598	0.774	1.000	1.288	1.656
29	0.063	0.084	0.112	0.149	0.197	0.259	0.342	0.448	0.587	0.767	1.000	1.300	1.686
30	0.057	0.077	0.104	0.139	0.186	0.248	0.329	0.436	0.577	0.760	1.000	1.312	1.717
31	0.052	0.071	0.096	0.130	0.176	0.236	0.317	0.424	0.566	0.753	1.000	1.324	1.748
32	0.047	0.065	0.089	0.122	0.166	0.226	0.306	0.413	0.556	0.747	1.000	1.336	1.780
33	0.043	0.060	0.083	0.114	0.157	0.215	0.295	0.402	0.546	0.740	1.000	1.348	1.812
34	0.039	0.055	0.077	0.107	0.149	0.206	0.284	0.391	0.536	0.733	1.000	1.360	1.845
35	0.036	0.050	0.071	0.100	0.140	0.196	0.274	0.380	0.526	0.726	1.000	1.373	1.879
36	0.032	0.046	0.066	0.094	0.133	0.187	0.264	0.370	0.517	0.720	1.000	1.385	1.913
37	0.029	0.042	0.061	0.088	0.126	0.179	0.254	0.359	0.507	0.713	1.000	1.398	1.948
38	0.027	0.039	0.057	0.082	0.119	0.171	0.245	0.350	0.498	0.707	1.000	1.410	1.983
39	0.024	0.036	0.053	0.077	0.112	0.163	0.236	0.340	0.489	0.700	1.000	1.423	2.019
40	0.022	0.033	0.049	0.072	0.106	0.156	0.227	0.331	0.480	0.694	1.000	1.436	2.056
41	0.020	0.030	0.045	0.067	0.100	0.148	0.219	0.322	0.471	0.688	1.000	1.449	2.093
42	0.018	0.028	0.042	0.063	0.095	0.142	0.211	0.313	0.463	0.681	1.000	1.462	2.131
43	0.017	0.025	0.039	0.059	0.090	0.135	0.203	0.305	0.454	0.675	1.000	1.476	2.170
44	0.015	0.023	0.036	0.055	0.085	0.129	0.196	0.296	0.446	0.669	1.000	1.489	2.210
45	0.014	0.021	0.033	0.052	0.080	0.123	0.189	0.288	0.438	0.663	1.000	1.503	2.250
46	0.012	0.020	0.031	0.049	0.076	0.118	0.182	0.280	0.430	0.657	1.000	1.516	2.291
47	0.011	0.018	0.029	0.045	0.072	0.112	0.175	0.273	0.422	0.651	1.000	1.530	2.332
48	0.010	0.017	0.027	0.043	0.068	0.107	0.169	0.265	0.414	0.645	1.000	1.544	2.375
49	0.009	0.015	0.025	0.040	0.064	0.102	0.163	0.258	0.407	0.639	1.000	1.558	2.418
50	0.009	0.014	0.023	0.037	0.061	0.098	0.157	0.251	0.400	0.633	1.000	1.572	2.462

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.027	1.036	1.045	1.055	1.064	1.073	1.082	1.091	1.100	1.109	1.118	1.127	1.136
2	1.055	1.074	1.093	1.112	1.131	1.151	1.170	1.190	1.210	1.230	1.250	1.271	1.291
3	1.084	1.113	1.143	1.173	1.203	1.234	1.266	1.298	1.331	1.364	1.398	1.432	1.467
4	1.114	1.154	1.195	1.237	1.280	1.324	1.370	1.416	1.464	1.513	1.563	1.615	1.668
5	1.144	1.196	1.249	1.304	1.361	1.421	1.482	1.545	1.611	1.678	1.748	1.820	1.895
6	1.175	1.239	1.306	1.375	1.448	1.524	1.603	1.686	1.772	1.861	1.955	2.052	2.153
7	1.207	1.284	1.365	1.450	1.540	1.635	1.734	1.839	1.949	2.064	2.186	2.313	2.447
8	1.240	1.331	1.427	1.529	1.638	1.754	1.876	2.006	2.144	2.289	2.444	2.608	2.781
9	1.274	1.379	1.492	1.613	1.742	1.881	2.029	2.188	2.358	2.539	2.733	2.939	3.160
10	1.309	1.429	1.560	1.701	1.853	2.018	2.196	2.387	2.594	2.816	3.056	3.314	3.591
11	1.344	1.481	1.631	1.794	1.971	2.165	2.375	2.604	2.853	3.123	3.417	3.735	4.080
12	1.381	1.535	1.705	1.891	2.097	2.322	2.570	2.841	3.138	3.464	3.821	4.211	4.637
13	1.419	1.591	1.782	1.995	2.230	2.491	2.780	3.099	3.452	3.842	4.272	4.747	5.269
14	1.457	1.649	1.863	2.103	2.372	2.672	3.007	3.381	3.797	4.261	4.777	5.351	5.987
15	1.497	1.709	1.948	2.218	2.523	2.866	3.253	3.688	4.177	4.726	5.342	6.032	6.804
16	1.538	1.771	2.036	2.339	2.683	3.075	3.519	4.024	4.595	5.242	5.973	6.799	7.732
17	1.580	1.835	2.129	2.467	2.854	3.299	3.807	4.389	5.054	5.814	6.679	7.665	8.786
18	1.623	1.902	2.226	2.601	3.036	3.538	4.119	4.788	5.560	6.448	7.468	8.640	9.984
19	1.667	1.971	2.327	2.743	3.229	3.796	4.456	5.224	6.116	7.151	8.351	9.740	11.346
20	1.713	2.043	2.433	2.893	3.435	4.072	4.820	5.699	6.727	7.931	9.338	10.979	12.893
21	1.760	2.117	2.543	3.051	3.653	4.368	5.215	6.217	7.400	8.797	10.441	12.377	14.651
22	1.808	2.194	2.659	3.217	3.886	4.686	5.641	6.782	8.140	9.756	11.675	13.952	16.649
23	1.857	2.274	2.780	3.392	4.133	5.026	6.103	7.398	8.954	10.820	13.055	15.728	18.919
24	1.907	2.357	2.906	3.577	4.396	5.392	6.602	8.071	9.850	12.001	14.598	17.729	21.499
25	1.959	2.442	3.038	3.773	4.676	5.784	7.143	8.805	10.835	13.310	16.323	19.986	24.431
26	2.013	2.531	3.176	3.978	4.973	6.205	7.727	9.605	11.918	14.762	18.253	22.530	27.762
27	2.068	2.623	3.321	4.195	5.290	6.656	8.359	10.478	13.110	16.372	20.410	25.397	31.548
28	2.124	2.719	3.472	4.424	5.626	7.140	9.043	11.431	14.421	18.159	22.822	28.629	35.850
29	2.182	2.817	3.630	4.665	5.984	7.659	9.783	12.470	15.863	20.139	25.519	32.273	40.738
30	2.242	2.920	3.795	4.920	6.365	8.216	10.583	13.604	17.449	22.336	28.535	36.381	46.293
31	2.303	3.026	3.967	5.188	6.770	8.814	11.449	14.840	19.194	24.773	31.907	41.011	52.606
32	2.366	3.136	4.147	5.471	7.201	9.455	12.386	16.190	21.114	27.476	35.678	46.230	59.780
33	2.430	3.250	4.336	5.770	7.659	10.143	13.400	17.661	23.225	30.473	39.894	52.114	67.932
34	2.496	3.368	4.533	6.084	8.146	10.880	14.496	19.267	25.548	33.797	44.609	58.747	77.195
35	2.564	3.491	4.739	6.416	8.665	11.671	15.682	21.018	28.102	37.484	49.881	66.224	87.722
36	2.634	3.618	4.954	6.766	9.216	12.520	16.965	22.929	30.913	41.574	55.776	74.652	99.684
37	2.706	3.749	5.180	7.135	9.803	13.431	18.353	25.014	34.004	46.109	62.368	84.154	113.277
38	2.780	3.886	5.415	7.525	10.427	14.408	19.855	27.288	37.404	51.139	69.738	94.864	128.724
39	2.856	4.027	5.661	7.935	11.090	15.456	21.479	29.768	41.145	56.718	77.980	106.938	146.277
40	2.934	4.173	5.918	8.368	11.796	16.580	23.237	32.474	45.259	62.905	87.196	120.548	166.224
41	3.014	4.325	6.187	8.824	12.546	17.785	25.138	35.427	49.785	69.767	97.501	135.890	188.891
42	3.096	4.482	6.469	9.306	13.345	19.079	27.194	38.647	54.764	77.378	109.024	153.186	214.648
43	3.180	4.645	6.763	9.813	14.194	20.466	29.419	42.161	60.240	85.820	121.909	172.682	243.919
44	3.267	4.814	7.070	10.348	15.097	21.955	31.826	45.994	66.264	95.182	136.316	194.660	277.180
45	3.356	4.989	7.391	10.913	16.058	23.552	34.430	50.175	72.890	105.565	152.426	219.435	314.978
46	3.448	5.171	7.727	11.508	17.080	25.264	37.247	54.736	80.180	117.082	170.440	247.363	357.929
47	3.542	5.359	8.079	12.136	18.167	27.102	40.295	59.712	88.197	129.854	190.583	278.845	406.738
48	3.638	5.554	8.446	12.798	19.323	29.073	43.592	65.140	97.017	144.020	213.106	314.334	462.202
49	3.738	5.756	8.830	13.496	20.553	31.187	47.158	71.062	106.719	159.731	238.292	354.341	525.229
50	3.840	5.965	9.231	14.232	21.860	33.455	51.017	77.523	117.391	177.157	266.453	399.439	596.852

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 11.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.901	0.910	0.919	0.928	0.937	0.946	0.955	0.964	0.973	0.982	0.991	1.000	1.009
2	0.812	0.828	0.844	0.861	0.878	0.895	0.912	0.929	0.947	0.964	0.982	1.000	1.018
3	0.731	0.753	0.776	0.799	0.822	0.846	0.871	0.896	0.921	0.947	0.973	1.000	1.027
4	0.659	0.685	0.713	0.741	0.771	0.801	0.832	0.863	0.896	0.930	0.964	1.000	1.037
5	0.593	0.624	0.655	0.688	0.722	0.757	0.794	0.832	0.872	0.913	0.956	1.000	1.046
6	0.535	0.568	0.602	0.638	0.676	0.716	0.758	0.802	0.848	0.897	0.947	1.000	1.055
7	0.482	0.516	0.553	0.592	0.634	0.678	0.724	0.773	0.825	0.880	0.939	1.000	1.065
8	0.434	0.470	0.508	0.550	0.594	0.641	0.692	0.746	0.803	0.865	0.930	1.000	1.074
9	0.391	0.428	0.467	0.510	0.556	0.606	0.660	0.719	0.781	0.849	0.922	1.000	1.084
10	0.352	0.389	0.429	0.473	0.521	0.574	0.631	0.693	0.760	0.834	0.913	1.000	1.094
11	0.317	0.354	0.395	0.439	0.488	0.543	0.602	0.668	0.740	0.819	0.905	1.000	1.104
12	0.286	0.322	0.363	0.408	0.458	0.513	0.575	0.644	0.720	0.804	0.897	1.000	1.114
13	0.258	0.293	0.333	0.378	0.429	0.486	0.549	0.621	0.700	0.789	0.889	1.000	1.124
14	0.232	0.267	0.306	0.351	0.402	0.459	0.525	0.598	0.681	0.775	0.881	1.000	1.134
15	0.209	0.243	0.281	0.326	0.376	0.435	0.501	0.577	0.663	0.761	0.873	1.000	1.144
16	0.188	0.221	0.258	0.302	0.353	0.411	0.478	0.556	0.645	0.748	0.865	1.000	1.154
17	0.170	0.201	0.238	0.280	0.330	0.389	0.457	0.536	0.628	0.734	0.857	1.000	1.165
18	0.153	0.183	0.218	0.260	0.310	0.368	0.436	0.517	0.611	0.721	0.850	1.000	1.175
19	0.138	0.166	0.201	0.241	0.290	0.348	0.417	0.498	0.594	0.708	0.842	1.000	1.186
20	0.124	0.151	0.184	0.224	0.272	0.329	0.398	0.480	0.578	0.695	0.834	1.000	1.196
21	0.112	0.138	0.169	0.208	0.255	0.311	0.380	0.463	0.562	0.683	0.827	1.000	1.207
22	0.101	0.125	0.156	0.193	0.239	0.294	0.363	0.446	0.547	0.670	0.819	1.000	1.218
23	0.091	0.114	0.143	0.179	0.224	0.279	0.346	0.430	0.532	0.658	0.812	1.000	1.229
24	0.082	0.104	0.131	0.166	0.209	0.264	0.331	0.414	0.518	0.646	0.805	1.000	1.240
25	0.074	0.094	0.121	0.154	0.196	0.249	0.316	0.400	0.504	0.635	0.798	1.000	1.251
26	0.066	0.086	0.111	0.143	0.184	0.236	0.302	0.385	0.490	0.623	0.790	1.000	1.263
27	0.060	0.078	0.102	0.133	0.172	0.223	0.288	0.371	0.477	0.612	0.783	1.000	1.274
28	0.054	0.071	0.094	0.123	0.161	0.211	0.275	0.358	0.464	0.601	0.776	1.000	1.285
29	0.048	0.065	0.086	0.114	0.151	0.200	0.263	0.345	0.452	0.590	0.769	1.000	1.297
30	0.044	0.059	0.079	0.106	0.142	0.189	0.251	0.333	0.440	0.580	0.762	1.000	1.309
31	0.039	0.054	0.073	0.098	0.133	0.179	0.240	0.321	0.428	0.569	0.755	1.000	1.321
32	0.035	0.049	0.067	0.091	0.124	0.169	0.229	0.309	0.416	0.559	0.749	1.000	1.332
33	0.032	0.044	0.061	0.085	0.117	0.160	0.218	0.298	0.405	0.549	0.742	1.000	1.344
34	0.029	0.040	0.056	0.079	0.109	0.151	0.209	0.287	0.394	0.539	0.735	1.000	1.357
35	0.026	0.037	0.052	0.073	0.102	0.143	0.199	0.277	0.383	0.529	0.729	1.000	1.369
36	0.023	0.033	0.048	0.068	0.096	0.135	0.190	0.267	0.373	0.520	0.722	1.000	1.381
37	0.021	0.030	0.044	0.063	0.090	0.128	0.182	0.257	0.363	0.510	0.715	1.000	1.394
38	0.019	0.028	0.040	0.058	0.084	0.121	0.174	0.248	0.353	0.501	0.709	1.000	1.406
39	0.017	0.025	0.037	0.054	0.079	0.114	0.166	0.239	0.344	0.492	0.703	1.000	1.419
40	0.015	0.023	0.034	0.050	0.074	0.108	0.158	0.230	0.334	0.483	0.696	1.000	1.432
41	0.014	0.021	0.031	0.047	0.069	0.102	0.151	0.222	0.325	0.475	0.690	1.000	1.444
42	0.012	0.019	0.029	0.043	0.065	0.097	0.144	0.214	0.316	0.466	0.684	1.000	1.457
43	0.011	0.017	0.026	0.040	0.061	0.092	0.138	0.206	0.308	0.458	0.678	1.000	1.471
44	0.010	0.016	0.024	0.037	0.057	0.087	0.132	0.199	0.300	0.449	0.672	1.000	1.484
45	0.009	0.014	0.022	0.035	0.053	0.082	0.126	0.192	0.291	0.441	0.665	1.000	1.497
46	0.008	0.013	0.020	0.032	0.050	0.078	0.120	0.185	0.284	0.433	0.659	1.000	1.511
47	0.007	0.012	0.019	0.030	0.047	0.073	0.115	0.178	0.276	0.425	0.654	1.000	1.524
48	0.007	0.011	0.017	0.028	0.044	0.069	0.109	0.172	0.268	0.418	0.648	1.000	1.538
49	0.006	0.010	0.016	0.026	0.041	0.066	0.105	0.166	0.261	0.410	0.642	1.000	1.552
50	0.005	0.009	0.015	0.024	0.039	0.062	0.100	0.160	0.254	0.403	0.636	1.000	1.566

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.018	1.027	1.036	1.045	1.054	1.063	1.072	1.081	1.090	1.099	1.108	1.117	1.126
2	1.036	1.055	1.073	1.092	1.111	1.130	1.149	1.169	1.188	1.208	1.228	1.248	1.268
3	1.055	1.083	1.112	1.141	1.171	1.201	1.232	1.263	1.295	1.328	1.361	1.394	1.428
4	1.074	1.113	1.152	1.193	1.234	1.277	1.321	1.366	1.412	1.459	1.508	1.557	1.608
5	1.093	1.143	1.194	1.246	1.301	1.358	1.416	1.477	1.539	1.604	1.671	1.740	1.811
6	1.113	1.174	1.237	1.303	1.371	1.443	1.518	1.596	1.678	1.763	1.851	1.944	2.039
7	1.133	1.205	1.281	1.361	1.446	1.534	1.628	1.726	1.829	1.938	2.052	2.171	2.297
8	1.154	1.238	1.327	1.423	1.524	1.631	1.745	1.866	1.994	2.130	2.273	2.425	2.586
9	1.174	1.271	1.375	1.487	1.606	1.734	1.871	2.017	2.174	2.341	2.519	2.709	2.913
10	1.196	1.306	1.425	1.554	1.693	1.843	2.006	2.181	2.369	2.573	2.791	3.027	3.280
11	1.217	1.341	1.476	1.624	1.784	1.960	2.150	2.357	2.583	2.828	3.093	3.381	3.694
12	1.239	1.377	1.529	1.697	1.881	2.083	2.305	2.549	2.815	3.108	3.428	3.777	4.160
13	1.261	1.414	1.584	1.773	1.983	2.214	2.471	2.755	3.069	3.416	3.798	4.220	4.684
14	1.284	1.453	1.642	1.853	2.090	2.354	2.649	2.979	3.346	3.754	4.209	4.714	5.275
15	1.307	1.492	1.701	1.937	2.203	2.503	2.840	3.220	3.647	4.126	4.664	5.266	5.940
16	1.331	1.532	1.762	2.024	2.322	2.660	3.045	3.481	3.976	4.535	5.168	5.883	6.689
17	1.355	1.574	1.825	2.115	2.447	2.828	3.264	3.763	4.334	4.985	5.727	6.572	7.533
18	1.379	1.616	1.891	2.210	2.579	3.007	3.500	4.069	4.724	5.479	6.346	7.341	8.483
19	1.404	1.660	1.959	2.310	2.719	3.196	3.752	4.399	5.150	6.021	7.032	8.201	9.553
20	1.429	1.705	2.030	2.414	2.866	3.398	4.022	4.755	5.614	6.618	7.792	9.162	10.758
21	1.455	1.751	2.103	2.523	3.021	3.612	4.312	5.141	6.119	7.274	8.634	10.235	12.115
22	1.481	1.798	2.179	2.636	3.184	3.840	4.623	5.558	6.671	7.995	9.568	11.433	13.643
23	1.508	1.847	2.257	2.755	3.356	4.082	4.956	6.008	7.272	8.787	10.602	12.772	15.364
24	1.535	1.897	2.339	2.879	3.538	4.339	5.313	6.495	7.927	9.658	11.748	14.268	17.302
25	1.563	1.948	2.423	3.009	3.729	4.613	5.696	7.022	8.641	10.615	13.018	15.939	19.484
26	1.591	2.000	2.510	3.144	3.930	4.904	6.107	7.591	9.419	11.667	14.426	17.806	21.941
27	1.620	2.055	2.601	3.286	4.143	5.213	6.547	8.207	10.268	12.823	15.985	19.891	24.709
28	1.649	2.110	2.695	3.434	4.367	5.542	7.019	8.872	11.193	14.094	17.713	22.221	27.825
29	1.678	2.167	2.792	3.589	4.603	5.891	7.525	9.592	12.201	15.491	19.628	24.823	31.335
30	1.709	2.226	2.892	3.750	4.852	6.263	8.067	10.369	13.301	17.026	21.750	27.731	35.287
31	1.739	2.286	2.997	3.919	5.114	6.658	8.649	11.210	14.499	18.713	24.102	30.978	39.737
32	1.771	2.348	3.105	4.096	5.390	7.078	9.272	12.119	15.805	20.567	26.707	34.607	44.749
33	1.803	2.411	3.216	4.280	5.682	7.524	9.940	13.102	17.229	22.606	29.594	38.660	50.393
34	1.835	2.476	3.332	4.473	5.989	7.998	10.657	14.164	18.781	24.846	32.794	43.187	56.749
35	1.868	2.543	3.452	4.674	6.312	8.503	11.425	15.312	20.473	27.308	36.339	48.245	63.907
36	1.902	2.612	3.577	4.885	6.654	9.039	12.248	16.554	22.318	30.014	40.268	53.896	71.967
37	1.936	2.682	3.706	5.105	7.013	9.609	13.131	17.896	24.328	32.989	44.621	60.208	81.044
38	1.971	2.755	3.839	5.335	7.392	10.215	14.077	19.347	26.520	36.258	49.445	67.259	91.266
39	2.007	2.829	3.978	5.575	7.792	10.859	15.092	20.916	28.909	39.851	54.790	75.136	102.777
40	2.043	2.906	4.121	5.826	8.213	11.544	16.179	22.612	31.513	43.800	60.714	83.936	115.739
41	2.080	2.984	4.269	6.089	8.657	12.272	17.345	24.445	34.352	48.141	67.277	93.766	130.337
42	2.117	3.065	4.423	6.363	9.125	13.046	18.595	26.427	37.447	52.911	74.550	104.748	146.776
43	2.155	3.148	4.583	6.650	9.618	13.869	19.936	28.570	40.821	58.155	82.610	117.016	165.288
44	2.194	3.233	4.748	6.949	10.138	14.743	21.372	30.886	44.498	63.918	91.541	130.720	186.136
45	2.234	3.320	4.919	7.262	10.686	15.673	22.913	33.390	48.507	70.252	101.437	146.030	209.612
46	2.274	3.410	5.096	7.589	11.264	16.662	24.564	36.098	52.877	77.214	112.403	163.133	236.050
47	2.315	3.502	5.280	7.931	11.873	17.712	26.335	39.025	57.641	84.866	124.555	182.238	265.822
48	2.356	3.597	5.470	8.289	12.515	18.829	28.233	42.189	62.834	93.276	138.020	203.581	299.349
49	2.399	3.694	5.667	8.662	13.191	20.017	30.267	45.609	68.495	102.519	152.941	227.424	337.105
50	2.442	3.794	5.871	9.052	13.904	21.279	32.449	49.308	74.665	112.679	169.475	254.059	379.622

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 12.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.893	0.902	0.911	0.920	0.929	0.938	0.946	0.955	0.964	0.973	0.982	0.991	1.000
2	0.797	0.813	0.829	0.846	0.862	0.879	0.896	0.913	0.930	0.947	0.965	0.982	1.000
3	0.712	0.733	0.755	0.778	0.801	0.824	0.848	0.872	0.897	0.922	0.947	0.973	1.000
4	0.636	0.661	0.688	0.715	0.743	0.772	0.802	0.833	0.865	0.897	0.930	0.965	1.000
5	0.567	0.596	0.626	0.658	0.690	0.724	0.759	0.796	0.834	0.873	0.914	0.956	1.000
6	0.507	0.538	0.571	0.605	0.641	0.679	0.719	0.760	0.804	0.850	0.898	0.948	1.000
7	0.452	0.485	0.520	0.556	0.595	0.637	0.680	0.726	0.775	0.827	0.882	0.939	1.000
8	0.404	0.437	0.473	0.512	0.553	0.597	0.644	0.694	0.748	0.805	0.866	0.931	1.000
9	0.361	0.394	0.431	0.471	0.513	0.559	0.609	0.663	0.721	0.783	0.850	0.922	1.000
10	0.322	0.356	0.392	0.433	0.477	0.524	0.577	0.633	0.695	0.762	0.835	0.914	1.000
11	0.287	0.321	0.357	0.398	0.443	0.492	0.546	0.605	0.670	0.742	0.820	0.906	1.000
12	0.257	0.289	0.326	0.366	0.411	0.461	0.516	0.578	0.646	0.722	0.806	0.898	1.000
13	0.229	0.261	0.296	0.337	0.382	0.432	0.489	0.552	0.623	0.703	0.791	0.890	1.000
14	0.205	0.235	0.270	0.310	0.354	0.405	0.463	0.528	0.601	0.684	0.777	0.882	1.000
15	0.183	0.212	0.246	0.285	0.329	0.380	0.438	0.504	0.580	0.665	0.763	0.874	1.000
16	0.163	0.191	0.224	0.262	0.306	0.356	0.414	0.482	0.559	0.648	0.750	0.866	1.000
17	0.146	0.172	0.204	0.241	0.284	0.334	0.392	0.460	0.539	0.630	0.736	0.859	1.000
18	0.130	0.156	0.186	0.221	0.263	0.313	0.371	0.440	0.520	0.613	0.723	0.851	1.000
19	0.116	0.140	0.169	0.204	0.245	0.293	0.351	0.420	0.501	0.597	0.710	0.843	1.000
20	0.104	0.126	0.154	0.187	0.227	0.275	0.332	0.401	0.483	0.581	0.697	0.836	1.000
21	0.093	0.114	0.140	0.172	0.211	0.258	0.315	0.383	0.466	0.565	0.685	0.828	1.000
22	0.083	0.103	0.128	0.158	0.196	0.242	0.298	0.366	0.449	0.550	0.673	0.821	1.000
23	0.074	0.093	0.116	0.146	0.182	0.227	0.282	0.350	0.433	0.536	0.661	0.814	1.000
24	0.066	0.084	0.106	0.134	0.169	0.212	0.267	0.334	0.418	0.521	0.649	0.806	1.000
25	0.059	0.075	0.097	0.123	0.157	0.199	0.252	0.319	0.403	0.507	0.637	0.799	1.000
26	0.053	0.068	0.088	0.113	0.146	0.187	0.239	0.305	0.388	0.494	0.626	0.792	1.000
27	0.047	0.061	0.080	0.104	0.135	0.175	0.226	0.291	0.375	0.480	0.615	0.785	1.000
28	0.042	0.055	0.073	0.096	0.126	0.164	0.214	0.278	0.361	0.468	0.604	0.778	1.000
29	0.037	0.050	0.066	0.088	0.117	0.154	0.203	0.266	0.348	0.455	0.593	0.771	1.000
30	0.033	0.045	0.060	0.081	0.108	0.144	0.192	0.254	0.336	0.443	0.582	0.764	1.000
31	0.030	0.041	0.055	0.075	0.101	0.135	0.181	0.243	0.324	0.431	0.572	0.757	1.000
32	0.027	0.037	0.050	0.069	0.093	0.127	0.172	0.232	0.312	0.419	0.562	0.751	1.000
33	0.024	0.033	0.046	0.063	0.087	0.119	0.163	0.222	0.301	0.408	0.552	0.744	1.000
34	0.021	0.030	0.042	0.058	0.080	0.111	0.154	0.212	0.290	0.397	0.542	0.737	1.000
35	0.019	0.027	0.038	0.053	0.075	0.104	0.146	0.202	0.280	0.387	0.532	0.731	1.000
36	0.017	0.024	0.034	0.049	0.069	0.098	0.138	0.193	0.270	0.376	0.523	0.724	1.000
37	0.015	0.022	0.031	0.045	0.064	0.092	0.130	0.185	0.260	0.366	0.513	0.718	1.000
38	0.013	0.020	0.029	0.041	0.060	0.086	0.123	0.176	0.251	0.356	0.504	0.711	1.000
39	0.012	0.018	0.026	0.038	0.056	0.081	0.117	0.168	0.242	0.347	0.495	0.705	1.000
40	0.011	0.016	0.024	0.035	0.052	0.076	0.111	0.161	0.233	0.338	0.486	0.699	1.000
41	0.010	0.014	0.022	0.032	0.048	0.071	0.105	0.154	0.225	0.329	0.478	0.692	1.000
42	0.009	0.013	0.020	0.030	0.044	0.066	0.099	0.147	0.217	0.320	0.469	0.686	1.000
43	0.008	0.012	0.018	0.027	0.041	0.062	0.094	0.140	0.209	0.311	0.461	0.680	1.000
44	0.007	0.011	0.016	0.025	0.038	0.058	0.089	0.134	0.202	0.303	0.453	0.674	1.000
45	0.006	0.010	0.015	0.023	0.036	0.055	0.084	0.128	0.195	0.295	0.444	0.668	1.000
46	0.005	0.009	0.014	0.021	0.033	0.051	0.079	0.122	0.188	0.287	0.437	0.662	1.000
47	0.005	0.008	0.012	0.020	0.031	0.048	0.075	0.117	0.181	0.279	0.429	0.656	1.000
48	0.004	0.007	0.011	0.018	0.029	0.045	0.071	0.112	0.175	0.272	0.421	0.650	1.000
49	0.004	0.006	0.010	0.016	0.026	0.042	0.067	0.107	0.168	0.264	0.414	0.644	1.000
50	0.003	0.006	0.009	0.015	0.025	0.040	0.064	0.102	0.162	0.257	0.406	0.639	1.000

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 12.00%												
	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.009	1.018	1.027	1.036	1.045	1.054	1.063	1.071	1.080	1.089	1.098	1.107	1.116
2	1.018	1.036	1.054	1.073	1.091	1.110	1.129	1.148	1.167	1.187	1.206	1.226	1.246
3	1.027	1.055	1.083	1.111	1.140	1.169	1.199	1.230	1.261	1.292	1.325	1.357	1.390
4	1.036	1.073	1.112	1.151	1.191	1.232	1.274	1.318	1.362	1.408	1.455	1.503	1.552
5	1.045	1.093	1.141	1.192	1.244	1.298	1.354	1.412	1.472	1.534	1.597	1.663	1.732
6	1.055	1.112	1.172	1.234	1.300	1.368	1.439	1.513	1.590	1.671	1.754	1.842	1.933
7	1.064	1.132	1.203	1.278	1.358	1.441	1.529	1.621	1.718	1.820	1.927	2.039	2.157
8	1.074	1.152	1.235	1.324	1.418	1.518	1.624	1.737	1.856	1.982	2.116	2.258	2.407
9	1.083	1.173	1.269	1.371	1.482	1.599	1.726	1.861	2.005	2.159	2.324	2.499	2.687
10	1.093	1.194	1.303	1.420	1.548	1.685	1.834	1.994	2.166	2.352	2.552	2.767	2.999
11	1.103	1.215	1.337	1.471	1.617	1.775	1.948	2.136	2.340	2.562	2.803	3.064	3.347
12	1.113	1.237	1.373	1.524	1.689	1.871	2.070	2.289	2.528	2.791	3.078	3.392	3.735
13	1.122	1.259	1.410	1.578	1.764	1.971	2.199	2.452	2.731	3.040	3.380	3.755	4.169
14	1.133	1.281	1.448	1.634	1.843	2.076	2.337	2.627	2.951	3.311	3.712	4.158	4.653
15	1.143	1.304	1.487	1.693	1.925	2.188	2.483	2.815	3.188	3.607	4.077	4.603	5.193
16	1.153	1.327	1.526	1.753	2.011	2.305	2.638	3.016	3.444	3.929	4.477	5.096	5.795
17	1.163	1.351	1.567	1.816	2.101	2.428	2.803	3.231	3.721	4.280	4.917	5.642	6.468
18	1.174	1.375	1.609	1.881	2.195	2.558	2.978	3.462	4.020	4.662	5.400	6.247	7.219
19	1.184	1.400	1.652	1.948	2.293	2.695	3.164	3.709	4.343	5.078	5.930	6.916	8.057
20	1.195	1.425	1.697	2.017	2.395	2.840	3.362	3.974	4.692	5.531	6.512	7.657	8.992
21	1.205	1.450	1.742	2.089	2.502	2.992	3.572	4.258	5.069	6.025	7.152	8.478	10.035
22	1.216	1.476	1.789	2.164	2.614	3.152	3.795	4.562	5.476	6.563	7.854	9.386	11.200
23	1.227	1.502	1.837	2.241	2.731	3.321	4.032	4.888	5.916	7.149	8.626	10.392	12.500
24	1.238	1.529	1.886	2.321	2.853	3.499	4.284	5.237	6.392	7.788	9.473	11.505	13.951
25	1.249	1.557	1.936	2.404	2.980	3.686	4.552	5.612	6.905	8.483	10.403	12.738	15.570
26	1.260	1.584	1.988	2.490	3.113	3.884	4.837	6.012	7.460	9.240	11.425	14.102	17.378
27	1.271	1.613	2.042	2.579	3.252	4.092	5.139	6.442	8.060	10.065	12.547	15.613	19.395
28	1.283	1.641	2.096	2.671	3.397	4.311	5.460	6.902	8.707	10.964	13.780	17.286	21.646
29	1.294	1.671	2.152	2.767	3.549	4.542	5.801	7.395	9.407	11.943	15.133	19.138	24.158
30	1.306	1.701	2.210	2.865	3.707	4.785	6.164	7.923	10.163	13.009	16.619	21.189	26.962
31	1.317	1.731	2.269	2.968	3.873	5.042	6.549	8.489	10.980	14.171	18.252	23.459	30.092
32	1.329	1.762	2.330	3.074	4.045	5.312	6.959	9.095	11.862	15.436	20.044	25.973	33.585
33	1.341	1.793	2.392	3.184	4.226	5.596	7.394	9.745	12.815	16.814	22.013	28.755	37.483
34	1.353	1.825	2.456	3.297	4.415	5.896	7.856	10.441	13.845	18.316	24.175	31.836	41.834
35	1.365	1.858	2.522	3.415	4.612	6.212	8.347	11.187	14.957	19.951	26.549	35.247	46.690
36	1.377	1.891	2.590	3.537	4.818	6.545	8.868	11.986	16.159	21.732	29.156	39.024	52.109
37	1.389	1.925	2.659	3.663	5.033	6.896	9.423	12.842	17.458	23.673	32.020	43.205	58.157
38	1.402	1.959	2.730	3.794	5.257	7.265	10.012	13.759	18.861	25.786	35.165	47.834	64.908
39	1.414	1.994	2.804	3.930	5.492	7.654	10.637	14.742	20.376	28.089	38.619	52.959	72.442
40	1.427	2.030	2.879	4.070	5.737	8.064	11.302	15.795	22.014	30.597	42.411	58.634	80.850
41	1.440	2.066	2.956	4.215	5.994	8.496	12.008	16.924	23.783	33.328	46.577	64.916	90.234
42	1.453	2.103	3.035	4.366	6.261	8.951	12.759	18.132	25.694	36.304	51.151	71.871	100.708
43	1.466	2.141	3.116	4.522	6.541	9.431	13.556	19.428	27.758	39.546	56.175	79.571	112.397
44	1.479	2.179	3.200	4.683	6.833	9.936	14.404	20.815	29.989	43.076	61.692	88.097	125.443
45	1.492	2.218	3.285	4.851	7.138	10.468	15.304	22.302	32.399	46.923	67.752	97.536	140.004
46	1.505	2.257	3.373	5.024	7.456	11.029	16.260	23.895	35.002	51.112	74.406	107.986	156.254
47	1.519	2.298	3.464	5.203	7.789	11.620	17.277	25.602	37.815	55.676	81.713	119.556	174.391
48	1.532	2.339	3.557	5.389	8.137	12.243	18.356	27.431	40.854	60.647	89.739	132.366	194.633
49	1.546	2.380	3.652	5.582	8.500	12.898	19.504	29.390	44.137	66.062	98.552	146.548	217.224
50	1.560	2.423	3.750	5.781	8.880	13.589	20.723	31.489	47.683	71.960	108.232	162.249	242.437

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 13.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.885	0.894	0.903	0.912	0.920	0.929	0.938	0.947	0.956	0.965	0.973	0.982	0.991
2	0.783	0.799	0.815	0.831	0.847	0.863	0.880	0.897	0.913	0.930	0.948	0.965	0.982
3	0.693	0.714	0.735	0.757	0.780	0.802	0.825	0.849	0.873	0.898	0.922	0.948	0.974
4	0.613	0.638	0.664	0.690	0.717	0.745	0.774	0.804	0.834	0.866	0.898	0.931	0.965
5	0.543	0.570	0.599	0.629	0.660	0.693	0.726	0.761	0.797	0.835	0.874	0.915	0.957
6	0.480	0.510	0.541	0.574	0.608	0.644	0.681	0.721	0.762	0.806	0.851	0.898	0.948
7	0.425	0.456	0.488	0.523	0.559	0.598	0.639	0.683	0.728	0.777	0.828	0.882	0.940
8	0.376	0.407	0.441	0.477	0.515	0.556	0.600	0.646	0.696	0.750	0.806	0.867	0.931
9	0.333	0.364	0.398	0.434	0.474	0.516	0.562	0.612	0.665	0.723	0.785	0.852	0.923
10	0.295	0.325	0.359	0.396	0.436	0.480	0.528	0.579	0.636	0.697	0.764	0.836	0.915
11	0.261	0.291	0.324	0.361	0.401	0.446	0.495	0.549	0.608	0.673	0.744	0.822	0.907
12	0.231	0.260	0.293	0.329	0.369	0.414	0.464	0.520	0.581	0.649	0.724	0.807	0.899
13	0.204	0.232	0.264	0.300	0.340	0.385	0.435	0.492	0.555	0.626	0.705	0.793	0.891
14	0.181	0.208	0.238	0.273	0.313	0.358	0.408	0.466	0.531	0.604	0.686	0.779	0.883
15	0.160	0.186	0.215	0.249	0.288	0.332	0.383	0.441	0.507	0.582	0.668	0.765	0.875
16	0.141	0.166	0.194	0.227	0.265	0.309	0.359	0.418	0.485	0.562	0.650	0.751	0.867
17	0.125	0.148	0.175	0.207	0.244	0.287	0.337	0.396	0.463	0.542	0.633	0.738	0.860
18	0.111	0.133	0.158	0.189	0.224	0.267	0.316	0.375	0.443	0.523	0.616	0.725	0.852
19	0.098	0.118	0.143	0.172	0.207	0.248	0.297	0.355	0.423	0.504	0.600	0.712	0.845
20	0.087	0.106	0.129	0.157	0.190	0.230	0.278	0.336	0.404	0.486	0.584	0.700	0.837
21	0.077	0.095	0.116	0.143	0.175	0.214	0.261	0.318	0.387	0.469	0.568	0.687	0.830
22	0.068	0.085	0.105	0.130	0.161	0.199	0.245	0.301	0.369	0.453	0.553	0.675	0.822
23	0.060	0.076	0.095	0.119	0.148	0.185	0.230	0.285	0.353	0.437	0.539	0.663	0.815
24	0.053	0.068	0.086	0.108	0.136	0.172	0.216	0.270	0.338	0.421	0.524	0.651	0.808
25	0.047	0.060	0.077	0.099	0.126	0.160	0.202	0.256	0.323	0.406	0.510	0.640	0.801
26	0.042	0.054	0.070	0.090	0.116	0.148	0.190	0.242	0.308	0.392	0.497	0.629	0.794
27	0.037	0.048	0.063	0.082	0.106	0.138	0.178	0.229	0.295	0.378	0.484	0.617	0.787
28	0.033	0.043	0.057	0.075	0.098	0.128	0.167	0.217	0.282	0.365	0.471	0.607	0.780
29	0.029	0.039	0.051	0.068	0.090	0.119	0.157	0.206	0.269	0.352	0.458	0.596	0.773
30	0.026	0.034	0.046	0.062	0.083	0.110	0.147	0.195	0.257	0.339	0.446	0.585	0.766
31	0.023	0.031	0.042	0.057	0.076	0.103	0.138	0.184	0.246	0.327	0.434	0.575	0.759
32	0.020	0.028	0.038	0.052	0.070	0.095	0.129	0.174	0.235	0.316	0.423	0.565	0.752
33	0.018	0.025	0.034	0.047	0.065	0.089	0.121	0.165	0.225	0.304	0.412	0.555	0.746
34	0.016	0.022	0.031	0.043	0.059	0.082	0.114	0.156	0.215	0.294	0.401	0.545	0.739
35	0.014	0.020	0.028	0.039	0.055	0.077	0.107	0.148	0.205	0.283	0.390	0.535	0.733
36	0.012	0.018	0.025	0.036	0.050	0.071	0.100	0.140	0.196	0.273	0.380	0.526	0.726
37	0.011	0.016	0.023	0.032	0.046	0.066	0.094	0.133	0.187	0.264	0.370	0.516	0.720
38	0.010	0.014	0.020	0.030	0.043	0.061	0.088	0.126	0.179	0.254	0.360	0.507	0.713
39	0.009	0.013	0.018	0.027	0.039	0.057	0.083	0.119	0.171	0.245	0.350	0.498	0.707
40	0.008	0.011	0.017	0.025	0.036	0.053	0.077	0.113	0.164	0.237	0.341	0.490	0.701
41	0.007	0.010	0.015	0.022	0.033	0.049	0.073	0.107	0.156	0.228	0.332	0.481	0.695
42	0.006	0.009	0.014	0.020	0.031	0.046	0.068	0.101	0.149	0.220	0.323	0.472	0.688
43	0.005	0.008	0.012	0.019	0.028	0.043	0.064	0.096	0.143	0.212	0.314	0.464	0.682
44	0.005	0.007	0.011	0.017	0.026	0.040	0.060	0.091	0.137	0.205	0.306	0.456	0.676
45	0.004	0.006	0.010	0.015	0.024	0.037	0.056	0.086	0.130	0.198	0.298	0.448	0.670
46	0.004	0.006	0.009	0.014	0.022	0.034	0.053	0.081	0.125	0.191	0.290	0.440	0.664
47	0.003	0.005	0.008	0.013	0.020	0.032	0.050	0.077	0.119	0.184	0.282	0.432	0.659
48	0.003	0.005	0.007	0.012	0.019	0.029	0.046	0.073	0.114	0.177	0.275	0.424	0.653
49	0.003	0.004	0.007	0.011	0.017	0.027	0.044	0.069	0.109	0.171	0.268	0.417	0.647
50	0.002	0.004	0.006	0.010	0.016	0.025	0.041	0.065	0.104	0.165	0.260	0.409	0.641

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 13.00%												
	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.000	1.009	1.018	1.027	1.035	1.044	1.053	1.062	1.071	1.080	1.088	1.097	1.106
2	1.000	1.018	1.036	1.054	1.072	1.090	1.109	1.128	1.147	1.166	1.185	1.204	1.224
3	1.000	1.027	1.054	1.082	1.110	1.139	1.168	1.198	1.228	1.258	1.290	1.321	1.354
4	1.000	1.036	1.073	1.110	1.149	1.189	1.230	1.272	1.315	1.359	1.404	1.450	1.497
5	1.000	1.045	1.092	1.140	1.190	1.242	1.295	1.351	1.408	1.467	1.528	1.591	1.656
6	1.000	1.054	1.111	1.170	1.232	1.297	1.364	1.434	1.507	1.584	1.663	1.746	1.832
7	1.000	1.064	1.131	1.201	1.276	1.354	1.436	1.523	1.614	1.710	1.810	1.916	2.027
8	1.000	1.073	1.151	1.233	1.321	1.414	1.513	1.617	1.728	1.846	1.971	2.103	2.242
9	1.000	1.083	1.171	1.266	1.368	1.476	1.593	1.718	1.851	1.993	2.145	2.307	2.480
10	1.000	1.092	1.192	1.300	1.416	1.542	1.678	1.824	1.982	2.152	2.335	2.532	2.744
11	1.000	1.102	1.213	1.334	1.466	1.610	1.767	1.937	2.122	2.323	2.542	2.778	3.035
12	1.000	1.112	1.234	1.369	1.518	1.681	1.860	2.057	2.272	2.508	2.766	3.049	3.357
13	1.000	1.121	1.256	1.406	1.572	1.756	1.959	2.184	2.433	2.708	3.011	3.346	3.714
14	1.000	1.131	1.278	1.443	1.627	1.833	2.063	2.320	2.606	2.924	3.278	3.671	4.108
15	1.000	1.141	1.301	1.481	1.685	1.914	2.173	2.463	2.790	3.157	3.568	4.029	4.544
16	1.000	1.151	1.324	1.521	1.745	1.999	2.288	2.616	2.988	3.408	3.884	4.421	5.027
17	1.000	1.162	1.348	1.561	1.806	2.088	2.410	2.778	3.199	3.679	4.227	4.851	5.561
18	1.000	1.172	1.371	1.603	1.870	2.180	2.538	2.950	3.426	3.973	4.601	5.323	6.151
19	1.000	1.182	1.396	1.645	1.937	2.277	2.672	3.133	3.668	4.289	5.008	5.841	6.805
20	1.000	1.193	1.420	1.689	2.005	2.377	2.814	3.327	3.928	4.630	5.452	6.410	7.527
21	1.000	1.203	1.445	1.734	2.076	2.482	2.964	3.533	4.206	4.999	5.934	7.034	8.327
22	1.000	1.214	1.471	1.780	2.150	2.592	3.121	3.752	4.504	5.397	6.459	7.719	9.211
23	1.000	1.225	1.497	1.827	2.226	2.707	3.287	3.984	4.822	5.827	7.031	8.470	10.189
24	1.000	1.235	1.524	1.875	2.305	2.827	3.461	4.231	5.164	6.291	7.653	9.295	11.271
25	1.000	1.246	1.551	1.925	2.386	2.952	3.645	4.493	5.529	6.793	8.330	10.200	12.468
26	1.000	1.257	1.578	1.976	2.471	3.082	3.839	4.772	5.921	7.334	9.068	11.192	13.792
27	1.000	1.269	1.606	2.029	2.558	3.219	4.042	5.067	6.340	7.918	9.870	12.282	15.256
28	1.000	1.280	1.634	2.083	2.649	3.361	4.257	5.381	6.789	8.548	10.744	13.478	16.877
29	1.000	1.291	1.663	2.138	2.742	3.510	4.483	5.715	7.269	9.229	11.694	14.790	18.669
30	1.000	1.303	1.693	2.195	2.839	3.665	4.721	6.069	7.784	9.964	12.729	16.229	20.651
31	1.000	1.314	1.723	2.253	2.940	3.827	4.972	6.444	8.335	10.758	13.856	17.809	22.844
32	1.000	1.326	1.753	2.313	3.044	3.997	5.236	6.844	8.925	11.615	15.082	19.543	25.270
33	1.000	1.337	1.784	2.374	3.152	4.174	5.514	7.268	9.557	12.540	16.416	21.445	27.954
34	1.000	1.349	1.816	2.437	3.263	4.358	5.807	7.718	10.234	13.538	17.869	23.533	30.922
35	1.000	1.361	1.848	2.502	3.379	4.551	6.115	8.196	10.958	14.617	19.451	25.823	34.206
36	1.000	1.373	1.881	2.568	3.498	4.753	6.440	8.704	11.734	15.781	21.172	28.337	37.839
37	1.000	1.385	1.914	2.637	3.622	4.963	6.782	9.243	12.565	17.038	23.046	31.096	41.857
38	1.000	1.398	1.948	2.707	3.750	5.182	7.142	9.815	13.454	18.395	25.085	34.123	46.302
39	1.000	1.410	1.982	2.778	3.883	5.412	7.521	10.423	14.407	19.860	27.305	37.444	51.219
40	1.000	1.423	2.017	2.852	4.021	5.651	7.920	11.069	15.427	21.442	29.721	41.089	56.658
41	1.000	1.435	2.053	2.928	4.163	5.901	8.341	11.755	16.519	23.149	32.351	45.089	62.675
42	1.000	1.448	2.089	3.006	4.310	6.162	8.784	12.483	17.688	24.993	35.214	49.478	69.331
43	1.000	1.461	2.126	3.085	4.463	6.435	9.250	13.256	18.941	26.984	38.331	54.295	76.693
44	1.000	1.474	2.164	3.167	4.621	6.720	9.741	14.077	20.282	29.133	41.723	59.580	84.838
45	1.000	1.487	2.202	3.251	4.784	7.017	10.258	14.949	21.718	31.453	45.415	65.380	93.847
46	1.000	1.500	2.241	3.338	4.954	7.328	10.803	15.876	23.255	33.958	49.434	71.745	103.813
47	1.000	1.513	2.281	3.426	5.129	7.652	11.377	16.859	24.902	36.663	53.809	78.729	114.838
48	1.000	1.526	2.321	3.517	5.311	7.990	11.981	17.903	26.664	39.583	58.571	86.392	127.033
49	1.000	1.540	2.362	3.611	5.499	8.344	12.617	19.012	28.552	42.735	63.754	94.802	140.523
50	1.000	1.554	2.404	3.707	5.693	8.713	13.287	20.190	30.574	46.139	69.396	104.031	155.446

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 14.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.877	0.886	0.895	0.904	0.912	0.921	0.930	0.939	0.947	0.956	0.965	0.974	0.982
2	0.769	0.785	0.801	0.816	0.832	0.848	0.865	0.881	0.898	0.914	0.931	0.948	0.965
3	0.675	0.695	0.716	0.738	0.759	0.781	0.804	0.827	0.850	0.874	0.898	0.923	0.948
4	0.592	0.616	0.641	0.666	0.693	0.720	0.747	0.776	0.806	0.836	0.867	0.899	0.932
5	0.519	0.546	0.573	0.602	0.632	0.663	0.695	0.728	0.763	0.799	0.836	0.875	0.915
6	0.456	0.484	0.513	0.544	0.576	0.611	0.646	0.684	0.723	0.764	0.807	0.852	0.899
7	0.400	0.428	0.459	0.492	0.526	0.562	0.601	0.642	0.685	0.731	0.779	0.830	0.883
8	0.351	0.380	0.411	0.444	0.480	0.518	0.559	0.602	0.649	0.699	0.751	0.808	0.868
9	0.308	0.336	0.368	0.401	0.438	0.477	0.520	0.565	0.615	0.668	0.725	0.787	0.853
10	0.270	0.298	0.329	0.363	0.399	0.439	0.483	0.531	0.582	0.639	0.700	0.766	0.838
11	0.237	0.264	0.294	0.328	0.364	0.405	0.449	0.498	0.552	0.611	0.675	0.746	0.823
12	0.208	0.234	0.263	0.296	0.332	0.373	0.418	0.467	0.523	0.584	0.651	0.726	0.809
13	0.182	0.207	0.236	0.267	0.303	0.343	0.388	0.439	0.495	0.558	0.629	0.707	0.794
14	0.160	0.184	0.211	0.242	0.277	0.316	0.361	0.412	0.469	0.534	0.606	0.688	0.781
15	0.140	0.163	0.189	0.218	0.252	0.291	0.336	0.387	0.444	0.510	0.585	0.670	0.767
16	0.123	0.144	0.169	0.197	0.230	0.268	0.312	0.363	0.421	0.488	0.565	0.653	0.753
17	0.108	0.128	0.151	0.178	0.210	0.247	0.290	0.341	0.399	0.467	0.545	0.635	0.740
18	0.095	0.113	0.135	0.161	0.192	0.228	0.270	0.320	0.378	0.446	0.526	0.619	0.727
19	0.083	0.100	0.121	0.145	0.175	0.210	0.251	0.300	0.358	0.426	0.507	0.602	0.714
20	0.073	0.089	0.108	0.131	0.159	0.193	0.233	0.282	0.339	0.408	0.490	0.587	0.702
21	0.064	0.079	0.097	0.119	0.145	0.178	0.217	0.264	0.321	0.390	0.472	0.571	0.690
22	0.056	0.070	0.087	0.107	0.133	0.164	0.202	0.248	0.304	0.373	0.456	0.556	0.677
23	0.049	0.062	0.077	0.097	0.121	0.151	0.188	0.233	0.288	0.356	0.440	0.542	0.666
24	0.043	0.055	0.069	0.088	0.110	0.139	0.174	0.219	0.273	0.341	0.424	0.527	0.654
25	0.038	0.048	0.062	0.079	0.101	0.128	0.162	0.205	0.259	0.326	0.409	0.513	0.642
26	0.033	0.043	0.055	0.071	0.092	0.118	0.151	0.193	0.245	0.312	0.395	0.500	0.631
27	0.029	0.038	0.050	0.065	0.084	0.109	0.140	0.181	0.232	0.298	0.381	0.487	0.620
28	0.026	0.034	0.044	0.058	0.076	0.100	0.130	0.170	0.220	0.285	0.368	0.474	0.609
29	0.022	0.030	0.040	0.053	0.070	0.092	0.121	0.159	0.208	0.272	0.355	0.461	0.599
30	0.020	0.026	0.036	0.048	0.064	0.085	0.113	0.149	0.198	0.260	0.342	0.449	0.588
31	0.017	0.023	0.032	0.043	0.058	0.078	0.105	0.140	0.187	0.249	0.330	0.437	0.578
32	0.015	0.021	0.028	0.039	0.053	0.072	0.097	0.132	0.177	0.238	0.319	0.426	0.568
33	0.013	0.018	0.025	0.035	0.048	0.066	0.091	0.124	0.168	0.228	0.308	0.415	0.558
34	0.012	0.016	0.023	0.032	0.044	0.061	0.084	0.116	0.159	0.218	0.297	0.404	0.548
35	0.010	0.014	0.020	0.029	0.040	0.056	0.078	0.109	0.151	0.208	0.286	0.393	0.538
36	0.009	0.013	0.018	0.026	0.037	0.052	0.073	0.102	0.143	0.199	0.276	0.383	0.529
37	0.008	0.011	0.016	0.023	0.033	0.048	0.068	0.096	0.135	0.190	0.267	0.373	0.520
38	0.007	0.010	0.015	0.021	0.031	0.044	0.063	0.090	0.128	0.182	0.257	0.363	0.510
39	0.006	0.009	0.013	0.019	0.028	0.040	0.059	0.084	0.121	0.174	0.248	0.353	0.501
40	0.005	0.008	0.012	0.017	0.025	0.037	0.054	0.079	0.115	0.166	0.240	0.344	0.493
41	0.005	0.007	0.010	0.016	0.023	0.034	0.051	0.074	0.109	0.159	0.231	0.335	0.484
42	0.004	0.006	0.009	0.014	0.021	0.032	0.047	0.070	0.103	0.152	0.223	0.326	0.476
43	0.004	0.005	0.008	0.013	0.019	0.029	0.044	0.066	0.098	0.145	0.215	0.318	0.467
44	0.003	0.005	0.007	0.012	0.018	0.027	0.041	0.062	0.093	0.139	0.208	0.309	0.459
45	0.003	0.004	0.007	0.010	0.016	0.025	0.038	0.058	0.088	0.133	0.200	0.301	0.451
46	0.002	0.004	0.006	0.009	0.015	0.023	0.035	0.054	0.083	0.127	0.193	0.293	0.443
47	0.002	0.003	0.005	0.008	0.013	0.021	0.033	0.051	0.079	0.121	0.187	0.286	0.435
48	0.002	0.003	0.005	0.008	0.012	0.019	0.030	0.048	0.075	0.116	0.180	0.278	0.428
49	0.002	0.003	0.004	0.007	0.011	0.018	0.028	0.045	0.071	0.111	0.174	0.271	0.420
50	0.001	0.002	0.004	0.006	0.010	0.016	0.026	0.042	0.067	0.106	0.168	0.264	0.413

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 14.00%												
	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.991	1.000	1.009	1.018	1.026	1.035	1.044	1.053	1.061	1.070	1.079	1.088	1.096
2	0.983	1.000	1.018	1.035	1.053	1.071	1.090	1.108	1.127	1.145	1.164	1.183	1.202
3	0.974	1.000	1.027	1.054	1.081	1.109	1.137	1.166	1.196	1.226	1.256	1.287	1.318
4	0.965	1.000	1.036	1.072	1.109	1.148	1.187	1.228	1.269	1.312	1.355	1.400	1.446
5	0.957	1.000	1.045	1.091	1.139	1.188	1.239	1.292	1.347	1.404	1.462	1.523	1.585
6	0.949	1.000	1.054	1.110	1.169	1.230	1.294	1.360	1.430	1.502	1.578	1.656	1.738
7	0.940	1.000	1.063	1.129	1.199	1.273	1.351	1.432	1.518	1.608	1.702	1.801	1.906
8	0.932	1.000	1.072	1.149	1.231	1.318	1.410	1.507	1.611	1.720	1.837	1.959	2.089
9	0.924	1.000	1.082	1.169	1.263	1.364	1.472	1.587	1.710	1.841	1.982	2.131	2.291
10	0.916	1.000	1.091	1.190	1.297	1.412	1.536	1.670	1.815	1.970	2.138	2.318	2.512
11	0.908	1.000	1.101	1.211	1.331	1.461	1.603	1.758	1.926	2.109	2.307	2.522	2.755
12	0.900	1.000	1.110	1.232	1.366	1.513	1.674	1.851	2.044	2.257	2.489	2.743	3.020
13	0.892	1.000	1.120	1.254	1.402	1.566	1.747	1.948	2.170	2.415	2.685	2.983	3.312
14	0.884	1.000	1.130	1.276	1.439	1.621	1.824	2.051	2.303	2.584	2.897	3.245	3.631
15	0.876	1.000	1.140	1.298	1.476	1.677	1.904	2.158	2.445	2.766	3.126	3.530	3.982
16	0.869	1.000	1.150	1.321	1.515	1.736	1.987	2.272	2.595	2.960	3.373	3.839	4.366
17	0.861	1.000	1.160	1.344	1.555	1.797	2.075	2.392	2.754	3.168	3.639	4.176	4.787
18	0.853	1.000	1.170	1.368	1.596	1.860	2.165	2.518	2.923	3.390	3.926	4.543	5.249
19	0.846	1.000	1.181	1.392	1.638	1.926	2.260	2.650	3.103	3.628	4.236	4.941	5.756
20	0.838	1.000	1.191	1.416	1.681	1.993	2.360	2.790	3.293	3.882	4.571	5.374	6.311
21	0.831	1.000	1.201	1.441	1.725	2.063	2.463	2.936	3.495	4.155	4.932	5.846	6.920
22	0.824	1.000	1.212	1.466	1.771	2.135	2.571	3.091	3.710	4.446	5.321	6.359	7.588
23	0.817	1.000	1.222	1.492	1.817	2.210	2.684	3.254	3.938	4.758	5.741	6.917	8.320
24	0.809	1.000	1.233	1.518	1.865	2.288	2.802	3.425	4.180	5.092	6.194	7.523	9.123
25	0.802	1.000	1.244	1.545	1.914	2.368	2.925	3.605	4.436	5.450	6.684	8.183	10.003
26	0.795	1.000	1.255	1.572	1.965	2.451	3.053	3.795	4.709	5.832	7.211	8.901	10.968
27	0.788	1.000	1.266	1.599	2.016	2.537	3.187	3.995	4.998	6.241	7.780	9.682	12.027
28	0.781	1.000	1.277	1.627	2.070	2.626	3.326	4.205	5.305	6.679	8.395	10.531	13.187
29	0.775	1.000	1.288	1.656	2.124	2.719	3.472	4.426	5.630	7.148	9.057	11.455	14.459
30	0.768	1.000	1.300	1.685	2.180	2.814	3.625	4.659	5.976	7.650	9.773	12.460	15.855
31	0.761	1.000	1.311	1.715	2.237	2.913	3.784	4.904	6.343	8.187	10.544	13.553	17.384
32	0.754	1.000	1.322	1.745	2.296	3.015	3.950	5.162	6.733	8.761	11.376	14.741	19.062
33	0.748	1.000	1.334	1.775	2.357	3.121	4.123	5.434	7.146	9.376	12.275	16.035	20.901
34	0.741	1.000	1.346	1.806	2.419	3.230	4.304	5.720	7.585	10.034	13.244	17.441	22.918
35	0.735	1.000	1.358	1.838	2.482	3.343	4.492	6.021	8.050	10.738	14.289	18.971	25.129
36	0.728	1.000	1.369	1.870	2.548	3.461	4.689	6.338	8.545	11.492	15.417	20.635	27.554
37	0.722	1.000	1.381	1.903	2.615	3.582	4.895	6.672	9.069	12.298	16.634	22.445	30.213
38	0.715	1.000	1.394	1.937	2.683	3.708	5.110	7.023	9.626	13.161	17.948	24.414	33.128
39	0.709	1.000	1.406	1.970	2.754	3.838	5.334	7.392	10.217	14.085	19.365	26.556	36.325
40	0.703	1.000	1.418	2.005	2.826	3.973	5.568	7.781	10.845	15.073	20.893	28.885	39.830
41	0.697	1.000	1.431	2.040	2.901	4.112	5.812	8.191	11.511	16.131	22.543	31.419	43.673
42	0.691	1.000	1.443	2.076	2.977	4.256	6.067	8.622	12.217	17.263	24.323	34.175	47.887
43	0.685	1.000	1.456	2.112	3.056	4.406	6.333	9.076	12.968	18.474	26.243	37.173	52.508
44	0.679	1.000	1.469	2.150	3.136	4.560	6.611	9.553	13.764	19.771	28.315	40.433	57.574
45	0.673	1.000	1.481	2.187	3.218	4.720	6.901	10.056	14.609	21.158	30.550	43.980	63.129
46	0.667	1.000	1.494	2.226	3.303	4.886	7.203	10.586	15.506	22.643	32.962	47.838	69.221
47	0.661	1.000	1.508	2.265	3.390	5.057	7.519	11.143	16.458	24.232	35.564	52.034	75.900
48	0.655	1.000	1.521	2.304	3.479	5.235	7.849	11.729	17.469	25.932	38.372	56.599	83.224
49	0.649	1.000	1.534	2.345	3.571	5.419	8.193	12.346	18.542	27.752	41.401	61.564	91.254
50	0.644	1.000	1.548	2.386	3.665	5.609	8.553	12.996	19.680	29.699	44.670	66.964	100.059

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 15.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.870	0.878	0.887	0.896	0.904	0.913	0.922	0.930	0.939	0.948	0.957	0.965	0.974
2	0.756	0.771	0.787	0.802	0.818	0.834	0.850	0.866	0.882	0.898	0.915	0.932	0.949
3	0.658	0.677	0.698	0.718	0.740	0.761	0.783	0.805	0.828	0.852	0.875	0.899	0.924
4	0.572	0.595	0.619	0.644	0.669	0.695	0.722	0.749	0.778	0.807	0.837	0.868	0.900
5	0.497	0.523	0.549	0.576	0.605	0.635	0.665	0.697	0.731	0.765	0.801	0.838	0.876
6	0.432	0.459	0.487	0.516	0.547	0.579	0.613	0.649	0.686	0.725	0.766	0.809	0.853
7	0.376	0.403	0.432	0.462	0.495	0.529	0.565	0.604	0.644	0.687	0.733	0.781	0.831
8	0.327	0.354	0.383	0.414	0.447	0.483	0.521	0.562	0.605	0.651	0.701	0.753	0.809
9	0.284	0.311	0.340	0.371	0.405	0.441	0.480	0.523	0.568	0.617	0.670	0.727	0.788
10	0.247	0.273	0.301	0.332	0.366	0.403	0.443	0.486	0.534	0.585	0.641	0.702	0.768
11	0.215	0.240	0.267	0.298	0.331	0.368	0.408	0.452	0.501	0.555	0.613	0.677	0.748
12	0.187	0.211	0.237	0.266	0.299	0.336	0.376	0.421	0.471	0.526	0.587	0.654	0.728
13	0.163	0.185	0.210	0.239	0.271	0.306	0.347	0.392	0.442	0.498	0.561	0.631	0.709
14	0.141	0.162	0.186	0.214	0.245	0.280	0.320	0.364	0.415	0.472	0.537	0.609	0.691
15	0.123	0.143	0.165	0.191	0.221	0.255	0.295	0.339	0.390	0.448	0.513	0.588	0.673
16	0.107	0.125	0.147	0.171	0.200	0.233	0.271	0.315	0.366	0.424	0.491	0.568	0.655
17	0.093	0.110	0.130	0.154	0.181	0.213	0.250	0.294	0.344	0.402	0.470	0.548	0.638
18	0.081	0.097	0.115	0.138	0.164	0.194	0.231	0.273	0.323	0.381	0.449	0.529	0.621
19	0.070	0.085	0.102	0.123	0.148	0.178	0.213	0.254	0.303	0.361	0.430	0.510	0.605
20	0.061	0.075	0.091	0.110	0.134	0.162	0.196	0.236	0.285	0.342	0.411	0.493	0.589
21	0.053	0.065	0.081	0.099	0.121	0.148	0.181	0.220	0.267	0.325	0.393	0.475	0.574
22	0.046	0.058	0.071	0.089	0.109	0.135	0.166	0.205	0.251	0.308	0.376	0.459	0.559
23	0.040	0.051	0.063	0.079	0.099	0.123	0.153	0.190	0.236	0.292	0.360	0.443	0.544
24	0.035	0.044	0.056	0.071	0.090	0.113	0.141	0.177	0.222	0.276	0.344	0.428	0.530
25	0.030	0.039	0.050	0.064	0.081	0.103	0.130	0.165	0.208	0.262	0.329	0.413	0.516
26	0.026	0.034	0.044	0.057	0.073	0.094	0.120	0.153	0.195	0.248	0.315	0.398	0.503
27	0.023	0.030	0.039	0.051	0.066	0.086	0.111	0.143	0.183	0.235	0.301	0.384	0.490
28	0.020	0.026	0.035	0.046	0.060	0.078	0.102	0.133	0.172	0.223	0.288	0.371	0.477
29	0.017	0.023	0.031	0.041	0.054	0.071	0.094	0.124	0.162	0.211	0.276	0.358	0.465
30	0.015	0.020	0.027	0.037	0.049	0.065	0.087	0.115	0.152	0.200	0.264	0.346	0.452
31	0.013	0.018	0.024	0.033	0.044	0.060	0.080	0.107	0.143	0.190	0.252	0.334	0.441
32	0.011	0.016	0.022	0.029	0.040	0.054	0.074	0.100	0.134	0.180	0.241	0.322	0.429
33	0.010	0.014	0.019	0.026	0.036	0.050	0.068	0.093	0.126	0.171	0.231	0.311	0.418
34	0.009	0.012	0.017	0.024	0.033	0.045	0.063	0.086	0.118	0.162	0.221	0.300	0.407
35	0.008	0.011	0.015	0.021	0.030	0.041	0.058	0.080	0.111	0.153	0.211	0.290	0.396
36	0.007	0.009	0.013	0.019	0.027	0.038	0.053	0.075	0.104	0.145	0.202	0.280	0.386
37	0.006	0.008	0.012	0.017	0.024	0.035	0.049	0.069	0.098	0.138	0.193	0.270	0.376
38	0.005	0.007	0.010	0.015	0.022	0.032	0.045	0.065	0.092	0.131	0.185	0.260	0.366
39	0.004	0.006	0.009	0.014	0.020	0.029	0.042	0.060	0.086	0.124	0.177	0.251	0.357
40	0.004	0.006	0.008	0.012	0.018	0.026	0.038	0.056	0.081	0.117	0.169	0.243	0.347
41	0.003	0.005	0.007	0.011	0.016	0.024	0.035	0.052	0.076	0.111	0.162	0.234	0.338
42	0.003	0.004	0.006	0.010	0.015	0.022	0.033	0.048	0.072	0.105	0.155	0.226	0.329
43	0.002	0.004	0.006	0.009	0.013	0.020	0.030	0.045	0.067	0.100	0.148	0.218	0.321
44	0.002	0.003	0.005	0.008	0.012	0.018	0.028	0.042	0.063	0.095	0.141	0.211	0.313
45	0.002	0.003	0.005	0.007	0.011	0.017	0.026	0.039	0.059	0.090	0.135	0.203	0.304
46	0.002	0.003	0.004	0.006	0.010	0.015	0.024	0.036	0.056	0.085	0.129	0.196	0.296
47	0.001	0.002	0.004	0.006	0.009	0.014	0.022	0.034	0.052	0.081	0.124	0.189	0.289
48	0.001	0.002	0.003	0.005	0.008	0.013	0.020	0.031	0.049	0.076	0.118	0.183	0.281
49	0.001	0.002	0.003	0.005	0.007	0.012	0.018	0.029	0.046	0.072	0.113	0.176	0.274
50	0.001	0.002	0.002	0.004	0.007	0.011	0.017	0.027	0.043	0.069	0.108	0.170	0.267

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate		Escalation Rates										
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.983	0.991	1.000	1.009	1.017	1.026	1.035	1.043	1.052	1.061	1.070	1.078	1.087
2	0.966	0.983	1.000	1.017	1.035	1.053	1.071	1.089	1.107	1.125	1.144	1.163	1.181
3	0.949	0.974	1.000	1.026	1.053	1.080	1.108	1.136	1.165	1.194	1.224	1.254	1.284
4	0.932	0.966	1.000	1.035	1.071	1.109	1.147	1.186	1.226	1.267	1.309	1.352	1.396
5	0.916	0.957	1.000	1.044	1.090	1.137	1.186	1.237	1.290	1.344	1.400	1.458	1.517
6	0.900	0.949	1.000	1.053	1.109	1.167	1.228	1.291	1.357	1.426	1.497	1.572	1.649
7	0.884	0.941	1.000	1.062	1.128	1.198	1.270	1.347	1.428	1.512	1.601	1.695	1.793
8	0.869	0.933	1.000	1.072	1.148	1.229	1.315	1.406	1.502	1.604	1.713	1.827	1.948
9	0.854	0.924	1.000	1.081	1.168	1.261	1.360	1.467	1.580	1.702	1.832	1.970	2.118
10	0.839	0.916	1.000	1.090	1.188	1.294	1.408	1.531	1.663	1.806	1.959	2.124	2.302
11	0.824	0.908	1.000	1.100	1.209	1.327	1.457	1.597	1.750	1.915	2.095	2.291	2.502
12	0.810	0.901	1.000	1.109	1.230	1.362	1.507	1.666	1.841	2.032	2.241	2.470	2.720
13	0.796	0.893	1.000	1.119	1.251	1.398	1.560	1.739	1.937	2.156	2.397	2.663	2.956
14	0.782	0.885	1.000	1.129	1.273	1.434	1.614	1.815	2.038	2.287	2.564	2.872	3.213
15	0.769	0.877	1.000	1.139	1.295	1.472	1.670	1.893	2.144	2.426	2.742	3.096	3.493
16	0.755	0.870	1.000	1.149	1.318	1.510	1.728	1.976	2.256	2.574	2.933	3.339	3.797
17	0.742	0.862	1.000	1.159	1.341	1.549	1.788	2.062	2.374	2.731	3.137	3.600	4.127
18	0.729	0.855	1.000	1.169	1.364	1.590	1.850	2.151	2.498	2.897	3.355	3.882	4.486
19	0.717	0.847	1.000	1.179	1.388	1.631	1.915	2.245	2.628	3.073	3.589	4.186	4.876
20	0.704	0.840	1.000	1.189	1.412	1.674	1.981	2.342	2.765	3.260	3.838	4.513	5.300
21	0.692	0.832	1.000	1.199	1.436	1.717	2.050	2.444	2.910	3.459	4.105	4.866	5.760
22	0.680	0.825	1.000	1.210	1.461	1.762	2.122	2.551	3.061	3.669	4.391	5.247	6.261
23	0.668	0.818	1.000	1.220	1.487	1.808	2.195	2.661	3.221	3.892	4.696	5.658	6.806
24	0.656	0.811	1.000	1.231	1.513	1.855	2.272	2.777	3.389	4.129	5.023	6.101	7.398
25	0.645	0.804	1.000	1.242	1.539	1.904	2.351	2.898	3.566	4.381	5.373	6.578	8.041
26	0.634	0.797	1.000	1.252	1.566	1.953	2.433	3.024	3.752	4.647	5.746	7.093	8.740
27	0.623	0.790	1.000	1.263	1.593	2.004	2.517	3.155	3.948	4.930	6.146	7.648	9.500
28	0.612	0.783	1.000	1.274	1.621	2.057	2.605	3.293	4.154	5.230	6.574	8.246	10.326
29	0.601	0.776	1.000	1.285	1.649	2.110	2.695	3.436	4.371	5.549	7.031	8.892	11.224
30	0.591	0.770	1.000	1.297	1.677	2.165	2.789	3.585	4.599	5.887	7.520	9.588	12.200
31	0.580	0.763	1.000	1.308	1.707	2.222	2.886	3.741	4.839	6.245	8.043	10.338	13.261
32	0.570	0.756	1.000	1.319	1.736	2.280	2.987	3.904	5.091	6.625	8.603	11.147	14.414
33	0.560	0.750	1.000	1.331	1.766	2.339	3.090	4.073	5.357	7.028	9.201	12.020	15.668
34	0.551	0.743	1.000	1.342	1.797	2.400	3.198	4.250	5.636	7.456	9.841	12.960	17.030
35	0.541	0.737	1.000	1.354	1.828	2.463	3.309	4.435	5.930	7.910	10.526	13.974	18.511
36	0.532	0.730	1.000	1.366	1.860	2.527	3.424	4.628	6.240	8.391	11.258	15.068	20.120
37	0.522	0.724	1.000	1.378	1.893	2.593	3.543	4.829	6.565	8.902	12.041	16.247	21.870
38	0.513	0.718	1.000	1.390	1.926	2.661	3.667	5.039	6.908	9.444	12.879	17.519	23.772
39	0.504	0.711	1.000	1.402	1.959	2.730	3.794	5.258	7.268	10.019	13.775	18.890	25.839
40	0.496	0.705	1.000	1.414	1.993	2.801	3.926	5.487	7.647	10.629	14.733	20.368	28.086
41	0.487	0.699	1.000	1.426	2.028	2.874	4.063	5.726	8.046	11.276	15.758	21.962	30.528
42	0.479	0.693	1.000	1.439	2.063	2.949	4.204	5.975	8.466	11.962	16.854	23.681	33.183
43	0.470	0.687	1.000	1.451	2.099	3.026	4.350	6.234	8.908	12.690	18.027	25.534	36.068
44	0.462	0.681	1.000	1.464	2.135	3.105	4.502	6.505	9.372	13.463	19.281	27.533	39.204
45	0.454	0.675	1.000	1.476	2.173	3.186	4.658	6.788	9.861	14.282	20.622	29.687	42.614
46	0.446	0.669	1.000	1.489	2.210	3.269	4.820	7.083	10.376	15.151	22.056	32.011	46.319
47	0.438	0.663	1.000	1.502	2.249	3.355	4.988	7.391	10.917	16.074	23.591	34.516	50.347
48	0.431	0.658	1.000	1.515	2.288	3.442	5.161	7.713	11.487	17.052	25.232	37.217	54.725
49	0.423	0.652	1.000	1.528	2.328	3.532	5.341	8.048	12.086	18.090	26.987	40.130	59.483
50	0.416	0.646	1.000	1.542	2.368	3.624	5.527	8.398	12.717	19.191	28.864	43.271	64.656

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 16.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.862	0.871	0.879	0.888	0.897	0.905	0.914	0.922	0.931	0.940	0.948	0.957	0.966
2	0.743	0.758	0.773	0.788	0.804	0.819	0.835	0.851	0.867	0.883	0.899	0.916	0.932
3	0.641	0.660	0.680	0.700	0.721	0.742	0.763	0.785	0.807	0.830	0.853	0.876	0.900
4	0.552	0.575	0.598	0.622	0.646	0.671	0.697	0.724	0.751	0.780	0.809	0.838	0.869
5	0.476	0.500	0.526	0.552	0.579	0.608	0.637	0.668	0.700	0.733	0.767	0.802	0.839
6	0.410	0.436	0.462	0.490	0.519	0.550	0.582	0.616	0.651	0.688	0.727	0.768	0.810
7	0.354	0.379	0.406	0.435	0.466	0.498	0.532	0.568	0.606	0.647	0.690	0.735	0.782
8	0.305	0.330	0.357	0.386	0.417	0.451	0.486	0.524	0.565	0.608	0.654	0.703	0.755
9	0.263	0.288	0.314	0.343	0.374	0.408	0.444	0.483	0.526	0.571	0.620	0.673	0.729
10	0.227	0.250	0.276	0.305	0.336	0.369	0.406	0.446	0.489	0.537	0.588	0.644	0.704
11	0.195	0.218	0.243	0.271	0.301	0.334	0.371	0.411	0.456	0.504	0.558	0.616	0.680
12	0.168	0.190	0.214	0.240	0.270	0.303	0.339	0.379	0.424	0.474	0.529	0.589	0.656
13	0.145	0.165	0.188	0.213	0.242	0.274	0.310	0.350	0.395	0.445	0.501	0.564	0.634
14	0.125	0.144	0.165	0.189	0.217	0.248	0.283	0.323	0.368	0.418	0.475	0.540	0.612
15	0.108	0.125	0.145	0.168	0.194	0.224	0.259	0.298	0.342	0.393	0.451	0.516	0.591
16	0.093	0.109	0.128	0.149	0.174	0.203	0.236	0.275	0.319	0.369	0.428	0.494	0.570
17	0.080	0.095	0.112	0.133	0.156	0.184	0.216	0.253	0.297	0.347	0.405	0.473	0.551
18	0.069	0.083	0.099	0.118	0.140	0.166	0.197	0.234	0.276	0.326	0.384	0.452	0.532
19	0.060	0.072	0.087	0.105	0.126	0.151	0.180	0.216	0.257	0.306	0.365	0.433	0.513
20	0.051	0.063	0.076	0.093	0.113	0.136	0.165	0.199	0.240	0.288	0.346	0.414	0.496
21	0.044	0.055	0.067	0.082	0.101	0.123	0.151	0.183	0.223	0.271	0.328	0.396	0.479
22	0.038	0.048	0.059	0.073	0.091	0.112	0.138	0.169	0.208	0.254	0.311	0.379	0.462
23	0.033	0.041	0.052	0.065	0.081	0.101	0.126	0.156	0.193	0.239	0.295	0.363	0.446
24	0.028	0.036	0.046	0.058	0.073	0.092	0.115	0.144	0.180	0.225	0.280	0.347	0.431
25	0.024	0.031	0.040	0.051	0.065	0.083	0.105	0.133	0.168	0.211	0.265	0.332	0.416
26	0.021	0.027	0.035	0.045	0.058	0.075	0.096	0.122	0.156	0.198	0.251	0.318	0.402
27	0.018	0.024	0.031	0.040	0.052	0.068	0.088	0.113	0.145	0.186	0.238	0.304	0.388
28	0.016	0.021	0.027	0.036	0.047	0.061	0.080	0.104	0.135	0.175	0.226	0.291	0.374
29	0.014	0.018	0.024	0.032	0.042	0.056	0.073	0.096	0.126	0.164	0.214	0.279	0.361
30	0.012	0.016	0.021	0.028	0.038	0.050	0.067	0.089	0.117	0.155	0.203	0.267	0.349
31	0.010	0.014	0.019	0.025	0.034	0.046	0.061	0.082	0.109	0.145	0.193	0.255	0.337
32	0.009	0.012	0.016	0.022	0.030	0.041	0.056	0.075	0.102	0.136	0.183	0.244	0.325
33	0.007	0.010	0.014	0.020	0.027	0.037	0.051	0.070	0.095	0.128	0.173	0.234	0.314
34	0.006	0.009	0.013	0.018	0.024	0.034	0.047	0.064	0.088	0.120	0.164	0.224	0.303
35	0.006	0.008	0.011	0.016	0.022	0.031	0.043	0.059	0.082	0.113	0.156	0.214	0.293
36	0.005	0.007	0.010	0.014	0.020	0.028	0.039	0.055	0.076	0.106	0.148	0.205	0.283
37	0.004	0.006	0.009	0.012	0.018	0.025	0.036	0.050	0.071	0.100	0.140	0.196	0.273
38	0.004	0.005	0.008	0.011	0.016	0.023	0.033	0.046	0.066	0.094	0.133	0.187	0.264
39	0.003	0.005	0.007	0.010	0.014	0.021	0.030	0.043	0.062	0.088	0.126	0.179	0.254
40	0.003	0.004	0.006	0.009	0.013	0.019	0.027	0.040	0.057	0.083	0.120	0.172	0.246
41	0.002	0.003	0.005	0.008	0.011	0.017	0.025	0.036	0.053	0.078	0.113	0.164	0.237
42	0.002	0.003	0.005	0.007	0.010	0.015	0.023	0.034	0.050	0.073	0.107	0.157	0.229
43	0.002	0.003	0.004	0.006	0.009	0.014	0.021	0.031	0.046	0.069	0.102	0.150	0.221
44	0.001	0.002	0.003	0.005	0.008	0.012	0.019	0.029	0.043	0.065	0.097	0.144	0.214
45	0.001	0.002	0.003	0.005	0.007	0.011	0.017	0.026	0.040	0.061	0.092	0.138	0.206
46	0.001	0.002	0.003	0.004	0.007	0.010	0.016	0.024	0.037	0.057	0.087	0.132	0.199
47	0.001	0.001	0.002	0.004	0.006	0.009	0.014	0.022	0.035	0.054	0.082	0.126	0.192
48	0.001	0.001	0.002	0.003	0.005	0.008	0.013	0.021	0.032	0.050	0.078	0.121	0.186
49	0.001	0.001	0.002	0.003	0.005	0.008	0.012	0.019	0.030	0.047	0.074	0.115	0.179
50	0.001	0.001	0.002	0.003	0.004	0.007	0.011	0.018	0.028	0.045	0.070	0.110	0.173

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 16.00%												
	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.974	0.983	0.991	1.000	1.009	1.017	1.026	1.034	1.043	1.052	1.060	1.069	1.078
2	0.949	0.966	0.983	1.000	1.017	1.035	1.052	1.070	1.088	1.106	1.124	1.143	1.161
3	0.924	0.949	0.974	1.000	1.026	1.053	1.080	1.107	1.135	1.163	1.192	1.221	1.251
4	0.900	0.933	0.966	1.000	1.035	1.071	1.108	1.145	1.184	1.224	1.264	1.306	1.348
5	0.877	0.917	0.958	1.000	1.044	1.089	1.136	1.185	1.235	1.287	1.340	1.396	1.453
6	0.855	0.901	0.949	1.000	1.053	1.108	1.166	1.226	1.288	1.353	1.421	1.492	1.566
7	0.832	0.885	0.941	1.000	1.062	1.127	1.196	1.268	1.344	1.423	1.507	1.595	1.687
8	0.811	0.870	0.933	1.000	1.071	1.147	1.227	1.312	1.402	1.497	1.598	1.705	1.818
9	0.790	0.855	0.925	1.000	1.080	1.166	1.258	1.357	1.462	1.574	1.694	1.823	1.959
10	0.769	0.840	0.917	1.000	1.090	1.186	1.291	1.404	1.525	1.656	1.797	1.948	2.111
11	0.750	0.826	0.909	1.000	1.099	1.207	1.324	1.452	1.591	1.741	1.905	2.083	2.275
12	0.730	0.812	0.901	1.000	1.108	1.228	1.359	1.502	1.659	1.832	2.020	2.226	2.451
13	0.711	0.798	0.894	1.000	1.118	1.249	1.394	1.554	1.731	1.926	2.142	2.380	2.642
14	0.693	0.784	0.886	1.000	1.128	1.270	1.430	1.607	1.805	2.026	2.271	2.544	2.847
15	0.675	0.770	0.878	1.000	1.137	1.292	1.467	1.663	1.883	2.131	2.408	2.719	3.067
16	0.658	0.757	0.871	1.000	1.147	1.315	1.505	1.720	1.964	2.241	2.554	2.907	3.305
17	0.641	0.744	0.863	1.000	1.157	1.337	1.544	1.779	2.049	2.357	2.708	3.107	3.562
18	0.624	0.731	0.856	1.000	1.167	1.360	1.583	1.841	2.137	2.479	2.871	3.322	3.838
19	0.608	0.719	0.848	1.000	1.177	1.384	1.624	1.904	2.230	2.607	3.044	3.551	4.136
20	0.592	0.706	0.841	1.000	1.187	1.408	1.666	1.970	2.326	2.742	3.228	3.796	4.457
21	0.577	0.694	0.834	1.000	1.198	1.432	1.709	2.038	2.426	2.884	3.423	4.057	4.803
22	0.562	0.682	0.827	1.000	1.208	1.457	1.754	2.108	2.530	3.033	3.629	4.337	5.175
23	0.547	0.670	0.819	1.000	1.218	1.482	1.799	2.181	2.640	3.190	3.848	4.636	5.577
24	0.533	0.659	0.812	1.000	1.229	1.507	1.846	2.256	2.753	3.355	4.081	4.956	6.010
25	0.519	0.647	0.805	1.000	1.239	1.533	1.893	2.334	2.872	3.528	4.327	5.298	6.476
26	0.506	0.636	0.798	1.000	1.250	1.560	1.942	2.414	2.996	3.711	4.588	5.663	6.978
27	0.493	0.625	0.792	1.000	1.261	1.587	1.993	2.498	3.125	3.903	4.865	6.054	7.520
28	0.480	0.614	0.785	1.000	1.272	1.614	2.044	2.584	3.260	4.104	5.158	6.471	8.103
29	0.468	0.604	0.778	1.000	1.283	1.642	2.097	2.673	3.400	4.317	5.470	6.917	8.732
30	0.456	0.593	0.771	1.000	1.294	1.670	2.151	2.765	3.547	4.540	5.800	7.395	9.409
31	0.444	0.583	0.765	1.000	1.305	1.699	2.207	2.860	3.700	4.775	6.150	7.905	10.139
32	0.432	0.573	0.758	1.000	1.316	1.728	2.264	2.959	3.859	5.022	6.521	8.450	10.926
33	0.421	0.563	0.751	1.000	1.327	1.758	2.322	3.061	4.025	5.282	6.914	9.032	11.774
34	0.410	0.554	0.745	1.000	1.339	1.788	2.382	3.167	4.199	5.555	7.332	9.655	12.687
35	0.400	0.544	0.739	1.000	1.350	1.819	2.444	3.276	4.380	5.842	7.774	10.321	13.672
36	0.389	0.535	0.732	1.000	1.362	1.850	2.507	3.389	4.569	6.144	8.243	11.033	14.732
37	0.379	0.525	0.726	1.000	1.374	1.882	2.572	3.506	4.766	6.462	8.741	11.794	15.875
38	0.369	0.516	0.720	1.000	1.386	1.915	2.639	3.626	4.971	6.796	9.268	12.607	17.107
39	0.360	0.507	0.713	1.000	1.398	1.948	2.707	3.752	5.185	7.148	9.827	13.477	18.434
40	0.351	0.499	0.707	1.000	1.410	1.981	2.777	3.881	5.409	7.518	10.420	14.406	19.865
41	0.342	0.490	0.701	1.000	1.422	2.016	2.849	4.015	5.642	7.906	11.049	15.400	21.406
42	0.333	0.482	0.695	1.000	1.434	2.050	2.922	4.153	5.885	8.315	11.716	16.462	23.067
43	0.324	0.473	0.689	1.000	1.446	2.086	2.998	4.296	6.139	8.745	12.423	17.597	24.856
44	0.316	0.465	0.683	1.000	1.459	2.122	3.075	4.445	6.403	9.198	13.173	18.811	26.785
45	0.308	0.457	0.677	1.000	1.471	2.158	3.155	4.598	6.679	9.673	13.968	20.108	28.863
46	0.300	0.449	0.671	1.000	1.484	2.195	3.237	4.756	6.967	10.174	14.810	21.495	31.102
47	0.292	0.442	0.666	1.000	1.497	2.233	3.320	4.920	7.268	10.700	15.704	22.977	33.515
48	0.284	0.434	0.660	1.000	1.510	2.272	3.406	5.090	7.581	11.254	16.652	24.562	36.116
49	0.277	0.426	0.654	1.000	1.523	2.311	3.494	5.265	7.908	11.836	17.657	26.256	38.918
50	0.270	0.419	0.649	1.000	1.536	2.351	3.585	5.447	8.248	12.448	18.722	28.066	41.937

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 17.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.855	0.863	0.872	0.880	0.889	0.897	0.906	0.915	0.923	0.932	0.940	0.949	0.957
2	0.731	0.745	0.760	0.775	0.790	0.805	0.821	0.836	0.852	0.868	0.884	0.900	0.916
3	0.624	0.643	0.663	0.682	0.702	0.723	0.744	0.765	0.787	0.809	0.831	0.854	0.877
4	0.534	0.555	0.578	0.601	0.624	0.649	0.674	0.700	0.726	0.753	0.781	0.810	0.840
5	0.456	0.479	0.504	0.529	0.555	0.582	0.610	0.640	0.670	0.702	0.735	0.769	0.804
6	0.390	0.414	0.439	0.465	0.493	0.522	0.553	0.585	0.619	0.654	0.691	0.729	0.769
7	0.333	0.357	0.383	0.410	0.438	0.469	0.501	0.535	0.571	0.609	0.649	0.692	0.737
8	0.285	0.308	0.334	0.361	0.390	0.421	0.454	0.489	0.527	0.567	0.610	0.656	0.705
9	0.243	0.266	0.291	0.318	0.346	0.378	0.411	0.447	0.487	0.529	0.574	0.623	0.675
10	0.208	0.230	0.254	0.280	0.308	0.339	0.373	0.409	0.449	0.493	0.540	0.591	0.646
11	0.178	0.198	0.221	0.246	0.274	0.304	0.338	0.374	0.415	0.459	0.507	0.560	0.619
12	0.152	0.171	0.193	0.217	0.243	0.273	0.306	0.342	0.383	0.427	0.477	0.532	0.592
13	0.130	0.148	0.168	0.191	0.216	0.245	0.277	0.313	0.353	0.398	0.448	0.504	0.567
14	0.111	0.128	0.146	0.168	0.192	0.220	0.251	0.286	0.326	0.371	0.422	0.479	0.543
15	0.095	0.110	0.128	0.148	0.171	0.197	0.227	0.262	0.301	0.346	0.396	0.454	0.519
16	0.081	0.095	0.111	0.130	0.152	0.177	0.206	0.239	0.278	0.322	0.373	0.431	0.497
17	0.069	0.082	0.097	0.115	0.135	0.159	0.187	0.219	0.256	0.300	0.350	0.409	0.476
18	0.059	0.071	0.085	0.101	0.120	0.143	0.169	0.200	0.237	0.279	0.329	0.388	0.456
19	0.051	0.061	0.074	0.089	0.107	0.128	0.153	0.183	0.219	0.260	0.310	0.368	0.436
20	0.043	0.053	0.064	0.078	0.095	0.115	0.139	0.167	0.202	0.243	0.291	0.349	0.417
21	0.037	0.046	0.056	0.069	0.084	0.103	0.126	0.153	0.186	0.226	0.274	0.331	0.400
22	0.032	0.039	0.049	0.061	0.075	0.092	0.114	0.140	0.172	0.211	0.257	0.314	0.383
23	0.027	0.034	0.043	0.053	0.067	0.083	0.103	0.128	0.159	0.196	0.242	0.298	0.366
24	0.023	0.029	0.037	0.047	0.059	0.074	0.094	0.117	0.146	0.183	0.227	0.283	0.351
25	0.020	0.025	0.032	0.041	0.053	0.067	0.085	0.107	0.135	0.170	0.214	0.268	0.336
26	0.017	0.022	0.028	0.036	0.047	0.060	0.077	0.098	0.125	0.159	0.201	0.254	0.321
27	0.014	0.019	0.025	0.032	0.042	0.054	0.070	0.090	0.115	0.148	0.189	0.241	0.308
28	0.012	0.016	0.021	0.028	0.037	0.048	0.063	0.082	0.106	0.138	0.178	0.229	0.294
29	0.011	0.014	0.019	0.025	0.033	0.043	0.057	0.075	0.098	0.128	0.167	0.217	0.282
30	0.009	0.012	0.016	0.022	0.029	0.039	0.052	0.069	0.091	0.119	0.157	0.206	0.270
31	0.008	0.010	0.014	0.019	0.026	0.035	0.047	0.063	0.084	0.111	0.148	0.196	0.258
32	0.007	0.009	0.012	0.017	0.023	0.031	0.042	0.057	0.077	0.104	0.139	0.186	0.247
33	0.006	0.008	0.011	0.015	0.021	0.028	0.038	0.052	0.071	0.097	0.131	0.176	0.237
34	0.005	0.007	0.009	0.013	0.018	0.025	0.035	0.048	0.066	0.090	0.123	0.167	0.227
35	0.004	0.006	0.008	0.012	0.016	0.023	0.032	0.044	0.061	0.084	0.115	0.158	0.217
36	0.004	0.005	0.007	0.010	0.014	0.020	0.029	0.040	0.056	0.078	0.109	0.150	0.208
37	0.003	0.004	0.006	0.009	0.013	0.018	0.026	0.037	0.052	0.073	0.102	0.143	0.199
38	0.003	0.004	0.005	0.008	0.011	0.016	0.023	0.034	0.048	0.068	0.096	0.135	0.190
39	0.002	0.003	0.005	0.007	0.010	0.015	0.021	0.031	0.044	0.063	0.090	0.128	0.182
40	0.002	0.003	0.004	0.006	0.009	0.013	0.019	0.028	0.041	0.059	0.085	0.122	0.174
41	0.002	0.002	0.004	0.005	0.008	0.012	0.017	0.026	0.038	0.055	0.080	0.116	0.167
42	0.001	0.002	0.003	0.005	0.007	0.011	0.016	0.023	0.035	0.051	0.075	0.110	0.160
43	0.001	0.002	0.003	0.004	0.006	0.010	0.014	0.021	0.032	0.048	0.070	0.104	0.153
44	0.001	0.002	0.002	0.004	0.006	0.009	0.013	0.020	0.030	0.044	0.066	0.099	0.146
45	0.001	0.001	0.002	0.003	0.005	0.008	0.012	0.018	0.027	0.041	0.062	0.094	0.140
46	0.001	0.001	0.002	0.003	0.004	0.007	0.011	0.016	0.025	0.038	0.059	0.089	0.134
47	0.001	0.001	0.002	0.003	0.004	0.006	0.010	0.015	0.023	0.036	0.055	0.084	0.128
48	0.001	0.001	0.001	0.002	0.004	0.006	0.009	0.014	0.021	0.033	0.052	0.080	0.123
49	0.000	0.001	0.001	0.002	0.003	0.005	0.008	0.013	0.020	0.031	0.049	0.076	0.118
50	0.000	0.001	0.001	0.002	0.003	0.004	0.007	0.011	0.018	0.029	0.046	0.072	0.113

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate					Escalation Rates							
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.966	0.974	0.983	0.991	1.000	1.009	1.017	1.026	1.034	1.043	1.051	1.060	1.068
2	0.933	0.949	0.966	0.983	1.000	1.017	1.034	1.052	1.070	1.087	1.105	1.123	1.141
3	0.901	0.925	0.950	0.975	1.000	1.026	1.052	1.079	1.106	1.134	1.162	1.190	1.219
4	0.870	0.901	0.933	0.966	1.000	1.035	1.070	1.107	1.144	1.182	1.221	1.262	1.303
5	0.840	0.878	0.917	0.958	1.000	1.043	1.088	1.135	1.183	1.233	1.284	1.337	1.392
6	0.812	0.856	0.902	0.950	1.000	1.052	1.107	1.164	1.223	1.285	1.350	1.417	1.487
7	0.784	0.834	0.886	0.942	1.000	1.061	1.126	1.194	1.265	1.340	1.419	1.502	1.589
8	0.757	0.812	0.871	0.934	1.000	1.070	1.145	1.225	1.309	1.398	1.492	1.592	1.697
9	0.731	0.792	0.856	0.926	1.000	1.080	1.165	1.256	1.353	1.457	1.568	1.687	1.813
10	0.706	0.771	0.842	0.918	1.000	1.089	1.185	1.288	1.400	1.520	1.649	1.788	1.937
11	0.682	0.751	0.827	0.910	1.000	1.098	1.205	1.321	1.447	1.585	1.733	1.895	2.070
12	0.659	0.732	0.813	0.902	1.000	1.108	1.226	1.355	1.497	1.652	1.822	2.008	2.212
13	0.636	0.713	0.799	0.894	1.000	1.117	1.247	1.390	1.548	1.723	1.916	2.128	2.363
14	0.614	0.695	0.786	0.887	1.000	1.127	1.268	1.425	1.601	1.797	2.014	2.256	2.524
15	0.593	0.677	0.772	0.879	1.000	1.136	1.289	1.462	1.656	1.873	2.117	2.391	2.697
16	0.573	0.660	0.759	0.872	1.000	1.146	1.312	1.499	1.712	1.953	2.226	2.534	2.881
17	0.554	0.643	0.746	0.864	1.000	1.156	1.334	1.538	1.771	2.037	2.340	2.685	3.078
18	0.535	0.627	0.733	0.857	1.000	1.166	1.357	1.577	1.831	2.124	2.460	2.846	3.289
19	0.516	0.610	0.721	0.850	1.000	1.176	1.380	1.618	1.894	2.215	2.586	3.016	3.514
20	0.499	0.595	0.708	0.842	1.000	1.186	1.404	1.659	1.959	2.309	2.719	3.197	3.754
21	0.482	0.580	0.696	0.835	1.000	1.196	1.428	1.702	2.026	2.408	2.858	3.388	4.011
22	0.465	0.565	0.684	0.828	1.000	1.206	1.452	1.745	2.095	2.511	3.005	3.591	4.285
23	0.449	0.550	0.673	0.821	1.000	1.216	1.477	1.790	2.167	2.618	3.159	3.806	4.578
24	0.434	0.536	0.661	0.814	1.000	1.227	1.502	1.836	2.241	2.730	3.321	4.033	4.891
25	0.419	0.522	0.650	0.807	1.000	1.237	1.528	1.883	2.317	2.847	3.491	4.275	5.225
26	0.405	0.509	0.639	0.800	1.000	1.248	1.554	1.931	2.397	2.968	3.670	4.530	5.582
27	0.391	0.496	0.628	0.793	1.000	1.258	1.580	1.981	2.478	3.095	3.859	4.801	5.964
28	0.378	0.483	0.617	0.786	1.000	1.269	1.607	2.032	2.563	3.228	4.056	5.089	6.372
29	0.365	0.471	0.607	0.780	1.000	1.280	1.635	2.084	2.651	3.365	4.264	5.393	6.808
30	0.352	0.459	0.596	0.773	1.000	1.291	1.663	2.137	2.741	3.509	4.483	5.716	7.273
31	0.340	0.447	0.586	0.766	1.000	1.302	1.691	2.192	2.835	3.659	4.713	6.058	7.770
32	0.329	0.436	0.576	0.760	1.000	1.313	1.720	2.248	2.932	3.816	4.955	6.420	8.302
33	0.317	0.424	0.566	0.753	1.000	1.324	1.750	2.306	3.032	3.979	5.209	6.804	8.869
34	0.306	0.413	0.556	0.747	1.000	1.336	1.779	2.365	3.136	4.149	5.476	7.211	9.476
35	0.296	0.403	0.547	0.740	1.000	1.347	1.810	2.426	3.243	4.326	5.757	7.643	10.124
36	0.286	0.393	0.538	0.734	1.000	1.359	1.841	2.488	3.354	4.511	6.052	8.100	10.816
37	0.276	0.382	0.528	0.728	1.000	1.370	1.872	2.552	3.469	4.704	6.362	8.585	11.556
38	0.267	0.373	0.519	0.722	1.000	1.382	1.904	2.617	3.587	4.905	6.689	9.098	12.346
39	0.258	0.363	0.510	0.716	1.000	1.394	1.937	2.684	3.710	5.114	7.032	9.643	13.190
40	0.249	0.354	0.502	0.709	1.000	1.406	1.970	2.753	3.837	5.333	7.392	10.220	14.092
41	0.240	0.345	0.493	0.703	1.000	1.418	2.004	2.824	3.968	5.561	7.771	10.831	15.055
42	0.232	0.336	0.485	0.697	1.000	1.430	2.038	2.896	4.104	5.798	8.170	11.479	16.085
43	0.224	0.327	0.476	0.691	1.000	1.442	2.073	2.970	4.244	6.046	8.589	12.166	17.185
44	0.216	0.319	0.468	0.685	1.000	1.454	2.108	3.046	4.389	6.305	9.029	12.894	18.360
45	0.209	0.311	0.460	0.680	1.000	1.467	2.144	3.125	4.539	6.574	9.492	13.665	19.615
46	0.202	0.303	0.452	0.674	1.000	1.479	2.181	3.205	4.694	6.855	9.979	14.483	20.956
47	0.195	0.295	0.445	0.668	1.000	1.492	2.218	3.287	4.855	7.148	10.491	15.349	22.389
48	0.188	0.287	0.437	0.662	1.000	1.505	2.256	3.371	5.021	7.453	11.029	16.267	23.920
49	0.182	0.280	0.430	0.657	1.000	1.517	2.295	3.458	5.192	7.772	11.594	17.241	25.555
50	0.176	0.273	0.422	0.651	1.000	1.530	2.334	3.546	5.370	8.104	12.189	18.272	27.303

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 18.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.847	0.856	0.864	0.873	0.881	0.890	0.898	0.907	0.915	0.924	0.932	0.941	0.949
2	0.718	0.733	0.747	0.762	0.777	0.792	0.807	0.822	0.838	0.853	0.869	0.885	0.901
3	0.609	0.627	0.646	0.665	0.685	0.705	0.725	0.746	0.767	0.788	0.810	0.832	0.855
4	0.516	0.537	0.558	0.581	0.603	0.627	0.651	0.676	0.702	0.728	0.755	0.783	0.812
5	0.437	0.459	0.483	0.507	0.532	0.558	0.585	0.613	0.642	0.673	0.704	0.737	0.770
6	0.370	0.393	0.417	0.442	0.469	0.496	0.525	0.556	0.588	0.621	0.656	0.693	0.731
7	0.314	0.337	0.361	0.386	0.413	0.442	0.472	0.504	0.538	0.574	0.612	0.652	0.694
8	0.266	0.288	0.312	0.337	0.364	0.393	0.424	0.457	0.492	0.530	0.570	0.613	0.659
9	0.225	0.247	0.269	0.294	0.321	0.350	0.381	0.414	0.451	0.490	0.532	0.577	0.625
10	0.191	0.211	0.233	0.257	0.283	0.311	0.342	0.376	0.412	0.452	0.496	0.543	0.593
11	0.162	0.181	0.201	0.224	0.249	0.277	0.307	0.341	0.378	0.418	0.462	0.510	0.563
12	0.137	0.155	0.174	0.196	0.220	0.246	0.276	0.309	0.346	0.386	0.431	0.480	0.535
13	0.116	0.132	0.150	0.171	0.194	0.219	0.248	0.280	0.316	0.357	0.401	0.452	0.507
14	0.099	0.113	0.130	0.149	0.171	0.195	0.223	0.254	0.289	0.329	0.374	0.425	0.482
15	0.084	0.097	0.112	0.130	0.150	0.174	0.200	0.230	0.265	0.304	0.349	0.400	0.457
16	0.071	0.083	0.097	0.114	0.133	0.154	0.180	0.209	0.242	0.281	0.325	0.376	0.434
17	0.060	0.071	0.084	0.099	0.117	0.137	0.162	0.189	0.222	0.260	0.303	0.354	0.412
18	0.051	0.061	0.073	0.087	0.103	0.122	0.145	0.172	0.203	0.240	0.283	0.333	0.391
19	0.043	0.052	0.063	0.076	0.091	0.109	0.130	0.156	0.186	0.221	0.263	0.313	0.371
20	0.037	0.045	0.054	0.066	0.080	0.097	0.117	0.141	0.170	0.205	0.246	0.294	0.352
21	0.031	0.038	0.047	0.058	0.070	0.086	0.105	0.128	0.156	0.189	0.229	0.277	0.334
22	0.026	0.033	0.041	0.050	0.062	0.077	0.094	0.116	0.143	0.175	0.213	0.260	0.317
23	0.022	0.028	0.035	0.044	0.055	0.068	0.085	0.105	0.130	0.161	0.199	0.245	0.301
24	0.019	0.024	0.030	0.038	0.048	0.061	0.076	0.096	0.119	0.149	0.185	0.230	0.286
25	0.016	0.020	0.026	0.033	0.043	0.054	0.068	0.087	0.109	0.138	0.173	0.217	0.271
26	0.014	0.018	0.023	0.029	0.037	0.048	0.062	0.079	0.100	0.127	0.161	0.204	0.257
27	0.011	0.015	0.020	0.025	0.033	0.043	0.055	0.071	0.092	0.117	0.150	0.192	0.244
28	0.010	0.013	0.017	0.022	0.029	0.038	0.050	0.065	0.084	0.108	0.140	0.180	0.232
29	0.008	0.011	0.015	0.019	0.026	0.034	0.045	0.059	0.077	0.100	0.131	0.170	0.220
30	0.007	0.009	0.013	0.017	0.023	0.030	0.040	0.053	0.070	0.093	0.122	0.160	0.209
31	0.006	0.008	0.011	0.015	0.020	0.027	0.036	0.048	0.064	0.085	0.113	0.150	0.198
32	0.005	0.007	0.009	0.013	0.018	0.024	0.032	0.044	0.059	0.079	0.106	0.141	0.188
33	0.004	0.006	0.008	0.011	0.015	0.021	0.029	0.040	0.054	0.073	0.099	0.133	0.179
34	0.004	0.005	0.007	0.010	0.014	0.019	0.026	0.036	0.049	0.067	0.092	0.125	0.170
35	0.003	0.004	0.006	0.009	0.012	0.017	0.023	0.033	0.045	0.062	0.086	0.118	0.161
36	0.003	0.004	0.005	0.007	0.011	0.015	0.021	0.030	0.041	0.057	0.080	0.111	0.153
37	0.002	0.003	0.005	0.007	0.009	0.013	0.019	0.027	0.038	0.053	0.074	0.104	0.145
38	0.002	0.003	0.004	0.006	0.008	0.012	0.017	0.024	0.035	0.049	0.069	0.098	0.138
39	0.002	0.002	0.003	0.005	0.007	0.011	0.015	0.022	0.032	0.045	0.065	0.092	0.131
40	0.001	0.002	0.003	0.004	0.006	0.009	0.014	0.020	0.029	0.042	0.060	0.087	0.124
41	0.001	0.002	0.003	0.004	0.006	0.008	0.012	0.018	0.026	0.039	0.056	0.081	0.118
42	0.001	0.001	0.002	0.003	0.005	0.007	0.011	0.016	0.024	0.036	0.052	0.077	0.112
43	0.001	0.001	0.002	0.003	0.004	0.007	0.010	0.015	0.022	0.033	0.049	0.072	0.106
44	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.013	0.020	0.030	0.046	0.068	0.101
45	0.001	0.001	0.001	0.002	0.003	0.005	0.008	0.012	0.019	0.028	0.042	0.064	0.096
46	0.000	0.001	0.001	0.002	0.003	0.005	0.007	0.011	0.017	0.026	0.040	0.060	0.091
47	0.000	0.001	0.001	0.002	0.003	0.004	0.006	0.010	0.016	0.024	0.037	0.056	0.086
48	0.000	0.001	0.001	0.001	0.002	0.004	0.006	0.009	0.014	0.022	0.034	0.053	0.082
49	0.000	0.000	0.001	0.001	0.002	0.003	0.005	0.008	0.013	0.020	0.032	0.050	0.078
50	0.000	0.000	0.001	0.001	0.002	0.003	0.005	0.008	0.012	0.019	0.030	0.047	0.074

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate					Escalation Rates							
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.958	0.966	0.975	0.983	0.992	1.000	1.008	1.017	1.025	1.034	1.042	1.051	1.059
2	0.917	0.933	0.950	0.966	0.983	1.000	1.017	1.034	1.051	1.069	1.087	1.104	1.122
3	0.878	0.902	0.926	0.950	0.975	1.000	1.026	1.052	1.078	1.105	1.133	1.160	1.189
4	0.841	0.871	0.902	0.934	0.967	1.000	1.034	1.070	1.106	1.143	1.181	1.219	1.259
5	0.805	0.842	0.879	0.918	0.958	1.000	1.043	1.088	1.134	1.181	1.231	1.281	1.334
6	0.771	0.813	0.857	0.903	0.950	1.000	1.052	1.106	1.163	1.221	1.283	1.347	1.413
7	0.739	0.786	0.835	0.887	0.942	1.000	1.061	1.125	1.192	1.263	1.337	1.415	1.497
8	0.707	0.759	0.814	0.872	0.934	1.000	1.070	1.144	1.222	1.306	1.394	1.487	1.586
9	0.677	0.733	0.793	0.857	0.926	1.000	1.079	1.163	1.254	1.350	1.453	1.563	1.680
10	0.649	0.708	0.773	0.843	0.918	1.000	1.088	1.183	1.285	1.396	1.514	1.642	1.779
11	0.621	0.684	0.753	0.829	0.911	1.000	1.097	1.203	1.318	1.443	1.579	1.726	1.885
12	0.595	0.661	0.734	0.815	0.903	1.000	1.107	1.223	1.352	1.492	1.645	1.813	1.997
13	0.570	0.639	0.715	0.801	0.895	1.000	1.116	1.244	1.386	1.542	1.715	1.906	2.115
14	0.545	0.617	0.697	0.787	0.888	1.000	1.125	1.265	1.421	1.595	1.788	2.002	2.241
15	0.522	0.596	0.680	0.774	0.880	1.000	1.135	1.287	1.457	1.649	1.864	2.104	2.374
16	0.500	0.576	0.662	0.761	0.873	1.000	1.145	1.309	1.494	1.705	1.943	2.211	2.514
17	0.479	0.556	0.645	0.748	0.865	1.000	1.154	1.331	1.532	1.762	2.025	2.324	2.664
18	0.459	0.538	0.629	0.735	0.858	1.000	1.164	1.353	1.571	1.822	2.111	2.442	2.822
19	0.439	0.519	0.613	0.723	0.851	1.000	1.174	1.376	1.611	1.884	2.200	2.566	2.989
20	0.421	0.502	0.597	0.710	0.843	1.000	1.184	1.400	1.652	1.948	2.293	2.696	3.166
21	0.403	0.485	0.582	0.698	0.836	1.000	1.194	1.423	1.694	2.014	2.390	2.834	3.354
22	0.386	0.468	0.567	0.687	0.829	1.000	1.204	1.447	1.737	2.082	2.492	2.978	3.553
23	0.369	0.452	0.553	0.675	0.822	1.000	1.214	1.472	1.781	2.153	2.597	3.129	3.764
24	0.354	0.437	0.539	0.663	0.815	1.000	1.225	1.497	1.827	2.226	2.707	3.288	3.987
25	0.339	0.422	0.525	0.652	0.808	1.000	1.235	1.522	1.873	2.301	2.822	3.455	4.224
26	0.324	0.408	0.512	0.641	0.801	1.000	1.245	1.548	1.921	2.379	2.942	3.631	4.474
27	0.311	0.394	0.499	0.630	0.795	1.000	1.256	1.574	1.970	2.460	3.066	3.816	4.740
28	0.298	0.381	0.486	0.620	0.788	1.000	1.267	1.601	2.020	2.543	3.196	4.010	5.021
29	0.285	0.368	0.474	0.609	0.781	1.000	1.277	1.628	2.071	2.629	3.332	4.214	5.319
30	0.273	0.355	0.462	0.599	0.775	1.000	1.288	1.656	2.124	2.719	3.473	4.428	5.634
31	0.261	0.343	0.450	0.589	0.768	1.000	1.299	1.684	2.178	2.811	3.620	4.653	5.969
32	0.250	0.332	0.439	0.579	0.762	1.000	1.310	1.712	2.233	2.906	3.773	4.890	6.323
33	0.240	0.320	0.427	0.569	0.755	1.000	1.321	1.741	2.290	3.004	3.933	5.138	6.698
34	0.229	0.310	0.417	0.559	0.749	1.000	1.332	1.771	2.348	3.106	4.100	5.399	7.095
35	0.220	0.299	0.406	0.550	0.742	1.000	1.344	1.801	2.408	3.212	4.274	5.674	7.516
36	0.210	0.289	0.396	0.540	0.736	1.000	1.355	1.831	2.469	3.320	4.455	5.963	7.962
37	0.201	0.279	0.386	0.531	0.730	1.000	1.366	1.862	2.532	3.433	4.644	6.266	8.434
38	0.193	0.270	0.376	0.522	0.724	1.000	1.378	1.894	2.596	3.549	4.840	6.584	8.934
39	0.185	0.261	0.366	0.513	0.718	1.000	1.390	1.926	2.662	3.670	5.045	6.919	9.464
40	0.177	0.252	0.357	0.505	0.711	1.000	1.402	1.959	2.730	3.794	5.259	7.271	10.026
41	0.169	0.243	0.348	0.496	0.705	1.000	1.413	1.992	2.799	3.923	5.482	7.641	10.621
42	0.162	0.235	0.339	0.488	0.699	1.000	1.425	2.026	2.870	4.056	5.714	8.029	11.251
43	0.155	0.227	0.330	0.479	0.694	1.000	1.437	2.060	2.943	4.193	5.957	8.437	11.918
44	0.149	0.219	0.322	0.471	0.688	1.000	1.450	2.095	3.018	4.335	6.209	8.866	12.625
45	0.143	0.212	0.314	0.463	0.682	1.000	1.462	2.130	3.095	4.482	6.472	9.317	13.374
46	0.136	0.205	0.306	0.456	0.676	1.000	1.474	2.167	3.174	4.634	6.746	9.791	14.167
47	0.131	0.198	0.298	0.448	0.670	1.000	1.487	2.203	3.254	4.791	7.032	10.289	15.008
48	0.125	0.191	0.291	0.440	0.665	1.000	1.499	2.241	3.337	4.954	7.330	10.812	15.898
49	0.120	0.185	0.283	0.433	0.659	1.000	1.512	2.279	3.422	5.122	7.641	11.362	16.841
50	0.115	0.178	0.276	0.425	0.653	1.000	1.525	2.317	3.509	5.295	7.964	11.939	17.840

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 19.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.840	0.849	0.857	0.866	0.874	0.882	0.891	0.899	0.908	0.916	0.924	0.933	0.941
2	0.706	0.720	0.735	0.749	0.764	0.779	0.793	0.808	0.824	0.839	0.854	0.870	0.886
3	0.593	0.611	0.630	0.648	0.668	0.687	0.707	0.727	0.748	0.768	0.790	0.812	0.834
4	0.499	0.519	0.540	0.561	0.583	0.606	0.630	0.654	0.678	0.704	0.730	0.757	0.785
5	0.419	0.440	0.463	0.486	0.510	0.535	0.561	0.588	0.616	0.645	0.675	0.706	0.739
6	0.352	0.374	0.397	0.420	0.446	0.472	0.500	0.528	0.559	0.591	0.624	0.659	0.695
7	0.296	0.317	0.340	0.364	0.389	0.416	0.445	0.475	0.507	0.541	0.577	0.614	0.654
8	0.249	0.269	0.291	0.315	0.340	0.367	0.396	0.427	0.460	0.495	0.533	0.573	0.616
9	0.209	0.229	0.250	0.273	0.297	0.324	0.353	0.384	0.418	0.454	0.493	0.535	0.579
10	0.176	0.194	0.214	0.236	0.260	0.286	0.314	0.345	0.379	0.416	0.455	0.499	0.545
11	0.148	0.165	0.183	0.204	0.227	0.252	0.280	0.311	0.344	0.381	0.421	0.465	0.513
12	0.124	0.140	0.157	0.177	0.199	0.223	0.250	0.279	0.312	0.349	0.389	0.434	0.483
13	0.104	0.119	0.135	0.153	0.174	0.196	0.222	0.251	0.283	0.319	0.360	0.405	0.455
14	0.088	0.101	0.116	0.132	0.152	0.173	0.198	0.226	0.257	0.293	0.333	0.377	0.428
15	0.074	0.085	0.099	0.115	0.133	0.153	0.176	0.203	0.233	0.268	0.307	0.352	0.403
16	0.062	0.073	0.085	0.099	0.116	0.135	0.157	0.183	0.212	0.246	0.284	0.328	0.379
17	0.052	0.062	0.073	0.086	0.101	0.119	0.140	0.164	0.192	0.225	0.263	0.306	0.357
18	0.044	0.052	0.062	0.074	0.088	0.105	0.125	0.148	0.174	0.206	0.243	0.286	0.336
19	0.037	0.044	0.053	0.064	0.077	0.093	0.111	0.133	0.158	0.189	0.224	0.267	0.316
20	0.031	0.038	0.046	0.056	0.068	0.082	0.099	0.119	0.144	0.173	0.207	0.249	0.297
21	0.026	0.032	0.039	0.048	0.059	0.072	0.088	0.107	0.130	0.158	0.192	0.232	0.280
22	0.022	0.027	0.034	0.042	0.052	0.064	0.078	0.096	0.118	0.145	0.177	0.216	0.263
23	0.018	0.023	0.029	0.036	0.045	0.056	0.070	0.087	0.107	0.133	0.164	0.202	0.248
24	0.015	0.020	0.025	0.031	0.039	0.050	0.062	0.078	0.098	0.122	0.151	0.188	0.233
25	0.013	0.017	0.021	0.027	0.034	0.044	0.055	0.070	0.088	0.111	0.140	0.176	0.220
26	0.011	0.014	0.018	0.023	0.030	0.039	0.049	0.063	0.080	0.102	0.129	0.164	0.207
27	0.009	0.012	0.016	0.020	0.026	0.034	0.044	0.057	0.073	0.093	0.120	0.153	0.195
28	0.008	0.010	0.013	0.018	0.023	0.030	0.039	0.051	0.066	0.086	0.111	0.142	0.183
29	0.006	0.009	0.011	0.015	0.020	0.027	0.035	0.046	0.060	0.078	0.102	0.133	0.172
30	0.005	0.007	0.010	0.013	0.018	0.023	0.031	0.041	0.054	0.072	0.094	0.124	0.162
31	0.005	0.006	0.008	0.011	0.015	0.021	0.028	0.037	0.049	0.066	0.087	0.116	0.153
32	0.004	0.005	0.007	0.010	0.013	0.018	0.025	0.033	0.045	0.060	0.081	0.108	0.144
33	0.003	0.004	0.006	0.009	0.012	0.016	0.022	0.030	0.041	0.055	0.075	0.101	0.135
34	0.003	0.004	0.005	0.007	0.010	0.014	0.020	0.027	0.037	0.051	0.069	0.094	0.127
35	0.002	0.003	0.005	0.006	0.009	0.013	0.017	0.024	0.034	0.046	0.064	0.088	0.120
36	0.002	0.003	0.004	0.006	0.008	0.011	0.016	0.022	0.030	0.042	0.059	0.082	0.113
37	0.002	0.002	0.003	0.005	0.007	0.010	0.014	0.020	0.028	0.039	0.054	0.076	0.106
38	0.001	0.002	0.003	0.004	0.006	0.009	0.012	0.018	0.025	0.036	0.050	0.071	0.100
39	0.001	0.002	0.002	0.004	0.005	0.008	0.011	0.016	0.023	0.033	0.047	0.066	0.094
40	0.001	0.001	0.002	0.003	0.005	0.007	0.010	0.014	0.021	0.030	0.043	0.062	0.088
41	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.013	0.019	0.027	0.040	0.058	0.083
42	0.001	0.001	0.002	0.002	0.003	0.005	0.008	0.012	0.017	0.025	0.037	0.054	0.078
43	0.001	0.001	0.001	0.002	0.003	0.005	0.007	0.010	0.015	0.023	0.034	0.050	0.074
44	0.000	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.014	0.021	0.031	0.047	0.069
45	0.000	0.001	0.001	0.002	0.002	0.004	0.005	0.008	0.013	0.019	0.029	0.044	0.065
46	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.008	0.012	0.018	0.027	0.041	0.061
47	0.000	0.000	0.001	0.001	0.002	0.003	0.004	0.007	0.010	0.016	0.025	0.038	0.058
48	0.000	0.000	0.001	0.001	0.002	0.002	0.004	0.006	0.010	0.015	0.023	0.035	0.054
49	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.009	0.014	0.021	0.033	0.051
50	0.000	0.000	0.000	0.001	0.001	0.002	0.003	0.005	0.008	0.012	0.020	0.031	0.048

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 19.00%												
	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.950	0.958	0.966	0.975	0.983	0.992	1.000	1.008	1.017	1.025	1.034	1.042	1.050
2	0.902	0.918	0.934	0.950	0.967	0.983	1.000	1.017	1.034	1.051	1.068	1.086	1.103
3	0.856	0.879	0.903	0.926	0.950	0.975	1.000	1.025	1.051	1.078	1.104	1.131	1.159
4	0.813	0.842	0.872	0.903	0.934	0.967	1.000	1.034	1.069	1.105	1.141	1.179	1.217
5	0.772	0.807	0.843	0.880	0.919	0.959	1.000	1.043	1.087	1.133	1.180	1.228	1.279
6	0.733	0.773	0.815	0.858	0.903	0.951	1.000	1.051	1.105	1.161	1.219	1.280	1.343
7	0.696	0.740	0.787	0.836	0.888	0.943	1.000	1.060	1.124	1.190	1.260	1.334	1.411
8	0.661	0.709	0.761	0.815	0.873	0.935	1.000	1.069	1.143	1.220	1.303	1.390	1.482
9	0.628	0.680	0.735	0.795	0.859	0.927	1.000	1.078	1.162	1.251	1.347	1.448	1.557
10	0.596	0.651	0.710	0.775	0.844	0.919	1.000	1.087	1.181	1.283	1.392	1.509	1.635
11	0.566	0.624	0.687	0.755	0.830	0.911	1.000	1.096	1.201	1.315	1.439	1.573	1.718
12	0.537	0.597	0.663	0.736	0.816	0.904	1.000	1.106	1.221	1.348	1.487	1.639	1.804
13	0.510	0.572	0.641	0.718	0.802	0.896	1.000	1.115	1.242	1.382	1.537	1.708	1.895
14	0.485	0.548	0.620	0.699	0.789	0.889	1.000	1.124	1.263	1.417	1.589	1.779	1.991
15	0.460	0.525	0.599	0.682	0.776	0.881	1.000	1.134	1.284	1.453	1.642	1.854	2.091
16	0.437	0.503	0.579	0.665	0.762	0.874	1.000	1.143	1.306	1.489	1.697	1.932	2.197
17	0.415	0.482	0.559	0.648	0.750	0.866	1.000	1.153	1.328	1.527	1.754	2.013	2.308
18	0.394	0.462	0.540	0.632	0.737	0.859	1.000	1.163	1.350	1.565	1.813	2.098	2.424
19	0.374	0.442	0.522	0.616	0.725	0.852	1.000	1.172	1.373	1.605	1.874	2.186	2.546
20	0.355	0.424	0.505	0.600	0.712	0.845	1.000	1.182	1.396	1.645	1.937	2.278	2.675
21	0.337	0.406	0.488	0.585	0.701	0.838	1.000	1.192	1.419	1.687	2.002	2.373	2.809
22	0.320	0.389	0.471	0.570	0.689	0.831	1.000	1.202	1.443	1.729	2.070	2.473	2.951
23	0.304	0.373	0.455	0.556	0.677	0.824	1.000	1.212	1.467	1.773	2.139	2.577	3.100
24	0.289	0.357	0.440	0.542	0.666	0.817	1.000	1.222	1.492	1.818	2.211	2.685	3.256
25	0.274	0.342	0.425	0.528	0.655	0.810	1.000	1.233	1.517	1.863	2.285	2.798	3.420
26	0.261	0.328	0.411	0.515	0.644	0.803	1.000	1.243	1.542	1.910	2.362	2.916	3.593
27	0.247	0.314	0.397	0.502	0.633	0.796	1.000	1.254	1.568	1.959	2.442	3.038	3.774
28	0.235	0.301	0.384	0.489	0.622	0.790	1.000	1.264	1.595	2.008	2.524	3.166	3.964
29	0.223	0.288	0.371	0.477	0.612	0.783	1.000	1.275	1.621	2.059	2.608	3.299	4.164
30	0.212	0.276	0.359	0.465	0.601	0.776	1.000	1.285	1.649	2.111	2.696	3.437	4.374
31	0.201	0.264	0.346	0.453	0.591	0.770	1.000	1.296	1.676	2.164	2.787	3.582	4.595
32	0.191	0.253	0.335	0.442	0.581	0.763	1.000	1.307	1.705	2.218	2.880	3.732	4.826
33	0.181	0.243	0.324	0.431	0.572	0.757	1.000	1.318	1.733	2.274	2.977	3.889	5.070
34	0.172	0.232	0.313	0.420	0.562	0.751	1.000	1.329	1.762	2.332	3.077	4.053	5.325
35	0.164	0.223	0.302	0.409	0.553	0.744	1.000	1.340	1.792	2.390	3.181	4.223	5.594
36	0.155	0.213	0.292	0.399	0.543	0.738	1.000	1.352	1.822	2.451	3.288	4.400	5.876
37	0.147	0.204	0.282	0.389	0.534	0.732	1.000	1.363	1.853	2.512	3.398	4.585	6.172
38	0.140	0.196	0.273	0.379	0.525	0.726	1.000	1.374	1.884	2.576	3.512	4.778	6.483
39	0.133	0.187	0.264	0.369	0.516	0.720	1.000	1.386	1.916	2.641	3.631	4.979	6.810
40	0.126	0.180	0.255	0.360	0.508	0.714	1.000	1.398	1.948	2.707	3.753	5.188	7.154
41	0.120	0.172	0.246	0.351	0.499	0.708	1.000	1.409	1.980	2.775	3.879	5.406	7.514
42	0.114	0.165	0.238	0.342	0.491	0.702	1.000	1.421	2.014	2.845	4.009	5.633	7.893
43	0.108	0.158	0.230	0.334	0.482	0.696	1.000	1.433	2.048	2.917	4.144	5.870	8.291
44	0.103	0.151	0.222	0.325	0.474	0.690	1.000	1.445	2.082	2.991	4.283	6.116	8.709
45	0.097	0.145	0.215	0.317	0.466	0.684	1.000	1.457	2.117	3.066	4.427	6.373	9.148
46	0.093	0.139	0.207	0.309	0.459	0.678	1.000	1.470	2.153	3.143	4.576	6.641	9.609
47	0.088	0.133	0.200	0.301	0.451	0.673	1.000	1.482	2.189	3.223	4.730	6.920	10.094
48	0.083	0.127	0.194	0.294	0.443	0.667	1.000	1.494	2.226	3.304	4.889	7.211	10.603
49	0.079	0.122	0.187	0.286	0.436	0.661	1.000	1.507	2.263	3.387	5.053	7.514	11.138
50	0.075	0.117	0.181	0.279	0.428	0.656	1.000	1.520	2.301	3.473	5.223	7.830	11.699

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 20.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.833	0.842	0.850	0.858	0.867	0.875	0.883	0.892	0.900	0.908	0.917	0.925	0.933
2	0.694	0.708	0.723	0.737	0.751	0.766	0.780	0.795	0.810	0.825	0.840	0.856	0.871
3	0.579	0.596	0.614	0.632	0.651	0.670	0.689	0.709	0.729	0.749	0.770	0.791	0.813
4	0.482	0.502	0.522	0.543	0.564	0.586	0.609	0.632	0.656	0.681	0.706	0.732	0.759
5	0.402	0.422	0.444	0.466	0.489	0.513	0.538	0.564	0.590	0.618	0.647	0.677	0.708
6	0.335	0.356	0.377	0.400	0.424	0.449	0.475	0.503	0.531	0.562	0.593	0.626	0.661
7	0.279	0.299	0.321	0.343	0.367	0.393	0.420	0.448	0.478	0.510	0.544	0.579	0.617
8	0.233	0.252	0.272	0.295	0.318	0.344	0.371	0.400	0.430	0.463	0.499	0.536	0.576
9	0.194	0.212	0.232	0.253	0.276	0.301	0.327	0.356	0.387	0.421	0.457	0.496	0.537
10	0.162	0.178	0.197	0.217	0.239	0.263	0.289	0.318	0.349	0.382	0.419	0.459	0.502
11	0.135	0.150	0.167	0.186	0.207	0.230	0.255	0.283	0.314	0.347	0.384	0.424	0.468
12	0.112	0.126	0.142	0.160	0.180	0.201	0.226	0.253	0.282	0.315	0.352	0.392	0.437
13	0.093	0.106	0.121	0.137	0.156	0.176	0.199	0.225	0.254	0.287	0.323	0.363	0.408
14	0.078	0.090	0.103	0.118	0.135	0.154	0.176	0.201	0.229	0.260	0.296	0.336	0.381
15	0.065	0.075	0.087	0.101	0.117	0.135	0.156	0.179	0.206	0.236	0.271	0.311	0.355
16	0.054	0.063	0.074	0.087	0.101	0.118	0.137	0.160	0.185	0.215	0.249	0.287	0.332
17	0.045	0.053	0.063	0.074	0.088	0.103	0.121	0.142	0.167	0.195	0.228	0.266	0.309
18	0.038	0.045	0.054	0.064	0.076	0.090	0.107	0.127	0.150	0.177	0.209	0.246	0.289
19	0.031	0.038	0.046	0.055	0.066	0.079	0.095	0.113	0.135	0.161	0.191	0.227	0.270
20	0.026	0.032	0.039	0.047	0.057	0.069	0.084	0.101	0.122	0.146	0.175	0.210	0.252
21	0.022	0.027	0.033	0.040	0.050	0.061	0.074	0.090	0.109	0.133	0.161	0.195	0.235
22	0.018	0.023	0.028	0.035	0.043	0.053	0.065	0.080	0.098	0.121	0.147	0.180	0.219
23	0.015	0.019	0.024	0.030	0.037	0.046	0.058	0.072	0.089	0.110	0.135	0.166	0.205
24	0.013	0.016	0.020	0.026	0.032	0.041	0.051	0.064	0.080	0.100	0.124	0.154	0.191
25	0.010	0.013	0.017	0.022	0.028	0.035	0.045	0.057	0.072	0.090	0.114	0.142	0.178
26	0.009	0.011	0.015	0.019	0.024	0.031	0.040	0.051	0.065	0.082	0.104	0.132	0.166
27	0.007	0.010	0.012	0.016	0.021	0.027	0.035	0.045	0.058	0.075	0.095	0.122	0.155
28	0.006	0.008	0.011	0.014	0.018	0.024	0.031	0.040	0.052	0.068	0.087	0.113	0.145
29	0.005	0.007	0.009	0.012	0.016	0.021	0.027	0.036	0.047	0.062	0.080	0.104	0.135
30	0.004	0.006	0.008	0.010	0.014	0.018	0.024	0.032	0.042	0.056	0.074	0.096	0.126
31	0.004	0.005	0.006	0.009	0.012	0.016	0.021	0.029	0.038	0.051	0.067	0.089	0.118
32	0.003	0.004	0.006	0.008	0.010	0.014	0.019	0.025	0.034	0.046	0.062	0.083	0.110
33	0.002	0.003	0.005	0.006	0.009	0.012	0.017	0.023	0.031	0.042	0.057	0.076	0.103
34	0.002	0.003	0.004	0.006	0.008	0.011	0.015	0.020	0.028	0.038	0.052	0.071	0.096
35	0.002	0.002	0.003	0.005	0.007	0.009	0.013	0.018	0.025	0.035	0.048	0.065	0.089
36	0.001	0.002	0.003	0.004	0.006	0.008	0.011	0.016	0.023	0.031	0.044	0.060	0.083
37	0.001	0.002	0.002	0.004	0.005	0.007	0.010	0.014	0.020	0.029	0.040	0.056	0.078
38	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.013	0.018	0.026	0.037	0.052	0.073
39	0.001	0.001	0.002	0.003	0.004	0.005	0.008	0.011	0.016	0.024	0.034	0.048	0.068
40	0.001	0.001	0.002	0.002	0.003	0.005	0.007	0.010	0.015	0.021	0.031	0.044	0.063
41	0.001	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.013	0.019	0.028	0.041	0.059
42	0.000	0.001	0.001	0.002	0.002	0.004	0.005	0.008	0.012	0.018	0.026	0.038	0.055
43	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.007	0.011	0.016	0.024	0.035	0.051
44	0.000	0.001	0.001	0.001	0.002	0.003	0.004	0.006	0.010	0.015	0.022	0.032	0.048
45	0.000	0.000	0.001	0.001	0.002	0.002	0.004	0.006	0.009	0.013	0.020	0.030	0.045
46	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.008	0.012	0.018	0.028	0.042
47	0.000	0.000	0.000	0.001	0.001	0.002	0.003	0.005	0.007	0.011	0.017	0.026	0.039
48	0.000	0.000	0.000	0.001	0.001	0.002	0.003	0.004	0.006	0.010	0.015	0.024	0.036
49	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.004	0.006	0.009	0.014	0.022	0.034
50	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.003	0.005	0.008	0.013	0.020	0.032

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 20.00%												
	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.942	0.950	0.958	0.967	0.975	0.983	0.992	1.000	1.008	1.017	1.025	1.033	1.042
2	0.887	0.903	0.918	0.934	0.951	0.967	0.983	1.000	1.017	1.034	1.051	1.068	1.085
3	0.835	0.857	0.880	0.903	0.927	0.951	0.975	1.000	1.025	1.051	1.077	1.103	1.130
4	0.786	0.815	0.843	0.873	0.904	0.935	0.967	1.000	1.034	1.068	1.104	1.140	1.177
5	0.740	0.774	0.808	0.844	0.881	0.919	0.959	1.000	1.042	1.086	1.131	1.178	1.226
6	0.697	0.735	0.775	0.816	0.859	0.904	0.951	1.000	1.051	1.104	1.160	1.217	1.278
7	0.657	0.698	0.742	0.789	0.838	0.889	0.943	1.000	1.060	1.123	1.189	1.258	1.331
8	0.618	0.663	0.711	0.762	0.817	0.874	0.935	1.000	1.069	1.141	1.218	1.300	1.386
9	0.582	0.630	0.682	0.737	0.796	0.860	0.927	1.000	1.078	1.160	1.249	1.343	1.444
10	0.548	0.599	0.653	0.712	0.776	0.845	0.920	1.000	1.087	1.180	1.280	1.388	1.504
11	0.516	0.569	0.626	0.689	0.757	0.831	0.912	1.000	1.096	1.199	1.312	1.434	1.567
12	0.486	0.540	0.600	0.666	0.738	0.817	0.904	1.000	1.105	1.219	1.345	1.482	1.632
13	0.458	0.513	0.575	0.644	0.720	0.804	0.897	1.000	1.114	1.240	1.379	1.532	1.700
14	0.431	0.488	0.551	0.622	0.702	0.790	0.889	1.000	1.123	1.260	1.413	1.583	1.771
15	0.406	0.463	0.528	0.601	0.684	0.777	0.882	1.000	1.133	1.281	1.448	1.635	1.845
16	0.382	0.440	0.506	0.581	0.667	0.764	0.875	1.000	1.142	1.303	1.485	1.690	1.922
17	0.360	0.418	0.485	0.562	0.650	0.751	0.867	1.000	1.152	1.324	1.522	1.746	2.002
18	0.339	0.397	0.465	0.543	0.634	0.739	0.860	1.000	1.161	1.347	1.560	1.804	2.085
19	0.319	0.377	0.445	0.525	0.618	0.727	0.853	1.000	1.171	1.369	1.599	1.865	2.172
20	0.301	0.358	0.427	0.508	0.603	0.715	0.846	1.000	1.181	1.392	1.639	1.927	2.262
21	0.283	0.341	0.409	0.491	0.588	0.703	0.839	1.000	1.190	1.415	1.680	1.991	2.357
22	0.267	0.324	0.392	0.474	0.573	0.691	0.832	1.000	1.200	1.439	1.722	2.057	2.455
23	0.251	0.307	0.376	0.459	0.559	0.679	0.825	1.000	1.210	1.463	1.765	2.126	2.557
24	0.236	0.292	0.360	0.443	0.545	0.668	0.818	1.000	1.220	1.487	1.809	2.197	2.664
25	0.223	0.277	0.345	0.428	0.531	0.657	0.811	1.000	1.231	1.512	1.854	2.270	2.775
26	0.210	0.264	0.331	0.414	0.518	0.646	0.804	1.000	1.241	1.537	1.900	2.346	2.890
27	0.197	0.250	0.317	0.400	0.505	0.635	0.798	1.000	1.251	1.563	1.948	2.424	3.011
28	0.186	0.238	0.304	0.387	0.492	0.625	0.791	1.000	1.262	1.589	1.996	2.505	3.136
29	0.175	0.226	0.291	0.374	0.480	0.614	0.785	1.000	1.272	1.615	2.046	2.588	3.267
30	0.165	0.215	0.279	0.362	0.468	0.604	0.778	1.000	1.283	1.642	2.098	2.674	3.403
31	0.155	0.204	0.267	0.350	0.456	0.594	0.772	1.000	1.293	1.669	2.150	2.763	3.545
32	0.146	0.194	0.256	0.338	0.445	0.584	0.765	1.000	1.304	1.697	2.204	2.856	3.693
33	0.138	0.184	0.245	0.327	0.434	0.574	0.759	1.000	1.315	1.725	2.259	2.951	3.846
34	0.130	0.175	0.235	0.316	0.423	0.565	0.752	1.000	1.326	1.754	2.315	3.049	4.007
35	0.122	0.166	0.225	0.305	0.412	0.555	0.746	1.000	1.337	1.783	2.373	3.151	4.174
36	0.115	0.158	0.216	0.295	0.402	0.546	0.740	1.000	1.348	1.813	2.433	3.256	4.347
37	0.108	0.150	0.207	0.285	0.392	0.537	0.734	1.000	1.359	1.843	2.493	3.364	4.529
38	0.102	0.142	0.198	0.276	0.382	0.528	0.728	1.000	1.371	1.874	2.556	3.476	4.717
39	0.096	0.135	0.190	0.267	0.373	0.519	0.722	1.000	1.382	1.905	2.620	3.592	4.914
40	0.090	0.129	0.182	0.258	0.363	0.511	0.716	1.000	1.394	1.937	2.685	3.712	5.119
41	0.085	0.122	0.175	0.249	0.354	0.502	0.710	1.000	1.405	1.969	2.752	3.836	5.332
42	0.080	0.116	0.167	0.241	0.345	0.494	0.704	1.000	1.417	2.002	2.821	3.964	5.554
43	0.075	0.110	0.160	0.233	0.337	0.485	0.698	1.000	1.429	2.036	2.892	4.096	5.785
44	0.071	0.105	0.154	0.225	0.328	0.477	0.692	1.000	1.441	2.069	2.964	4.232	6.027
45	0.067	0.099	0.147	0.217	0.320	0.469	0.686	1.000	1.453	2.104	3.038	4.373	6.278
46	0.063	0.094	0.141	0.210	0.312	0.462	0.680	1.000	1.465	2.139	3.114	4.519	6.539
47	0.059	0.090	0.135	0.203	0.304	0.454	0.675	1.000	1.477	2.175	3.192	4.670	6.812
48	0.056	0.085	0.130	0.196	0.297	0.446	0.669	1.000	1.489	2.211	3.271	4.825	7.095
49	0.053	0.081	0.124	0.190	0.289	0.439	0.664	1.000	1.502	2.248	3.353	4.986	7.391
50	0.050	0.077	0.119	0.184	0.282	0.432	0.658	1.000	1.514	2.285	3.437	5.153	7.699

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 21.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.826	0.835	0.843	0.851	0.860	0.868	0.876	0.884	0.893	0.901	0.909	0.917	0.926
2	0.683	0.697	0.711	0.725	0.739	0.753	0.767	0.782	0.797	0.811	0.826	0.842	0.857
3	0.564	0.582	0.599	0.617	0.635	0.653	0.672	0.692	0.711	0.731	0.751	0.772	0.793
4	0.467	0.485	0.505	0.525	0.546	0.567	0.589	0.611	0.635	0.659	0.683	0.708	0.734
5	0.386	0.405	0.426	0.447	0.469	0.492	0.516	0.541	0.566	0.593	0.621	0.650	0.679
6	0.319	0.338	0.359	0.380	0.403	0.427	0.452	0.478	0.506	0.534	0.564	0.596	0.629
7	0.263	0.282	0.302	0.324	0.347	0.371	0.396	0.423	0.451	0.481	0.513	0.547	0.582
8	0.218	0.236	0.255	0.276	0.298	0.322	0.347	0.374	0.403	0.434	0.467	0.502	0.539
9	0.180	0.197	0.215	0.235	0.256	0.279	0.304	0.331	0.360	0.391	0.424	0.460	0.499
10	0.149	0.164	0.181	0.200	0.220	0.242	0.266	0.292	0.321	0.352	0.386	0.422	0.462
11	0.123	0.137	0.153	0.170	0.189	0.210	0.233	0.259	0.286	0.317	0.350	0.387	0.427
12	0.102	0.114	0.129	0.145	0.163	0.182	0.204	0.229	0.256	0.286	0.319	0.355	0.396
13	0.084	0.095	0.109	0.123	0.140	0.158	0.179	0.202	0.228	0.257	0.290	0.326	0.366
14	0.069	0.080	0.091	0.105	0.120	0.137	0.157	0.179	0.204	0.232	0.263	0.299	0.339
15	0.057	0.067	0.077	0.089	0.103	0.119	0.137	0.158	0.182	0.209	0.239	0.274	0.314
16	0.047	0.056	0.065	0.076	0.089	0.103	0.120	0.140	0.162	0.188	0.218	0.252	0.290
17	0.039	0.046	0.055	0.065	0.076	0.090	0.105	0.124	0.145	0.169	0.198	0.231	0.269
18	0.032	0.039	0.046	0.055	0.066	0.078	0.092	0.109	0.129	0.153	0.180	0.212	0.249
19	0.027	0.032	0.039	0.047	0.056	0.068	0.081	0.097	0.115	0.137	0.164	0.194	0.230
20	0.022	0.027	0.033	0.040	0.048	0.059	0.071	0.086	0.103	0.124	0.149	0.178	0.213
21	0.018	0.023	0.028	0.034	0.042	0.051	0.062	0.076	0.092	0.112	0.135	0.163	0.197
22	0.015	0.019	0.023	0.029	0.036	0.044	0.054	0.067	0.082	0.100	0.123	0.150	0.183
23	0.012	0.016	0.020	0.025	0.031	0.038	0.048	0.059	0.073	0.091	0.112	0.138	0.169
24	0.010	0.013	0.017	0.021	0.026	0.033	0.042	0.052	0.065	0.082	0.102	0.126	0.156
25	0.009	0.011	0.014	0.018	0.023	0.029	0.037	0.046	0.058	0.073	0.092	0.116	0.145
26	0.007	0.009	0.012	0.015	0.020	0.025	0.032	0.041	0.052	0.066	0.084	0.106	0.134
27	0.006	0.008	0.010	0.013	0.017	0.022	0.028	0.036	0.046	0.060	0.076	0.097	0.124
28	0.005	0.006	0.008	0.011	0.014	0.019	0.025	0.032	0.041	0.054	0.069	0.089	0.115
29	0.004	0.005	0.007	0.009	0.012	0.016	0.022	0.028	0.037	0.048	0.063	0.082	0.106
30	0.003	0.004	0.006	0.008	0.011	0.014	0.019	0.025	0.033	0.044	0.057	0.075	0.098
31	0.003	0.004	0.005	0.007	0.009	0.012	0.017	0.022	0.029	0.039	0.052	0.069	0.091
32	0.002	0.003	0.004	0.006	0.008	0.011	0.014	0.020	0.026	0.035	0.047	0.063	0.084
33	0.002	0.003	0.004	0.005	0.007	0.009	0.013	0.017	0.023	0.032	0.043	0.058	0.078
34	0.002	0.002	0.003	0.004	0.006	0.008	0.011	0.015	0.021	0.029	0.039	0.053	0.072
35	0.001	0.002	0.003	0.004	0.005	0.007	0.010	0.014	0.019	0.026	0.036	0.049	0.067
36	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.012	0.017	0.023	0.032	0.045	0.062
37	0.001	0.001	0.002	0.003	0.004	0.005	0.007	0.011	0.015	0.021	0.029	0.041	0.057
38	0.001	0.001	0.002	0.002	0.003	0.005	0.007	0.009	0.013	0.019	0.027	0.038	0.053
39	0.001	0.001	0.001	0.002	0.003	0.004	0.006	0.008	0.012	0.017	0.024	0.035	0.049
40	0.000	0.001	0.001	0.002	0.002	0.003	0.005	0.007	0.011	0.015	0.022	0.032	0.045
41	0.000	0.001	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.014	0.020	0.029	0.042
42	0.000	0.001	0.001	0.001	0.002	0.003	0.004	0.006	0.008	0.012	0.018	0.027	0.039
43	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.008	0.011	0.017	0.024	0.036
44	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.004	0.007	0.010	0.015	0.022	0.033
45	0.000	0.000	0.000	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.014	0.021	0.031
46	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.008	0.012	0.019	0.029
47	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.007	0.011	0.017	0.026
48	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.003	0.004	0.007	0.010	0.016	0.024
49	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.004	0.006	0.009	0.015	0.023
50	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.009	0.013	0.021

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 21.00%												
	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.934	0.942	0.950	0.959	0.967	0.975	0.983	0.992	1.000	1.008	1.017	1.025	1.033
2	0.872	0.888	0.903	0.919	0.935	0.951	0.967	0.984	1.000	1.017	1.033	1.050	1.067
3	0.814	0.836	0.858	0.881	0.904	0.927	0.951	0.975	1.000	1.025	1.050	1.076	1.102
4	0.761	0.788	0.816	0.845	0.874	0.904	0.936	0.967	1.000	1.033	1.068	1.103	1.139
5	0.710	0.742	0.775	0.810	0.845	0.882	0.920	0.959	1.000	1.042	1.085	1.130	1.177
6	0.663	0.699	0.737	0.776	0.817	0.860	0.905	0.951	1.000	1.051	1.103	1.158	1.215
7	0.620	0.659	0.700	0.744	0.790	0.839	0.890	0.944	1.000	1.059	1.122	1.187	1.256
8	0.579	0.621	0.666	0.713	0.764	0.818	0.875	0.936	1.000	1.068	1.140	1.216	1.297
9	0.540	0.585	0.633	0.684	0.739	0.798	0.861	0.928	1.000	1.077	1.159	1.247	1.340
10	0.505	0.551	0.601	0.656	0.715	0.778	0.846	0.920	1.000	1.086	1.178	1.278	1.384
11	0.471	0.519	0.572	0.629	0.691	0.759	0.832	0.913	1.000	1.095	1.198	1.309	1.430
12	0.440	0.489	0.543	0.603	0.668	0.740	0.819	0.905	1.000	1.104	1.217	1.342	1.477
13	0.411	0.461	0.516	0.578	0.646	0.722	0.805	0.898	1.000	1.113	1.238	1.375	1.526
14	0.384	0.434	0.491	0.554	0.625	0.704	0.792	0.890	1.000	1.122	1.258	1.409	1.577
15	0.358	0.409	0.466	0.531	0.604	0.686	0.779	0.883	1.000	1.131	1.279	1.444	1.629
16	0.335	0.385	0.443	0.509	0.584	0.669	0.766	0.876	1.000	1.141	1.300	1.480	1.683
17	0.313	0.363	0.421	0.488	0.565	0.653	0.753	0.868	1.000	1.150	1.321	1.516	1.738
18	0.292	0.342	0.400	0.468	0.546	0.636	0.741	0.861	1.000	1.160	1.343	1.554	1.796
19	0.273	0.322	0.380	0.449	0.528	0.621	0.729	0.854	1.000	1.169	1.365	1.593	1.855
20	0.255	0.304	0.362	0.430	0.511	0.605	0.717	0.847	1.000	1.179	1.388	1.632	1.916
21	0.238	0.286	0.344	0.412	0.494	0.590	0.705	0.840	1.000	1.189	1.411	1.672	1.980
22	0.222	0.270	0.327	0.395	0.477	0.576	0.693	0.833	1.000	1.199	1.434	1.714	2.045
23	0.207	0.254	0.310	0.379	0.462	0.561	0.682	0.826	1.000	1.208	1.458	1.756	2.113
24	0.194	0.239	0.295	0.363	0.446	0.547	0.670	0.819	1.000	1.218	1.482	1.800	2.183
25	0.181	0.225	0.280	0.348	0.432	0.534	0.659	0.813	1.000	1.228	1.507	1.845	2.255
26	0.169	0.212	0.267	0.334	0.417	0.521	0.648	0.806	1.000	1.239	1.531	1.890	2.329
27	0.158	0.200	0.253	0.320	0.403	0.508	0.638	0.799	1.000	1.249	1.557	1.937	2.406
28	0.147	0.189	0.241	0.307	0.390	0.495	0.627	0.793	1.000	1.259	1.583	1.985	2.486
29	0.138	0.178	0.229	0.294	0.377	0.483	0.617	0.786	1.000	1.270	1.609	2.034	2.568
30	0.128	0.167	0.217	0.282	0.365	0.471	0.607	0.780	1.000	1.280	1.635	2.085	2.653
31	0.120	0.158	0.207	0.270	0.353	0.459	0.596	0.773	1.000	1.291	1.662	2.137	2.741
32	0.112	0.149	0.196	0.259	0.341	0.448	0.587	0.767	1.000	1.301	1.690	2.190	2.831
33	0.105	0.140	0.187	0.248	0.330	0.437	0.577	0.760	1.000	1.312	1.718	2.244	2.925
34	0.098	0.132	0.177	0.238	0.319	0.426	0.567	0.754	1.000	1.323	1.746	2.300	3.022
35	0.091	0.124	0.169	0.228	0.308	0.415	0.558	0.748	1.000	1.334	1.775	2.357	3.121
36	0.085	0.117	0.160	0.219	0.298	0.405	0.549	0.742	1.000	1.345	1.804	2.415	3.225
37	0.080	0.110	0.152	0.210	0.288	0.395	0.540	0.736	1.000	1.356	1.834	2.475	3.331
38	0.074	0.104	0.145	0.201	0.279	0.385	0.531	0.730	1.000	1.367	1.864	2.536	3.441
39	0.069	0.098	0.138	0.193	0.270	0.376	0.522	0.724	1.000	1.378	1.895	2.599	3.555
40	0.065	0.092	0.131	0.185	0.261	0.366	0.513	0.718	1.000	1.390	1.927	2.663	3.673
41	0.061	0.087	0.124	0.177	0.252	0.357	0.505	0.712	1.000	1.401	1.958	2.730	3.794
42	0.057	0.082	0.118	0.170	0.244	0.348	0.497	0.706	1.000	1.413	1.991	2.797	3.920
43	0.053	0.077	0.112	0.163	0.236	0.340	0.488	0.700	1.000	1.425	2.024	2.867	4.049
44	0.049	0.073	0.107	0.156	0.228	0.331	0.480	0.694	1.000	1.436	2.057	2.938	4.183
45	0.046	0.068	0.101	0.150	0.220	0.323	0.472	0.688	1.000	1.448	2.091	3.010	4.321
46	0.043	0.064	0.096	0.144	0.213	0.315	0.465	0.683	1.000	1.460	2.126	3.085	4.464
47	0.040	0.061	0.092	0.138	0.206	0.307	0.457	0.677	1.000	1.472	2.161	3.162	4.612
48	0.038	0.057	0.087	0.132	0.199	0.300	0.449	0.671	1.000	1.484	2.197	3.240	4.764
49	0.035	0.054	0.083	0.126	0.193	0.292	0.442	0.666	1.000	1.497	2.233	3.320	4.922
50	0.033	0.051	0.079	0.121	0.186	0.285	0.435	0.660	1.000	1.509	2.270	3.403	5.084

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate 22.00%												
	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.820	0.828	0.836	0.844	0.852	0.861	0.869	0.877	0.885	0.893	0.902	0.910	0.918
2	0.672	0.685	0.699	0.713	0.727	0.741	0.755	0.769	0.784	0.798	0.813	0.828	0.843
3	0.551	0.567	0.584	0.602	0.619	0.638	0.656	0.675	0.694	0.713	0.733	0.753	0.774
4	0.451	0.470	0.489	0.508	0.528	0.549	0.570	0.592	0.614	0.637	0.661	0.685	0.710
5	0.370	0.389	0.409	0.429	0.450	0.472	0.495	0.519	0.544	0.569	0.596	0.623	0.652
6	0.303	0.322	0.342	0.362	0.384	0.406	0.430	0.455	0.481	0.509	0.537	0.567	0.599
7	0.249	0.267	0.286	0.306	0.327	0.350	0.374	0.399	0.426	0.454	0.484	0.516	0.550
8	0.204	0.221	0.239	0.258	0.279	0.301	0.325	0.350	0.377	0.406	0.437	0.470	0.505
9	0.167	0.183	0.200	0.218	0.238	0.259	0.282	0.307	0.334	0.363	0.394	0.427	0.463
10	0.137	0.151	0.167	0.184	0.203	0.223	0.245	0.269	0.296	0.324	0.355	0.389	0.425
11	0.112	0.125	0.140	0.155	0.173	0.192	0.213	0.236	0.262	0.290	0.320	0.354	0.390
12	0.092	0.104	0.117	0.131	0.147	0.165	0.185	0.207	0.232	0.259	0.289	0.322	0.358
13	0.075	0.086	0.098	0.111	0.126	0.142	0.161	0.182	0.205	0.231	0.260	0.293	0.329
14	0.062	0.071	0.082	0.093	0.107	0.122	0.140	0.159	0.182	0.207	0.235	0.266	0.302
15	0.051	0.059	0.068	0.079	0.091	0.105	0.121	0.140	0.161	0.185	0.212	0.242	0.277
16	0.042	0.049	0.057	0.067	0.078	0.091	0.105	0.123	0.142	0.165	0.191	0.221	0.255
17	0.034	0.040	0.048	0.056	0.066	0.078	0.092	0.107	0.126	0.147	0.172	0.201	0.234
18	0.028	0.033	0.040	0.047	0.057	0.067	0.080	0.094	0.111	0.132	0.155	0.183	0.215
19	0.023	0.028	0.033	0.040	0.048	0.058	0.069	0.083	0.099	0.118	0.140	0.166	0.197
20	0.019	0.023	0.028	0.034	0.041	0.050	0.060	0.073	0.087	0.105	0.126	0.151	0.181
21	0.015	0.019	0.023	0.029	0.035	0.043	0.052	0.064	0.077	0.094	0.114	0.137	0.166
22	0.013	0.016	0.019	0.024	0.030	0.037	0.045	0.056	0.068	0.084	0.102	0.125	0.152
23	0.010	0.013	0.016	0.020	0.025	0.032	0.039	0.049	0.061	0.075	0.092	0.114	0.140
24	0.008	0.011	0.014	0.017	0.022	0.027	0.034	0.043	0.054	0.067	0.083	0.104	0.128
25	0.007	0.009	0.011	0.015	0.018	0.023	0.030	0.038	0.047	0.060	0.075	0.094	0.118
26	0.006	0.007	0.010	0.012	0.016	0.020	0.026	0.033	0.042	0.053	0.068	0.086	0.108
27	0.005	0.006	0.008	0.010	0.013	0.017	0.022	0.029	0.037	0.048	0.061	0.078	0.099
28	0.004	0.005	0.007	0.009	0.011	0.015	0.020	0.025	0.033	0.043	0.055	0.071	0.091
29	0.003	0.004	0.006	0.007	0.010	0.013	0.017	0.022	0.029	0.038	0.050	0.065	0.084
30	0.003	0.003	0.005	0.006	0.008	0.011	0.015	0.020	0.026	0.034	0.045	0.059	0.077
31	0.002	0.003	0.004	0.005	0.007	0.010	0.013	0.017	0.023	0.030	0.040	0.053	0.071
32	0.002	0.002	0.003	0.004	0.006	0.008	0.011	0.015	0.020	0.027	0.036	0.049	0.065
33	0.001	0.002	0.003	0.004	0.005	0.007	0.010	0.013	0.018	0.024	0.033	0.044	0.059
34	0.001	0.002	0.002	0.003	0.004	0.006	0.008	0.012	0.016	0.022	0.030	0.040	0.055
35	0.001	0.001	0.002	0.003	0.004	0.005	0.007	0.010	0.014	0.019	0.027	0.037	0.050
36	0.001	0.001	0.002	0.002	0.003	0.005	0.006	0.009	0.012	0.017	0.024	0.033	0.046
37	0.001	0.001	0.001	0.002	0.003	0.004	0.006	0.008	0.011	0.015	0.022	0.030	0.042
38	0.001	0.001	0.001	0.002	0.002	0.003	0.005	0.007	0.010	0.014	0.020	0.028	0.039
39	0.000	0.001	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.012	0.018	0.025	0.036
40	0.000	0.001	0.001	0.001	0.002	0.002	0.004	0.005	0.008	0.011	0.016	0.023	0.033
41	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.007	0.010	0.014	0.021	0.030
42	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.013	0.019	0.028
43	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.004	0.005	0.008	0.012	0.017	0.025
44	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.007	0.011	0.016	0.023
45	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.003	0.004	0.006	0.009	0.014	0.021
46	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.004	0.006	0.009	0.013	0.020
47	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.005	0.008	0.012	0.018
48	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.003	0.004	0.007	0.011	0.016
49	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.003	0.004	0.006	0.010	0.015
50	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.004	0.006	0.009	0.014

Life Cycle Costing - Present Value Factors: SPV*

SPV* - Modified Single Present Value Factors

Year	Discount Rate					Escalation Rates							
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.926	0.934	0.943	0.951	0.959	0.967	0.975	0.984	0.992	1.000	1.008	1.016	1.025
2	0.858	0.873	0.889	0.904	0.920	0.936	0.951	0.967	0.984	1.000	1.016	1.033	1.050
3	0.795	0.816	0.838	0.860	0.882	0.905	0.928	0.952	0.976	1.000	1.025	1.050	1.076
4	0.736	0.762	0.789	0.817	0.846	0.875	0.905	0.936	0.968	1.000	1.033	1.067	1.102
5	0.682	0.712	0.744	0.777	0.811	0.846	0.883	0.921	0.960	1.000	1.042	1.085	1.129
6	0.631	0.666	0.702	0.739	0.778	0.819	0.861	0.906	0.952	1.000	1.050	1.102	1.157
7	0.585	0.622	0.661	0.703	0.746	0.792	0.840	0.891	0.944	1.000	1.059	1.121	1.185
8	0.542	0.581	0.623	0.668	0.715	0.766	0.819	0.876	0.936	1.000	1.067	1.139	1.215
9	0.502	0.543	0.588	0.635	0.686	0.741	0.799	0.862	0.929	1.000	1.076	1.158	1.244
10	0.465	0.508	0.554	0.604	0.658	0.717	0.780	0.848	0.921	1.000	1.085	1.177	1.275
11	0.430	0.474	0.522	0.574	0.631	0.693	0.760	0.834	0.913	1.000	1.094	1.196	1.306
12	0.399	0.443	0.492	0.546	0.605	0.670	0.742	0.820	0.906	1.000	1.103	1.215	1.338
13	0.369	0.414	0.464	0.519	0.580	0.648	0.723	0.807	0.899	1.000	1.112	1.235	1.371
14	0.342	0.387	0.437	0.494	0.557	0.627	0.706	0.793	0.891	1.000	1.121	1.256	1.405
15	0.317	0.362	0.412	0.469	0.534	0.607	0.688	0.780	0.884	1.000	1.130	1.276	1.440
16	0.293	0.338	0.389	0.446	0.512	0.587	0.671	0.768	0.877	1.000	1.140	1.297	1.475
17	0.272	0.316	0.366	0.424	0.491	0.567	0.655	0.755	0.869	1.000	1.149	1.318	1.511
18	0.252	0.295	0.345	0.403	0.471	0.549	0.639	0.743	0.862	1.000	1.158	1.340	1.548
19	0.233	0.276	0.325	0.384	0.452	0.531	0.623	0.730	0.855	1.000	1.168	1.362	1.587
20	0.216	0.258	0.307	0.365	0.433	0.513	0.608	0.719	0.848	1.000	1.177	1.384	1.626
21	0.200	0.241	0.289	0.347	0.415	0.497	0.593	0.707	0.841	1.000	1.187	1.407	1.666
22	0.185	0.225	0.273	0.330	0.398	0.480	0.578	0.695	0.834	1.000	1.197	1.430	1.706
23	0.172	0.210	0.257	0.314	0.382	0.465	0.564	0.684	0.828	1.000	1.207	1.454	1.748
24	0.159	0.196	0.242	0.298	0.366	0.449	0.550	0.673	0.821	1.000	1.216	1.477	1.791
25	0.147	0.183	0.228	0.283	0.351	0.435	0.537	0.662	0.814	1.000	1.226	1.502	1.836
26	0.136	0.171	0.215	0.269	0.337	0.420	0.523	0.651	0.807	1.000	1.236	1.526	1.881
27	0.126	0.160	0.203	0.256	0.323	0.407	0.511	0.640	0.801	1.000	1.247	1.551	1.927
28	0.117	0.150	0.191	0.244	0.310	0.393	0.498	0.630	0.794	1.000	1.257	1.577	1.974
29	0.108	0.140	0.180	0.232	0.297	0.380	0.486	0.619	0.788	1.000	1.267	1.602	2.023
30	0.100	0.131	0.170	0.220	0.285	0.368	0.474	0.609	0.781	1.000	1.277	1.629	2.073
31	0.093	0.122	0.160	0.209	0.273	0.356	0.462	0.599	0.775	1.000	1.288	1.655	2.124
32	0.086	0.114	0.151	0.199	0.262	0.344	0.451	0.589	0.768	1.000	1.299	1.683	2.176
33	0.080	0.107	0.142	0.189	0.251	0.333	0.440	0.580	0.762	1.000	1.309	1.710	2.229
34	0.074	0.100	0.134	0.180	0.241	0.322	0.429	0.570	0.756	1.000	1.320	1.738	2.284
35	0.068	0.093	0.126	0.171	0.231	0.311	0.418	0.561	0.750	1.000	1.331	1.767	2.340
36	0.063	0.087	0.119	0.163	0.222	0.301	0.408	0.552	0.744	1.000	1.342	1.796	2.398
37	0.059	0.081	0.112	0.155	0.213	0.291	0.398	0.542	0.737	1.000	1.353	1.825	2.457
38	0.054	0.076	0.106	0.147	0.204	0.282	0.388	0.534	0.731	1.000	1.364	1.855	2.517
39	0.050	0.071	0.100	0.140	0.196	0.272	0.379	0.525	0.725	1.000	1.375	1.885	2.579
40	0.047	0.066	0.094	0.133	0.188	0.264	0.369	0.516	0.719	1.000	1.386	1.916	2.642
41	0.043	0.062	0.089	0.126	0.180	0.255	0.360	0.508	0.714	1.000	1.398	1.948	2.707
42	0.040	0.058	0.084	0.120	0.172	0.247	0.351	0.499	0.708	1.000	1.409	1.980	2.774
43	0.037	0.054	0.079	0.114	0.165	0.238	0.343	0.491	0.702	1.000	1.421	2.012	2.842
44	0.034	0.051	0.074	0.109	0.159	0.231	0.334	0.483	0.696	1.000	1.432	2.045	2.912
45	0.032	0.047	0.070	0.103	0.152	0.223	0.326	0.475	0.690	1.000	1.444	2.079	2.984
46	0.029	0.044	0.066	0.098	0.146	0.216	0.318	0.468	0.685	1.000	1.456	2.113	3.057
47	0.027	0.041	0.062	0.093	0.140	0.209	0.310	0.460	0.679	1.000	1.468	2.147	3.132
48	0.025	0.039	0.059	0.089	0.134	0.202	0.303	0.452	0.674	1.000	1.480	2.183	3.209
49	0.023	0.036	0.055	0.084	0.129	0.195	0.295	0.445	0.668	1.000	1.492	2.218	3.288
50	0.022	0.034	0.052	0.080	0.123	0.189	0.288	0.438	0.663	1.000	1.504	2.255	3.369

Present Value Factors

UPV* – Modified Uniform Present Value (with escalation)

Formula:

$$\frac{1 - \left[\frac{1+e}{1+d} \right]^n}{\left[\frac{1+d}{1+e} \right] - 1} \quad \text{if } e \neq d$$

$$\text{UPV}^* = n \quad \text{if } e = d$$

d = discount rate
e = escalation rate
n = year

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 1.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.990	1.000	1.010	1.020	1.030	1.040	1.050	1.059	1.069	1.079	1.089	1.099	1.109
2	1.970	2.000	2.030	2.060	2.090	2.120	2.151	2.182	2.213	2.244	2.275	2.307	2.339
3	2.941	3.000	3.060	3.120	3.182	3.244	3.307	3.371	3.435	3.501	3.567	3.634	3.702
4	3.902	4.000	4.100	4.202	4.306	4.412	4.520	4.630	4.743	4.857	4.974	5.093	5.214
5	4.853	5.000	5.150	5.305	5.464	5.626	5.793	5.965	6.141	6.321	6.506	6.696	6.891
6	5.795	6.000	6.211	6.430	6.656	6.889	7.130	7.379	7.636	7.901	8.175	8.458	8.751
7	6.728	7.000	7.283	7.577	7.883	8.201	8.532	8.876	9.234	9.606	9.993	10.395	10.813
8	7.652	8.000	8.365	8.747	9.147	9.566	10.004	10.463	10.944	11.446	11.973	12.523	13.099
9	8.566	9.000	9.458	9.940	10.448	10.984	11.549	12.144	12.771	13.432	14.128	14.862	15.635
10	9.471	10.000	10.561	11.156	11.788	12.459	13.170	13.925	14.726	15.575	16.477	17.432	18.446
11	10.368	11.000	11.676	12.397	13.168	13.992	14.872	15.812	16.816	17.888	19.034	20.257	21.564
12	11.255	12.000	12.801	13.662	14.589	15.585	16.657	17.810	19.050	20.384	21.819	23.362	25.022
13	12.134	13.000	13.938	14.953	16.052	17.242	18.531	19.928	21.440	23.078	24.852	26.774	28.856
14	13.004	14.000	15.086	16.269	17.558	18.965	20.498	22.171	23.995	25.985	28.156	30.524	33.107
15	13.865	15.000	16.245	17.611	19.110	20.755	22.563	24.547	26.728	29.123	31.754	34.645	37.822
16	14.718	16.000	17.416	18.979	20.707	22.617	24.729	27.065	29.649	32.509	35.673	39.175	43.050
17	15.562	17.000	18.598	20.375	22.352	24.552	27.003	29.732	32.774	36.163	39.941	44.152	48.848
18	16.398	18.000	19.792	21.798	24.045	26.564	29.389	32.558	36.114	40.106	44.589	49.623	55.277
19	17.226	19.000	20.998	23.250	25.789	28.656	31.893	35.552	39.687	44.362	49.651	55.635	62.406
20	18.046	20.000	22.216	24.730	27.585	30.831	34.522	38.723	43.506	48.955	55.165	62.242	70.311
21	18.857	21.000	23.445	26.239	29.434	33.091	37.280	42.083	47.591	53.912	61.170	69.504	79.078
22	19.660	22.000	24.687	27.779	31.338	35.441	40.175	45.642	51.959	59.262	67.709	77.485	88.799
23	20.456	23.000	25.942	29.348	33.299	37.884	43.214	49.413	56.629	65.035	74.832	86.255	99.579
24	21.243	24.000	27.209	30.949	35.317	40.424	46.403	53.408	61.623	71.266	82.589	95.895	111.533
25	22.023	25.000	28.488	32.582	37.396	43.065	49.749	57.640	66.963	77.990	91.038	106.488	124.790
26	22.795	26.000	29.780	34.247	39.537	45.810	53.262	62.123	72.674	85.246	100.239	118.130	139.489
27	23.560	27.000	31.085	35.945	41.741	48.664	56.948	66.873	78.780	93.078	110.261	130.925	155.790
28	24.316	28.000	32.402	37.677	44.010	51.631	60.817	71.905	85.309	101.529	121.175	144.987	173.866
29	25.066	29.000	33.733	39.443	46.347	54.715	64.877	77.236	92.291	110.650	133.062	160.442	193.911
30	25.808	30.000	35.077	41.243	48.753	57.922	69.138	82.884	99.757	120.494	146.008	177.426	216.139
31	26.542	31.000	36.434	43.080	51.231	61.255	73.610	88.867	107.740	131.117	160.108	196.092	240.788
32	27.270	32.000	37.805	44.953	53.783	64.721	78.304	95.206	116.276	142.582	175.464	216.606	268.121
33	27.990	33.000	39.189	46.863	56.410	68.324	83.230	101.921	125.404	154.955	192.188	239.151	298.432
34	28.703	34.000	40.587	48.810	59.115	72.069	88.399	109.035	135.165	168.308	210.403	263.928	332.043
35	29.409	35.000	41.999	50.797	61.901	75.963	93.825	116.572	145.602	182.718	230.241	291.159	369.315
36	30.108	36.000	43.424	52.822	64.769	80.011	99.520	124.557	156.763	198.270	251.847	321.086	410.646
37	30.800	37.000	44.864	54.888	67.723	84.220	105.496	133.015	168.697	215.054	275.378	353.975	456.479
38	31.485	38.000	46.318	56.995	70.764	88.595	111.768	141.977	181.458	233.167	301.005	390.121	507.303
39	32.163	39.000	47.787	59.143	73.896	93.143	118.350	151.470	195.104	252.715	328.917	429.846	563.663
40	32.835	40.000	49.270	61.334	77.120	97.871	125.259	161.528	209.695	273.811	359.315	473.504	626.161
41	33.500	41.000	50.767	63.569	80.441	102.787	132.509	172.183	225.298	296.578	392.423	521.485	695.466
42	34.158	42.000	52.280	65.847	83.860	107.897	140.119	183.471	241.982	321.149	428.480	574.216	772.319
43	34.810	43.000	53.808	68.171	87.380	113.210	148.105	195.430	259.822	347.666	467.751	632.168	857.541
44	35.455	44.000	55.350	70.541	91.005	118.733	156.486	208.099	278.899	376.283	510.520	695.858	952.046
45	36.095	45.000	56.908	72.957	94.738	124.475	165.282	221.521	299.298	407.167	557.101	765.854	1056.843
46	36.727	46.000	58.481	75.422	98.582	130.445	174.514	235.740	321.110	440.497	607.833	842.780	1173.054
47	37.354	47.000	60.070	77.935	102.540	136.650	184.203	250.803	344.435	476.467	663.086	927.323	1301.921
48	37.974	48.000	61.675	80.498	106.615	143.102	194.372	266.762	369.376	515.286	723.262	1020.236	1444.823
49	38.588	49.000	63.296	83.112	110.812	149.809	205.043	283.669	396.045	557.180	788.800	1122.348	1603.289
50	39.196	50.000	64.932	85.778	115.133	156.781	216.244	301.580	424.563	602.392	860.178	1234.571	1779.014

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 1.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.119	1.129	1.139	1.149	1.158	1.168	1.178	1.188	1.198	1.208	1.218	1.228	1.238
2	2.371	2.403	2.435	2.468	2.500	2.533	2.566	2.600	2.633	2.667	2.701	2.735	2.769
3	3.771	3.841	3.911	3.983	4.055	4.128	4.202	4.277	4.353	4.429	4.507	4.586	4.665
4	5.338	5.464	5.592	5.723	5.856	5.991	6.129	6.270	6.413	6.558	6.707	6.858	7.011
5	7.091	7.296	7.506	7.721	7.942	8.168	8.400	8.637	8.881	9.130	9.385	9.647	9.915
6	9.052	9.363	9.685	10.016	10.358	10.711	11.075	11.450	11.837	12.236	12.647	13.071	13.508
7	11.246	11.697	12.166	12.652	13.157	13.682	14.227	14.792	15.379	15.988	16.620	17.276	17.956
8	13.702	14.332	14.991	15.680	16.400	17.153	17.940	18.763	19.622	20.520	21.458	22.438	23.460
9	16.448	17.305	18.207	19.157	20.157	21.209	22.316	23.481	24.706	25.995	27.350	28.775	30.273
10	19.521	20.661	21.870	23.151	24.508	25.947	27.471	29.086	30.796	32.608	34.525	36.555	38.704
11	22.959	24.449	26.040	27.737	29.549	31.483	33.545	35.746	38.093	40.595	43.263	46.108	49.138
12	26.806	28.725	30.788	33.005	35.389	37.950	40.702	43.658	46.834	50.244	53.905	57.835	62.053
13	31.110	33.551	36.194	39.056	42.153	45.506	49.134	53.060	57.306	61.899	66.865	72.233	78.035
14	35.925	38.998	42.350	46.004	49.989	54.334	59.069	64.229	69.852	75.976	82.647	89.910	97.816
15	41.312	45.146	49.358	53.985	59.067	64.647	70.774	77.500	84.882	92.981	101.867	111.612	122.297
16	47.339	52.086	57.339	63.151	69.582	76.697	84.566	93.267	102.888	113.522	125.274	138.256	152.595
17	54.082	59.919	66.425	73.679	81.764	90.774	100.815	112.001	124.460	138.334	153.779	170.968	190.093
18	61.627	68.760	76.771	85.770	95.875	107.222	119.960	134.258	150.303	168.304	188.493	211.129	236.501
19	70.068	78.739	88.552	99.656	112.221	126.437	142.517	160.703	181.264	204.506	230.769	260.436	293.937
20	79.511	90.002	101.965	115.605	131.157	148.887	169.095	192.122	218.356	248.235	282.253	320.971	365.022
21	90.077	102.715	117.237	133.923	153.093	175.115	200.409	229.452	262.793	301.056	344.952	395.291	452.997
22	101.898	117.065	134.626	154.961	178.504	205.759	237.303	273.805	316.030	364.860	421.308	486.536	561.878
23	115.124	133.261	154.426	179.123	207.940	241.560	280.773	326.501	379.808	441.930	514.295	598.559	696.631
24	129.920	151.542	176.970	206.874	242.040	283.386	331.990	389.110	456.215	535.024	627.538	736.092	863.404
25	146.475	172.177	202.640	238.747	281.541	332.253	392.335	463.497	547.753	647.474	765.447	904.945	1069.807
26	164.997	195.467	231.867	275.353	327.300	389.346	463.434	551.877	657.417	783.306	933.396	1112.249	1325.256
27	185.720	221.754	265.145	317.395	380.308	456.047	547.205	656.884	788.797	947.379	1137.928	1366.761	1641.407
28	208.904	251.426	303.037	365.682	441.714	533.976	645.905	781.644	946.192	1145.567	1387.011	1679.231	2032.681
29	234.843	284.916	346.181	421.140	512.846	625.022	762.194	929.874	1134.755	1384.962	1690.350	2062.858	2516.932
30	263.864	322.717	395.305	484.834	595.248	731.392	899.209	1105.989	1360.657	1674.132	2059.763	2533.845	3116.253
31	296.333	365.384	451.238	557.987	690.703	855.665	1060.643	1315.234	1631.291	2023.427	2509.643	3112.087	3857.986
32	332.660	413.542	514.924	642.005	801.280	1000.857	1250.846	1563.843	1955.518	2445.348	3057.515	3822.008	4775.973
33	373.303	467.899	587.439	738.501	929.373	1170.486	1474.948	1859.219	2343.947	2954.994	3724.726	4693.594	5912.095
34	418.774	529.252	670.004	849.328	1077.759	1368.667	1738.988	2210.162	2809.293	3570.607	4537.271	5763.660	7318.187
35	469.649	598.503	764.015	976.614	1249.652	1600.205	2050.085	2627.123	3366.786	4314.218	5526.805	7077.405	9058.400
36	526.567	676.666	871.056	1122.804	1448.775	1870.714	2416.624	3122.522	4034.675	5212.442	6731.881	8690.319	11212.129
37	590.248	764.891	992.936	1290.706	1679.442	2186.755	2848.488	3711.115	4834.818	6297.425	8199.449	10670.530	13877.635
38	661.496	864.471	1131.709	1483.543	1946.651	2555.991	3357.318	4410.434	5793.406	7607.998	9986.686	13101.681	17176.528
39	741.208	976.868	1289.718	1705.020	2256.190	2987.376	3956.830	5241.308	6941.813	9191.067	12163.222	16086.459	21259.317
40	830.391	1103.732	1469.629	1959.389	2614.764	3491.370	4663.185	6228.484	8317.627	11103.289	14813.854	19750.940	26312.274
41	930.170	1246.926	1674.479	2251.536	3030.143	4080.195	5495.43	7401.37	9965.88	13413.10	18041.85	24249.91	32565.93
42	1041.805	1408.550	1907.723	2587.071	3511.324	4768.128	6475.99	8794.89	11940.52	16203.17	21972.98	29773.39	40305.61
43	1166.702	1590.977	2173.299	2972.438	4068.731	5571.853	7631.30	10450.56	14306.18	19573.36	26760.39	36554.70	49884.42
44	1306.439	1796.885	2475.687	3415.037	4714.441	6510.858	8992.51	12417.70	17140.28	23644.27	32590.60	44880.26	61739.38
45	1462.778	2029.296	2819.990	3923.370	5462.442	7607.913	10596.32	14754.89	20535.59	28561.62	39690.76	55101.75	76411.36
46	1637.693	2291.621	3212.018	4507.197	6328.938	8889.621	12485.95	17531.75	24603.25	34501.38	48337.49	67650.90	94569.75
47	1833.389	2587.711	3658.387	5177.731	7332.700	10387.062	14712.35	20830.99	29476.38	41676.14	58867.67	83057.78	117043.01
48	2052.336	2921.911	4166.629	5947.850	8495.475	12136.548	17335.53	24750.88	35314.48	50342.68	71691.55	101973.15	144856.45
49	2297.297	3299.127	4745.320	6832.342	9842.451	14180.502	20426.21	29408.18	42308.64	60811.18	87308.75	125195.99	179279.02
50	2571.362	3724.896	5404.226	7848.195	11402.809	16568.487	24067.70	34941.60	50687.79	73456.30	106327.71	153707.19	221881.22

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Uniform Present Value Factors

Discount Rate 2.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.980	0.990	1.000	1.010	1.020	1.029	1.039	1.049	1.059	1.069	1.078	1.088	1.098
2	1.942	1.971	2.000	2.030	2.059	2.089	2.119	2.149	2.180	2.211	2.241	2.272	2.304
3	2.884	2.942	3.000	3.059	3.119	3.180	3.242	3.304	3.367	3.431	3.496	3.561	3.628
4	3.808	3.903	4.000	4.099	4.200	4.303	4.408	4.515	4.624	4.735	4.848	4.964	5.081
5	4.713	4.855	5.000	5.149	5.302	5.459	5.620	5.785	5.955	6.129	6.307	6.490	6.678
6	5.601	5.797	6.000	6.209	6.425	6.649	6.880	7.118	7.364	7.618	7.880	8.151	8.430
7	6.472	6.731	7.000	7.280	7.571	7.874	8.189	8.516	8.856	9.209	9.577	9.958	10.355
8	7.325	7.655	8.000	8.361	8.739	9.135	9.549	9.982	10.436	10.910	11.406	11.925	12.468
9	8.162	8.570	9.000	9.453	9.930	10.433	10.963	11.520	12.108	12.727	13.379	14.066	14.788
10	8.983	9.476	10.000	10.555	11.144	11.769	12.432	13.134	13.879	14.669	15.507	16.395	17.336
11	9.787	10.374	11.000	11.669	12.383	13.145	13.958	14.827	15.755	16.745	17.802	18.930	20.134
12	10.575	11.262	12.000	12.793	13.645	14.561	15.545	16.603	17.740	18.962	20.276	21.688	23.206
13	11.348	12.142	13.000	13.928	14.932	16.018	17.194	18.466	19.842	21.332	22.945	24.690	26.579
14	12.106	13.013	14.000	15.074	16.245	17.519	18.907	20.420	22.068	23.865	25.823	27.957	30.283
15	12.849	13.876	15.000	16.232	17.583	19.064	20.688	22.470	24.425	26.571	28.927	31.512	34.350
16	13.578	14.730	16.000	17.401	18.947	20.654	22.538	24.621	26.921	29.464	32.274	35.381	38.815
17	14.292	15.576	17.000	18.581	20.338	22.291	24.462	26.876	29.563	32.554	35.884	39.591	43.719
18	14.992	16.413	18.000	19.773	21.757	23.976	26.460	29.243	32.361	35.857	39.776	44.172	49.103
19	15.678	17.242	19.000	20.977	23.203	25.710	28.537	31.725	35.324	39.386	43.975	49.158	55.015
20	16.351	18.064	20.000	22.192	24.677	27.496	30.695	34.330	38.460	43.158	48.502	54.584	61.507
21	17.011	18.877	21.000	23.420	26.181	29.334	32.938	37.061	41.782	47.188	53.384	60.488	68.635
22	17.658	19.682	22.000	24.659	27.714	31.226	35.269	39.927	45.298	51.495	58.650	66.914	76.462
23	18.292	20.479	23.000	25.911	29.277	33.174	37.691	42.933	49.022	56.098	64.328	73.906	85.056
24	18.914	21.268	24.000	27.175	30.870	35.179	40.209	46.087	52.964	61.016	70.452	81.515	94.493
25	19.523	22.050	25.000	28.451	32.495	37.243	42.825	49.395	57.138	66.273	77.056	89.796	104.855
26	20.121	22.824	26.000	29.740	34.152	39.368	45.543	52.866	61.558	71.889	84.178	98.807	116.233
27	20.707	23.591	27.000	31.041	35.841	41.555	48.369	56.506	66.238	77.891	91.859	108.614	128.727
28	21.281	24.349	28.000	32.355	37.564	43.807	51.305	60.325	71.193	84.306	100.142	119.286	142.445
29	21.844	25.101	29.000	33.682	39.320	46.125	54.356	64.331	76.440	91.160	109.075	130.899	157.508
30	22.396	25.845	30.000	35.022	41.110	48.511	57.527	68.534	81.995	98.485	118.708	143.537	174.048
31	22.938	26.582	31.000	36.375	42.936	50.967	60.822	72.942	87.877	106.312	129.097	157.291	192.210
32	23.468	27.311	32.000	37.742	44.798	53.495	64.246	77.567	94.106	114.677	140.301	172.258	212.152
33	23.989	28.034	33.000	39.122	46.696	56.098	67.805	82.418	100.700	123.615	152.383	188.545	234.049
34	24.499	28.749	34.000	40.515	48.631	58.777	71.503	87.507	107.682	133.167	165.413	206.270	258.093
35	24.999	29.458	35.000	41.922	50.604	61.536	75.346	92.846	115.075	143.375	179.465	225.558	284.494
36	25.489	30.159	36.000	43.343	52.616	64.375	79.340	98.446	122.903	154.283	194.619	246.548	313.484
37	25.969	30.854	37.000	44.777	54.667	67.298	83.491	104.321	131.192	165.939	210.962	269.391	345.316
38	26.441	31.541	38.000	46.226	56.759	70.306	87.804	110.484	139.968	178.396	228.586	294.249	380.268
39	26.903	32.222	39.000	47.689	58.891	73.404	92.287	116.948	149.260	191.708	247.593	321.300	418.647
40	27.355	32.896	40.000	49.167	61.065	76.592	96.945	123.730	159.099	205.933	268.090	350.739	460.789
41	27.799	33.564	41.000	50.658	63.282	79.874	101.786	130.845	169.516	221.134	290.196	382.774	507.063
42	28.235	34.225	42.000	52.165	65.543	83.253	106.817	138.307	180.547	237.378	314.034	417.637	557.873
43	28.662	34.880	43.000	53.686	67.848	86.731	112.045	146.136	192.226	254.738	339.743	455.575	613.664
44	29.080	35.528	44.000	55.222	70.198	90.311	117.478	154.349	204.592	273.288	367.468	496.861	674.925
45	29.490	36.170	45.000	56.773	72.594	93.997	123.124	162.964	217.686	293.112	397.367	541.790	742.193
46	29.892	36.806	46.000	58.340	75.037	97.791	128.992	172.001	231.550	314.296	429.612	590.684	816.055
47	30.287	37.435	47.000	59.922	77.528	101.696	135.090	181.482	246.229	336.934	464.385	643.891	897.158
48	30.673	38.058	48.000	61.519	80.067	105.717	141.426	191.427	261.772	361.126	501.886	701.793	986.213
49	31.052	38.675	49.000	63.132	82.657	109.856	148.012	201.860	278.229	386.977	542.328	764.804	1083.998
50	31.424	39.286	50.000	64.761	85.297	114.116	154.855	212.804	295.655	414.603	585.942	833.375	1191.371

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 2.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.108	1.118	1.127	1.137	1.147	1.157	1.167	1.176	1.186	1.196	1.206	1.216	1.225
2	2.335	2.367	2.399	2.431	2.463	2.495	2.528	2.561	2.594	2.627	2.660	2.694	2.727
3	3.695	3.763	3.832	3.901	3.972	4.043	4.116	4.189	4.263	4.338	4.414	4.490	4.568
4	5.201	5.323	5.448	5.574	5.703	5.835	5.968	6.105	6.243	6.384	6.528	6.674	6.823
5	6.870	7.067	7.269	7.477	7.689	7.907	8.130	8.358	8.592	8.832	9.078	9.330	9.587
6	8.719	9.016	9.323	9.640	9.967	10.304	10.651	11.010	11.379	11.760	12.153	12.558	12.975
7	10.767	11.195	11.639	12.100	12.580	13.077	13.593	14.129	14.685	15.262	15.861	16.482	17.126
8	13.036	13.629	14.250	14.899	15.577	16.285	17.025	17.799	18.607	19.451	20.332	21.252	22.213
9	15.549	16.350	17.193	18.081	19.014	19.996	21.030	22.116	23.259	24.461	25.724	27.052	28.447
10	18.334	19.392	20.512	21.700	22.958	24.290	25.701	27.196	28.778	30.453	32.226	34.102	36.087
11	21.419	22.791	24.254	25.815	27.481	29.257	31.152	33.172	35.325	37.621	40.067	42.673	45.450
12	24.837	26.589	28.473	30.496	32.669	35.003	37.510	40.202	43.092	46.193	49.522	53.093	56.924
13	28.623	30.835	33.229	35.819	38.620	41.651	44.929	48.473	52.305	56.447	60.923	65.760	70.986
14	32.818	35.581	38.591	41.872	45.447	49.341	53.583	58.203	63.234	68.711	74.672	81.160	88.218
15	37.465	40.884	44.637	48.757	53.277	58.238	63.681	69.651	76.199	83.380	91.252	99.880	109.336
16	42.613	46.812	51.454	56.586	62.259	68.530	75.461	83.119	91.579	100.925	111.245	122.639	135.215
17	48.316	53.437	59.139	65.490	72.562	80.437	89.204	98.963	109.825	121.910	135.354	150.306	166.930
18	54.635	60.841	67.804	75.616	84.380	94.211	105.238	117.604	131.468	147.010	164.427	183.941	205.797
19	61.635	69.116	77.573	87.132	97.936	110.146	123.944	139.534	157.144	177.032	199.486	224.830	253.428
20	69.389	78.365	88.587	100.228	113.485	128.581	145.769	165.334	187.602	212.940	241.762	274.539	311.799
21	77.980	88.702	101.005	115.123	131.321	149.908	171.230	195.687	223.734	255.889	292.743	334.968	383.332
22	87.498	100.256	115.006	132.061	151.780	174.579	200.935	231.397	266.596	307.259	354.219	408.432	470.995
23	98.042	113.168	130.791	151.324	175.248	203.121	235.591	273.408	317.442	368.702	428.352	497.741	578.425
24	109.723	127.600	148.588	173.231	202.167	236.140	276.023	322.833	377.760	442.193	517.749	606.313	710.080
25	122.663	143.729	168.653	198.146	233.045	274.339	323.193	380.980	449.313	530.093	625.550	738.302	871.421
26	136.999	161.756	191.275	226.479	268.463	318.529	378.225	449.388	534.195	635.229	755.545	898.759	1069.143
27	152.882	181.904	216.781	258.702	309.090	369.651	442.429	529.868	634.889	760.980	912.305	1093.825	1311.450
28	170.477	204.422	245.538	295.347	355.691	428.793	517.334	624.551	754.338	911.388	1101.338	1330.963	1608.395
29	189.969	229.589	277.959	337.022	409.146	497.211	604.723	735.942	896.039	1091.287	1329.290	1619.250	1972.298
30	211.564	257.717	314.513	384.418	470.461	576.362	706.677	866.990	1064.134	1306.461	1604.173	1969.715	2418.257
31	235.488	289.154	355.725	438.318	540.794	667.928	825.623	1021.165	1263.542	1563.826	1935.650	2395.771	2964.776
32	261.991	324.290	402.190	499.617	621.469	773.858	964.394	1202.547	1500.093	1871.655	2335.372	2913.722	3634.529
33	291.353	363.559	454.577	569.329	714.009	896.405	1126.293	1415.938	1780.709	2239.842	2817.390	3543.388	4455.306
34	323.882	407.449	513.641	648.609	820.158	1038.174	1315.175	1666.986	2113.596	2680.223	3398.646	4308.864	5461.159
35	359.918	456.502	580.232	738.771	941.916	1202.182	1535.537	1962.336	2508.491	3206.953	4099.573	5239.442	6693.822
36	399.840	511.325	655.311	841.308	1081.580	1391.916	1792.627	2309.807	2976.945	3836.963	4944.809	6370.733	8204.439
37	444.068	572.599	739.958	957.919	1241.783	1611.413	2092.565	2718.597	3532.661	4590.505	5964.064	7746.029	10055.685
38	493.066	641.081	835.394	1090.535	1425.545	1865.340	2442.492	3199.526	4191.891	5491.800	7193.165	9417.956	12324.368
39	547.347	717.620	942.993	1241.354	1636.331	2159.100	2850.741	3765.324	4973.920	6569.820	8675.317	11450.496	15104.618
40	607.483	803.164	1064.306	1412.873	1878.115	2498.939	3327.031	4430.970	5901.621	7859.216	10462.617	13921.427	18511.787
41	674.103	898.771	1201.080	1607.934	2155.456	2892.086	3882.70	5214.08	7002.13	9401.44	12617.89	16925.30	22687.24
42	747.909	1005.626	1355.286	1829.768	2473.582	3346.903	4530.99	6135.39	8307.63	11246.05	15216.90	20577.07	27804.21
43	829.673	1125.053	1529.146	2082.050	2838.491	3873.065	5287.32	7219.28	9856.32	13452.35	18351.00	25016.48	34075.02
44	920.256	1258.530	1725.165	2368.959	3257.063	4481.761	6169.70	8494.45	11693.49	16091.27	22130.35	30413.41	41759.83
45	1020.607	1407.710	1946.167	2695.248	3737.190	5185.940	7199.15	9994.65	13872.87	19247.61	26687.80	36974.38	51177.48
46	1131.780	1574.441	2195.335	3066.321	4287.924	6000.577	8400.18	11759.59	16458.22	23022.85	32183.55	44950.46	62718.73
47	1254.943	1760.786	2476.260	3488.326	4919.648	6943.001	9801.38	13835.98	19525.15	27538.33	38810.79	54646.88	76862.41
48	1391.388	1969.055	2792.989	3968.253	5644.272	8033.256	11436.11	16278.80	23163.38	32939.20	46802.45	66434.67	94195.36
49	1542.547	2201.827	3150.086	4514.052	6475.460	9294.531	13343.29	19152.71	27479.31	39399.06	56439.45	80764.94	115436.71
50	1710.008	2461.983	3552.695	5134.765	7428.880	10753.654	15568.34	22533.78	32599.19	47125.56	68060.55	98186.04	141467.79

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 3.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.971	0.981	0.990	1.000	1.010	1.019	1.029	1.039	1.049	1.058	1.068	1.078	1.087
2	1.913	1.942	1.971	2.000	2.029	2.059	2.088	2.118	2.148	2.178	2.209	2.239	2.270
3	2.829	2.885	2.942	3.000	3.059	3.118	3.178	3.239	3.301	3.363	3.427	3.491	3.555
4	3.717	3.810	3.904	4.000	4.098	4.198	4.300	4.404	4.510	4.617	4.727	4.839	4.954
5	4.580	4.716	4.856	5.000	5.148	5.299	5.454	5.614	5.777	5.945	6.117	6.293	6.474
6	5.417	5.605	5.799	6.000	6.207	6.421	6.642	6.870	7.106	7.349	7.600	7.859	8.127
7	6.230	6.477	6.733	7.000	7.277	7.565	7.865	8.176	8.500	8.836	9.185	9.548	9.924
8	7.020	7.332	7.658	8.000	8.358	8.732	9.123	9.532	9.961	10.409	10.877	11.367	11.879
9	7.786	8.170	8.574	9.000	9.448	9.921	10.418	10.941	11.493	12.073	12.684	13.327	14.004
10	8.530	8.992	9.481	10.000	10.550	11.133	11.750	12.405	13.099	13.835	14.614	15.440	16.315
11	9.253	9.798	10.380	11.000	11.662	12.368	13.122	13.926	14.784	15.699	16.675	17.717	18.828
12	9.954	10.588	11.269	12.000	12.785	13.628	14.533	15.505	16.550	17.672	18.876	20.171	21.561
13	10.635	11.363	12.150	13.000	13.919	14.912	15.986	17.146	18.402	19.759	21.227	22.815	24.532
14	11.296	12.123	13.022	14.000	15.064	16.221	17.480	18.851	20.344	21.969	23.738	25.665	27.763
15	11.938	12.868	13.886	15.000	16.220	17.555	19.019	20.622	22.380	24.306	26.419	28.736	31.276
16	12.561	13.599	14.742	16.000	17.387	18.916	20.602	22.462	24.515	26.781	29.283	32.045	35.097
17	13.166	14.316	15.589	17.000	18.565	20.302	22.231	24.373	26.753	29.399	32.341	35.612	39.251
18	13.754	15.018	16.428	18.000	19.755	21.716	23.907	26.358	29.100	32.170	35.606	39.456	43.768
19	14.324	15.707	17.258	19.000	20.957	23.157	25.633	28.421	31.562	35.102	39.094	43.598	48.679
20	14.877	16.383	18.081	20.000	22.170	24.626	27.409	30.563	34.142	38.205	42.819	48.062	54.020
21	15.415	17.045	18.896	21.000	23.395	26.124	29.236	32.789	36.848	41.489	46.797	52.872	59.828
22	15.937	17.695	19.703	22.000	24.632	27.650	31.117	35.101	39.685	44.964	51.045	58.057	66.143
23	16.444	18.332	20.502	23.000	25.881	29.207	33.052	37.503	42.660	48.641	55.583	63.643	73.010
24	16.936	18.956	21.293	24.000	27.141	30.793	35.044	39.998	45.780	52.533	60.428	69.664	80.477
25	17.413	19.569	22.077	25.000	28.415	32.410	37.094	42.591	49.051	56.652	65.603	76.153	88.596
26	17.877	20.170	22.853	26.000	29.700	34.059	39.203	45.283	52.480	61.010	71.129	83.145	97.425
27	18.327	20.758	23.621	27.000	30.998	35.740	41.374	48.081	56.077	65.622	77.031	90.681	107.025
28	18.764	21.336	24.382	28.000	32.309	37.453	43.608	50.987	59.847	70.503	83.334	98.802	117.464
29	19.188	21.902	25.136	29.000	33.632	39.200	45.908	54.006	63.801	75.668	90.066	107.553	128.815
30	19.600	22.458	25.882	30.000	34.969	40.981	48.274	57.142	67.947	81.134	97.254	116.985	141.158
31	20.000	23.002	26.621	31.000	36.318	42.796	50.709	60.400	72.294	86.919	104.932	127.148	154.580
32	20.389	23.536	27.353	32.000	37.680	44.646	53.215	63.784	76.852	93.040	113.131	138.102	169.174
33	20.766	24.060	28.077	33.000	39.056	46.533	55.794	67.300	81.631	99.518	121.888	149.906	185.044
34	21.132	24.573	28.795	34.000	40.445	48.455	58.448	70.953	86.642	106.374	131.239	162.627	202.300
35	21.487	25.076	29.506	35.000	41.847	50.416	61.180	74.747	91.896	113.629	141.226	176.335	221.064
36	21.832	25.570	30.210	36.000	43.263	52.414	63.991	78.689	97.406	121.306	151.892	191.109	241.468
37	22.167	26.054	30.907	37.000	44.693	54.451	66.884	82.783	103.183	129.431	163.283	207.030	263.655
38	22.492	26.529	31.597	38.000	46.136	56.528	69.861	87.037	109.240	138.029	175.448	224.188	287.780
39	22.808	26.994	32.280	39.000	47.594	58.645	72.925	91.456	115.592	147.127	188.440	242.678	314.013
40	23.115	27.451	32.957	40.000	49.066	60.803	76.078	96.046	122.252	156.756	202.314	262.605	342.538
41	23.412	27.898	33.628	41.000	50.552	63.003	79.323	100.815	129.235	166.946	217.132	284.079	373.556
42	23.701	28.337	34.291	42.000	52.052	65.246	82.663	105.769	136.557	177.729	232.956	307.221	407.285
43	23.982	28.767	34.949	43.000	53.567	67.532	86.100	110.916	144.234	189.140	249.856	332.160	443.960
44	24.254	29.189	35.600	44.000	55.097	69.863	89.636	116.262	152.285	201.216	267.904	359.037	483.840
45	24.519	29.603	36.244	45.000	56.642	72.239	93.276	121.816	160.726	213.996	287.180	388.001	527.205
46	24.775	30.009	36.883	46.000	58.201	74.661	97.022	127.585	169.576	227.520	307.765	419.215	574.358
47	25.025	30.407	37.515	47.000	59.776	77.130	100.877	133.579	178.857	241.832	329.749	452.853	625.632
48	25.267	30.797	38.141	48.000	61.366	79.647	104.845	139.805	188.588	256.978	353.227	489.103	681.387
49	25.502	31.180	38.761	49.000	62.972	82.213	108.927	146.273	198.791	273.005	378.300	528.169	742.013
50	25.730	31.555	39.375	50.000	64.593	84.829	113.129	152.993	209.490	289.967	405.078	570.270	807.936

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 3.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.097	1.107	1.117	1.126	1.136	1.146	1.155	1.165	1.175	1.184	1.194	1.204	1.214
2	2.301	2.332	2.363	2.395	2.426	2.458	2.490	2.522	2.555	2.587	2.620	2.653	2.686
3	3.621	3.688	3.755	3.823	3.892	3.962	4.032	4.104	4.176	4.249	4.323	4.398	4.474
4	5.070	5.188	5.309	5.432	5.557	5.684	5.814	5.946	6.081	6.217	6.357	6.499	6.643
5	6.659	6.849	7.044	7.244	7.448	7.658	7.873	8.093	8.318	8.549	8.785	9.027	9.275
6	8.403	8.687	8.981	9.284	9.596	9.919	10.251	10.593	10.946	11.310	11.685	12.072	12.470
7	10.316	10.722	11.144	11.582	12.037	12.509	12.998	13.507	14.034	14.581	15.149	15.737	16.347
8	12.414	12.974	13.559	14.170	14.809	15.476	16.173	16.901	17.661	18.455	19.284	20.149	21.053
9	14.717	15.466	16.255	17.085	17.957	18.875	19.841	20.856	21.923	23.044	24.223	25.461	26.763
10	17.242	18.225	19.265	20.367	21.534	22.770	24.078	25.463	26.928	28.479	30.121	31.857	33.693
11	20.014	21.278	22.626	24.064	25.597	27.231	28.974	30.830	32.809	34.917	37.163	39.555	42.103
12	23.054	24.657	26.379	28.227	30.212	32.343	34.630	37.084	39.718	42.543	45.574	48.824	52.309
13	26.389	28.397	30.568	32.916	35.455	38.199	41.164	44.370	47.833	51.575	55.617	59.982	64.696
14	30.048	32.537	35.246	38.197	41.410	44.907	48.714	52.858	57.367	62.274	67.611	73.416	79.728
15	34.062	37.118	40.469	44.144	48.174	52.593	57.437	62.747	68.567	74.945	81.933	89.588	97.971
16	38.467	42.189	46.301	50.842	55.858	61.397	67.514	74.269	81.725	89.955	99.037	109.057	120.110
17	43.298	47.801	52.811	58.385	64.586	71.484	79.157	87.691	97.182	107.733	119.461	132.496	146.978
18	48.599	54.013	60.081	66.880	74.501	83.040	92.609	103.330	115.339	128.790	143.852	160.714	179.585
19	54.415	60.888	68.197	76.448	85.763	96.279	108.150	121.549	136.671	153.732	172.979	194.684	219.156
20	60.795	68.498	77.258	87.223	98.556	111.446	126.106	142.776	161.730	183.275	207.761	235.581	267.180
21	67.794	76.920	87.376	99.358	113.088	128.822	146.850	167.506	191.168	218.268	249.297	284.816	325.461
22	75.473	86.241	98.672	113.024	129.595	148.728	170.817	196.318	225.751	259.715	298.898	344.089	396.191
23	83.898	96.558	111.285	128.415	148.346	171.533	198.507	229.885	266.377	308.808	358.131	415.447	482.028
24	93.140	107.977	125.366	145.749	169.645	197.659	230.499	268.992	314.103	366.957	428.865	501.354	586.199
25	103.280	120.616	141.088	165.271	193.839	227.590	267.460	314.554	370.169	435.833	513.334	604.776	712.620
26	114.404	134.604	158.642	187.257	221.322	261.879	310.162	367.635	436.034	517.413	614.205	729.283	866.044
27	126.609	150.086	178.242	212.017	252.541	301.163	359.498	429.478	513.409	614.043	734.662	879.176	1052.238
28	139.998	167.221	200.124	239.903	288.003	346.167	416.498	501.528	604.306	728.497	878.509	1059.629	1278.201
29	154.687	186.186	224.556	271.308	328.285	397.725	482.352	585.469	711.087	864.065	1050.288	1276.874	1552.428
30	170.802	207.177	251.834	306.677	374.042	456.792	558.436	683.265	836.529	1024.640	1255.421	1538.411	1885.229
31	188.482	230.410	282.291	346.510	426.019	524.461	646.338	797.202	983.894	1214.836	1500.386	1853.272	2289.113
32	207.878	256.123	316.296	391.371	485.060	601.984	747.896	929.944	1157.011	1440.116	1792.918	2232.327	2779.263
33	229.158	284.583	354.262	441.893	552.126	690.798	865.229	1084.595	1360.382	1706.953	2142.251	2688.666	3374.105
34	252.503	316.082	396.652	498.793	628.309	792.545	1000.789	1264.771	1599.294	2023.012	2559.416	3238.044	4096.002
35	278.115	350.946	443.980	562.873	714.846	909.110	1157.406	1474.685	1879.957	2397.374	3057.585	3899.432	4972.089
36	306.214	389.532	496.823	635.042	813.145	1042.650	1338.353	1719.244	2209.667	2840.793	3652.485	4695.666	6035.303
37	337.040	432.239	555.821	716.319	924.806	1195.638	1547.408	2004.168	2596.998	3366.007	4362.899	5654.239	7325.610
38	370.860	479.508	621.694	807.854	1051.643	1370.905	1788.937	2336.118	3052.017	3988.105	5211.258	6808.248	8891.517
39	407.962	531.824	695.241	910.943	1195.721	1571.697	2067.986	2722.856	3586.554	4724.959	6224.347	8197.542	10791.889
40	448.668	589.728	777.356	1027.042	1359.382	1801.731	2390.382	3173.425	4214.505	5597.738	7434.152	9870.089	13098.167
41	493.325	653.815	869.038	1157.795	1545.288	2065.265	2762.86	3698.36	4952.19	6631.52	8878.87	11883.64	15897.05
42	542.317	724.747	971.402	1305.051	1756.464	2367.177	3193.20	4309.93	5818.80	7855.99	10604.12	14307.72	19293.75
43	596.067	803.254	1085.691	1470.892	1996.342	2713.057	3690.38	5022.45	6836.85	9306.34	12664.36	17226.04	23415.95
44	655.034	890.145	1213.296	1657.665	2268.825	3109.308	4264.80	5852.56	8032.82	11024.22	15124.66	20739.34	28418.63
45	719.727	986.315	1355.768	1868.011	2578.345	3563.266	4928.45	6819.68	9437.79	13059.00	18062.68	24968.96	34489.85
46	790.700	1092.757	1514.838	2104.906	2929.936	4083.334	5695.19	7946.42	11088.28	15469.13	21571.19	30060.92	41857.82
47	868.564	1210.566	1692.440	2371.700	3329.316	4679.140	6581.03	9259.13	13027.22	18323.84	25760.96	36191.05	50799.54
48	953.988	1340.956	1890.734	2672.167	3782.980	5361.713	7604.48	10788.51	15304.99	21705.15	30764.29	43571.01	61651.15
49	1047.705	1485.272	2112.130	3010.557	4298.307	6143.691	8786.92	12570.30	17980.83	25710.20	36739.13	52455.63	74820.56
50	1150.521	1645.000	2359.320	3391.656	4883.679	7039.549	10153.03	14646.17	21124.28	30454.04	43874.14	63151.67	90802.87

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 4.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.962	0.971	0.981	0.990	1.000	1.010	1.019	1.029	1.038	1.048	1.058	1.067	1.077
2	1.886	1.914	1.943	1.971	2.000	2.029	2.058	2.087	2.117	2.147	2.176	2.206	2.237
3	2.775	2.830	2.886	2.943	3.000	3.058	3.117	3.176	3.237	3.298	3.360	3.422	3.486
4	3.630	3.720	3.811	3.905	4.000	4.097	4.196	4.297	4.400	4.504	4.611	4.720	4.831
5	4.452	4.584	4.719	4.858	5.000	5.146	5.296	5.450	5.607	5.769	5.935	6.105	6.279
6	5.242	5.423	5.609	5.801	6.000	6.205	6.417	6.636	6.862	7.095	7.335	7.583	7.839
7	6.002	6.237	6.482	6.736	7.000	7.274	7.560	7.856	8.164	8.484	8.816	9.161	9.519
8	6.733	7.028	7.338	7.662	8.000	8.354	8.724	9.111	9.516	9.940	10.382	10.845	11.328
9	7.435	7.797	8.178	8.578	9.000	9.444	9.911	10.403	10.921	11.466	12.039	12.642	13.277
10	8.111	8.543	9.001	9.486	10.000	10.544	11.121	11.732	12.379	13.065	13.791	14.560	15.375
11	8.760	9.268	9.809	10.385	11.000	11.655	12.354	13.099	13.894	14.741	15.644	16.608	17.634
12	9.385	9.972	10.601	11.276	12.000	12.777	13.611	14.506	15.467	16.498	17.605	18.793	20.068
13	9.986	10.655	11.378	12.158	13.000	13.910	14.892	15.953	17.100	18.339	19.678	21.125	22.688
14	10.563	11.319	12.140	13.031	14.000	15.053	16.198	17.442	18.796	20.269	21.871	23.614	25.511
15	11.118	11.964	12.887	13.896	15.000	16.207	17.528	18.974	20.558	22.291	24.190	26.271	28.550
16	11.652	12.590	13.620	14.753	16.000	17.373	18.885	20.551	22.387	24.411	26.644	29.106	31.823
17	12.166	13.198	14.339	15.602	17.000	18.549	20.267	22.172	24.286	26.633	29.239	32.133	35.348
18	12.659	13.788	15.044	16.442	18.000	19.737	21.676	23.841	26.259	28.961	31.983	35.363	39.144
19	13.134	14.362	15.735	17.274	19.000	20.937	23.112	25.557	28.307	31.402	34.886	38.810	43.232
20	13.590	14.918	16.413	18.099	20.000	22.148	24.576	27.323	30.434	33.960	37.956	42.490	47.634
21	14.029	15.459	17.079	18.915	21.000	23.370	26.068	29.140	32.643	36.640	41.204	46.417	52.375
22	14.451	15.984	17.731	19.723	22.000	24.605	27.588	31.010	34.937	39.450	44.639	50.608	57.481
23	14.857	16.495	18.371	20.524	23.000	25.851	29.138	32.933	37.320	42.395	48.272	55.082	62.980
24	15.247	16.990	18.998	21.317	24.000	27.109	30.718	34.912	39.793	45.481	52.114	59.857	68.901
25	15.622	17.471	19.614	22.103	25.000	28.379	32.327	36.948	42.362	48.716	56.178	64.953	75.278
26	15.983	17.938	20.217	22.880	26.000	29.662	33.968	39.043	45.030	52.106	60.477	70.392	82.146
27	16.330	18.392	20.809	23.651	27.000	30.957	35.641	41.198	47.801	55.659	65.024	76.197	89.542
28	16.663	18.832	21.390	24.414	28.000	32.264	37.346	43.415	50.678	59.383	69.833	82.393	97.506
29	16.984	19.260	21.959	25.169	29.000	33.584	39.083	45.696	53.665	63.286	74.920	89.006	106.084
30	17.292	19.676	22.518	25.918	30.000	34.916	40.854	48.043	56.768	67.377	80.300	96.065	115.321
31	17.588	20.079	23.065	26.659	31.000	36.262	42.659	50.458	59.989	71.664	85.990	103.598	125.269
32	17.874	20.471	23.603	27.393	32.000	37.620	44.498	52.942	63.335	76.157	92.009	111.638	135.982
33	18.148	20.852	24.130	28.120	33.000	38.991	46.373	55.498	66.810	80.867	98.374	120.219	147.519
34	18.411	21.222	24.646	28.840	34.000	40.376	48.284	58.128	70.418	85.803	105.108	129.378	159.943
35	18.665	21.581	25.153	29.553	35.000	41.774	50.232	60.833	74.165	90.976	112.229	139.154	173.323
36	18.908	21.929	25.650	30.259	36.000	43.185	52.217	63.617	78.055	96.398	119.762	149.587	187.733
37	19.143	22.268	26.138	30.959	37.000	44.610	54.241	66.481	82.096	102.081	127.729	160.723	203.251
38	19.368	22.597	26.616	31.651	38.000	46.048	56.303	69.428	86.292	108.036	136.155	172.608	219.962
39	19.584	22.916	27.085	32.338	39.000	47.501	58.405	72.459	90.649	114.279	145.068	185.293	237.959
40	19.793	23.226	27.545	33.017	40.000	48.967	60.547	75.578	95.174	120.821	154.495	198.832	257.341
41	19.993	23.527	27.996	33.690	41.000	50.447	62.731	78.787	99.873	127.678	164.466	213.282	278.213
42	20.186	23.820	28.438	34.356	42.000	51.942	64.957	82.089	104.753	134.864	175.012	228.705	300.691
43	20.371	24.104	28.872	35.016	43.000	53.451	67.225	85.486	109.821	142.396	186.167	245.166	324.898
44	20.549	24.380	29.297	35.670	44.000	54.975	69.537	88.980	115.083	150.290	197.965	262.735	350.967
45	20.720	24.648	29.715	36.317	45.000	56.513	71.893	92.576	120.548	158.563	210.443	281.487	379.042
46	20.885	24.908	30.124	36.959	46.000	58.066	74.295	96.275	126.223	167.235	223.642	301.500	409.276
47	21.043	25.160	30.526	37.594	47.000	59.634	76.743	100.081	132.116	176.323	237.602	322.861	441.836
48	21.195	25.406	30.919	38.223	48.000	61.217	79.238	103.997	138.236	185.848	252.368	345.659	476.900
49	21.341	25.644	31.305	38.845	49.000	62.815	81.781	108.026	144.591	195.831	267.985	369.992	514.661
50	21.482	25.876	31.684	39.462	50.000	64.429	84.373	112.171	151.191	206.294	284.504	395.962	555.328

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 4.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.087	1.096	1.106	1.115	1.125	1.135	1.144	1.154	1.163	1.173	1.183	1.192	1.202
2	2.267	2.298	2.328	2.359	2.391	2.422	2.453	2.485	2.517	2.549	2.581	2.614	2.647
3	3.550	3.615	3.681	3.747	3.814	3.883	3.952	4.021	4.092	4.163	4.236	4.309	4.383
4	4.944	5.059	5.176	5.295	5.416	5.540	5.666	5.794	5.924	6.057	6.192	6.330	6.470
5	6.458	6.641	6.829	7.021	7.218	7.420	7.627	7.839	8.056	8.279	8.506	8.739	8.978
6	8.103	8.376	8.657	8.947	9.246	9.554	9.871	10.199	10.537	10.884	11.243	11.612	11.993
7	9.891	10.277	10.678	11.094	11.526	11.974	12.439	12.922	13.422	13.941	14.480	15.038	15.616
8	11.834	12.362	12.913	13.490	14.092	14.721	15.378	16.064	16.780	17.527	18.308	19.122	19.972
9	13.944	14.646	15.385	16.162	16.979	17.837	18.740	19.689	20.686	21.734	22.835	23.992	25.206
10	16.237	17.151	18.118	19.142	20.226	21.373	22.587	23.872	25.231	26.669	28.190	29.798	31.498
11	18.729	19.896	21.140	22.466	23.879	25.385	26.989	28.698	30.519	32.458	34.522	36.720	39.060
12	21.436	22.905	24.482	26.174	27.989	29.937	32.026	34.267	36.671	39.248	42.012	44.974	48.149
13	24.378	26.204	28.177	30.309	32.613	35.101	37.789	40.693	43.829	47.215	50.870	54.816	59.074
14	27.574	29.820	32.263	34.922	37.814	40.961	44.384	48.107	52.156	56.559	61.346	66.549	72.204
15	31.047	33.783	36.781	40.067	43.666	47.610	51.930	56.662	61.845	67.522	73.736	80.539	87.986
16	34.820	38.128	41.778	45.805	50.249	55.153	60.564	66.533	73.118	80.381	88.390	97.220	106.954
17	38.920	42.890	47.302	52.206	57.655	63.712	70.443	77.923	86.234	95.466	105.721	117.109	129.752
18	43.375	48.110	53.411	59.345	65.987	73.424	81.748	91.065	101.493	113.162	126.218	140.822	157.154
19	48.215	53.832	60.166	67.308	75.361	84.442	94.683	106.229	119.247	133.921	150.460	169.095	190.089
20	53.474	60.105	67.635	76.189	85.906	96.944	109.483	123.726	139.903	158.273	179.130	202.806	229.674
21	59.188	66.980	75.895	86.096	97.769	111.129	126.418	143.914	163.935	186.839	213.039	242.999	277.253
22	65.397	74.517	85.028	97.145	111.115	127.223	145.796	167.209	191.895	220.350	253.142	290.922	334.438
23	72.142	82.778	95.127	109.470	126.130	145.484	167.968	194.087	224.426	259.661	300.571	348.061	403.171
24	79.472	91.834	106.294	123.216	143.021	166.203	193.338	225.101	262.275	305.775	356.666	416.188	485.782
25	87.436	101.760	118.643	138.549	162.023	189.711	222.368	260.885	306.310	359.870	423.009	497.417	585.075
26	96.089	112.641	132.297	155.650	183.401	216.383	255.584	302.175	357.543	423.329	501.472	594.266	704.417
27	105.491	124.568	147.396	174.725	207.452	246.646	293.592	349.818	417.151	497.770	594.270	709.741	847.857
28	115.707	137.641	164.092	196.001	234.508	280.984	337.081	404.790	486.503	585.096	704.021	847.422	1020.261
29	126.806	151.972	182.554	219.732	264.946	319.943	386.843	468.219	567.191	687.536	833.823	1011.580	1227.477
30	138.866	167.681	202.968	246.201	299.190	364.147	443.782	541.407	661.068	807.705	987.339	1207.306	1476.535
31	151.970	184.901	225.541	275.725	337.713	414.301	508.933	625.854	770.291	948.674	1168.901	1440.673	1775.883
32	166.208	203.776	250.503	308.655	381.053	471.207	583.481	723.293	897.368	1114.040	1383.633	1718.918	2135.677
33	181.678	224.466	278.104	345.384	429.809	535.773	668.781	835.722	1045.216	1308.028	1637.595	2050.671	2568.121
34	198.487	247.145	308.624	386.351	484.660	609.031	766.384	965.449	1217.232	1535.590	1937.954	2446.223	3087.886
35	216.750	272.005	342.373	432.046	546.368	692.151	878.064	1115.134	1417.366	1802.539	2293.186	2917.843	3712.603
36	236.594	299.256	379.691	483.012	615.789	786.460	1005.852	1287.846	1650.215	2115.690	2713.316	3480.159	4463.466
37	258.155	329.126	420.957	539.860	693.888	893.464	1152.071	1487.130	1921.125	2483.040	3210.201	4150.613	5365.944
38	281.582	361.869	466.587	603.267	781.748	1014.872	1319.380	1717.074	2236.318	2913.970	3797.862	4950.000	6450.654
39	307.036	397.761	517.043	673.990	880.592	1152.624	1510.819	1982.393	2603.034	3419.484	4492.885	5903.116	7754.392
40	334.693	437.103	572.836	752.874	991.791	1308.920	1729.870	2288.530	3029.693	4012.490	5314.883	7039.522	9321.385
41	364.743	480.228	634.531	840.859	1116.890	1486.255	1980.51	2641.77	3526.09	4708.13	6287.05	8394.47	11204.79
42	397.394	527.500	702.750	938.997	1257.626	1687.463	2267.31	3049.34	4103.64	5524.18	7436.83	10009.98	13468.50
43	432.870	579.318	778.185	1048.458	1415.954	1915.756	2595.47	3519.63	4775.59	6481.46	8796.67	11936.17	16189.30
44	471.417	636.117	861.599	1170.549	1594.074	2174.781	2970.96	4062.26	5557.38	7604.42	10404.93	14232.78	19459.49
45	513.299	698.379	953.836	1306.728	1794.458	2468.674	3400.61	4688.38	6466.96	8921.74	12307.02	16971.05	23390.02
46	558.806	766.627	1055.828	1458.619	2019.890	2802.130	3892.23	5410.82	7525.22	10467.06	14556.60	20235.90	28114.20
47	608.250	841.437	1168.608	1628.037	2273.501	3180.475	4454.75	6244.41	8756.47	12279.84	17217.16	24128.61	33792.31
48	661.974	923.440	1293.316	1817.003	2558.814	3609.750	5098.40	7206.25	10188.98	14406.37	20363.79	28769.92	40616.96
49	720.347	1013.329	1431.215	2027.772	2879.791	4096.813	5834.90	8316.05	11855.65	16900.96	24085.28	34303.79	48819.66
50	783.771	1111.860	1583.699	2262.861	3240.890	4649.442	6677.61	9596.60	13794.75	19827.29	28486.65	40901.87	58678.68

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 5.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.952	0.962	0.971	0.981	0.990	1.000	1.010	1.019	1.029	1.038	1.048	1.057	1.067
2	1.859	1.887	1.915	1.943	1.972	2.000	2.029	2.058	2.087	2.116	2.145	2.175	2.204
3	2.723	2.777	2.832	2.887	2.943	3.000	3.058	3.116	3.175	3.234	3.295	3.356	3.418
4	3.546	3.633	3.722	3.813	3.906	4.000	4.096	4.194	4.294	4.396	4.499	4.605	4.713
5	4.329	4.457	4.587	4.721	4.859	5.000	5.145	5.293	5.445	5.601	5.761	5.925	6.093
6	5.076	5.249	5.428	5.612	5.803	6.000	6.203	6.413	6.629	6.853	7.083	7.321	7.566
7	5.786	6.011	6.244	6.487	6.738	7.000	7.272	7.554	7.847	8.152	8.468	8.797	9.137
8	6.463	6.744	7.037	7.344	7.665	8.000	8.351	8.717	9.100	9.501	9.919	10.356	10.813
9	7.108	7.449	7.808	8.185	8.582	9.000	9.440	9.902	10.389	10.901	11.439	12.005	12.601
10	7.722	8.127	8.556	9.010	9.491	10.000	10.539	11.110	11.714	12.354	13.031	13.748	14.508
11	8.306	8.779	9.283	9.819	10.391	11.000	11.649	12.340	13.077	13.863	14.699	15.591	16.541
12	8.863	9.407	9.989	10.613	11.282	12.000	12.769	13.595	14.480	15.429	16.447	17.539	18.711
13	9.394	10.010	10.675	11.392	12.166	13.000	13.901	14.873	15.922	17.055	18.278	19.599	21.025
14	9.899	10.591	11.342	12.156	13.040	14.000	15.042	16.175	17.405	18.743	20.196	21.776	23.493
15	10.380	11.149	11.989	12.905	13.906	15.000	16.195	17.502	18.931	20.495	22.205	24.077	26.126
16	10.838	11.686	12.618	13.641	14.764	16.000	17.359	18.854	20.501	22.313	24.310	26.510	28.934
17	11.274	12.203	13.229	14.362	15.614	17.000	18.534	20.233	22.115	24.202	26.515	29.082	31.930
18	11.690	12.700	13.822	15.069	16.456	18.000	19.720	21.637	23.775	26.162	28.826	31.801	35.125
19	12.085	13.178	14.399	15.763	17.290	19.000	20.917	23.068	25.483	28.196	31.246	34.676	38.534
20	12.462	13.638	14.959	16.444	18.116	20.000	22.126	24.527	27.240	30.309	33.782	37.714	42.169
21	12.821	14.080	15.503	17.111	18.934	21.000	23.346	26.013	29.047	32.501	36.438	40.926	46.047
22	13.163	14.506	16.031	17.766	19.744	22.000	24.578	27.527	30.905	34.778	39.221	44.322	50.184
23	13.489	14.915	16.545	18.409	20.546	23.000	25.822	29.071	32.817	37.141	42.136	47.912	54.596
24	13.799	15.309	17.043	19.039	21.341	24.000	27.077	30.644	34.783	39.594	45.190	51.707	59.302
25	14.094	15.688	17.528	19.658	22.128	25.000	28.345	32.246	36.805	42.140	48.389	55.719	64.323
26	14.375	16.052	17.998	20.264	22.908	26.000	29.624	33.880	38.886	44.783	51.741	59.960	69.678
27	14.643	16.402	18.456	20.859	23.680	27.000	30.916	35.544	41.025	47.527	55.253	64.443	75.389
28	14.898	16.739	18.900	21.443	24.445	28.000	32.220	37.240	43.226	50.376	58.931	69.183	81.482
29	15.141	17.064	19.331	22.015	25.203	29.000	33.536	38.968	45.490	53.333	62.785	74.193	87.981
30	15.372	17.375	19.750	22.577	25.953	30.000	34.865	40.730	47.818	56.403	66.823	79.490	94.913
31	15.593	17.675	20.157	23.128	26.697	31.000	36.206	42.525	50.213	59.590	71.052	85.090	102.307
32	15.803	17.964	20.553	23.668	27.433	32.000	37.561	44.354	52.676	62.898	75.483	91.009	110.194
33	16.003	18.242	20.937	24.198	28.162	33.000	38.928	46.218	55.209	66.332	80.126	97.267	118.607
34	16.193	18.509	21.310	24.718	28.884	34.000	40.308	48.117	57.815	69.897	84.989	103.882	127.581
35	16.374	18.765	21.673	25.229	29.600	35.000	41.702	50.052	60.496	73.598	90.083	110.875	137.153
36	16.547	19.012	22.025	25.729	30.308	36.000	43.108	52.025	63.253	77.440	95.421	118.268	147.363
37	16.711	19.250	22.367	26.220	31.010	37.000	44.529	54.035	66.089	81.428	101.012	126.083	158.254
38	16.868	19.479	22.700	26.701	31.705	38.000	45.962	56.083	69.005	85.568	106.870	134.345	169.871
39	17.017	19.698	23.023	27.174	32.394	39.000	47.409	58.170	72.006	89.866	113.007	143.079	182.262
40	17.159	19.910	23.336	27.637	33.076	40.000	48.870	60.298	75.091	94.328	119.435	152.312	195.480
41	17.294	20.113	23.641	28.092	33.751	41.000	50.345	62.465	78.266	98.959	126.170	162.073	209.578
42	17.423	20.309	23.937	28.537	34.420	42.000	51.834	64.674	81.530	103.767	133.226	172.391	224.617
43	17.546	20.497	24.224	28.975	35.083	43.000	53.338	66.925	84.888	108.759	140.618	183.299	240.658
44	17.663	20.678	24.504	29.404	35.739	44.000	54.855	69.219	88.342	113.940	148.362	194.831	257.769
45	17.774	20.853	24.775	29.825	36.389	45.000	56.387	71.556	91.895	119.318	156.474	207.021	276.020
46	17.880	21.020	25.039	30.238	37.033	46.000	57.934	73.938	95.549	124.902	164.973	219.908	295.488
47	17.981	21.181	25.295	30.643	37.671	47.000	59.495	76.366	99.308	130.698	173.876	233.531	316.254
48	18.077	21.336	25.543	31.040	38.303	48.000	61.071	78.839	103.173	136.715	183.204	247.933	338.404
49	18.169	21.485	25.785	31.430	38.928	49.000	62.662	81.360	107.150	142.962	192.975	263.158	362.031
50	18.256	21.629	26.020	31.812	39.548	50.000	64.268	83.929	111.240	149.446	203.212	279.253	387.233

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 5.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.076	1.086	1.095	1.105	1.114	1.124	1.133	1.143	1.152	1.162	1.171	1.181	1.190
2	2.234	2.264	2.295	2.325	2.356	2.387	2.418	2.449	2.480	2.512	2.544	2.576	2.608
3	3.481	3.544	3.609	3.674	3.739	3.806	3.873	3.942	4.011	4.081	4.151	4.223	4.295
4	4.822	4.934	5.047	5.163	5.281	5.401	5.523	5.648	5.774	5.903	6.034	6.168	6.303
5	6.266	6.442	6.623	6.809	6.999	7.194	7.393	7.597	7.807	8.021	8.240	8.465	8.695
6	7.819	8.080	8.349	8.627	8.913	9.208	9.512	9.825	10.148	10.481	10.824	11.177	11.541
7	9.491	9.859	10.240	10.636	11.046	11.472	11.914	12.372	12.847	13.340	13.851	14.381	14.930
8	11.291	11.789	12.310	12.854	13.423	14.016	14.636	15.282	15.957	16.662	17.397	18.164	18.964
9	13.227	13.886	14.578	15.306	16.071	16.875	17.720	18.608	19.541	20.521	21.551	22.632	23.767
10	15.311	16.162	17.062	18.014	19.022	20.088	21.216	22.410	23.671	25.006	26.417	27.908	29.484
11	17.554	18.633	19.782	21.006	22.310	23.699	25.179	26.754	28.431	30.216	32.117	34.139	36.291
12	19.967	21.315	22.761	24.312	25.974	27.757	29.669	31.719	33.916	36.270	38.794	41.498	44.394
13	22.565	24.228	26.024	27.963	30.057	32.318	34.758	37.393	40.236	43.305	46.615	50.188	54.041
14	25.360	27.390	29.598	31.997	34.606	37.443	40.526	43.877	47.520	51.478	55.778	60.450	65.524
15	28.369	30.824	33.512	36.454	39.676	43.202	47.063	51.288	55.913	60.974	66.512	72.570	79.196
16	31.606	34.552	37.799	41.378	45.324	49.675	54.471	59.758	65.586	72.008	79.085	86.882	95.471
17	35.091	38.599	42.494	46.818	51.619	56.949	62.867	69.438	76.732	84.828	93.814	103.785	114.847
18	38.840	42.993	47.636	52.827	58.632	65.124	72.383	80.500	89.577	99.724	111.068	123.746	137.913
19	42.876	47.764	53.268	59.466	66.447	74.310	83.167	93.143	104.379	117.032	131.279	147.319	165.372
20	47.219	52.944	59.436	66.801	75.156	84.635	95.390	107.592	121.437	137.142	154.956	175.157	198.062
21	51.893	58.568	66.192	74.904	84.859	96.237	109.242	124.105	141.094	160.508	182.691	208.033	236.979
22	56.923	64.673	73.591	83.856	95.671	109.276	124.940	142.978	163.746	187.657	215.181	246.858	283.308
23	62.336	71.303	81.695	93.745	107.720	123.929	142.733	164.546	189.850	219.201	253.240	292.709	338.462
24	68.161	78.500	90.571	104.671	121.145	140.396	162.897	189.195	219.932	255.853	297.824	346.856	404.121
25	74.431	86.314	100.292	116.741	136.104	158.903	185.750	217.366	254.598	298.438	350.051	410.802	482.287
26	81.178	94.798	110.939	130.076	152.773	179.700	211.650	249.561	294.546	347.919	411.232	486.318	575.342
27	88.439	104.010	122.600	144.808	171.347	203.072	241.003	286.356	340.582	405.410	482.900	575.500	686.122
28	96.254	114.010	135.371	161.083	192.044	229.339	274.270	328.407	393.632	472.210	566.854	680.819	818.002
29	104.663	124.868	149.359	179.063	215.106	258.857	311.973	376.465	454.767	549.825	665.201	805.196	975.002
30	113.714	136.657	164.679	198.927	240.804	292.029	354.702	431.388	525.217	640.006	780.406	952.079	1161.908
31	123.454	149.456	181.458	220.871	269.439	329.309	403.129	494.158	606.402	744.788	915.362	1125.540	1384.414
32	133.936	163.353	199.835	245.115	301.346	371.205	458.013	565.895	699.959	866.535	1073.452	1330.391	1649.302
33	145.217	178.440	219.962	271.898	336.900	418.287	520.215	647.880	807.772	1007.993	1258.644	1572.309	1964.645
34	157.357	194.820	242.006	301.488	376.517	471.199	590.711	741.577	932.013	1172.354	1475.583	1858.003	2340.054
35	170.423	212.605	266.149	334.177	420.662	530.662	670.605	848.659	1075.187	1363.325	1729.712	2195.394	2786.969
36	184.483	231.914	292.592	370.291	469.852	597.486	761.153	971.039	1240.177	1585.216	2027.405	2593.837	3319.011
37	199.615	252.878	321.553	410.188	524.664	672.585	863.773	1110.902	1430.309	1843.032	2376.132	3064.379	3952.394
38	215.900	275.639	353.273	454.265	585.739	756.981	980.076	1270.745	1649.413	2142.589	2784.640	3620.066	4706.421
39	233.426	300.351	388.013	502.959	653.795	851.826	1111.886	1453.423	1901.905	2490.646	3263.178	4276.307	5604.073
40	252.287	327.181	426.062	556.755	729.629	958.414	1261.271	1662.198	2192.871	2895.056	3823.752	5051.296	6672.706
41	272.585	356.311	467.734	616.186	814.129	1078.199	1430.57	1900.80	2528.18	3364.94	4480.42	5966.52	7944.89
42	294.430	387.938	513.376	681.844	908.287	1212.814	1622.45	2173.48	2914.57	3910.90	5249.67	7047.36	9459.39
43	317.939	422.275	563.364	754.380	1013.206	1364.096	1839.91	2485.12	3359.85	4545.26	6150.78	8323.77	11262.37
44	343.239	459.556	618.113	834.515	1130.115	1534.107	2086.37	2841.28	3872.98	5282.32	7206.37	9831.16	13408.77
45	370.467	500.032	678.076	923.045	1260.385	1725.168	2365.68	3248.32	4464.30	6138.71	8442.92	11611.32	15964.02
46	399.769	543.978	743.750	1020.850	1405.543	1939.884	2682.24	3713.51	5145.73	7133.76	9891.45	13713.59	19005.97
47	431.304	591.690	815.679	1128.901	1567.291	2181.184	3041.00	4245.16	5930.99	8289.92	11588.30	16196.28	22627.35
48	465.241	643.492	894.457	1248.271	1747.525	2452.360	3447.60	4852.75	6835.91	9633.25	13576.04	19128.22	26938.51
49	501.764	699.734	980.739	1380.147	1948.356	2757.109	3908.42	5547.14	7878.73	11194.09	15904.53	22590.69	32070.84
50	541.070	760.797	1075.238	1525.839	2172.139	3099.589	4430.67	6340.74	9080.45	13007.62	18632.19	26679.71	38180.77

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 6.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.943	0.953	0.962	0.972	0.981	0.991	1.000	1.009	1.019	1.028	1.038	1.047	1.057
2	1.833	1.861	1.888	1.916	1.944	1.972	2.000	2.028	2.057	2.086	2.115	2.144	2.173
3	2.673	2.726	2.779	2.833	2.888	2.944	3.000	3.057	3.115	3.173	3.232	3.292	3.353
4	3.465	3.550	3.637	3.725	3.815	3.907	4.000	4.095	4.192	4.291	4.392	4.494	4.599
5	4.212	4.335	4.462	4.591	4.724	4.860	5.000	5.143	5.290	5.441	5.595	5.754	5.916
6	4.917	5.084	5.256	5.433	5.616	5.805	6.000	6.201	6.409	6.623	6.844	7.072	7.307
7	5.582	5.797	6.019	6.251	6.491	6.741	7.000	7.269	7.549	7.839	8.140	8.453	8.778
8	6.210	6.476	6.755	7.046	7.350	7.668	8.000	8.347	8.710	9.089	9.485	9.899	10.331
9	6.802	7.124	7.462	7.818	8.192	8.586	9.000	9.435	9.893	10.375	10.881	11.413	11.972
10	7.360	7.740	8.143	8.568	9.019	9.496	10.000	10.534	11.099	11.697	12.329	12.998	13.707
11	7.887	8.328	8.798	9.298	9.830	10.397	11.000	11.643	12.327	13.056	13.832	14.659	15.539
12	8.384	8.888	9.428	10.006	10.625	11.289	12.000	12.762	13.578	14.454	15.392	16.397	17.475
13	8.853	9.422	10.034	10.695	11.406	12.173	13.000	13.892	14.854	15.891	17.010	18.218	19.521
14	9.295	9.930	10.618	11.364	12.172	13.049	14.000	15.032	16.153	17.369	18.690	20.125	21.683
15	9.712	10.414	11.180	12.014	12.924	13.916	15.000	16.183	17.476	18.889	20.433	22.121	23.967
16	10.106	10.876	11.720	12.645	13.661	14.776	16.000	17.346	18.825	20.452	22.242	24.212	26.380
17	10.477	11.316	12.240	13.259	14.384	15.627	17.000	18.519	20.199	22.059	24.119	26.401	28.930
18	10.828	11.735	12.740	13.856	15.094	16.470	18.000	19.703	21.599	23.712	26.067	28.693	31.624
19	11.158	12.134	13.222	14.435	15.790	17.305	19.000	20.898	23.025	25.411	28.088	31.094	34.470
20	11.470	12.515	13.685	14.998	16.473	18.132	20.000	22.105	24.479	27.159	30.186	33.608	37.478
21	11.764	12.877	14.131	15.546	17.144	18.952	21.000	23.323	25.959	28.955	32.363	36.240	40.656
22	12.042	13.223	14.560	16.077	17.801	19.764	22.000	24.552	27.468	30.803	34.622	38.997	44.014
23	12.303	13.552	14.973	16.594	18.447	20.568	23.000	25.793	29.005	32.703	36.966	41.884	47.562
24	12.550	13.865	15.370	17.096	19.080	21.364	24.000	27.046	30.571	34.657	39.398	44.906	51.311
25	12.783	14.164	15.752	17.584	19.701	22.153	25.000	28.311	32.167	36.666	41.923	48.072	55.272
26	13.003	14.449	16.120	18.058	20.310	22.935	26.000	29.587	33.793	38.732	44.543	51.386	59.457
27	13.211	14.720	16.474	18.519	20.908	23.709	27.000	30.876	35.449	40.857	47.261	54.858	63.879
28	13.406	14.979	16.815	18.966	21.495	24.476	28.000	32.176	37.137	43.042	50.082	58.492	68.552
29	13.591	15.225	17.143	19.401	22.070	25.236	29.000	33.489	38.857	45.288	53.010	62.299	73.488
30	13.765	15.460	17.458	19.824	22.635	25.988	30.000	34.815	40.609	47.598	56.048	66.284	78.705
31	13.929	15.683	17.761	20.234	23.189	26.734	31.000	36.153	42.394	49.973	59.201	70.458	84.216
32	14.084	15.896	18.053	20.633	23.733	27.472	32.000	37.503	44.212	52.416	62.473	74.829	90.040
33	14.230	16.099	18.334	21.021	24.266	28.203	33.000	38.866	46.065	54.928	65.868	79.406	96.193
34	14.368	16.293	18.605	21.398	24.789	28.928	34.000	40.242	47.953	57.511	69.391	84.198	102.695
35	14.498	16.477	18.865	21.764	25.303	29.645	35.000	41.631	49.877	60.167	73.048	89.217	109.564
36	14.621	16.653	19.115	22.120	25.807	30.356	36.000	43.034	51.837	62.898	76.842	94.473	116.822
37	14.737	16.820	19.356	22.465	26.301	31.061	37.000	44.449	53.834	65.706	80.779	99.976	124.492
38	14.846	16.979	19.588	22.801	26.786	31.758	38.000	45.878	55.869	68.594	84.865	105.739	132.595
39	14.949	17.131	19.811	23.128	27.261	32.449	39.000	47.320	57.942	71.564	89.105	111.774	141.157
40	15.046	17.276	20.026	23.445	27.728	33.133	40.000	48.776	60.054	74.617	93.506	118.093	150.204
41	15.138	17.414	20.232	23.753	28.186	33.811	41.000	50.245	62.206	77.758	98.072	124.711	159.762
42	15.225	17.545	20.431	24.052	28.635	34.483	42.000	51.729	64.398	80.987	102.810	131.641	169.862
43	15.306	17.671	20.623	24.343	29.076	35.148	43.000	53.226	66.632	84.307	107.728	138.898	180.533
44	15.383	17.790	20.807	24.626	29.509	35.807	44.000	54.738	68.908	87.721	112.831	146.496	191.809
45	15.456	17.904	20.984	24.901	29.933	36.460	45.000	56.264	71.227	91.232	118.126	154.454	203.723
46	15.524	18.012	21.154	25.168	30.350	37.107	46.000	57.804	73.590	94.843	123.622	162.787	216.311
47	15.589	18.115	21.318	25.427	30.758	37.747	47.000	59.359	75.997	98.555	129.324	171.512	229.611
48	15.650	18.213	21.476	25.679	31.159	38.382	48.000	60.928	78.450	102.373	135.242	180.650	243.665
49	15.708	18.307	21.628	25.924	31.552	39.010	49.000	62.512	80.949	106.298	141.383	190.218	258.514
50	15.762	18.396	21.774	26.162	31.938	39.633	50.000	64.112	83.495	110.335	147.756	200.238	274.203

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 6.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.066	1.075	1.085	1.094	1.104	1.113	1.123	1.132	1.142	1.151	1.160	1.170	1.179
2	2.202	2.232	2.262	2.292	2.322	2.352	2.383	2.414	2.445	2.476	2.507	2.538	2.570
3	3.414	3.476	3.539	3.602	3.667	3.732	3.798	3.865	3.932	4.000	4.069	4.139	4.210
4	4.705	4.814	4.924	5.037	5.151	5.268	5.386	5.507	5.630	5.755	5.882	6.012	6.144
5	6.082	6.253	6.427	6.606	6.789	6.977	7.169	7.366	7.568	7.775	7.986	8.202	8.424
6	7.550	7.800	8.058	8.324	8.598	8.880	9.171	9.471	9.781	10.099	10.427	10.765	11.113
7	9.115	9.464	9.827	10.203	10.594	10.999	11.419	11.854	12.306	12.774	13.260	13.763	14.284
8	10.782	11.254	11.746	12.260	12.797	13.357	13.942	14.552	15.189	15.854	16.547	17.270	18.024
9	12.561	13.179	13.828	14.511	15.229	15.982	16.774	17.606	18.480	19.398	20.361	21.372	22.434
10	14.456	15.249	16.087	16.975	17.913	18.905	19.954	21.064	22.237	23.476	24.787	26.171	27.635
11	16.477	17.475	18.538	19.670	20.875	22.158	23.524	24.978	26.525	28.171	29.922	31.785	33.767
12	18.631	19.870	21.197	22.620	24.146	25.780	27.532	29.409	31.420	33.574	35.882	38.353	40.999
13	20.927	22.445	24.082	25.849	27.755	29.812	32.031	34.425	37.007	39.793	42.797	46.035	49.527
14	23.375	25.214	27.211	29.381	31.739	34.300	37.082	40.104	43.386	46.950	50.821	55.023	59.584
15	25.985	28.192	30.607	33.248	36.136	39.296	42.752	46.533	50.667	55.188	60.131	65.536	71.443
16	28.767	31.396	34.290	37.479	40.990	44.858	49.118	53.811	58.978	64.669	70.935	77.834	85.428
17	31.733	34.841	38.287	42.109	46.348	51.050	56.265	62.050	68.466	75.582	83.472	92.221	101.920
18	34.894	38.545	42.622	47.175	52.261	57.942	64.288	71.377	79.296	88.141	98.020	109.051	121.368
19	38.265	42.530	47.326	52.720	58.788	65.615	73.295	81.936	91.658	102.596	114.900	128.739	144.302
20	41.858	46.815	52.429	58.788	65.993	74.156	83.407	93.890	105.771	119.233	134.488	151.770	171.347
21	45.688	51.424	57.966	65.429	73.945	83.664	94.758	107.423	121.880	138.382	157.217	178.713	203.239
22	49.771	56.381	63.972	72.696	82.722	94.249	107.502	122.743	140.268	160.421	183.592	210.230	240.848
23	54.124	61.711	70.489	80.648	92.410	106.032	121.809	140.086	161.259	185.786	214.196	247.099	285.199
24	58.764	67.444	77.559	89.351	103.104	119.148	137.871	159.720	185.220	214.980	249.708	290.229	337.498
25	63.711	73.610	85.229	98.874	114.907	133.750	155.902	181.947	212.572	248.581	290.916	340.683	399.173
26	68.984	80.241	93.550	109.296	127.935	150.005	176.145	207.110	243.795	287.253	338.733	399.705	471.902
27	74.606	87.372	102.578	120.702	142.315	168.100	198.870	235.596	279.435	331.763	394.219	468.749	557.667
28	80.599	95.042	112.372	133.183	158.187	188.243	224.382	267.845	320.119	382.992	458.603	549.518	658.805
29	86.987	103.290	122.998	146.842	175.707	210.667	253.024	304.353	366.561	441.953	533.313	644.002	778.072
30	93.798	112.161	134.526	161.789	195.044	235.629	285.177	345.682	419.574	509.814	620.004	754.530	918.717
31	101.058	121.701	147.033	178.147	216.388	263.417	321.275	392.471	480.089	587.918	720.600	883.828	1084.572
32	108.798	131.962	160.602	196.047	239.947	294.351	361.799	445.439	549.168	677.811	837.328	1035.082	1280.156
33	117.048	142.997	175.323	215.636	265.951	328.787	407.293	505.402	628.022	781.273	972.777	1212.020	1510.797
34	125.844	154.864	191.294	237.074	294.654	367.122	458.367	573.285	718.035	900.352	1129.948	1419.005	1782.780
35	135.220	167.628	208.621	260.534	326.335	409.796	515.704	650.134	820.785	1037.405	1312.327	1661.137	2103.514
36	145.216	181.354	227.419	286.207	361.304	457.301	580.074	737.133	938.075	1195.145	1523.955	1944.387	2481.738
37	155.872	196.117	247.813	314.302	399.901	510.184	652.337	835.623	1071.963	1376.695	1769.523	2275.736	2927.757
38	167.231	211.994	269.938	345.047	442.504	569.054	733.464	947.120	1224.798	1585.649	2054.475	2663.351	3453.723
39	179.341	229.069	293.942	378.693	489.528	634.589	824.540	1073.343	1399.260	1826.143	2385.126	3116.788	4073.966
40	192.250	247.432	319.985	415.513	541.432	707.542	926.785	1216.238	1598.410	2102.939	2768.807	3647.224	4805.385
41	206.012	267.182	348.238	455.807	598.722	788.754	1041.57	1378.01	1825.74	2421.51	3214.02	4267.73	5667.91
42	220.683	288.422	378.890	499.902	661.958	879.160	1170.43	1561.14	2085.24	2788.18	3730.64	4993.61	6685.03
43	236.322	311.265	412.145	548.157	731.755	979.801	1315.10	1768.46	2381.47	3210.18	4330.11	5842.76	7884.47
44	252.994	335.832	448.224	600.964	808.796	1091.835	1477.51	2003.16	2719.61	3695.89	5025.72	6836.09	9298.90
45	270.768	362.254	487.365	658.753	893.831	1216.553	1659.83	2268.86	3105.60	4254.91	5832.89	7998.11	10966.87
46	289.715	390.669	529.830	721.994	987.691	1355.389	1864.52	2569.65	3546.21	4898.32	6769.52	9357.45	12933.81
47	309.913	421.229	575.901	791.201	1091.291	1509.942	2094.31	2910.17	4049.17	5638.83	7856.35	10947.62	15253.31
48	331.445	454.095	625.883	866.937	1205.642	1681.992	2352.28	3295.67	4623.31	6491.13	9117.49	12807.81	17988.57
49	354.399	489.442	680.109	949.818	1331.860	1873.520	2641.89	3732.08	5278.70	7472.07	10580.89	14983.90	21214.12
50	378.868	527.457	738.939	1040.517	1471.175	2086.729	2967.02	4226.12	6026.82	8601.09	12278.99	17529.50	25017.83

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 7.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.935	0.944	0.953	0.963	0.972	0.981	0.991	1.000	1.009	1.019	1.028	1.037	1.047
2	1.808	1.835	1.862	1.889	1.917	1.944	1.972	2.000	2.028	2.056	2.085	2.114	2.142
3	2.624	2.676	2.728	2.781	2.835	2.889	2.944	3.000	3.056	3.114	3.171	3.230	3.289
4	3.387	3.470	3.554	3.640	3.727	3.817	3.907	4.000	4.094	4.190	4.288	4.388	4.490
5	4.100	4.219	4.341	4.466	4.595	4.727	4.862	5.000	5.142	5.287	5.437	5.589	5.746
6	4.767	4.927	5.092	5.262	5.438	5.619	5.807	6.000	6.199	6.405	6.617	6.836	7.061
7	5.389	5.594	5.807	6.028	6.257	6.496	6.743	7.000	7.267	7.543	7.831	8.129	8.438
8	5.971	6.224	6.489	6.765	7.054	7.356	7.671	8.000	8.344	8.703	9.078	9.470	9.879
9	6.515	6.819	7.139	7.475	7.828	8.199	8.590	9.000	9.431	9.884	10.361	10.861	11.388
10	7.024	7.381	7.759	8.158	8.581	9.028	9.500	10.000	10.529	11.088	11.679	12.305	12.966
11	7.499	7.911	8.349	8.816	9.312	9.840	10.402	11.000	11.636	12.314	13.035	13.802	14.619
12	7.943	8.411	8.912	9.449	10.023	10.637	11.295	12.000	12.755	13.563	14.428	15.356	16.349
13	8.358	8.883	9.449	10.058	10.714	11.420	12.181	13.000	13.883	14.835	15.861	16.967	18.160
14	8.745	9.329	9.961	10.645	11.385	12.188	13.057	14.000	15.022	16.131	17.334	18.639	20.055
15	9.108	9.750	10.449	11.210	12.038	12.941	13.926	15.000	16.172	17.451	18.848	20.373	22.039
16	9.447	10.147	10.914	11.753	12.673	13.681	14.786	16.000	17.332	18.796	20.404	22.172	24.115
17	9.763	10.522	11.357	12.276	13.289	14.406	15.639	17.000	18.504	20.166	22.004	24.038	26.289
18	10.059	10.876	11.780	12.780	13.889	15.118	16.483	18.000	19.686	21.562	23.649	25.974	28.564
19	10.336	11.210	12.182	13.265	14.471	15.817	17.320	19.000	20.879	22.983	25.340	27.982	30.946
20	10.594	11.525	12.566	13.732	15.037	16.503	18.149	20.000	22.084	24.432	27.079	30.066	33.438
21	10.836	11.823	12.933	14.181	15.588	17.176	18.970	21.000	23.300	25.907	28.866	32.227	36.048
22	11.061	12.104	13.281	14.613	16.123	17.836	19.783	22.000	24.527	27.410	30.703	34.469	38.779
23	11.272	12.369	13.614	15.030	16.643	18.484	20.589	23.000	25.765	28.941	32.592	36.795	41.638
24	11.469	12.620	13.931	15.430	17.148	19.120	21.387	24.000	27.015	30.501	34.534	39.208	44.630
25	11.654	12.856	14.233	15.816	17.639	19.744	22.178	25.000	28.277	32.089	36.530	41.711	47.762
26	11.826	13.079	14.522	16.188	18.117	20.356	22.961	26.000	29.551	33.708	38.583	44.308	51.041
27	11.987	13.289	14.796	16.545	18.581	20.957	23.737	27.000	30.836	35.357	40.693	47.002	54.473
28	12.137	13.488	15.058	16.889	19.032	21.546	24.506	28.000	32.134	37.036	42.861	49.796	58.065
29	12.278	13.676	15.308	17.220	19.470	22.125	25.268	29.000	33.444	38.747	45.091	52.695	61.825
30	12.409	13.853	15.546	17.539	19.896	22.693	26.022	30.000	34.765	40.490	47.384	55.702	65.761
31	12.532	14.020	15.773	17.846	20.310	23.250	26.770	31.000	36.100	42.266	49.740	58.822	69.880
32	12.647	14.178	15.989	18.142	20.713	23.796	27.510	32.000	37.446	44.074	52.163	62.058	74.193
33	12.754	14.327	16.195	18.426	21.104	24.333	28.244	33.000	38.806	45.917	54.653	65.416	78.706
34	12.854	14.467	16.391	18.700	21.484	24.859	28.971	34.000	40.178	47.794	57.214	68.899	83.431
35	12.948	14.600	16.579	18.963	21.854	25.376	29.690	35.000	41.563	49.706	59.846	72.512	88.376
36	13.035	14.725	16.757	19.217	22.213	25.883	30.404	36.000	42.960	51.654	62.552	76.260	93.553
37	13.117	14.843	16.928	19.461	22.562	26.381	31.110	37.000	44.371	53.638	65.334	80.148	98.971
38	13.193	14.955	17.090	19.696	22.902	26.869	31.810	38.000	45.795	55.659	68.193	84.182	104.643
39	13.265	15.060	17.244	19.923	23.231	27.348	32.503	39.000	47.233	57.718	71.133	88.366	110.579
40	13.332	15.160	17.392	20.141	23.552	27.818	33.190	40.000	48.683	59.816	74.156	92.707	116.793
41	13.394	15.253	17.533	20.350	23.864	28.279	33.871	41.000	50.148	61.952	77.263	97.210	123.297
42	13.452	15.342	17.667	20.552	24.167	28.732	34.545	42.000	51.626	64.129	80.457	101.881	130.106
43	13.507	15.426	17.794	20.746	24.461	29.176	35.213	43.000	53.118	66.346	83.741	106.727	137.232
44	13.558	15.505	17.916	20.934	24.747	29.612	35.874	44.000	54.623	68.605	87.117	111.754	144.692
45	13.606	15.579	18.032	21.114	25.025	30.040	36.530	45.000	56.143	70.906	90.588	116.969	152.500
46	13.650	15.649	18.143	21.287	25.296	30.460	37.179	46.000	57.677	73.250	94.155	122.380	160.673
47	13.692	15.716	18.248	21.454	25.558	30.872	37.822	47.000	59.226	75.638	97.823	127.992	169.227
48	13.730	15.779	18.349	21.614	25.814	31.276	38.459	48.000	60.788	78.071	101.594	133.814	178.182
49	13.767	15.838	18.445	21.769	26.062	31.673	39.090	49.000	62.366	80.549	105.471	139.854	187.555
50	13.801	15.894	18.536	21.918	26.303	32.062	39.716	50.000	63.958	83.073	109.456	146.119	197.366

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 7.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.056	1.065	1.075	1.084	1.093	1.103	1.112	1.121	1.131	1.140	1.150	1.159	1.168
2	2.171	2.201	2.230	2.259	2.289	2.319	2.349	2.379	2.410	2.440	2.471	2.502	2.533
3	3.349	3.410	3.471	3.534	3.597	3.660	3.725	3.790	3.856	3.922	3.990	4.058	4.127
4	4.593	4.698	4.806	4.915	5.026	5.139	5.254	5.372	5.491	5.613	5.736	5.862	5.990
5	5.907	6.071	6.240	6.412	6.589	6.770	6.956	7.146	7.340	7.540	7.743	7.952	8.166
6	7.294	7.534	7.781	8.036	8.299	8.569	8.848	9.136	9.432	9.737	10.051	10.374	10.708
7	8.759	9.092	9.438	9.796	10.168	10.553	10.953	11.367	11.797	12.242	12.703	13.182	13.677
8	10.306	10.752	11.218	11.704	12.211	12.741	13.293	13.870	14.471	15.098	15.752	16.435	17.146
9	11.940	12.521	13.131	13.773	14.446	15.153	15.896	16.676	17.495	18.355	19.257	20.205	21.199
10	13.666	14.406	15.188	16.015	16.890	17.814	18.791	19.824	20.915	22.068	23.287	24.574	25.933
11	15.488	16.414	17.398	18.446	19.561	20.748	22.011	23.354	24.782	26.302	27.918	29.637	31.464
12	17.413	18.553	19.774	21.082	22.483	23.984	25.591	27.313	29.156	31.129	33.242	35.504	37.925
13	19.445	20.832	22.327	23.939	25.678	27.552	29.573	31.752	34.101	36.634	39.363	42.304	45.473
14	21.592	23.260	25.071	27.037	29.171	31.488	34.002	36.732	39.694	42.909	46.398	50.184	54.291
15	23.859	25.847	28.020	30.395	32.991	35.827	38.928	42.316	46.019	50.065	54.486	59.316	64.593
16	26.253	28.604	31.190	34.036	37.167	40.613	44.405	48.578	53.171	58.223	63.783	69.899	76.627
17	28.781	31.540	34.597	37.983	41.734	45.891	50.498	55.602	61.258	67.526	74.470	82.163	90.686
18	31.451	34.669	38.258	42.262	46.728	51.712	57.273	63.479	70.404	78.132	86.755	96.376	107.109
19	34.270	38.003	42.194	46.901	52.189	58.131	64.808	72.313	80.747	90.226	100.878	112.847	126.296
20	37.248	41.554	46.423	51.930	58.160	65.210	73.189	82.220	92.443	104.014	117.112	131.935	148.710
21	40.393	45.338	50.969	57.382	64.689	73.016	82.509	93.331	105.669	119.736	135.773	154.056	174.895
22	43.714	49.370	55.854	63.292	71.828	81.626	92.874	105.792	120.626	137.661	157.225	179.691	205.485
23	47.221	53.665	61.105	69.700	79.634	91.120	104.402	119.766	137.539	158.100	181.885	209.399	241.221
24	50.925	58.241	66.748	76.647	88.170	101.590	117.223	135.439	156.666	181.404	210.233	243.827	282.968
25	54.837	63.117	72.814	84.178	97.504	113.137	131.482	153.015	178.295	207.974	242.819	283.724	331.739
26	58.968	68.311	79.332	92.342	107.710	125.870	147.340	172.728	202.754	238.270	280.278	329.961	388.713
27	63.331	73.846	86.338	101.194	118.870	139.913	164.976	194.835	230.414	272.812	323.338	383.543	455.272
28	67.938	79.742	93.868	110.789	131.072	155.400	184.590	219.628	261.692	312.197	372.837	445.639	533.029
29	72.804	86.024	101.961	121.192	144.416	172.478	206.404	247.433	297.063	357.103	429.738	517.600	623.865
30	77.943	92.717	110.659	132.470	159.006	191.312	230.664	278.616	337.062	408.304	495.147	600.995	729.983
31	83.369	99.848	120.008	144.697	174.960	212.083	257.645	313.588	382.294	466.684	570.337	697.639	853.952
32	89.100	107.446	130.055	157.951	192.404	234.988	287.652	352.810	433.445	533.247	656.771	809.638	998.775
33	95.153	115.541	140.854	172.321	211.480	260.249	321.024	396.796	491.288	609.141	756.129	939.431	1167.962
34	101.544	124.165	152.460	187.900	232.338	288.106	358.139	446.126	556.699	695.675	870.345	1089.845	1365.610
35	108.294	133.353	164.933	204.788	255.145	318.827	399.417	501.450	630.669	794.340	1001.639	1264.157	1596.507
36	115.423	143.143	178.339	223.098	280.084	352.707	445.323	563.495	714.318	906.836	1152.567	1466.163	1866.246
37	122.952	153.572	192.748	242.947	307.353	390.069	496.378	633.079	808.911	1035.103	1326.063	1700.263	2181.362
38	130.902	164.685	208.234	264.466	337.171	431.273	553.159	711.116	915.880	1181.351	1525.502	1971.558	2549.489
39	139.298	176.524	224.877	287.795	369.776	476.712	616.308	798.635	1036.846	1348.101	1754.764	2285.955	2979.543
40	148.166	189.138	242.765	313.086	405.428	526.822	686.538	896.787	1173.639	1538.227	2018.308	2650.303	3481.943
41	157.530	202.577	261.991	340.504	444.412	582.084	764.65	1006.86	1328.33	1755.01	2321.26	3072.54	4068.86
42	167.420	216.895	282.654	370.229	487.039	643.028	851.51	1130.31	1503.26	2002.18	2669.51	3561.86	4754.51
43	177.864	232.149	304.862	402.454	533.650	710.236	948.12	1268.76	1701.08	2283.99	3069.84	4128.92	5555.50
44	188.893	248.402	328.730	437.389	584.618	784.354	1055.56	1424.03	1924.78	2605.32	3530.04	4786.07	6491.24
45	200.542	265.718	354.382	475.263	640.348	866.091	1175.06	1598.17	2177.75	2971.69	4059.04	5547.64	7584.39
46	212.843	284.167	381.953	516.323	701.287	956.231	1307.95	1793.46	2463.82	3389.43	4667.15	6430.19	8861.44
47	225.834	303.823	411.585	560.836	767.922	1055.638	1455.75	2012.48	2787.33	3865.72	5366.19	7452.97	10353.31
48	239.554	324.765	443.432	609.093	840.783	1165.265	1620.12	2258.11	3153.15	4408.78	6169.76	8638.25	12096.16
49	254.043	347.076	477.661	661.409	920.455	1286.161	1802.93	2533.58	3566.85	5027.98	7093.49	10011.84	14132.20
50	269.344	370.848	514.449	718.126	1007.572	1419.486	2006.24	2842.52	4034.67	5733.97	8155.35	11603.67	16510.74

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 8.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.926	0.935	0.944	0.954	0.963	0.972	0.981	0.991	1.000	1.009	1.019	1.028	1.037
2	1.783	1.810	1.836	1.863	1.890	1.917	1.945	1.972	2.000	2.028	2.056	2.084	2.112
3	2.577	2.628	2.679	2.731	2.783	2.836	2.890	2.945	3.000	3.056	3.112	3.170	3.228
4	3.312	3.393	3.474	3.558	3.643	3.730	3.818	3.908	4.000	4.093	4.189	4.286	4.384
5	3.993	4.108	4.226	4.347	4.471	4.598	4.729	4.863	5.000	5.141	5.285	5.432	5.584
6	4.623	4.777	4.936	5.099	5.268	5.443	5.623	5.809	6.000	6.197	6.401	6.611	6.828
7	5.206	5.402	5.606	5.817	6.036	6.264	6.500	6.745	7.000	7.264	7.538	7.823	8.118
8	5.747	5.987	6.239	6.501	6.776	7.062	7.361	7.674	8.000	8.341	8.696	9.068	9.455
9	6.247	6.534	6.837	7.154	7.488	7.838	8.207	8.593	9.000	9.427	9.876	10.347	10.842
10	6.710	7.046	7.401	7.777	8.173	8.593	9.036	9.505	10.000	10.524	11.077	11.662	12.281
11	7.139	7.525	7.935	8.370	8.834	9.326	9.850	10.407	11.000	11.630	12.301	13.014	13.773
12	7.536	7.972	8.438	8.937	9.469	10.039	10.649	11.302	12.000	12.747	13.547	14.403	15.320
13	7.904	8.391	8.914	9.476	10.082	10.733	11.434	12.188	13.000	13.875	14.817	15.831	16.925
14	8.244	8.782	9.363	9.991	10.671	11.407	12.203	13.066	14.000	15.012	16.110	17.299	18.588
15	8.559	9.148	9.787	10.483	11.239	12.062	12.959	13.935	15.000	16.161	17.426	18.807	20.314
16	8.851	9.490	10.188	10.951	11.786	12.699	13.700	14.797	16.000	17.319	18.768	20.357	22.103
17	9.122	9.810	10.566	11.398	12.312	13.319	14.428	15.651	17.000	18.489	20.134	21.951	23.959
18	9.372	10.110	10.924	11.824	12.819	13.921	15.142	16.497	18.000	19.670	21.525	23.588	25.883
19	9.604	10.390	11.261	12.230	13.307	14.507	15.843	17.335	19.000	20.861	22.942	25.271	27.879
20	9.818	10.651	11.580	12.618	13.777	15.076	16.531	18.165	20.000	22.063	24.386	27.001	29.949
21	10.017	10.896	11.881	12.987	14.230	15.629	17.207	18.988	21.000	23.277	25.856	28.779	32.095
22	10.201	11.125	12.166	13.340	14.666	16.167	17.870	19.802	22.000	24.502	27.353	30.606	34.321
23	10.371	11.339	12.434	13.676	15.086	16.691	18.520	20.610	23.000	25.738	28.878	32.484	36.629
24	10.529	11.539	12.688	13.996	15.490	17.199	19.159	21.410	24.000	26.985	30.431	34.414	39.022
25	10.675	11.727	12.928	14.302	15.879	17.694	19.785	22.202	25.000	28.245	32.013	36.398	41.505
26	10.810	11.902	13.154	14.594	16.254	18.174	20.401	22.987	26.000	29.515	33.625	38.436	44.079
27	10.935	12.066	13.367	14.872	16.615	18.642	21.004	23.765	27.000	30.798	35.266	40.532	46.749
28	11.051	12.219	13.569	15.137	16.963	19.096	21.597	24.536	28.000	32.092	36.938	42.686	49.517
29	11.158	12.362	13.760	15.390	17.297	19.538	22.178	25.300	29.000	33.399	38.640	44.899	52.388
30	11.258	12.496	13.940	15.631	17.620	19.967	22.749	26.056	30.000	34.717	40.374	47.174	55.365
31	11.350	12.621	14.110	15.861	17.930	20.385	23.309	26.806	31.000	36.048	42.140	49.512	58.453
32	11.435	12.738	14.270	16.080	18.229	20.791	23.859	27.548	32.000	37.391	43.939	51.915	61.655
33	11.514	12.848	14.422	16.290	18.517	21.186	24.399	28.284	33.000	38.746	45.771	54.385	64.976
34	11.587	12.950	14.565	16.489	18.794	21.569	24.928	29.013	34.000	40.114	47.638	56.924	68.419
35	11.655	13.046	14.701	16.680	19.061	21.942	25.448	29.735	35.000	41.495	49.538	59.533	71.990
36	11.717	13.136	14.828	16.861	19.318	22.305	25.958	30.450	36.000	42.889	51.474	62.214	75.694
37	11.775	13.220	14.949	17.034	19.565	22.658	26.459	31.159	37.000	44.295	53.446	64.970	79.534
38	11.829	13.298	15.063	17.199	19.804	23.001	26.951	31.861	38.000	45.714	55.454	67.803	83.517
39	11.879	13.371	15.171	17.357	20.033	23.334	27.433	32.557	39.000	47.147	57.500	70.714	87.647
40	11.925	13.440	15.272	17.507	20.254	23.658	27.907	33.246	40.000	48.593	59.583	73.706	91.930
41	11.967	13.504	15.368	17.650	20.467	23.973	28.371	33.929	41.000	50.052	61.705	76.781	96.372
42	12.007	13.564	15.459	17.787	20.672	24.279	28.827	34.606	42.000	51.525	63.866	79.942	100.978
43	12.043	13.620	15.544	17.917	20.869	24.577	29.275	35.276	43.000	53.011	66.067	83.190	105.755
44	12.077	13.672	15.625	18.041	21.059	24.867	29.714	35.940	44.000	54.511	68.309	86.529	110.709
45	12.108	13.721	15.702	18.160	21.242	25.148	30.146	36.598	45.000	56.025	70.593	89.960	115.847
46	12.137	13.767	15.774	18.273	21.418	25.422	30.569	37.250	46.000	57.553	72.919	93.487	121.174
47	12.164	13.810	15.842	18.380	21.588	25.688	30.984	37.896	47.000	59.095	75.287	97.111	126.699
48	12.189	13.850	15.906	18.483	21.752	25.947	31.392	38.536	48.000	60.652	77.700	100.837	132.429
49	12.212	13.888	15.967	18.581	21.909	26.198	31.792	39.170	49.000	62.223	80.158	104.665	138.371
50	12.233	13.923	16.024	18.675	22.060	26.443	32.185	39.798	50.000	63.808	82.660	108.601	144.533

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 8.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.046	1.056	1.065	1.074	1.083	1.093	1.102	1.111	1.120	1.130	1.139	1.148	1.157
2	2.141	2.170	2.199	2.228	2.257	2.286	2.316	2.346	2.376	2.406	2.436	2.466	2.497
3	3.286	3.346	3.406	3.467	3.528	3.591	3.654	3.717	3.782	3.847	3.913	3.980	4.047
4	4.485	4.587	4.692	4.798	4.906	5.016	5.128	5.242	5.358	5.476	5.596	5.718	5.842
5	5.739	5.898	6.060	6.227	6.398	6.573	6.752	6.935	7.123	7.315	7.512	7.713	7.919
6	7.051	7.281	7.518	7.762	8.014	8.274	8.541	8.817	9.101	9.393	9.694	10.004	10.323
7	8.424	8.741	9.070	9.412	9.766	10.133	10.513	10.908	11.316	11.740	12.179	12.634	13.105
8	9.860	10.282	10.723	11.183	11.663	12.163	12.686	13.231	13.799	14.391	15.009	15.654	16.325
9	11.363	11.909	12.483	13.085	13.718	14.382	15.080	15.812	16.580	17.387	18.233	19.121	20.053
10	12.935	13.626	14.357	15.129	15.944	16.806	17.717	18.680	19.696	20.770	21.904	23.102	24.366
11	14.580	15.439	16.352	17.323	18.356	19.455	20.624	21.866	23.188	24.592	26.085	27.672	29.359
12	16.301	17.352	18.477	19.681	20.969	22.349	23.826	25.407	27.099	28.910	30.847	32.920	35.138
13	18.102	19.371	20.739	22.212	23.800	25.511	27.355	29.341	31.481	33.787	36.270	38.945	41.826
14	19.987	21.503	23.148	24.932	26.867	28.966	31.243	33.712	36.391	39.296	42.447	45.863	49.568
15	21.958	23.753	25.713	27.853	30.189	32.741	35.527	38.569	41.892	45.520	49.481	53.806	58.527
16	24.021	26.129	28.444	30.990	33.788	36.865	40.247	43.966	48.055	52.550	57.492	62.925	68.897
17	26.180	28.636	31.353	34.360	37.687	41.371	45.448	49.962	54.960	60.492	66.616	73.396	80.900
18	28.438	31.282	34.450	37.979	41.911	46.294	51.179	56.625	62.695	69.463	77.008	85.417	94.791
19	30.801	34.076	37.747	41.866	46.487	51.673	57.494	64.027	71.362	79.597	88.842	99.220	110.870
20	33.273	37.024	41.259	46.041	51.444	57.550	64.451	72.253	81.073	91.045	102.320	115.068	129.479
21	35.860	40.137	44.998	50.526	56.815	63.971	72.118	81.392	91.952	103.977	117.670	133.263	151.017
22	38.566	43.422	48.979	55.343	62.633	70.987	80.565	91.546	104.140	118.585	135.152	154.153	175.945
23	41.398	46.890	53.219	60.516	68.935	78.653	89.872	102.829	117.796	135.087	155.062	178.139	204.798
24	44.361	50.550	57.733	66.073	75.763	87.028	100.128	115.366	133.096	153.727	177.737	205.678	238.192
25	47.461	54.414	62.540	72.041	83.160	96.179	111.428	129.296	150.237	174.785	203.562	237.297	276.843
26	50.704	58.493	67.658	78.452	91.174	106.177	123.879	144.773	169.441	198.572	232.973	273.601	321.577
27	54.098	62.798	73.108	85.337	99.855	117.101	137.598	161.970	190.958	225.442	266.470	315.282	373.353
28	57.649	67.342	78.911	92.733	109.259	129.036	152.714	181.078	215.064	255.796	304.618	363.139	433.279
29	61.364	72.139	85.091	100.676	119.448	142.076	169.370	202.308	242.071	290.084	348.065	418.085	502.638
30	65.251	77.203	91.671	109.207	130.485	156.324	187.723	225.898	272.330	328.817	397.546	481.172	582.914
31	69.319	82.547	98.677	118.371	142.442	171.891	207.945	252.109	306.231	372.571	453.900	553.605	675.827
32	73.574	88.189	106.138	128.213	155.396	188.899	230.226	281.232	344.212	421.997	518.080	636.769	783.365
33	78.027	94.144	114.082	138.784	169.429	207.483	254.777	313.592	386.765	477.830	591.175	732.253	907.829
34	82.685	100.429	122.541	150.139	184.631	227.787	281.828	349.546	434.441	540.900	674.421	841.883	1051.886
35	87.560	107.064	131.548	162.334	201.100	249.971	311.635	389.496	487.855	612.147	769.230	967.754	1218.618
36	92.660	114.068	141.139	175.433	218.942	274.209	344.477	433.884	547.699	692.629	877.206	1112.274	1411.595
37	97.996	121.460	151.352	189.502	238.270	300.691	380.665	483.205	614.746	783.544	1000.180	1278.203	1634.948
38	103.579	129.264	162.226	204.613	259.210	329.625	420.538	538.005	689.863	886.244	1140.232	1468.715	1893.458
39	109.420	137.501	173.806	220.844	281.894	361.239	464.473	598.895	774.023	1002.257	1299.737	1687.450	2192.659
40	115.533	146.195	186.136	238.277	306.468	395.779	512.882	666.550	868.313	1133.309	1481.395	1938.591	2538.958
41	121.928	155.373	199.265	257.001	333.091	433.518	566.22	741.72	973.95	1281.35	1688.28	2226.94	2939.77
42	128.619	165.060	213.245	277.112	361.931	474.751	624.99	825.25	1092.31	1448.58	1923.91	2558.00	3403.66
43	135.620	175.286	228.131	298.713	393.176	519.802	689.75	918.05	1224.91	1637.49	2192.25	2938.11	3940.58
44	142.944	186.079	243.983	321.914	427.024	569.025	761.11	1021.17	1373.47	1850.88	2497.87	3374.54	4562.02
45	150.609	197.473	260.861	346.834	463.692	622.805	839.73	1135.74	1539.92	2091.94	2845.94	3875.62	5281.27
46	158.627	209.499	278.834	373.599	503.417	681.564	926.36	1263.05	1726.40	2364.25	3242.35	4450.93	6113.74
47	167.018	222.193	297.971	402.347	546.451	745.765	1021.81	1404.50	1935.33	2671.86	3693.81	5111.48	7077.24
48	175.796	235.593	318.349	433.225	593.072	815.910	1126.99	1561.66	2169.40	3019.34	4207.98	5869.88	8192.41
49	184.981	249.737	340.047	466.390	643.578	892.550	1242.88	1736.29	2431.66	3411.86	4793.56	6740.64	9483.12
50	194.592	264.667	363.152	502.011	698.293	976.286	1370.57	1930.33	2725.47	3855.27	5460.47	7740.40	10976.99

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 9.00%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.917	0.927	0.936	0.945	0.954	0.963	0.972	0.982	0.991	1.000	1.009	1.018	1.028
2	1.759	1.785	1.811	1.838	1.864	1.891	1.918	1.945	1.973	2.000	2.028	2.055	2.083
3	2.531	2.581	2.631	2.682	2.733	2.785	2.838	2.891	2.945	3.000	3.055	3.111	3.168
4	3.240	3.318	3.398	3.479	3.562	3.646	3.732	3.820	3.909	4.000	4.093	4.187	4.283
5	3.890	4.001	4.115	4.232	4.353	4.476	4.602	4.731	4.864	5.000	5.139	5.282	5.428
6	4.486	4.634	4.787	4.944	5.107	5.275	5.448	5.626	5.810	6.000	6.196	6.397	6.605
7	5.033	5.221	5.415	5.617	5.827	6.045	6.270	6.505	6.748	7.000	7.262	7.533	7.815
8	5.535	5.764	6.003	6.253	6.514	6.786	7.070	7.367	7.677	8.000	8.337	8.690	9.057
9	5.995	6.268	6.553	6.854	7.169	7.500	7.848	8.213	8.597	9.000	9.423	9.867	10.334
10	6.418	6.734	7.068	7.421	7.794	8.188	8.605	9.044	9.509	10.000	10.519	11.067	11.646
11	6.805	7.166	7.550	7.958	8.391	8.851	9.340	9.860	10.413	11.000	11.624	12.288	12.994
12	7.161	7.567	8.001	8.465	8.960	9.490	10.056	10.661	11.308	12.000	12.740	13.532	14.379
13	7.487	7.938	8.423	8.944	9.503	10.105	10.751	11.447	12.195	13.000	13.866	14.799	15.802
14	7.786	8.282	8.818	9.396	10.021	10.697	11.428	12.218	13.074	14.000	15.003	16.089	17.265
15	8.061	8.601	9.187	9.824	10.516	11.268	12.086	12.976	13.945	15.000	16.149	17.402	18.768
16	8.313	8.896	9.533	10.228	10.988	11.818	12.726	13.719	14.808	16.000	17.307	18.740	20.312
17	8.544	9.170	9.857	10.610	11.438	12.347	13.348	14.449	15.663	17.000	18.475	20.102	21.898
18	8.756	9.424	10.160	10.971	11.867	12.858	13.953	15.166	16.510	18.000	19.653	21.489	23.528
19	8.950	9.659	10.443	11.312	12.277	13.349	14.542	15.869	17.349	19.000	20.843	22.902	25.203
20	9.129	9.876	10.708	11.634	12.668	13.822	15.114	16.560	18.181	20.000	22.043	24.340	26.925
21	9.292	10.078	10.956	11.939	13.041	14.279	15.670	17.238	19.005	21.000	23.255	25.805	28.693
22	9.442	10.265	11.188	12.227	13.397	14.718	16.211	17.903	19.821	22.000	24.477	27.297	30.510
23	9.580	10.438	11.406	12.499	13.736	15.141	16.738	18.556	20.630	23.000	25.711	28.816	32.378
24	9.707	10.599	11.609	12.756	14.061	15.549	17.250	19.197	21.432	24.000	26.956	30.363	34.296
25	9.823	10.747	11.799	12.998	14.370	15.941	17.747	19.827	22.226	25.000	28.213	31.939	36.268
26	9.929	10.885	11.977	13.228	14.665	16.320	18.231	20.445	23.013	26.000	29.481	33.543	38.294
27	10.027	11.013	12.144	13.445	14.946	16.684	18.702	21.051	23.793	27.000	30.760	35.177	40.375
28	10.116	11.131	12.300	13.650	15.215	17.035	19.160	21.646	24.565	28.000	32.052	36.841	42.514
29	10.198	11.241	12.446	13.843	15.471	17.373	19.605	22.231	25.331	29.000	33.355	38.535	44.711
30	10.274	11.342	12.582	14.026	15.715	17.699	20.038	22.805	26.089	30.000	34.670	40.261	46.970
31	10.343	11.437	12.710	14.199	15.949	18.013	20.459	23.368	26.841	31.000	35.997	42.018	49.290
32	10.406	11.524	12.829	14.362	16.171	18.315	20.868	23.921	27.585	32.000	37.337	43.807	51.674
33	10.464	11.605	12.941	14.517	16.383	18.606	21.266	24.464	28.323	33.000	38.688	45.629	54.124
34	10.518	11.680	13.046	14.663	16.586	18.887	21.653	24.996	29.054	34.000	40.052	47.485	56.641
35	10.567	11.749	13.144	14.800	16.779	19.157	22.030	25.519	29.778	35.000	41.429	49.374	59.227
36	10.612	11.813	13.236	14.931	16.964	19.417	22.396	26.033	30.496	36.000	42.818	51.299	61.885
37	10.653	11.873	13.321	15.054	17.140	19.668	22.752	26.537	31.207	37.000	44.220	53.258	64.616
38	10.691	11.928	13.402	15.170	17.308	19.910	23.098	27.031	31.911	38.000	45.635	55.254	67.422
39	10.726	11.979	13.477	15.280	17.468	20.142	23.435	27.517	32.609	39.000	47.063	57.286	70.305
40	10.757	12.027	13.547	15.384	17.621	20.366	23.763	27.994	33.301	40.000	48.504	59.356	73.267
41	10.787	12.070	13.613	15.482	17.767	20.582	24.081	28.462	33.986	41.000	49.958	61.463	76.311
42	10.813	12.111	13.674	15.575	17.906	20.790	24.391	28.921	34.665	42.000	51.426	63.609	79.439
43	10.838	12.149	13.732	15.662	18.038	20.991	24.692	29.372	35.338	43.000	52.907	65.795	82.653
44	10.861	12.184	13.786	15.745	18.165	21.184	24.985	29.815	36.005	44.000	54.401	68.020	85.956
45	10.881	12.216	13.836	15.823	18.286	21.370	25.270	30.250	36.665	45.000	55.909	70.287	89.349
46	10.900	12.246	13.884	15.897	18.401	21.549	25.547	30.676	37.320	46.000	57.432	72.595	92.835
47	10.918	12.274	13.928	15.967	18.511	21.721	25.816	31.095	37.968	47.000	58.968	74.945	96.418
48	10.934	12.300	13.969	16.033	18.616	21.887	26.078	31.506	38.611	48.000	60.518	77.339	100.099
49	10.948	12.324	14.008	16.096	18.716	22.048	26.333	31.910	39.247	49.000	62.082	79.776	103.882
50	10.962	12.346	14.044	16.155	18.812	22.202	26.580	32.306	39.878	50.000	63.661	82.258	107.769

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 9.00%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.037	1.046	1.055	1.064	1.073	1.083	1.092	1.101	1.110	1.119	1.128	1.138	1.147
2	2.111	2.140	2.168	2.197	2.226	2.255	2.284	2.313	2.342	2.372	2.402	2.432	2.462
3	3.226	3.284	3.343	3.402	3.462	3.523	3.585	3.647	3.710	3.774	3.839	3.904	3.970
4	4.381	4.480	4.582	4.685	4.790	4.897	5.006	5.116	5.229	5.344	5.460	5.579	5.700
5	5.578	5.732	5.889	6.050	6.215	6.384	6.556	6.733	6.915	7.100	7.290	7.484	7.683
6	6.820	7.040	7.268	7.503	7.744	7.993	8.250	8.514	8.786	9.066	9.355	9.652	9.958
7	8.107	8.409	8.723	9.049	9.386	9.736	10.098	10.474	10.863	11.267	11.685	12.118	12.566
8	9.441	9.841	10.258	10.694	11.148	11.622	12.117	12.632	13.169	13.730	14.314	14.923	15.557
9	10.824	11.338	11.878	12.445	13.040	13.664	14.320	15.008	15.729	16.487	17.281	18.114	18.988
10	12.258	12.904	13.587	14.308	15.070	15.875	16.725	17.623	18.571	19.572	20.629	21.744	22.922
11	13.744	14.542	15.390	16.292	17.250	18.269	19.352	20.503	21.726	23.026	24.407	25.874	27.433
12	15.285	16.255	17.292	18.402	19.589	20.860	22.219	23.673	25.228	26.891	28.670	30.573	32.607
13	16.883	18.046	19.299	20.648	22.100	23.665	25.349	27.162	29.115	31.218	33.481	35.918	38.540
14	18.539	19.920	21.416	23.038	24.796	26.701	28.766	31.005	33.431	36.060	38.910	41.998	45.344
15	20.256	21.880	23.650	25.582	27.689	29.988	32.497	35.234	38.221	41.480	45.036	48.915	53.147
16	22.036	23.929	26.007	28.289	30.795	33.547	36.570	39.891	43.539	47.547	51.949	56.784	62.095
17	23.882	26.073	28.494	31.170	34.128	37.400	41.017	45.018	49.442	54.336	59.749	65.736	72.357
18	25.795	28.315	31.117	34.236	37.707	41.570	45.872	50.662	55.996	61.936	68.552	75.920	84.125
19	27.778	30.659	33.885	37.499	41.548	46.085	51.172	56.875	63.270	70.442	78.485	87.505	97.621
20	29.834	33.112	36.806	40.971	45.670	50.973	56.958	63.716	71.346	79.963	89.695	100.685	113.097
21	31.966	35.676	39.887	44.667	50.096	56.264	63.276	71.247	80.311	90.619	102.343	115.678	130.845
22	34.175	38.359	43.137	48.599	54.846	61.992	70.172	79.538	90.262	102.546	116.617	132.735	151.199
23	36.466	41.164	46.567	52.785	59.945	68.194	77.702	88.665	101.310	115.896	132.724	152.139	174.540
24	38.841	44.098	50.185	57.239	65.417	74.907	85.922	98.714	113.573	130.837	150.899	174.213	201.307
25	41.303	47.167	54.003	61.979	71.292	82.174	94.897	109.777	127.187	147.561	171.409	199.325	232.003
26	43.856	50.377	58.031	67.023	77.598	90.042	104.695	121.956	142.299	166.280	194.553	227.893	267.206
27	46.502	53.733	62.280	72.392	84.367	98.559	115.392	135.365	159.075	187.230	220.670	260.392	307.575
28	49.245	57.244	66.763	78.105	91.632	107.780	127.070	150.126	177.698	210.680	250.142	297.363	353.871
29	52.089	60.916	71.493	84.185	99.431	117.762	139.819	166.378	198.371	236.926	283.399	339.422	406.962
30	55.037	64.756	76.484	90.656	107.802	128.568	153.738	184.269	221.320	266.302	320.927	387.269	467.846
31	58.093	68.772	81.749	97.542	116.787	140.266	168.935	203.966	246.796	299.183	363.275	441.701	537.668
32	61.262	72.973	87.304	104.870	126.432	152.930	185.525	225.650	275.076	335.984	411.063	503.623	617.738
33	64.547	77.366	93.165	112.669	136.785	166.640	203.637	249.523	306.470	377.175	464.988	574.067	709.562
34	67.952	81.961	99.348	120.969	147.898	181.482	223.411	275.806	341.320	423.278	525.840	654.204	814.865
35	71.482	86.766	105.872	129.802	159.826	197.549	244.999	304.740	380.007	474.880	594.508	745.370	935.625
36	75.142	91.792	112.755	139.202	172.630	214.943	268.568	336.595	422.952	532.637	671.995	849.081	1074.111
37	78.937	97.049	120.016	149.206	186.373	233.773	294.299	371.664	470.626	597.282	759.435	967.065	1232.926
38	82.870	102.547	127.678	159.852	201.125	254.158	322.391	410.272	523.548	669.636	858.105	1101.285	1415.052
39	86.948	108.296	135.761	171.182	216.960	276.226	353.060	452.777	582.296	750.620	969.449	1253.976	1623.913
40	91.175	114.310	144.289	183.240	233.957	300.116	386.542	499.571	647.512	841.263	1095.094	1427.679	1863.432
41	95.558	120.599	153.287	196.072	252.202	325.979	423.10	551.09	719.91	942.72	1236.88	1625.29	2138.11
42	100.101	127.177	162.780	209.728	271.786	353.977	463.00	607.80	800.27	1056.27	1396.87	1850.09	2453.11
43	104.811	134.057	172.795	224.261	292.807	384.288	506.57	670.24	889.49	1183.37	1577.41	2105.82	2814.34
44	109.694	141.252	183.362	239.727	315.370	417.100	554.14	738.98	988.52	1325.62	1781.14	2396.75	3228.61
45	114.757	148.778	194.510	256.186	339.590	452.622	606.07	814.66	1098.46	1484.84	2011.04	2727.72	3703.68
46	120.005	156.648	206.272	273.703	365.588	491.077	662.77	897.97	1220.50	1663.05	2270.47	3104.23	4248.48
47	125.445	164.880	218.681	292.344	393.493	532.708	724.66	989.69	1355.98	1862.52	2563.22	3532.56	4873.26
48	131.085	173.489	231.774	312.183	423.447	577.775	792.24	1090.67	1506.37	2085.77	2893.57	4019.83	5589.75
49	136.932	182.493	245.587	333.296	455.599	626.564	866.01	1201.84	1673.32	2335.65	3266.35	4574.15	6411.41
50	142.994	191.910	260.161	355.764	490.111	679.381	946.55	1324.23	1858.65	2615.34	3687.01	5204.76	7353.68

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Uniform Present Value Factors

Discount Rate 10.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.909	0.918	0.927	0.936	0.945	0.955	0.964	0.973	0.982	0.991	1.000	1.009	1.018
2	1.736	1.761	1.787	1.813	1.839	1.866	1.892	1.919	1.946	1.973	2.000	2.027	2.055
3	2.487	2.535	2.584	2.634	2.684	2.735	2.787	2.839	2.892	2.946	3.000	3.055	3.110
4	3.170	3.246	3.324	3.403	3.483	3.566	3.649	3.735	3.821	3.910	4.000	4.092	4.185
5	3.791	3.899	4.009	4.123	4.239	4.358	4.480	4.605	4.734	4.865	5.000	5.138	5.279
6	4.355	4.498	4.645	4.797	4.953	5.115	5.281	5.453	5.630	5.812	6.000	6.194	6.394
7	4.868	5.048	5.234	5.428	5.628	5.837	6.053	6.277	6.509	6.750	7.000	7.259	7.528
8	5.335	5.553	5.781	6.019	6.267	6.526	6.796	7.078	7.372	7.680	8.000	8.334	8.683
9	5.759	6.017	6.288	6.572	6.871	7.184	7.513	7.858	8.220	8.601	9.000	9.419	9.859
10	6.145	6.443	6.758	7.090	7.441	7.812	8.203	8.616	9.053	9.513	10.000	10.514	11.057
11	6.495	6.834	7.194	7.575	7.981	8.411	8.868	9.354	9.870	10.418	11.000	11.619	12.276
12	6.814	7.193	7.598	8.030	8.491	8.983	9.510	10.072	10.672	11.314	12.000	12.733	13.517
13	7.103	7.523	7.972	8.455	8.973	9.530	10.127	10.770	11.460	12.202	13.000	13.858	14.781
14	7.367	7.825	8.320	8.853	9.429	10.051	10.723	11.449	12.233	13.082	14.000	14.993	16.068
15	7.606	8.103	8.642	9.226	9.860	10.549	11.297	12.109	12.993	13.954	15.000	16.139	17.378
16	7.824	8.358	8.941	9.576	10.268	11.024	11.849	12.752	13.738	14.818	16.000	17.294	18.713
17	8.022	8.593	9.218	9.903	10.653	11.477	12.382	13.377	14.470	15.674	17.000	18.461	20.071
18	8.201	8.808	9.475	10.209	11.018	11.910	12.895	13.985	15.189	16.523	18.000	19.638	21.454
19	8.365	9.005	9.713	10.496	11.362	12.323	13.390	14.576	15.895	17.363	19.000	20.825	22.862
20	8.514	9.187	9.934	10.764	11.688	12.718	13.867	15.151	16.588	18.196	20.000	22.024	24.296
21	8.649	9.353	10.139	11.015	11.996	13.094	14.326	15.711	17.268	19.022	21.000	23.233	25.756
22	8.772	9.506	10.329	11.251	12.287	13.454	14.769	16.255	17.936	19.840	22.000	24.453	27.243
23	8.883	9.647	10.505	11.471	12.562	13.797	15.196	16.784	18.591	20.650	23.000	25.685	28.756
24	8.985	9.776	10.668	11.678	12.822	14.124	15.607	17.299	19.235	21.454	24.000	26.927	30.297
25	9.077	9.894	10.819	11.871	13.069	14.437	16.003	17.800	19.867	22.250	25.000	28.181	31.866
26	9.161	10.003	10.960	12.052	13.301	14.735	16.384	18.287	20.488	23.038	26.000	29.446	33.464
27	9.237	10.102	11.090	12.221	13.521	15.020	16.752	18.761	21.097	23.820	27.000	30.723	35.090
28	9.307	10.194	11.211	12.380	13.729	15.291	17.107	19.222	21.695	24.594	28.000	32.012	36.746
29	9.370	10.278	11.323	12.528	13.926	15.551	17.448	19.671	22.283	25.361	29.000	33.312	38.433
30	9.427	10.355	11.426	12.667	14.112	15.799	17.777	20.107	22.859	26.122	30.000	34.624	40.150
31	9.479	10.426	11.523	12.798	14.287	16.035	18.095	20.532	23.426	26.875	31.000	35.947	41.898
32	9.526	10.491	11.612	12.920	14.453	16.261	18.400	20.944	23.982	27.622	32.000	37.283	43.678
33	9.569	10.551	11.695	13.034	14.610	16.476	18.695	21.346	24.527	28.362	33.000	38.631	45.490
34	9.609	10.606	11.771	13.141	14.759	16.682	18.979	21.736	25.063	29.095	34.000	39.992	47.335
35	9.644	10.657	11.843	13.241	14.899	16.878	19.252	22.116	25.589	29.821	35.000	41.364	49.214
36	9.677	10.703	11.909	13.335	15.032	17.065	19.516	22.486	26.106	30.541	36.000	42.749	51.127
37	9.706	10.745	11.970	13.423	15.158	17.244	19.770	22.845	26.613	31.254	37.000	44.147	53.075
38	9.733	10.784	12.027	13.505	15.276	17.415	20.014	23.195	27.111	31.961	38.000	45.558	55.058
39	9.757	10.820	12.079	13.582	15.389	17.578	20.250	23.535	27.600	32.661	39.000	46.981	57.077
40	9.779	10.853	12.128	13.654	15.495	17.733	20.478	23.866	28.080	33.355	40.000	48.417	59.133
41	9.799	10.883	12.173	13.721	15.595	17.882	20.697	24.188	28.551	34.043	41.000	49.866	61.227
42	9.817	10.911	12.215	13.784	15.690	18.024	20.908	24.501	29.014	34.724	42.000	51.329	63.358
43	9.834	10.936	12.254	13.844	15.779	18.159	21.111	24.805	29.468	35.400	43.000	52.804	65.528
44	9.849	10.960	12.290	13.899	15.864	18.288	21.307	25.102	29.914	36.069	44.000	54.294	67.738
45	9.863	10.981	12.324	13.951	15.944	18.411	21.496	25.390	30.352	36.732	45.000	55.796	69.988
46	9.875	11.001	12.355	13.999	16.020	18.529	21.678	25.670	30.782	37.389	46.000	57.313	72.278
47	9.887	11.019	12.383	14.045	16.092	18.641	21.853	25.943	31.204	38.040	47.000	58.843	74.611
48	9.897	11.036	12.410	14.088	16.159	18.749	22.022	26.208	31.619	38.685	48.000	60.387	76.985
49	9.906	11.051	12.435	14.127	16.223	18.851	22.185	26.466	32.026	39.324	49.000	61.945	79.403
50	9.915	11.065	12.458	14.165	16.284	18.949	22.342	26.717	32.425	39.957	50.000	63.517	81.865

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 10.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.027	1.036	1.045	1.055	1.064	1.073	1.082	1.091	1.100	1.109	1.118	1.127	1.136
2	2.083	2.110	2.138	2.167	2.195	2.223	2.252	2.281	2.310	2.339	2.369	2.398	2.428
3	3.167	3.224	3.281	3.339	3.398	3.458	3.518	3.579	3.641	3.703	3.767	3.830	3.895
4	4.280	4.377	4.476	4.576	4.678	4.782	4.888	4.996	5.105	5.217	5.330	5.445	5.563
5	5.424	5.573	5.725	5.880	6.040	6.203	6.370	6.541	6.716	6.895	7.078	7.266	7.458
6	6.599	6.812	7.030	7.255	7.487	7.726	7.973	8.226	8.487	8.756	9.033	9.318	9.611
7	7.807	8.096	8.395	8.706	9.028	9.361	9.707	10.065	10.436	10.820	11.218	11.631	12.058
8	9.047	9.426	9.822	10.235	10.666	11.115	11.583	12.071	12.579	13.110	13.662	14.238	14.838
9	10.321	10.806	11.314	11.848	12.408	12.996	13.612	14.259	14.937	15.649	16.395	17.178	17.998
10	11.630	12.235	12.874	13.549	14.261	15.014	15.808	16.646	17.531	18.465	19.451	20.491	21.589
11	12.974	13.716	14.505	15.342	16.232	17.178	18.183	19.250	20.384	21.589	22.868	24.226	25.669
12	14.355	15.251	16.209	17.234	18.329	19.500	20.752	22.091	23.523	25.053	26.689	28.437	30.306
13	15.774	16.842	17.992	19.228	20.559	21.991	23.532	25.191	26.975	28.895	30.961	33.184	35.575
14	17.231	18.491	19.855	21.332	22.931	24.663	26.539	28.572	30.772	33.156	35.738	38.534	41.562
15	18.729	20.200	21.803	23.550	25.454	27.530	29.793	32.260	34.950	37.882	41.080	44.566	48.366
16	20.267	21.971	23.839	25.889	28.137	30.605	33.312	36.283	39.545	43.124	47.053	51.365	56.098
17	21.847	23.806	25.968	28.356	30.992	33.903	37.119	40.673	44.599	48.938	53.732	59.030	64.884
18	23.470	25.708	28.194	30.957	34.027	37.442	41.238	45.461	50.159	55.386	61.200	67.670	74.868
19	25.137	27.679	30.521	33.700	37.256	41.237	45.694	50.685	56.275	62.537	69.551	77.410	86.214
20	26.850	29.722	32.954	36.593	40.691	45.309	50.515	56.384	63.002	70.468	78.889	88.389	99.106
21	28.610	31.839	35.497	39.643	44.344	49.677	55.729	62.600	70.403	79.264	89.331	100.766	113.757
22	30.417	34.033	38.156	42.860	48.230	54.363	61.371	69.382	78.543	89.021	101.006	114.718	130.406
23	32.274	36.307	40.936	46.252	52.362	59.389	67.474	76.781	87.497	99.841	114.061	130.446	149.325
24	34.181	38.664	43.842	49.830	56.758	64.781	74.076	84.852	97.347	111.842	128.660	148.175	170.824
25	36.141	41.106	46.881	53.602	61.434	70.565	81.219	93.656	108.182	125.152	144.983	168.161	195.255
26	38.154	43.638	50.057	57.581	66.407	76.770	88.946	103.261	120.100	139.914	163.235	190.691	223.017
27	40.222	46.261	53.378	61.776	71.696	83.426	97.305	113.740	133.210	156.286	183.645	216.088	254.564
28	42.346	48.979	56.849	66.200	77.322	90.566	106.348	125.171	147.631	174.445	206.467	244.717	290.414
29	44.528	51.797	60.479	70.865	83.306	98.225	116.131	137.641	163.494	194.584	231.986	276.991	331.152
30	46.770	54.717	64.274	75.785	89.671	106.441	126.715	151.244	180.943	216.921	260.520	313.371	377.446
31	49.073	57.743	68.240	80.974	96.441	115.255	138.164	166.085	200.138	241.694	292.427	354.382	430.052
32	51.438	60.879	72.388	86.445	103.642	124.710	150.550	182.274	221.252	269.170	328.105	400.612	489.832
33	53.868	64.129	76.724	92.215	111.301	134.853	163.950	199.936	244.477	299.643	367.999	452.727	557.763
34	56.365	67.497	81.256	98.299	119.448	145.733	178.446	219.202	270.024	333.440	412.608	511.474	634.958
35	58.929	70.988	85.995	104.715	128.113	157.404	194.128	240.221	298.127	370.924	462.489	577.698	722.680
36	61.564	74.606	90.950	111.482	137.329	169.925	211.093	263.150	329.039	412.498	518.265	652.350	822.364
37	64.270	78.355	96.129	118.617	147.132	183.356	229.446	288.164	363.043	458.607	580.633	736.504	935.640
38	67.050	82.241	101.544	126.142	157.558	197.763	249.301	315.451	400.448	509.746	650.371	831.368	1064.364
39	69.906	86.268	107.205	134.077	168.648	213.219	270.780	345.219	441.593	566.463	728.352	938.306	1210.641
40	72.840	90.441	113.124	142.444	180.444	229.798	294.016	377.694	486.852	629.368	815.548	1058.854	1376.865
41	75.854	94.766	119.311	151.269	192.990	247.584	319.15	413.12	536.64	699.14	913.05	1194.74	1565.76
42	78.950	99.249	125.780	160.574	206.335	266.663	346.35	451.77	591.40	776.51	1022.07	1347.93	1780.40
43	82.130	103.894	132.543	170.387	220.529	287.129	375.77	493.93	651.64	862.33	1143.98	1520.61	2024.32
44	85.397	108.708	139.613	180.736	235.627	309.084	407.59	539.92	717.90	957.52	1280.30	1715.27	2301.50
45	88.753	113.698	147.004	191.649	251.685	332.635	442.02	590.10	790.80	1063.08	1432.72	1934.71	2616.48
46	92.201	118.868	154.732	203.157	268.765	357.900	479.27	644.83	870.97	1180.16	1603.16	2182.07	2974.41
47	95.743	124.227	162.810	215.293	286.931	385.002	519.57	704.55	959.17	1310.02	1793.75	2460.91	3381.15
48	99.382	129.781	171.256	228.090	306.254	414.074	563.16	769.69	1056.19	1454.04	2006.85	2775.25	3843.35
49	103.119	135.537	180.086	241.586	326.807	445.262	610.32	840.75	1162.91	1613.77	2245.14	3129.59	4368.58
50	106.959	141.502	189.317	255.818	348.667	478.717	661.33	918.27	1280.30	1790.93	2511.60	3529.03	4965.43

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 11.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.901	0.910	0.919	0.928	0.937	0.946	0.955	0.964	0.973	0.982	0.991	1.000	1.009
2	1.713	1.738	1.763	1.789	1.815	1.841	1.867	1.893	1.920	1.946	1.973	2.000	2.027
3	2.444	2.491	2.539	2.588	2.637	2.687	2.738	2.789	2.841	2.893	2.946	3.000	3.054
4	3.102	3.177	3.252	3.329	3.408	3.488	3.569	3.652	3.737	3.823	3.911	4.000	4.091
5	3.696	3.800	3.908	4.017	4.130	4.245	4.364	4.485	4.609	4.736	4.866	5.000	5.137
6	4.231	4.368	4.510	4.656	4.806	4.962	5.122	5.287	5.457	5.633	5.814	6.000	6.192
7	4.712	4.884	5.063	5.248	5.440	5.640	5.846	6.061	6.283	6.513	6.752	7.000	7.257
8	5.146	5.354	5.571	5.798	6.034	6.281	6.538	6.806	7.086	7.378	7.682	8.000	8.331
9	5.537	5.782	6.038	6.308	6.591	6.887	7.198	7.525	7.867	8.227	8.604	9.000	9.415
10	5.889	6.171	6.468	6.781	7.112	7.461	7.829	8.218	8.628	9.061	9.518	10.000	10.509
11	6.207	6.525	6.862	7.220	7.600	8.003	8.431	8.885	9.368	9.879	10.423	11.000	11.613
12	6.492	6.847	7.225	7.628	8.058	8.517	9.006	9.529	10.087	10.683	11.320	12.000	12.726
13	6.750	7.140	7.558	8.006	8.487	9.002	9.556	10.150	10.788	11.473	12.209	13.000	13.850
14	6.982	7.407	7.864	8.357	8.888	9.462	10.080	10.748	11.469	12.248	13.090	14.000	14.984
15	7.191	7.649	8.145	8.683	9.265	9.896	10.581	11.325	12.132	13.009	13.963	15.000	16.128
16	7.379	7.870	8.404	8.985	9.618	10.307	11.059	11.880	12.777	13.757	14.828	16.000	17.282
17	7.549	8.071	8.641	9.265	9.948	10.696	11.516	12.416	13.405	14.491	15.686	17.000	18.447
18	7.702	8.254	8.860	9.525	10.258	11.064	11.952	12.933	14.016	15.212	16.535	18.000	19.622
19	7.839	8.420	9.060	9.767	10.548	11.412	12.369	13.431	14.610	15.920	17.377	19.000	20.808
20	7.963	8.571	9.245	9.991	10.819	11.741	12.767	13.911	15.188	16.615	18.212	20.000	22.004
21	8.075	8.709	9.414	10.199	11.074	12.052	13.147	14.373	15.750	17.298	19.039	21.000	23.212
22	8.176	8.834	9.570	10.392	11.313	12.347	13.509	14.819	16.298	17.968	19.858	22.000	24.430
23	8.266	8.948	9.713	10.571	11.536	12.625	13.856	15.249	16.830	18.626	20.670	23.000	25.659
24	8.348	9.052	9.844	10.737	11.746	12.889	14.187	15.664	17.348	19.273	21.475	24.000	26.899
25	8.422	9.147	9.965	10.891	11.942	13.138	14.503	16.063	17.852	19.907	22.273	25.000	28.150
26	8.488	9.232	10.076	11.034	12.126	13.374	14.804	16.448	18.343	20.531	23.063	26.000	29.413
27	8.548	9.311	10.178	11.166	12.298	13.597	15.092	16.820	18.820	21.143	23.846	27.000	30.687
28	8.602	9.382	10.271	11.290	12.459	13.808	15.367	17.177	19.284	21.744	24.622	28.000	31.972
29	8.650	9.446	10.357	11.404	12.610	14.007	15.630	17.522	19.736	22.334	25.391	29.000	33.269
30	8.694	9.505	10.437	11.510	12.752	14.196	15.881	17.855	20.176	22.913	26.154	30.000	34.578
31	8.733	9.559	10.509	11.608	12.885	14.375	16.121	18.176	20.603	23.483	26.909	31.000	35.899
32	8.769	9.608	10.576	11.700	13.009	14.544	16.349	18.484	21.019	24.041	27.658	32.000	37.231
33	8.801	9.652	10.638	11.784	13.126	14.703	16.568	18.782	21.424	24.590	28.399	33.000	38.576
34	8.829	9.692	10.694	11.863	13.235	14.855	16.777	19.069	21.818	25.129	29.135	34.000	39.932
35	8.855	9.729	10.746	11.936	13.337	14.998	16.976	19.346	22.202	25.658	29.863	35.000	41.301
36	8.879	9.763	10.793	12.004	13.433	15.133	17.166	19.613	22.575	26.178	30.585	36.000	42.682
37	8.900	9.793	10.837	12.066	13.523	15.261	17.348	19.870	22.937	26.688	31.301	37.000	44.075
38	8.919	9.821	10.877	12.125	13.607	15.382	17.521	20.118	23.290	27.189	32.010	38.000	45.482
39	8.936	9.846	10.914	12.179	13.686	15.496	17.687	20.357	23.634	27.682	32.712	39.000	46.900
40	8.951	9.869	10.948	12.229	13.760	15.605	17.845	20.588	23.968	28.165	33.408	40.000	48.332
41	8.965	9.889	10.980	12.275	13.829	15.707	17.996	20.810	24.293	28.639	34.098	41.000	49.776
42	8.977	9.908	11.008	12.319	13.894	15.804	18.141	21.024	24.610	29.105	34.782	42.000	51.234
43	8.989	9.926	11.035	12.359	13.955	15.896	18.279	21.230	24.918	29.563	35.460	43.000	52.704
44	8.999	9.941	11.059	12.396	14.011	15.982	18.410	21.429	25.217	30.012	36.131	44.000	54.188
45	9.008	9.956	11.081	12.430	14.065	16.064	18.536	21.621	25.509	30.453	36.797	45.000	55.685
46	9.016	9.969	11.102	12.463	14.115	16.142	18.656	21.806	25.792	30.887	37.456	46.000	57.196
47	9.024	9.981	11.120	12.492	14.162	16.215	18.770	21.984	26.068	31.312	38.110	47.000	58.720
48	9.030	9.991	11.138	12.520	14.205	16.285	18.880	22.155	26.336	31.730	38.758	48.000	60.258
49	9.036	10.001	11.153	12.545	14.247	16.351	18.984	22.321	26.598	32.140	39.399	49.000	61.810
50	9.042	10.010	11.168	12.569	14.285	16.413	19.084	22.481	26.852	32.543	40.035	50.000	63.376

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 11.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.018	1.027	1.036	1.045	1.054	1.063	1.072	1.081	1.090	1.099	1.108	1.117	1.126
2	2.054	2.082	2.109	2.137	2.165	2.193	2.221	2.250	2.278	2.307	2.336	2.365	2.394
3	3.109	3.165	3.221	3.278	3.336	3.395	3.454	3.513	3.574	3.635	3.697	3.759	3.822
4	4.183	4.278	4.374	4.471	4.571	4.672	4.775	4.879	4.986	5.094	5.204	5.317	5.431
5	5.277	5.420	5.567	5.718	5.872	6.029	6.191	6.356	6.525	6.698	6.875	7.056	7.242
6	6.390	6.594	6.804	7.020	7.243	7.473	7.709	7.952	8.203	8.461	8.727	9.000	9.281
7	7.523	7.799	8.085	8.382	8.689	9.007	9.337	9.678	10.032	10.399	10.778	11.171	11.578
8	8.677	9.037	9.412	9.804	10.212	10.638	11.082	11.544	12.026	12.528	13.051	13.596	14.164
9	9.851	10.308	10.788	11.291	11.818	12.372	12.952	13.561	14.199	14.869	15.570	16.306	17.077
10	11.047	11.614	12.213	12.844	13.511	14.215	14.958	15.742	16.569	17.441	18.362	19.333	20.357
11	12.264	12.955	13.689	14.468	15.296	16.175	17.108	18.099	19.152	20.269	21.455	22.714	24.051
12	13.503	14.332	15.218	16.165	17.177	18.258	19.413	20.648	21.967	23.377	24.883	26.491	28.210
13	14.764	15.746	16.802	17.938	19.159	20.472	21.884	23.403	25.036	26.792	28.681	30.711	32.894
14	16.048	17.199	18.444	19.791	21.249	22.826	24.534	26.382	28.382	30.546	32.889	35.425	38.169
15	17.355	18.691	20.145	21.728	23.451	25.329	27.374	29.602	32.029	34.673	37.553	40.691	44.109
16	18.686	20.223	21.907	23.751	25.773	27.989	30.419	33.083	36.004	39.208	42.721	46.574	50.799
17	20.041	21.796	23.732	25.866	28.220	30.818	33.683	36.847	40.338	44.192	48.448	53.145	58.332
18	21.420	23.413	25.623	28.076	30.800	33.824	37.183	40.915	45.062	49.671	54.793	60.487	66.815
19	22.824	25.072	27.583	30.386	33.519	37.020	40.935	45.314	50.212	55.692	61.825	68.688	76.369
20	24.253	26.777	29.613	32.800	36.385	40.418	44.957	50.069	55.826	62.310	69.617	77.850	87.127
21	25.708	28.528	31.716	35.323	39.405	44.030	49.270	55.210	61.945	69.584	78.251	88.084	99.242
22	27.189	30.326	33.895	37.959	42.589	47.869	53.893	60.767	68.616	77.579	87.819	99.518	112.885
23	28.697	32.172	36.152	40.714	45.946	51.951	58.849	66.775	75.887	86.366	98.421	112.290	128.249
24	30.232	34.069	38.491	43.593	49.483	56.291	64.162	73.271	83.814	96.024	110.169	126.558	145.551
25	31.795	36.017	40.914	46.601	53.212	60.903	69.859	80.292	92.455	106.639	123.187	142.497	165.035
26	33.386	38.017	43.425	49.745	57.142	65.807	75.966	87.884	101.874	118.306	137.613	160.303	186.976
27	35.005	40.072	46.025	53.031	61.285	71.020	82.513	96.091	112.142	131.130	153.598	180.195	211.685
28	36.654	42.182	48.720	56.465	65.652	76.562	89.532	104.963	123.335	145.223	171.311	202.416	239.510
29	38.332	44.349	51.512	60.054	70.255	82.454	97.057	114.554	135.537	160.714	190.940	227.239	270.845
30	40.041	46.575	54.404	63.804	75.107	88.716	105.124	124.924	148.837	177.740	212.690	254.970	306.131
31	41.781	48.860	57.401	67.723	80.220	95.374	113.772	136.134	163.336	196.453	236.792	285.948	345.869
32	43.551	51.208	60.505	71.819	85.611	102.452	123.044	148.253	179.141	217.020	263.499	320.555	390.618
33	45.354	53.619	63.722	76.099	91.292	109.976	132.984	161.354	196.370	239.626	293.093	359.215	441.011
34	47.189	56.095	67.054	80.572	97.281	117.974	143.641	175.518	215.151	264.472	325.887	402.402	497.760
35	49.058	58.638	70.506	85.246	103.594	126.477	155.065	190.830	235.625	291.780	362.226	450.647	561.667
36	50.960	61.250	74.083	90.131	110.247	135.516	167.313	207.384	257.942	321.794	402.494	504.543	633.634
37	52.896	63.933	77.789	95.236	117.261	145.125	180.444	225.280	282.270	354.782	447.115	564.751	714.678
38	54.867	66.687	81.628	100.571	124.653	155.340	194.521	244.627	308.790	391.040	496.560	632.010	805.943
39	56.874	69.517	85.606	106.146	132.445	166.200	209.613	265.543	337.699	430.891	551.350	707.146	908.720
40	58.916	72.423	89.727	111.973	140.658	177.744	225.792	288.154	369.212	474.691	612.063	791.082	1024.459
41	60.996	75.407	93.996	118.061	149.316	190.016	243.14	312.60	403.56	522.83	679.34	884.85	1154.80
42	63.113	78.472	98.419	124.424	158.441	203.062	261.73	339.03	441.01	575.74	753.89	989.60	1301.57
43	65.268	81.620	103.002	131.074	168.059	216.931	281.67	367.60	481.83	633.90	836.50	1106.61	1466.86
44	67.462	84.853	107.750	138.024	178.198	231.674	303.04	398.48	526.33	697.82	928.04	1237.33	1653.00
45	69.696	88.173	112.669	145.286	188.884	247.347	325.95	431.87	574.84	768.07	1029.48	1383.36	1862.61
46	71.969	91.584	117.765	152.875	200.148	264.009	350.52	467.97	627.72	845.28	1141.88	1546.49	2098.66
47	74.284	95.086	123.045	160.807	212.021	281.721	376.85	506.99	685.36	930.15	1266.44	1728.73	2364.48
48	76.641	98.683	128.515	169.095	224.535	300.550	405.09	549.18	748.19	1023.42	1404.46	1932.31	2663.83
49	79.040	102.377	134.182	177.757	237.727	320.567	435.35	594.79	816.69	1125.94	1557.40	2159.74	3000.93
50	81.482	106.171	140.053	186.809	251.631	341.846	467.80	644.10	891.35	1238.62	1726.87	2413.80	3380.56

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 12.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.893	0.902	0.911	0.920	0.929	0.938	0.946	0.955	0.964	0.973	0.982	0.991	1.000
2	1.690	1.715	1.740	1.765	1.791	1.816	1.842	1.868	1.894	1.920	1.947	1.973	2.000
3	2.402	2.448	2.495	2.543	2.591	2.640	2.690	2.740	2.791	2.842	2.894	2.947	3.000
4	3.037	3.110	3.183	3.258	3.335	3.413	3.492	3.573	3.655	3.739	3.825	3.912	4.000
5	3.605	3.706	3.810	3.916	4.025	4.137	4.252	4.369	4.489	4.612	4.738	4.868	5.000
6	4.111	4.244	4.380	4.521	4.666	4.816	4.970	5.129	5.293	5.462	5.636	5.815	6.000
7	4.564	4.729	4.900	5.078	5.262	5.452	5.650	5.856	6.068	6.289	6.517	6.754	7.000
8	4.968	5.166	5.373	5.589	5.814	6.049	6.294	6.550	6.816	7.094	7.383	7.685	8.000
9	5.328	5.561	5.804	6.060	6.328	6.609	6.903	7.213	7.537	7.877	8.234	8.608	9.000
10	5.650	5.916	6.197	6.492	6.804	7.133	7.480	7.846	8.232	8.639	9.069	9.522	10.000
11	5.938	6.237	6.554	6.890	7.247	7.625	8.026	8.451	8.902	9.381	9.889	10.428	11.000
12	6.194	6.526	6.880	7.256	7.658	8.086	8.542	9.029	9.549	10.103	10.694	11.326	12.000
13	6.424	6.787	7.176	7.593	8.039	8.518	9.031	9.581	10.172	10.805	11.486	12.216	13.000
14	6.628	7.022	7.446	7.902	8.394	8.923	9.494	10.109	10.773	11.489	12.263	13.098	14.000
15	6.811	7.234	7.692	8.187	8.723	9.303	9.931	10.613	11.352	12.155	13.026	13.972	15.000
16	6.974	7.426	7.916	8.449	9.028	9.659	10.346	11.095	11.911	12.802	13.775	14.838	16.000
17	7.120	7.598	8.120	8.689	9.312	9.993	10.738	11.555	12.450	13.433	14.511	15.697	17.000
18	7.250	7.754	8.306	8.911	9.575	10.306	11.109	11.994	12.970	14.046	15.234	16.548	18.000
19	7.366	7.894	8.475	9.114	9.820	10.599	11.460	12.414	13.471	14.643	15.945	17.391	19.000
20	7.469	8.020	8.629	9.302	10.047	10.874	11.793	12.815	13.954	15.224	16.642	18.227	20.000
21	7.562	8.134	8.769	9.474	10.258	11.132	12.108	13.198	14.420	15.789	17.327	19.055	21.000
22	7.645	8.237	8.897	9.632	10.454	11.374	12.405	13.565	14.869	16.340	18.000	19.876	22.000
23	7.718	8.330	9.013	9.778	10.636	11.600	12.687	13.914	15.302	16.875	18.660	20.690	23.000
24	7.784	8.414	9.119	9.912	10.805	11.813	12.954	14.249	15.720	17.396	19.309	21.496	24.000
25	7.843	8.489	9.216	10.035	10.961	12.012	13.207	14.568	16.123	17.904	19.947	22.295	25.000
26	7.896	8.557	9.304	10.148	11.107	12.199	13.445	14.873	16.512	18.397	20.573	23.087	26.000
27	7.943	8.619	9.384	10.252	11.242	12.374	13.672	15.164	16.886	18.878	21.187	23.872	27.000
28	7.984	8.674	9.456	10.348	11.368	12.538	13.886	15.443	17.247	19.345	21.791	24.650	28.000
29	8.022	8.724	9.523	10.436	11.484	12.692	14.088	15.709	17.596	19.800	22.384	25.421	29.000
30	8.055	8.769	9.583	10.517	11.593	12.836	14.280	15.963	17.931	20.243	22.967	26.185	30.000
31	8.085	8.809	9.638	10.592	11.693	12.971	14.461	16.205	18.255	20.674	23.539	26.942	31.000
32	8.112	8.846	9.689	10.660	11.787	13.098	14.633	16.437	18.568	21.094	24.100	27.693	32.000
33	8.135	8.879	9.734	10.723	11.873	13.217	14.796	16.659	18.869	21.502	24.652	28.437	33.000
34	8.157	8.909	9.776	10.781	11.954	13.328	14.949	16.871	19.159	21.899	25.194	29.174	34.000
35	8.176	8.935	9.814	10.835	12.028	13.433	15.095	17.073	19.439	22.286	25.726	29.905	35.000
36	8.192	8.960	9.848	10.884	12.098	13.531	15.233	17.266	19.709	22.662	26.249	30.629	36.000
37	8.208	8.981	9.880	10.929	12.162	13.623	15.363	17.450	19.970	23.028	26.763	31.346	37.000
38	8.221	9.001	9.908	10.970	12.222	13.709	15.486	17.627	20.221	23.385	27.267	32.057	38.000
39	8.233	9.019	9.934	11.008	12.278	13.789	15.603	17.795	20.463	23.731	27.762	32.762	39.000
40	8.244	9.035	9.958	11.043	12.329	13.865	15.714	17.956	20.696	24.069	28.248	33.461	40.000
41	8.253	9.049	9.980	11.075	12.377	13.936	15.818	18.110	20.921	24.398	28.726	34.153	41.000
42	8.262	9.062	9.999	11.105	12.422	14.003	15.917	18.257	21.139	24.717	29.195	34.839	42.000
43	8.270	9.074	10.017	11.132	12.463	14.065	16.011	18.397	21.348	25.028	29.656	35.519	43.000
44	8.276	9.085	10.033	11.157	12.501	14.123	16.100	18.531	21.550	25.331	30.109	36.193	44.000
45	8.283	9.094	10.048	11.181	12.537	14.178	16.184	18.659	21.744	25.626	30.553	36.861	45.000
46	8.288	9.103	10.062	11.202	12.570	14.230	16.263	18.782	21.932	25.913	30.990	37.523	46.000
47	8.293	9.111	10.074	11.221	12.601	14.278	16.338	18.898	22.113	26.192	31.418	38.179	47.000
48	8.297	9.118	10.085	11.239	12.629	14.323	16.410	19.010	22.288	26.463	31.840	38.829	48.000
49	8.301	9.124	10.096	11.256	12.656	14.365	16.477	19.117	22.456	26.728	32.253	39.474	49.000
50	8.304	9.130	10.105	11.271	12.680	14.405	16.541	19.219	22.618	26.985	32.659	40.112	50.000

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 12.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.009	1.018	1.027	1.036	1.045	1.054	1.063	1.071	1.080	1.089	1.098	1.107	1.116
2	2.027	2.054	2.081	2.108	2.136	2.164	2.191	2.219	2.248	2.276	2.304	2.333	2.362
3	3.054	3.108	3.164	3.219	3.276	3.333	3.391	3.449	3.508	3.568	3.629	3.690	3.752
4	4.090	4.182	4.275	4.370	4.467	4.565	4.665	4.767	4.871	4.976	5.083	5.193	5.303
5	5.136	5.274	5.416	5.562	5.711	5.863	6.019	6.179	6.343	6.510	6.681	6.856	7.035
6	6.190	6.386	6.588	6.796	7.010	7.231	7.458	7.692	7.933	8.180	8.435	8.698	8.968
7	7.255	7.518	7.792	8.075	8.368	8.672	8.987	9.313	9.650	10.000	10.362	10.737	11.125
8	8.328	8.670	9.027	9.399	9.786	10.190	10.611	11.049	11.506	11.982	12.478	12.994	13.532
9	9.412	9.843	10.296	10.770	11.268	11.790	12.337	12.910	13.511	14.141	14.802	15.494	16.219
10	10.504	11.037	11.598	12.191	12.815	13.475	14.170	14.904	15.677	16.493	17.354	18.261	19.217
11	11.607	12.252	12.936	13.662	14.432	15.250	16.118	17.040	18.017	19.055	20.156	21.324	22.564
12	12.720	13.488	14.309	15.185	16.121	17.121	18.188	19.328	20.546	21.846	23.234	24.716	26.299
13	13.842	14.747	15.719	16.763	17.886	19.091	20.387	21.780	23.277	24.885	26.614	28.472	30.468
14	14.975	16.028	17.167	18.398	19.729	21.168	22.724	24.407	26.228	28.197	30.326	32.629	35.120
15	16.117	17.332	18.653	20.091	21.654	23.355	25.207	27.222	29.416	31.803	34.403	37.233	40.313
16	17.270	18.660	20.180	21.844	23.665	25.660	27.845	30.238	32.860	35.732	38.880	42.329	46.108
17	18.433	20.011	21.747	23.660	25.766	28.088	30.648	33.469	36.581	40.012	43.797	47.971	52.576
18	19.607	21.386	23.356	25.540	27.961	30.647	33.626	36.931	40.601	44.674	49.196	54.218	59.795
19	20.791	22.786	25.009	27.488	30.254	33.342	36.790	40.641	44.943	49.752	55.126	61.134	67.851
20	21.985	24.210	26.706	29.506	32.650	36.182	40.152	44.615	49.635	55.283	61.639	68.792	76.843
21	23.191	25.661	28.448	31.595	35.152	39.174	43.723	48.873	54.704	61.309	68.791	77.269	86.878
22	24.407	27.137	30.236	33.759	37.766	42.326	47.519	53.436	60.180	67.872	76.645	86.655	98.078
23	25.633	28.639	32.073	36.001	40.496	45.647	51.551	58.324	66.097	75.021	85.271	97.047	110.579
24	26.871	30.168	33.959	38.322	43.349	49.146	55.836	63.561	72.488	82.809	94.744	108.552	124.530
25	28.120	31.725	35.895	40.726	46.329	52.832	60.388	69.173	79.394	91.292	105.148	121.290	140.100
26	29.380	33.309	37.884	43.217	49.442	56.716	65.225	75.185	86.854	100.532	116.573	135.392	157.478
27	30.651	34.922	39.925	45.796	52.693	60.808	70.364	81.627	94.914	110.597	129.120	151.006	176.872
28	31.934	36.563	42.021	48.467	56.091	65.119	75.824	88.529	103.621	121.561	142.900	168.292	198.518
29	33.228	38.234	44.174	51.234	59.639	69.661	81.625	95.924	113.028	133.504	158.033	187.430	222.677
30	34.534	39.935	46.384	54.099	63.346	74.446	87.789	103.847	123.191	146.514	174.652	208.619	249.639
31	35.851	41.666	48.653	57.067	67.219	79.488	94.339	112.336	134.171	160.684	192.904	232.079	279.731
32	37.180	43.428	50.983	60.141	71.264	84.800	101.297	121.431	146.033	176.121	212.948	258.051	313.316
33	38.521	45.221	53.375	63.324	75.490	90.397	108.691	131.177	158.848	192.935	234.961	286.807	350.799
34	39.874	47.046	55.832	66.622	79.905	96.293	116.547	141.618	172.693	211.250	259.135	318.643	392.633
35	41.239	48.904	58.354	70.037	84.517	102.505	124.893	152.805	187.650	231.201	285.684	353.891	439.323
36	42.616	50.796	60.944	73.574	89.335	109.050	133.762	164.791	203.809	252.934	314.841	392.915	491.431
37	44.005	52.720	63.603	77.237	94.368	115.945	143.184	177.633	221.267	276.606	346.861	436.120	549.589
38	45.407	54.680	66.334	81.031	99.625	123.210	153.196	191.392	240.128	302.393	382.026	483.954	614.496
39	46.821	56.674	69.137	84.961	105.117	130.864	163.833	206.135	260.504	330.481	420.644	536.914	686.938
40	48.248	58.704	72.016	89.031	110.855	138.929	175.135	221.930	282.518	361.078	463.056	595.547	767.788
41	49.688	60.770	74.972	93.247	116.848	147.425	187.14	238.85	306.30	394.41	509.63	660.46	858.02
42	51.141	62.873	78.007	97.613	123.109	156.376	199.90	256.99	331.99	430.71	560.78	732.33	958.73
43	52.606	65.014	81.123	102.134	129.650	165.807	213.46	276.41	359.75	470.26	616.96	811.91	1071.13
44	54.085	67.192	84.323	106.818	136.482	175.743	227.86	297.23	389.74	513.33	678.65	900.00	1196.57
45	55.577	69.410	87.608	111.668	143.620	186.211	243.17	319.53	422.14	560.25	746.40	997.54	1336.57
46	57.082	71.668	90.981	116.692	151.076	197.241	259.43	343.43	457.14	611.37	820.81	1105.52	1492.83
47	58.600	73.965	94.445	121.896	158.865	208.861	276.70	369.03	494.96	667.04	902.52	1225.08	1667.22
48	60.133	76.304	98.002	127.285	167.002	221.103	295.06	396.46	535.81	727.69	992.26	1357.45	1861.85
49	61.678	78.684	101.654	132.866	175.502	234.002	314.56	425.85	579.95	793.75	1090.81	1503.99	2079.08
50	63.238	81.107	105.403	138.647	184.382	247.591	335.29	457.34	627.63	865.71	1199.05	1666.24	2321.51

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 13.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.885	0.894	0.903	0.912	0.920	0.929	0.938	0.947	0.956	0.965	0.973	0.982	0.991
2	1.668	1.693	1.717	1.742	1.767	1.793	1.818	1.844	1.869	1.895	1.921	1.947	1.974
3	2.361	2.407	2.453	2.500	2.547	2.595	2.643	2.693	2.742	2.793	2.844	2.895	2.947
4	2.974	3.045	3.117	3.190	3.264	3.340	3.418	3.496	3.577	3.658	3.741	3.826	3.912
5	3.517	3.615	3.716	3.819	3.925	4.033	4.144	4.258	4.374	4.493	4.616	4.741	4.869
6	3.998	4.125	4.257	4.393	4.533	4.677	4.825	4.979	5.136	5.299	5.467	5.639	5.817
7	4.423	4.581	4.745	4.915	5.092	5.275	5.465	5.661	5.865	6.076	6.295	6.522	6.757
8	4.799	4.988	5.186	5.392	5.607	5.831	6.064	6.307	6.561	6.826	7.101	7.388	7.688
9	5.132	5.352	5.584	5.826	6.081	6.347	6.626	6.919	7.227	7.549	7.886	8.240	8.611
10	5.426	5.678	5.943	6.222	6.517	6.827	7.154	7.499	7.863	8.246	8.650	9.076	9.526
11	5.687	5.969	6.267	6.583	6.918	7.273	7.649	8.048	8.470	8.919	9.394	9.898	10.433
12	5.918	6.229	6.560	6.912	7.287	7.687	8.113	8.567	9.051	9.568	10.118	10.705	11.332
13	6.122	6.461	6.824	7.212	7.627	8.072	8.549	9.059	9.607	10.193	10.823	11.498	12.223
14	6.302	6.669	7.062	7.485	7.940	8.430	8.957	9.525	10.137	10.797	11.509	12.277	13.106
15	6.462	6.854	7.277	7.734	8.228	8.762	9.340	9.966	10.644	11.380	12.177	13.042	13.981
16	6.604	7.020	7.472	7.961	8.493	9.071	9.700	10.384	11.129	11.941	12.827	13.793	14.848
17	6.729	7.169	7.647	8.168	8.737	9.358	10.037	10.780	11.593	12.483	13.460	14.531	15.708
18	6.840	7.301	7.805	8.357	8.962	9.625	10.353	11.154	12.035	13.006	14.076	15.257	16.560
19	6.938	7.420	7.948	8.529	9.168	9.873	10.650	11.509	12.459	13.510	14.676	15.969	17.405
20	7.025	7.525	8.077	8.686	9.358	10.103	10.928	11.845	12.863	13.997	15.260	16.669	18.242
21	7.102	7.620	8.193	8.828	9.533	10.317	11.189	12.163	13.250	14.466	15.828	17.356	19.071
22	7.170	7.705	8.298	8.959	9.694	10.516	11.434	12.464	13.619	14.918	16.381	18.031	19.894
23	7.230	7.780	8.393	9.077	9.843	10.700	11.664	12.749	13.972	15.355	16.920	18.694	20.709
24	7.283	7.848	8.479	9.186	9.979	10.872	11.879	13.019	14.310	15.776	17.444	19.346	21.517
25	7.330	7.908	8.556	9.284	10.105	11.032	12.082	13.274	14.632	16.182	17.954	19.985	22.318
26	7.372	7.962	8.626	9.374	10.220	11.180	12.271	13.516	14.941	16.574	18.451	20.614	23.111
27	7.409	8.011	8.689	9.456	10.326	11.317	12.449	13.746	15.235	16.952	18.935	21.231	23.898
28	7.441	8.054	8.746	9.531	10.424	11.445	12.616	13.963	15.517	17.316	19.405	21.838	24.677
29	7.470	8.092	8.797	9.599	10.514	11.564	12.773	14.168	15.786	17.668	19.864	22.434	25.450
30	7.496	8.127	8.843	9.661	10.597	11.675	12.919	14.363	16.043	18.007	20.310	23.019	26.216
31	7.518	8.157	8.885	9.717	10.674	11.777	13.057	14.547	16.289	18.334	20.744	23.594	26.975
32	7.538	8.185	8.923	9.769	10.744	11.873	13.186	14.722	16.524	18.650	21.167	24.159	27.728
33	7.556	8.210	8.957	9.816	10.809	11.962	13.308	14.887	16.749	18.954	21.578	24.713	28.474
34	7.572	8.232	8.988	9.859	10.868	12.044	13.421	15.043	16.963	19.248	21.979	25.258	29.213
35	7.586	8.251	9.015	9.898	10.923	12.120	13.528	15.191	17.169	19.531	22.369	25.793	29.945
36	7.598	8.269	9.040	9.933	10.973	12.192	13.628	15.332	17.365	19.804	22.748	26.319	30.671
37	7.609	8.284	9.063	9.966	11.020	12.258	13.722	15.465	17.552	20.068	23.118	26.836	31.391
38	7.618	8.299	9.083	9.995	11.062	12.319	13.810	15.590	17.731	20.322	23.478	27.343	32.105
39	7.627	8.311	9.102	10.022	11.102	12.376	13.892	15.709	17.902	20.567	23.828	27.841	32.812
40	7.634	8.322	9.119	10.047	11.138	12.429	13.970	15.822	18.066	20.804	24.169	28.331	33.512
41	7.641	8.332	9.134	10.069	11.171	12.478	14.043	15.929	18.222	21.032	24.500	28.812	34.207
42	7.647	8.341	9.147	10.090	11.202	12.524	14.111	16.030	18.372	21.252	24.823	29.284	34.895
43	7.652	8.349	9.159	10.108	11.230	12.567	14.175	16.126	18.515	21.465	25.138	29.748	35.578
44	7.657	8.356	9.170	10.125	11.256	12.606	14.235	16.216	18.651	21.669	25.444	30.204	36.254
45	7.661	8.363	9.180	10.141	11.280	12.643	14.291	16.302	18.782	21.867	25.742	30.652	36.924
46	7.664	8.369	9.189	10.155	11.302	12.677	14.344	16.384	18.906	22.057	26.032	31.091	37.589
47	7.668	8.374	9.197	10.168	11.322	12.709	14.393	16.461	19.026	22.241	26.314	31.523	38.247
48	7.671	8.378	9.205	10.179	11.340	12.738	14.440	16.533	19.139	22.419	26.589	31.948	38.900
49	7.673	8.382	9.211	10.190	11.358	12.766	14.483	16.603	19.248	22.590	26.857	32.365	39.547
50	7.675	8.386	9.217	10.200	11.373	12.791	14.524	16.668	19.352	22.755	27.117	32.774	40.188

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 13.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	1.000	1.009	1.018	1.027	1.035	1.044	1.053	1.062	1.071	1.080	1.088	1.097	1.106
2	2.000	2.027	2.053	2.080	2.107	2.135	2.162	2.190	2.217	2.245	2.273	2.302	2.330
3	3.000	3.053	3.107	3.162	3.217	3.273	3.330	3.387	3.445	3.504	3.563	3.623	3.683
4	4.000	4.089	4.180	4.273	4.367	4.462	4.560	4.659	4.760	4.862	4.967	5.073	5.181
5	5.000	5.134	5.272	5.413	5.557	5.704	5.855	6.010	6.168	6.329	6.495	6.664	6.837
6	6.000	6.189	6.383	6.583	6.789	7.001	7.219	7.444	7.675	7.913	8.158	8.410	8.669
7	7.000	7.252	7.514	7.784	8.065	8.355	8.656	8.967	9.289	9.623	9.969	10.326	10.696
8	8.000	8.325	8.664	9.017	9.385	9.769	10.168	10.584	11.018	11.469	11.939	12.429	12.938
9	9.000	9.408	9.835	10.283	10.753	11.245	11.761	12.302	12.869	13.462	14.084	14.736	15.419
10	10.000	10.500	11.027	11.583	12.169	12.787	13.439	14.126	14.850	15.614	16.419	17.268	18.162
11	11.000	11.602	12.240	12.917	13.635	14.397	15.205	16.063	16.973	17.937	18.961	20.046	21.197
12	12.000	12.713	13.474	14.286	15.153	16.078	17.066	18.120	19.245	20.446	21.727	23.095	24.554
13	13.000	13.835	14.730	15.692	16.725	17.834	19.025	20.304	21.678	23.154	24.738	26.440	28.268
14	14.000	14.966	16.009	17.135	18.352	19.668	21.088	22.624	24.284	26.077	28.016	30.111	32.376
15	15.000	16.107	17.310	18.617	20.038	21.582	23.261	25.088	27.074	29.234	31.584	34.140	36.921
16	16.000	17.258	18.634	20.138	21.782	23.581	25.550	27.704	30.061	32.642	35.467	38.561	41.947
17	17.000	18.420	19.981	21.699	23.589	25.669	27.959	30.482	33.260	36.322	39.695	43.412	47.508
18	18.000	19.592	21.353	23.301	25.459	27.849	30.497	33.432	36.686	40.294	44.296	48.735	53.660
19	19.000	20.774	22.748	24.947	27.396	30.125	33.169	36.565	40.354	44.583	49.304	54.576	60.464
20	20.000	21.967	24.169	26.636	29.401	32.503	35.984	39.892	44.281	49.213	54.756	60.987	67.991
21	21.000	23.170	25.614	28.369	31.477	34.985	38.947	43.425	48.487	54.213	60.690	68.021	76.318
22	22.000	24.384	27.085	30.149	33.627	37.577	42.068	47.177	52.991	59.610	67.150	75.740	85.529
23	23.000	25.609	28.582	31.976	35.852	40.284	45.355	51.161	57.813	65.438	74.181	84.210	95.717
24	24.000	26.844	30.106	33.851	38.157	43.111	48.817	55.393	62.977	71.729	81.834	93.504	106.988
25	25.000	28.091	31.656	35.777	40.543	46.063	52.462	59.886	68.506	78.522	90.164	103.704	119.456
26	26.000	29.348	33.234	37.753	43.013	49.145	56.300	64.658	74.427	85.855	99.232	114.896	133.248
27	27.000	30.617	34.840	39.782	45.571	52.364	60.343	69.725	80.767	93.773	109.102	127.178	148.504
28	28.000	31.896	36.475	41.865	48.220	55.725	64.600	75.106	87.556	102.321	119.845	140.656	165.381
29	29.000	33.187	38.138	44.003	50.962	59.235	69.083	80.821	94.825	111.550	131.540	155.445	184.050
30	30.000	34.490	39.831	46.197	53.802	62.901	73.804	86.889	102.609	121.514	144.269	171.675	204.701
31	31.000	35.804	41.553	48.450	56.742	66.728	78.776	93.334	110.945	132.272	158.124	189.484	227.545
32	32.000	37.130	43.307	50.763	59.786	70.725	84.012	100.177	119.870	143.887	173.206	209.026	252.816
33	33.000	38.467	45.091	53.137	62.937	74.898	89.526	107.445	129.427	156.427	189.623	230.471	280.769
34	34.000	39.816	46.906	55.575	66.200	79.257	95.333	115.163	139.661	169.965	207.492	254.004	311.692
35	35.000	41.178	48.754	58.077	69.579	83.808	101.448	123.359	150.619	184.582	226.943	279.827	345.898
36	36.000	42.551	50.635	60.645	73.078	88.561	107.888	132.062	162.353	200.362	248.114	308.165	383.737
37	37.000	43.936	52.549	63.282	76.700	93.523	114.669	141.305	174.918	217.400	271.160	339.260	425.594
38	38.000	45.334	54.497	65.988	80.450	98.706	121.811	151.121	188.372	235.795	296.245	373.383	471.896
39	39.000	46.744	56.479	68.767	84.333	104.118	129.332	161.544	202.779	255.655	323.550	410.827	523.115
40	40.000	48.167	58.496	71.619	88.354	109.769	137.252	172.613	218.206	277.096	353.271	451.917	579.773
41	41.000	49.602	60.549	74.547	92.517	115.670	145.59	184.37	234.73	300.25	385.62	497.01	642.45
42	42.000	51.049	62.639	77.552	96.827	121.833	154.38	196.85	252.41	325.24	420.84	546.48	711.78
43	43.000	52.510	64.765	80.638	101.290	128.268	163.63	210.11	271.35	352.22	459.17	600.78	788.47
44	44.000	53.984	66.929	83.805	105.911	134.987	173.37	224.18	291.64	381.35	500.89	660.36	873.31
45	45.000	55.470	69.131	87.057	110.696	142.005	183.63	239.13	313.35	412.81	546.31	725.74	967.16
46	46.000	56.970	71.372	90.395	115.650	149.332	194.43	255.01	336.61	446.77	595.74	797.48	1070.97
47	47.000	58.483	73.653	93.821	120.779	156.984	205.81	271.87	361.51	483.43	649.55	876.21	1185.81
48	48.000	60.009	75.975	97.338	126.090	164.975	217.79	289.77	388.17	523.01	708.12	962.61	1312.84
49	49.000	61.549	78.337	100.949	131.588	173.319	230.40	308.78	416.73	565.75	771.87	1057.41	1453.36
50	50.000	63.103	80.741	104.656	137.282	182.032	243.69	328.97	447.30	611.89	841.27	1161.44	1608.81

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 14.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.877	0.886	0.895	0.904	0.912	0.921	0.930	0.939	0.947	0.956	0.965	0.974	0.982
2	1.647	1.671	1.695	1.720	1.745	1.769	1.794	1.820	1.845	1.870	1.896	1.922	1.948
3	2.322	2.366	2.412	2.457	2.504	2.551	2.598	2.646	2.695	2.744	2.794	2.845	2.896
4	2.914	2.982	3.052	3.124	3.196	3.270	3.346	3.423	3.501	3.580	3.661	3.744	3.828
5	3.433	3.528	3.626	3.726	3.828	3.933	4.041	4.151	4.264	4.379	4.498	4.619	4.743
6	3.889	4.012	4.139	4.270	4.405	4.544	4.687	4.835	4.987	5.143	5.305	5.471	5.642
7	4.288	4.440	4.598	4.761	4.931	5.106	5.288	5.476	5.672	5.874	6.084	6.301	6.526
8	4.639	4.820	5.009	5.205	5.410	5.624	5.847	6.079	6.321	6.572	6.835	7.109	7.394
9	4.946	5.156	5.376	5.607	5.848	6.101	6.366	6.644	6.935	7.240	7.560	7.895	8.246
10	5.216	5.454	5.705	5.969	6.247	6.541	6.849	7.175	7.518	7.879	8.260	8.661	9.084
11	5.453	5.718	5.999	6.297	6.612	6.945	7.298	7.673	8.069	8.489	8.935	9.407	9.907
12	5.660	5.952	6.263	6.593	6.944	7.318	7.716	8.140	8.592	9.073	9.586	10.133	10.716
13	5.842	6.159	6.498	6.860	7.247	7.661	8.104	8.579	9.087	9.631	10.215	10.840	11.510
14	6.002	6.343	6.709	7.102	7.524	7.977	8.466	8.991	9.556	10.165	10.821	11.528	12.291
15	6.142	6.506	6.897	7.320	7.776	8.269	8.801	9.377	10.001	10.675	11.407	12.199	13.058
16	6.265	6.650	7.066	7.517	8.006	8.537	9.114	9.740	10.422	11.163	11.971	12.851	13.811
17	6.373	6.777	7.217	7.695	8.216	8.784	9.404	10.081	10.821	11.630	12.516	13.487	14.551
18	6.467	6.890	7.352	7.856	8.408	9.012	9.674	10.400	11.198	12.076	13.042	14.106	15.278
19	6.550	6.991	7.473	8.002	8.582	9.221	9.925	10.700	11.556	12.502	13.549	14.708	15.993
20	6.623	7.079	7.581	8.133	8.742	9.414	10.158	10.982	11.895	12.910	14.039	15.295	16.695
21	6.687	7.158	7.678	8.252	8.887	9.592	10.375	11.246	12.217	13.300	14.511	15.866	17.384
22	6.743	7.228	7.764	8.359	9.020	9.756	10.577	11.494	12.521	13.673	14.967	16.422	18.062
23	6.792	7.290	7.842	8.456	9.141	9.907	10.764	11.727	12.810	14.029	15.406	16.964	18.727
24	6.835	7.344	7.911	8.544	9.252	10.046	10.939	11.945	13.083	14.370	15.831	17.491	19.381
25	6.873	7.393	7.973	8.623	9.352	10.174	11.101	12.151	13.342	14.696	16.240	18.004	20.024
26	6.906	7.436	8.028	8.694	9.444	10.292	11.252	12.343	13.587	15.008	16.635	18.504	20.655
27	6.935	7.474	8.078	8.759	9.528	10.400	11.392	12.524	13.819	15.306	17.017	18.991	21.275
28	6.961	7.507	8.123	8.817	9.605	10.500	11.522	12.693	14.039	15.590	17.384	19.465	21.884
29	6.983	7.537	8.162	8.870	9.674	10.592	11.644	12.853	14.247	15.863	17.739	19.926	22.483
30	7.003	7.564	8.198	8.918	9.738	10.677	11.756	13.002	14.445	16.123	18.082	20.376	23.071
31	7.020	7.587	8.230	8.961	9.796	10.755	11.861	13.142	14.632	16.372	18.412	20.813	23.648
32	7.035	7.608	8.258	8.999	9.849	10.827	11.959	13.274	14.809	16.610	18.731	21.239	24.216
33	7.048	7.626	8.284	9.035	9.897	10.893	12.049	13.397	14.977	16.838	19.039	21.654	24.774
34	7.060	7.643	8.306	9.066	9.941	10.954	12.134	13.513	15.136	17.055	19.336	22.058	25.321
35	7.070	7.657	8.327	9.095	9.982	11.011	12.212	13.622	15.287	17.264	19.622	22.451	25.860
36	7.079	7.670	8.345	9.121	10.018	11.062	12.285	13.724	15.430	17.463	19.899	22.834	26.388
37	7.087	7.681	8.361	9.144	10.052	11.110	12.352	13.820	15.565	17.653	20.165	23.207	26.908
38	7.094	7.691	8.376	9.166	10.082	11.154	12.415	13.910	15.693	17.835	20.423	23.570	27.418
39	7.100	7.700	8.389	9.185	10.110	11.195	12.474	13.995	15.815	18.009	20.671	23.923	27.920
40	7.105	7.708	8.401	9.202	10.136	11.232	12.528	14.074	15.930	18.175	20.911	24.267	28.412
41	7.110	7.715	8.411	9.218	10.159	11.266	12.579	14.148	16.039	18.334	21.142	24.602	28.896
42	7.114	7.721	8.420	9.232	10.180	11.298	12.626	14.218	16.142	18.486	21.365	24.928	29.372
43	7.117	7.727	8.429	9.244	10.199	11.327	12.670	14.284	16.240	18.631	21.580	25.246	29.839
44	7.120	7.731	8.436	9.256	10.217	11.354	12.711	14.345	16.332	18.770	21.788	25.555	30.298
45	7.123	7.736	8.443	9.266	10.233	11.378	12.749	14.403	16.420	18.903	21.988	25.857	30.749
46	7.126	7.740	8.449	9.276	10.248	11.401	12.784	14.457	16.503	19.030	22.182	26.150	31.192
47	7.128	7.743	8.454	9.284	10.261	11.422	12.816	14.508	16.582	19.152	22.368	26.435	31.627
48	7.130	7.746	8.459	9.292	10.273	11.441	12.847	14.556	16.657	19.268	22.548	26.713	32.055
49	7.131	7.749	8.463	9.299	10.284	11.459	12.875	14.601	16.727	19.379	22.722	26.984	32.475
50	7.133	7.751	8.467	9.305	10.294	11.476	12.901	14.643	16.794	19.485	22.890	27.248	32.888

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 14.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.991	1.000	1.009	1.018	1.026	1.035	1.044	1.053	1.061	1.070	1.079	1.088	1.096
2	1.974	2.000	2.026	2.053	2.080	2.106	2.134	2.161	2.188	2.215	2.243	2.271	2.299
3	2.948	3.000	3.053	3.106	3.161	3.215	3.271	3.327	3.384	3.441	3.499	3.558	3.617
4	3.913	4.000	4.088	4.179	4.270	4.363	4.458	4.555	4.653	4.753	4.854	4.958	5.063
5	4.870	5.000	5.133	5.269	5.409	5.552	5.698	5.847	6.000	6.156	6.316	6.480	6.648
6	5.818	6.000	6.187	6.379	6.578	6.781	6.991	7.207	7.430	7.659	7.894	8.136	8.386
7	6.759	7.000	7.250	7.509	7.777	8.055	8.342	8.639	8.947	9.266	9.596	9.938	10.291
8	7.691	8.000	8.322	8.658	9.008	9.372	9.752	10.147	10.558	10.987	11.433	11.897	12.381
9	8.614	9.000	9.404	9.828	10.271	10.736	11.223	11.733	12.268	12.828	13.414	14.029	14.672
10	9.530	10.000	10.495	11.018	11.568	12.148	12.759	13.404	14.083	14.798	15.552	16.347	17.184
11	10.438	11.000	11.596	12.228	12.899	13.609	14.363	15.162	16.009	16.907	17.859	18.868	19.939
12	11.337	12.000	12.707	13.460	14.264	15.122	16.037	17.012	18.053	19.164	20.348	21.611	22.959
13	12.229	13.000	13.827	14.714	15.666	16.688	17.784	18.960	20.223	21.579	23.033	24.595	26.271
14	13.113	14.000	14.957	15.990	17.105	18.308	19.608	21.011	22.526	24.163	25.931	27.840	29.902
15	13.989	15.000	16.097	17.288	18.581	19.986	21.512	23.169	24.971	26.929	29.057	31.370	33.884
16	14.858	16.000	17.247	18.609	20.096	21.722	23.499	25.441	27.566	29.889	32.430	35.209	38.250
17	15.719	17.000	18.407	19.953	21.652	23.519	25.573	27.833	30.320	33.056	36.069	39.385	43.037
18	16.572	18.000	19.577	21.320	23.248	25.380	27.739	30.351	33.243	36.446	39.995	43.928	48.286
19	17.418	19.000	20.758	22.712	24.886	27.305	29.999	33.001	36.345	40.074	44.232	48.869	54.042
20	18.256	20.000	21.949	24.128	26.567	29.298	32.359	35.790	39.639	43.957	48.803	54.244	60.353
21	19.087	21.000	23.150	25.569	28.292	31.361	34.822	38.727	43.134	48.111	53.735	60.090	67.273
22	19.911	22.000	24.362	27.035	30.063	33.497	37.393	41.817	46.844	52.558	59.056	66.448	74.861
23	20.728	23.000	25.584	28.527	31.881	35.707	40.077	45.071	50.782	57.316	64.797	73.365	83.181
24	21.537	24.000	26.817	30.045	33.746	37.995	42.879	48.496	54.961	62.409	70.991	80.888	92.304
25	22.339	25.000	28.061	31.589	35.660	40.364	45.803	52.101	59.397	67.858	77.675	89.071	102.306
26	23.135	26.000	29.316	33.161	37.625	42.815	48.856	55.896	64.106	73.690	84.886	97.972	113.275
27	23.923	27.000	30.582	34.760	39.642	45.352	52.043	59.890	69.104	79.932	92.667	107.654	125.301
28	24.704	28.000	31.859	36.388	41.711	47.979	55.369	64.095	74.408	86.611	101.061	118.185	138.488
29	25.479	29.000	33.148	38.044	43.835	50.697	58.841	68.521	80.039	93.759	110.119	129.640	152.948
30	26.247	30.000	34.447	39.729	46.015	53.511	62.466	73.180	86.015	101.409	119.891	142.099	168.802
31	27.008	31.000	35.758	41.443	48.252	56.424	66.250	78.084	92.358	109.596	130.436	155.652	186.187
32	27.762	32.000	37.080	43.188	50.548	59.439	70.199	83.246	99.090	118.357	141.812	170.393	205.248
33	28.510	33.000	38.415	44.963	52.905	62.559	74.322	88.680	106.236	127.733	154.087	186.428	226.150
34	29.251	34.000	39.760	46.769	55.323	65.790	78.626	94.400	113.821	137.767	167.330	203.869	249.067
35	29.985	35.000	41.118	48.608	57.805	69.133	83.118	100.421	121.871	148.505	181.620	222.840	274.197
36	30.714	36.000	42.487	50.478	60.353	72.594	87.807	106.759	130.416	159.996	197.037	243.475	301.751
37	31.435	37.000	43.869	52.381	62.968	76.176	92.702	113.431	139.486	172.294	213.671	265.920	331.964
38	32.151	38.000	45.262	54.317	65.651	79.884	97.812	120.454	149.112	185.455	231.619	290.334	365.092
39	32.860	39.000	46.668	56.288	68.405	83.722	103.146	127.846	159.329	199.540	250.984	316.890	401.416
40	33.563	40.000	48.086	58.293	71.231	87.695	108.714	135.627	170.174	214.613	271.877	345.775	441.246
41	34.260	41.000	49.517	60.333	74.132	91.807	114.53	143.82	181.68	230.74	294.42	377.19	484.92
42	34.951	42.000	50.960	62.409	77.109	96.063	120.59	152.44	193.90	248.01	318.74	411.37	532.81
43	35.635	43.000	52.416	64.522	80.165	100.469	126.93	161.52	206.87	266.48	344.99	448.54	585.31
44	36.314	44.000	53.884	66.671	83.301	105.029	133.54	171.07	220.63	286.25	373.30	488.97	642.89
45	36.987	45.000	55.366	68.858	86.519	109.750	140.44	181.13	235.24	307.41	403.85	532.95	706.02
46	37.653	46.000	56.860	71.084	89.822	114.636	147.64	191.71	250.75	330.05	436.81	580.79	775.24
47	38.314	47.000	58.368	73.349	93.212	119.693	155.16	202.85	267.21	354.28	472.38	632.83	851.14
48	38.969	48.000	59.889	75.653	96.692	124.928	163.01	214.58	284.68	380.22	510.75	689.43	934.36
49	39.619	49.000	61.423	77.998	100.262	130.346	171.20	226.93	303.22	407.97	552.15	750.99	1025.62
50	40.263	50.000	62.970	80.384	103.927	135.955	179.76	239.93	322.90	437.67	596.82	817.95	1125.68

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 15.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.870	0.878	0.887	0.896	0.904	0.913	0.922	0.930	0.939	0.948	0.957	0.965	0.974
2	1.626	1.650	1.674	1.698	1.722	1.747	1.771	1.796	1.821	1.846	1.871	1.897	1.922
3	2.283	2.327	2.371	2.416	2.462	2.508	2.554	2.602	2.649	2.698	2.747	2.796	2.846
4	2.855	2.922	2.990	3.060	3.131	3.203	3.276	3.351	3.427	3.505	3.584	3.664	3.746
5	3.352	3.445	3.539	3.636	3.736	3.837	3.942	4.048	4.158	4.270	4.384	4.502	4.622
6	3.784	3.903	4.026	4.152	4.283	4.417	4.555	4.697	4.844	4.995	5.150	5.310	5.475
7	4.160	4.307	4.458	4.615	4.777	4.946	5.120	5.301	5.488	5.682	5.883	6.091	6.306
8	4.487	4.661	4.841	5.029	5.225	5.429	5.641	5.863	6.093	6.333	6.584	6.844	7.116
9	4.772	4.971	5.181	5.400	5.629	5.870	6.121	6.385	6.661	6.951	7.254	7.571	7.904
10	5.019	5.244	5.482	5.732	5.995	6.272	6.564	6.871	7.195	7.536	7.895	8.273	8.672
11	5.234	5.484	5.749	6.030	6.326	6.640	6.972	7.324	7.696	8.091	8.508	8.951	9.420
12	5.421	5.695	5.986	6.296	6.625	6.976	7.348	7.745	8.167	8.616	9.095	9.605	10.148
13	5.583	5.880	6.197	6.535	6.896	7.282	7.695	8.136	8.609	9.115	9.656	10.236	10.857
14	5.724	6.042	6.383	6.748	7.141	7.562	8.014	8.501	9.024	9.587	10.193	10.845	11.548
15	5.847	6.185	6.548	6.940	7.362	7.817	8.309	8.840	9.414	10.035	10.706	11.433	12.220
16	5.954	6.310	6.695	7.111	7.562	8.051	8.580	9.155	9.780	10.459	11.197	12.001	12.875
17	6.047	6.420	6.825	7.265	7.743	8.264	8.831	9.449	10.124	10.861	11.667	12.548	13.513
18	6.128	6.517	6.941	7.403	7.907	8.458	9.061	9.722	10.447	11.242	12.116	13.077	14.135
19	6.198	6.602	7.043	7.526	8.055	8.636	9.274	9.976	10.750	11.603	12.546	13.587	14.740
20	6.259	6.676	7.134	7.636	8.189	8.798	9.470	10.213	11.035	11.946	12.957	14.080	15.329
21	6.312	6.742	7.214	7.735	8.310	8.946	9.650	10.433	11.302	12.270	13.350	14.556	15.903
22	6.359	6.799	7.286	7.823	8.419	9.081	9.817	10.637	11.553	12.578	13.726	15.014	16.462
23	6.399	6.850	7.349	7.903	8.518	9.204	9.970	10.828	11.789	12.870	14.086	15.457	17.007
24	6.434	6.894	7.405	7.974	8.608	9.317	10.112	11.005	12.011	13.146	14.430	15.885	17.537
25	6.464	6.933	7.455	8.037	8.689	9.420	10.242	11.170	12.219	13.408	14.759	16.298	18.054
26	6.491	6.967	7.499	8.094	8.762	9.514	10.362	11.323	12.414	13.656	15.074	16.696	18.557
27	6.514	6.998	7.539	8.145	8.828	9.600	10.473	11.466	12.598	13.892	15.375	17.081	19.046
28	6.534	7.024	7.573	8.191	8.888	9.678	10.575	11.599	12.770	14.115	15.663	17.452	19.523
29	6.551	7.047	7.604	8.232	8.942	9.749	10.669	11.722	12.932	14.326	15.939	17.810	19.988
30	6.566	7.067	7.632	8.269	8.991	9.815	10.756	11.837	13.084	14.526	16.202	18.156	20.441
31	6.579	7.085	7.656	8.302	9.036	9.874	10.836	11.944	13.227	14.716	16.454	18.489	20.881
32	6.591	7.101	7.677	8.331	9.076	9.929	10.910	12.044	13.361	14.896	16.695	18.811	21.310
33	6.600	7.115	7.696	8.357	9.112	9.978	10.978	12.136	13.486	15.067	16.926	19.122	21.728
34	6.609	7.127	7.713	8.381	9.145	10.024	11.040	12.223	13.605	15.229	17.147	19.422	22.135
35	6.617	7.138	7.728	8.402	9.174	10.065	11.098	12.303	13.716	15.382	17.358	19.712	22.532
36	6.623	7.147	7.742	8.421	9.201	10.103	11.151	12.377	13.820	15.527	17.559	19.992	22.918
37	6.629	7.155	7.753	8.438	9.225	10.137	11.200	12.447	13.918	15.665	17.753	20.262	23.294
38	6.634	7.162	7.764	8.453	9.247	10.169	11.245	12.511	14.010	15.795	17.937	20.522	23.660
39	6.638	7.169	7.773	8.467	9.267	10.198	11.287	12.571	14.096	15.919	18.114	20.773	24.017
40	6.642	7.174	7.781	8.479	9.285	10.224	11.326	12.627	14.177	16.036	18.283	21.016	24.364
41	6.645	7.179	7.789	8.490	9.301	10.248	11.361	12.679	14.253	16.148	18.444	21.250	24.703
42	6.648	7.183	7.795	8.499	9.316	10.270	11.394	12.728	14.325	16.253	18.599	21.476	25.032
43	6.650	7.187	7.801	8.508	9.329	10.290	11.424	12.773	14.392	16.353	18.747	21.695	25.353
44	6.652	7.190	7.806	8.516	9.341	10.308	11.451	12.815	14.455	16.447	18.888	21.905	25.666
45	6.654	7.193	7.811	8.523	9.352	10.325	11.477	12.854	14.514	16.537	19.024	22.109	25.970
46	6.656	7.196	7.815	8.529	9.362	10.340	11.500	12.890	14.570	16.622	19.153	22.305	26.266
47	6.657	7.198	7.818	8.535	9.371	10.354	11.522	12.924	14.622	16.703	19.277	22.494	26.555
48	6.659	7.200	7.821	8.540	9.379	10.367	11.542	12.955	14.671	16.779	19.395	22.677	26.836
49	6.660	7.202	7.824	8.545	9.386	10.378	11.561	12.984	14.718	16.852	19.508	22.853	27.110
50	6.661	7.203	7.827	8.549	9.393	10.389	11.578	13.011	14.761	16.920	19.617	23.024	27.377

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 15.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.983	0.991	1.000	1.009	1.017	1.026	1.035	1.043	1.052	1.061	1.070	1.078	1.087
2	1.948	1.974	2.000	2.026	2.052	2.079	2.106	2.132	2.159	2.186	2.214	2.241	2.268
3	2.897	2.948	3.000	3.052	3.106	3.159	3.214	3.269	3.324	3.380	3.437	3.495	3.553
4	3.829	3.914	4.000	4.088	4.177	4.268	4.360	4.454	4.550	4.647	4.746	4.846	4.949
5	4.745	4.871	5.000	5.132	5.267	5.405	5.547	5.691	5.839	5.991	6.145	6.304	6.466
6	5.645	5.820	6.000	6.185	6.376	6.572	6.774	6.982	7.196	7.416	7.643	7.875	8.115
7	6.530	6.761	7.000	7.248	7.504	7.770	8.045	8.329	8.624	8.928	9.244	9.570	9.908
8	7.399	7.693	8.000	8.319	8.652	8.999	9.359	9.735	10.126	10.533	10.956	11.397	11.856
9	8.253	8.618	9.000	9.401	9.820	10.259	10.720	11.202	11.706	12.235	12.788	13.367	13.974
10	9.092	9.534	10.000	10.491	11.008	11.553	12.127	12.732	13.369	14.040	14.747	15.492	16.276
11	9.916	10.442	11.000	11.591	12.217	12.881	13.584	14.329	15.119	15.956	16.843	17.783	18.778
12	10.726	11.343	12.000	12.700	13.447	14.243	15.091	15.996	16.960	17.988	19.084	20.252	21.498
13	11.522	12.236	13.000	13.819	14.698	15.640	16.651	17.735	18.897	20.144	21.481	22.916	24.455
14	12.305	13.120	14.000	14.948	15.971	17.074	18.265	19.549	20.935	22.431	24.045	25.787	27.668
15	13.073	13.998	15.000	16.087	17.266	18.546	19.935	21.443	23.079	24.857	26.787	28.884	31.161
16	13.828	14.867	16.000	17.236	18.584	20.056	21.663	23.418	25.336	27.431	29.720	32.223	34.957
17	14.571	15.729	17.000	18.394	19.925	21.605	23.451	25.480	27.710	30.161	32.857	35.823	39.084
18	15.300	16.584	18.000	19.563	21.288	23.195	25.302	27.631	30.208	33.058	36.213	39.704	43.570
19	16.016	17.431	19.000	20.742	22.676	24.826	27.217	29.876	32.836	36.131	39.801	43.890	48.445
20	16.720	18.271	20.000	21.931	24.088	26.500	29.198	32.219	35.601	39.391	43.640	48.403	53.745
21	17.412	19.103	21.000	23.130	25.524	28.217	31.248	34.663	38.511	42.850	47.745	53.269	59.505
22	18.092	19.928	22.000	24.340	26.985	29.979	33.370	37.213	41.572	46.519	52.136	58.516	65.767
23	18.760	20.746	23.000	25.560	28.472	31.787	35.566	39.875	44.794	50.412	56.833	64.174	72.573
24	19.416	21.557	24.000	26.791	29.985	33.643	37.837	42.652	48.183	54.541	61.856	70.275	79.970
25	20.061	22.361	25.000	28.033	31.524	35.547	40.188	45.550	51.749	58.922	67.228	76.853	88.011
26	20.695	23.158	26.000	29.285	33.089	37.500	42.621	48.574	55.501	63.569	72.975	83.946	96.751
27	21.318	23.948	27.000	30.549	34.682	39.504	45.138	51.729	59.449	68.500	79.121	91.594	106.251
28	21.930	24.731	28.000	31.823	36.303	41.561	47.743	55.022	63.603	73.730	85.694	99.840	116.578
29	22.531	25.507	29.000	33.108	37.951	43.671	50.438	58.457	67.973	79.279	92.725	108.732	127.802
30	23.122	26.277	30.000	34.405	39.629	45.836	53.228	62.043	72.572	85.165	100.245	118.320	140.002
31	23.702	27.039	31.000	35.713	41.335	48.058	56.114	65.784	77.410	91.410	108.288	128.658	153.263
32	24.272	27.796	32.000	37.032	43.072	50.338	59.100	69.687	82.501	98.035	116.891	139.805	167.677
33	24.833	28.545	33.000	38.363	44.838	52.677	62.191	73.761	87.858	105.063	126.092	151.824	183.345
34	25.384	29.288	34.000	39.705	46.635	55.078	65.389	78.011	93.494	112.519	135.933	164.785	200.375
35	25.925	30.025	35.000	41.059	48.464	57.541	68.698	82.446	99.424	120.429	146.459	178.759	218.885
36	26.457	30.755	36.000	42.425	50.324	60.068	72.122	87.074	105.664	128.821	157.717	193.827	239.006
37	26.979	31.479	37.000	43.802	52.217	62.661	75.665	91.904	112.229	137.723	169.758	210.074	260.876
38	27.492	32.197	38.000	45.192	54.142	65.321	79.332	96.943	119.136	147.167	182.637	227.593	284.648
39	27.997	32.908	39.000	46.594	56.101	68.052	83.126	102.201	126.404	157.186	196.412	246.483	310.487
40	28.493	33.613	40.000	48.008	58.094	70.853	87.052	107.688	134.051	167.814	211.145	266.851	338.573
41	28.980	34.312	41.000	49.434	60.122	73.727	91.12	113.41	142.10	179.09	226.90	288.81	369.10
42	29.458	35.005	42.000	50.872	62.185	76.677	95.32	119.39	150.56	191.05	243.76	312.49	402.28
43	29.929	35.692	43.000	52.323	64.284	79.703	99.67	125.62	159.47	203.74	261.78	338.03	438.35
44	30.391	36.373	44.000	53.787	66.419	82.808	104.17	132.13	168.84	217.20	281.06	365.56	477.56
45	30.845	37.048	45.000	55.263	68.592	85.995	108.83	138.92	178.71	231.49	301.69	395.25	520.17
46	31.291	37.717	46.000	56.753	70.802	89.264	113.65	146.00	189.08	246.64	323.74	427.26	566.49
47	31.729	38.380	47.000	58.255	73.051	92.619	118.64	153.39	200.00	262.71	347.33	461.78	616.84
48	32.160	39.038	48.000	59.770	75.338	96.061	123.80	161.10	211.49	279.76	372.56	498.99	671.56
49	32.583	39.690	49.000	61.299	77.666	99.593	129.14	169.15	223.57	297.85	399.55	539.12	731.04
50	32.999	40.336	50.000	62.840	80.034	103.217	134.67	177.55	236.29	317.04	428.42	582.39	795.70

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 16.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.862	0.871	0.879	0.888	0.897	0.905	0.914	0.922	0.931	0.940	0.948	0.957	0.966
2	1.605	1.629	1.652	1.676	1.700	1.725	1.749	1.773	1.798	1.823	1.848	1.873	1.898
3	2.246	2.289	2.332	2.376	2.421	2.466	2.512	2.558	2.605	2.652	2.700	2.749	2.798
4	2.798	2.864	2.930	2.998	3.067	3.137	3.209	3.282	3.356	3.432	3.509	3.587	3.667
5	3.274	3.364	3.456	3.550	3.646	3.745	3.846	3.950	4.056	4.164	4.276	4.389	4.506
6	3.685	3.800	3.918	4.040	4.166	4.295	4.428	4.566	4.707	4.853	5.003	5.157	5.316
7	4.039	4.179	4.325	4.475	4.631	4.793	4.960	5.134	5.314	5.500	5.692	5.892	6.098
8	4.344	4.509	4.682	4.862	5.049	5.244	5.447	5.658	5.878	6.107	6.346	6.595	6.854
9	4.607	4.797	4.996	5.205	5.423	5.652	5.891	6.141	6.404	6.678	6.966	7.267	7.583
10	4.833	5.047	5.272	5.509	5.759	6.021	6.297	6.587	6.893	7.215	7.554	7.911	8.287
11	5.029	5.265	5.515	5.780	6.059	6.355	6.668	6.999	7.349	7.719	8.112	8.527	8.967
12	5.197	5.455	5.729	6.020	6.329	6.658	7.007	7.378	7.773	8.193	8.640	9.116	9.623
13	5.342	5.620	5.917	6.233	6.571	6.931	7.317	7.728	8.168	8.638	9.142	9.680	10.257
14	5.468	5.764	6.082	6.423	6.788	7.179	7.600	8.051	8.536	9.057	9.617	10.220	10.868
15	5.575	5.890	6.227	6.591	6.982	7.404	7.858	8.349	8.878	9.450	10.068	10.736	11.459
16	5.668	5.999	6.355	6.740	7.156	7.607	8.095	8.623	9.197	9.819	10.495	11.230	12.029
17	5.749	6.094	6.467	6.873	7.313	7.791	8.311	8.877	9.494	10.166	10.901	11.703	12.580
18	5.818	6.176	6.566	6.990	7.453	7.957	8.508	9.110	9.770	10.493	11.285	12.156	13.112
19	5.877	6.248	6.653	7.095	7.578	8.108	8.688	9.326	10.027	10.799	11.650	12.589	13.625
20	5.929	6.311	6.729	7.188	7.691	8.244	8.853	9.525	10.267	11.087	11.996	13.003	14.121
21	5.973	6.366	6.797	7.270	7.792	8.367	9.004	9.708	10.490	11.358	12.323	13.399	14.600
22	6.011	6.413	6.856	7.343	7.882	8.479	9.141	9.877	10.697	11.612	12.634	13.779	15.062
23	6.044	6.455	6.907	7.408	7.963	8.580	9.267	10.034	10.891	11.851	12.929	14.142	15.508
24	6.073	6.491	6.953	7.466	8.036	8.672	9.382	10.177	11.071	12.075	13.209	14.489	15.939
25	6.097	6.522	6.993	7.517	8.101	8.755	9.487	10.310	11.238	12.286	13.474	14.821	16.354
26	6.118	6.549	7.029	7.563	8.160	8.830	9.583	10.433	11.394	12.485	13.725	15.139	16.756
27	6.136	6.573	7.060	7.603	8.212	8.898	9.671	10.546	11.539	12.671	13.963	15.444	17.144
28	6.152	6.594	7.087	7.639	8.259	8.959	9.751	10.650	11.675	12.846	14.189	15.735	17.518
29	6.166	6.612	7.111	7.671	8.301	9.015	9.824	10.746	11.800	13.010	14.404	16.014	17.880
30	6.177	6.628	7.132	7.699	8.339	9.065	9.891	10.835	11.918	13.165	14.607	16.280	18.229
31	6.187	6.641	7.151	7.724	8.373	9.110	9.952	10.916	12.027	13.310	14.800	16.535	18.565
32	6.196	6.653	7.167	7.746	8.403	9.152	10.008	10.992	12.128	13.447	14.983	16.780	18.891
33	6.203	6.664	7.181	7.766	8.431	9.189	10.059	11.062	12.223	13.575	15.156	17.013	19.205
34	6.210	6.673	7.194	7.784	8.455	9.223	10.106	11.126	12.311	13.695	15.320	17.237	19.508
35	6.215	6.680	7.205	7.799	8.477	9.253	10.148	11.185	12.393	13.809	15.476	17.451	19.801
36	6.220	6.687	7.215	7.813	8.497	9.281	10.187	11.240	12.469	13.915	15.624	17.655	20.084
37	6.224	6.693	7.223	7.826	8.514	9.306	10.223	11.290	12.540	14.015	15.764	17.851	20.357
38	6.228	6.698	7.231	7.837	8.530	9.329	10.255	11.336	12.607	14.109	15.897	18.039	20.620
39	6.231	6.703	7.237	7.846	8.544	9.349	10.285	11.379	12.668	14.197	16.023	18.218	20.875
40	6.233	6.707	7.243	7.855	8.557	9.368	10.312	11.419	12.726	14.280	16.142	18.390	21.120
41	6.236	6.710	7.248	7.862	8.568	9.385	10.337	11.455	12.779	14.358	16.256	18.554	21.358
42	6.238	6.713	7.253	7.869	8.578	9.400	10.360	11.489	12.829	14.431	16.363	18.711	21.587
43	6.239	6.716	7.257	7.875	8.587	9.414	10.380	11.520	12.875	14.500	16.465	18.862	21.808
44	6.241	6.718	7.260	7.881	8.596	9.426	10.399	11.549	12.918	14.565	16.562	19.005	22.021
45	6.242	6.720	7.263	7.885	8.603	9.438	10.417	11.575	12.958	14.625	16.653	19.143	22.228
46	6.243	6.722	7.266	7.890	8.610	9.448	10.432	11.599	12.996	14.682	16.740	19.275	22.427
47	6.244	6.723	7.268	7.893	8.616	9.457	10.447	11.622	13.030	14.736	16.823	19.401	22.619
48	6.245	6.725	7.271	7.897	8.621	9.465	10.460	11.643	13.063	14.787	16.901	19.522	22.804
49	6.246	6.726	7.272	7.900	8.626	9.473	10.472	11.662	13.093	14.834	16.975	19.637	22.984
50	6.246	6.727	7.274	7.902	8.630	9.480	10.483	11.679	13.121	14.878	17.045	19.748	23.156

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 16.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.974	0.983	0.991	1.000	1.009	1.017	1.026	1.034	1.043	1.052	1.060	1.069	1.078
2	1.923	1.949	1.974	2.000	2.026	2.052	2.078	2.105	2.131	2.158	2.185	2.212	2.239
3	2.847	2.898	2.949	3.000	3.052	3.105	3.158	3.212	3.266	3.321	3.377	3.433	3.490
4	3.748	3.831	3.915	4.000	4.087	4.175	4.265	4.357	4.450	4.545	4.641	4.739	4.838
5	4.625	4.747	4.872	5.000	5.131	5.265	5.402	5.542	5.685	5.831	5.981	6.135	6.291
6	5.480	5.648	5.822	6.000	6.184	6.373	6.567	6.767	6.973	7.185	7.403	7.627	7.857
7	6.312	6.534	6.763	7.000	7.246	7.500	7.763	8.035	8.317	8.608	8.910	9.222	9.544
8	7.123	7.404	7.696	8.000	8.317	8.646	8.989	9.347	9.718	10.105	10.508	10.927	11.362
9	7.913	8.259	8.621	9.000	9.397	9.813	10.248	10.703	11.180	11.680	12.202	12.749	13.322
10	8.682	9.099	9.538	10.000	10.487	10.999	11.539	12.107	12.705	13.335	13.999	14.697	15.433
11	9.432	9.925	10.447	11.000	11.586	12.206	12.863	13.559	14.296	15.077	15.904	16.780	17.708
12	10.162	10.737	11.348	12.000	12.694	13.434	14.221	15.061	15.955	16.908	17.924	19.006	20.159
13	10.874	11.534	12.242	13.000	13.812	14.682	15.615	16.615	17.686	18.835	20.066	21.386	22.801
14	11.566	12.318	13.128	14.000	14.940	15.953	17.045	18.222	19.492	20.861	22.337	23.930	25.647
15	12.241	13.089	14.006	15.000	16.077	17.245	18.512	19.885	21.375	22.991	24.745	26.649	28.715
16	12.899	13.846	14.877	16.000	17.225	18.560	20.016	21.605	23.339	25.232	27.299	29.556	32.020
17	13.540	14.590	15.740	17.000	18.382	19.897	21.560	23.385	25.388	27.589	30.007	32.663	35.582
18	14.164	15.321	16.595	18.000	19.549	21.257	23.143	25.226	27.526	30.068	32.878	35.985	39.421
19	14.771	16.040	17.444	19.000	20.726	22.641	24.767	27.130	29.755	32.675	35.922	39.535	43.557
20	15.364	16.746	18.285	20.000	21.913	24.049	26.434	29.100	32.081	35.417	39.150	43.331	48.014
21	15.940	17.440	19.119	21.000	23.111	25.480	28.143	31.138	34.507	38.300	42.573	47.388	52.816
22	16.502	18.122	19.945	22.000	24.319	26.937	29.897	33.246	37.038	41.333	46.203	51.725	57.992
23	17.050	18.792	20.765	23.000	25.537	28.419	31.696	35.427	39.677	44.523	50.051	56.362	63.569
24	17.583	19.451	21.577	24.000	26.766	29.926	33.542	37.683	42.430	47.877	54.132	61.318	69.578
25	18.102	20.098	22.382	25.000	28.005	31.459	35.435	40.017	45.302	51.406	58.459	66.615	76.054
26	18.608	20.735	23.181	26.000	29.255	33.019	37.377	42.431	48.298	55.116	63.047	72.278	83.033
27	19.101	21.360	23.972	27.000	30.516	34.605	39.370	44.929	51.423	59.019	67.911	78.332	90.552
28	19.581	21.974	24.757	28.000	31.787	36.219	41.414	47.513	54.683	63.123	73.070	84.803	98.656
29	20.049	22.578	25.535	29.000	33.070	37.861	43.511	50.185	58.083	67.440	78.540	91.721	107.387
30	20.505	23.172	26.306	30.000	34.364	39.531	45.662	52.950	61.630	71.980	84.339	99.115	116.797
31	20.948	23.755	27.071	31.000	35.669	41.230	47.869	55.811	65.329	76.755	90.489	107.020	126.936
32	21.381	24.328	27.829	32.000	36.985	42.958	50.133	58.770	69.188	81.776	97.010	115.469	137.862
33	21.802	24.891	28.580	33.000	38.312	44.716	52.455	61.831	73.213	87.058	103.925	124.502	149.636
34	22.212	25.445	29.325	34.000	39.651	46.504	54.837	64.997	77.412	92.613	111.256	134.157	162.323
35	22.612	25.989	30.064	35.000	41.002	48.323	57.282	68.273	81.792	98.455	119.030	144.478	175.995
36	23.001	26.524	30.796	36.000	42.364	50.173	59.789	71.662	86.361	104.599	127.274	155.511	190.727
37	23.381	27.049	31.522	37.000	43.737	52.056	62.361	75.168	91.126	111.061	136.014	167.305	206.603
38	23.750	27.566	32.242	38.000	45.123	53.970	65.000	78.794	96.097	117.857	145.282	179.912	223.710
39	24.110	28.073	32.955	39.000	46.521	55.918	67.706	82.546	101.283	125.005	155.110	193.389	242.144
40	24.461	28.572	33.662	40.000	47.930	57.900	70.483	86.426	106.691	132.523	165.530	207.795	262.009
41	24.802	29.062	34.363	41.000	49.352	59.915	73.33	90.44	112.33	140.43	176.58	223.19	283.41
42	25.135	29.544	35.059	42.000	50.786	61.965	76.25	94.59	118.22	148.74	188.30	239.66	306.48
43	25.459	30.017	35.748	43.000	52.233	64.051	79.25	98.89	124.36	157.49	200.72	257.25	331.34
44	25.775	30.482	36.431	44.000	53.692	66.172	82.33	103.34	130.76	166.69	213.89	276.06	358.12
45	26.082	30.939	37.108	45.000	55.163	68.331	85.48	107.93	137.44	176.36	227.86	296.17	386.99
46	26.382	31.389	37.780	46.000	56.647	70.526	88.72	112.69	144.41	186.53	242.67	317.67	418.09
47	26.674	31.830	38.445	47.000	58.144	72.759	92.04	117.61	151.67	197.23	258.37	340.64	451.60
48	26.958	32.264	39.105	48.000	59.654	75.031	95.45	122.70	159.26	208.49	275.02	365.21	487.72
49	27.235	32.691	39.760	49.000	61.177	77.342	98.94	127.96	167.16	220.32	292.68	391.46	526.64
50	27.505	33.110	40.408	50.000	62.713	79.692	102.53	133.41	175.41	232.77	311.40	419.53	568.57

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 17.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.855	0.863	0.872	0.880	0.889	0.897	0.906	0.915	0.923	0.932	0.940	0.949	0.957
2	1.585	1.608	1.632	1.655	1.679	1.703	1.727	1.751	1.775	1.800	1.824	1.849	1.874
3	2.210	2.252	2.294	2.338	2.381	2.426	2.470	2.516	2.562	2.608	2.655	2.703	2.751
4	2.743	2.807	2.872	2.938	3.006	3.074	3.144	3.215	3.288	3.361	3.436	3.513	3.591
5	3.199	3.286	3.376	3.467	3.561	3.656	3.755	3.855	3.958	4.063	4.171	4.281	4.394
6	3.589	3.700	3.815	3.932	4.054	4.179	4.308	4.440	4.577	4.717	4.862	5.011	5.164
7	3.922	4.057	4.197	4.342	4.492	4.648	4.809	4.975	5.148	5.326	5.511	5.702	5.900
8	4.207	4.366	4.531	4.703	4.882	5.068	5.262	5.464	5.675	5.894	6.121	6.359	6.606
9	4.451	4.632	4.822	5.021	5.228	5.446	5.674	5.912	6.161	6.422	6.695	6.981	7.280
10	4.659	4.862	5.076	5.300	5.536	5.785	6.046	6.321	6.610	6.915	7.235	7.572	7.927
11	4.836	5.060	5.297	5.546	5.810	6.089	6.384	6.695	7.025	7.374	7.742	8.132	8.545
12	4.988	5.231	5.489	5.763	6.053	6.362	6.690	7.038	7.408	7.801	8.219	8.664	9.137
13	5.118	5.379	5.657	5.954	6.270	6.607	6.967	7.351	7.761	8.199	8.668	9.168	9.704
14	5.229	5.507	5.804	6.122	6.462	6.827	7.218	7.637	8.087	8.570	9.089	9.647	10.247
15	5.324	5.617	5.932	6.270	6.633	7.024	7.445	7.899	8.388	8.916	9.486	10.101	10.766
16	5.405	5.712	6.043	6.400	6.785	7.201	7.651	8.138	8.666	9.238	9.858	10.532	11.263
17	5.475	5.794	6.140	6.514	6.920	7.360	7.838	8.357	8.922	9.538	10.209	10.940	11.739
18	5.534	5.865	6.225	6.615	7.040	7.502	8.007	8.557	9.159	9.817	10.538	11.328	12.195
19	5.584	5.926	6.298	6.704	7.147	7.630	8.160	8.741	9.378	10.078	10.848	11.696	12.631
20	5.628	5.979	6.363	6.782	7.241	7.745	8.299	8.908	9.579	10.320	11.139	12.045	13.048
21	5.665	6.025	6.419	6.851	7.326	7.848	8.425	9.061	9.766	10.546	11.413	12.376	13.448
22	5.696	6.064	6.468	6.911	7.401	7.941	8.538	9.201	9.937	10.757	11.670	12.690	13.830
23	5.723	6.098	6.510	6.965	7.467	8.024	8.642	9.329	10.096	10.953	11.912	12.988	14.197
24	5.746	6.127	6.547	7.012	7.526	8.098	8.735	9.446	10.243	11.136	12.139	13.270	14.547
25	5.766	6.153	6.580	7.053	7.579	8.165	8.820	9.554	10.378	11.306	12.353	13.539	14.883
26	5.783	6.175	6.608	7.089	7.626	8.225	8.897	9.652	10.503	11.464	12.554	13.793	15.204
27	5.798	6.193	6.633	7.121	7.667	8.279	8.966	9.741	10.618	11.612	12.743	14.034	15.512
28	5.810	6.210	6.654	7.150	7.704	8.327	9.029	9.823	10.724	11.750	12.921	14.263	15.806
29	5.820	6.224	6.673	7.175	7.737	8.371	9.086	9.898	10.822	11.878	13.088	14.481	16.088
30	5.829	6.236	6.689	7.196	7.766	8.410	9.138	9.967	10.913	11.997	13.245	14.687	16.358
31	5.837	6.246	6.703	7.216	7.792	8.444	9.185	10.029	10.996	12.109	13.393	14.882	16.616
32	5.844	6.255	6.716	7.233	7.815	8.476	9.227	10.087	11.074	12.212	13.532	15.068	16.863
33	5.849	6.263	6.727	7.247	7.836	8.504	9.266	10.139	11.145	12.309	13.663	15.244	17.100
34	5.854	6.270	6.736	7.261	7.854	8.529	9.301	10.187	11.211	12.399	13.785	15.411	17.326
35	5.858	6.276	6.744	7.272	7.870	8.552	9.332	10.231	11.271	12.483	13.901	15.569	17.543
36	5.862	6.281	6.751	7.282	7.885	8.572	9.361	10.271	11.327	12.561	14.009	15.720	17.751
37	5.865	6.285	6.758	7.291	7.898	8.590	9.387	10.308	11.379	12.634	14.111	15.862	17.949
38	5.867	6.289	6.763	7.299	7.909	8.607	9.410	10.341	11.427	12.701	14.207	15.997	18.139
39	5.869	6.292	6.768	7.306	7.919	8.621	9.431	10.372	11.471	12.765	14.297	16.126	18.321
40	5.871	6.295	6.772	7.312	7.928	8.635	9.451	10.400	11.512	12.823	14.382	16.248	18.496
41	5.873	6.297	6.775	7.318	7.936	8.646	9.468	10.426	11.549	12.878	14.462	16.363	18.663
42	5.874	6.299	6.779	7.322	7.943	8.657	9.484	10.449	11.584	12.929	14.537	16.473	18.822
43	5.875	6.301	6.781	7.326	7.949	8.667	9.498	10.470	11.616	12.977	14.607	16.577	18.975
44	5.876	6.303	6.784	7.330	7.955	8.675	9.511	10.490	11.645	13.021	14.673	16.675	19.122
45	5.877	6.304	6.786	7.333	7.960	8.683	9.523	10.508	11.673	13.062	14.736	16.769	19.262
46	5.878	6.305	6.788	7.336	7.965	8.690	9.534	10.524	11.698	13.101	14.794	16.858	19.396
47	5.879	6.306	6.789	7.339	7.968	8.696	9.543	10.539	11.721	13.137	14.849	16.942	19.524
48	5.879	6.307	6.791	7.341	7.972	8.701	9.552	10.553	11.743	13.170	14.901	17.022	19.647
49	5.880	6.308	6.792	7.343	7.975	8.706	9.560	10.566	11.762	13.201	14.950	17.098	19.765
50	5.880	6.308	6.793	7.345	7.978	8.711	9.567	10.577	11.781	13.230	14.995	17.169	19.877

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 17.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.966	0.974	0.983	0.991	1.000	1.009	1.017	1.026	1.034	1.043	1.051	1.060	1.068
2	1.899	1.924	1.949	1.974	2.000	2.026	2.052	2.078	2.104	2.130	2.156	2.183	2.210
3	2.800	2.849	2.899	2.949	3.000	3.052	3.104	3.156	3.210	3.264	3.318	3.374	3.429
4	3.670	3.750	3.832	3.915	4.000	4.086	4.174	4.263	4.354	4.446	4.540	4.635	4.732
5	4.510	4.628	4.749	4.873	5.000	5.130	5.262	5.398	5.537	5.679	5.824	5.972	6.124
6	5.322	5.484	5.651	5.823	6.000	6.182	6.369	6.562	6.760	6.964	7.174	7.389	7.611
7	6.105	6.318	6.537	6.765	7.000	7.243	7.495	7.756	8.026	8.305	8.593	8.891	9.200
8	6.863	7.130	7.409	7.698	8.000	8.314	8.641	8.980	9.334	9.702	10.085	10.483	10.897
9	7.594	7.922	8.265	8.624	9.000	9.394	9.805	10.236	10.687	11.159	11.653	12.170	12.711
10	8.300	8.693	9.106	9.542	10.000	10.482	10.990	11.525	12.087	12.679	13.302	13.958	14.648
11	8.982	9.444	9.934	10.452	11.000	11.580	12.195	12.846	13.534	14.264	15.036	15.853	16.718
12	9.641	10.177	10.747	11.354	12.000	12.688	13.421	14.201	15.031	15.916	16.858	17.861	18.930
13	10.277	10.890	11.546	12.248	13.000	13.805	14.667	15.590	16.579	17.639	18.774	19.990	21.293
14	10.891	11.585	12.332	13.135	14.000	14.932	15.935	17.016	18.180	19.435	20.788	22.246	23.817
15	11.485	12.262	13.104	14.014	15.000	16.068	17.224	18.478	19.836	21.309	22.905	24.636	26.514
16	12.058	12.922	13.863	14.886	16.000	17.214	18.536	19.977	21.549	23.262	25.131	27.170	29.395
17	12.612	13.565	14.608	15.750	17.000	18.369	19.870	21.515	23.319	25.299	27.471	29.856	32.473
18	13.146	14.192	15.342	16.607	18.000	19.535	21.227	23.092	25.151	27.423	29.931	32.702	35.762
19	13.663	14.802	16.062	17.456	19.000	20.710	22.607	24.710	27.045	29.637	32.518	35.718	39.276
20	14.161	15.397	16.771	18.299	20.000	21.896	24.010	26.369	29.004	31.947	35.236	38.915	43.030
21	14.643	15.977	17.467	19.134	21.000	23.092	25.438	28.071	31.029	34.355	38.095	42.303	47.040
22	15.108	16.541	18.151	19.962	22.000	24.297	26.890	29.817	33.125	36.866	41.100	45.894	51.325
23	15.557	17.092	18.824	20.782	23.000	25.514	28.366	31.607	35.291	39.484	44.258	49.699	55.903
24	15.991	17.628	19.485	21.596	24.000	26.740	29.868	33.443	37.532	42.214	47.579	53.733	60.794
25	16.411	18.150	20.135	22.403	25.000	27.977	31.396	35.326	39.849	45.061	51.071	58.007	66.019
26	16.815	18.659	20.774	23.203	26.000	29.225	32.950	37.257	42.246	48.029	54.741	62.538	71.601
27	17.206	19.155	21.401	23.996	27.000	30.483	34.530	39.238	44.724	51.124	58.599	67.339	77.566
28	17.584	19.638	22.018	24.783	28.000	31.753	36.137	41.270	47.287	54.352	62.656	72.428	83.938
29	17.948	20.109	22.625	25.562	29.000	33.032	37.772	43.354	49.938	57.717	66.920	77.821	90.745
30	18.301	20.568	23.221	26.335	30.000	34.323	39.435	45.491	52.680	61.227	71.403	83.536	98.018
31	18.641	21.015	23.807	27.102	31.000	35.625	41.126	47.683	55.515	64.886	76.116	89.594	105.789
32	18.969	21.450	24.383	27.861	32.000	36.938	42.846	49.932	58.447	68.702	81.071	96.014	114.091
33	19.287	21.875	24.949	28.615	33.000	38.263	44.596	52.238	61.480	72.680	86.280	102.819	122.960
34	19.593	22.288	25.506	29.362	34.000	39.598	46.375	54.603	64.616	76.829	91.756	110.030	132.436
35	19.889	22.691	26.052	30.102	35.000	40.945	48.185	57.028	67.859	81.155	97.512	117.673	142.560
36	20.175	23.083	26.590	30.836	36.000	42.304	50.026	59.516	71.213	85.666	103.564	125.773	153.376
37	20.451	23.466	27.118	31.564	37.000	43.674	51.898	62.068	74.682	90.370	109.927	134.358	164.932
38	20.718	23.839	27.638	32.286	38.000	45.056	53.802	64.685	78.269	95.274	116.615	143.456	177.277
39	20.975	24.202	28.148	33.001	39.000	46.449	55.739	67.369	81.979	100.389	123.647	153.099	190.467
40	21.224	24.556	28.650	33.711	40.000	47.855	57.709	70.122	85.816	105.721	131.039	163.318	204.559
41	21.464	24.900	29.143	34.414	41.000	49.272	59.71	72.95	89.78	111.28	138.81	174.15	219.61
42	21.696	25.236	29.628	35.111	42.000	50.702	61.75	75.84	93.89	117.08	146.98	185.63	235.70
43	21.920	25.563	30.104	35.803	43.000	52.144	63.82	78.81	98.13	123.13	155.57	197.79	252.88
44	22.136	25.882	30.573	36.488	44.000	53.598	65.93	81.86	102.52	129.43	164.60	210.69	271.24
45	22.345	26.193	31.033	37.168	45.000	55.065	68.08	84.98	107.06	136.01	174.09	224.35	290.86
46	22.547	26.496	31.485	37.842	46.000	56.544	70.26	88.19	111.75	142.86	184.07	238.84	311.81
47	22.742	26.791	31.930	38.510	47.000	58.036	72.47	91.47	116.61	150.01	194.56	254.18	334.20
48	22.931	27.078	32.367	39.172	48.000	59.540	74.73	94.85	121.63	157.46	205.59	270.45	358.12
49	23.112	27.358	32.797	39.829	49.000	61.058	77.02	98.30	126.82	165.23	217.18	287.69	383.68
50	23.288	27.631	33.219	40.480	50.000	62.588	79.36	101.85	132.19	173.34	229.37	305.96	410.98

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 18.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.847	0.856	0.864	0.873	0.881	0.890	0.898	0.907	0.915	0.924	0.932	0.941	0.949
2	1.566	1.589	1.612	1.635	1.658	1.682	1.705	1.729	1.753	1.777	1.801	1.826	1.850
3	2.174	2.216	2.257	2.300	2.343	2.386	2.430	2.475	2.520	2.565	2.611	2.658	2.705
4	2.690	2.752	2.816	2.880	2.946	3.013	3.081	3.151	3.221	3.293	3.366	3.441	3.517
5	3.127	3.212	3.298	3.387	3.478	3.571	3.666	3.764	3.864	3.966	4.070	4.177	4.287
6	3.498	3.605	3.716	3.829	3.947	4.067	4.192	4.320	4.451	4.587	4.727	4.870	5.018
7	3.812	3.942	4.076	4.216	4.360	4.509	4.664	4.824	4.989	5.161	5.338	5.522	5.712
8	4.078	4.230	4.388	4.553	4.724	4.902	5.088	5.281	5.482	5.691	5.909	6.135	6.371
9	4.303	4.476	4.657	4.847	5.045	5.252	5.469	5.695	5.933	6.181	6.440	6.712	6.996
10	4.494	4.687	4.890	5.103	5.328	5.563	5.811	6.071	6.345	6.633	6.936	7.254	7.590
11	4.656	4.868	5.092	5.328	5.577	5.840	6.118	6.412	6.723	7.051	7.398	7.765	8.153
12	4.793	5.023	5.266	5.523	5.797	6.087	6.394	6.721	7.068	7.437	7.829	8.245	8.687
13	4.910	5.155	5.416	5.694	5.990	6.306	6.642	7.001	7.384	7.793	8.230	8.696	9.195
14	5.008	5.268	5.546	5.843	6.161	6.501	6.865	7.255	7.674	8.123	8.604	9.121	9.676
15	5.092	5.365	5.658	5.973	6.311	6.675	7.065	7.486	7.939	8.427	8.953	9.521	10.134
16	5.162	5.448	5.756	6.087	6.444	6.829	7.245	7.695	8.181	8.708	9.278	9.897	10.567
17	5.222	5.519	5.840	6.186	6.561	6.967	7.407	7.884	8.403	8.967	9.581	10.250	10.979
18	5.273	5.580	5.912	6.272	6.664	7.089	7.552	8.056	8.606	9.207	9.864	10.583	11.370
19	5.316	5.632	5.975	6.348	6.754	7.198	7.682	8.212	8.792	9.429	10.128	10.896	11.741
20	5.353	5.677	6.029	6.414	6.834	7.295	7.799	8.353	8.962	9.633	10.373	11.190	12.093
21	5.384	5.715	6.076	6.471	6.905	7.381	7.904	8.481	9.118	9.822	10.602	11.467	12.428
22	5.410	5.747	6.117	6.522	6.967	7.457	7.999	8.597	9.261	9.997	10.815	11.727	12.745
23	5.432	5.775	6.152	6.566	7.022	7.526	8.084	8.703	9.391	10.158	11.014	11.972	13.046
24	5.451	5.799	6.182	6.604	7.070	7.586	8.160	8.798	9.510	10.307	11.200	12.203	13.332
25	5.467	5.820	6.208	6.637	7.113	7.640	8.228	8.885	9.620	10.445	11.373	12.420	13.603
26	5.480	5.837	6.231	6.666	7.150	7.689	8.290	8.963	9.720	10.572	11.534	12.624	13.860
27	5.492	5.852	6.250	6.692	7.183	7.731	8.345	9.035	9.811	10.689	11.684	12.815	14.105
28	5.502	5.865	6.267	6.714	7.212	7.769	8.395	9.099	9.895	10.798	11.824	12.996	14.337
29	5.510	5.876	6.282	6.733	7.238	7.803	8.439	9.158	9.972	10.898	11.955	13.166	14.557
30	5.517	5.885	6.294	6.750	7.261	7.833	8.479	9.211	10.042	10.990	12.077	13.325	14.766
31	5.523	5.893	6.305	6.765	7.280	7.860	8.515	9.259	10.106	11.076	12.190	13.475	14.964
32	5.528	5.900	6.315	6.778	7.298	7.884	8.548	9.303	10.165	11.155	12.296	13.617	15.153
33	5.532	5.906	6.323	6.789	7.314	7.905	8.577	9.342	10.219	11.228	12.394	13.750	15.331
34	5.536	5.911	6.330	6.799	7.327	7.924	8.603	9.378	10.268	11.295	12.486	13.875	15.501
35	5.539	5.916	6.336	6.808	7.339	7.941	8.626	9.411	10.313	11.357	12.572	13.992	15.662
36	5.541	5.919	6.341	6.815	7.350	7.956	8.647	9.440	10.354	11.415	12.652	14.103	15.815
37	5.543	5.922	6.346	6.822	7.359	7.969	8.666	9.467	10.392	11.468	12.726	14.207	15.960
38	5.545	5.925	6.350	6.827	7.367	7.981	8.683	9.491	10.427	11.517	12.796	14.305	16.097
39	5.547	5.927	6.353	6.832	7.375	7.992	8.699	9.513	10.458	11.562	12.860	14.397	16.228
40	5.548	5.929	6.356	6.837	7.381	8.001	8.712	9.533	10.487	11.604	12.921	14.484	16.352
41	5.549	5.931	6.359	6.841	7.387	8.009	8.725	9.551	10.514	11.643	12.977	14.565	16.470
42	5.550	5.933	6.361	6.844	7.392	8.017	8.736	9.568	10.538	11.679	13.029	14.642	16.581
43	5.551	5.934	6.363	6.847	7.396	8.024	8.746	9.583	10.560	11.712	13.078	14.714	16.687
44	5.552	5.935	6.365	6.849	7.400	8.029	8.754	9.596	10.581	11.742	13.124	14.782	16.788
45	5.552	5.936	6.366	6.852	7.403	8.035	8.763	9.608	10.599	11.770	13.166	14.845	16.884
46	5.553	5.937	6.367	6.853	7.406	8.039	8.770	9.619	10.616	11.796	13.206	14.905	16.974
47	5.553	5.937	6.368	6.855	7.409	8.043	8.776	9.629	10.632	11.820	13.243	14.962	17.060
48	5.554	5.938	6.369	6.857	7.411	8.047	8.782	9.639	10.646	11.842	13.277	15.015	17.142
49	5.554	5.938	6.370	6.858	7.413	8.050	8.787	9.647	10.659	11.863	13.309	15.065	17.219
50	5.554	5.939	6.371	6.859	7.415	8.053	8.792	9.654	10.671	11.882	13.339	15.112	17.293

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 18.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.958	0.966	0.975	0.983	0.992	1.000	1.008	1.017	1.025	1.034	1.042	1.051	1.059
2	1.875	1.899	1.924	1.949	1.975	2.000	2.025	2.051	2.077	2.103	2.129	2.155	2.181
3	2.753	2.801	2.850	2.899	2.949	3.000	3.051	3.103	3.155	3.208	3.261	3.316	3.370
4	3.594	3.672	3.752	3.833	3.916	4.000	4.085	4.172	4.261	4.351	4.442	4.535	4.629
5	4.399	4.514	4.631	4.751	4.874	5.000	5.129	5.260	5.395	5.532	5.673	5.816	5.963
6	5.170	5.327	5.488	5.654	5.825	6.000	6.181	6.366	6.557	6.753	6.955	7.163	7.377
7	5.909	6.113	6.323	6.541	6.767	7.000	7.241	7.491	7.749	8.016	8.292	8.578	8.873
8	6.616	6.871	7.137	7.413	7.701	8.000	8.311	8.635	8.972	9.322	9.686	10.065	10.459
9	7.293	7.605	7.930	8.271	8.627	9.000	9.390	9.798	10.225	10.672	11.139	11.628	12.139
10	7.942	8.313	8.703	9.114	9.546	10.000	10.478	10.981	11.511	12.067	12.653	13.270	13.918
11	8.563	8.997	9.456	9.942	10.456	11.000	11.575	12.184	12.829	13.510	14.232	14.995	15.803
12	9.158	9.658	10.191	10.757	11.359	12.000	12.682	13.408	14.180	15.002	15.877	16.809	17.800
13	9.728	10.297	10.906	11.557	12.254	13.000	13.798	14.652	15.566	16.545	17.593	18.714	19.915
14	10.273	10.914	11.603	12.345	13.142	14.000	14.923	15.917	16.987	18.140	19.380	20.717	22.156
15	10.795	11.510	12.283	13.118	14.022	15.000	16.058	17.204	18.445	19.788	21.244	22.821	24.530
16	11.295	12.086	12.945	13.879	14.895	16.000	17.203	18.513	19.939	21.493	23.186	25.032	27.044
17	11.775	12.643	13.591	14.627	15.760	17.000	18.357	19.843	21.471	23.255	25.211	27.356	29.708
18	12.233	13.180	14.220	15.362	16.618	18.000	19.521	21.197	23.043	25.078	27.322	29.798	32.530
19	12.672	13.699	14.833	16.085	17.469	19.000	20.695	22.573	24.654	26.962	29.522	32.364	35.519
20	13.093	14.201	15.430	16.795	18.312	20.000	21.879	23.972	26.306	28.910	31.815	35.060	38.685
21	13.496	14.686	16.013	17.494	19.149	21.000	23.073	25.396	28.000	30.923	34.206	37.894	42.039
22	13.882	15.154	16.580	18.180	19.978	22.000	24.277	26.843	29.738	33.006	36.698	40.871	45.592
23	14.251	15.607	17.133	18.855	20.800	23.000	25.491	28.315	31.519	35.158	39.295	44.000	49.356
24	14.605	16.044	17.672	19.519	21.615	24.000	26.716	29.812	33.346	37.384	42.002	47.289	53.344
25	14.944	16.466	18.197	20.171	22.424	25.000	27.950	31.334	35.219	39.685	44.824	50.744	57.567
26	15.268	16.874	18.709	20.812	23.225	26.000	29.196	32.882	37.140	42.064	47.766	54.375	62.042
27	15.579	17.268	19.208	21.442	24.020	27.000	30.452	34.456	39.110	44.524	50.833	58.191	66.781
28	15.876	17.649	19.694	22.062	24.808	28.000	31.718	36.057	41.129	47.067	54.029	62.200	71.802
29	16.161	18.016	20.168	22.671	25.589	29.000	32.995	37.685	43.200	49.697	57.361	66.414	77.121
30	16.434	18.372	20.630	23.270	26.364	30.000	34.284	39.341	45.324	52.415	60.834	70.842	82.755
31	16.695	18.715	21.080	23.858	27.132	31.000	35.583	41.025	47.502	55.226	64.454	75.495	88.724
32	16.945	19.047	21.519	24.437	27.894	32.000	36.893	42.737	49.735	58.132	68.227	80.384	95.047
33	17.185	19.367	21.946	25.006	28.649	33.000	38.214	44.478	52.025	61.136	72.160	85.522	101.744
34	17.415	19.677	22.363	25.565	29.397	34.000	39.546	46.249	54.373	64.243	76.260	90.922	108.839
35	17.634	19.976	22.769	26.115	30.140	35.000	40.890	48.050	56.781	67.454	80.534	96.596	116.355
36	17.845	20.265	23.165	26.655	30.876	36.000	42.245	49.881	59.250	70.775	84.989	102.558	124.317
37	18.046	20.544	23.550	27.187	31.606	37.000	43.611	51.744	61.781	74.208	89.633	108.824	132.751
38	18.239	20.814	23.926	27.709	32.329	38.000	44.989	53.638	64.378	77.757	94.473	115.408	141.685
39	18.424	21.074	24.292	28.222	33.047	39.000	46.379	55.564	67.040	81.427	99.518	122.327	151.150
40	18.601	21.326	24.649	28.727	33.758	40.000	47.780	57.522	69.770	85.221	104.778	129.598	161.175
41	18.770	21.569	24.997	29.223	34.464	41.000	49.19	59.51	72.57	89.14	110.26	137.24	171.80
42	18.933	21.804	25.336	29.711	35.163	42.000	50.62	61.54	75.44	93.20	115.97	145.27	183.05
43	19.088	22.031	25.667	30.190	35.857	43.000	52.06	63.60	78.38	97.39	121.93	153.71	194.96
44	19.237	22.250	25.989	30.662	36.545	44.000	53.51	65.69	81.40	101.73	128.14	162.57	207.59
45	19.379	22.462	26.303	31.125	37.226	45.000	54.97	67.83	84.50	106.21	134.61	171.89	220.96
46	19.516	22.667	26.609	31.581	37.902	46.000	56.44	69.99	87.67	110.84	141.36	181.68	235.13
47	19.646	22.865	26.907	32.028	38.573	47.000	57.93	72.20	90.92	115.64	148.39	191.97	250.14
48	19.772	23.056	27.197	32.469	39.237	48.000	59.43	74.44	94.26	120.59	155.72	202.78	266.04
49	19.891	23.240	27.480	32.901	39.896	49.000	60.94	76.71	97.68	125.71	163.36	214.14	282.88
50	20.006	23.419	27.756	33.327	40.550	50.000	62.47	79.03	101.19	131.01	171.33	226.08	300.72

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 19.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.840	0.849	0.857	0.866	0.874	0.882	0.891	0.899	0.908	0.916	0.924	0.933	0.941
2	1.547	1.569	1.592	1.615	1.638	1.661	1.684	1.708	1.731	1.755	1.779	1.803	1.827
3	2.140	2.180	2.222	2.263	2.305	2.348	2.391	2.435	2.479	2.523	2.569	2.614	2.661
4	2.639	2.699	2.761	2.824	2.889	2.954	3.021	3.088	3.157	3.227	3.299	3.371	3.445
5	3.058	3.140	3.224	3.310	3.398	3.489	3.581	3.676	3.773	3.872	3.974	4.078	4.184
6	3.410	3.514	3.621	3.731	3.844	3.961	4.081	4.204	4.332	4.463	4.597	4.736	4.879
7	3.706	3.831	3.960	4.095	4.233	4.377	4.526	4.680	4.839	5.004	5.174	5.351	5.533
8	3.954	4.100	4.252	4.410	4.574	4.745	4.922	5.107	5.299	5.499	5.707	5.924	6.149
9	4.163	4.329	4.502	4.682	4.871	5.069	5.275	5.491	5.717	5.953	6.200	6.458	6.728
10	4.339	4.523	4.716	4.918	5.131	5.355	5.590	5.837	6.096	6.369	6.655	6.957	7.274
11	4.486	4.687	4.899	5.123	5.358	5.607	5.870	6.147	6.440	6.749	7.076	7.422	7.787
12	4.611	4.827	5.056	5.299	5.557	5.830	6.119	6.426	6.752	7.098	7.466	7.856	8.270
13	4.715	4.946	5.191	5.452	5.730	6.026	6.342	6.678	7.036	7.418	7.825	8.260	8.725
14	4.802	5.046	5.307	5.585	5.882	6.200	6.540	6.903	7.293	7.710	8.158	8.638	9.153
15	4.876	5.132	5.406	5.699	6.014	6.353	6.716	7.106	7.526	7.978	8.465	8.990	9.556
16	4.938	5.204	5.491	5.799	6.130	6.488	6.873	7.289	7.738	8.224	8.749	9.318	9.935
17	4.990	5.266	5.563	5.885	6.232	6.607	7.013	7.453	7.930	8.449	9.012	9.625	10.291
18	5.033	5.318	5.626	5.959	6.320	6.712	7.138	7.601	8.105	8.655	9.255	9.910	10.627
19	5.070	5.362	5.679	6.023	6.397	6.805	7.249	7.733	8.263	8.843	9.479	10.177	10.943
20	5.101	5.400	5.725	6.079	6.465	6.886	7.347	7.853	8.407	9.016	9.687	10.426	11.241
21	5.127	5.432	5.764	6.127	6.524	6.959	7.436	7.960	8.537	9.175	9.878	10.657	11.521
22	5.149	5.459	5.798	6.169	6.576	7.022	7.514	8.056	8.656	9.320	10.056	10.874	11.784
23	5.167	5.482	5.827	6.205	6.621	7.078	7.584	8.143	8.763	9.452	10.220	11.075	12.032
24	5.182	5.502	5.852	6.236	6.660	7.128	7.646	8.221	8.861	9.574	10.371	11.264	12.266
25	5.195	5.518	5.873	6.263	6.694	7.172	7.702	8.291	8.949	9.685	10.511	11.439	12.485
26	5.206	5.532	5.891	6.287	6.725	7.210	7.751	8.354	9.030	9.788	10.640	11.603	12.692
27	5.215	5.544	5.907	6.307	6.751	7.244	7.795	8.411	9.103	9.881	10.760	11.756	12.887
28	5.223	5.554	5.920	6.325	6.774	7.275	7.834	8.462	9.169	9.967	10.871	11.898	13.070
29	5.229	5.563	5.931	6.340	6.794	7.301	7.869	8.508	9.229	10.045	10.973	12.031	13.242
30	5.235	5.570	5.941	6.353	6.812	7.324	7.900	8.549	9.283	10.117	11.067	12.155	13.404
31	5.239	5.576	5.950	6.364	6.827	7.345	7.928	8.586	9.333	10.183	11.155	12.271	13.557
32	5.243	5.582	5.957	6.374	6.840	7.363	7.953	8.620	9.378	10.243	11.235	12.379	13.701
33	5.246	5.586	5.963	6.383	6.852	7.379	7.975	8.649	9.418	10.298	11.310	12.479	13.836
34	5.249	5.590	5.968	6.390	6.862	7.394	7.994	8.676	9.455	10.349	11.379	12.573	13.963
35	5.251	5.593	5.973	6.396	6.871	7.406	8.012	8.701	9.489	10.395	11.443	12.661	14.083
36	5.253	5.596	5.977	6.402	6.879	7.417	8.027	8.722	9.519	10.438	11.502	12.742	14.196
37	5.255	5.598	5.980	6.407	6.886	7.427	8.041	8.742	9.547	10.476	11.556	12.818	14.302
38	5.256	5.600	5.983	6.411	6.892	7.436	8.053	8.760	9.572	10.512	11.607	12.889	14.402
39	5.257	5.602	5.985	6.414	6.897	7.443	8.064	8.775	9.595	10.545	11.653	12.956	14.496
40	5.258	5.603	5.987	6.418	6.902	7.450	8.074	8.790	9.615	10.574	11.696	13.017	14.584
41	5.259	5.604	5.989	6.420	6.906	7.456	8.083	8.803	9.634	10.602	11.736	13.075	14.668
42	5.260	5.605	5.991	6.423	6.909	7.461	8.091	8.814	9.651	10.627	11.773	13.129	14.746
43	5.260	5.606	5.992	6.425	6.912	7.466	8.097	8.824	9.667	10.650	11.807	13.179	14.820
44	5.261	5.607	5.993	6.426	6.915	7.470	8.104	8.834	9.681	10.671	11.838	13.226	14.889
45	5.261	5.608	5.994	6.428	6.917	7.473	8.109	8.842	9.693	10.690	11.867	13.269	14.955
46	5.261	5.608	5.995	6.429	6.919	7.476	8.114	8.850	9.705	10.708	11.894	13.310	15.016
47	5.262	5.609	5.996	6.430	6.921	7.479	8.118	8.856	9.715	10.724	11.919	13.348	15.074
48	5.262	5.609	5.996	6.431	6.923	7.482	8.122	8.862	9.725	10.739	11.942	13.384	15.128
49	5.262	5.609	5.997	6.432	6.924	7.484	8.126	8.868	9.733	10.752	11.963	13.417	15.180
50	5.262	5.610	5.997	6.433	6.925	7.486	8.129	8.873	9.741	10.765	11.983	13.447	15.228

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 19.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.950	0.958	0.966	0.975	0.983	0.992	1.000	1.008	1.017	1.025	1.034	1.042	1.050
2	1.851	1.876	1.900	1.925	1.950	1.975	2.000	2.025	2.051	2.076	2.102	2.128	2.154
3	2.708	2.755	2.803	2.851	2.900	2.950	3.000	3.051	3.102	3.154	3.206	3.259	3.313
4	3.521	3.597	3.675	3.754	3.835	3.917	4.000	4.085	4.171	4.259	4.348	4.438	4.530
5	4.293	4.404	4.518	4.634	4.753	4.875	5.000	5.127	5.258	5.391	5.527	5.667	5.809
6	5.026	5.177	5.332	5.492	5.657	5.826	6.000	6.179	6.363	6.552	6.747	6.947	7.152
7	5.722	5.917	6.120	6.329	6.545	6.769	7.000	7.239	7.487	7.743	8.007	8.281	8.563
8	6.383	6.627	6.880	7.144	7.418	7.703	8.000	8.309	8.629	8.963	9.310	9.671	10.046
9	7.011	7.306	7.615	7.939	8.277	8.630	9.000	9.387	9.791	10.214	10.656	11.119	11.603
10	7.607	7.957	8.326	8.713	9.121	9.549	10.000	10.474	10.973	11.497	12.048	12.628	13.238
11	8.173	8.581	9.012	9.468	9.951	10.461	11.000	11.570	12.174	12.812	13.487	14.201	14.956
12	8.710	9.178	9.676	10.204	10.767	11.364	12.000	12.676	13.395	14.160	14.974	15.840	16.760
13	9.221	9.751	10.317	10.922	11.569	12.260	13.000	13.791	14.637	15.542	16.511	17.547	18.656
14	9.705	10.299	10.936	11.621	12.358	13.149	14.000	14.915	15.900	16.959	18.099	19.326	20.647
15	10.166	10.824	11.535	12.303	13.133	14.030	15.000	16.049	17.184	18.412	19.741	21.180	22.738
16	10.603	11.327	12.114	12.968	13.896	14.904	16.000	17.192	18.490	19.902	21.439	23.112	24.935
17	11.018	11.809	12.673	13.616	14.645	15.770	17.000	18.345	19.817	21.428	23.193	25.125	27.243
18	11.412	12.271	13.213	14.247	15.382	16.629	18.000	19.508	21.167	22.994	25.006	27.223	29.667
19	11.786	12.714	13.736	14.863	16.107	17.481	19.000	20.680	22.540	24.599	26.880	29.409	32.213
20	12.141	13.137	14.240	15.463	16.819	18.326	20.000	21.862	23.935	26.244	28.817	31.687	34.888
21	12.479	13.543	14.728	16.048	17.520	19.163	21.000	23.054	25.354	27.931	30.820	34.060	37.697
22	12.799	13.932	15.199	16.618	18.209	19.994	22.000	24.257	26.797	29.660	32.889	36.533	40.648
23	13.103	14.305	15.655	17.174	18.886	20.818	23.000	25.469	28.264	31.433	35.028	39.110	43.748
24	13.392	14.662	16.095	17.716	19.552	21.634	24.000	26.691	29.756	33.251	37.239	41.796	47.005
25	13.667	15.004	16.520	18.244	20.206	22.444	25.000	27.924	31.273	35.114	39.525	44.594	50.425
26	13.927	15.331	16.932	18.759	20.850	23.247	26.000	29.167	32.816	37.025	41.887	47.509	54.018
27	14.174	15.645	17.329	19.261	21.483	24.043	27.000	30.420	34.384	38.983	44.328	50.548	57.792
28	14.409	15.946	17.713	19.750	22.105	24.833	28.000	31.685	35.979	40.991	46.852	53.713	61.756
29	14.632	16.234	18.084	20.227	22.716	25.616	29.000	32.959	37.600	43.050	49.461	57.012	65.920
30	14.844	16.510	18.442	20.692	23.318	26.392	30.000	34.245	39.249	45.160	52.157	60.450	70.294
31	15.045	16.774	18.789	21.145	23.909	27.162	31.000	35.541	40.925	47.324	54.943	64.032	74.889
32	15.236	17.027	19.124	21.587	24.490	27.925	32.000	36.848	42.630	49.542	57.824	67.764	79.715
33	15.418	17.270	19.447	22.017	25.062	28.682	33.000	38.166	44.363	51.817	60.801	71.653	84.785
34	15.590	17.502	19.760	22.437	25.624	29.433	34.000	39.495	46.126	54.148	63.879	75.706	90.110
35	15.753	17.725	20.062	22.846	26.177	30.177	35.000	40.835	47.918	56.538	67.059	79.929	95.704
36	15.909	17.938	20.354	23.245	26.720	30.915	36.000	42.187	49.740	58.989	70.347	84.329	101.580
37	16.056	18.142	20.636	23.634	27.254	31.647	37.000	43.550	51.592	61.501	73.745	88.915	107.752
38	16.196	18.338	20.909	24.013	27.779	32.372	38.000	44.924	53.476	64.077	77.258	93.693	114.235
39	16.329	18.525	21.173	24.382	28.295	33.092	39.000	46.310	55.392	66.718	80.888	98.671	121.046
40	16.455	18.705	21.427	24.742	28.803	33.805	40.000	47.708	57.340	69.425	84.641	103.859	128.199
41	16.575	18.877	21.673	25.093	29.302	34.513	41.000	49.12	59.32	72.20	88.52	109.26	135.71
42	16.689	19.042	21.911	25.435	29.793	35.215	42.000	50.54	61.33	75.05	92.53	114.90	143.61
43	16.797	19.200	22.141	25.769	30.275	35.910	43.000	51.97	63.38	77.96	96.67	120.77	151.90
44	16.900	19.351	22.363	26.094	30.750	36.600	44.000	53.42	65.46	80.95	100.96	126.88	160.61
45	16.997	19.496	22.578	26.411	31.216	37.284	45.000	54.87	67.58	84.02	105.38	133.26	169.75
46	17.090	19.635	22.785	26.720	31.675	37.962	46.000	56.34	69.73	87.16	109.96	139.90	179.36
47	17.178	19.768	22.986	27.021	32.126	38.635	47.000	57.82	71.92	90.39	114.69	146.82	189.46
48	17.261	19.895	23.180	27.315	32.569	39.302	48.000	59.32	74.15	93.69	119.58	154.03	200.06
49	17.341	20.017	23.367	27.601	33.005	39.963	49.000	60.83	76.41	97.08	124.63	161.54	211.20
50	17.416	20.134	23.548	27.880	33.433	40.619	50.000	62.35	78.71	100.55	129.85	169.37	222.90

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 20.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.833	0.842	0.850	0.858	0.867	0.875	0.883	0.892	0.900	0.908	0.917	0.925	0.933
2	1.528	1.550	1.573	1.595	1.618	1.641	1.664	1.687	1.710	1.733	1.757	1.781	1.804
3	2.106	2.146	2.187	2.227	2.269	2.311	2.353	2.396	2.439	2.483	2.527	2.572	2.617
4	2.589	2.648	2.709	2.770	2.833	2.897	2.962	3.028	3.095	3.164	3.233	3.304	3.376
5	2.991	3.071	3.152	3.236	3.322	3.410	3.499	3.591	3.686	3.782	3.880	3.981	4.085
6	3.326	3.426	3.529	3.636	3.746	3.858	3.975	4.094	4.217	4.344	4.474	4.608	4.746
7	3.605	3.725	3.850	3.979	4.113	4.251	4.394	4.542	4.695	4.854	5.018	5.187	5.363
8	3.837	3.977	4.123	4.274	4.431	4.595	4.765	4.942	5.126	5.317	5.516	5.723	5.938
9	4.031	4.189	4.354	4.527	4.707	4.895	5.092	5.298	5.513	5.738	5.973	6.219	6.476
10	4.192	4.367	4.551	4.744	4.946	5.158	5.382	5.616	5.862	6.120	6.392	6.677	6.977
11	4.327	4.518	4.718	4.930	5.153	5.389	5.637	5.899	6.176	6.468	6.776	7.102	7.446
12	4.439	4.644	4.861	5.090	5.333	5.590	5.863	6.152	6.458	6.783	7.128	7.494	7.883
13	4.533	4.750	4.982	5.227	5.488	5.766	6.062	6.377	6.712	7.070	7.451	7.857	8.290
14	4.611	4.840	5.084	5.345	5.623	5.921	6.238	6.578	6.941	7.330	7.746	8.193	8.671
15	4.675	4.915	5.172	5.446	5.740	6.055	6.394	6.757	7.147	7.566	8.018	8.503	9.026
16	4.730	4.979	5.246	5.533	5.842	6.174	6.531	6.917	7.332	7.781	8.266	8.791	9.358
17	4.775	5.032	5.309	5.607	5.929	6.277	6.652	7.059	7.499	7.976	8.494	9.056	9.667
18	4.812	5.077	5.363	5.671	6.005	6.367	6.760	7.186	7.649	8.153	8.703	9.302	9.956
19	4.843	5.115	5.408	5.726	6.071	6.446	6.854	7.299	7.784	8.314	8.894	9.529	10.226
20	4.870	5.147	5.447	5.773	6.129	6.516	6.938	7.400	7.906	8.461	9.070	9.740	10.477
21	4.891	5.173	5.480	5.814	6.178	6.576	7.012	7.490	8.015	8.593	9.231	9.934	10.712
22	4.909	5.196	5.508	5.849	6.221	6.629	7.077	7.570	8.114	8.714	9.378	10.114	10.931
23	4.925	5.215	5.532	5.878	6.258	6.675	7.135	7.642	8.202	8.823	9.513	10.281	11.136
24	4.937	5.231	5.552	5.904	6.290	6.716	7.186	7.706	8.282	8.923	9.637	10.435	11.327
25	4.948	5.244	5.569	5.926	6.318	6.752	7.231	7.762	8.354	9.013	9.751	10.577	11.505
26	4.956	5.256	5.584	5.945	6.343	6.783	7.271	7.813	8.419	9.095	9.855	10.709	11.671
27	4.964	5.265	5.596	5.961	6.364	6.810	7.306	7.858	8.477	9.170	9.950	10.831	11.827
28	4.970	5.273	5.607	5.975	6.382	6.834	7.337	7.899	8.529	9.238	10.038	10.943	11.972
29	4.975	5.280	5.616	5.987	6.398	6.854	7.364	7.935	8.576	9.299	10.118	11.047	12.107
30	4.979	5.286	5.623	5.997	6.411	6.873	7.388	7.967	8.618	9.355	10.191	11.144	12.233
31	4.982	5.290	5.630	6.006	6.423	6.888	7.410	7.995	8.657	9.406	10.259	11.233	12.351
32	4.985	5.294	5.635	6.013	6.433	6.902	7.428	8.021	8.691	9.452	10.321	11.316	12.461
33	4.988	5.298	5.640	6.020	6.442	6.915	7.445	8.044	8.722	9.494	10.377	11.392	12.563
34	4.990	5.301	5.644	6.025	6.450	6.925	7.460	8.064	8.750	9.532	10.429	11.463	12.659
35	4.992	5.303	5.647	6.030	6.457	6.935	7.473	8.082	8.775	9.567	10.477	11.528	12.749
36	4.993	5.305	5.650	6.034	6.462	6.943	7.484	8.098	8.797	9.598	10.520	11.588	12.832
37	4.994	5.307	5.653	6.038	6.467	6.950	7.495	8.112	8.818	9.627	10.560	11.644	12.910
38	4.995	5.308	5.655	6.041	6.472	6.956	7.504	8.125	8.836	9.652	10.597	11.696	12.983
39	4.996	5.309	5.657	6.043	6.476	6.962	7.511	8.137	8.852	9.676	10.630	11.744	13.050
40	4.997	5.310	5.658	6.045	6.479	6.966	7.518	8.147	8.867	9.697	10.661	11.788	13.114
41	4.997	5.311	5.659	6.047	6.482	6.971	7.525	8.156	8.880	9.717	10.689	11.829	13.173
42	4.998	5.312	5.661	6.049	6.484	6.974	7.530	8.164	8.892	9.734	10.715	11.867	13.228
43	4.998	5.313	5.661	6.050	6.486	6.978	7.535	8.171	8.903	9.750	10.739	11.902	13.279
44	4.998	5.313	5.662	6.052	6.488	6.980	7.539	8.178	8.913	9.765	10.761	11.934	13.327
45	4.999	5.314	5.663	6.053	6.490	6.983	7.543	8.184	8.921	9.778	10.781	11.964	13.372
46	4.999	5.314	5.663	6.053	6.491	6.985	7.546	8.189	8.929	9.790	10.799	11.992	13.414
47	4.999	5.314	5.664	6.054	6.492	6.987	7.549	8.193	8.936	9.801	10.816	12.017	13.453
48	4.999	5.314	5.664	6.055	6.493	6.988	7.552	8.197	8.943	9.811	10.831	12.041	13.490
49	4.999	5.315	5.665	6.055	6.494	6.990	7.554	8.201	8.948	9.820	10.845	12.063	13.524
50	4.999	5.315	5.665	6.056	6.495	6.991	7.556	8.204	8.954	9.828	10.858	12.083	13.555

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Uniform Present Value Factors

Discount Rate 20.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.942	0.950	0.958	0.967	0.975	0.983	0.992	1.000	1.008	1.017	1.025	1.033	1.042
2	1.828	1.853	1.877	1.901	1.926	1.950	1.975	2.000	2.025	2.050	2.076	2.101	2.127
3	2.663	2.710	2.757	2.804	2.852	2.901	2.950	3.000	3.050	3.101	3.153	3.204	3.257
4	3.450	3.524	3.600	3.678	3.756	3.836	3.917	4.000	4.084	4.169	4.256	4.345	4.434
5	4.190	4.298	4.409	4.522	4.637	4.755	4.876	5.000	5.126	5.256	5.388	5.523	5.661
6	4.887	5.033	5.183	5.338	5.496	5.660	5.827	6.000	6.177	6.360	6.547	6.740	6.938
7	5.544	5.732	5.926	6.126	6.334	6.549	6.771	7.000	7.237	7.483	7.736	7.998	8.269
8	6.162	6.395	6.637	6.889	7.151	7.423	7.706	8.000	8.306	8.624	8.955	9.298	9.655
9	6.744	7.025	7.319	7.626	7.947	8.282	8.633	9.000	9.383	9.784	10.203	10.641	11.099
10	7.293	7.624	7.972	8.338	8.723	9.128	9.553	10.000	10.470	10.964	11.483	12.029	12.603
11	7.809	8.193	8.598	9.027	9.480	9.959	10.465	11.000	11.566	12.163	12.796	13.464	14.170
12	8.295	8.733	9.198	9.693	10.218	10.776	11.369	12.000	12.670	13.383	14.140	14.946	15.802
13	8.753	9.247	9.774	10.336	10.938	11.580	12.266	13.000	13.784	14.623	15.519	16.477	17.502
14	9.184	9.734	10.325	10.959	11.639	12.370	13.156	14.000	14.907	15.883	16.932	18.060	19.273
15	9.590	10.197	10.853	11.560	12.323	13.147	14.038	15.000	16.040	17.164	18.380	19.695	21.118
16	9.972	10.638	11.359	12.141	12.990	13.912	14.913	16.000	17.182	18.467	19.865	21.385	23.040
17	10.332	11.056	11.844	12.703	13.640	14.663	15.780	17.000	18.333	19.792	21.386	23.131	25.041
18	10.671	11.453	12.309	13.246	14.274	15.402	16.640	18.000	19.495	21.138	22.946	24.936	27.126
19	10.990	11.830	12.754	13.772	14.892	16.129	17.493	19.000	20.665	22.507	24.545	26.800	29.298
20	11.291	12.189	13.181	14.279	15.495	16.843	18.339	20.000	21.846	23.899	26.183	28.727	31.561
21	11.574	12.529	13.590	14.770	16.083	17.546	19.178	21.000	23.036	25.314	27.863	30.718	33.917
22	11.840	12.853	13.982	15.244	16.656	18.237	20.010	22.000	24.237	26.752	29.584	32.775	36.372
23	12.091	13.160	14.358	15.703	17.214	18.916	20.835	23.000	25.447	28.215	31.349	34.901	38.930
24	12.328	13.452	14.718	16.146	17.759	19.584	21.653	24.000	26.667	29.702	33.158	37.098	41.593
25	12.550	13.730	15.063	16.574	18.290	20.241	22.464	25.000	27.898	31.213	35.012	39.368	44.368
26	12.760	13.993	15.394	16.989	18.808	20.887	23.268	26.000	29.139	32.750	36.912	41.713	47.258
27	12.957	14.243	15.711	17.389	19.313	21.522	24.066	27.000	30.390	34.313	38.860	44.137	50.269
28	13.143	14.481	16.015	17.776	19.805	22.147	24.857	28.000	31.651	35.901	40.856	46.642	53.405
29	13.318	14.707	16.306	18.150	20.285	22.761	25.642	29.000	32.924	37.516	42.903	49.230	56.672
30	13.483	14.922	16.585	18.512	20.753	23.365	26.420	30.000	34.206	39.158	45.000	51.904	60.075
31	13.638	15.126	16.852	18.861	21.209	23.959	27.191	31.000	35.500	40.828	47.150	54.667	63.620
32	13.784	15.319	17.108	19.199	21.653	24.543	27.956	32.000	36.804	42.525	49.354	57.523	67.313
33	13.922	15.504	17.354	19.526	22.087	25.117	28.715	33.000	38.119	44.250	51.613	60.474	71.159
34	14.051	15.678	17.589	19.842	22.510	25.682	29.467	34.000	39.445	46.004	53.928	63.523	75.165
35	14.173	15.844	17.814	20.147	22.922	26.237	30.213	35.000	40.782	47.788	56.301	66.674	79.339
36	14.288	16.002	18.030	20.442	23.324	26.783	30.953	36.000	42.130	49.601	58.734	69.929	83.687
37	14.396	16.152	18.237	20.727	23.716	27.320	31.687	37.000	43.489	51.444	61.227	73.294	88.215
38	14.498	16.294	18.436	21.003	24.098	27.848	32.415	38.000	44.860	53.318	63.783	76.770	92.932
39	14.594	16.430	18.626	21.270	24.471	28.368	33.136	39.000	46.242	55.224	66.403	80.362	97.846
40	14.684	16.558	18.808	21.527	24.834	28.878	33.852	40.000	47.636	57.161	69.088	84.075	102.965
41	14.770	16.680	18.983	21.777	25.188	29.380	34.56	41.00	49.04	59.13	71.84	87.91	108.30
42	14.850	16.796	19.150	22.017	25.533	29.874	35.27	42.00	50.46	61.13	74.66	91.87	113.85
43	14.925	16.907	19.311	22.250	25.870	30.359	35.96	43.00	51.89	63.17	77.55	95.97	119.64
44	14.996	17.011	19.464	22.475	26.198	30.837	36.65	44.00	53.33	65.24	80.52	100.20	125.66
45	15.063	17.111	19.612	22.693	26.518	31.306	37.34	45.00	54.78	67.34	83.55	104.58	131.94
46	15.126	17.205	19.753	22.903	26.830	31.768	38.02	46.00	56.25	69.48	86.67	109.09	138.48
47	15.185	17.295	19.888	23.106	27.135	32.221	38.70	47.00	57.72	71.65	89.86	113.76	145.29
48	15.241	17.380	20.018	23.303	27.431	32.668	39.37	48.00	59.21	73.87	93.13	118.59	152.39
49	15.294	17.461	20.142	23.492	27.720	33.107	40.03	49.00	60.71	76.11	96.48	123.58	159.78
50	15.343	17.538	20.261	23.676	28.002	33.538	40.69	50.00	62.23	78.40	99.92	128.73	167.48

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 21.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.826	0.835	0.843	0.851	0.860	0.868	0.876	0.884	0.893	0.901	0.909	0.917	0.926
2	1.509	1.531	1.554	1.576	1.598	1.621	1.643	1.666	1.689	1.712	1.736	1.759	1.782
3	2.074	2.113	2.153	2.193	2.233	2.274	2.316	2.358	2.400	2.443	2.487	2.531	2.575
4	2.540	2.598	2.658	2.718	2.779	2.841	2.905	2.969	3.035	3.102	3.170	3.239	3.309
5	2.926	3.004	3.083	3.165	3.248	3.333	3.421	3.510	3.601	3.695	3.791	3.889	3.989
6	3.245	3.342	3.442	3.545	3.651	3.760	3.873	3.988	4.107	4.229	4.355	4.485	4.618
7	3.508	3.624	3.745	3.869	3.998	4.131	4.269	4.411	4.558	4.711	4.868	5.031	5.200
8	3.726	3.860	4.000	4.145	4.296	4.452	4.615	4.785	4.961	5.144	5.335	5.533	5.739
9	3.905	4.057	4.214	4.379	4.552	4.731	4.919	5.116	5.321	5.535	5.759	5.993	6.238
10	4.054	4.221	4.396	4.579	4.772	4.974	5.186	5.408	5.642	5.887	6.145	6.415	6.699
11	4.177	4.358	4.548	4.749	4.961	5.184	5.419	5.667	5.928	6.204	6.495	6.802	7.127
12	4.278	4.472	4.677	4.894	5.123	5.366	5.623	5.895	6.184	6.490	6.814	7.157	7.522
13	4.362	4.568	4.786	5.017	5.263	5.524	5.802	6.097	6.412	6.747	7.103	7.483	7.888
14	4.432	4.647	4.877	5.122	5.383	5.662	5.959	6.276	6.616	6.978	7.367	7.782	8.227
15	4.489	4.714	4.954	5.211	5.486	5.781	6.096	6.434	6.797	7.187	7.606	8.056	8.541
16	4.536	4.770	5.019	5.287	5.575	5.884	6.216	6.574	6.960	7.375	7.824	8.308	8.831
17	4.576	4.816	5.074	5.352	5.651	5.974	6.322	6.698	7.105	7.545	8.022	8.539	9.100
18	4.608	4.855	5.120	5.407	5.717	6.052	6.414	6.807	7.234	7.697	8.201	8.750	9.349
19	4.635	4.887	5.159	5.454	5.773	6.119	6.495	6.904	7.349	7.835	8.365	8.945	9.579
20	4.657	4.914	5.192	5.494	5.821	6.178	6.566	6.989	7.452	7.959	8.514	9.123	9.792
21	4.675	4.936	5.220	5.528	5.863	6.229	6.628	7.065	7.544	8.070	8.649	9.286	9.989
22	4.690	4.955	5.243	5.557	5.899	6.273	6.682	7.132	7.626	8.171	8.772	9.436	10.172
23	4.703	4.971	5.263	5.581	5.930	6.311	6.730	7.191	7.699	8.261	8.883	9.574	10.341
24	4.713	4.984	5.279	5.602	5.956	6.344	6.772	7.243	7.765	8.343	8.985	9.700	10.497
25	4.721	4.995	5.293	5.620	5.979	6.373	6.808	7.289	7.823	8.416	9.077	9.815	10.642
26	4.728	5.004	5.305	5.635	5.998	6.398	6.840	7.330	7.875	8.482	9.161	9.922	10.776
27	4.734	5.012	5.315	5.648	6.015	6.420	6.868	7.367	7.922	8.542	9.237	10.019	10.900
28	4.739	5.018	5.323	5.659	6.029	6.439	6.893	7.399	7.963	8.596	9.307	10.108	11.015
29	4.743	5.023	5.331	5.669	6.042	6.455	6.915	7.427	8.000	8.644	9.370	10.190	11.122
30	4.746	5.028	5.336	5.677	6.052	6.469	6.933	7.452	8.033	8.688	9.427	10.265	11.220
31	4.749	5.031	5.341	5.683	6.062	6.482	6.950	7.474	8.063	8.727	9.479	10.334	11.311
32	4.751	5.034	5.346	5.689	6.070	6.492	6.964	7.493	8.089	8.762	9.526	10.398	11.395
33	4.753	5.037	5.349	5.694	6.076	6.502	6.977	7.511	8.112	8.794	9.569	10.456	11.473
34	4.755	5.039	5.352	5.698	6.082	6.510	6.988	7.526	8.133	8.823	9.609	10.509	11.546
35	4.756	5.041	5.355	5.702	6.087	6.517	6.998	7.540	8.152	8.849	9.644	10.558	11.612
36	4.757	5.042	5.357	5.705	6.091	6.523	7.006	7.551	8.169	8.872	9.677	10.603	11.674
37	4.758	5.044	5.359	5.707	6.095	6.528	7.014	7.562	8.184	8.893	9.706	10.644	11.732
38	4.759	5.045	5.360	5.710	6.098	6.533	7.020	7.571	8.197	8.912	9.733	10.681	11.785
39	4.759	5.046	5.362	5.712	6.101	6.537	7.026	7.580	8.209	8.929	9.757	10.716	11.834
40	4.760	5.046	5.363	5.713	6.103	6.540	7.031	7.587	8.220	8.944	9.779	10.748	11.879
41	4.760	5.047	5.364	5.714	6.105	6.543	7.036	7.593	8.229	8.958	9.799	10.777	11.921
42	4.760	5.047	5.364	5.716	6.107	6.546	7.039	7.599	8.237	8.970	9.817	10.804	11.960
43	4.761	5.048	5.365	5.717	6.109	6.548	7.043	7.604	8.245	8.982	9.834	10.828	11.996
44	4.761	5.048	5.365	5.717	6.110	6.550	7.046	7.609	8.252	8.992	9.849	10.851	12.029
45	4.761	5.049	5.366	5.718	6.111	6.551	7.048	7.613	8.258	9.001	9.863	10.871	12.060
46	4.761	5.049	5.366	5.719	6.112	6.553	7.051	7.616	8.263	9.009	9.875	10.890	12.089
47	4.761	5.049	5.367	5.719	6.113	6.554	7.053	7.619	8.268	9.016	9.887	10.907	12.115
48	4.761	5.049	5.367	5.720	6.113	6.555	7.054	7.622	8.272	9.023	9.897	10.923	12.140
49	4.761	5.049	5.367	5.720	6.114	6.556	7.056	7.624	8.276	9.029	9.906	10.938	12.162
50	4.762	5.049	5.367	5.720	6.114	6.557	7.057	7.627	8.279	9.034	9.915	10.951	12.183

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 21.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.934	0.942	0.950	0.959	0.967	0.975	0.983	0.992	1.000	1.008	1.017	1.025	1.033
2	1.806	1.830	1.854	1.878	1.902	1.926	1.951	1.975	2.000	2.025	2.050	2.075	2.100
3	2.621	2.666	2.712	2.759	2.806	2.854	2.902	2.951	3.000	3.050	3.100	3.151	3.203
4	3.381	3.454	3.528	3.604	3.680	3.758	3.837	3.918	4.000	4.083	4.168	4.254	4.342
5	4.091	4.196	4.304	4.413	4.525	4.640	4.757	4.877	5.000	5.125	5.253	5.384	5.518
6	4.755	4.896	5.041	5.190	5.343	5.500	5.662	5.829	6.000	6.176	6.357	6.543	6.734
7	5.374	5.555	5.741	5.934	6.133	6.339	6.552	6.772	7.000	7.235	7.478	7.730	7.989
8	5.953	6.175	6.407	6.647	6.897	7.157	7.427	7.708	8.000	8.303	8.619	8.946	9.287
9	6.493	6.760	7.040	7.331	7.636	7.955	8.288	8.636	9.000	9.380	9.778	10.193	10.627
10	6.998	7.311	7.641	7.987	8.351	8.733	9.135	9.557	10.000	10.466	10.956	11.470	12.011
11	7.469	7.831	8.212	8.616	9.042	9.492	9.967	10.469	11.000	11.561	12.153	12.779	13.441
12	7.909	8.320	8.756	9.218	9.710	10.231	10.786	11.375	12.000	12.665	13.371	14.121	14.918
13	8.320	8.781	9.272	9.796	10.356	10.953	11.591	12.272	13.000	13.778	14.608	15.496	16.445
14	8.704	9.215	9.762	10.350	10.980	11.657	12.383	13.163	14.000	14.900	15.866	16.905	18.021
15	9.062	9.624	10.229	10.881	11.584	12.343	13.162	14.046	15.000	16.031	17.145	18.349	19.650
16	9.397	10.009	10.672	11.390	12.168	13.012	13.928	14.921	16.000	17.172	18.445	19.829	21.333
17	9.710	10.372	11.093	11.878	12.733	13.665	14.681	15.790	17.000	18.322	19.766	21.345	23.071
18	10.002	10.714	11.494	12.346	13.279	14.301	15.422	16.651	18.000	19.482	21.110	22.899	24.867
19	10.274	11.037	11.874	12.794	13.807	14.922	16.150	17.505	19.000	20.651	22.475	24.492	26.722
20	10.529	11.340	12.236	13.224	14.317	15.527	16.867	18.352	20.000	21.830	23.863	26.124	28.638
21	10.767	11.626	12.579	13.637	14.811	16.117	17.571	19.192	21.000	23.019	25.274	27.796	30.618
22	10.989	11.896	12.906	14.032	15.288	16.693	18.264	20.025	22.000	24.217	26.708	29.510	32.663
23	11.196	12.150	13.216	14.411	15.750	17.254	18.946	20.851	23.000	25.425	28.166	31.267	34.776
24	11.390	12.389	13.511	14.774	16.196	17.802	19.616	21.671	24.000	26.644	29.648	33.067	36.959
25	11.570	12.615	13.792	15.122	16.628	18.335	20.276	22.483	25.000	27.872	31.155	34.911	39.214
26	11.739	12.827	14.058	15.456	17.045	18.856	20.924	23.289	26.000	29.111	32.686	36.801	41.543
27	11.897	13.027	14.312	15.776	17.448	19.364	21.562	24.089	27.000	30.360	34.243	38.739	43.950
28	12.044	13.216	14.552	16.083	17.839	19.859	22.189	24.881	28.000	31.619	35.826	40.724	46.436
29	12.182	13.393	14.781	16.377	18.216	20.342	22.805	25.667	29.000	32.889	37.434	42.758	49.004
30	12.310	13.561	14.999	16.659	18.581	20.813	23.412	26.447	30.000	34.169	39.070	44.843	51.657
31	12.430	13.718	15.205	16.929	18.933	21.272	24.008	27.220	31.000	35.459	40.732	46.980	54.397
32	12.542	13.867	15.402	17.188	19.274	21.720	24.595	27.987	32.000	36.761	42.422	49.170	57.229
33	12.647	14.007	15.589	17.437	19.604	22.156	25.172	28.747	33.000	38.073	44.140	51.413	60.154
34	12.745	14.139	15.766	17.675	19.923	22.582	25.739	29.502	34.000	39.396	45.886	53.713	63.175
35	12.836	14.263	15.935	17.903	20.231	22.997	26.297	30.249	35.000	40.729	47.661	56.069	66.297
36	12.921	14.380	16.095	18.122	20.529	23.402	26.846	30.991	36.000	42.074	49.465	58.484	69.521
37	13.001	14.490	16.247	18.332	20.818	23.797	27.386	31.727	37.000	43.430	51.299	60.959	72.853
38	13.075	14.594	16.392	18.533	21.096	24.183	27.917	32.456	38.000	44.797	53.164	63.495	76.294
39	13.145	14.692	16.530	18.726	21.366	24.558	28.439	33.180	39.000	46.176	55.059	66.094	79.849
40	13.209	14.784	16.660	18.911	21.627	24.925	28.952	33.897	40.000	47.566	56.985	68.758	83.522
41	13.270	14.871	16.785	19.088	21.879	25.282	29.46	34.61	41.00	48.97	58.94	71.49	87.32
42	13.326	14.953	16.903	19.258	22.122	25.630	29.95	35.31	42.00	50.38	60.93	74.28	91.24
43	13.379	15.030	17.015	19.421	22.358	25.970	30.44	36.01	43.00	51.80	62.96	77.15	95.28
44	13.429	15.102	17.122	19.577	22.586	26.301	30.92	36.71	44.00	53.24	65.02	80.09	99.47
45	13.475	15.171	17.223	19.727	22.806	26.624	31.39	37.40	45.00	54.69	67.11	83.10	103.79
46	13.518	15.235	17.319	19.870	23.019	26.939	31.86	38.08	46.00	56.15	69.23	86.18	108.25
47	13.558	15.296	17.411	20.008	23.225	27.247	32.32	38.76	47.00	57.62	71.39	89.35	112.86
48	13.595	15.353	17.498	20.140	23.424	27.546	32.77	39.43	48.00	59.11	73.59	92.59	117.63
49	13.630	15.407	17.581	20.266	23.617	27.839	33.21	40.09	49.00	60.60	75.82	95.91	122.55
50	13.663	15.458	17.659	20.387	23.803	28.124	33.64	40.75	50.00	62.11	78.09	99.31	127.63

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 22.0%

Year	Escalation Rates												
	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.820	0.828	0.836	0.844	0.852	0.861	0.869	0.877	0.885	0.893	0.902	0.910	0.918
2	1.492	1.513	1.535	1.557	1.579	1.601	1.624	1.646	1.669	1.692	1.715	1.738	1.761
3	2.042	2.081	2.119	2.159	2.199	2.239	2.280	2.321	2.363	2.405	2.448	2.491	2.535
4	2.494	2.550	2.608	2.667	2.727	2.788	2.850	2.913	2.977	3.042	3.108	3.176	3.245
5	2.864	2.939	3.017	3.096	3.177	3.260	3.345	3.432	3.520	3.611	3.704	3.800	3.897
6	3.167	3.261	3.358	3.458	3.561	3.666	3.775	3.887	4.002	4.120	4.242	4.367	4.495
7	3.416	3.528	3.644	3.764	3.888	4.016	4.149	4.286	4.428	4.574	4.726	4.883	5.045
8	3.619	3.748	3.882	4.022	4.167	4.317	4.473	4.636	4.805	4.980	5.163	5.352	5.550
9	3.786	3.931	4.082	4.240	4.404	4.576	4.756	4.943	5.139	5.343	5.557	5.780	6.013
10	3.923	4.082	4.249	4.424	4.607	4.799	5.001	5.212	5.434	5.667	5.912	6.168	6.438
11	4.035	4.207	4.388	4.579	4.780	4.991	5.214	5.449	5.696	5.957	6.232	6.522	6.828
12	4.127	4.311	4.505	4.710	4.927	5.156	5.399	5.656	5.928	6.215	6.521	6.844	7.187
13	4.203	4.397	4.603	4.821	5.052	5.298	5.560	5.837	6.133	6.447	6.781	7.137	7.516
14	4.265	4.468	4.684	4.914	5.159	5.421	5.699	5.997	6.314	6.653	7.016	7.403	7.818
15	4.315	4.527	4.752	4.993	5.251	5.526	5.821	6.136	6.475	6.838	7.227	7.645	8.095
16	4.357	4.575	4.809	5.060	5.328	5.617	5.926	6.259	6.617	7.002	7.418	7.866	8.349
17	4.391	4.616	4.857	5.116	5.395	5.695	6.018	6.367	6.743	7.150	7.590	8.066	8.583
18	4.419	4.649	4.897	5.164	5.451	5.762	6.098	6.461	6.854	7.281	7.745	8.249	8.797
19	4.442	4.677	4.930	5.204	5.499	5.820	6.167	6.543	6.953	7.399	7.885	8.415	8.994
20	4.460	4.700	4.958	5.238	5.541	5.869	6.227	6.616	7.040	7.504	8.011	8.566	9.175
21	4.476	4.718	4.981	5.266	5.576	5.912	6.279	6.680	7.118	7.598	8.125	8.704	9.341
22	4.488	4.734	5.001	5.290	5.605	5.949	6.324	6.735	7.186	7.682	8.227	8.829	9.494
23	4.499	4.747	5.017	5.311	5.631	5.981	6.364	6.784	7.247	7.757	8.320	8.943	9.633
24	4.507	4.758	5.031	5.328	5.652	6.008	6.398	6.827	7.300	7.823	8.403	9.046	9.762
25	4.514	4.767	5.042	5.342	5.671	6.031	6.428	6.865	7.348	7.883	8.478	9.140	9.880
26	4.520	4.774	5.051	5.355	5.687	6.052	6.454	6.898	7.390	7.937	8.546	9.226	9.988
27	4.524	4.780	5.059	5.365	5.700	6.069	6.476	6.927	7.427	7.984	8.607	9.304	10.087
28	4.528	4.785	5.066	5.374	5.712	6.084	6.496	6.952	7.460	8.027	8.662	9.375	10.178
29	4.531	4.789	5.072	5.381	5.721	6.097	6.513	6.974	7.489	8.065	8.712	9.439	10.262
30	4.534	4.793	5.076	5.387	5.730	6.108	6.527	6.994	7.515	8.099	8.756	9.498	10.339
31	4.536	4.796	5.080	5.393	5.737	6.118	6.540	7.011	7.538	8.130	8.797	9.552	10.410
32	4.538	4.798	5.083	5.397	5.743	6.126	6.551	7.026	7.558	8.157	8.833	9.600	10.474
33	4.539	4.800	5.086	5.401	5.748	6.133	6.561	7.039	7.576	8.181	8.866	9.645	10.534
34	4.540	4.802	5.088	5.404	5.752	6.139	6.569	7.051	7.592	8.203	8.895	9.685	10.588
35	4.541	4.803	5.090	5.407	5.756	6.144	6.577	7.061	7.606	8.222	8.922	9.721	10.639
36	4.542	4.804	5.092	5.409	5.759	6.149	6.583	7.070	7.618	8.239	8.946	9.755	10.685
37	4.543	4.805	5.093	5.411	5.762	6.153	6.589	7.078	7.629	8.255	8.968	9.785	10.727
38	4.543	4.806	5.094	5.412	5.764	6.156	6.593	7.085	7.639	8.269	8.987	9.813	10.766
39	4.544	4.806	5.095	5.414	5.766	6.159	6.597	7.091	7.648	8.281	9.005	9.838	10.801
40	4.544	4.807	5.096	5.415	5.768	6.161	6.601	7.096	7.655	8.292	9.021	9.861	10.834
41	4.544	4.807	5.097	5.416	5.769	6.163	6.604	7.100	7.662	8.302	9.035	9.881	10.864
42	4.544	4.808	5.097	5.417	5.771	6.165	6.607	7.104	7.668	8.311	9.048	9.900	10.891
43	4.545	4.808	5.098	5.417	5.772	6.167	6.609	7.108	7.673	8.319	9.060	9.917	10.917
44	4.545	4.808	5.098	5.418	5.773	6.168	6.611	7.111	7.678	8.326	9.070	9.933	10.940
45	4.545	4.809	5.098	5.418	5.773	6.169	6.613	7.114	7.682	8.332	9.080	9.947	10.961
46	4.545	4.809	5.099	5.419	5.774	6.170	6.615	7.116	7.686	8.338	9.088	9.960	10.981
47	4.545	4.809	5.099	5.419	5.775	6.171	6.616	7.118	7.689	8.343	9.096	9.972	10.999
48	4.545	4.809	5.099	5.419	5.775	6.172	6.617	7.120	7.692	8.347	9.103	9.983	11.015
49	4.545	4.809	5.099	5.420	5.775	6.173	6.618	7.122	7.695	8.351	9.109	9.992	11.030
50	4.545	4.809	5.099	5.420	5.776	6.173	6.619	7.123	7.697	8.355	9.115	10.001	11.044

Life Cycle Costing - Present Value Factors: UPV*

UPV* - Modified Univform Present Value Factors

Discount Rate 22.0%

Year	Escalation Rates												
	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%
1	0.926	0.934	0.943	0.951	0.959	0.967	0.975	0.984	0.992	1.000	1.008	1.016	1.025
2	1.784	1.808	1.831	1.855	1.879	1.903	1.927	1.951	1.975	2.000	2.025	2.049	2.074
3	2.579	2.623	2.669	2.714	2.761	2.808	2.855	2.903	2.951	3.000	3.049	3.099	3.150
4	3.315	3.386	3.458	3.532	3.607	3.683	3.760	3.839	3.919	4.000	4.083	4.167	4.252
5	3.996	4.098	4.202	4.309	4.418	4.529	4.643	4.759	4.878	5.000	5.124	5.251	5.381
6	4.628	4.764	4.904	5.048	5.196	5.348	5.504	5.665	5.830	6.000	6.175	6.354	6.538
7	5.213	5.386	5.565	5.750	5.942	6.140	6.344	6.556	6.774	7.000	7.233	7.474	7.723
8	5.754	5.967	6.188	6.418	6.657	6.906	7.164	7.432	7.710	8.000	8.301	8.613	8.938
9	6.256	6.510	6.776	7.054	7.344	7.646	7.963	8.294	8.639	9.000	9.377	9.771	10.182
10	6.721	7.018	7.330	7.657	8.002	8.363	8.743	9.141	9.560	10.000	10.462	10.947	11.457
11	7.151	7.492	7.852	8.232	8.633	9.056	9.503	9.975	10.474	11.000	11.556	12.143	12.764
12	7.550	7.935	8.344	8.778	9.238	9.726	10.245	10.795	11.379	12.000	12.659	13.359	14.102
13	7.919	8.349	8.808	9.297	9.818	10.375	10.968	11.602	12.278	13.000	13.771	14.594	15.473
14	8.261	8.736	9.245	9.790	10.375	11.002	11.674	12.395	13.169	14.000	14.892	15.850	16.879
15	8.578	9.098	9.657	10.260	10.909	11.608	12.362	13.176	14.053	15.000	16.022	17.126	18.318
16	8.871	9.436	10.046	10.706	11.421	12.195	13.034	13.943	14.930	16.000	17.162	18.423	19.793
17	9.143	9.751	10.412	11.130	11.912	12.762	13.689	14.698	15.799	17.000	18.311	19.742	21.305
18	9.395	10.046	10.757	11.534	12.382	13.311	14.327	15.441	16.661	18.000	19.469	21.082	22.853
19	9.628	10.322	11.083	11.917	12.834	13.842	14.950	16.171	17.517	19.000	20.637	22.444	24.440
20	9.844	10.580	11.389	12.282	13.267	14.355	15.558	16.890	18.365	20.000	21.814	23.828	26.065
21	10.044	10.820	11.679	12.629	13.682	14.852	16.151	17.597	19.206	21.000	23.001	25.235	27.731
22	10.229	11.045	11.951	12.959	14.081	15.332	16.729	18.292	20.040	22.000	24.198	26.665	29.437
23	10.401	11.255	12.208	13.272	14.463	15.796	17.293	18.975	20.868	23.000	25.404	28.119	31.186
24	10.560	11.452	12.450	13.570	14.829	16.246	17.844	19.648	21.689	24.000	26.621	29.596	32.977
25	10.707	11.635	12.678	13.854	15.180	16.680	18.380	20.309	22.503	25.000	27.847	31.098	34.813
26	10.843	11.807	12.894	14.123	15.517	17.101	18.904	20.960	23.310	26.000	29.084	32.624	36.693
27	10.970	11.967	13.096	14.379	15.840	17.507	19.414	21.600	24.111	27.000	30.330	34.175	38.620
28	11.087	12.117	13.288	14.623	16.150	17.900	19.912	22.230	24.905	28.000	31.587	35.752	40.594
29	11.195	12.256	13.468	14.855	16.447	18.281	20.398	22.849	25.693	29.000	32.854	37.354	42.617
30	11.295	12.387	13.638	15.075	16.732	18.649	20.872	23.458	26.474	30.000	34.132	38.983	44.690
31	11.388	12.509	13.798	15.284	17.005	19.004	21.334	24.057	27.249	31.000	35.420	40.638	46.813
32	11.475	12.623	13.949	15.483	17.267	19.348	21.785	24.646	28.017	32.000	36.718	42.321	48.989
33	11.554	12.730	14.091	15.673	17.519	19.681	22.224	25.226	28.779	33.000	38.027	44.031	51.218
34	11.628	12.830	14.225	15.853	17.760	20.003	22.653	25.796	29.535	34.000	39.347	45.769	53.502
35	11.697	12.923	14.352	16.024	17.991	20.315	23.072	26.357	30.285	35.000	40.678	47.536	55.842
36	11.760	13.010	14.471	16.187	18.213	20.616	23.480	26.908	31.029	36.000	42.019	49.332	58.240
37	11.819	13.091	14.583	16.341	18.425	20.907	23.878	27.451	31.766	37.000	43.372	51.157	60.697
38	11.873	13.167	14.689	16.489	18.629	21.189	24.266	27.984	32.497	38.000	44.736	53.012	63.214
39	11.923	13.238	14.789	16.629	18.825	21.461	24.645	28.509	33.223	39.000	46.111	54.897	65.793
40	11.970	13.305	14.883	16.762	19.012	21.725	25.014	29.025	33.942	40.000	47.497	56.814	68.436
41	12.013	13.367	14.972	16.888	19.192	21.980	25.37	29.53	34.66	41.00	48.89	58.76	71.14
42	12.053	13.425	15.055	17.008	19.364	22.226	25.73	30.03	35.36	42.00	50.30	60.74	73.92
43	12.090	13.479	15.134	17.123	19.530	22.465	26.07	30.52	36.07	43.00	51.72	62.75	76.76
44	12.125	13.529	15.208	17.231	19.688	22.695	26.40	31.01	36.76	44.00	53.16	64.80	79.67
45	12.156	13.576	15.278	17.335	19.841	22.919	26.73	31.48	37.45	45.00	54.60	66.88	82.66
46	12.186	13.621	15.344	17.433	19.986	23.134	27.05	31.95	38.14	46.00	56.06	68.99	85.71
47	12.213	13.662	15.406	17.526	20.126	23.343	27.36	32.41	38.82	47.00	57.52	71.14	88.84
48	12.238	13.700	15.465	17.615	20.260	23.545	27.66	32.86	39.49	48.00	59.00	73.32	92.05
49	12.262	13.737	15.520	17.700	20.389	23.740	27.96	33.31	40.16	49.00	60.49	75.54	95.34
50	12.283	13.770	15.573	17.780	20.513	23.929	28.24	33.74	40.82	50.00	62.00	77.79	98.71