

Appendix G

Supply Curve Data

Energy Supply Curve				
Measure Number	Measure	Measure GWH Savings	Percent Savings	Marginal Energy Cost \$/kWH
621	Energy Star or Better Monitor - CRT	252	0.27%	0.00
641	Energy Star or Better Copier	55	0.33%	0.00
661	Data Center Improved Operations	121	0.46%	0.00
416	Separate Makeup Air/Exhaust Hoods AC	3	0.47%	0.00
662	Data Center Best Practices	95	0.57%	0.00
911	Energy Star Plasma Screen TV	78	0.65%	0.00
611	Energy Star or Better PC	202	0.87%	0.00
216	Self Install Weatherization	22	0.89%	0.00
504	Pipe Wrap	40	0.94%	0.00
663	Data Center State of the Art practices	20	0.96%	0.00
341	Second Refrigerator Recycling	504	1.50%	0.00
921	Energy Star LCD TV	64	1.57%	0.00
236	Self Install Weatherization	62	1.64%	0.00
946	Energy Star Desktop Computer	90	1.74%	0.00
622	Monitor Power Management Enabling - CRT	38	1.78%	0.00
201	Single Pane Windows to Double Pane with C	214	2.01%	0.00
530	Demand Defrost Electric	137	2.16%	0.00
251	CFL (15-Watt integral ballast), 1.8 hr/day	2,674	5.05%	0.01
171	Energy Star Dehumidifier (ROB)	107	5.16%	0.01
221	Single Pane Windows to Double Pane with C	622	5.83%	0.01
417	O&M - Extruders/Injection Moulding	13	5.85%	0.01
613	PC Network Power Management Enabling	296	6.17%	0.01
309	Pumps - ASD (6-100 hp)	68	6.24%	0.01
538	Fiber Optic Display Lighting	202	6.46%	0.01
301	Pumps - O&M	77	6.54%	0.01
109	Comp Air - ASD (6-100 hp)	39	6.59%	0.01
401	Bakery - Process (Mixing) - O&M	14	6.60%	0.01
201	Fans - O&M	24	6.63%	\$0.01
104	Compressed Air- Sizing	19	6.65%	\$0.01
715	Prog. Thermostat - DX	29	6.68%	\$0.01
101	Compressed Air-O&M	51	6.73%	\$0.01
403	Air conveying systems	8	6.74%	\$0.01
406	Gap Forming papermachine	9	6.75%	\$0.01
407	High Consistency forming	8	6.76%	\$0.01
551	Efficient Refrigeration - Operations	36	6.80%	\$0.01
409	Efficient practices printing press	7	6.81%	\$0.01
971	Indirect Feedback	789	7.66%	\$0.01
507	Near Net Shape Casting	5	7.66%	\$0.01
141	CFL Screw-in 18W	1,137	8.89%	\$0.01
302	Pumps - Controls	191	9.10%	\$0.01
911	Efficient Steamer	200	9.31%	\$0.01
510	Heating - Optimization process (M&T)	6	9.32%	\$0.01
427	Drives - Optimization process (M&T)	7	9.33%	\$0.01
931	Energy Star LCD TV	119	9.46%	\$0.01
209	Fans - ASD (6-100 hp)	17	9.47%	\$0.01
213	Basement Insulation	131	9.62%	\$0.01
501	Bakery - Process	25	9.64%	\$0.01
103	Compressed Air - System Optimization	95	9.75%	\$0.01
214	Programmable Thermostat	47	9.80%	\$0.01
214	Outdoor Lighting Controls (Photocell/Timecl	170	9.98%	\$0.01
120	Self Install Weatherization	78	10.07%	\$0.01
906	Efficient Fryer	22	10.09%	\$0.01
304	Pumps - Sizing	153	10.26%	\$0.01

Capacity Supply Curve				
Measure Number	Measure	Measure MW Savings	Percent Savings	Marginal Capacity Cost \$/kW
416	Separate Makeup Air/Exhaust Hoods AC	0	0.0%	\$3
621	Energy Star or Better Monitor - CRT	24	0.1%	\$4
641	Energy Star or Better Copier	5	0.2%	\$4
661	Data Center Improved Operations	12	0.2%	\$5
171	Energy Star Dehumidifier (ROB)	81	0.7%	\$7
662	Data Center Best Practices	9	0.8%	\$13
120	Self Install Weatherization	59	1.1%	\$18
911	Energy Star Plasma Screen TV	6	1.2%	\$20
611	Energy Star or Better PC	15	1.2%	\$23
154	Self Install Weatherization	3	1.3%	\$25
663	Data Center State of the Art practices	2	1.3%	\$30
341	Second Refrigerator Recycling	41	1.5%	\$37
530	Demand Defrost Electric	16	1.6%	\$39
504	Pipe Wrap	2	1.6%	\$41
156	Ductless Split Heat Pump	3	1.6%	\$42
921	Energy Star LCD TV	5	1.7%	\$42
161	EER 8.5 AC Early Replacement, CEE Tier 1 EER 11	9	1.7%	\$46
417	O&M - Extruders/Injection Moulding	2	1.7%	\$46
142	HE Room Air Conditioner - CEE Tier 1 EER 11.3	35	1.9%	\$51
104	Compressed Air- Sizing	3	1.9%	\$53
946	Energy Star Desktop Computer	7	2.0%	\$53
971	Indirect Feedback	132	2.8%	\$58
538	Fiber Optic Display Lighting	24	2.9%	\$61
301	Pumps - O&M	9	2.9%	\$62
622	Monitor Power Management Enabling - CRT	2	3.0%	\$63
401	Bakery - Process (Mixing) - O&M	2	3.0%	\$63
363	Ceiling/roof Insulation - DX	64	3.3%	\$64
551	Efficient Refrigeration - Operations	5	3.4%	\$64
101	Compressed Air-O&M	6	3.4%	\$67
402	O&M/drives spinning machines	0	3.4%	\$69
121	Infiltration Reduction	659	7.3%	\$69
107	Proper Refrigerant Charging and Air Flow	360	9.4%	\$69
201	Fans - O&M	3	9.4%	\$70
409	Efficient practices printing press	1	9.4%	\$71
427	Drives - Optimization process (M&T)	1	9.4%	\$72
507	Near Net Shape Casting	1	9.4%	\$72
362	Aerosol Duct Sealing - DX	47	9.7%	\$78
131	15 SEER Split-System AC Early Replacement	227	11.0%	\$79
510	Heating - Optimization process (M&T)	1	11.0%	\$79
902	Membranes for wastewater	0	11.0%	\$88
141	CFL Screw-in 18W	133	11.8%	\$88
251	CFL (15-Watt integral ballast), 1.8 hr/day	150	12.6%	\$91
302	Pumps - Controls	22	12.8%	\$97
911	Efficient Steamer	23	12.9%	\$97
103	Compressed Air - System Optimization	12	13.0%	\$98
613	PC Network Power Management Enabling	20	13.1%	\$103
501	Bakery - Process	3	13.1%	\$103
404	Replace V-Belts	0	13.1%	\$105
106	Attic Venting	23	13.2%	\$110
406	Gap Forming papermachine	1	13.2%	\$113
407	High Consistency forming	1	13.2%	\$114
145	Single Pane Windows to Double Pane with Gas	13	13.3%	\$120
306	VSD for Chiller Pumps and Towers	23	13.5%	\$125

Energy Supply Curve				
Measure Number	Measure	Measure GWH Savings	Percent Savings	Marginal Energy Cost \$/kWH
533	Freezer-Cooler Replacement Gaskets	49	10.31%	\$0.02
707	Heat Trap	19	10.33%	\$0.02
423	Process control	1	10.33%	\$0.02
404	Replace V-Belts	2	10.33%	\$0.02
706	Heat Recovery Unit	49	10.39%	\$0.02
204	Fans- Improve components	50	10.44%	\$0.02
529	Demand Hot Gas Defrost	27	10.47%	\$0.02
234	Programmable Thermostat	135	10.61%	\$0.02
233	Basement Insulation	364	11.01%	\$0.02
301	Near Zero Energy (60-75%)	11	11.02%	\$0.02
525	Efficient compressor motor	92	11.12%	\$0.02
136	High Performance Lighting Remod/Renov -	22	11.14%	\$0.02
651	Printer Power Management Enabling	21	11.17%	\$0.02
504	Top-heating (glass)	3	11.17%	\$0.02
154	Self Install Weatherization	4	11.17%	\$0.02
603	New transformers welding	9	11.18%	\$0.02
604	Efficient processes (welding, etc.)	2	11.19%	\$0.02
151	CFL Hardwired, Modular 18W	717	11.96%	\$0.02
941	Energy Star Laptop Computer	19	11.98%	\$0.02
127	High Performance Lighting Remod/Renov -	23	12.01%	\$0.02
426	Efficient drives - rolling	9	12.02%	\$0.02
642	Copier Power Management Enabling	27	12.05%	\$0.02
701	Centrifugal Chiller, 0.51 kW/ton, 500 tons	50	12.10%	\$0.03
102	Compressed Air - Controls	25	12.13%	\$0.03
412	Efficient drives	1	12.13%	\$0.03
126	Lighting Control Tuneup - Base 2L4'T12	2	12.13%	\$0.03
429	Machinery	3	12.13%	\$0.03
527	Floating head pressure controls	52	12.19%	\$0.03
430	Efficient Machinery	0	12.19%	\$0.03
303	Pumps - System Optimization	235	12.44%	\$0.03
405	Drives - EE motor	17	12.46%	\$0.03
215	Infiltration Reduction	85	12.55%	\$0.03
602	Efficient desalter	1	12.55%	\$0.03
402	O&M/drives spinning machines	0	12.55%	\$0.03
212	Fans - ASD (100+ hp)	36	12.59%	\$0.03
312	Pumps - ASD (100+ hp)	96	12.70%	\$0.03
107	High Performance Lighting Remod/Renov -	15	12.71%	\$0.03
134	Occupancy Sensor, 4L8' Fluorescent Fixture	10	12.72%	\$0.03
191	ROB 2L4' Premium T8, 1EB - Base 2L4'T8	73	12.80%	\$0.03
112	Comp Air - ASD (100+ hp)	30	12.84%	\$0.03
106	Lighting Control Tuneup	1	12.84%	\$0.03
156	Ductless Split Heat Pump	4	12.84%	\$0.03
505	Efficient electric melting	72	12.92%	\$0.03
702	High Efficiency Water Heater (electric)	6	12.93%	\$0.03
181	ROB 4L4' Premium T8, 1EB - Base 4L4'T8	56	12.99%	\$0.03
428	Drives - Scheduling	2	12.99%	\$0.03
413	Clean Room - Controls	14	13.00%	\$0.03
511	Heating - Scheduling	1	13.01%	\$0.03
425	Drives - Process Control	8	13.01%	\$0.03
363	Ceiling/roof Insulation - DX	119	13.14%	\$0.03
205	Ceiling R-0 to R-38 Insulation	5	13.15%	\$0.03
104	Occupancy Sensor, 4L4' Fluorescent Fixture	13	13.16%	\$0.03
161	EER 8.5 AC Early Replacement, CEE Tier 1	12	13.17%	\$0.04

Capacity Supply Curve				
Measure Number	Measure	Measure MW Savings	Percent Savings	Marginal Capacity Cost \$/kW
533	Freezer-Cooler Replacement Gaskets	6	13.5%	\$127
906	Efficient Fryer	3	13.5%	\$127
304	Pumps - Sizing	17	13.6%	\$130
603	New transformers welding	1	13.6%	\$135
423	Process control	0	13.6%	\$137
144	Whole House Fans	6	13.6%	\$138
204	Fans- Improve components	6	13.7%	\$141
529	Demand Hot Gas Defrost	3	13.7%	\$142
111	Single Pane Windows to Double Pane with Gas	155	14.6%	\$143
105	Whole House Fans	112	15.3%	\$145
701	Centrifugal Chiller, 0.51 kW/ton, 500 tons	9	15.3%	\$145
525	Efficient compressor motor	11	15.4%	\$148
706	Heat Recovery Unit	5	15.4%	\$152
707	Heat Trap	2	15.4%	\$153
301	Near Zero Energy (60-75%)	1	15.4%	\$154
604	Efficient processes (welding, etc.)	0	15.4%	\$156
931	Energy Star LCD TV	9	15.5%	\$156
136	High Performance Lighting Remod/Renov - 25% Sav	2	15.5%	\$159
504	Top-heating (glass)	0	15.5%	\$164
429	Machinery	1	15.5%	\$168
365	DX Coil Cleaning	49	15.8%	\$169
426	Efficient drives - rolling	1	15.8%	\$170
108	Duct Repair	256	17.3%	\$181
502	Drying (UV/IR)	0	17.3%	\$185
715	Prog. Thermostat - DX	1	17.3%	\$188
151	CFL Hardwired, Modular 18W	82	17.8%	\$191
412	Efficient drives	0	17.8%	\$197
311	High Efficiency Chiller Motors	10	17.8%	\$198
102	Compressed Air - Controls	3	17.8%	\$200
127	High Performance Lighting Remod/Renov - 25% Sav	3	17.9%	\$203
101	15 SEER Split-System Air Conditioner	394	20.2%	\$204
103	Programmable Thermostat	22	20.3%	\$209
134	Occupancy Sensor, 4L8' Fluorescent Fixtures - Base	1	20.3%	\$211
403	Air conveying systems	0	20.3%	\$219
181	Variable speed furnace fans (RET)	207	21.5%	\$227
505	Efficient electric melting	10	21.6%	\$227
303	Pumps - System Optimization	28	21.7%	\$236
104	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base	2	21.7%	\$236
425	Drives - Process Control	1	21.7%	\$238
430	Efficient Machinery	0	21.7%	\$244
107	High Performance Lighting Remod/Renov - 25% Sav	2	21.7%	\$247
602	Efficient desalter	0	21.7%	\$248
303	EMS - Chiller	42	22.0%	\$249
508	Heating - Process Control	3	22.0%	\$256
109	Duct Insulation	70	22.4%	\$261
651	Printer Power Management Enabling	1	22.4%	\$263
191	ROB 2L4' Premium T8, 1EB - Base 2L4'T8	8	22.5%	\$263
124	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base	2	22.5%	\$264
509	Efficient Curing ovens	2	22.5%	\$270
801	RET 2L4' Premium T8, 1EB	17	22.6%	\$271
101	2011 ENERGY STAR Home	62	23.0%	\$283
214	Optimize drying process	1	23.0%	\$283
941	Energy Star Laptop Computer	1	23.0%	\$287

Energy Supply Curve				
Measure Number	Measure	Measure GWH Savings	Percent Savings	Marginal Energy Cost \$/kWH
801	RET 2L4' Premium T8, 1EB	129	13.31%	\$0.04
801	Vending Misers (cooled machines only)	58	13.38%	\$0.04
902	Membranes for wastewater	0	13.38%	\$0.04
508	Heating - Process Control	19	13.40%	\$0.04
210	Fans - Motor practices-1 (6-100 HP)	10	13.41%	\$0.04
362	Aerosol Duct Sealing - DX	97	13.51%	\$0.04
540	Reach-In Refrigerators	15	13.53%	\$0.04
916	Energy Star Hot Food Holding Cabinets	6	13.54%	\$0.04
124	Occupancy Sensor, 8L4' Fluorescent Fixture	17	13.55%	\$0.04
142	HE Room Air Conditioner - CEE Tier 1 EER	46	13.60%	\$0.04
509	Efficient Curing ovens	11	13.62%	\$0.04
408	Optimization control PM	23	13.64%	\$0.04
196	High Performance Lighting Remod/Renov -	53	13.70%	\$0.04
208	Ceiling R-0 to R-49 Insulation	5	13.70%	\$0.04
503	Low Flow Showerhead	100	13.81%	\$0.04
214	Optimize drying process	7	13.82%	\$0.04
410	Efficient Printing press (fewer cylinders)	6	13.82%	\$0.04
192	Occupancy Sensor, 8L4' Fluorescent Fixture	58	13.89%	\$0.04
185	High Performance Lighting Remod/Renov -	43	13.93%	\$0.04
182	Occupancy Sensor, 4L4' Fluorescent Fixture	50	13.99%	\$0.04
418	Extruders/injection Moulding-multipump	51	14.04%	\$0.04
193	Lighting Control Tuneup - Base 2L4'T8	3	14.05%	\$0.04
313	Pumps - Motor practices-1 (100+ HP)	24	14.07%	\$0.04
424	Process optimization	1	14.07%	\$0.04
181	Variable speed furnace fans (RET)	1,044	15.20%	\$0.05
310	Pumps - Motor practices-1 (6-100 HP)	15	15.22%	\$0.05
601	Other Process Controls (batch + site)	21	15.24%	\$0.05
110	Comp Air - Motor practices-1 (6-100 HP)	3	15.24%	\$0.05
113	Comp Air - Motor practices-1 (100+ HP)	4	15.25%	\$0.05
901	Replace V-belts	0	15.25%	\$0.05
101	High Performance Building/Int Design - Tier	688	15.99%	\$0.05
402	Variable Speed Drive Control, 5 HP	265	16.28%	\$0.05
101	2011 ENERGY STAR Home	372	16.68%	\$0.05
522	Strip curtains for walk-ins	39	16.72%	\$0.05
202	Fans - Controls	260	17.00%	\$0.05
713	Window Film - DX	22	17.03%	\$0.05
502	HE Water Heater (EF=0.93)	155	17.19%	\$0.05
201	High Performance Building/Int Design - Tier	584	17.82%	\$0.05
416	Process Drives - ASD	3	17.83%	\$0.05
183	Lighting Control Tuneup - Base 4L4'T8	2	17.83%	\$0.05
306	VSD for Chiller Pumps and Towers	56	17.89%	\$0.05
606	Power recovery	0	17.89%	\$0.05
415	Electronically Commutated Motors (ECM) or	20	17.91%	\$0.05
165	High Performance Lighting Remod/Renov -	13	17.93%	\$0.05
552	Optimization Refrigeration	80	18.01%	\$0.05
121	Infiltration Reduction	869	18.95%	\$0.05
502	Drying (UV/IR)	0	18.95%	\$0.05
107	Proper Refrigerant Charging and Air Flow	475	19.46%	\$0.05
505	Faucet Aerators	57	19.53%	\$0.05
804	Occupancy Sensor, 4L4' Fluorescent Fixture	17	19.54%	\$0.05
708	Tankless Water Heater	18	19.56%	\$0.06
414	Clean Room - New Designs	19	19.58%	\$0.06
523	Night covers for display cases	29	19.62%	\$0.06

Capacity Supply Curve				
Measure Number	Measure	Measure MW Savings	Percent Savings	Marginal Capacity Cost \$/kW
413	Clean Room - Controls	2	23.0%	\$289
181	ROB 4L4' Premium T8, 1EB - Base 4L4'T8	6	23.0%	\$294
110	Comp Air - Motor practices-1 (6-100 HP)	0	23.0%	\$305
114	Ceiling R-0 to R-38 Insulation	9	23.1%	\$318
418	Extruders/injection Moulding-multipump	7	23.1%	\$318
410	Efficient Printing press (fewer cylinders)	1	23.1%	\$321
540	Reach-In Refrigerators	2	23.1%	\$324
713	Window Film - DX	3	23.2%	\$324
405	Drives - EE motor	1	23.2%	\$324
916	Energy Star Hot Food Holding Cabinets	1	23.2%	\$328
702	High Efficiency Water Heater (electric)	1	23.2%	\$332
210	Fans - Motor practices-1 (6-100 HP)	1	23.2%	\$333
196	High Performance Lighting Remod/Renov - 25% Sav	6	23.2%	\$339
101	High Performance Building/Int Design - Tier 1 30%	95	23.8%	\$339
415	Electronically Commutated Motors (ECM) on an air h	3	23.8%	\$343
116	Ceiling R-0 to R-49 Insulation	10	23.8%	\$352
201	High Performance Building/Int Design - Tier 2 50%	83	24.3%	\$353
552	Optimization Refrigeration	12	24.4%	\$360
804	Occupancy Sensor, 4L4' Fluorescent Fixtures	3	24.4%	\$362
901	Replace V-belts	0	24.4%	\$364
642	Copier Power Management Enabling	2	24.4%	\$365
113	Comp Air - Motor practices-1 (100+ HP)	0	24.4%	\$365
155	Infiltration Reduction	9	24.5%	\$369
147	Ceiling R-0 to R-38 Insulation	1	24.5%	\$370
146	Double Pane with Glazing to Energy Star	6	24.5%	\$374
192	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base	6	24.6%	\$378
185	High Performance Lighting Remod/Renov - 25% Sav	5	24.6%	\$378
313	Pumps - Motor practices-1 (100+ HP)	3	24.6%	\$395
522	Strip curtains for walk-ins	5	24.6%	\$396
601	Other Process Controls (batch + site)	2	24.6%	\$397
182	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base	5	24.7%	\$400
424	Process optimization	0	24.7%	\$400
310	Pumps - Motor practices-1 (6-100 HP)	2	24.7%	\$401
213	Fans - Motor practices-1 (100+ HP)	1	24.7%	\$402
150	Ceiling R-0 to R-49 Insulation	1	24.7%	\$428
802	CFL Hardwired, Modular 36W	0	24.7%	\$430
202	Fans - Controls	29	24.9%	\$435
102	17 SEER Split-System Air Conditioner	281	26.5%	\$438
420	Injection Moulding - Impulse Cooling	2	26.5%	\$438
416	Process Drives - ASD	0	26.5%	\$443
112	Double Pane with Glazing to Energy Star	70	26.9%	\$449
606	Power recovery	0	26.9%	\$454
305	Chiller Tune Up/Diagnostics	6	27.0%	\$464
165	High Performance Lighting Remod/Renov - 25% Sav	1	27.0%	\$475
415	Drives - Process Controls (batch + site)	5	27.0%	\$480
414	Clean Room - New Designs	2	27.0%	\$487
408	Optimization control PM	2	27.0%	\$495
351	DX Tune Up/ Advanced Diagnostics	11	27.1%	\$498
503	Heat Pumps - Drying	0	27.1%	\$501
302	Window Film (Standard)	13	27.2%	\$512
801	Vending Misers (cooled machines only)	4	27.2%	\$519
314	Power recovery	0	27.2%	\$526
360	Optimize Controls	6	27.2%	\$531

Energy Supply Curve				
Measure Number	Measure	Measure GWH Savings	Percent Savings	Marginal Energy Cost \$/kWH
412	Variable Speed Drive Control, 15 HP	36	19.65%	\$0.06
802	CFL Hardwired, Modular 36W	2	19.66%	\$0.06
202	Double Pane with Glazing to Energy Star	39	19.70%	\$0.06
266	LEDs w/ Halogen Baseline	278	20.00%	\$0.06
415	Drives - Process Controls (batch + site)	39	20.04%	\$0.06
228	Ceiling R-0 to R-49 Insulation	21	20.06%	\$0.06
164	Occupancy Sensor, High Bay T5 - Base Std	5	20.07%	\$0.06
131	15 SEER Split-System AC Early Replaceme	299	20.39%	\$0.06
314	Power recovery	1	20.39%	\$0.06
531	Anti-sweat (humidistat) controls	32	20.43%	\$0.06
420	Injection Moulding - Impulse Cooling	12	20.44%	\$0.06
225	Ceiling R-0 to R-38 Insulation	20	20.46%	\$0.06
153	Hardwired LED fixture--Base Incandescent	235	20.72%	\$0.06
203	Fans - System Optimization	154	20.88%	\$0.06
215	Power recovery	0	20.88%	\$0.06
235	Infiltration Reduction	213	21.11%	\$0.06
143	Screw-in LED--Base Incandescent	584	21.74%	\$0.06
114	Power recovery	1	21.74%	\$0.06
211	High Pressure Sodium 250W Lamp	247	22.01%	\$0.06
632	Monitor Power Management Enabling - LCD	2	22.01%	\$0.07
161	High Bay T5 - Base Std MH	58	22.08%	\$0.07
307	Pumps - Motor practices-1 (1-5 HP)	3	22.08%	\$0.07
212	LED Outdoor Area Lighting	199	22.29%	\$0.07
142	Cold Cathode Lamps	41	22.34%	\$0.07
107	Comp Air - Motor practices-1 (1-5 HP)	2	22.34%	\$0.07
213	Fans - Motor practices-1 (100+ HP)	7	22.35%	\$0.07
207	Fans - Motor practices-1 (1-5 HP)	3	22.35%	\$0.07
217	Ductless Split Heat Pump	2	22.35%	\$0.07
503	Heat Pumps - Drying	3	22.35%	\$0.07
501	Heat Pump Water Heater (EF=2.5)	450	22.84%	\$0.07
551	Early Replacement Water Heating to Heat F	11	22.85%	\$0.08
222	Double Pane with Glazing to Energy Star	112	22.97%	\$0.08
536	Oversized Air-Cooled Condenser	48	23.03%	\$0.08
709	Solar Water Heater	53	23.08%	\$0.08
301	HE Refrigerator - Energy Star	261	23.36%	\$0.08
211	Wall Blow-in R-0 to R-13 Insulation	10	23.37%	\$0.08
106	Attic Venting	31	23.41%	\$0.08
901	Variable Speed Pool Pump (1.5 hp)	3	23.41%	\$0.08
365	DX Coil Cleaning	98	23.52%	\$0.08
311	High Efficiency Chiller Motors	23	23.54%	\$0.08
360	Optimize Controls	35	23.58%	\$0.09
311	Pumps - Replace 100+ HP motor	19	23.60%	\$0.09
413	Air Handler Optimization, 15 HP	4	23.60%	\$0.09
401	Energy Star Freezer	70	23.68%	\$0.09
145	Single Pane Windows to Double Pane with C	17	23.70%	\$0.09
111	Comp Air - Replace 100+ HP motor	4	23.70%	\$0.09
702	Window Film - Chiller	15	23.72%	\$0.09
423	Air Handler Optimization, 40 HP	5	23.72%	\$0.09
712	DX Packaged System, EER=10.9, 10 tons	46	23.77%	\$0.10
421	Injection Moulding - Direct drive	12	23.79%	\$0.10
403	Demand Controlled Ventilation	119	23.92%	\$0.10
144	Whole House Fans	7	23.92%	\$0.10
211	Fans - Replace 100+ HP motor	17	23.94%	\$0.11

Capacity Supply Curve				
Measure Number	Measure	Measure MW Savings	Percent Savings	Marginal Capacity Cost \$/kW
359	Cool Roof - DX	39	27.4%	\$540
143	Screw-in LED--Base Incandescent	69	27.8%	\$540
702	Window Film - Chiller	3	27.9%	\$541
153	Hardwired LED fixture--Base Incandescent	27	28.0%	\$546
353	DX Packaged System, EER=11.5, 10 tons	93	28.6%	\$549
215	Power recovery	0	28.6%	\$555
107	Comp Air - Motor practices-1 (1-5 HP)	0	28.6%	\$557
114	Power recovery	0	28.6%	\$560
708	Tankless Water Heater	2	28.6%	\$561
161	High Bay T5 - Base Std MH	7	28.6%	\$586
135	Continuous Dimming, 5L8' Fluorescent Fixtures - Ba	3	28.6%	\$589
142	Cold Cathode Lamps	5	28.7%	\$589
307	Pumps - Motor practices-1 (1-5 HP)	0	28.7%	\$595
301	Centrifugal Chiller, 0.51 kW/ton, 500 tons	41	28.9%	\$608
109	Comp Air - ASD (6-100 hp)	0	28.9%	\$620
209	Fans - ASD (6-100 hp)	0	28.9%	\$631
309	Pumps - ASD (6-100 hp)	1	28.9%	\$637
207	Fans - Motor practices-1 (1-5 HP)	0	28.9%	\$637
712	DX Packaged System, EER=10.9, 10 tons	7	28.9%	\$644
536	Oversized Air-Cooled Condenser	6	29.0%	\$652
401	Fan Motor, 5hp, 1800rpm, 89.5%	4	29.0%	\$666
503	Low Flow Showerhead	6	29.0%	\$669
705	Chiller Tune Up/Diagnostics	1	29.0%	\$672
104	Ceiling Fans	54	29.4%	\$680
111	Comp Air - Replace 100+ HP motor	1	29.4%	\$691
421	Injection Moulding - Direct drive	2	29.4%	\$710
143	Ceiling Fans	4	29.4%	\$729
110	AC maintenance and repair	61	29.8%	\$730
126	Lighting Control Tuneup - Base 2L4'T12	0	29.8%	\$782
311	Pumps - Replace 100+ HP motor	2	29.8%	\$785
125	Continuous Dimming, 10L4' Fluorescent Fixtures - B	4	29.8%	\$803
502	HE Water Heater (EF=0.93)	10	29.8%	\$806
307	EMS Optimization	2	29.9%	\$826
709	Solar Water Heater	5	29.9%	\$840
411	Light cylinders	0	29.9%	\$863
505	Faucet Aerators	3	29.9%	\$883
105	Continuous Dimming, 5L4' Fluorescent Fixtures - Ba	3	29.9%	\$888
521	High-efficiency fan motors	15	30.0%	\$910
357	Window Film (Standard)	74	30.4%	\$911
106	Lighting Control Tuneup	0	30.4%	\$920
211	Fans - Replace 100+ HP motor	2	30.4%	\$923
703	EMS - Chiller	4	30.5%	\$924
531	Anti-sweat (humidistat) controls	2	30.5%	\$940
422	Efficient grinding	1	30.5%	\$957
301	HE Refrigerator - Energy Star	21	30.6%	\$960
419	Direct drive Extruders	3	30.6%	\$960
361	Economizer	25	30.8%	\$967
153	Wall 2x4 R-0 to Blow-In R-13 Insulation	1	30.8%	\$980
506	Intelligent extruder (DOE)	0	30.8%	\$980
358	Prog. Thermostat - DX	15	30.9%	\$991
428	Drives - Scheduling	0	30.9%	\$993
266	LEDs w/ Halogen Baseline	16	31.0%	\$1,010
511	Heating - Scheduling	0	31.0%	\$1,021

Energy Supply Curve				
Measure Number	Measure	Measure GWH Savings	Percent Savings	Marginal Energy Cost \$/kWH
303	EMS - Chiller	99	24.05%	\$0.11
422	Efficient grinding	7	24.06%	\$0.11
521	High-efficiency fan motors	124	24.19%	\$0.11
111	Single Pane Windows to Double Pane with C	204	24.41%	\$0.11
105	Whole House Fans	147	24.57%	\$0.11
526	Compressor VSD retrofit	49	24.62%	\$0.11
401	Fan Motor, 5hp, 1800rpm, 89.5%	25	24.65%	\$0.11
411	Light cylinders	3	24.65%	\$0.11
135	Continuous Dimming, 5L8' Fluorescent Fixtu	16	24.67%	\$0.11
307	EMS Optimization	13	24.68%	\$0.11
411	Early Replacement Freezer to 2008 Energy	17	24.70%	\$0.11
231	Wall Blow-in R-0 to R-13 Insulation	27	24.73%	\$0.12
705	Chiller Tune Up/Diagnostics	4	24.73%	\$0.12
237	Ductless Split Heat Pump	113	24.86%	\$0.12
701	Demand controlled circulating systems	9	24.87%	\$0.12
305	Chiller Tune Up/Diagnostics	24	24.89%	\$0.12
417	Demand Controlled Ventilation	13	24.91%	\$0.12
156	Hardwired LED fixture--Base CFL	359	25.29%	\$0.12
206	Ceiling R-11 to R-38 Insulaton	7	25.30%	\$0.13
419	Direct drive Extruders	24	25.33%	\$0.13
422	Variable Speed Drive Control, 40 HP	25	25.36%	\$0.13
201	LED Exit Sign	19	25.38%	\$0.14
108	Duct Repair	338	25.74%	\$0.14
506	Intelligent extruder (DOE)	0	25.74%	\$0.14
704	Hot Water Pipe Insulation	1	25.74%	\$0.14
262	ROB 2L4'T8, 1EB	51	25.80%	\$0.14
102	RET 2L4' Premium T8, 1EB, Reflector, base	27	25.83%	\$0.14
103	Programmable Thermostat	32	25.86%	\$0.14
351	DX Tune Up/ Advanced Diagnostics	37	25.90%	\$0.15
528	Refrigeration Commissioning	14	25.92%	\$0.15
361	Economizer	166	26.10%	\$0.15
631	Energy Star or Better Monitor - LCD	1	26.10%	\$0.15
146	Screw-in LED--Base CFL	84	26.19%	\$0.15
424	Demand Controlled Ventilation	15	26.20%	\$0.15
212	Floor R-0 to R-19 Insulation	21	26.23%	\$0.15
132	RET 2 - 1L4' Premium T8, 1EB, Reflector O	46	26.28%	\$0.15
101	15 SEER Split-System Air Conditioner	520	26.84%	\$0.15
358	Prog. Thermostat - DX	92	26.94%	\$0.16
716	Cool Roof - DX	24	26.96%	\$0.16
703	EMS - Chiller	23	26.99%	\$0.16
308	Economizer - Chiller	2	26.99%	\$0.17
222	LED Streetlighting	184	27.19%	\$0.17
125	Continuous Dimming, 10L4' Fluorescent Fixt	17	27.21%	\$0.17
252	LEDs w/ Incandescent Baseline	769	28.04%	\$0.17
256	LEDs w/ CFL Baseline	266	28.32%	\$0.18
308	Pumps - Replace 6-100 HP motor	32	28.36%	\$0.18
122	RET 1L4' Premium T8, 1EB, Reflector OEM	17	28.38%	\$0.18
108	Comp Air - Replace 6-100 HP motor	4	28.38%	\$0.18
534	High R-Value Glass Doors	8	28.39%	\$0.18
105	Continuous Dimming, 5L4' Fluorescent Fixtu	16	28.41%	\$0.19
109	Duct Insulation	93	28.51%	\$0.20
524	Evaporator fan controller for MT walk-ins	4	28.51%	\$0.20
714	Evaporative Pre-Cooler	18	28.53%	\$0.21

Capacity Supply Curve				
Measure Number	Measure	Measure MW Savings	Percent Savings	Marginal Capacity Cost \$/kW
632	Monitor Power Management Enabling - LCD	0	31.0%	\$1,037
156	Hardwired LED fixture--Base CFL	41	31.2%	\$1,050
402	Variable Speed Drive Control, 5 HP	12	31.3%	\$1,050
716	Cool Roof - DX	4	31.3%	\$1,056
401	Energy Star Freezer	6	31.3%	\$1,067
119	Wall 2x4 R-0 to Blow-In R-13 Insulation	8	31.4%	\$1,081
308	Economizer - Chiller	0	31.4%	\$1,120
203	Fans - System Optimization	9	31.4%	\$1,133
201	LED Exit Sign	2	31.4%	\$1,158
102	RET 2L4' Premium T8, 1EB, Reflector, base 4L4'T12	3	31.5%	\$1,162
403	Demand Controlled Ventilation	11	31.5%	\$1,166
701	Demand controlled circulating systems	1	31.5%	\$1,192
501	Heat Pump Water Heater (EF=2.5)	28	31.7%	\$1,221
148	Ceiling R-11 to R-38 Insulaton	1	31.7%	\$1,224
528	Refrigeration Commissioning	2	31.7%	\$1,231
551	Early Replacement Water Heating to Heat Pump Wa	1	31.7%	\$1,239
901	Variable Speed Pool Pump (1.5 hp)	0	31.7%	\$1,252
146	Screw-in LED--Base CFL	10	31.8%	\$1,259
706	Cooling Circ. Pumps - VSD	2	31.8%	\$1,316
193	Lighting Control Tuneup - Base 2L4'T8	0	31.8%	\$1,355
704	Hot Water Pipe Insulation	0	31.8%	\$1,369
411	Early Replacement Freezer to 2008 Energy Star	1	31.8%	\$1,372
132	RET 2 - 1L4' Premium T8, 1EB, Reflector OEM - Ba	5	31.8%	\$1,378
714	Evaporative Pre-Cooler	3	31.8%	\$1,381
412	Variable Speed Drive Control, 15 HP	1	31.8%	\$1,428
417	Demand Controlled Ventilation	1	31.8%	\$1,488
534	High R-Value Glass Doors	1	31.9%	\$1,495
122	RET 1L4' Premium T8, 1EB, Reflector OEM - Base 2	2	31.9%	\$1,502
424	Demand Controlled Ventilation	1	31.9%	\$1,506
108	Comp Air - Replace 6-100 HP motor	1	31.9%	\$1,512
308	Pumps - Replace 6-100 HP motor	4	31.9%	\$1,580
183	Lighting Control Tuneup - Base 4L4'T8	0	31.9%	\$1,595
411	Fan Motor, 15hp, 1800rpm, 92.4%	0	31.9%	\$1,629
631	Energy Star or Better Monitor - LCD	0	31.9%	\$1,658
526	Compressor VSD retrofit	3	31.9%	\$1,722
423	Air Handler Optimization, 40 HP	0	31.9%	\$1,791
704	Cool Roof - Chiller	2	31.9%	\$1,849
208	Fans - Replace 6-100 HP motor	1	31.9%	\$1,909
304	Cool Roof - Chiller	5	32.0%	\$1,970
117	Ceiling R-19 to R-49 Insulation	9	32.0%	\$2,026
113	Sealed Attic w/Sprayed Foam Insulated Roof Deck	13	32.1%	\$2,073
901	Convection Oven	1	32.1%	\$2,143
151	Ceiling R-19 to R-49 Insulation	1	32.1%	\$2,170
413	Air Handler Optimization, 15 HP	0	32.1%	\$2,181
711	DX Tune Up/ Advanced Diagnostics	4	32.1%	\$2,228
535	Multiplex Compressor System	10	32.2%	\$2,237
112	Comp Air - ASD (100+ hp)	0	32.2%	\$2,261
212	Fans - ASD (100+ hp)	0	32.2%	\$2,282
118	Ceiling R-30 to R-49 Insulation	8	32.2%	\$2,375
803	Metal Halide, 50W	22	32.4%	\$2,396
211	High Pressure Sodium 250W Lamp	7	32.4%	\$2,402
105	Comp Air - Replace 1-5 HP motor	0	32.4%	\$2,428
422	Variable Speed Drive Control, 40 HP	1	32.4%	\$2,508

Energy Supply Curve				
Measure Number	Measure	Measure GWH Savings	Percent Savings	Marginal Energy Cost \$/kWH
306	Pumps - ASD (1-5 hp)	7	28.54%	\$0.21
506	2011 Energy Star Clotheswasher (MEF 2.00)	66	28.61%	\$0.21
710	High Efficiency CD (EF=3.01 w/moisture sensor)	177	28.80%	\$0.22
106	Comp Air - ASD (1-5 hp)	2	28.81%	\$0.22
706	Cooling Circ. Pumps - VSD	11	28.82%	\$0.23
962	Plug Load Controls - Smart Power Strip	81	28.90%	\$0.23
302	Window Film (Standard)	28	28.94%	\$0.23
901	Convection Oven	8	28.94%	\$0.24
114	Ceiling R-0 to R-38 Insulation	12	28.96%	\$0.24
510	Solar Water Heater	1,174	30.23%	\$0.24
411	Fan Motor, 15hp, 1800rpm, 92.4%	2	30.23%	\$0.24
208	Fans - Replace 6-100 HP motor	9	30.24%	\$0.25
207	Ceiling R-19 to R-38 Insulation	6	30.24%	\$0.25
206	Fans - ASD (1-5 hp)	3	30.25%	\$0.25
359	Cool Roof - DX	81	30.33%	\$0.26
301	Centrifugal Chiller, 0.51 kW/ton, 500 tons	96	30.44%	\$0.26
209	Ceiling R-19 to R-49 Insulation	4	30.44%	\$0.26
353	DX Packaged System, EER=11.5, 10 tons	193	30.65%	\$0.26
232	Floor R-0 to R-19 Insulation	58	30.71%	\$0.26
116	Ceiling R-0 to R-49 Insulation	13	30.73%	\$0.27
535	Multiplex Compressor System	87	30.82%	\$0.27
155	Infiltration Reduction	12	30.84%	\$0.28
147	Ceiling R-0 to R-38 Insulation	1	30.84%	\$0.28
146	Double Pane with Glazing to Energy Star	8	30.84%	\$0.28
305	Pumps - Replace 1-5 HP motor	3	30.85%	\$0.30
105	Comp Air - Replace 1-5 HP motor	1	30.85%	\$0.31
803	Metal Halide, 50W	172	31.04%	\$0.31
704	Cool Roof - Chiller	9	31.05%	\$0.32
229	Ceiling R-19 to R-49 Insulation	10	31.06%	\$0.32
150	Ceiling R-0 to R-49 Insulation	1	31.06%	\$0.32
311	Refrigerator - Early Replacement to 2008 Energy Star	85	31.15%	\$0.33
102	17 SEER Split-System Air Conditioner	371	31.55%	\$0.33
711	DX Tune Up/ Advanced Diagnostics	29	31.58%	\$0.34
112	Double Pane with Glazing to Energy Star	93	31.68%	\$0.34
204	Double Pane- Add storm windows	77	31.76%	\$0.35
194	LED Indoor Lighting - Base 2L4'T8	115	31.89%	\$0.36
226	Ceiling R-11 to R-38 Insulation	15	31.91%	\$0.36
205	Fans - Replace 1-5 HP motor	1	31.91%	\$0.36
539	Beverage Merchandisers	15	31.92%	\$0.37
230	Ceiling R-30 to R-49 Insulation	3	31.93%	\$0.39
357	Window Film (Standard)	153	32.09%	\$0.44
906	Variable Speed Pool Pump (1.5 hp)	0	32.09%	\$0.48
224	Double Pane- Add storm windows	213	32.32%	\$0.49
711	Heat Pump Dryer	963	33.36%	\$0.51
104	Ceiling Fans	72	33.44%	\$0.52
210	Ceiling R-30 to R-49 Insulation	2	33.44%	\$0.54
213	LED Outdoor Bi-level Fixtures	102	33.55%	\$0.55
221	Induction Streetlighting	86	33.64%	\$0.55
143	Ceiling Fans	5	33.65%	\$0.55
110	AC maintenance and repair	81	33.74%	\$0.55
508	Energy Star Dishwasher (EF=0.68)	16	33.75%	\$0.59
227	Ceiling R-19 to R-38 Insulation	8	33.76%	\$0.62
414	Energy Recovery Ventilation	6	33.77%	\$0.64

Capacity Supply Curve				
Measure Number	Measure	Measure MW Savings	Percent Savings	Marginal Capacity Cost \$/kW
262	ROB 2L4'T8, 1EB	3	32.4%	\$2,526
212	LED Outdoor Area Lighting	5	32.5%	\$2,539
152	Ceiling R-30 to R-49 Insulation	1	32.5%	\$2,542
506	2011 Energy Star Clotheswasher (MEF 2.00)	5	32.5%	\$2,572
312	Pumps - ASD (100+ hp)	1	32.5%	\$2,628
149	Ceiling R-19 to R-38 Insulation	1	32.5%	\$2,650
305	Pumps - Replace 1-5 HP motor	0	32.5%	\$2,694
710	High Efficiency CD (EF=3.01 w/moisture sensor)	14	32.6%	\$2,727
115	Ceiling R-11 to R-38 Insulation	10	32.7%	\$2,738
354	DX Packaged System, EER=13.4, 10 tons	207	33.9%	\$2,859
252	LEDs w/ Incandescent Baseline	43	34.1%	\$3,044
194	LED Indoor Lighting - Base 2L4'T8	13	34.2%	\$3,094
256	LEDs w/ CFL Baseline	15	34.3%	\$3,140
205	Fans - Replace 1-5 HP motor	0	34.3%	\$3,161
539	Beverage Merchandisers	2	34.3%	\$3,173
222	LED Streetlighting	9	34.3%	\$3,268
962	Plug Load Controls - Smart Power Strip	5	34.4%	\$3,448
311	Refrigerator - Early Replacement to 2008 Energy Star	7	34.4%	\$3,973
510	Solar Water Heater	66	34.8%	\$4,317
414	Energy Recovery Ventilation	1	34.8%	\$4,411
164	Occupancy Sensor, High Bay T5 - Base Std MH	0	34.8%	\$4,581
352	DX Packaged System, EER=10.9, 10 tons	106	35.4%	\$4,782
711	Heat Pump Dryer	76	35.9%	\$6,387
508	Energy Star Dishwasher (EF=0.68)	1	35.9%	\$6,598
309	Duct/Pipe Insulation - Chiller	1	35.9%	\$6,655
906	Variable Speed Pool Pump (1.5 hp)	0	35.9%	\$7,165
421	Fan Motor, 40hp, 1800rpm, 94.1%	0	35.9%	\$7,439
302	HE Refrigerator - CEE tier 2	8	35.9%	\$8,648
601	Energy Star Clotheswasher (MEF 2.00)	5	36.0%	\$8,662
509	CEE Tier 2 DW (EF=0.72)	2	36.0%	\$9,309
541	Reach-In Freezers	1	36.0%	\$9,344
184	LED Indoor Lighting - Base 4L4'T8	7	36.0%	\$9,524
221	Induction Streetlighting	4	36.0%	\$10,680
507	Tier 3 CW (MEF=2.20)	3	36.0%	\$12,247
912	TV Occupancy Sensor Power Strip	1	36.1%	\$14,728
364	Duct/Pipe Insulation - DX	15	36.1%	\$15,117
602	Tier 3 CW (MEF=2.20)	4	36.2%	\$15,395
106	Comp Air - ASD (1-5 hp)	0	36.2%	\$17,001
306	Pumps - ASD (1-5 hp)	0	36.2%	\$18,849
213	LED Outdoor Bi-level Fixtures	3	36.2%	\$20,101
501	Energy Star Refrigerator	1	36.2%	\$20,963
206	Fans - ASD (1-5 hp)	0	36.2%	\$22,139
502	HE Refrigerator - CEE Tier 2 (side by side freezer)	2	36.2%	\$22,955
261	RET 2L4'T8, 1EB	2	36.2%	\$24,837
152	Ceramic Metal Halide	0	36.2%	\$31,950
922	TV Occupancy Sensor Power Strip	1	36.2%	\$39,218
932	TV Occupancy Sensor Power Strip	1	36.2%	\$122,078
201	Single Pane Windows to Double Pane with Gas	0	36.2%	N/A
202	Double Pane with Glazing to Energy Star	0	36.2%	N/A
203	Single Pane- Add storm windows	0	36.2%	N/A
204	Double Pane- Add storm windows	0	36.2%	N/A
205	Ceiling R-0 to R-38 Insulation	0	36.2%	N/A
206	Ceiling R-11 to R-38 Insulation	0	36.2%	N/A

Energy Supply Curve				
Measure Number	Measure	Measure GWH Savings	Percent Savings	Marginal Energy Cost \$/kWH
302	HE Refrigerator - CEE tier 2	92	33.87%	\$0.71
601	Energy Star Clotheswasher (MEF 2.00)	58	33.93%	\$0.72
153	Wall 2x4 R-0 to Blow-In R-13 Insulation	1	33.93%	\$0.74
119	Wall 2x4 R-0 to Blow-In R-13 Insulation	11	33.94%	\$0.82
304	Cool Roof - Chiller	11	33.95%	\$0.83
509	CEE Tier 2 DW (EF=0.72)	19	33.98%	\$0.83
115	Ceiling R-11 to R-38 Insulaton	33	34.01%	\$0.86
148	Ceiling R-11 to R-38 Insulaton	1	34.01%	\$0.93
203	Single Pane- Add storm windows	18	34.03%	\$1.00
507	Tier 3 CW (MEF=2.20)	36	34.07%	\$1.02
541	Reach-In Freezers	6	34.08%	\$1.08
184	LED Indoor Lighting - Base 4L4'T8	57	34.14%	\$1.09
912	TV Occupancy Sensor Power Strip	16	34.15%	\$1.14
602	Tier 3 CW (MEF=2.20)	48	34.21%	\$1.28
354	DX Packaged System, EER=13.4, 10 tons	431	34.67%	\$1.37
421	Fan Motor, 40hp, 1800rpm, 94.1%	2	34.67%	\$1.38
261	RET 2L4'T8, 1EB	39	34.72%	\$1.39
223	Single Pane- Add storm windows	48	34.77%	\$1.42
117	Ceiling R-19 to R-49 Insulation	12	34.78%	\$1.54
113	Sealed Attic w/Sprayed Foam Insulated Roc	17	34.80%	\$1.57
151	Ceiling R-19 to R-49 Insulation	1	34.80%	\$1.65
118	Ceiling R-30 to R-49 Insulation	10	34.81%	\$1.80
152	Ceiling R-30 to R-49 Insulation	1	34.81%	\$1.93
149	Ceiling R-19 to R-38 Insulation	1	34.81%	\$2.01
352	DX Packaged System, EER=10.9, 10 tons	220	35.05%	\$2.29
501	Energy Star Refrigerator	6	35.06%	\$2.30
502	HE Refrigerator - CEE Tier 2 (side by side fi	21	35.08%	\$2.47
922	TV Occupancy Sensor Power Strip	10	35.09%	\$3.04
309	Duct/Pipe Insulation - Chiller	1	35.09%	\$3.45
152	Ceramic Metal Halide	3	35.10%	\$3.68
364	Duct/Pipe Insulation - DX	31	35.13%	\$7.17
932	TV Occupancy Sensor Power Strip	10	35.14%	\$9.46

Capacity Supply Curve				
Measure Number	Measure	Measure MW Savings	Percent Savings	Marginal Capacity Cost \$/kW
207	Ceiling R-19 to R-38 Insulation	0	36.2%	N/A
208	Ceiling R-0 to R-49 Insulation	0	36.2%	N/A
209	Ceiling R-19 to R-49 Insulation	0	36.2%	N/A
210	Ceiling R-30 to R-49 Insulation	0	36.2%	N/A
211	Wall Blow-in R-0 to R-13 Insulation	0	36.2%	N/A
212	Floor R-0 to R-19 Insulation	0	36.2%	N/A
213	Basement Insulation	0	36.2%	N/A
214	Programmable Thermostat	0	36.2%	N/A
215	Infiltration Reduction	0	36.2%	N/A
216	Self Install Weatherization	0	36.2%	N/A
217	Ductless Split Heat Pump	0	36.2%	N/A
221	Single Pane Windows to Double Pane with Gas	0	36.2%	N/A
222	Double Pane with Glazing to Energy Star	0	36.2%	N/A
223	Single Pane- Add storm windows	0	36.2%	N/A
224	Double Pane- Add storm windows	0	36.2%	N/A
225	Ceiling R-0 to R-38 Insulation	0	36.2%	N/A
226	Ceiling R-11 to R-38 Insulaton	0	36.2%	N/A
227	Ceiling R-19 to R-38 Insulation	0	36.2%	N/A
228	Ceiling R-0 to R-49 Insulation	0	36.2%	N/A
229	Ceiling R-19 to R-49 Insulation	0	36.2%	N/A
230	Ceiling R-30 to R-49 Insulation	0	36.2%	N/A
231	Wall Blow-in R-0 to R-13 Insulation	0	36.2%	N/A
232	Floor R-0 to R-19 Insulation	0	36.2%	N/A
233	Basement Insulation	0	36.2%	N/A
234	Programmable Thermostat	0	36.2%	N/A
235	Infiltration Reduction	0	36.2%	N/A
236	Self Install Weatherization	0	36.2%	N/A
237	Ductless Split Heat Pump	0	36.2%	N/A
214	Outdoor Lighting Controls (Photocell/Timeclock)	0	36.2%	N/A
523	Night covers for display cases	0	36.2%	N/A
524	Evaporator fan controller for MT walk-ins	0	36.2%	N/A
527	Floating head pressure controls	0	36.2%	N/A

Energy Supply Curve

Measure Number	Measure	Measure Dth Savings	Cum Percent Savings	Marginal Energy Cost \$/Thm
102	Maintain boilers	280,672	0.11%	\$0.01
401	Commercial Clotheswasher (MEF = 2.0)	52,008	0.13%	\$0.02
107	Load control	550,116	0.35%	\$0.05
232	Hot water temperature reset	43,486	0.36%	\$0.05
220	Self Install Weatherization	13,404	0.37%	\$0.06
101	Improved process control	233,689	0.46%	\$0.07
502	Demand controlled circulating systems	148,804	0.52%	\$0.07
231	Radiant heater	647,962	0.78%	\$0.08
402	Demand controlled circulating systems	285,951	0.89%	\$0.08
121	Self Install Weatherization	793,323	1.20%	\$0.10
318	Self Install Weatherization	19,581	1.21%	\$0.10
110	Automatic steam trap monitoring	324,228	1.34%	\$0.11
515	Preventative maintenance	83,139	1.37%	\$0.12
230	Condensing unit heaters	544,070	1.58%	\$0.12
108	Improved insulation	1,011,590	1.98%	\$0.14
403	Tankless Water Heater	3,173,787	3.23%	\$0.14
112	Condensate return	23,267	3.24%	\$0.17
411	Pipe Wrap	535,676	3.45%	\$0.18
226	Single Pane to Double Pane with Gas	96,859	3.49%	\$0.19
510	Flare gas controls and recovery	111,936	3.54%	\$0.19
212	ENERGY STAR Programmable Thermostat	28,006	3.55%	\$0.20
511	Fouling control	183,773	3.62%	\$0.20
204	Duct insulation	11,203	3.62%	\$0.20
503	Efficient burners	825,675	3.95%	\$0.20
106	Water treatment	116,100	3.99%	\$0.20
501	Process Controls & Management	870,724	4.34%	\$0.22
316	Radiant Barrier	83,565	4.37%	\$0.23
202	Install high efficiency (95%) condensing furnace/boiler	100,527	4.41%	\$0.23
503	Condensing Water Heater (gas, 95% thermal efficiency)	1,034,477	4.82%	\$0.24
514	Batch cullet preheating	43,562	4.83%	\$0.25
206	EMS optimization	5,434	4.84%	\$0.25
113	Thermally activated heat pump/chiller	1,151,671	5.29%	\$0.25
516	Combustion controls	52,507	5.31%	\$0.25
409	Faucet Aerators	1,409,197	5.87%	\$0.26
229	Stack Heat Exchanger	286,447	5.98%	\$0.26
517	Optimize furnace operations	40,140	6.00%	\$0.26
512	Efficient furnaces	57,278	6.02%	\$0.27
508	Improved separation processes	119,703	6.07%	\$0.28
126	Single Pane to Double Pane with Gas	6,488,823	8.62%	\$0.29
105	Upgrade burner efficiency	51,711	8.64%	\$0.30
111	Leak repair	49,395	8.66%	\$0.31
509	Thermal oxidizers	144,882	8.72%	\$0.31
314	Heater Diagnostic Testing, Repair and Maintenance	47,212	8.74%	\$0.32
323	Single Pane to Double Pane with Gas	148,942	8.80%	\$0.32
113	ENERGY STAR Programmable Thermostat	1,671,433	9.45%	\$0.33
103	Flue gas heat recovery/economizer	102,411	9.49%	\$0.35
201	Basement insulation R-13 (Boiler)	30,853	9.51%	\$0.35
513	Oxyfuel	129,685	9.56%	\$0.36
210	Comprehensive Shell Air Sealing - Inf. Reduction	46,954	9.58%	\$0.37
501	Efficient Clothes Dryer (EF = 2.67)	21,907	9.59%	\$0.37
204	Ceiling R-0 to R-38 Insulation	3,658	9.59%	\$0.37
205	EMS install	54,259	9.61%	\$0.37
216	Clock / Programmable Thermostat	3,636,536	11.04%	\$0.37
310	ENERGY STAR Programmable Thermostat	18,587	11.05%	\$0.38
109	Steam trap maintenance	633,671	11.30%	\$0.39
203	Insulation (wall)	789,250	11.61%	\$0.39
408	Energy Star Water Heater (EF = .67)	2,518,296	12.60%	\$0.39
203	Boiler Diagnostic Testing, Repair and Maintenance	31,377	12.61%	\$0.40

Energy Supply Curve

Measure Number	Measure	Measure Dth Savings	Cum Percent Savings	Marginal Energy Cost \$/Thm
201	Improve ceiling insulation	130,050	12.66%	\$0.42
212	Boiler Tune-Up	31,940	12.68%	\$0.42
205	Ceiling R-0 to R-49 Insulation	3,838	12.68%	\$0.43
315	High efficiency gas room heater	271,143	12.79%	\$0.44
203	Stack heat exchanger	1,716	12.79%	\$0.44
101	ENERGY STAR Home	3,333,059	14.10%	\$0.48
801	Conservation- Opower	998,685	14.49%	\$0.50
505	Efficient drying	74,797	14.52%	\$0.50
104	Blowdown steam heat recovery	50,662	14.54%	\$0.51
202	Boiler controls	99,820	14.58%	\$0.57
202	Insulation (ceiling)	923,675	14.95%	\$0.58
507	Extended nip press	79,216	14.98%	\$0.61
207	Ceiling R-11 to R-49 Insulation	7,879	14.98%	\$0.61
501	Hot Water Pipe Insulation	1,219	14.98%	\$0.62
101	Basement insulation R-13 (Furnace)	2,316,605	15.89%	\$0.62
108	Comprehensive Shell Air Sealing - Inf. Reduction	2,092,088	16.72%	\$0.63
102	Ceiling R-0 to R-38 Insulation	211,997	16.80%	\$0.65
221	Slab insulation R-0 to R-5 (4 ft)	3,918	16.80%	\$0.67
118	Furnace Diagnostic Testing, Repair and Maintenance	1,874,496	17.54%	\$0.68
403	Drain Water Heat Recovery (GFX)	903,724	17.90%	\$0.70
103	Ceiling R-0 to R-49 Insulation	222,744	17.98%	\$0.75
228	High Efficiency (Power Burner/ Premium) Boiler 95% effici	2,862,806	19.11%	\$0.75
101	Energy Star Fryer	664,621	19.37%	\$0.79
211	Crawlspace insulation	18,676	19.38%	\$0.80
101	High Performance Building/Int Design - Tier 1 30%	1,499,198	19.97%	\$0.80
401	Hot Water Pipe Insulation	2,789	19.97%	\$0.80
502	Heat Recovery	251,001	20.07%	\$0.80
201	High Performance Building/Int Design - Tier 2 50%	1,248,753	20.56%	\$0.81
301	Basement insulation R-13 (Room Heater)	35,128	20.58%	\$0.81
504	Process integration	612,159	20.82%	\$0.84
302	Ceiling R-0 to R-38 Insulation	4,157	20.82%	\$0.85
308	Comprehensive Shell Air Sealing - Inf. Reduction	50,732	20.84%	\$0.88
219	Radiant Barrier	9,976	20.85%	\$0.89
112	Duct Repair and Sealing	5,176,237	22.88%	\$0.95
234	Refrigeration heat recovery - space conditioning	22,584	22.89%	\$0.96
518	Insulation/reduce heat losses	5,156	22.90%	\$0.98
303	Ceiling R-0 to R-49 Insulation	4,333	22.90%	\$0.98
216	High Efficiency Condensing Boiler (AFUE = 90%)	80,277	22.93%	\$1.01
506	Closed hood	22,956	22.94%	\$1.10
201	High Efficiency Windows (Multiple Glazed, Low Emissivity)	553,978	23.16%	\$1.10
233	Demand controlled ventilation (DCV)	2,095,137	23.98%	\$1.14
410	Low-Flow Showerheads	409,058	24.14%	\$1.14
227	Windows - Double-Glazed to Energy Star	35,672	24.16%	\$1.17
235	Retrocommissioning	283,262	24.27%	\$1.17
109	Condensing Furnace - 94 AFUE (Tier 2)	6,047,049	26.65%	\$1.19
601	Convection Oven	901,939	27.01%	\$1.28
105	Ceiling R-11 to R-49 Insulation	368,765	27.15%	\$1.33
305	Ceiling R-11 to R-49 Insulation	8,850	27.16%	\$1.42
413	0.82 EF Tankless Hot Water Heater Energy Star Standarc	3,166,059	28.40%	\$1.45
319	Slab insulation R-0 to R-5 (4 ft)	4,714	28.40%	\$1.45
301	Near Zero Energy (60-75%)	6,909	28.41%	\$1.52
223	Wall 2x4 R-0 to Blow-In R-13 Insulation	3,652	28.41%	\$1.65
122	Slab insulation R-0 to R-5 (4 ft)	160,867	28.47%	\$1.66
206	Ceiling R-11 to R-38 Insulaton	3,747	28.47%	\$1.69
309	Crawlspace insulation	21,681	28.48%	\$1.78
110	Crawlspace insulation	813,577	28.80%	\$1.86
111	Energy Star Steamer	318,202	28.93%	\$1.97
219	EMS Optimization	190,148	29.00%	\$2.06

Energy Supply Curve

Measure Number	Measure	Measure Dth Savings	Cum Percent Savings	Marginal Energy Cost \$/Thm
207	Duct Insulation	74,409	29.03%	\$2.10
120	Radiant Barrier	431,928	29.20%	\$2.10
324	Windows - Double-Glazed to Energy Star	46,476	29.22%	\$2.33
127	Windows - Double-Glazed to Energy Star	1,801,686	29.93%	\$2.36
209	Insulation of Pipes	37,636	29.95%	\$2.54
217	Pipe Insulation (Boiler)	10,506	29.95%	\$2.69
222	Stack Damper	22,044	29.96%	\$2.78
227	High Efficiency (Power Burner/ Premium) Furnace 95% eff	492,926	30.15%	\$2.94
123	Wall 2x4 R-0 to Blow-In R-13 Insulation	204,271	30.23%	\$2.98
602	EE Gas Range	183,304	30.31%	\$3.08
104	Ceiling R-11 to R-38 Insulation	204,751	30.39%	\$3.14
320	Wall 2x4 R-0 to Blow-In R-13 Insulation	4,866	30.39%	\$3.20
141	High-Efficiency Range	183,693	30.46%	\$3.20
304	Ceiling R-11 to R-38 Insulation	5,039	30.46%	\$3.27
209	Ceiling R-19 to R-49 Insulation	4,228	30.46%	\$3.39
213	Floor R-0 to R-19 Insulation-Batts	1,418	30.46%	\$3.43
214	Floor R-0 to R-30 Insulation-Batts	1,683	30.47%	\$3.88
218	Installation of Energy Management Systems (EMS)	1,619,469	31.10%	\$4.00
208	Ceiling R-19 to R-38 Insulation	2,708	31.10%	\$4.00
404	2011 Energy Star Clotheswasher (MEF 2.00)	396,508	31.26%	\$4.06
206	Duct Repair and Sealing	8,502	31.26%	\$4.23
406	Energy Star Dishwasher (EF=0.68)	236,748	31.36%	\$4.47
402	Condensing Gas Storage water heater (>0.8 EF)	902,892	31.71%	\$4.70
221	Heat Recovery from AC	684,079	31.98%	\$5.30
114	Floor R-0 to R-19 Insulation-Batts	88,981	32.02%	\$5.55
107	Ceiling R-19 to R-49 Insulation	258,884	32.12%	\$5.62
412	Solar Water Heater	6,793,546	34.80%	\$5.65
311	Floor R-0 to R-19 Insulation-Batts	2,224	34.80%	\$5.68
222	Installation of Air Side Heat Recovery Systems	906,010	35.15%	\$5.70
307	Ceiling R-19 to R-49 Insulation	6,455	35.16%	\$5.77
115	Floor R-0 to R-30 Insulation-Batts	106,444	35.20%	\$6.23
312	Floor R-0 to R-30 Insulation-Batts	2,657	35.20%	\$6.38
106	Ceiling R-19 to R-38 Insulation	164,853	35.26%	\$6.67
306	Ceiling R-19 to R-38 Insulation	4,135	35.27%	\$6.80
131	High-Efficiency Griddle	34,542	35.28%	\$7.38
218	Plastic Film (1-2 yr measure, window kit)	8,160	35.28%	\$8.76
407	CEE Tier 2 DW (EF=0.72)	191,320	35.36%	\$10.32
405	Energy Star CW CEE Tier 3 (MEF=2.20)	380,487	35.51%	\$11.81
119	Plastic Film (1-2 yr measure, window kit)	508,895	35.71%	\$14.24
225	Windows - Add Storm Windows to Single-Glazed	32,473	35.72%	\$15.74
215	Floor R-19 to R-30 Insulation-Batts	10	35.72%	\$17.34
121	High-Efficiency Convection Oven	57,326	35.74%	\$22.18
116	Floor R-19 to R-30 Insulation-Batts	728	35.74%	\$24.10
125	Windows - Add Storm Windows to Single-Glazed	2,041,849	36.55%	\$25.39
322	Windows - Add Storm Windows to Single-Glazed	50,047	36.57%	\$26.49
313	Floor R-19 to R-30 Insulation-Batts	15	36.57%	\$29.72
224	Windows - Add Storm Windows to Double-Glazed	7,635	36.57%	\$43.72
124	Windows - Add Storm Windows to Double-Glazed	476,676	36.76%	\$71.05
321	Windows - Add Storm Windows to Double-Glazed	11,905	36.76%	\$72.74
317	Plastic Film (1-2 yr measure, window kit)	2,622	36.77%	\$84.16
111	Duct insulation	636,215	37.02%	\$94.01