APPENDIX 8C. LIFE-CYCLE COST SENSITIVITY ANALYSIS

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8C.1 POLYPHASE MOTORS

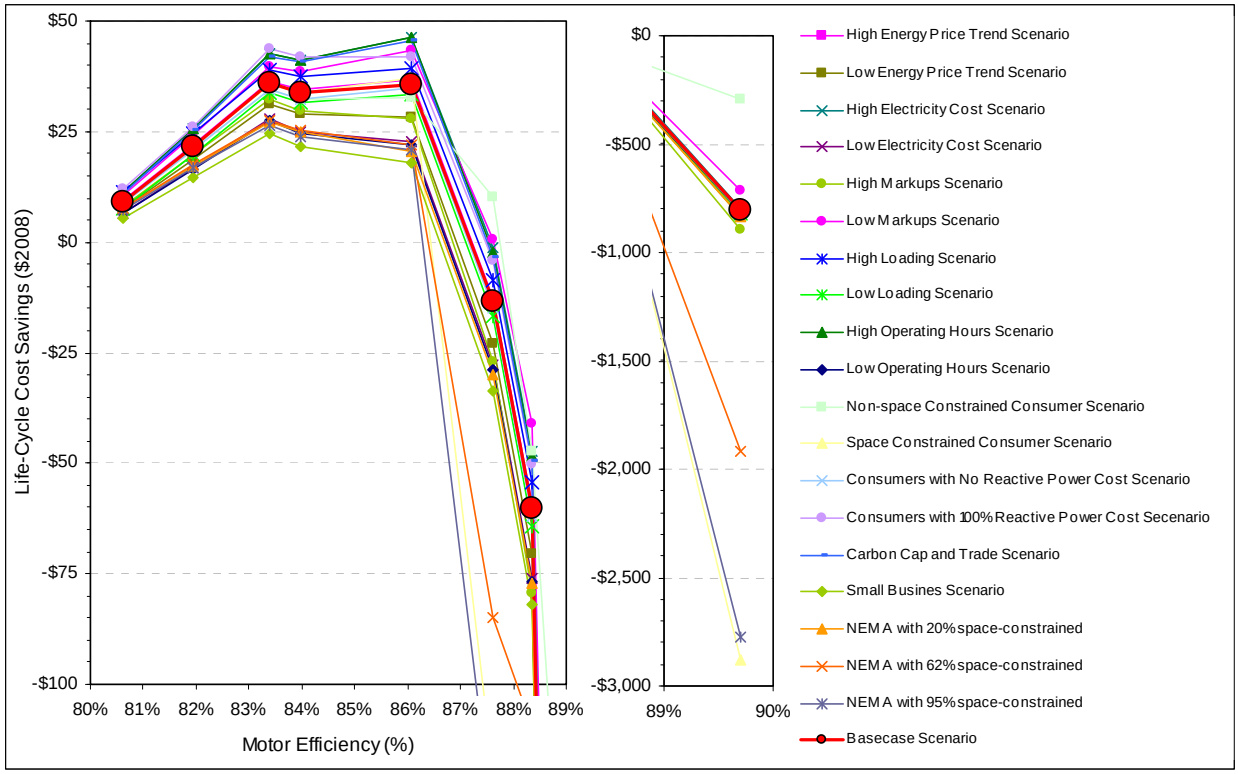

Figure 8C.1.1 Polyphase Motors: Life-Cycle Cost Savings versus Motor Efficiency

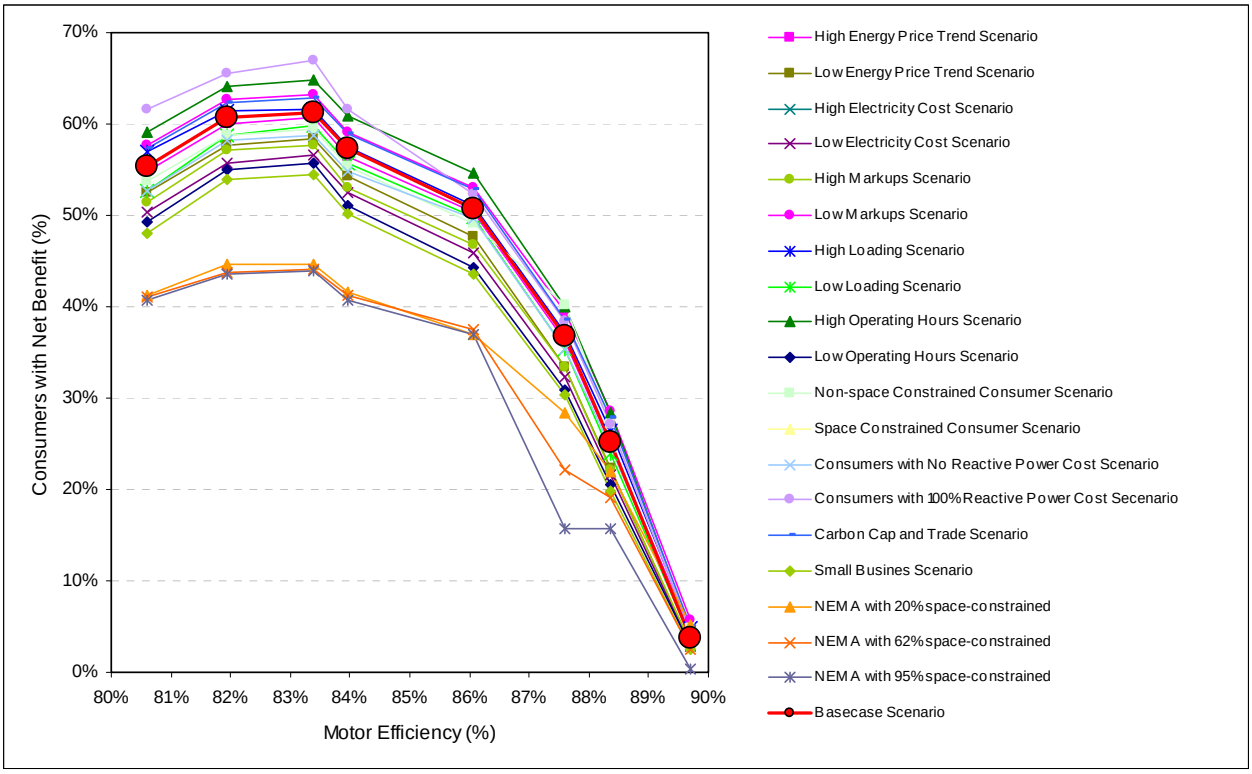

Figure 8C.1.2 Polyphase Motors: Consumers with Net Benefit versus Motor Efficiency

Table 8C.1.1 Polyphase Motors: Reference Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$515	1934	$139.52	$1,323					
1	80.6%	$528	1883	$135.85	$1,314	$9	44.7%	55.3%	21.1	6.6
2	82.0%	$535	1836	$132.45	$1,302	$22	39.2%	60.8%	17.2	5.3
3	83.4%	$547	1775	$128.07	$1,287	$36	38.7%	61.3%	17.1	5.2
4	84.0%	$556	1759	$126.91	$1,289	$34	42.7%	57.3%	19.6	6.0
4B	86.1%	$587	1678	$121.06	$1,288	$36	49.2%	50.8%	23.9	7.3
5	87.6%	$651	1643	$118.52	$1,337	-$13	63.2%	36.8%	39.1	11.5
6	88.4%	$707	1622	$116.99	$1,383	-$60	74.8%	25.2%	51.8	15.7
7	89.7%	$1,465	1594	$114.96	$2,131	-$808	96.2%	3.8%	220.4	47.8

Table 8C.1.2 Polyphase Motors: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$515	1898	$139.13	$1,328					
1	80.6%	$528	1848	$135.45	$1,319	$9	45.2%	54.8%	21.4	6.8
2	82.0%	$535	1801	$132.04	$1,306	$22	40.0%	60.0%	17.5	5.5
3	83.4%	$547	1742	$127.65	$1,291	$37	39.3%	60.7%	17.4	5.4
4	84.0%	$556	1726	$126.48	$1,293	$35	43.6%	56.4%	20.1	6.2
4B	86.1%	$587	1646	$120.61	$1,291	$37	49.6%	50.4%	24.5	7.5
5	87.6%	$652	1611	$118.06	$1,340	-$12	63.8%	36.2%	40.5	11.8
6	88.4%	$707	1590	$116.53	$1,387	-$59	75.0%	25.0%	53.2	16.2
7	89.7%	$1,471	1562	$114.50	$2,140	-$813	95.5%	4.5%	233.4	48.1

Table 8C.1.3 Polyphase Motors: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$517	1940	$131.18	$1,278					
1	80.6%	$530	1889	$127.75	$1,270	$8	47.4%	52.6%	22.9	7.3
2	82.0%	$538	1842	$124.58	$1,259	$19	42.3%	57.7%	18.7	6.0
3	83.4%	$550	1782	$120.49	$1,246	$31	41.6%	58.4%	18.5	5.9
4	84.0%	$558	1766	$119.40	$1,249	$29	45.8%	54.2%	21.3	6.8
4B	86.1%	$590	1684	$113.93	$1,250	$28	52.3%	47.7%	25.9	8.2
5	87.6%	$655	1649	$111.56	$1,301	-$23	66.6%	33.4%	43.8	12.8
6	88.4%	$711	1628	$110.13	$1,348	-$71	77.6%	22.4%	57.0	17.8
7	89.7%	$1,487	1600	$108.24	$2,114	-$836	97.1%	3.0%	261.4	53.2

Table 8C.1.4 Polyphase Motors: High Electricity Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$515	1911	$152.91	$1,399					
1	80.6%	$528	1861	$148.88	$1,388	$11	41.7%	58.3%	19.1	6.1
2	82.0%	$535	1814	$145.14	$1,373	$26	36.7%	63.3%	15.6	4.9
3	83.4%	$547	1754	$140.32	$1,357	$42	36.3%	63.7%	15.5	4.8
4	84.0%	$555	1738	$139.04	$1,358	$41	40.0%	60.1%	17.8	5.6
4B	86.1%	$586	1658	$132.60	$1,353	$46	46.5%	53.5%	21.7	6.7
5	87.6%	$651	1623	$129.81	$1,401	-$1	60.5%	39.5%	36.0	10.5
6	88.4%	$707	1602	$128.13	$1,446	-$47	71.5%	28.5%	47.3	14.4
7	89.7%	$1,465	1575	$125.92	$2,193	-$794	95.0%	5.0%	208.0	43.2

Table 8C.1.5 Polyphase Motors: Low Electricity Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$516	1888	$124.05	$1,229					
1	80.6%	$529	1838	$120.78	$1,222	$7	49.6%	50.4%	24.4	7.7
2	82.0%	$536	1792	$117.77	$1,212	$17	44.2%	55.8%	20.0	6.2
3	83.4%	$548	1733	$113.89	$1,201	$28	43.4%	56.6%	19.9	6.1
4	84.0%	$556	1718	$112.85	$1,204	$25	47.5%	52.5%	22.9	7.0
4B	86.1%	$588	1639	$107.67	$1,206	$23	54.0%	46.0%	27.9	8.5
5	87.6%	$652	1604	$105.42	$1,257	-$28	67.7%	32.3%	46.4	13.5
6	88.4%	$708	1584	$104.04	$1,305	-$76	78.4%	21.6%	60.8	18.6
7	89.7%	$1,460	1557	$102.27	$2,048	-$819	97.1%	2.9%	270.1	55.8

Table 8C.1.6 Polyphase Motors: High Markups Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$540	1903	$140.60	$1,346					
1	80.6%	$554	1853	$136.90	$1,338	$8	48.7%	51.4%	23.7	7.6
2	82.0%	$562	1807	$133.49	$1,326	$20	42.9%	57.1%	19.3	6.1
3	83.4%	$575	1748	$129.13	$1,313	$32	42.4%	57.7%	19.2	6.0
4	84.0%	$584	1732	$127.96	$1,316	$30	46.9%	53.1%	22.1	6.9
4B	86.1%	$618	1652	$122.14	$1,318	$28	53.3%	46.7%	27.0	8.4
5	87.6%	$689	1618	$119.59	$1,373	-$27	66.6%	33.4%	44.5	13.1
6	88.4%	$750	1597	$118.03	$1,425	-$79	77.8%	22.2%	58.7	18.4
7	89.7%	$1,577	1570	$116.02	$2,242	-$896	96.8%	3.2%	255.2	53.5

Table 8C.1.7 Polyphase Motors: Low Markups Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$491	1948	$141.86	$1,312					
1	80.6%	$502	1896	$138.12	$1,302	$11	42.4%	57.6%	19.0	6.1
2	82.0%	$509	1849	$134.68	$1,288	$24	37.4%	62.6%	15.6	4.9
3	83.4%	$520	1788	$130.27	$1,273	$40	36.7%	63.3%	15.4	4.8
4	84.0%	$528	1772	$129.09	$1,274	$39	40.9%	59.1%	17.8	5.6
4B	86.1%	$556	1691	$123.19	$1,269	$43	46.9%	53.1%	21.6	6.7
5	87.6%	$614	1656	$120.61	$1,312	$1	60.5%	39.5%	35.4	10.5
6	88.4%	$665	1634	$119.04	$1,353	-$41	71.4%	28.7%	46.8	14.5
7	89.7%	$1,351	1606	$116.99	$2,029	-$716	94.3%	5.7%	200.5	43.9

Table 8C.1.8 Polyphase Motors: High Loading Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$515	2114	$153.99	$1,406					
1	80.6%	$528	2058	$149.92	$1,395	$11	43.1%	57.0%	19.3	6.2
2	82.0%	$535	2009	$146.37	$1,382	$25	38.6%	61.4%	16.1	5.1
3	83.4%	$547	1949	$141.99	$1,367	$39	38.5%	61.5%	16.4	5.1
4	84.0%	$556	1932	$140.71	$1,369	$38	42.4%	57.6%	18.8	5.9
4B	86.1%	$587	1852	$134.87	$1,367	$39	48.9%	51.1%	23.2	7.2
5	87.6%	$652	1813	$132.07	$1,415	-$9	62.8%	37.2%	37.8	11.3
6	88.4%	$708	1789	$130.34	$1,461	-$54	73.5%	26.5%	49.7	15.5
7	89.7%	$1,470	1759	$128.10	$2,211	-$805	95.2%	4.8%	214.6	46.9

Table 8C.1.9 Polyphase Motors: Low Loading Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$515	1739	$126.97	$1,253					
1	80.6%	$528	1693	$123.57	$1,246	$8	47.3%	52.8%	22.9	7.2
2	82.0%	$535	1648	$120.27	$1,234	$20	41.3%	58.7%	18.3	5.8
3	83.4%	$547	1588	$115.88	$1,220	$34	40.2%	59.9%	17.8	5.5
4	84.0%	$556	1573	$114.80	$1,222	$31	44.4%	55.6%	20.6	6.4
4B	86.1%	$587	1492	$108.90	$1,220	$34	50.2%	49.8%	24.8	7.6
5	87.6%	$652	1460	$106.54	$1,270	-$17	64.6%	35.4%	41.2	12.0
6	88.4%	$707	1441	$105.16	$1,318	-$64	76.1%	23.9%	54.4	16.8
7	89.7%	$1,471	1415	$103.29	$2,072	-$819	96.2%	3.8%	237.5	50.1

Table 8C.1.10 Polyphase Motors: High Operation Hours Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$517	2328	$170.04	$1,415					
1	80.6%	$530	2267	$165.60	$1,404	$11	40.8%	59.2%	17.5	5.6
2	82.0%	$538	2211	$161.49	$1,390	$26	35.8%	64.2%	14.2	4.6
3	83.4%	$550	2138	$156.19	$1,373	$43	35.2%	64.8%	14.1	4.5
4	84.0%	$558	2119	$154.78	$1,374	$41	39.1%	60.9%	16.2	5.2
4B	86.1%	$590	2021	$147.69	$1,369	$46	45.3%	54.7%	19.8	6.3
5	87.6%	$655	1979	$144.62	$1,418	-$2	60.1%	39.9%	33.4	9.9
6	88.4%	$711	1954	$142.77	$1,464	-$48	71.6%	28.4%	43.4	13.6
7	89.7%	$1,487	1920	$140.32	$2,227	-$812	95.4%	4.6%	199.4	40.9

Table 8C.1.11 Polyphase Motors: Low Operation Hours Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$515	1529	$111.21	$1,217					
1	80.6%	$528	1489	$108.27	$1,211	$6	50.8%	49.2%	26.3	8.4
2	82.0%	$535	1451	$105.55	$1,201	$16	45.0%	55.0%	21.5	6.8
3	83.4%	$547	1403	$102.05	$1,190	$27	44.2%	55.8%	21.3	6.6
4	84.0%	$555	1391	$101.12	$1,193	$25	49.0%	51.1%	24.5	7.6
4B	86.1%	$586	1326	$96.44	$1,195	$22	55.7%	44.3%	29.8	9.2
5	87.6%	$651	1299	$94.41	$1,246	-$29	69.2%	30.8%	49.5	14.4
6	88.4%	$707	1282	$93.19	$1,294	-$77	79.5%	20.5%	65.0	19.9
7	89.7%	$1,465	1260	$91.58	$2,044	-$826	97.2%	2.8%	286.1	59.4

Table 8C.1.12 Polyphase Motors: Consumers with No Reactive Power Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$515	1948	$141.86	$1,326					
1	80.6%	$528	1896	$138.12	$1,318	$9	47.3%	52.7%	20.9	6.7
2	82.0%	$535	1849	$134.68	$1,305	$21	41.7%	58.3%	17.1	5.4
3	83.4%	$547	1788	$130.27	$1,292	$34	41.3%	58.7%	17.0	5.3
4	84.0%	$556	1772	$129.09	$1,294	$32	45.1%	54.9%	19.6	6.1
4B	86.1%	$587	1691	$123.19	$1,291	$35	50.3%	49.7%	23.8	7.4
5	87.6%	$652	1656	$120.61	$1,341	-$15	64.6%	35.4%	39.1	11.6
6	88.4%	$708	1634	$119.04	$1,388	-$62	75.4%	24.7%	51.7	16.1
7	89.7%	$1,470	1606	$116.99	$2,139	-$813	95.8%	4.2%	222.4	48.8

Table 8C.1.13 Polyphase Motors: Consumers with 100% Reactive Power Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$515	1948	$141.86	$1,369					
1	80.6%	$528	1896	$138.12	$1,356	$12	38.4%	61.6%	20.9	6.7
2	82.0%	$535	1849	$134.68	$1,343	$26	34.6%	65.5%	17.1	5.4
3	83.4%	$547	1788	$130.27	$1,325	$44	33.1%	66.9%	17.0	5.3
4	84.0%	$556	1772	$129.09	$1,327	$42	38.3%	61.7%	19.6	6.1
4B	86.1%	$587	1691	$123.19	$1,327	$42	47.7%	52.3%	23.8	7.4
5	87.6%	$652	1656	$120.61	$1,373	-$4	61.7%	38.4%	39.1	11.6
6	88.4%	$708	1634	$119.04	$1,419	-$50	72.9%	27.1%	51.7	16.1
7	89.7%	$1,470	1606	$116.99	$2,174	-$805	95.5%	4.5%	222.4	48.8

Table 8C.1.14 Polyphase Motors: Non-space Constrained Consumer Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$516	1888	$137.84	$1,308					
1	80.6%	$529	1838	$134.21	$1,299	$9	46.3%	53.7%	22.0	6.9
2	82.0%	$536	1792	$130.85	$1,287	$21	41.2%	58.8%	18.0	5.6
3	83.4%	$548	1733	$126.54	$1,274	$34	40.6%	59.4%	17.9	5.5
4	84.0%	$556	1718	$125.39	$1,276	$32	44.7%	55.4%	20.6	6.3
4B	86.1%	$588	1639	$119.67	$1,275	$33	50.8%	49.2%	25.2	7.7
5	87.6%	$625	1606	$117.26	$1,298	$10	59.8%	40.2%	33.6	10.3
6	88.4%	$691	1585	$115.72	$1,355	-$47	72.9%	27.1%	50.1	15.4
7	89.7%	$948	1563	$114.07	$1,604	-$296	95.1%	4.9%	114.5	35.3

Table 8C.1.15 Polyphase Motors: Space Constrained Consumer Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
Base case	78.8%	$512	1903	$140.60	$1,318					
1	80.6%	$524	1853	$136.90	$1,308	$9	45.6%	54.4%	21.5	6.8
2	82.0%	$531	1807	$133.49	$1,296	$22	40.2%	59.8%	17.5	5.5
3	83.4%	$543	1748	$129.13	$1,282	$36	39.6%	60.4%	17.4	5.4
4	84.0%	$552	1732	$127.96	$1,284	$34	43.7%	56.3%	20.0	6.3
4B	86.1%	$582	1650	$121.98	$1,280	$37	49.7%	50.3%	24.2	7.5
5	87.6%	$756	1610	$119.00	$1,437	-$120	84.8%	15.2%	71.8	22.3
6	88.4%	$769	1590	$117.55	$1,441	-$123	84.3%	15.7%	70.7	22.1
7	89.7%	$3,548	1543	$114.11	$4,201	-$2,883	100.0%	0.0%	728.2	226.0

Table 8C.1.16 Carbon Cap and Trade Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with		Average	Median
							Net Cost (%)	Net Benefit (%)		
Base case	78.8%	$517	1940	$151.67	$1,408					
1	80.6%	$530	1889	$147.71	$1,397	$11	42.7%	57.3%	19.5	6.3
2	82.0%	$538	1842	$144.04	$1,383	$25	37.7%	62.3%	15.9	5.1
3	83.4%	$550	1782	$139.31	$1,366	$42	37.1%	62.9%	15.7	5.0
4	84.0%	$558	1766	$138.06	$1,368	$41	41.2%	58.9%	18.1	5.8
4B	86.1%	$590	1684	$131.73	$1,363	$45	47.2%	52.8%	22.1	7.0
5	87.6%	$655	1649	$128.99	$1,412	-$3	61.3%	38.7%	37.3	11.0
6	88.4%	$711	1628	$127.34	$1,458	-$50	72.2%	27.8%	48.5	15.1
7	89.7%	$1,487	1600	$125.16	$2,221	-$813	95.1%	4.9%	222.7	45.5

Table 8C.1.17 Polyphase Motors: Small Business Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with		Average	Median
							Net Cost (%)	Net Benefit (%)		
Base case	78.8%	$516	1888	$137.84	$1,192					
1	80.6%	$529	1838	$134.21	$1,186	$6	51.9%	48.1%	22.0	6.9
2	82.0%	$536	1792	$130.85	$1,177	$15	46.1%	54.0%	18.0	5.6
3	83.4%	$548	1733	$126.54	$1,167	$25	45.5%	54.5%	17.9	5.5
4	84.0%	$556	1718	$125.39	$1,170	$22	49.7%	50.3%	20.6	6.3
4B	86.1%	$588	1639	$119.63	$1,174	$18	56.5%	43.5%	25.1	7.7
5	87.6%	$652	1604	$117.13	$1,226	-$34	69.6%	30.4%	41.8	12.2
6	88.4%	$708	1584	$115.60	$1,274	-$82	80.2%	19.9%	54.7	16.7
7	89.7%	$1,460	1557	$113.63	$2,017	-$825	97.4%	2.6%	243.1	50.2

Table 8C.1.18 Polyphase Motors: NEMA with 20% Space-Constrained

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings		Payback Period (years)
		Average Installed	Average Annual	Average Annual	Average Life-Cycle	Average Life-Cycle	Consumers with	

		Price	Energy Use (KWh)	Operating Cost	Cost	Cost Savings	Net Cost	Net Benefit	Average	Median
Base case	78.8%	$515	1535	$127.89	$1,255					
1	80.6%	$527	1495	$124.51	$1,248	$7	58.8%	41.3%	35.1	13.3
2	82.0%	$535	1459	$121.56	$1,238	$17	55.4%	44.6%	29.6	11.3
3	83.4%	$546	1415	$117.94	$1,228	$27	55.4%	44.6%	30.3	11.6
4	84.0%	$555	1402	$116.87	$1,230	$25	58.4%	41.6%	34.7	13.3
4B	86.1%	$586	1344	$112.04	$1,235	$21	63.0%	37.0%	43.1	16.3
5	87.6%	$651	1316	$109.72	$1,285	-$30	71.6%	28.4%	70.7	25.3
6	88.4%	$707	1299	$108.28	$1,332	-$77	78.0%	22.0%	92.5	34.8
7	89.7%	$1,474	1276	$106.41	$2,090	-$835	94.8%	5.2%	405.8	102.6

Table 8C.1.19 Polyphase Motors: NEMA with 62% Space-Constrained

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost	Net Benefit	Average	Median
Base case	78.8%	$513	1550	$129.33	$1,260					
1	80.6%	$526	1509	$125.93	$1,252	$8	58.9%	41.1%	34.7	13.8
2	82.0%	$533	1474	$122.98	$1,242	$18	56.2%	43.8%	29.4	11.6
3	83.4%	$544	1430	$119.35	$1,232	$28	56.0%	44.0%	30.2	11.9
4	84.0%	$553	1417	$118.28	$1,235	$25	58.7%	41.3%	34.5	13.6
4B	86.1%	$584	1358	$113.38	$1,238	$22	62.5%	37.5%	42.8	16.8
5	87.6%	$706	1328	$110.89	$1,345	-$85	77.9%	22.1%	99.2	36.4
6	88.4%	$739	1312	$109.52	$1,369	-$110	80.9%	19.2%	108.4	42.1
7	89.7%	$2,557	1283	$107.10	$3,175	-$1,915	97.5%	2.5%	855.8	215.5

Table 8C.1.20 Polyphase Motors: NEMA with 95% Space-Constrained

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost	Net Benefit	Average	Median
Base case	78.8%	$512	1524	$124.15	$1,237					
1	80.6%	$525	1483	$120.87	$1,230	$7	59.2%	40.8%	34.2	14.0
2	82.0%	$532	1448	$118.01	$1,220	$17	56.4%	43.6%	28.9	11.7
3	83.4%	$544	1405	$114.49	$1,211	$26	56.2%	43.9%	29.7	11.9
4	84.0%	$552	1392	$113.46	$1,213	$24	59.3%	40.7%	33.9	13.7
4B	86.1%	$583	1333	$108.67	$1,217	$21	63.1%	36.9%	42.0	16.7
5	87.6%	$750	1302	$106.14	$1,369	-$132	84.3%	15.7%	120.6	47.3
6	88.4%	$765	1287	$104.87	$1,376	-$139	84.2%	15.8%	119.8	47.5
7	89.7%	$3,418	1253	$102.13	$4,014	-$2,777	99.6%	0.4%	1,205.3	457.9

8C.2 CAPACITOR-START INDUCTION RUN MOTORS

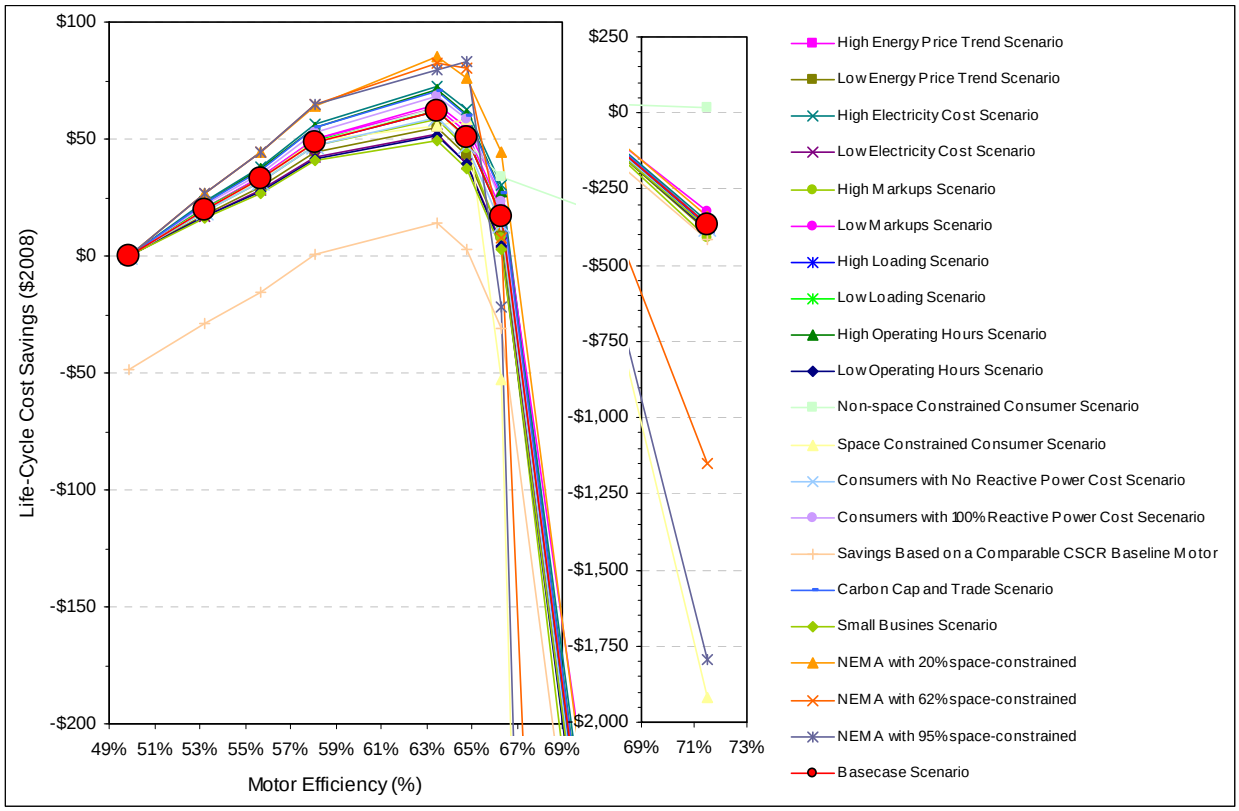

Figure 8C.1.3 Capacitor-Start Induction Run Motors: Life-Cycle Cost Savings versus Motor Efficiency

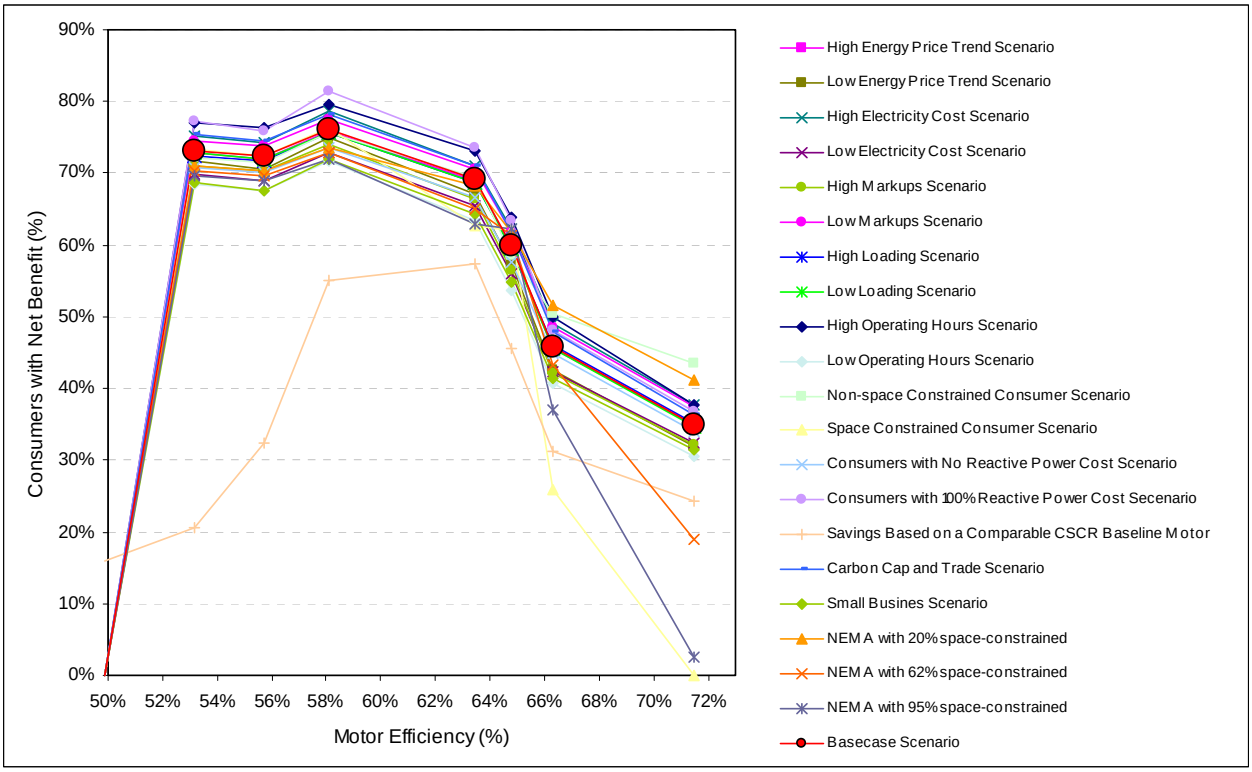

Figure 8C.1.4 Capacitor-Start Induction Run Motors: Consumers with Net Benefit versus Motor Efficiency

Table 8C.2.1 Capacitor-Start Induction Run Motors: Reference Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$496	1124	$81.84	$872					
CSIR Base case	49.9%	$496	1265	$92.12	$920	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$504	1182	$86.03	$900	$20	26.9%	73.1%	8.5	2.5
2	55.7%	$510	1125	$81.89	$888	$33	27.7%	72.3%	8.7	2.6
3	58.1%	$513	1071	$77.96	$871	$49	24.0%	76.0%	7.4	2.2
4	63.5%	$531	979	$71.28	$859	$62	30.7%	69.3%	10.4	3.1
5	64.8%	$551	953	$69.40	$870	$51	40.2%	59.8%	14.9	4.5
6	66.3%	$595	920	$67.00	$903	$17	54.1%	45.9%	24.5	7.0
7	71.5%	$1,000	858	$62.48	$1,287	-$367	65.1%	34.9%	104.4	11.7

Table 8C.2.2 Capacitor-Start Induction Run Motors: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$497	1130	$82.76	$879					
CSIR Base case	49.9%	$496	1272	$93.22	$929	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$504	1188	$87.05	$908	$20	27.1%	72.9%	8.5	2.6
2	55.7%	$511	1131	$82.85	$895	$34	28.0%	72.0%	8.8	2.6
3	58.1%	$513	1076	$78.87	$879	$50	24.0%	76.0%	7.4	2.2
4	63.5%	$531	984	$72.12	$865	$64	31.0%	69.0%	10.4	3.1
5	64.8%	$551	958	$70.21	$876	$53	40.3%	59.7%	15.0	4.5
6	66.3%	$595	925	$67.78	$910	$19	54.5%	45.5%	24.3	7.0
7	71.5%	$1,002	862	$63.20	$1,295	-$366	65.1%	34.9%	99.2	12.0

Table 8C.2.3 Capacitor-Start Induction Run Motors: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$499	1139	$76.23	$850					
CSIR Base case	49.9%	$498	1283	$85.84	$895	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$507	1198	$80.18	$878	$18	28.3%	71.7%	9.1	2.8
2	55.7%	$513	1141	$76.33	$866	$29	29.4%	70.6%	9.4	2.9
3	58.1%	$515	1086	$72.68	$851	$44	25.0%	75.1%	7.9	2.4
4	63.5%	$534	993	$66.47	$841	$55	33.0%	67.0%	11.1	3.4
5	64.8%	$554	967	$64.72	$852	$43	42.7%	57.3%	16.0	4.9
6	66.3%	$599	933	$62.50	$887	$8	57.4%	42.6%	26.0	7.7
7	71.5%	$1,013	870	$58.29	$1,282	-$387	68.1%	31.9%	107.1	13.4

Table 8C.2.4 Capacitor-Start Induction Run Motors: High Electricity Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$498	1138	$91.19	$919					
CSIR Base case	49.9%	$498	1281	$102.67	$973	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$506	1196	$95.91	$950	$23	24.7%	75.3%	7.6	2.3
2	55.7%	$512	1139	$91.31	$935	$38	25.6%	74.4%	7.9	2.4
3	58.1%	$515	1085	$86.94	$917	$56	21.4%	78.6%	6.7	2.0
4	63.5%	$533	992	$79.52	$901	$73	29.0%	71.0%	9.3	2.8
5	64.8%	$553	966	$77.43	$911	$63	37.7%	62.3%	13.5	4.0
6	66.3%	$597	933	$74.77	$943	$30	50.8%	49.2%	21.7	6.3
7	71.5%	$1,006	870	$69.74	$1,328	-$355	62.2%	37.8%	88.1	10.8

Table 8C.2.5 Capacitor-Start Induction Run Motors: Low Electricity Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$498	1120	$72.98	$835					
CSIR Base case	49.9%	$497	1261	$82.20	$879	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$506	1178	$76.75	$862	$17	30.2%	69.8%	9.4	2.9
2	55.7%	$512	1121	$73.04	$851	$28	31.1%	68.9%	9.7	3.0
3	58.1%	$514	1067	$69.53	$836	$42	27.1%	72.9%	8.2	2.5
4	63.5%	$533	976	$63.57	$827	$52	34.5%	65.5%	11.6	3.5
5	64.8%	$553	950	$61.88	$839	$40	44.1%	56.0%	16.5	5.1
6	66.3%	$597	917	$59.74	$873	$5	57.6%	42.4%	27.4	7.8
7	71.5%	$995	855	$55.71	$1,253	-$374	67.6%	32.4%	120.4	13.2

Table 8C.2.6 Capacitor-Start Induction Run Motors: High Markups Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$521	1132	$82.30	$900					
CSIR Base case	49.9%	$521	1274	$92.66	$949	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$530	1190	$86.56	$930	$19	28.9%	71.1%	9.5	2.8
2	55.7%	$537	1133	$82.42	$918	$32	29.7%	70.3%	9.8	2.9
3	58.1%	$540	1079	$78.48	$902	$47	25.9%	74.1%	8.3	2.5
4	63.5%	$560	987	$71.81	$891	$59	33.5%	66.5%	11.6	3.5
5	64.8%	$581	961	$69.92	$904	$46	43.6%	56.4%	16.7	5.0
6	66.3%	$630	928	$67.52	$942	$8	57.8%	42.2%	27.2	7.7
7	71.5%	$1,071	866	$63.01	$1,362	-$412	67.9%	32.1%	113.8	13.1

Table 8C.2.7 Capacitor-Start Induction Run Motors: Low Markups Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$474	1119	$81.13	$848					
CSIR Base case	49.9%	$474	1260	$91.36	$897	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$482	1177	$85.32	$877	$21	25.5%	74.5%	7.9	2.3
2	55.7%	$487	1120	$81.20	$863	$34	26.2%	73.8%	8.1	2.4
3	58.1%	$490	1066	$77.30	$847	$50	22.4%	77.6%	6.9	2.0
4	63.5%	$506	975	$70.67	$833	$65	29.5%	70.6%	9.6	2.9
5	64.8%	$525	949	$68.80	$842	$55	38.3%	61.7%	13.9	4.1
6	66.3%	$565	916	$66.42	$872	$26	51.3%	48.7%	22.4	6.4
7	71.5%	$936	854	$61.93	$1,222	-$324	62.6%	37.4%	92.6	11.1

Table 8C.2.8 Capacitor-Start Induction Run Motors: High Loading Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$498	1202	$87.18	$899					
CSIR Base case	49.9%	$497	1336	$96.87	$946	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$506	1253	$90.80	$926	$20	27.5%	72.5%	8.6	2.6
2	55.7%	$512	1195	$86.63	$913	$33	28.2%	71.8%	8.9	2.6
3	58.1%	$514	1141	$82.74	$897	$49	24.4%	75.6%	7.5	2.2
4	63.5%	$533	1048	$75.95	$883	$62	31.2%	68.8%	10.5	3.1
5	64.8%	$553	1023	$74.12	$895	$51	40.6%	59.4%	15.2	4.5
6	66.3%	$597	990	$71.73	$929	$17	54.0%	46.0%	24.6	7.0
7	71.5%	$1,010	926	$67.14	$1,319	-$374	64.9%	35.1%	102.3	12.1

Table 8C.2.9 Capacitor-Start Induction Run Motors: Low Loading Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$497	1048	$76.54	$849					
CSIR Base case	49.9%	$496	1197	$87.42	$900	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$504	1113	$81.29	$880	$20	27.2%	72.8%	8.5	2.6
2	55.7%	$511	1057	$77.16	$867	$33	28.1%	72.0%	8.8	2.7
3	58.1%	$513	1002	$73.17	$851	$49	24.3%	75.7%	7.4	2.2
4	63.5%	$531	912	$66.57	$838	$62	31.3%	68.7%	10.4	3.1
5	64.8%	$551	885	$64.65	$849	$51	40.5%	59.5%	15.0	4.5
6	66.3%	$595	852	$62.25	$882	$17	54.4%	45.6%	24.2	7.1
7	71.5%	$1,002	791	$57.75	$1,268	-$368	65.4%	34.6%	98.5	12.1

Table 8C.2.10 Capacitor-Start Induction Run Motors: High Operation Hours Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$499	1367	$98.85	$913					
CSIR Base case	49.9%	$498	1540	$111.32	$966	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$507	1438	$103.98	$944	$23	23.1%	76.9%	6.9	2.1
2	55.7%	$513	1369	$98.99	$929	$37	23.7%	76.3%	7.1	2.2
3	58.1%	$515	1303	$94.24	$911	$55	20.4%	79.6%	6.0	1.9
4	63.5%	$534	1192	$86.19	$895	$71	26.9%	73.1%	8.5	2.6
5	64.8%	$554	1160	$83.92	$906	$61	36.2%	63.8%	12.2	3.8
6	66.3%	$599	1120	$81.04	$939	$27	50.0%	50.0%	19.8	5.9
7	71.5%	$1,013	1044	$75.58	$1,330	-$364	62.2%	37.8%	81.5	10.3

Table 8C.2.11 Capacitor-Start Induction Run Motors: Low Operation Hours Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$498	910	$66.32	$835					
CSIR Base case	49.9%	$498	1025	$74.67	$879	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$506	957	$69.75	$862	$17	31.6%	68.4%	10.5	3.1
2	55.7%	$512	911	$66.40	$851	$28	32.4%	67.6%	10.8	3.3
3	58.1%	$515	868	$63.23	$837	$42	28.4%	71.6%	9.2	2.7
4	63.5%	$533	794	$57.83	$827	$51	36.6%	63.4%	12.8	3.8
5	64.8%	$553	773	$56.31	$839	$39	46.4%	53.6%	18.5	5.6
6	66.3%	$597	746	$54.38	$875	$4	59.4%	40.6%	29.8	8.6
7	71.5%	$1,006	696	$50.72	$1,264	-$385	69.5%	30.5%	121.1	14.8

Table 8C.2.12 Capacitor-Start Induction Run Motors: Consumers with No Reactive Power Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$498	1119	$81.13	$867					
CSIR Base case	49.9%	$497	1260	$91.36	$913	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$506	1177	$85.32	$894	$19	29.1%	70.9%	8.7	2.6
2	55.7%	$512	1120	$81.20	$882	$32	29.8%	70.2%	9.0	2.7
3	58.1%	$514	1066	$77.30	$866	$47	26.5%	73.5%	7.6	2.2
4	63.5%	$533	975	$70.67	$855	$59	33.3%	66.7%	10.6	3.1
5	64.8%	$553	949	$68.80	$866	$47	42.4%	57.6%	15.3	4.5
6	66.3%	$597	916	$66.42	$900	$14	55.2%	44.8%	24.8	7.1
7	71.5%	$1,010	854	$61.93	$1,291	-$378	66.0%	34.0%	102.7	12.2

Table 8C.2.13 Capacitor-Start Induction Run Motors: Consumers with 100% Reactive Power Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$498	1119	$81.13	$886					
CSIR Base case	49.9%	$497	1260	$91.36	$942	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$506	1177	$85.32	$920	$21	22.7%	77.3%	8.7	2.6
2	55.7%	$512	1120	$81.20	$906	$35	24.2%	75.8%	9.0	2.7
3	58.1%	$514	1066	$77.30	$889	$53	18.5%	81.5%	7.6	2.2
4	63.5%	$533	975	$70.67	$873	$69	26.4%	73.6%	10.6	3.1
5	64.8%	$553	949	$68.80	$883	$58	36.7%	63.3%	15.3	4.5
6	66.3%	$597	916	$66.42	$919	$23	52.0%	48.0%	24.8	7.1
7	71.5%	$1,010	854	$61.93	$1,308	-$366	63.2%	36.8%	102.7	12.2

Table 8C.2.14 Capacitor-Start Induction Run Motors: Non-Space Constrained Consumer Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$498	1120	$81.09	$872					
CSIR Base case	49.9%	$497	1261	$91.33	$921	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$506	1178	$85.28	$901	$20	27.8%	72.2%	8.5	2.6
2	55.7%	$512	1121	$81.16	$888	$33	28.5%	71.5%	8.7	2.7
3	58.1%	$514	1067	$77.25	$872	$49	24.4%	75.6%	7.4	2.3
4	63.5%	$530	978	$70.82	$858	$63	30.6%	69.4%	9.8	3.0
5	64.8%	$554	952	$68.86	$872	$49	41.5%	58.5%	15.3	4.7
6	66.3%	$579	918	$66.43	$887	$34	49.5%	50.5%	20.0	6.1
7	71.5%	$618	860	$62.20	$906	$15	56.5%	43.5%	25.1	7.7

Table 8C.2.15 Capacitor-Start Induction Run Motors: Space Constrained Consumer Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$494	1132	$82.30	$873					
CSIR Base case	49.9%	$494	1274	$92.66	$923	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$503	1190	$86.56	$903	$20	26.7%	73.3%	8.5	2.6
2	55.7%	$509	1133	$82.42	$890	$33	27.5%	72.5%	8.8	2.6
3	58.1%	$511	1079	$78.48	$873	$49	23.6%	76.4%	7.5	2.2
4	63.5%	$539	976	$71.00	$867	$56	37.2%	62.8%	12.9	3.9
5	64.8%	$544	955	$69.45	$864	$58	38.0%	62.0%	13.4	4.0
6	66.3%	$665	925	$67.28	$976	-$53	74.0%	26.0%	42.3	12.6
7	71.5%	$2,559	848	$61.68	$2,843	-$1,921	100.0%	0.0%	418.9	124.7

Table 8C.2.16 Capacitor-Start Induction Run Motors: Savings Based on a Comparable CSCR Baseline Motor

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$497	1130	$82.48	$876					
CSIR Base case	49.9%	$496	1272	$92.90	$925	-$49	83.9%	16.1%	23.7	4.3
1	53.2%	$504	1188	$86.75	$904	-$29	79.3%	20.7%	302.3	31.5
2	55.7%	$511	1131	$82.57	$891	-$16	67.7%	32.3%	222.6	15.2
3	58.1%	$513	1076	$78.60	$875	$1	44.9%	55.1%	96.8	8.0
4	63.5%	$531	984	$71.87	$862	$14	42.7%	57.3%	20.1	4.9
5	64.8%	$551	958	$69.96	$873	$3	54.5%	45.5%	25.7	7.0
6	66.3%	$595	925	$67.54	$906	-$31	68.7%	31.3%	39.1	10.9
7	71.5%	$1,002	862	$62.98	$1,292	-$416	75.7%	24.3%	146.1	17.2

Table 8C.2.17 Capacitor-Start Induction Run Motors: Carbon Cap and Trade Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$499	1139	$88.20	$910					
CSIR Base case	49.9%	$498	1283	$99.34	$962	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$507	1198	$92.78	$940	$22	24.6%	75.4%	7.7	2.4
2	55.7%	$513	1141	$88.33	$926	$37	25.4%	74.6%	8.0	2.5
3	58.1%	$515	1086	$84.09	$908	$55	21.8%	78.2%	6.7	2.1
4	63.5%	$534	993	$76.91	$892	$70	28.9%	71.1%	9.4	2.9
5	64.8%	$554	967	$74.88	$903	$60	38.3%	61.7%	13.6	4.2
6	66.3%	$599	933	$72.31	$936	$26	52.1%	47.9%	22.0	6.6
7	71.5%	$1,013	870	$67.44	$1,328	-$365	63.6%	36.4%	90.9	11.5

Table 8C.2.18 Capacitor-Start Induction Run Motors: Small Business Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSCR Base case	51.7%	$498	1120	$81.09	$826					
CSIR Base case	49.9%	$497	1261	$91.33	$869	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$506	1178	$85.28	$852	$16	31.3%	68.7%	8.5	2.6
2	55.7%	$512	1121	$81.16	$842	$27	32.4%	67.6%	8.7	2.7
3	58.1%	$514	1067	$77.25	$828	$41	28.0%	72.0%	7.4	2.3
4	63.5%	$533	976	$70.63	$819	$50	35.8%	64.2%	10.4	3.2
5	64.8%	$553	950	$68.75	$832	$37	45.3%	54.7%	14.9	4.6
6	66.3%	$597	917	$66.37	$866	$3	58.6%	41.4%	24.7	7.1
7	71.5%	$995	855	$61.89	$1,246	-$377	68.5%	31.5%	108.4	11.9

Table 8C.2.19 Capacitor-Start Induction Run Motors: NEMA with 20% Space-Constrained

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost	Net Benefit	Average	Median
CSCR Base case	51.7%	$498	1413	$118.04	$1,020					
CSIR Base case	49.9%	$498	1553	$129.71	$1,073	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$506	1459	$121.90	$1,047	$26	28.9%	71.1%	10.1	1.9
2	55.7%	$512	1394	$116.51	$1,029	$44	29.6%	70.4%	10.4	2.0
3	58.1%	$515	1335	$111.52	$1,009	$64	26.5%	73.5%	8.8	1.7
4	63.5%	$533	1229	$102.68	$988	$86	31.9%	68.2%	12.3	2.4
5	64.8%	$553	1201	$100.34	$997	$76	38.2%	61.8%	17.7	3.4
6	66.3%	$598	1164	$97.28	$1,029	$45	48.4%	51.7%	29.0	5.3
7	71.5%	$1,010	1092	$91.31	$1,414	-$341	58.7%	41.3%	122.8	10.9

Table 8C.2.20 Capacitor-Start Induction Run Motors: NEMA with 62% Space-Constrained

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost	Net Benefit	Average	Median
CSCR Base case	51.7%	$495	1411	$118.75	$1,018					
CSIR Base case	49.9%	$495	1546	$130.21	$1,070	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$503	1453	$122.35	$1,043	$27	29.7%	70.3%	10.1	2.0
2	55.7%	$510	1389	$116.93	$1,025	$44	30.4%	69.6%	10.4	2.1
3	58.1%	$512	1329	$111.91	$1,005	$65	27.2%	72.9%	8.8	1.7
4	63.5%	$535	1219	$102.64	$987	$82	35.0%	65.0%	13.8	2.7
5	64.8%	$547	1193	$100.43	$990	$80	38.6%	61.4%	16.7	3.3
6	66.3%	$632	1160	$97.62	$1,062	$8	56.7%	43.3%	40.0	7.6
7	71.5%	$1,820	1081	$90.98	$2,220	-$1,150	81.0%	19.0%	315.8	41.0

Table 8C.2.21 Capacitor-Start Induction Run Motors: NEMA with 95% Space-Constrained

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost	Net Benefit	Average	Median
CSCR Base case	51.7%	$495	1414	$119.01	$1,019					
CSIR Base case	49.9%	$495	1551	$130.47	$1,071	$0	0.0%	0.0%	0.0	0.0
1	53.2%	$504	1457	$122.61	$1,045	$27	30.4%	69.6%	10.2	1.9
2	55.7%	$510	1393	$117.18	$1,027	$44	31.1%	69.0%	10.5	2.0
3	58.1%	$512	1333	$112.17	$1,007	$65	28.1%	71.9%	8.9	1.7
4	63.5%	$539	1219	$102.58	$992	$80	37.0%	63.0%	15.3	2.9
5	64.8%	$545	1195	$100.49	$988	$83	37.8%	62.2%	16.2	3.1
6	66.3%	$662	1164	$97.88	$1,093	-$22	62.9%	37.1%	49.3	9.4
7	71.5%	$2,466	1079	$90.74	$2,865	-$1,794	97.5%	2.5%	473.9	85.7

8C.3 CAPACITOR-START CAPACITOR RUN MOTORS

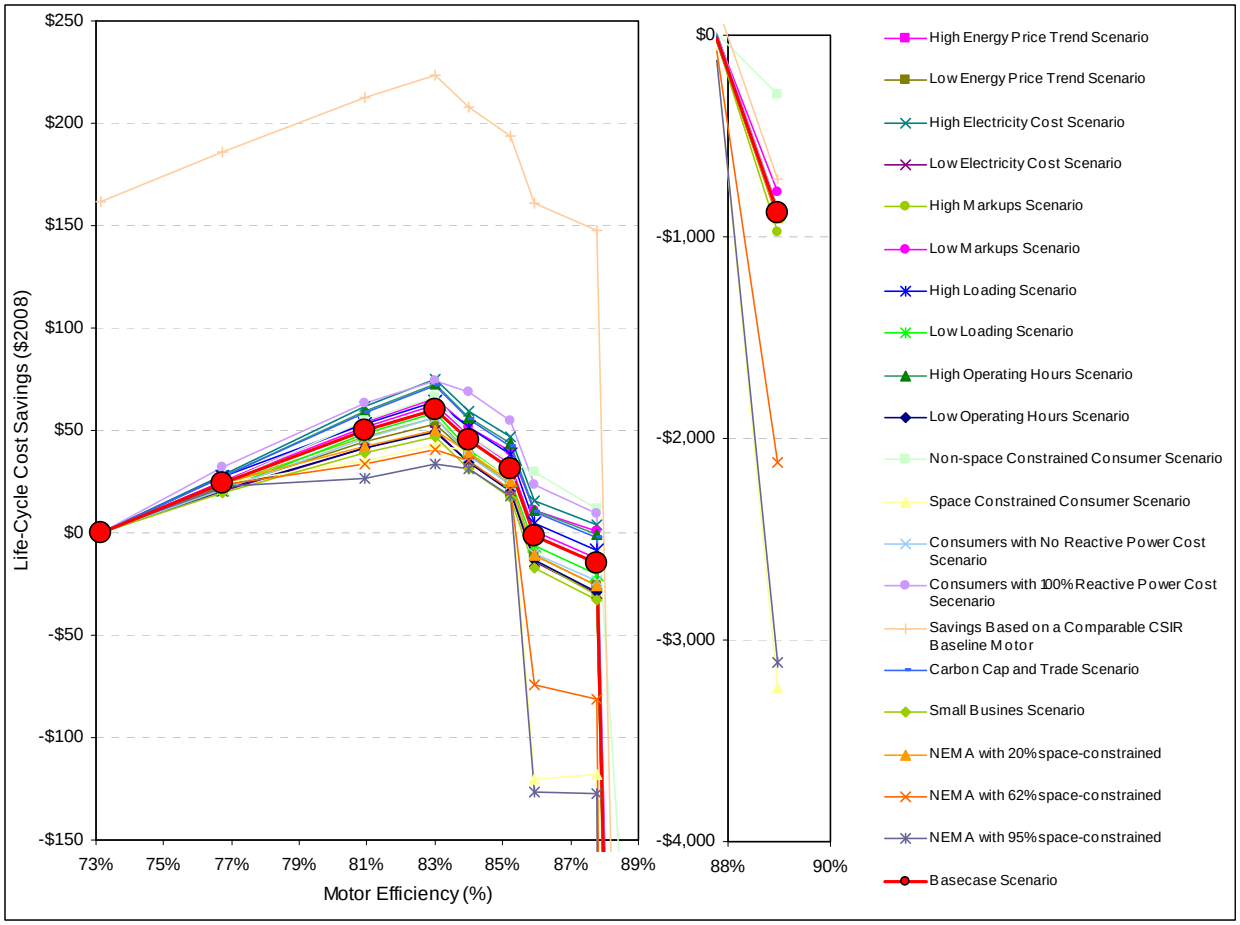

Figure 8C.1.5 Capacitor-Start Capacitor Run Motors: Life-Cycle Cost Savings versus Motor Efficiency

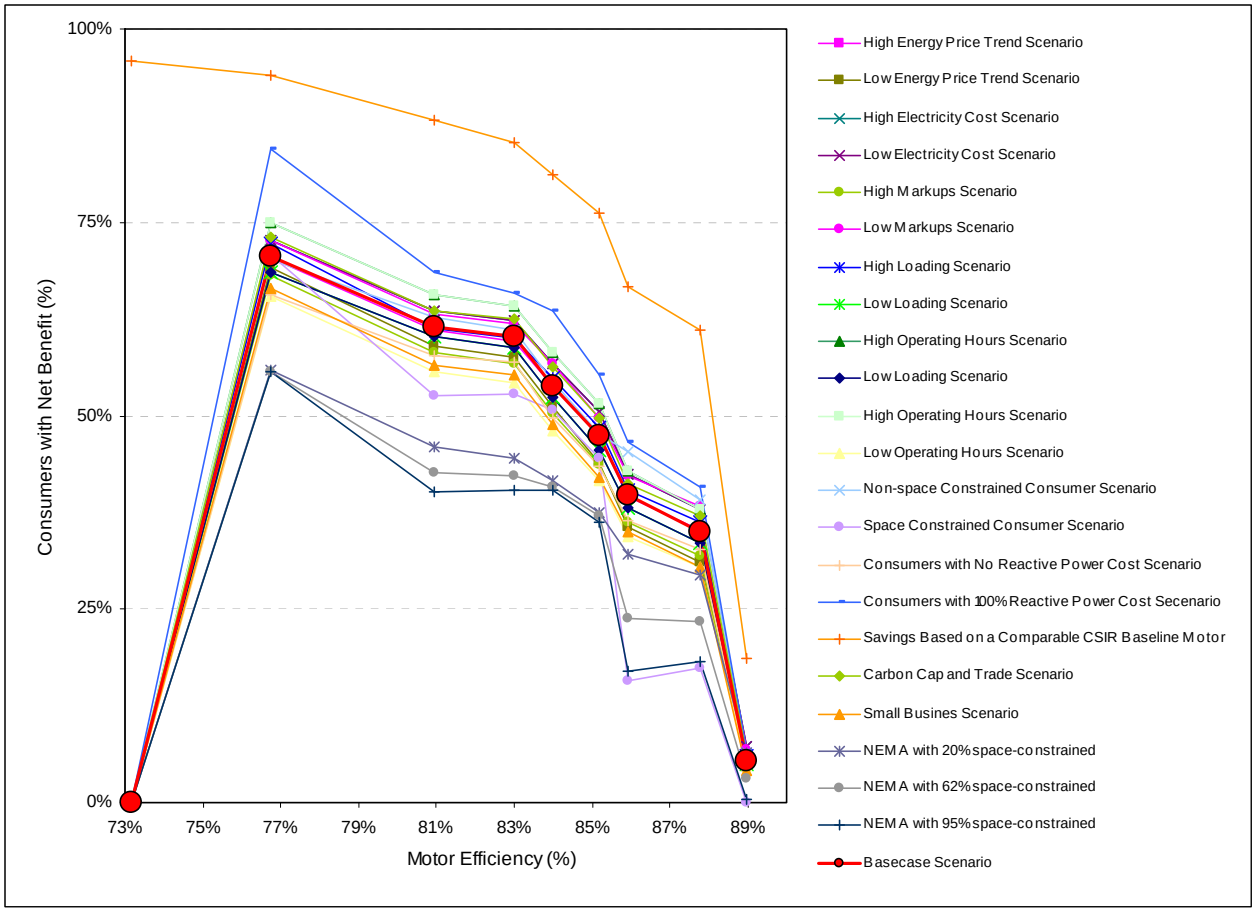

Figure 8C.1.6 Capacitor-Start Capacitor Run Motors: Consumers with Net Benefit versus Motor Efficiency

Table 8C.3.1 Capacitor-Start Capacitor Run Motors: Reference Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$614	2684	$194.52	$1,509					
CSCR Base case	73.2%	$582	2310	$167.38	$1,349	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$594	2208	$160.02	$1,325	$24	29.3%	70.7%	10.9	3.3
2	80.9%	$626	2036	$147.55	$1,299	$50	38.4%	61.6%	14.9	4.4
3	83.0%	$639	1965	$142.43	$1,289	$60	39.7%	60.3%	15.4	4.6
4	84.0%	$653	1979	$143.43	$1,304	$45	46.1%	53.9%	19.8	5.9
5	85.2%	$673	1959	$141.96	$1,318	$32	52.6%	47.4%	23.9	7.2
6	85.9%	$719	1923	$139.37	$1,351	-$1	60.2%	39.9%	32.5	8.9
7	87.8%	$749	1873	$135.72	$1,364	-$15	65.1%	35.0%	35.1	10.1
8	89.0%	$1,629	1824	$132.17	$2,228	-$879	94.7%	5.3%	200.0	36.4

Table 8C.3.2 Capacitor-Start Capacitor Run Motors: High Energy Price Trend Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$614	2688	$196.71	$1,529					
CSCR Base case	73.2%	$582	2311	$169.21	$1,366	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$594	2209	$161.78	$1,341	$25	29.6%	70.4%	10.7	3.3
2	80.9%	$626	2037	$149.18	$1,314	$52	39.0%	61.0%	14.7	4.5
3	83.0%	$640	1966	$144.01	$1,303	$63	40.3%	59.7%	15.2	4.6
4	84.0%	$653	1981	$145.04	$1,318	$47	46.2%	53.8%	19.4	5.9
5	85.2%	$674	1960	$143.55	$1,332	$34	52.7%	47.3%	23.5	7.2
6	85.9%	$719	1925	$140.93	$1,365	$1	60.5%	39.5%	31.6	9.1
7	87.8%	$749	1874	$137.25	$1,378	-$12	64.8%	35.2%	34.2	10.2
8	89.0%	$1,632	1825	$133.66	$2,243	-$878	94.3%	5.8%	190.3	37.9

Table 8C.3.3 Capacitor-Start Capacitor Run Motors: Low Energy Price Trend Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$618	2732	$182.48	$1,467					
CSCR Base case	73.2%	$586	2349	$156.99	$1,313	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$598	2246	$150.10	$1,291	$22	30.8%	69.2%	11.6	3.6
2	80.9%	$630	2071	$138.43	$1,269	$44	41.0%	59.0%	15.8	4.9
3	83.0%	$643	1999	$133.65	$1,260	$53	42.4%	57.6%	16.3	5.0
4	84.0%	$657	2014	$134.59	$1,275	$38	48.9%	51.2%	21.0	6.5
5	85.2%	$678	1993	$133.22	$1,289	$24	56.1%	43.9%	25.4	7.9
6	85.9%	$724	1957	$130.79	$1,324	-$11	64.3%	35.7%	34.1	9.9
7	87.8%	$755	1906	$127.37	$1,339	-$26	69.0%	31.0%	36.9	11.2
8	89.0%	$1,656	1856	$124.05	$2,224	-$911	95.5%	4.5%	204.9	41.5

Table 8C.3.4 Capacitor-Start Capacitor Run Motors: High Electricity Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$614	2728	$218.96	$1,625					
CSCR Base case	73.2%	$582	2349	$188.56	$1,450	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$594	2246	$180.28	$1,421	$29	27.4%	72.6%	9.8	3.0
2	80.9%	$626	2071	$166.28	$1,388	$62	36.5%	63.5%	13.4	4.1
3	83.0%	$639	2000	$160.54	$1,375	$75	37.7%	62.4%	13.8	4.2
4	84.0%	$653	2014	$161.65	$1,390	$60	43.2%	56.8%	17.7	5.4
5	85.2%	$674	1993	$159.99	$1,403	$47	49.6%	50.4%	21.5	6.5
6	85.9%	$719	1957	$157.10	$1,434	$16	57.5%	42.5%	28.8	8.2
7	87.8%	$749	1906	$153.01	$1,446	$4	62.0%	38.0%	31.2	9.2
8	89.0%	$1,626	1857	$149.04	$2,304	-$854	92.8%	7.2%	172.5	33.8

Table 8C.3.5 Capacitor-Start Capacitor Run Motors: Low Electricity Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$619	2717	$177.57	$1,442					
CSCR Base case	73.2%	$586	2339	$152.82	$1,291	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$598	2236	$146.12	$1,270	$21	32.4%	67.6%	12.0	3.7
2	80.9%	$630	2062	$134.76	$1,249	$42	42.0%	58.0%	16.7	4.9
3	83.0%	$643	1991	$130.09	$1,241	$50	43.3%	56.8%	17.2	5.1
4	84.0%	$657	2005	$131.03	$1,257	$34	49.7%	50.3%	21.9	6.6
5	85.2%	$678	1985	$129.68	$1,271	$20	56.6%	43.4%	26.5	8.1
6	85.9%	$723	1949	$127.36	$1,305	-$14	63.8%	36.2%	36.5	10.1
7	87.8%	$754	1898	$124.04	$1,320	-$29	68.6%	31.4%	39.3	11.3
8	89.0%	$1,633	1849	$120.81	$2,185	-$894	95.9%	4.1%	228.1	41.5

Table 8C.3.6 Capacitor-Start Capacitor Run Motors: High Markups Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$651	2689	$194.96	$1,556					
CSCR Base case	73.2%	$615	2313	$167.74	$1,391	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$628	2212	$160.38	$1,368	$23	31.9%	68.1%	12.0	3.7
2	80.9%	$664	2039	$147.87	$1,345	$47	41.8%	58.2%	16.4	5.0
3	83.0%	$678	1968	$142.74	$1,335	$56	43.2%	56.8%	17.0	5.1
4	84.0%	$693	1983	$143.77	$1,352	$39	49.7%	50.3%	21.8	6.7
5	85.2%	$716	1962	$142.29	$1,368	$24	56.3%	43.7%	26.4	8.1
6	85.9%	$765	1927	$139.73	$1,405	-$13	63.8%	36.2%	35.7	10.1
7	87.8%	$798	1877	$136.08	$1,422	-$30	68.1%	32.0%	38.7	11.3
8	89.0%	$1,759	1828	$132.52	$2,365	-$974	95.7%	4.3%	218.1	41.7

Table 8C.3.7 Capacitor-Start Capacitor Run Motors: Low Markups Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$581	2668	$193.49	$1,480					
CSCR Base case	73.2%	$552	2295	$166.40	$1,322	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$563	2194	$159.07	$1,297	$25	27.3%	72.7%	10.1	3.0
2	80.9%	$592	2023	$146.68	$1,268	$54	36.9%	63.1%	13.8	4.1
3	83.0%	$604	1952	$141.60	$1,256	$66	38.1%	61.9%	14.2	4.2
4	84.0%	$617	1966	$142.59	$1,270	$52	43.3%	56.7%	18.3	5.5
5	85.2%	$635	1946	$141.13	$1,282	$40	50.2%	49.8%	22.1	6.6
6	85.9%	$676	1911	$138.56	$1,311	$11	57.8%	42.2%	29.6	8.3
7	87.8%	$703	1860	$134.93	$1,321	$1	61.8%	38.2%	32.0	9.2
8	89.0%	$1,498	1812	$131.41	$2,100	-$778	93.2%	6.8%	177.0	34.7

Table 8C.3.8 Capacitor-Start Capacitor Run Motors: High Loading Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$616	2849	$206.58	$1,575					
CSCR Base case	73.2%	$583	2482	$180.01	$1,416	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$595	2371	$171.97	$1,389	$27	27.7%	72.3%	10.2	3.0
2	80.9%	$628	2201	$159.66	$1,363	$53	38.6%	61.4%	14.7	4.4
3	83.0%	$641	2130	$154.47	$1,352	$64	39.9%	60.1%	15.2	4.5
4	84.0%	$655	2135	$154.85	$1,365	$51	45.2%	54.8%	19.0	5.7
5	85.2%	$675	2112	$153.20	$1,377	$38	51.6%	48.4%	23.0	6.9
6	85.9%	$721	2079	$150.79	$1,411	$5	59.7%	40.3%	31.2	8.7
7	87.8%	$751	2026	$146.97	$1,424	-$8	63.7%	36.3%	33.8	9.7
8	89.0%	$1,634	1981	$143.67	$2,292	-$876	94.0%	6.0%	189.2	37.0

Table 8C.3.9 Capacitor-Start Capacitor Run Motors: Low Loading Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$614	2509	$183.01	$1,460					
CSCR Base case	73.2%	$582	2126	$155.13	$1,297	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$594	2034	$148.39	$1,276	$21	31.5%	68.6%	11.6	3.6
2	80.9%	$626	1860	$135.76	$1,248	$48	39.7%	60.3%	15.0	4.6
3	83.0%	$640	1791	$130.70	$1,238	$59	41.1%	58.9%	15.5	4.7
4	84.0%	$653	1813	$132.30	$1,256	$40	47.6%	52.4%	20.3	6.2
5	85.2%	$674	1795	$130.96	$1,271	$26	54.5%	45.5%	24.6	7.6
6	85.9%	$719	1757	$128.23	$1,303	-$6	61.9%	38.1%	32.8	9.5
7	87.8%	$749	1709	$124.71	$1,317	-$20	66.5%	33.5%	35.5	10.6
8	89.0%	$1,632	1657	$120.96	$2,182	-$885	95.0%	5.0%	194.9	38.7

Table 8C.3.10 Capacitor-Start Capacitor Run Motors: High Operation Hours Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$618	3278	$236.59	$1,619					
CSCR Base case	73.2%	$586	2819	$203.52	$1,444	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$598	2695	$194.60	$1,416	$28	25.1%	74.9%	8.8	2.8
2	80.9%	$630	2485	$179.46	$1,384	$60	34.4%	65.6%	12.0	3.7
3	83.0%	$643	2399	$173.26	$1,371	$73	35.8%	64.3%	12.4	3.8
4	84.0%	$657	2417	$174.49	$1,387	$57	41.9%	58.1%	16.0	5.0
5	85.2%	$678	2392	$172.70	$1,400	$43	48.6%	51.5%	19.3	6.1
6	85.9%	$724	2348	$169.55	$1,433	$11	57.2%	42.8%	25.9	7.6
7	87.8%	$755	2287	$165.13	$1,445	-$1	62.1%	38.0%	28.1	8.5
8	89.0%	$1,656	2227	$160.82	$2,327	-$884	94.1%	5.9%	155.8	31.8

Table 8C.3.11 Capacitor-Start Capacitor Run Motors: Low Operation Hours Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$614	2182	$159.25	$1,425					
CSCR Base case	73.2%	$582	1879	$137.13	$1,277	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$594	1797	$131.11	$1,257	$21	34.5%	65.5%	13.5	4.2
2	80.9%	$626	1657	$120.93	$1,236	$41	44.3%	55.7%	18.4	5.6
3	83.0%	$639	1600	$116.76	$1,228	$49	45.8%	54.2%	19.0	5.8
4	84.0%	$653	1611	$117.57	$1,243	$35	52.0%	48.0%	24.4	7.4
5	85.2%	$674	1595	$116.36	$1,257	$20	58.3%	41.7%	29.5	9.0
6	85.9%	$719	1566	$114.26	$1,291	-$14	65.7%	34.3%	39.6	11.3
7	87.8%	$749	1525	$111.28	$1,306	-$29	69.7%	30.4%	42.9	12.7
8	89.0%	$1,626	1485	$108.39	$2,168	-$891	95.3%	4.7%	237.2	46.5

Table 8C.3.12 Capacitor-Start Capacitor Run Motors: Consumers with No Reactive Power Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$616	2668	$193.49	$1,500					
CSCR Base case	73.2%	$583	2295	$166.40	$1,344	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$595	2194	$159.07	$1,322	$21	34.3%	65.7%	11.1	3.3
2	80.9%	$628	2023	$146.68	$1,298	$46	42.2%	57.8%	15.2	4.5
3	83.0%	$641	1952	$141.60	$1,288	$56	43.0%	57.0%	15.7	4.7
4	84.0%	$655	1966	$142.59	$1,306	$37	50.3%	49.7%	20.1	6.0
5	85.2%	$675	1946	$141.13	$1,320	$24	56.5%	43.5%	24.4	7.3
6	85.9%	$721	1911	$138.56	$1,354	-$10	63.5%	36.5%	32.7	9.1
7	87.8%	$751	1860	$134.93	$1,368	-$24	67.3%	32.7%	35.5	10.2
8	89.0%	$1,634	1812	$131.41	$2,235	-$891	95.0%	5.0%	196.4	38.5

Table 8C.3.13 Capacitor-Start Capacitor Run Motors: Consumers with 100% Reactive Power Cost Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$616	2668	$193.49	$1,560					
CSCR Base case	73.2%	$583	2295	$166.40	$1,383	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$595	2194	$159.07	$1,351	$32	15.6%	84.4%	11.1	3.3
2	80.9%	$628	2023	$146.68	$1,320	$63	31.4%	68.6%	15.2	4.5
3	83.0%	$641	1952	$141.60	$1,309	$74	34.2%	65.8%	15.7	4.7
4	84.0%	$655	1966	$142.59	$1,315	$68	36.4%	63.6%	20.1	6.0
5	85.2%	$675	1946	$141.13	$1,329	$54	44.7%	55.3%	24.4	7.3
6	85.9%	$721	1911	$138.56	$1,360	$23	53.4%	46.7%	32.7	9.1
7	87.8%	$751	1860	$134.93	$1,373	$10	59.3%	40.7%	35.5	10.2
8	89.0%	$1,634	1812	$131.41	$2,239	-$856	93.4%	6.6%	196.4	38.5

Table 8C.3.14 Capacitor-Start Capacitor Run Motors: Non-Space Constrained Consumer Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$619	2717	$197.30	$1,533					
CSCR Base case	73.2%	$586	2339	$169.80	$1,369	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$598	2236	$162.36	$1,345	$24	29.8%	70.2%	10.8	3.3
2	80.9%	$628	2059	$149.51	$1,314	$55	37.2%	62.8%	13.9	4.2
3	83.0%	$641	1984	$144.05	$1,303	$67	39.0%	61.0%	14.5	4.3
4	84.0%	$657	2003	$145.45	$1,322	$48	45.7%	54.4%	19.4	5.9
5	85.2%	$678	1980	$143.78	$1,335	$34	52.3%	47.7%	23.5	7.1
6	85.9%	$693	1952	$141.72	$1,340	$29	54.8%	45.3%	25.4	7.7
7	87.8%	$727	1902	$138.07	$1,358	$12	60.8%	39.2%	29.6	9.0
8	89.0%	$1,049	1852	$134.45	$1,663	-$293	93.6%	6.4%	87.6	26.3

Table 8C.3.15 Capacitor-Start Capacitor Run Motors: Space Constrained Consumer Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$611	2689	$194.96	$1,517					
CSCR Base case	73.2%	$579	2313	$167.74	$1,355	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$591	2212	$160.38	$1,331	$24	29.2%	70.8%	10.9	3.3
2	80.9%	$633	2053	$148.85	$1,320	$35	47.4%	52.6%	19.0	5.8
3	83.0%	$645	1998	$144.88	$1,312	$43	47.2%	52.8%	19.2	5.9
4	84.0%	$653	1991	$144.36	$1,316	$40	49.3%	50.7%	21.1	6.5
5	85.2%	$671	1981	$143.61	$1,330	$26	55.4%	44.6%	25.3	7.8
6	85.9%	$839	1914	$138.80	$1,476	-$121	84.3%	15.7%	60.1	18.4
7	87.8%	$854	1862	$135.02	$1,473	-$118	82.5%	17.5%	56.3	17.1
8	89.0%	$3,992	1815	$131.61	$4,597	-$3,242	100.0%	0.0%	634.4	193.1

Table 8C.3.16 Capacitor-Start Capacitor Run Motors: Savings Based on a Comparable CSIR Baseline Motor

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$614	2688	$196.05	$1,520					
CSCR Base case	73.2%	$582	2311	$168.63	$1,358	$162	4.1%	95.9%	9.1	2.6
1	76.7%	$594	2209	$161.23	$1,334	$186	6.0%	94.0%	5.5	1.4
2	80.9%	$626	2037	$148.67	$1,307	$213	11.8%	88.2%	5.1	1.0
3	83.0%	$640	1966	$143.52	$1,297	$223	14.7%	85.3%	5.5	1.2
4	84.0%	$653	1981	$144.54	$1,312	$208	18.9%	81.1%	7.1	1.8
5	85.2%	$674	1960	$143.07	$1,326	$194	23.9%	76.1%	9.3	2.5
6	85.9%	$719	1925	$140.45	$1,359	$161	33.3%	66.8%	13.4	3.3
7	87.8%	$749	1874	$136.78	$1,372	$148	39.0%	61.1%	15.6	4.2
8	89.0%	$1,632	1825	$133.21	$2,238	-$718	81.3%	18.7%	104.6	20.0

Table 8C.3.17 Capacitor-Start Capacitor Run Motors: Carbon Cap and Trade Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$618	2732	$211.10	$1,610					
CSCR Base case	73.2%	$586	2349	$181.60	$1,436	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$598	2246	$173.63	$1,409	$27	26.9%	73.1%	9.9	3.1
2	80.9%	$630	2071	$160.12	$1,377	$59	36.4%	63.7%	13.4	4.2
3	83.0%	$643	1999	$154.59	$1,364	$72	37.5%	62.5%	13.9	4.3
4	84.0%	$657	2014	$155.68	$1,380	$56	43.8%	56.3%	17.8	5.6
5	85.2%	$678	1993	$154.09	$1,393	$43	50.4%	49.6%	21.6	6.8
6	85.9%	$724	1957	$151.28	$1,426	$10	58.7%	41.3%	28.9	8.5
7	87.8%	$755	1906	$147.33	$1,438	-$2	63.0%	37.0%	31.3	9.5
8	89.0%	$1,656	1856	$143.49	$2,321	-$885	93.8%	6.2%	173.8	35.6

Table 8C.3.18 Capacitor-Start Capacitor Run Motors: Small Business Scenario

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost (%)	Net Benefit (%)	Average	Median
CSIR Base case	65.5%	$619	2717	$197.30	$1,421					
CSCR Base case	73.2%	$586	2339	$169.80	$1,273	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$598	2236	$162.36	$1,253	$20	33.6%	66.4%	10.8	3.3
2	80.9%	$630	2062	$149.73	$1,234	$39	43.4%	56.6%	15.0	4.4
3	83.0%	$643	1991	$144.55	$1,226	$47	44.7%	55.3%	15.5	4.6
4	84.0%	$657	2005	$145.59	$1,241	$32	51.1%	48.9%	19.7	6.0
5	85.2%	$678	1985	$144.09	$1,256	$17	58.0%	42.0%	23.9	7.3
6	85.9%	$723	1949	$141.51	$1,290	-$17	65.1%	34.9%	32.8	9.1
7	87.8%	$754	1898	$137.82	$1,306	-$33	69.7%	30.4%	35.4	10.2
8	89.0%	$1,633	1849	$134.23	$2,171	-$898	96.0%	4.0%	205.3	37.3

Table 8C.3.19 Capacitor-Start Capacitor Run Motors: NEMA with 20% Space-Constrained

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost	Net Benefit	Average	Median
CSIR Base case	65.5%	$617	2205	$186.66	$1,480					
CSCR Base case	73.2%	$584	1931	$163.54	$1,336	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$596	1845	$156.22	$1,312	$24	44.2%	55.8%	17.7	6.4
2	80.9%	$628	1718	$145.54	$1,294	$42	54.0%	46.0%	26.5	9.4
3	83.0%	$641	1664	$140.99	$1,286	$50	55.5%	44.5%	27.5	9.7
4	84.0%	$655	1665	$141.02	$1,297	$39	58.4%	41.6%	33.9	12.2
5	85.2%	$676	1647	$139.51	$1,311	$25	62.5%	37.5%	40.9	14.8
6	85.9%	$722	1623	$137.47	$1,347	-$11	68.0%	32.0%	56.2	18.7
7	87.8%	$752	1583	$134.08	$1,362	-$26	70.6%	29.4%	60.8	20.8
8	89.0%	$1,647	1550	$131.29	$2,243	-$907	93.6%	6.4%	347.7	79.1

Table 8C.3.20 Capacitor-Start Capacitor Run Motors: NEMA with 62% Space-Constrained

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost	Net Benefit	Average	Median
CSIR Base case	65.5%	$610	2196	$186.01	$1,455					
CSCR Base case	73.2%	$579	1919	$162.59	$1,314	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$590	1833	$155.29	$1,290	$23	44.2%	55.8%	17.2	6.6
2	80.9%	$627	1711	$144.94	$1,280	$34	57.3%	42.7%	29.6	11.2
3	83.0%	$640	1662	$140.80	$1,273	$41	57.8%	42.3%	30.1	11.4
4	84.0%	$651	1656	$140.33	$1,279	$35	59.2%	40.8%	34.4	13.1
5	85.2%	$669	1642	$139.11	$1,292	$21	63.0%	37.1%	41.1	15.6
6	85.9%	$778	1608	$136.24	$1,388	-$74	76.1%	23.9%	79.7	27.6
7	87.8%	$800	1568	$132.90	$1,395	-$81	76.6%	23.4%	78.9	28.3
8	89.0%	$2,851	1535	$130.09	$3,433	-$2,120	96.9%	3.1%	731.0	177.0

Table 8C.3.21 Capacitor-Start Capacitor Run Motors: NEMA with 95% Space-Constrained

Energy Efficiency Level	Efficiency	Life-Cycle Cost				Life-Cycle Cost Savings			Payback Period (years)	
		Average Installed Price	Average Annual Energy Use (KWh)	Average Annual Operating Cost	Average Life-Cycle Cost	Average Life-Cycle Cost Savings	Consumers with			
							Net Cost	Net Benefit	Average	Median
CSIR Base case	65.5%	$612	2138	$179.93	$1,449					
CSCR Base case	73.2%	$579	1866	$157.17	$1,307	$0	0.0%	0.0%	0.0	0.0
1	76.7%	$591	1782	$150.14	$1,284	$23	44.4%	55.6%	17.6	6.7
2	80.9%	$632	1666	$140.32	$1,280	$27	59.9%	40.1%	33.1	12.4
3	83.0%	$644	1622	$136.63	$1,273	$33	59.6%	40.4%	33.2	12.5
4	84.0%	$653	1612	$135.80	$1,275	$31	59.7%	40.3%	36.0	13.7
5	85.2%	$671	1601	$134.86	$1,289	$18	63.8%	36.2%	42.7	16.2
6	85.9%	$831	1559	$131.38	$1,433	-$127	83.0%	17.0%	102.6	38.1
7	87.8%	$847	1521	$128.17	$1,434	-$127	81.8%	18.3%	97.1	36.1
8	89.0%	$3,841	1489	$125.42	$4,417	-$3,110	99.6%	0.4%	1,085.2	388.6