# Efficiency Maine 2006 Annual Report Technical Appendix

(FY 2006: July 1, 2005- June 30, 2006)



**December 15, 2006** 

#### **Table of Contents**

Appendix A: Residential Program	3
Appendix B: Business Program	
Appendix C: Low Income Program	
Appendix D: Building Operator Certification Program	
Appendix E: High Performing Schools Program	
Appendix F: Education & Training Program	
Appendix G: Emission Reductions	
Appendix H: Utility Conservation Fund Assessments for Efficiency Maine	

#### **Appendix A: Residential Program**

Table A1: Res	idential ENE	RGY STAR L	ighting Pro	gram: FY'0	6 Benefits ar	nd Costs by	County		
			Savings at Customer level	Savings at Generation Level					
Geographic Savings	Population by County <sup>1</sup>	Total Lighting Products	Total MWh Savings (Customer Level)	Total MWh Savings (Generation Level)	Total Lifetime Economic Benefits	Total Participant Incentives <sup>2</sup>	Total Participant Costs		
Androscoggin	108,039		2,755.8	3,050.7	\$1,806,153	\$74,642	\$207,375	8%	
Aroostook	73,240	· ·	· ·	1,234.0	\$730,593	\$28,372	\$82,331	3%	6%
Cumberland	274,950	175,404	8,455.0	9,359.7	\$5,541,363	\$232,052	\$645,810	24%	21%
Franklin	29,704			866.7	\$513,122	\$19,468	\$59,148	2%	
Hancock	53,660	35,933	1,798.2	1,990.7	\$1,178,565	\$46,104	\$133,909	5%	
Kennebec	120,986	73,731	3,574.0	3,956.4	\$2,342,377	\$93,523	\$272,609	10%	9%
Knox	41,219	19,693	995.1	1,101.5	\$652,166	\$26,520	\$73,505	3%	3%
Lincoln	35,240	15,540	766.2	848.2	\$502,189	\$20,952	\$57,209	2%	3%
Oxford	56,628	26,814	1,387.4	1,535.8	\$909,278	\$34,671	\$102,690	4%	4%
Penobscot	147,068	114,723	5,811.9	6,433.8	\$3,809,130	\$149,806	\$433,449	16%	11%
Piscataquis	17,674	6,679	350.1	387.6	\$229,449	\$8,912	\$25,360	1%	1%
Sagadahoc	36,962	22,323	1,099.4	1,217.0	\$720,521	\$29,537	\$82,392	3%	3%
Somerset	51,667	26,255	1,342.0	1,485.6	\$879,567	\$34,083	\$99,544	4%	
Waldo	38,705	17,805	917.9	1,016.1	\$601,605	\$22,858	\$67,667	3%	
Washington	33,448	13,294	672.5	744.4	\$440,739	\$16,720	\$50,330	2%	3%
York	202,315	69,034	3,450.3	3,819.5	\$2,261,316	\$89,947	\$259,796	10%	15%
Total	1,321,505	710,721	35,273	39,048	\$23,118,134	\$928,167	\$2,653,124	100%	100%

<sup>1.</sup> Source: Annual Estimates of the Population for Counties of Maine, July 1, 2005. Population Division, US Census Bureau

<sup>2.</sup> Includes Buydowns in FY 2006. Total participant incentives include \$111,343 paid in FY07 for buydown purchases and savings claimed in FY06.

Table A2: Residential ENERGY STAR Lighting Program: Annual Growth in Program Allies								
Program Ally Types	FY 2003	FY 2004	FY 2005	FY 2006	Cumulative Total			
Department	2	0	0	25	27			
Do it Yourself (DIY)	8	2	2	2	14			
Grocery	0	0	0	54	54			
Hardware (Chain)	96	13	0	18	127			
Hardware (Independent)	27	9	5	18	59			
Showroom	5	2	1	0	8			
Wholesale	0	0	0	0	0			
Other	0	0	0	7	7			
Cumulative Total:	138	164	172	296	296			

Table A3: Residential ENERGY STAR Lighting Program: Products Rebated <sup>1</sup>									
Product Type	FY 2004	FY 2005	FY 2006						
CFL Bulbs	70,744	108,093	701,920						
Ceiling Fans	172	118	107						
Exterior Fixtures	1,492	1,644	2,299						
Interior Fixtures	4,510	4,279	6,260						
Table/Floor Lamps	8	78	5						
Torchieres	896	208	130						
Total	77,822	114,420	710,721						
1. Includes Buydowns (July 01, 20	005 - June 30, 2006 only)								

Table A4: Residential ENERGY STAR Lighting Program: Financial Report							
Incentive Costs	Prior Year (FY 2005)	Current Year (FY 2006)					
Incentives to Participants	\$220,573	\$928,167					
Incentives to Trade Allies	\$0	\$0					
Subtotal Incentives	\$220,573	\$928,167					
Program Delivery Costs							
Implementation and Technical Assistance	\$641,944	\$911,876					
Marketing	\$250,761	\$378,583					
Subtotal Program Delivery Costs	\$892,705	\$1,290,460					
Administrative and Management Costs	\$87,858	\$94,225					
<b>Evaluation Costs</b>	\$0	\$0					
Total Efficiency Maine Costs	\$1,201,136	\$2,312,852					
Annualized MWh Savings	6,591.2	39,047.3					
Lifetime MWh Savings	50,092.9	296,759.6					
Total Lifetime Economic Benefits	\$3,964,508	\$23,118,134					
Benefit-Cost Ratio	2.5	4.7					

#### **Appendix B: Business Program**

Table E	31: Business	Program	n: FY'06 F	Particip	ation Sm	all and	Large Busir	nesses
			Savings at Customer Level		Savings at Generation Level			Percent of
Program Type	No. of Participants <sup>1</sup>	No. of Projects	MWh Saved	MW Saved	MWh Saved	MW Saved	Incentive Amount	Incentive by Type
Small Business (<50 employees)	226	301	4.860.6	1.64	5.434.5	1.84	\$495.341	26%
Large Business (>50 employees)	90	144	15,794.8	5.33	17.659.6	5.96	\$1,446,071	74%
Total	316	445	20,655.4	6.97	23,094.1	7.80	\$1,941,412	100%

<sup>1.</sup> Number of participants differs from number of projects in that one participant can have more than one project in each fiscal year. For example, a business may have 4 projects counted in one fiscal year, but would only be counted once on the participant level.

	Table B2	2: Business	Progra	am: FY '06	Savin	gs by Busines	s Type	
		Savings	at	Savings	s at		_ <u> </u>	
		Customer	Level	Generation	Level			
	No. of	MWh	MW	MWh	MW	Incentive	Participant	Percent of MWh Savings by Business
Business Type	Projects	Saved	Saved	Saved	Saved	Amount	Costs	Туре
Convenience Store	8	167.8	0.04	187.7	0.04	\$36,469	\$41,371	1%
Farm	49	709.2	0.13	793.0	0.15	\$45,630	\$101,622	3%
Grocery Store	19	920.1	0.12	1028.7	0.13	\$103,418	\$76,554	4%
Health/Hospital	10	597.1	0.08	667.5	0.09	\$101,066	\$435,137	3%
Laundromat	2	5.1	0.00	5.7	0.00	\$265	\$2,255	0%
Local Government	10	213.5	0.07	238.7	0.07	\$32,932	\$69,955	1%
Lodging	21	701.2	0.31	784.0	0.35	\$12,432	\$32,337	3%
Manufacturing	55	6,978.0	0.82	7801.9	0.92	\$637,491	\$1,086,295	34%
Motel/Hotel	4	112.5	0.05	125.8	0.05	\$2,121	\$5,648	1%
Non-Profit	20	245.4	0.15	274.3	0.17	\$7,688	\$35,555	1%
Office	31	622.5	0.14	696.0	0.16	\$104,878	\$406,781	3%
Other	106	4,025.4	3.65	4500.7	4.08	\$451,586	\$887,097	19%
Restaurant/Eatery	5	29.6	0.02	33.0	0.02	\$1,566	\$6,045	0%
Retail	46	1,081.5	0.25	1209.2	0.28	\$75,169	\$136,714	5%
School/College	43	889.3	0.70	994.3	0.79	\$106,393	\$124,580	4%
Warehouse	16	3,357.2	0.44	3753.6	0.49	\$222,310	\$1,522,411	16%
Total	445	20,655.4	6.97	23094.1	7.80	\$1,941,412	\$4,970,357	100%

		1	able B3 : Bu	siness Pro	gram: FY '0	06 Benefits a	and Costs b	y County			
				Savings at Customer Level	Savings at Generation Level						
	Population	Businesses		Annual MWh Savings	Annual MWh Savings	Total Lifetime	Total	Total	Percent of MWh Savings	Percent of	Percent of
Geographic	by	by	Total	(Customer	(Generation	Economic	Participant	Participant	by	Businesses	Population
Savings	County <sup>1</sup>	County <sup>2</sup>	Participants <sup>3</sup>	Level)	Level)	Benefits	Incentives	Costs	County	by County	by County
Androscoggin	108,039	2,824	41	3,897.4	4,357.5	\$4,367,717	\$383,343	\$709,214	19%	7%	8%
Aroostook	73,240	2,181	33	892.5	997.8	\$1,000,187	\$78,670	\$164,188	4%	5%	6%
Cumberland	274,950	11,000	63	4,747.3	5,307.8	\$5,320,283	\$512,088	\$1,268,137	23%	27%	21%
Franklin	29,704	867	9	968.1	1,082.5	\$1,084,989	\$111,131	\$139,805	5%	2%	2%
Hancock	53,660	2,175	14	558.3	624.2	\$625,704	\$58,545	\$65,079	3%	5%	4%
Kennebec	120,986	3,350	32	4,673.4	5,225.2	\$5,237,442	\$281,252	\$1,631,419	23%	8%	9%
Knox	41,219	1,651	14	285.7	319.4	\$320,125	\$54,721	\$94,789	1%	4%	3%
Lincoln	35,240	1,493	3	14.3	16.0	\$15,999	\$1,005	\$4,785	0%	4%	3%
Oxford	56,628	1,427	9	304.7	340.7	\$341,522	\$36,750	\$58,836	1%	3%	4%
Penobscot	147,068	4,215	42	1,319.4	1,475.2	\$1,478,670	\$78,506	\$198,816	6%	10%	11%
Piscataquis	17,674	481	5	498.7	557.6	\$558,908	\$86,082	\$136,255	2%	1%	1%
Sagadahoc	36,962	890	3	14.0	15.6	\$15,666	\$1,921	\$3,479	0.1%	2%	3%
Somerset	51,667	1,181	8	181.1	202.5	\$202,996	\$13,285	\$41,873	1%	3%	4%
Waldo	38,705	978	8	182.1	203.6	\$204,107	\$16,862	\$49,047	1%	2%	3%
Washington	33,448	924	5	166.9	186.6	\$187,059	\$12,958	\$30,316	1%	2%	3%
York	202,315	5,573	34	1,884.7	2,107.2	\$2,112,145	\$212,566	\$373,326	9%	14%	15%
Projects attributed to multiple											
counties	N/A	N/A	1	66.6	74.5	\$74,675	\$1,728	\$992	n/a	n/a	n/a
Total	1,321,505	41,210	324	20,655.4	23,094.1	\$23,148,193	\$1,941,412	\$4,970,357	100%	100%	100%

#### Source:

<sup>1.</sup> Annual Estimates of the Population for Counties of Maine, July 1, 2005. Population Division, US Census Bureau

<sup>2.</sup> County Business Patterns: Maine 2004. Table 4. US Census. June 2006. pg 281

<sup>3.</sup> Participant counts reflect the number of participants in each county. For example, a business may have three projects in one county, but would be counted as only one participant. However, if the same business had three projects in three separate counties, the business would also be counted three separate times.

Table B4: Business Program: Growth in Approved Program Allies									
Program Ally Types	Prior to FY '04	FY '04	FY '05	FY '06	Total	Percent by Ally Type			
Lighting	2	2	4	0	8	2%			
Electrical	1	16	31	3	51	13%			
HVAC		3	6	2	11	3%			
Consultant/Engineering/Architect		13	19	11	43	11%			
Plumbing/Mechanical					0	0%			
Contractor		31	71	28	130	32%			
Retailer	2		1		3	1%			
Wholesaler	1				1	0%			
Manufacturer's Representative	2	4	1		7	2%			
Renewable Energy Products/Services					0	0%			
ESCO		1	2	4	7	2%			
Finance Company	1				1	0%			
Management Company		1			1	0%			
Other	5				5	1%			
Agriculture		1	1		2	0%			
Agricultural Equipment			3	1	4	1%			
More than One Type	46	29	39	17	131	32%			
Total Approved Each Year:	60	101	178	66	405	100%			

Table B5: Business Program:	Financial Report	
Incentive Costs	Prior Year (FY 2005)	Current Year (FY 2006)
Incentives to Participants	\$1,595,477	\$1,941,412
Incentives to Trade Allies	\$0	\$0
Subtotal Incentives	\$1,595,477	\$1,941,412
Program Delivery Costs		
Implementation and Technical Assistance	\$1,363,085	\$1,791,258
Marketing	\$279,600	\$324,144
Subtotal Program Delivery Costs	\$1,642,685	\$2,115,402
Administrative and Management Costs	\$129,106	\$140,405
Evaluation Costs	\$0	\$0
Total Efficiency Maine Costs	\$3,367,269	\$4,197,219
Annualized MWh Savings	15,328	23,094
Lifetime MWh Savings	222,471	321,434
Total Lifetime Economic Benefits	\$16,303,665	\$23,148,193
Business Program Benefit-Cost Ratio	2.6	2.5

# **Appendix C: Low Income Program**

	Та	ble C1: Low I	ncome F	rogram	: FY '06 I	Benefits a	nd Costs	by Coun	ity	
				Saving	s at Custon	ner Level	Savings	at Genera	tion Level	
Geographic Savings	Community Action Agency	Qty Refrigerators (RF)	Qty CFLs	RF MWh Savings	CFL MWh Savings	Total MWh Savings	RF MWh Savings	CFL MWh Savings	Total MWh Savings	Total Lifetime Economic Benefits
Androscoggin	ACAP	316	4728	371.7	317.4	689.1	412.8	351.4	764.2	\$352,056
Aroostook	CCAP	103	241	116.1	14.9	131.0	129.0	16.5	145.4	\$66,927
Cumberland	CCI	262	4599	317.5	159.2	476.7	352.6	176.2	528.9	\$243,542
Franklin	CCI	262	4599	317.5	159.2	476.7	352.6	176.2	528.9	\$243,542
Hancock	CED	39	488	43.6	25	68.6	48.4	27.7	76.1	\$35,047
Kennebec	CED	39	488	43.6	25	68.6	48.4	27.7	76.1	\$35,047
Knox	KVCAP	45	303	57.6	29.2	86.8	64.0	32.3	96.3	\$44,345
Lincoln	KVCAP	45	303	57.6	29.2	86.8	64.0	32.3	96.3	\$44,345
Oxford	PCAP	137	971	165.6	331.7	497.3	183.9	367.2	551.1	\$254,066
Penobscot	PCAP	137	971	165.6	331.7	497.3	183.9	367.2	551.1	\$254,066
Piscataquis	PROP	241	2976	231.1	187.3	418.4	256.7	207.3	464.0	\$213,757
Sagadahoc	WCAP	60	188	69.4	14.5	83.9	77.1	16.1	93.1	\$42,864
Somerset	WHCA	128	1619	141.7	66.8	208.5	157.4	73.9	231.3	\$106,521
Waldo	WHCA	128	1619	141.7	66.8	208.5	157.4	73.9	231.3	\$106,521
Washington	WMCA	179	2247	213.4	216.4	429.8	237.0	239.5	476.5	\$219,558
York	YCCAC	444	4576	717.6	204.5	922.1	797.0	226.4	1023.4	\$471,093
Total		2,565	30,916	3,171.3	2,178.8	5,350.1	3,522.3	2,411.9	5,934.2	\$2,733,299

Table C2: Low Income Program: Financial Report								
	Prior Year	Current Year						
Incentive Costs	(FY 2005)	(FY 2006)						
Incentives to Participants	\$1,376,196	\$1,849,266						
Incentives to Trade Allies	\$0	\$0						
Subtotal Incentives	\$1,376,196	\$1,849,266						
Program Delivery Costs								
Implementation and Technical Assistance	\$100,628	\$100,628						
Marketing	\$0	\$0						
Subtotal Program Delivery Costs	\$100,628	\$100,628						
•								
Administrative and Management Costs	\$3,504	\$3,791						
3								
Evaluation Costs	\$0	\$0						
		, ,						
Total Efficiency Maine Costs	\$1,480,328	\$1,953,685						
Ž								
Annualized MWh Savings	3387	5,934						
Lifetime MWh Savings	21,199	37,141						
Total Lifetime Economic Benefits	\$2,684,122	\$2,733,299						
Benefit-Cost Ratio	1.8	1.4						
Deliciti-003t Katio	1.0	1.4						

## **Appendix D: Building Operator Certification Program**

Table D1: Building Operator Certification: FY'06 Benefits and Costs by County							
		Savings at Customer Level	Savings At Generation Level				
Geographic Savings	Total Participants	Total MWh Savings (Customer Level)	Total MWh Savings (Generation Level)	Total Participant Costs	Total Economic Benefits		
Androscoggin	2	199.1	222.8	\$102,630	\$163,714		
Cumberland	20	1,990.9	2,227.8	\$1,026,300	\$1,637,140		
Kennebec	10	995.5	1,113.9	\$513,150	\$818,570		
Knox	5	497.7	557.0	\$256,575	\$409,285		
Oxford	3	298.6	334.2	\$153,945	\$245,571		
Penobscot	9	895.9	1,002.5	\$461,835	\$736,713		
Sagadahoc	2	199.1	222.8	\$102,630	\$163,714		
Somerset	2	199.1	222.8	\$102,630	\$163,714		
Washington	2	199.1	222.8	\$102,630	\$163,714		
York	5	497.7	557.0	\$256,575	\$409,285		
Total	60	5,972.8	6,683.5	\$3,078,900	\$4,911,419		

Table D2: Building Operator Certification:	oort	
	Prior Year (FY 2005)	Current Year (FY 2006)
Number of Classes	3	3
Number of Participants	82	60
Incentive Costs		
Incentives to Participants	\$0	\$0
Incentives to Trade Allies	\$0	\$0
Subtotal Incentives	\$0	\$0
Program Delivery Costs		
Implementation and Technical Assistance	\$102,912	\$ 102,912
Marketing	\$0	\$0
Subtotal Program Delivery Costs	\$102,912	\$ 102,912
Administrative and Management Costs		
Administrative and Management Costs	\$20,064	\$25,575
Subtotal Administrative and Management Costs	\$20,064	\$25,575
Evaluation Costs	\$ 16,000	\$0
Total Efficiency Maine Costs	\$138,976	\$ 128,487
Annualized MWH Savings	9,134	6,684
Lifetime MWh Savings	45,671	33,418
Total Lifetime Economic Benefits	\$6,712,273	\$4,911,419
Benefit Cost Ratio	1.5	1.5

## **Appendix E: High Performing Schools Program**

Table E1: High Performance Schools: Financial Report					
Incentive Costs	Prior Year (FY 2005)	Current Year (FY 2006)			
Incentives to Participants	\$0	\$0			
Incentives to Trade Allies	\$0	\$0			
Subtotal Incentives	\$0	\$0			
Program Delivery Costs					
Implementation and Technical Assistance	\$8,320	\$65,552			
Marketing	\$0	\$0			
Subtotal Program Delivery Costs	\$8,320	\$65,552			
Administrative and Management Costs	\$47,702	\$50,172			
<b>Evaluation Costs</b>	\$0	\$0			
Total Efficiency Maine Costs	\$56,022	\$115,724			
Annualized MWh Savings	n/a	n/a			
Lifetime MWh Savings	n/a	n/a			
Total Lifetime Economic Benefits	n/a	n/a			
Program Benefit-Cost Ratio	n/a	n/a			

## **Appendix F: Education & Training Program**

Table F1: Education and Training Program: Financial Report				
Incentive Costs	Prior Year (FY 2005)	Current Year (FY 2006)		
Incentives to Participants	\$0	\$0		
Incentives to Trade Allies	\$0	\$0		
Subtotal Incentives	\$0	\$0		
Program Delivery Costs	<b>*</b> 00.000	¢101.000		
Implementation and Technical Assistance	\$82,000	\$101,000		
Marketing Subtotal Program Delivery Costs	\$3,700 <b>\$85,700</b>	\$3,700 <b>\$104,700</b>		
Administrative and Management Costs Administrative and Management Costs	\$48,047	\$61,681		
Subtotal Administrative and Management Costs	\$48,047	\$61,681		
Evaluation Costs	\$0	\$0		
Total Efficiency Maine Costs	\$133,747	\$166,381		
Annualized MWH Savings	n/a	n/a		
Lifetime MWh Savings	n/a	n/a		
Total Lifetime Economic Benefits	n/a	n/a		
Benefit Cost Ratio	n/a	n/a		

#### **Appendix G: Emission Reductions**

Table G1: Efficiency Maine Lifetime Emission Reductions (Metric Tons)					
Emission	FY 2004	FY 2005	FY 2006	TOTAL	
CO <sub>2</sub> (metric tons)	90,053	162,659	320,849	573,561	
SO <sub>2</sub> (metric tons)	56	101	200	357	
No <sub>x</sub> (metric tons)	21	38	75	134	

#### Source:

Emission estimates per MWh are based on Maine specific marginal emission rates reported in the "2004 New England Marginal Emission Rate Analysis". ISO New England, Inc. May, 2006. Table 5.7-5.9, Page 16.

CO2: 1,027 lbs/MWh SO2: 0.64 lbs/MWh NOx: 0.24 lbs/MWh

http://www.iso-ne.com/genrtion\_resrcs/reports/emission/2004\_mea\_report.pdf

#### **Appendix H: Utility Conservation Fund Assessments for Efficiency Maine**

#### Table H1: Utility Assessments for Efficiency Maine (Actuals and Projected)

Utility	FY '05 (Actual)	FY'06 (Actual)	Projected FY'07	Projected FY'08	Projected FY'09	Projected FY'10
Central Maine Power Co	\$7,458,040	\$7,339,093	\$10,499,611	\$11,686,242	\$12,441,808	\$13,208,074
Bangor Hydro-Electric Co	\$990,156	\$1,508,735	\$1,577,128	\$1,614,821	\$1,653,415	\$1,692,932
Maine Public Service Co	\$360,819	\$431,840	\$689,638	\$823,807	\$903,746	\$925,345
Kennebunk Light & Power	\$85,593	\$110,891	\$145,890	\$174,273	\$191,184	\$195,754
Eastern Maine Electric Coop	\$71,420	\$89,926	\$112,522	\$134,413	\$147,456	\$150,980
Houlton Water Co	\$77,505	\$55,654	\$129,843	\$155,104	\$170,154	\$174,221
Van Buren Light & Power Co	\$10,202	\$12,782	\$17,406	\$20,793	\$22,810	\$23,356
Fox Island Electric Coop	\$10,802	\$10,107	\$12,319	\$14,715	\$16,143	\$16,529
Swans Island Coop	\$4,113	\$2,125	\$2,842	\$3,395	\$3,724	\$3,813
Madison Electric Works	\$11,576	\$5,960	\$0	\$0	\$0	\$0
TOTAL	\$9,080,226	\$9,567,113	\$13,187,199	\$14,627,563	\$15,550,442	\$16,391,004

Note: The significant projected assessment increase from FY '06 to FY'07 is due in large part to the scheduled expiration of Central Maine Power's Power Partner Contract.

Efficiency Maine is a statewide effort to promote the more efficient use of electricity, help Maine residents and businesses reduce energy costs, and improve Maine's environment. Efficiency Maine is funded by electricity consumers and administered by the Maine Public Utilities Commission.

For more information, please contact:

Denis Bergeron
Director, Energy Programs Division
Maine Public Utilities Commission
242 State Street, 18 State House Station
Augusta, Maine 04333-0018

Tel: (207) 287-3349 Fax: (207) 287-1039 E-mail Address: <a href="mailto:denis.bergeron@maine.gov">denis.bergeron@maine.gov</a> Web Address: <a href="mailto:http://www.efficiencymaine.com">http://www.efficiencymaine.com</a>