

APPENDIX 8C. LIFE-CYCLE COST SENSITIVITY ANALYSIS

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APPENDIX 8C. LIFE-CYCLE COST SENSITIVITY ANALYSIS

8C.1 REPRESENTATIVE UNIT 1, NEMA DESIGN B, 5 HORSEPOWER, 4 POLES, ENCLOSED

Table 8C.1.1 Representative Unit 1: Reference Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with		Average	Median
							Net Cost %	Net Benefit %		
0	82.5	584	10,448	1,006	5,926					
1	87.5	588	9,869	969	5,649	16	0.1	5.8	0.4	0.1
2	89.5	651	9,691	963	5,631	25	18.9	26.4	33.7	5.1
3	90.2	665	9,616	960	5,608	45	20.5	67.8	59.0	4.7
4	91.0	909	9,567	960	5,831	-169	89.3	6.5	361.4	28.2
5	91.7	998	9,487	958	5,883	-220	93.3	5.4	162.7	26.9

Table 8C.1.2 Representative Unit 1: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with		Average	Median
							Net Cost %	Net Benefit %		
0	82.5	584	10,448	1,022	6,072					
1	87.5	588	9,869	983	5,787	17	0.1	5.8	0.6	0.1
2	89.5	651	9,691	977	5,766	27	18.6	26.7	40.8	5.1
3	90.2	665	9,616	974	5,742	47	19.6	68.7	21.2	4.6
4	91.0	909	9,567	974	5,965	-165	88.8	7.0	215.1	28.1
5	91.7	998	9,487	972	6,016	-216	92.9	5.8	200.9	26.5

Table 8C.1.3 Representative Unit 1: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	82.5	584	10,448	990	5,795					
1	87.5	588	9,869	953	5,525	16	0.1	5.8	0.6	0.1
2	89.5	651	9,691	947	5,509	24	19.2	26.1	54.5	5.2
3	90.2	665	9,616	945	5,487	43	21.3	67.0	56.1	4.7
4	91.0	909	9,567	945	5,711	-171	89.7	6.0	127.3	28.6
5	91.7	998	9,487	943	5,764	-224	93.7	5.0	202.3	27.2

Table 8C.1.4 Representative Unit 1: Low Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	82.5	426	10,448	1,006	5,768					
1	87.5	429	9,869	969	5,490	16	0.1	5.8	0.3	0.1
2	89.5	477	9,691	963	5,457	32	15.5	29.8	25.9	4.0
3	90.2	486	9,616	960	5,429	56	13.9	74.3	41.3	3.2
4	91.0	662	9,567	960	5,584	-92	83.0	12.8	261.2	20.3
5	91.7	725	9,487	958	5,610	-118	86.0	12.7	116.8	19.4

Table 8C.1.5 Representative Unit 1: Medium Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	82.5	320	10,448	1,006	5,663					
1	87.5	322	9,869	969	5,383	17	0.1	5.8	0.2	0.1
2	89.5	361	9,691	963	5,341	36	12.3	33.0	20.8	3.2
3	90.2	367	9,616	960	5,310	63	9.8	78.5	29.5	2.2
4	91.0	497	9,567	960	5,418	-40	74.8	20.9	194.5	15.1
5	91.7	543	9,487	958	5,428	-50	75.4	23.4	86.2	14.3

Table 8C.1.6 Representative Unit 1: High Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	82.5	215	10,448	1,006	5,557					
1	87.5	216	9,869	969	5,277	17	0.1	5.8	0.1	0.0
2	89.5	246	9,691	963	5,225	40	9.2	36.1	15.6	2.4
3	90.2	248	9,616	960	5,191	71	6.9	81.4	17.8	1.1
4	91.0	332	9,567	960	5,253	11	59.9	35.9	127.7	9.7
5	91.7	361	9,487	958	5,246	18	55.0	43.7	55.7	9.2

8C.2 REPRESENTATIVE UNIT 2, NEMA DESIGN B, 30 HORSEPOWER, 4 POLES, ENCLOSED

Table 8C.2.1 Representative Unit 2: Reference Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	89.5	1,570	57,642	5,489	44,182					
1	92.4	1,986	55,912	5,358	43,376	45	0.6	4.9	11.6	3.5
2	93.6	2,277	55,021	5,295	43,035	177	5.7	32.9	14.6	5.3
3	94.1	2,288	54,492	5,255	42,666	511	4.0	86.6	6.0	0.7
4	94.5	3,468	54,326	5,249	43,735	-558	87.1	12.9	107.6	23.8
5	94.5	3,468	54,326	5,249	43,735	-558	87.1	12.9	107.6	23.8

Table 8C.2.2 Representative Unit 2: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	89.5	1,570	57,642	5,575	45,496					
1	92.4	1,986	55,912	5,442	44,651	47	0.6	4.9	8.0	3.5
2	93.6	2,277	55,021	5,377	44,290	187	5.4	33.2	13.2	5.2
3	94.1	2,288	54,492	5,337	43,909	532	3.8	86.8	6.0	0.7
4	94.5	3,468	54,326	5,330	44,974	-533	86.1	13.9	87.0	23.4
5	94.5	3,468	54,326	5,330	44,974	-533	86.1	13.9	87.0	23.4

Table 8C.2.3 Representative Unit 2: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	89.5	1,570	57,642	5,397	43,033					
1	92.4	1,986	55,912	5,269	42,261	43	0.6	4.9	8.2	3.6
2	93.6	2,277	55,021	5,207	41,938	168	6.0	32.6	11.4	5.4
3	94.1	2,288	54,492	5,168	41,580	492	4.1	86.5	4.2	0.7
4	94.5	3,468	54,326	5,162	42,652	-580	88.1	11.9	320.4	24.3
5	94.5	3,468	54,326	5,162	42,652	-580	88.1	11.9	320.4	24.3

Table 8C.2.4 Representative Unit 2: Low Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	89.5	1,166	57,642	5,489	43,778					
1	92.4	1,476	55,912	5,358	42,866	51	0.4	5.1	8.7	2.6
2	93.6	1,700	55,021	5,295	42,459	209	4.2	34.4	11.2	4.0
3	94.1	1,706	54,492	5,255	42,085	547	2.9	87.6	4.4	0.4
4	94.5	2,557	54,326	5,249	42,825	-193	74.3	25.7	77.7	17.3
5	94.5	2,557	54,326	5,249	42,825	-193	74.3	25.7	77.7	17.3

Table 8C.2.5 Representative Unit 2: Medium Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	89.5	897	57,642	5,489	43,509					
1	92.4	1,136	55,912	5,358	42,526	55	0.4	5.1	6.7	2.0
2	93.6	1,315	55,021	5,295	42,074	230	3.3	35.3	9.0	3.2
3	94.1	1,319	54,492	5,255	41,697	571	2.3	88.3	3.3	0.2
4	94.5	1,950	54,326	5,249	42,217	51	58.7	41.3	57.8	12.9
5	94.5	1,950	54,326	5,249	42,217	51	58.7	41.3	57.8	12.9

Table 8C.2.6 Representative Unit 2: High Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	89.5	627	57,642	5,489	43,240					
1	92.4	796	55,912	5,358	42,186	59	0.2	5.3	4.7	1.4
2	93.6	931	55,021	5,295	41,689	251	2.4	36.2	6.7	2.4
3	94.1	931	54,492	5,255	41,309	595	1.6	89.0	2.2	0.0
4	94.5	1,343	54,326	5,249	41,610	294	37.1	62.9	37.9	8.5
5	94.5	1,343	54,326	5,249	41,610	294	37.1	62.9	37.9	8.5

8C.3 REPRESENTATIVE UNIT 3, NEMA DESIGN B, 75 HORSEPOWER, 4 POLES, ENCLOSED

Table 8C.3.1 Representative Unit 3: Reference Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	3,463	204,834	17,168	124,170					
1	94.1	3,831	202,540	17,033	123,348	40	0.8	4.5	24.3	2.9
2	95.4	4,296	198,496	16,733	121,510	663	1.4	32.9	6.6	1.5
3	95.8	4,776	197,697	16,687	121,590	597	35.1	47.5	38.3	6.5
4	96.2	6,044	197,194	16,661	122,598	-340	66.9	25.9	162.7	15.5
5	96.5	6,640	196,604	16,631	122,905	-639	73.6	23.7	136.2	16.0

Table 8C.3.2 Representative Unit 3: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	3,463	204,834	17,457	127,748					
1	94.1	3,831	202,540	17,318	126,885	42	0.7	4.6	18.7	2.9
2	95.4	4,296	198,496	17,013	124,975	689	1.3	32.9	11.3	1.5
3	95.8	4,776	197,697	16,966	125,042	634	34.1	48.5	26.7	6.3
4	96.2	6,044	197,194	16,939	126,041	-294	66.1	26.8	82.6	15.2
5	96.5	6,640	196,604	16,908	126,338	-583	72.6	24.8	109.2	15.7

Table 8C.3.3 Representative Unit 3: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	3,463	204,834	16,850	120,893					
1	94.1	3,831	202,540	16,718	120,107	38	0.8	4.5	31.7	3.0
2	95.4	4,296	198,496	16,424	118,336	638	1.4	32.8	6.0	1.5
3	95.8	4,776	197,697	16,380	118,428	562	36.1	46.5	80.1	6.6
4	96.2	6,044	197,194	16,355	119,444	-382	67.6	25.2	105.1	15.8
5	96.5	6,640	196,604	16,325	119,761	-691	74.9	22.5	207.4	16.3

Table 8C.3.4 Representative Unit 3: Low Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	2,568	204,834	17,168	123,275					
1	94.1	2,857	202,540	17,033	122,374	44	0.5	4.8	19.2	2.3
2	95.4	3,198	198,496	16,733	120,412	709	1.0	33.2	4.9	1.1
3	95.8	3,539	197,697	16,687	120,352	759	24.1	58.5	27.2	4.6
4	96.2	4,460	197,194	16,661	121,014	144	58.4	34.4	117.6	11.2
5	96.5	4,894	196,604	16,631	121,159	2	62.7	34.7	98.6	11.6

Table 8C.3.5 Representative Unit 3: Medium Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	1,971	204,834	17,168	122,679					
1	94.1	2,208	202,540	17,033	121,725	47	0.4	4.9	15.8	1.9
2	95.4	2,466	198,496	16,733	119,681	740	0.9	33.3	3.8	0.8
3	95.8	2,713	197,697	16,687	119,527	867	16.0	66.6	19.8	3.4
4	96.2	3,403	197,194	16,661	119,957	467	49.6	43.2	87.5	8.4
5	96.5	3,730	196,604	16,631	119,995	430	51.6	45.8	73.6	8.6

Table 8C.3.6 Representative Unit 3: High Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	1,375	204,834	17,168	122,082					
1	94.1	1,559	202,540	17,033	121,076	50	0.3	5.0	12.4	1.5
2	95.4	1,734	198,496	16,733	118,949	772	0.8	33.5	2.7	0.6
3	95.8	1,888	197,697	16,687	118,702	975	8.4	74.2	12.4	2.1
4	96.2	2,347	197,194	16,661	118,901	789	37.4	55.4	57.4	5.5
5	96.5	2,566	196,604	16,631	118,831	857	37.1	60.3	48.6	5.7

8C.4 REPRESENTATIVE UNIT 4, NEMA DESIGN C, 5 HORSEPOWER, 4 POLES, ENCLOSED

Table 8C.4.1 Representative Unit 4: Reference Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	583	9,987	984	5,807					
1	89.5	627	9,808	974	5,771	34	32.3	59.9	29.7	4.6
2	90.2	903	9,738	971	6,007	-203	97.8	2.2	95.6	25.0
3	91.0	961	9,630	966	6,011	-207	95.6	4.4	122.7	20.2

Table 8C.4.2 Representative Unit 4: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	583	9,987	999	5,951					
1	89.5	627	9,808	988	5,912	36	31.4	60.7	32.6	4.5
2	90.2	903	9,738	985	6,148	-200	97.4	2.7	185.1	24.5
3	91.0	961	9,630	980	6,150	-202	94.9	5.1	192.2	19.9

Table 8C.4.3 Representative Unit 4: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	583	9,987	968	5,678					
1	89.5	627	9,808	958	5,644	32	33.2	59.0	37.1	4.6
2	90.2	903	9,738	956	5,881	-206	98.1	1.9	226.9	25.7
3	91.0	961	9,630	950	5,887	-211	96.1	3.9	148.3	20.6

Table 8C.4.4 Representative Unit 4: Low Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	424	9,987	984	5,648					
1	89.5	458	9,808	974	5,601	44	22.7	69.4	22.6	3.5
2	90.2	656	9,738	971	5,760	-115	89.4	10.6	69.0	18.1
3	91.0	697	9,630	966	5,747	-102	82.7	17.3	88.4	14.6

Table 8C.4.5 Representative Unit 4: Medium Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	319	9,987	984	5,543					
1	89.5	346	9,808	974	5,489	50	16.9	75.2	17.9	2.8
2	90.2	491	9,738	971	5,595	-57	76.1	23.9	51.2	13.5
3	91.0	521	9,630	966	5,571	-32	66.3	33.7	65.6	10.8

Table 8C.4.6 Representative Unit 4: High Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	213	9,987	984	5,437					
1	89.5	233	9,808	974	5,376	57	12.6	79.5	13.1	2.0
2	90.2	326	9,738	971	5,431	2	57.7	42.3	33.5	8.8
3	91.0	346	9,630	966	5,395	37	41.1	58.9	42.7	7.1

8C.5 REPRESENTATIVE UNIT 5, NEMA DESIGN C, 50 HORSEPOWER, 4 POLES, ENCLOSED

Table 8C.5.1 Representative Unit 5: Reference Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	2,786	89,523	8,459	69,419					
1	94.1	3,173	88,507	8,383	69,098	236	18.3	55.6	38.8	5.9
2	94.5	3,673	88,119	8,360	69,329	5	59.6	40.4	53.3	12.7
3	95.0	3,950	87,444	8,309	69,104	229	42.3	57.8	25.2	9.8

Table 8C.5.2 Representative Unit 5: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	2,786	89,523	8,593	71,508					
1	94.1	3,173	88,507	8,515	71,163	253	17.5	56.4	40.7	5.8
2	94.5	3,673	88,119	8,492	71,385	31	57.8	42.2	51.1	12.5
3	95.0	3,950	87,444	8,440	71,144	272	40.3	59.7	30.0	9.6

Table 8C.5.3 Representative Unit 5: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	2,786	89,523	8,317	67,586					
1	94.1	3,173	88,507	8,242	67,284	221	19.0	54.8	22.4	6.0
2	94.5	3,673	88,119	8,220	67,524	-18	61.1	38.9	45.2	12.9
3	95.0	3,950	87,444	8,170	67,314	192	43.7	56.3	33.1	10.0

Table 8C.5.4 Representative Unit 5: Low Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	2,077	89,523	8,459	68,710					
1	94.1	2,369	88,507	8,383	68,293	307	13.0	60.9	29.2	4.5
2	94.5	2,721	88,119	8,360	68,377	223	42.6	57.4	38.3	9.1
3	95.0	2,920	87,444	8,309	68,074	526	25.5	74.5	18.1	7.0

Table 8C.5.5 Representative Unit 5: Medium Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	1,604	89,523	8,459	68,237					
1	94.1	1,833	88,507	8,383	67,757	354	9.6	64.3	22.8	3.5
2	94.5	2,086	88,119	8,360	67,742	368	29.4	70.6	28.2	6.8
3	95.0	2,232	87,444	8,309	67,386	724	17.1	82.9	13.4	5.2

Table 8C.5.6 Representative Unit 5: High Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	93.0	1,132	89,523	8,459	67,764					
1	94.1	1,296	88,507	8,383	67,220	401	6.7	67.1	16.4	2.5
2	94.5	1,451	88,119	8,360	67,107	513	16.4	83.6	18.2	4.4
3	95.0	1,545	87,444	8,309	66,699	922	9.8	90.3	8.7	3.4

8C.6 REPRESENTATIVE UNIT 6, FIRE PUMP, 5 HORSEPOWER, 4 POLES, ENCLOSED

Table 8C.6.1 Representative Unit 6: Reference Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	588	19.6	106	632					
1	89.5	651	19.2	115	697	-62	95.1	0.0	NA	NA
2	90.2	666	19.1	119	706	-70	99.9	0.1	NA	NA
3	91.0	909	19.0	124	949	-314	100.0	0.0	NA	NA
4	91.7	998	18.8	128	1,038	-403	100.0	0.0	NA	NA

Table 8C.6.2 Representative Unit 6: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	588	19.6	106	634					
1	89.5	651	19.2	115	699	-62	95.1	0.0	NA	NA
2	90.2	665	19.1	119	707	-70	99.9	0.2	NA	NA
3	91.0	909	19.0	124	951	-314	100.0	0.0	NA	NA
4	91.7	998	18.8	128	1,040	-403	100.0	0.0	NA	NA

Table 8C.6.3 Representative Unit 6: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	588	19.6	106	630					
1	89.5	651	19.2	115	695	-61	95.1	0.0	NA	NA
2	90.2	665	19.1	119	704	-70	99.9	0.1	NA	NA
3	91.0	909	19.0	124	948	-314	100.0	0.0	NA	NA
4	91.7	998	18.8	128	1,037	-403	100.0	0.0	NA	NA

Table 8C.6.4 Representative Unit 6: Low Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	429	19.6	106	473					
1	89.5	477	19.2	115	523	-48	95.1	0.0	NA	NA
2	90.2	486	19.1	119	527	-52	99.3	0.7	NA	NA
3	91.0	662	19.0	124	702	-227	100.0	0.0	NA	NA
4	91.7	725	18.8	128	765	-290	100.0	0.0	NA	NA

Table 8C.6.5 Representative Unit 6: Medium Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	322	19.6	106	367					
1	89.5	361	19.2	115	407	-39	95.1	0.0	NA	NA
2	90.2	367	19.1	119	408	-39	97.6	2.4	NA	NA
3	91.0	497	19.0	124	537	-168	100.0	0.0	NA	NA
4	91.7	543	18.8	128	584	-215	100.0	0.0	NA	NA

Table 8C.6.6 Representative Unit 6: High Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	87.5	216	19.6	106	260					
1	89.5	246	19.2	115	292	-30	95.1	0.0	NA	NA
2	90.2	248	19.1	119	288	-27	95.6	4.4	NA	NA
3	91.0	332	19.0	124	372	-110	100.0	0.0	NA	NA
4	91.7	361	18.8	128	402	-140	100.0	0.0	NA	NA

8C.7 REPRESENTATIVE UNIT 7, FIRE PUMP, 30 HORSEPOWER, 4 POLES, ENCLOSED

Table 8C.7.1 Representative Unit 7: Reference Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	92.4	1,986	1,601	347	3,869					
1	93.6	2,277	1,577	363	4,131	-213	78.8	2.5	1,578.9	104.9
2	94.1	2,288	1,562	371	4,124	-207	78.7	8.1	923.4	79.2
3	94.5	3,468	1,558	380	5,295	-1,378	100.0	0.0	3,157.4	433.6
4	94.5	3,468	1,558	380	5,295	-1,378	100.0	0.0	3,157.4	433.6

Table 8C.7.2 Representative Unit 7: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	92.4	1,986	1,601	349	3,953					
1	93.6	2,277	1,577	365	4,214	-212	78.4	2.9	390.3	112.1
2	94.1	2,288	1,562	373	4,206	-205	78.4	8.3	130.7	69.7
3	94.5	3,468	1,558	382	5,377	-1,376	100.0	0.0	2,354.3	492.7
4	94.5	3,468	1,558	382	5,377	-1,376	100.0	0.0	2,354.3	492.7

Table 8C.7.3 Representative Unit 7: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	92.4	1,986	1,601	344	3,789					
1	93.6	2,277	1,577	360	4,052	-214	79.4	1.9	463.7	113.1
2	94.1	2,288	1,562	368	4,046	-209	79.0	7.7	204.1	92.9
3	94.5	3,468	1,558	377	5,217	-1,380	100.0	0.0	3,198.6	443.4
4	94.5	3,468	1,558	377	5,217	-1,380	100.0	0.0	3,198.6	443.4

Table 8C.7.4 Representative Unit 7: Low Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	92.4	1,476	1,601	347	3,359					
1	93.6	1,700	1,577	363	3,554	-159	76.0	5.3	1,217.3	81.2
2	94.1	1,706	1,562	371	3,542	-149	77.4	9.3	697.8	60.3
3	94.5	2,557	1,558	380	4,384	-990	100.0	0.0	2,310.5	317.3
4	94.5	2,557	1,558	380	4,384	-990	100.0	0.0	2,310.5	317.3

Table 8C.7.5 Representative Unit 7: Medium Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	92.4	1,136	1,601	347	3,019					
1	93.6	1,315	1,577	363	3,169	-122	74.0	7.3	976.2	65.4
2	94.1	1,319	1,562	371	3,154	-109	76.4	10.3	547.4	47.8
3	94.5	1,950	1,558	380	3,777	-732	99.9	0.1	1,745.9	239.7
4	94.5	1,950	1,558	380	3,777	-732	99.9	0.1	1,745.9	239.7

Table 8C.7.6 Representative Unit 7: High Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period years	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	92.4	796	1,601	347	2,679					
1	93.6	931	1,577	363	2,785	-86	73.5	7.8	735.1	49.9
2	94.1	931	1,562	371	2,766	-70	74.6	12.1	397.0	35.3
3	94.5	1,343	1,558	380	3,169	-473	98.2	1.8	1,181.3	162.2
4	94.5	1,343	1,558	380	3,169	-473	98.2	1.8	1,181.3	162.2

8C.8 REPRESENTATIVE UNIT 8, FIRE PUMP, 75 HORSEPOWER, 4 POLES, ENCLOSED

Table 8C.8.1 Representative Unit 8: Reference Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	94.1	3,831	97,791	8,050	110,032					
1	95.4	4,296	95,934	7,937	108,445	1,274	55.4	25.3	1.1	1.1
2	95.8	4,776	95,554	7,927	108,544	1,193	56.7	26.0	2.1	1.9
3	96.2	6,044	95,313	7,924	109,522	215	73.0	27.0	25.3	4.5
4	96.5	6,640	95,033	7,920	109,826	-89	72.0	28.0	10.5	5.3

Table 8C.8.2 Representative Unit 8: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	94.1	3,831	97,791	8,184	114,838					
1	95.4	4,296	95,934	8,069	113,159	1,349	55.4	25.3	1.1	1.1
2	95.8	4,776	95,554	8,059	113,240	1,282	56.7	26.0	2.1	1.9
3	96.2	6,044	95,313	8,055	114,205	317	72.9	27.1	22.1	4.4
4	96.5	6,640	95,033	8,051	114,495	26	71.8	28.2	10.2	5.2

Table 8C.8.3 Representative Unit 8: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	94.1	3,831	97,791	7,899	105,523					
1	95.4	4,296	95,934	7,790	104,023	1,204	55.4	25.3	1.2	1.1
2	95.8	4,776	95,554	7,780	104,138	1,109	56.7	26.0	2.2	2.0
3	96.2	6,044	95,313	7,777	105,129	119	73.2	26.8	55.3	4.6
4	96.5	6,640	95,033	7,774	105,445	-197	72.2	27.8	10.9	5.4

Table 8C.8.4 Representative Unit 8: Low Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	94.1	2,857	97,791	8,050	109,058					
1	95.4	3,198	95,934	7,937	107,347	1,374	55.4	25.3	0.8	0.8
2	95.8	3,539	95,554	7,927	107,306	1,408	56.7	26.0	1.5	1.4
3	96.2	4,460	95,313	7,924	107,938	777	72.0	28.0	18.4	3.2
4	96.5	4,894	95,033	7,920	108,080	635	70.7	29.3	7.6	3.8

Table 8C.8.5 Representative Unit 8: Medium Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	94.1	2,208	97,791	8,050	108,409					
1	95.4	2,466	95,934	7,937	106,616	1,441	55.4	25.3	0.6	0.6
2	95.8	2,713	95,554	7,927	106,481	1,552	56.7	26.0	1.1	1.0
3	96.2	3,403	95,313	7,924	106,881	1,151	71.2	28.8	13.7	2.4
4	96.5	3,730	95,033	7,920	106,915	1,117	69.8	30.2	5.7	2.9

Table 8C.8.6 Representative Unit 8: High Retail Price Discount Scenario

Energy Efficiency Level	Efficiency %	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period <i>years</i>	
		Average Installed Price \$	Average Energy Use kWh/yr	Average Annual Operating Cost \$	Average Life-Cycle Cost \$	Average Savings \$	Customers with			
							Net Cost %	Net Benefit %	Average	Median
0	94.1	1,559	97,791	8,050	107,760					
1	95.4	1,734	95,934	7,937	105,884	1,507	55.3	25.3	0.4	0.4
2	95.8	1,888	95,554	7,927	105,656	1,695	56.7	26.0	0.7	0.7
3	96.2	2,347	95,313	7,924	105,825	1,526	70.3	29.7	9.1	1.6
4	96.5	2,566	95,033	7,920	105,751	1,600	68.6	31.4	3.8	1.9