



Appendix E

Measure Input Data

DSM TECHNOLOGY INPUT TABLES

UTILITY:	Missouri	BATCH:	1
SECTOR:	COM	ANALYSIS:	Basic
SEGMENT:	All Electric	VINTAGE:	E

BASE TECHNOLOGY EUIs
(kWh/square foot)

Segment	Measure #	Measure Description	Office	Restaurant	Retail	Grocery	Warehousing	School	College	Health Care	Hotel/Motel	Miscellaneous
1	100	Base Fluorescent Fixture, 4L4'T12, 34W, 2EEMAG	2.9	2.3	3.5	8.3	2.9	4.6	4.2	3.6	2.1	1.1
1	120	Base Fluorescent Fixture, 2L4'T12, 34W, 1EEMAG	2.8	2.0	3.4	8.2	3.5	4.9	4.2	3.1	2.0	0.8
1	130	Base Fluorescent Fixture, 2L8'T12, 60W, 1EEMAG	2.8	2.0	3.4	8.2	3.5	4.9	4.2	3.1	2.0	0.8
1	140	Base Incandescent Flood, 75W to Screw-in CFL	11.2	8.1	13.4	32.6	14.1	19.6	16.6	12.2	8.0	3.3
1	145	Base screw-in CFL to screw-in LED	3.1	2.2	3.7	8.9	3.9	5.4	4.5	3.3	2.2	0.9
1	150	Base Incandescent Flood, 75W to Hardwired CFL	11.2	8.1	13.4	32.6	14.1	19.6	16.6	12.2	8.0	3.3
1	155	Base CFL to LED Hardwired	3.1	2.2	3.7	8.9	3.9	5.4	4.5	3.3	2.2	0.9
1	160	Base High Bay Metal Halide, 400W	2.1	1.5	2.5	6.1	2.7	3.7	3.1	2.3	1.5	0.6
1	180	Base 4L4'T8, 1EB	1.9	1.4	2.2	5.5	2.4	3.3	2.8	2.0	1.3	0.6
1	190	Base 2L4'T8, 1EB	1.9	1.4	2.2	5.5	2.4	3.3	2.8	2.0	1.3	0.6
1	200	Base Exit Sign (13 w)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	210	Base Mercury Vapor 400W Lamp Outdoor	1.1	2.9	1.0	1.7	0.4	0.8	0.2	0.3	0.5	0.6
1	220	Base Street Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
1	300	Base Centrifugal Chiller, 0.58 kW/ton, 500 tons	2.9	5.3	2.3	5.9	2.5	1.5	2.1	3.1	0.9	1.1
1	350	Base DX Packaged System, EER=10.3, 10 tons	4.9	9.1	4.0	10.2	4.3	2.5	3.6	5.3	1.6	1.9
1	400	Base Fan Motor, 5hp, 1800rpm, 87.5%	1.1	3.1	0.9	7.8	0.7	0.8	0.6	3.9	0.7	0.4
1	410	Base Fan Motor, 15hp, 1800rpm, 91.0%	1.0	2.9	0.8	7.2	0.6	0.7	0.5	3.6	0.7	0.4
1	420	Base Fan Motor, 40hp, 1800rpm, 93.0%	1.0	2.8	0.8	7.1	0.6	0.7	0.5	3.5	0.7	0.4
1	500	Base Non-Commercial Refrigerator	0.1	0.3	0.1	0.0	0.0	0.2	0.0	0.1	0.2	0.0
1	520	Base Refrigeration System	0.1	10.3	0.3	26.4	1.3	0.4	0.5	0.3	0.4	0.2
1	610	Base Desktop PC	1.3	0.1	0.3	0.2	0.1	0.3	0.1	0.4	0.1	0.5
1	620	Base Monitor, 17" CRT	1.1	0.1	0.3	0.2	0.1	0.3	0.1	0.3	0.0	0.4
1	630	Base Monitor, 17" LCD	0.3	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.1
1	640	Base Copier	0.4	0.1	0.2	0.3	0.0	0.1	0.0	0.2	0.0	0.3
1	650	Base Laser Printer	0.8	0.2	0.4	0.2	0.1	0.2	0.0	0.4	0.1	0.4
1	660	Base Data Center/Server Room	236.0	265.8	282.2	407.5	25.9	94.6	75.2	118.3	194.9	116.2
1	700	Base Water Heating	0.5	5.8	0.8	5.5	0.4	0.4	0.4	1.3	3.2	0.5
1	800	Base Vending Machines	0.2	0.2	0.1	0.4	0.2	0.4	0.4	0.1	0.2	0.1
1	900	Base Convection Oven	0.0	0.7	0.2	1.3	0.0	0.0	0.0	0.0	0.0	0.1
1	905	Base Fryer	0.1	19.2	0.0	11.2	0.0	0.0	0.0	0.0	0.0	0.5
1	910	Base Steamer	0.1	6.6	0.0	4.3	0.0	0.0	0.0	0.4	0.0	0.3
1	915	Base Hot Food Holding Cabinets	0.0	1.1	0.6	1.5	0.0	0.0	0.0	0.1	0.1	0.1
1	940	Base Heating	5.5	6.4	4.3	9.5	1.0	6.4	6.4	7.0	2.4	2.3
1	970	Base Miscellaneous	4.1	4.5	2.4	5.0	0.6	0.4	0.4	8.9	2.9	2.2

MEASURE COSTS

MEASURE COSTS			NPV of L fetime										Full 1 1										Implementa									
Segment	Measure #	Measure Description	Savings Units	Cost Units	Equipment Cost	Unit Labor Cost	O & M Cost	Cost Factor	Cost Units		Initial Cost	Replace Cost	Full Unit Cost	Relative Energy Reduction Factors						End Use	Type 1	1 time	2 ROB									
									Unit	Life				SON	SOFF	WON	WOFF	N/A	N/A													
1	100	Base Fluorescent Fixture, 4L4T12, 34W, 2EEMAG	fixture		\$27.00		\$23.32	\$0.00	\$50.32	1	9	1	1	\$50.32	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	101	RET 4L4' Premium T8, 1EB, base 4L4T12	fixture		\$35.00	\$23.32		\$0.00	\$58.32	1	14	1	0	\$58.32	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	102	RET 2L4' Premium T8, 1EB, Reflector, base 4L4T12	fixture		\$46.74	\$22.09		\$0.00	\$68.83	1	14	1	0	\$68.83	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	103	LED Indoor Lighting - Base 4L4T12	fixture		\$180.00	\$23.32		(\$11.44)	\$191.88	1	100,000	1	0	\$191.88	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	104	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 4L4T12	sq ft		\$0.14			\$0.00	\$0.14	1	9	1	1	\$0.14	1.00	1.00	0.50	1.00	1.00	1.00	1	1	1									
1	105	Continuous Dimming, 5L4' Fluorescent Fixtures - Base 4L4T12	sq ft		\$0.75			\$0.00	\$0.75	1	10	1	1	\$0.75	1.00	0.50	1.00	1.00	1.00	1.00	1	1	1									
1	106	Lighting Control Tuneup	sqft				\$0.01		\$0.01	1	6	1	1	\$0.01	0.25	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	107	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4T12	sqft		\$0.20			\$0.20	\$0.20	1	20	1	1	\$0.20	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	120	Base Fluorescent Fixture, 2L4T12, 34W, 1EEMAG	fixture		\$16.19	\$23.32		\$0.00	\$39.51	1	9	1	1	\$39.51	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	121	RET 2L4' Premium T8, 1EB -- base 2L4T12	fixture		\$25.74	\$23.32		\$0.00	\$49.06	1	14	1	0	\$49.06	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	122	RET 1L4' Premium T8, 1EB, Reflector OEM - Base 2L4T12	fixture		\$44.09	\$22.09		\$0.00	\$66.18	1	14	1	0	\$66.18	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	123	LED Indoor Lighting - Base 2L4T12	fixture		\$90.00	\$23.32		(\$11.44)	\$101.88	1	100,000	1	0	\$101.88	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	124	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4T12	sq ft		\$0.14			\$0.00	\$0.14	1	8	1	1	\$0.14	1.00	1.00	0.50	1.00	1.00	1.00	1	1	1									
1	125	Continuous Dimming, 10L4' Fluorescent Fixtures - Base 2L4T12	sqft		\$0.75			\$0.00	\$0.75	1	10	1	1	\$0.75	1.00	0.50	1.00	1.00	1.00	1.00	1	1	1									
1	126	Lighting Control Tuneup - Base 2L4T12	sqft				\$0.01		\$0.01	1	6	1	1	\$0.01	0.25	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	127	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4T12	sqft		\$0.20			\$0.20	\$0.20	1	20	1	1	\$0.20	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	130	Base Fluorescent Fixture, 2L8T12, 60W, 1EEMAG	fixture		\$36.00	\$17.00		\$0.00	\$53.00	1	9	1	1	\$53.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	131	RET 2 - 2L4' Premium T8, 1EB - Base 2L8T12	fixture		\$51.48	\$46.64		\$0.00	\$98.12	1	14	1	0	\$98.12	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	132	RET 2 - 1L4' Premium T8, 1EB, Reflector OEM - Base 2L8T12	fixture		\$88.18	\$44.64		\$0.00	\$132.36	1	14	1	0	\$132.36	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	133	LED Indoor Lighting - Base 2L8T12	fixture		\$180.00	\$46.64		(\$8.34)	\$218.30	1	100,000	1	0	\$218.30	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	134	Occupancy Sensor, 4L8' Fluorescent Fixtures - Base 2L8T12	sq ft		\$0.14			\$0.00	\$0.14	1	9	1	1	\$0.14	1.00	1.00	0.50	1.00	1.00	1.00	1	1	1									
1	135	Continuous Dimming, 5L8' Fluorescent Fixtures - Base 2L8T12	sq ft		\$0.75			\$0.00	\$0.75	1	10	1	1	\$0.75	1.00	0.50	1.00	1.00	1.00	1.00	1	1	1									
1	136	High Performance Lighting Remod/Renov - 25% Savings - Base 2L8T12	sqft		\$0.20			\$0.20	\$0.20	1	20	1	1	\$0.20	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	140	Base Incandescent Flood, 75W to Screw-in Replacement	fixture		\$0.68	\$4.91		\$0.00	\$5.59	1	1.25	1	1	\$5.59	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	141	CFL Screw-in 18W	fixture		\$7.97	\$4.91		\$0.00	\$12.88	1	5	0	0	\$12.88	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	142	Cold Cathode Lamps	fixture		\$22.00	\$4.91		\$0.00	\$26.91	1	25,000	0	0	\$26.91	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	143	Screw-in LED--Base Incandescent	fixture		\$75.00	\$4.91		\$0.00	\$79.91	1	100,000	0	0	\$79.91	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	145	Base CFL to screw-in replacement	fixture		\$7.97	\$4.91		\$0.00	\$12.88	1	5	1	1	\$12.88	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	146	Screw-in LED--Base CFL	fixture		\$75.00	\$4.91		\$0.00	\$79.91	1	100,000	0	0	\$79.91	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	150	Base Incandescent Flood, 75W to Hardwired CFL	fixture		\$0.61	\$3.77		\$0.00	\$4.38	1	1.40	1	1	\$4.38	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	151	CFL Hardwired, Modular 18W	fixture		\$19.00	\$27.00		\$0.00	\$46.00	1	14	1	1	\$46.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	152	Ceramic Metal Halide	fixture		\$90.00	\$27.00		\$0.00	\$117.00	1	10,000	1	1	\$117.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	153	Hardwired LED fixture--Base Incandescent	fixture		\$94.61	\$30.77		(\$32.62)	\$92.76	1	100,000	0	0	\$92.76	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	155	Base CFL to Hardwired replacement	fixture		\$19.61	\$30.77		\$0.00	\$50.38	1	14	1	1	\$50.38	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	156	Hardwired LED fixture--Base CFL	fixture		\$94.61	\$30.77		(\$5.89)	\$119.49	1	100,000	0	0	\$119.49	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	160	Base High Bay Probe-start Metal Halide, 400W	fixture		\$200.00	\$60.00		\$0.00	\$260.00	1	14	1	1	\$260.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	161	High Bay T5 - Base Std MH	fixture		\$290.00	\$60.00		\$0.00	\$350.00	1	14	0	0	\$350.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	162	PSMH + electronic ballast	fixture		\$413.60	\$60.00		\$0.00	\$473.60	1	45,000	0	0	\$473.60	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	163	Induction High Bay Lighting - Base Std MH	fixture		\$480.00	\$60.00		\$0.00	\$540.00	1	100,000	0	0	\$540.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	164	Occupancy Sensor, High Bay T5 - Base Std MH	sq ft		\$0.14			\$0.00	\$0.14	1	40,000	1	1	\$0.14	0.10	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	165	High Performance Lighting Remod/Renov - 25% Savings - Base High Bay PSMH	sqft		\$0.20			\$0.20	\$0.20	1	20	1	1	\$0.20	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	180	Base 4L4T8, 1EB	fixture		\$0.00	\$0.00		\$0.00	\$0.00	1	14	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	181	ROB 4L4' Premium T8, 1EB - Base 4L4T8	fixture		\$7.00	\$0.00		\$0.00	\$7.00	1	14	1	1	\$7.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	182	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4T8	sq ft		\$0.14			\$0.00	\$0.14	1	9	1	1	\$0.14	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	183	Lighting Control Tuneup - Base 4L4T8	sqft			\$0.01		\$0.01	\$0.01	1	6	1	1	\$0.01	0.25	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	184	LED Indoor Lighting - Base 4L4T8	fixture		\$180.00	\$23.32		(\$11.44)	\$191.88	1	100,000	1	0	\$191.88	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	185	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4T8	sqft		\$0.20			\$0.20	\$0.20	1	20	1	1	\$0.20	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	190	Base 2L4T8, 1EB	fixture		\$0.00	\$0.00		\$0.00	\$0.00	1	14	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	191	ROB 2L4' Premium T8, 1EB - Base 2L4T8	fixture		\$5.00	\$0.00		\$0.00	\$5.00	1	14	1	1	\$5.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	2									
1	192	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4T8	sq ft		\$0.14			\$0.00	\$0.14	1	9	1	1	\$0.14	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	193	Lighting Control Tuneup - Base 2L4T8	sqft			\$0.01		\$0.01	\$0.01	1	6	1	1	\$0.01	0.25	1.00	1.00	1.00	1.00	1.00	1	1	1									
1	194	LED Indoor Lighting - Base 2L4T8	fixture		\$90.00	\$23.32		(\$11.44)	\$101.88	1																						

MEASURE INPUT DATA

KEMA

ENERGY SAVINGS
(percent)

Segment	Measure #	Measure Description	Office	Restaurant	Retail	Grocery	Warehousing	School	College	Health Care	Hotel	Miscellaneous
1	100	Base Fluorescent Fixture, 4L4'T12, 34W, 2EEMAG										
1	101	RET 4L4' Premium T8, 1EB, base 4L4'T12	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25.0%
1	102	RET 2L4' Premium T8, 1EB, Reflector, base 4L4'T12	65 3%	65 3%	65 3%	65 3%	65 3%	65 3%	65 3%	65 3%	65 3%	65.3%
1	103	LED Indoor Lighting - Base 4L4'T12	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%
1	104	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4'T12	30 0%	20 0%	20 0%	20 0%	30 0%	30 0%	20 0%	20 0%	20 0%	20.0%
1	105	Continuous Dimming, 5L4' Fluorescent Fixtures - Base 4L4'T12	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52.0%
1	106	Lighting Control Tuneup	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5 0%
1	107	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4'T12	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25.0%
1	120	Base Fluorescent Fixture, 2L4'T12, 34W, 1EEMAG										
1	121	RET 2L4' Premium T8, 1EB -- base 2L4'T12	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25.0%
1	122	RET 1L4' Premium T8, 1EB, Reflector OEM - Base 2L4'T12	65 3%	65 3%	65 3%	65 3%	65 3%	65 3%	65 3%	65 3%	65 3%	65.3%
1	123	LED Indoor Lighting - Base 2L4'T12	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%
1	124	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4'T12	30 0%	20 0%	20 0%	20 0%	30 0%	30 0%	20 0%	20 0%	20 0%	20.0%
1	125	Continuous Dimming, 10L4' Fluorescent Fixtures - Base 2L4'T12	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52.0%
1	126	Lighting Control Tuneup - Base 2L4'T12	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5 0%
1	127	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4'T12	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25.0%
1	130	Base Fluorescent Fixture, 2L8'T12, 60W, 1EEMAG										
1	131	RET 2 - 2L4' Premium T8, 1EB - Base 2L8'T12	12 9%	12 9%	12 9%	12 9%	12 9%	12 9%	12 9%	12 9%	12 9%	12.9%
1	132	RET 2 - 1L4' Premium T8, 1EB, Reflector OEM - Base 2L8'T12	59.7%	59.7%	59.7%	59.7%	59.7%	59.7%	59.7%	59.7%	59.7%	59.7%
1	133	LED Indoor Lighting - Base 2L8'T12	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%	58.7%
1	134	Occupancy Sensor, 4L8' Fluorescent Fixtures - Base 2L8'T12	30 0%	20 0%	20 0%	20 0%	30 0%	30 0%	20 0%	20 0%	20 0%	20.0%
1	135	Continuous Dimming, 5L8' Fluorescent Fixtures - Base 2L8'T12	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52 0%	52.0%
1	136	High Performance Lighting Remod/Renov - 25% Savings - Base 2L8'T12	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25.0%
1	140	Base Incandescent Flood, 75W to Screw-in Replacement										
1	141	CFL Screw-in 18W	72 0%	72 0%	72 0%	72 0%	72 0%	72 0%	72 0%	72 0%	72 0%	72.0%
1	142	Cold Cathode Lamps	72 0%	72 0%	72 0%	72 0%	72 0%	72 0%	72 0%	72 0%	72 0%	72.0%
1	143	Screw-in LED--Base Incandescent	93 0%	93 0%	93 0%	93 0%	93 0%	93 0%	93 0%	93 0%	93 0%	93.0%
1	145	Base CFL to screw-in replacement										
1	146	Screw-in LED--Base CFL	67 5%	67 5%	67 5%	67 5%	67 5%	67 5%	67 5%	67 5%	67 5%	67.5%
1	150	Base Incandescent Flood, 75W to Hardwired CFL										
1	151	CFL Hardwired, Modular 18W	76 0%	76 0%	76 0%	76 0%	76 0%	76 0%	76 0%	76 0%	76 0%	76.0%
1	152	Ceramic Metal Halide	56 0%	56 0%	56 0%	56 0%	56 0%	56 0%	56 0%	56 0%	56 0%	56.0%
1	153	Hardwired LED fixture--Base Incandescent	93 0%	93 0%	93 0%	93 0%	93 0%	93 0%	93 0%	93 0%	93 0%	93.0%
1	155	Base CFL to Hardwired replacement										
1	156	Hardwired LED fixture--Base CFL	67 5%	67 5%	67 5%	67 5%	67 5%	67 5%	67 5%	67 5%	67 5%	67.5%
1	160	Base High Bay Probe-start Metal Halide, 400W										
1	161	High Bay T5 - Base Std MH	48 6%	48 6%	48 6%	48 6%	48 6%	48 6%	48 6%	48 6%	48 6%	48.6%
1	162	PSMH + electronic ballast	36.7%	36.7%	36.7%	36.7%	36.7%	36.7%	36.7%	36.7%	36.7%	36.7%
1	163	Induction High Bay Lighting - Base Std MH	37.4%	37.4%	37.4%	37.4%	37.4%	37.4%	37.4%	37.4%	37.4%	37.4%
1	164	Occupancy Sensor, High Bay T5 - Base Std MH	20 0%	20 0%	20 0%	20 0%	20 0%	20 0%	20 0%	20 0%	20 0%	20.0%
1	165	High Performance Lighting Remod/Renov - 25% Savings - Base High Bay PSMH	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25.0%
1	180	Base 4L4'T8, 1EB										
1	181	ROB 4L4' Premium T8, 1EB - Base 4L4'T8	15 8%	15 8%	15 8%	15 8%	15 8%	15 8%	15 8%	15 8%	15 8%	15.8%
1	182	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4'T8	30 0%	20 0%	20 0%	20 0%	30 0%	30 0%	20 0%	20 0%	20 0%	20.0%
1	183	Lighting Control Tuneup - Base 4L4'T8	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5 0%
1	184	LED Indoor Lighting - Base 4L4'T8	29.1%	29.1%	29.1%	29.1%	29.1%	29.1%	29.1%	29.1%	29.1%	29.1%
1	185	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4'T8	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25.0%
1	190	Base 2L4'T8, 1EB										
1	191	ROB 2L4' Premium T8, 1EB - Base 2L4'T8	17 2%	17 2%	17 2%	17 2%	17 2%	17 2%	17 2%	17 2%	17 2%	17.2%
1	192	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4'T8	30 0%	20 0%	20 0%	20 0%	30 0%	30 0%	20 0%	20 0%	20 0%	20.0%
1	193	Lighting Control Tuneup - Base 2L4'T8	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5 0%
1	194	LED Indoor Lighting - Base 2L4'T8	29.1%	29.1%	29.1%	29.1%	29.1%	29.1%	29.1%	29.1%	29.1%	29.1%
1	196	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4'T8	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25 0%	25.0%
1	200	Base Exit Sign										
1	201	LED Exit Sign	80 8%	80 8%	80 8%	80 8%	80 8%	80 8%	80 8%	80 8%	80 8%	80.8%
1	210	Base Outdoor Mercury Vapor 400W Lamp										

APPENDIX E

COMMERCIAL

MEASURE INPUT DATA

1	211	High Pressure Sodium 250W Lamp	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
1	212	LED Outdoor Area Lighting	51.9%	51.9%	51.9%	51.9%	51.9%	51.9%	51.9%	51.9%	51.9%	51.9%
1	213	LED Outdoor Bi-level Fixtures	69.6%	69.6%	69.6%	69.6%	69.6%	69.6%	69.6%	69.6%	69.6%	69.6%
1	214	Outdoor Lighting Controls (Photocell/Timeclock)	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%
1	220	Base Street Lighting										
1	221	Induction Streetlighting	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
1	222	LED Streetlighting	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%
1	300	Base Centrifugal Chiller, 0.58 kW/ton, 500 tons										
1	301	Centrifugal Chiller, 0.51 kW/ton, 500 tons	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%
1	302	Window Film (Standard)	9.3%	10.3%	2.5%	2.5%	9.3%	3.9%	2.5%	1.2%	7.0%	2.5%
1	303	EMS - Chiller	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	304	Cool Roof - Chiller	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
1	305	Chiller Tune Up/Diagnostics	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
1	306	VSD for Chiller Pumps and Towers	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	307	EMS Optimization	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	308	Economizer - Chiller	27.0%	0.0%	21.0%	21.0%	27.0%	12.0%	21.0%	18.0%	43.0%	0.0%
1	309	Duct/Pipe Insulation - Chiller	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
1	311	High Efficiency Chiller Motors	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%
1	350	Base DX Packaged System, EER=10.3, 10 tons										
1	351	DX Tune Up/ Advanced Diagnostics	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	352	DX Packaged System, EER=10.9, 10 tons	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
1	353	DX Packaged System, EER=11.5, 10 tons	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%
1	354	DX Packaged System, EER=13.4, 10 tons	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%
1	357	Window Film (Standard)	9.3%	10.3%	2.5%	2.5%	9.3%	3.9%	2.5%	1.2%	7.0%	2.5%
1	358	Prog. Thermostat - DX	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	359	Cool Roof - DX	1.8%	6.9%	13.0%	13.0%	1.8%	6.1%	13.0%	0.6%	0.4%	13.0%
1	360	Optimize Controls	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	361	Economizer	21.0%	8.0%	17.0%	1.0%	0.0%	10.0%	10.0%	1.0%	8.0%	8.0%
1	362	Aerosol Duct Sealing - DX	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
1	363	Ceiling/roof Insulation - DX	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%
1	364	Duct/Pipe Insulation - DX	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
1	365	DX Coil Cleaning	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%
1	400	Base Fan Motor, 5hp, 1800rpm, 87.5%										
1	401	Fan Motor, 5hp, 1800rpm, 89.5%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
1	402	Variable Speed Drive Control, 5 HP	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	403	Demand Controlled Ventilation	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
1	410	Base Fan Motor, 15hp, 1800rpm, 91.0%										
1	411	Fan Motor, 15hp, 1800rpm, 92.4%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
1	412	Variable Speed Drive Control, 15 HP	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	413	Air Handler Optimization, 15 HP	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	414	Energy Recovery Ventilation	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
1	415	Electronically Commutated Motors (ECM) on an air handler unit	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%
1	416	Separate Makeup Air/Exhaust Hoods AC	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
1	417	Demand Controlled Ventilation	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
1	420	Base Fan Motor, 40hp, 1800rpm, 93.0%										
1	421	Fan Motor, 40hp, 1800rpm, 94.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
1	422	Variable Speed Drive Control, 40 HP	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	423	Air Handler Optimization, 40 HP	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	424	Demand Controlled Ventilation	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
1	500	Base Non-Commercial Refrigerator										
1	501	Energy Star Refrigerator	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
1	502	HE Refrigerator - CEE Tier 2 (side by side freezer)	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
1	520	Base Refrigeration System										
1	521	High-efficiency fan motors	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
1	522	Strip curtains for walk-ins	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
1	523	Night covers for display cases	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%
1	524	Evaporator fan controller for MT walk-ins	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
1	525	Efficient compressor motor	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%
1	526	Compressor VSD retrofit	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%
1	527	Floating head pressure controls	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%

1	528	Refrigeration Commissioning	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	529	Demand Hot Gas Defrost	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
1	530	Demand Defrost Electric	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%
1	531	Anti-sweat (humidistat) controls	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	533	Freezer-Cooler Replacement Gaskets	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%
1	534	High R-Value Glass Doors	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
1	535	Multiplex Compressor System	14.3%	14.3%	14.3%	14.3%	14.3%	14.3%	14.3%	14.3%	14.3%	14.3%
1	536	Oversized Air-Cooled Condenser	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%
1	537	LED Display Lighting	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
1	538	Fiber Optic Display Lighting	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%
1	539	Beverage Merchandisers	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
1	540	Reach-In Refrigerators	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
1	541	Reach-In Freezers	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
1	542	Walk-Ins										
1	610	Base Desktop PC										
1	611	Energy Star or Better PC	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%
1	612	PC Manual Power Management Enabling	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%
1	613	PC Network Power Management Enabling	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%
1	620	Base Monitor, CRT										
1	621	Energy Star or Better Monitor	56.1%	56.1%	56.1%	56.1%	56.1%	56.1%	56.1%	56.1%	56.1%	56.1%
1	622	Monitor Power Management Enabling	53.4%	53.4%	53.4%	53.4%	53.4%	53.4%	53.4%	53.4%	53.4%	53.4%
1	630	Base Monitor, LCD										
1	631	Energy Star or Better Monitor	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
1	632	Monitor Power Management Enabling	27.9%	27.9%	27.9%	27.9%	27.9%	27.9%	27.9%	27.9%	27.9%	27.9%
1	640	Base Copier										
1	641	Energy Star or Better Copier	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%
1	642	Copier Power Management Enabling	19.4%	19.4%	19.4%	19.4%	19.4%	19.4%	19.4%	19.4%	19.4%	19.4%
1	650	Base Laser Printer										
1	651	Printer Power Management Enabling	49.2%	49.2%	49.2%	49.2%	49.2%	49.2%	49.2%	49.2%	49.2%	49.2%
1	660	Base Data Center/Server Room										
1	661	Data Center Improved Operations	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
1	662	Data Center Best Practices	45.0%	45.0%	45.0%	45.0%	45.0%	45.0%	45.0%	45.0%	45.0%	45.0%
1	663	Data Center State of the Art practices	56.0%	56.0%	56.0%	56.0%	56.0%	56.0%	56.0%	56.0%	56.0%	56.0%
1	700	Base Water Heating										
1	701	Demand controlled circulating systems	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	702	High Efficiency Water Heater (electric)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
1	703	Heat Pump Water Heater (air source)	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
1	704	Hot Water Pipe Insulation	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
1	706	Heat Recovery Unit	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%
1	707	Heat Trap	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
1	708	Tankless Water Heater	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	709	Solar Water Heater	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	800	Base Vending Machines										
1	801	Vending Misers (cooled machines only)	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
1	900	Base Oven										
1	901	Convection Oven	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%
1	905	Base Fryer										
1	906	Efficient Fryer	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
1	910	Base Steamer										
1	911	Efficient Steamer	89.0%	89.0%	89.0%	89.0%	89.0%	89.0%	89.0%	89.0%	89.0%	89.0%
1	915	Base Hot Food Holding Cabinets										
1	916	Energy Star Hot Food Holding Cabinets	47.0%	12.9%	17.9%	9.6%	0.0%	20.5%	0.0%	17.5%	19.0%	0.0%
1	940	Base Heating										
1	941	XHeat										
1	970	Base Miscellaneous										

**APPLICABILITY FACTOR
(percent)**

			Office	Restaurant	Retail	Grocery	Warehousing	School	College	Health Care	Hotel	Miscellaneous
Segment	Measure #	Measure Description										
1	100	Base Fluorescent Fixture, 4L4'T12, 34W, 2EEMAG	5.96%	8 00%	3.69%	0 00%	9.50%	0 00%	0.60%	0.46%	0.00%	3.41%
1	101	RET 4L4' Premium T8, 1EB, base 4L4'T12	5.96%	8 00%	3.69%	0 00%	9.50%	0 00%	0.60%	0.46%	0.00%	3.41%
1	102	RET 2L4' Premium T8, 1EB, Reflector, base 4L4'T12	5.96%	8 00%	3.69%	0 00%	9.50%	0 00%	0.60%	0.46%	0.00%	3.41%
1	103	LED Indoor Lighting - Base 4L4'T12	5.96%	8 00%	3.69%	0 00%	9.50%	0 00%	0.60%	0.46%	0.00%	3.41%
1	104	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4'T12	5.96%	8 00%	3.69%	0 00%	9.50%	0 00%	0.60%	0.46%	0.00%	3.41%
1	105	Continuous Dimming, 5L4' Fluorescent Fixtures - Base 4L4'T12	5.96%	8 00%	3.69%	0 00%	9.50%	0 00%	0.60%	0.46%	0.00%	3.41%
1	106	Lighting Control Tuneup	4.42%	4 56%	2.29%	0 00%	6.54%	0 00%	0.60%	0 06%	0.00%	1.36%
1	107	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4'T12	5.96%	8 00%	3.69%	0 00%	9.50%	0 00%	0.60%	0.46%	0.00%	3.41%
1	120	Base Fluorescent Fixture, 2L4'T12, 34W, 1EEMAG	9.94%	3 00%	7.48%	12 00%	6.04%	0 00%	0.98%	1.75%	1.90%	2.28%
1	121	RET 2L4' Premium T8, 1EB -- base 2L4'T12	9.9%	3 0%	7.5%	12.0%	6.0%	0.0%	1.0%	1.8%	1.9%	2.3%
1	122	RET 1L4' Premium T8, 1EB, Reflector OEM - Base 2L4'T12	9.9%	3 0%	7.5%	12.0%	6.0%	0.0%	1.0%	1.8%	1.9%	2.3%
1	123	LED Indoor Lighting - Base 2L4'T12	9.9%	3 0%	7.5%	12.0%	6.0%	0.0%	1.0%	1.8%	1.9%	2.3%
1	124	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4'T12	9.9%	3 0%	7.5%	12.0%	6.0%	0.0%	1.0%	1.8%	1.9%	2.3%
1	125	Continuous Dimming, 10L4' Fluorescent Fixtures - Base 2L4'T12	9.9%	3 0%	7.5%	12.0%	6.0%	0.0%	1.0%	1.8%	1.9%	2.3%
1	126	Lighting Control Tuneup - Base 2L4'T12	7.37%	1.71%	4.65%	4.49%	4.15%	0 00%	0.98%	0 22%	1.77%	0.91%
1	127	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4'T12	9.9%	3 0%	7.5%	12.0%	6.0%	0.0%	1.0%	1.8%	1.9%	2.3%
1	130	Base Fluorescent Fixture, 2L8'T12, 60W, 1EEMAG	4.77%	8 00%	5.06%	50 39%	3.31%	0 00%	0.00%	0 00%	0.00%	0.97%
1	131	RET 2 - 2L4' Premium T8, 1EB - Base 2L8'T12	4.8%	8 0%	5.1%	50.4%	3.3%	0.0%	0.0%	0.0%	0.0%	1.0%
1	132	RET 2 - 1L4' Premium T8, 1EB, Reflector OEM - Base 2L8'T12	4.8%	8 0%	5.1%	50.4%	3.3%	0.0%	0.0%	0.0%	0.0%	1.0%
1	133	LED Indoor Lighting - Base 2L8'T12	4.8%	8 0%	5.1%	50.4%	3.3%	0.0%	0.0%	0.0%	0.0%	1.0%
1	134	Occupancy Sensor, 4L8' Fluorescent Fixtures - Base 2L8'T12	4.8%	8 0%	5.1%	50.4%	3.3%	0.0%	0.0%	0.0%	0.0%	1.0%
1	135	Continuous Dimming, 5L8' Fluorescent Fixtures - Base 2L8'T12	4.8%	8 0%	5.1%	50.4%	3.3%	0.0%	0.0%	0.0%	0.0%	1.0%
1	136	High Performance Lighting Remod/Renov - 25% Savings - Base 2L8'T12	4.8%	8 0%	5.1%	50.4%	3.3%	0.0%	0.0%	0.0%	0.0%	1.0%
1	140	Base Incandescent Flood, 75W to Screw-in Replacement	15.8%	70 0%	9.7%	15.0%	0.5%	3.3%	0.6%	5.6%	4.7%	32.8%
1	141	CFL Screw-in 18W	14.2%	63 0%	8.7%	13.5%	0.4%	3.0%	0.6%	5.1%	4.3%	29.5%
1	142	Cold Cathode Lamps	1.6%	7 0%	1.0%	1 5%	0.0%	0.3%	0.1%	0.6%	0.5%	3.3%
1	143	Screw-in LED--Base Incandescent	15.8%	70 0%	9.7%	15.0%	0.5%	3.3%	0.6%	5.6%	4.7%	32.8%
1	145	Base CFL to screw-in replacement	5.5%	1 0%	0.5%	0 0%	0.8%	0.2%	0.0%	8.8%	8.7%	5.2%
1	146	Screw-in LED--Base CFL	5.5%	1 0%	0.5%	0 0%	0.8%	0.2%	0.0%	8.8%	8.7%	5.2%
1	150	Base Incandescent Flood, 75W to Hardwired CFL	7.1%	7 0%	2.8%	3 0%	0.0%	0.2%	3.6%	15.5%	23.6%	7.2%
1	151	CFL Hardwired, Modular 18W	6.4%	6 3%	2.5%	2.7%	0.0%	0.2%	3.3%	14.0%	21.3%	6.5%
1	152	Ceramic Metal Halide	0.7%	0.7%	0.3%	0 3%	0.0%	0.0%	0.4%	1.6%	2.4%	0.7%
1	153	Hardwired LED fixture--Base Incandescent	7.1%	7 0%	2.8%	3 0%	0.0%	0.2%	3.6%	15.5%	23.6%	7.2%
1	155	Base CFL to Hardwired replacement	19.65%	1 00%	0.22%	0 51%	0.06%	0.14%	6.09%	25 33%	61.01%	5.71%
1	156	Hardwired LED fixture--Base CFL	19.6%	1 0%	0.2%	0 5%	0.1%	0.1%	6.1%	25.3%	61.0%	5.7%
1	160	Base High Bay Probe-start Metal Halide, 400W	0.6%	0 00%	8.2%	7.1%	6.0%	11 21%	2.75%	0.3%	0.0%	14.7%
1	161	High Bay T5 - Base Std MH	0.6%	0 0%	8.2%	7.1%	6.0%	11.2%	2.7%	0.3%	0.0%	14.7%
1	162	PSMH + electronic ballast	0.6%	0 0%	8.2%	7.1%	6.0%	11.2%	2.7%	0.3%	0.0%	14.7%
1	163	Induction High Bay Lighting - Base Std MH	0.6%	0 0%	8.2%	7.1%	6.0%	11.2%	2.7%	0.3%	0.0%	14.7%
1	164	Occupancy Sensor, High Bay T5 - Base Std MH	0.6%	0 0%	8.2%	7.1%	6.0%	11.2%	2.7%	0.3%	0.0%	14.7%
1	165	High Performance Lighting Remod/Renov - 25% Savings - Base High Bay PSMH	0.6%	0 0%	8.2%	7.1%	6.0%	11.2%	2.7%	0.3%	0.0%	14.7%
1	180	Base 4L4'T8, 1EB	12.6%	1 00%	16.9%	0 0%	13.5%	30 05%	34.30%	39.6%	0.0%	18.9%
1	181	ROB 4L4' Premium T8, 1EB - Base 4L4'T8	12.6%	1 0%	16.9%	0 0%	13.5%	30.0%	34.3%	39.6%	0.0%	18.9%
1	182	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4'T8	12.6%	1 0%	16.9%	0 0%	13.5%	30.0%	34.3%	39.6%	0.0%	18.9%
1	183	Lighting Control Tuneup - Base 4L4'T8	9.37%	0 57%	10.52%	0 00%	9.30%	27 52%	34.30%	4 87%	0.00%	7.53%
1	184	LED Indoor Lighting - Base 4L4'T8	12.6%	1 0%	16.9%	0 0%	13.5%	30.0%	34.3%	39.6%	0.0%	18.9%
1	185	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4'T8	12.6%	1 0%	16.9%	0 0%	13.5%	30.0%	34.3%	39.6%	0.0%	18.9%
1	190	Base 2L4'T8, 1EB	18.3%	1 00%	35.9%	12.0%	3.9%	24 89%	48.74%	49.9%	0.0%	8.6%
1	191	ROB 2L4' Premium T8, 1EB - Base 2L4'T8	18.3%	1 0%	35.9%	12.0%	3.9%	24.9%	48.7%	49.9%	0.0%	8.6%
1	192	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4'T8	18.3%	1 0%	35.9%	12.0%	3.9%	24.9%	48.7%	49.9%	0.0%	8.6%
1	193	Lighting Control Tuneup - Base 2L4'T8	13.56%	0 57%	22.27%	4.49%	2.70%	22 80%	48.74%	6.14%	0.00%	3.42%
1	194	LED Indoor Lighting - Base 2L4'T8	18.3%	1 0%	35.9%	12.0%	3.9%	24.9%	48.7%	49.9%	0.0%	8.6%
1	196	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4'T8	18.3%	1 0%	35.9%	12.0%	3.9%	24.9%	48.7%	49.9%	0.0%	8.6%

APPENDIX E

COMMERCIAL

MEASURE INPUT DATA

1	200	Base Exit Sign	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.00%	100.0%	100.0%	100.0%
1	201	LED Exit Sign	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	210	Base Outdoor Mercury Vapor 400W Lamp	67.00%	100.00%	81.50%	47.28%	88.72%	79.19%	100.00%	96.73%	100.00%	88.40%
1	211	High Pressure Sodium 250W Lamp	67.0%	100.0%	81.5%	47.3%	88.7%	79.2%	100.0%	96.7%	100.0%	88.4%
1	212	LED Outdoor Area Lighting	67.0%	100.0%	81.5%	47.3%	88.7%	79.2%	100.0%	96.7%	100.0%	88.4%
1	213	LED Outdoor Bi-level Fixtures	67.0%	100.0%	81.5%	47.3%	88.7%	79.2%	100.0%	96.7%	100.0%	88.4%
1	214	Outdoor Lighting Controls (Photocell/Timeclock)	67.0%	100.0%	81.5%	47.3%	88.7%	79.2%	100.0%	96.7%	100.0%	88.4%
1	220	Base Street Lighting	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
1	221	Induction Streetlighting	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
1	222	LED Streetlighting	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
1	300	Base Centrifugal Chiller, 0.58 kW/ton, 500 tons	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.74%	76.7%	27.9%	14.6%
1	301	Centrifugal Chiller, 0.51 kW/ton, 500 tons	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.7%	76.7%	27.9%	14.6%
1	302	Window Film (Standard)	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.7%	76.7%	27.9%	14.6%
1	303	EMS - Chiller	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.7%	76.7%	27.9%	14.6%
1	304	Cool Roof - Chiller	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.7%	76.7%	27.9%	14.6%
1	305	Chiller Tune Up/Diagnostics	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.7%	76.7%	27.9%	14.6%
1	306	VSD for Chiller Pumps and Towers	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.7%	76.7%	27.9%	14.6%
1	307	EMS Optimization	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.7%	76.7%	27.9%	14.6%
1	308	Economizer - Chiller	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.7%	76.7%	27.9%	14.6%
1	309	Duct/Pipe Insulation - Chiller	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.7%	76.7%	27.9%	14.6%
1	311	High Efficiency Chiller Motors	35.4%	4.6%	12.3%	0.0%	7.2%	21.4%	74.7%	76.7%	27.9%	14.6%
1	350	Base DX Packaged System, EER=10.3, 10 tons	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.26%	18.0%	67.9%	69.9%
1	351	DX Tune Up/ Advanced Diagnostics	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	352	DX Packaged System, EER=10.9, 10 tons	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	353	DX Packaged System, EER=11.5, 10 tons	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	354	DX Packaged System, EER=13.4, 10 tons	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	357	Window Film (Standard)	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	358	Prog. Thermostat - DX	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	359	Cool Roof - DX	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	360	Optimize Controls	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	361	Economizer	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	362	Aerosol Duct Sealing - DX	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	363	Ceiling/roof Insulation - DX	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	364	Duct/Pipe Insulation - DX	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	365	DX Coil Cleaning	57.2%	88.2%	73.8%	94.3%	72.8%	62.6%	9.3%	18.0%	67.9%	69.9%
1	400	Base Fan Motor, 5hp, 1800rpm, 87.5%	86.0%	72.8%	73.3%	49.3%	68.3%	77.7%	100.00%	47.7%	100.0%	83.6%
1	401	Fan Motor, 5hp, 1800rpm, 89.5%	86.0%	72.8%	73.3%	49.3%	68.3%	77.7%	100.0%	47.7%	100.0%	83.6%
1	402	Variable Speed Drive Control, 5 HP	86.0%	72.8%	73.3%	49.3%	68.3%	77.7%	100.0%	47.7%	100.0%	83.6%
1	403	Demand Controlled Ventilation	86.0%	72.8%	73.3%	49.3%	68.3%	77.7%	100.0%	47.7%	100.0%	83.6%
1	410	Base Fan Motor, 15hp, 1800rpm, 91.0%	5.5%	12.1%	9.0%	0.0%	0.0%	42.0%	37.11%	14.3%	0.0%	12.2%
1	411	Fan Motor, 15hp, 1800rpm, 92.4%	5.5%	12.1%	9.0%	0.0%	0.0%	42.0%	37.1%	14.3%	0.0%	12.2%
1	412	Variable Speed Drive Control, 15 HP	5.5%	12.1%	9.0%	0.0%	0.0%	42.0%	37.1%	14.3%	0.0%	12.2%
1	413	Air Handler Optimization, 15 HP	5.5%	12.1%	9.0%	0.0%	0.0%	42.0%	37.1%	14.3%	0.0%	12.2%
1	414	Energy Recovery Ventilation	5.5%	12.1%	9.0%	0.0%	0.0%	42.0%	37.1%	14.3%	0.0%	12.2%
1	415	Electronically Commutated Motors (ECM) on an air handler unit	5.5%	12.1%	9.0%	0.0%	0.0%	42.0%	37.1%	14.3%	0.0%	12.2%
1	416	Separate Makeup Air/Exhaust Hoods AC	5.5%	12.1%	9.0%	0.0%	0.0%	42.0%	37.1%	14.3%	0.0%	12.2%
1	417	Demand Controlled Ventilation	5.5%	12.1%	9.0%	0.0%	0.0%	42.0%	37.1%	14.3%	0.0%	12.2%
1	420	Base Fan Motor, 40hp, 1800rpm, 93.0%	20.2%	0.0%	13.6%	0.0%	5.7%	0.0%	22.29%	0.0%	0.0%	52.0%
1	421	Fan Motor, 40hp, 1800rpm, 94.1%	20.2%	0.0%	13.6%	0.0%	5.7%	0.0%	22.3%	0.0%	0.0%	52.0%
1	422	Variable Speed Drive Control, 40 HP	20.2%	0.0%	13.6%	0.0%	5.7%	0.0%	22.3%	0.0%	0.0%	52.0%
1	423	Air Handler Optimization, 40 HP	20.2%	0.0%	13.6%	0.0%	5.7%	0.0%	22.3%	0.0%	0.0%	52.0%
1	424	Demand Controlled Ventilation	20.2%	0.0%	13.6%	0.0%	5.7%	0.0%	22.3%	0.0%	0.0%	52.0%
1	500	Base Non-Commercial Refrigerator	67.3%	44.0%	53.1%	43.4%	49.0%	60.3%	73.12%	89.7%	61.1%	60.0%
1	501	Energy Star Refrigerator	67.3%	44.0%	53.1%	43.4%	49.0%	60.3%	73.1%	89.7%	61.1%	60.0%
1	502	HE Refrigerator - CEE Tier 2 (side by side freezer)	67.3%	44.0%	53.1%	43.4%	49.0%	60.3%	73.1%	89.7%	61.1%	60.0%
1	520	Base Refrigeration System	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	521	High-efficiency fan motors	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%

APPENDIX E

COMMERCIAL

MEASURE INPUT DATA

1	522	Strip curtains for walk-ins	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	523	Night covers for display cases	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	524	Evaporator fan controller for MT walk-ins	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	525	Efficient compressor motor	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	526	Compressor VSD retrofit	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	527	Floating head pressure controls	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	528	Refrigeration Commissioning	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	529	Demand Hot Gas Defrost	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	530	Demand Defrost Electric	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	531	Anti-sweat (humidistat) controls	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	533	Freezer-Cooler Replacement Gaskets	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	534	High R-Value Glass Doors	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	535	Multiplex Compressor System	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	536	Oversized Air-Cooled Condenser	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	537	LED Display Lighting	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	538	Fiber Optic Display Lighting	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	539	Beverage Merchandisers	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	540	Reach-In Refrigerators	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	541	Reach-In Freezers	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	542	Walk-Ins	67.8%	87.7%	70.1%	96.7%	67.1%	86.4%	97.2%	96.6%	86.1%	63.5%
1	610	Base Desktop PC	91.0%	72.8%	84.4%	67.0%	68.1%	93.0%	37.11%	94.9%	96.4%	79.1%
1	611	Energy Star or Better PC	91.0%	72.8%	84.4%	67.0%	68.1%	93.0%	37.1%	94.9%	96.4%	79.1%
1	612	PC Manual Power Management Enabling	91.0%	72.8%	84.4%	67.0%	68.1%	93.0%	37.1%	94.9%	96.4%	79.1%
1	613	PC Network Power Management Enabling	91.0%	72.8%	84.4%	67.0%	68.1%	93.0%	37.1%	94.9%	96.4%	79.1%
1	620	Base Monitor, CRT	38.9%	31.5%	54.9%	37.4%	71.2%	69.2%	37.11%	42.2%	4.9%	63.5%
1	621	Energy Star or Better Monitor	38.9%	31.5%	54.9%	37.4%	71.2%	69.2%	37.1%	42.2%	4.9%	63.5%
1	622	Monitor Power Management Enabling	38.9%	31.5%	54.9%	37.4%	71.2%	69.2%	37.1%	42.2%	4.9%	63.5%
1	630	Base Monitor, LCD	16.7%	47.0%	12.8%	61.7%	15.6%	84.0%	37.11%	24.8%	63.5%	22.8%
1	631	Energy Star or Better Monitor	16.7%	47.0%	12.8%	61.7%	15.6%	84.0%	37.1%	24.8%	63.5%	22.8%
1	632	Monitor Power Management Enabling	16.7%	47.0%	12.8%	61.7%	15.6%	84.0%	37.1%	24.8%	63.5%	22.8%
1	640	Base Copier	94.2%	14.2%	59.0%	45.7%	68.1%	85.7%	93.00%	94.9%	42.4%	49.2%
1	641	Energy Star or Better Copier	94.2%	14.2%	59.0%	45.7%	68.1%	85.7%	93.0%	94.9%	42.4%	49.2%
1	642	Copier Power Management Enabling	94.2%	14.2%	59.0%	45.7%	68.1%	85.7%	93.0%	94.9%	42.4%	49.2%
1	650	Base Laser Printer	94.2%	72.6%	85.8%	87.6%	68.1%	93.0%	93.00%	94.9%	86.0%	65.7%
1	651	Printer Power Management Enabling	94.2%	72.6%	85.8%	87.6%	68.1%	93.0%	93.0%	94.9%	86.0%	65.7%
1	660	Base Data Center/Server Room	0.7%	0.1%	0.0%	0.1%	0.2%	0.3%	1.28%	1.1%	0.1%	0.1%
1	661	Data Center Improved Operations	0.7%	0.1%	0.0%	0.1%	0.2%	0.3%	1.3%	1.1%	0.1%	0.1%
1	662	Data Center Best Practices	0.7%	0.1%	0.0%	0.1%	0.2%	0.3%	1.3%	1.1%	0.1%	0.1%
1	663	Data Center State of the Art practices	0.7%	0.1%	0.0%	0.1%	0.2%	0.3%	1.3%	1.1%	0.1%	0.1%
1	700	Base Water Heating	36.1%	21.2%	35.2%	8.1%	30.9%	27.0%	27.0%	9.2%	8.0%	34.7%
1	701	Demand controlled circulating systems	36.1%	21.2%	35.2%	8.1%	30.9%	27.0%	27.0%	9.2%	8.0%	34.7%
1	702	High Efficiency Water Heater (electric)	36.1%	21.2%	35.2%	8.1%	30.9%	27.0%	27.0%	9.2%	8.0%	34.7%
1	703	Heat Pump Water Heater (air source)	36.1%	21.2%	35.2%	8.1%	30.9%	27.0%	27.0%	9.2%	8.0%	34.7%
1	704	Hot Water Pipe Insulation	36.1%	21.2%	35.2%	8.1%	30.9%	27.0%	27.0%	9.2%	8.0%	34.7%
1	706	Heat Recovery Unit	36.1%	21.2%	35.2%	8.1%	30.9%	27.0%	27.0%	9.2%	8.0%	34.7%
1	707	Heat Trap	36.1%	21.2%	35.2%	8.1%	30.9%	27.0%	27.0%	9.2%	8.0%	34.7%
1	708	Tankless Water Heater	36.1%	21.2%	35.2%	8.1%	30.9%	27.0%	27.0%	9.2%	8.0%	34.7%
1	709	Solar Water Heater	36.1%	21.2%	35.2%	8.1%	30.9%	27.0%	27.0%	9.2%	8.0%	34.7%
1	800	Base Vending Machines	62.3%	25.0%	48.5%	53.6%	52.0%	71.7%	96.62%	95.9%	84.0%	36.9%
1	801	Vending Misers (cooled machines only)	62.3%	25.0%	48.5%	53.6%	52.0%	71.7%	96.6%	95.9%	84.0%	36.9%
1	900	Base Oven	0.00%	67.93%	12.77%	38.58%	0.00%	84.00%	84.00%	0.00%	63.47%	22.82%
1	901	Convection Oven	0.00%	67.93%	12.77%	38.58%	0.00%	84.00%	84.00%	0.00%	63.47%	22.82%
1	905	Base Fryer	1.43%	21.41%	0.00%	38.58%	0.00%	0.00%	0.00%	0.00%	0.00%	22.82%
1	906	Efficient Fryer	1.43%	21.41%	0.00%	38.58%	0.00%	0.00%	0.00%	0.00%	0.00%	22.82%
1	910	Base Steamer	1.43%	38.11%	0.00%	61.73%	0.00%	0.00%	0.00%	24.80%	0.00%	22.82%
1	911	Efficient Steamer	1.43%	38.11%	0.00%	61.73%	0.00%	0.00%	0.00%	24.80%	0.00%	22.82%
1	915	Base Hot Food Holding Cabinets	1.43%	67.93%	6.45%	50.97%	0.00%	65.45%	65.45%	24.80%	49.75%	22.82%

1	916	Energy Star Hot Food Holding Cabinets	1.43%	67.93%	6.45%	50.97%	0.00%	65.45%	65.45%	24.80%	49.75%	22.82%
1	940	Base Heating	20.93%	17.00%	19.55%	11.63%	14.94%	9.00%	9.00%	6.08%	56.59%	22.77%
1	941	XHeat	20.93%	17.00%	19.55%	11.63%	14.94%	9.00%	9.00%	6.08%	56.59%	22.77%
1	970	Base Miscellaneous	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	971	XMisc	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Standards Adjustment Factor
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	Grocery	Warehousing	School	College	Health Care	Hotel	Miscellaneous
1	100	Base Fluorescent Fixture, 4L4'T12, 34W, 2EEMAG	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	101	RET 4L4' Premium T8, 1EB, base 4L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	102	RET 2L4' Premium T8, 1EB, Reflector, base 4L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	103	LED Indoor Lighting - Base 4L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	104	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	105	Continuous Dimming, 5L4' Fluorescent Fixtures - Base 4L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	106	Lighting Control Tuneup	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	107	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4'T12	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%
1	120	Base Fluorescent Fixture, 2L4'T12, 34W, 1EEMAG	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	121	RET 2L4' Premium T8, 1EB -- base 2L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	122	RET 1L4' Premium T8, 1EB, Reflector OEM - Base 2L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	123	LED Indoor Lighting - Base 2L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	124	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	125	Continuous Dimming, 10L4' Fluorescent Fixtures - Base 2L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	126	Lighting Control Tuneup - Base 2L4'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	127	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4'T12	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%
1	130	Base Fluorescent Fixture, 2L8'T12, 60W, 1EEMAG	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	131	RET 2 - 2L4' Premium T8, 1EB - Base 2L8'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	132	RET 2 - 1L4' Premium T8, 1EB, Reflector OEM - Base 2L8'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	133	LED Indoor Lighting - Base 2L8'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	134	Occupancy Sensor, 4L8' Fluorescent Fixtures - Base 2L8'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	135	Continuous Dimming, 5L8' Fluorescent Fixtures - Base 2L8'T12	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	136	High Performance Lighting Remod/Renov - 25% Savings - Base 2L8'T12	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%
1	140	Base Incandescent Flood, 75W to Screw-in Replacement	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	141	CFL Screw-in 18W	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	142	Cold Cathode Lamps	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	143	Screw-in LED--Base Incandescent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	145	Base CFL to screw-in replacement	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	146	Screw-in LED--Base CFL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	150	Base Incandescent Flood, 75W to Hardwired CFL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	151	CFL Hardwired, Modular 18W	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	152	Ceramic Metal Halide	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	153	Hardwired LED fixture--Base Incandescent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	155	Base CFL to Hardwired replacement	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	156	Hardwired LED fixture--Base CFL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	160	Base High Bay Probe-start Metal Halide, 400W	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	161	High Bay T5 - Base Std MH	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	162	PSMH + electronic ballast	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	163	Induction High Bay Lighting - Base Std MH	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	164	Occupancy Sensor, High Bay T5 - Base Std MH	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	165	High Performance Lighting Remod/Renov - 25% Savings - Base High Bay PSMH	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%
1	180	Base 4L4'T8, 1EB	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	181	ROB 4L4' Premium T8, 1EB - Base 4L4'T8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	182	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4'T8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	183	Lighting Control Tuneup - Base 4L4'T8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	184	LED Indoor Lighting - Base 4L4'T8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	185	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4'T8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	190	Base 2L4'T8, 1EB	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	191	ROB 2L4' Premium T8, 1EB - Base 2L4'T8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	192	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4'T8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	193	Lighting Control Tuneup - Base 2L4'T8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	194	LED Indoor Lighting - Base 2L4'T8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	196	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4'T8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	200	Base Exit Sign	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	201	LED Exit Sign	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

1	210	Base Outdoor Mercury Vapor 400W Lamp	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	211	High Pressure Sodium 250W Lamp	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	212	LED Outdoor Area Lighting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	213	LED Outdoor Bi-level Fixtures	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	214	Outdoor Lighting Controls (Photocell/Timeclock)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	220	Base Street Lighting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	221	Induction Streetlighting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	222	LED Streetlighting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	300	Base Centrifugal Chiller, 0 58 kW/ton, 500 tons	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	301	Centrifugal Chiller, 0 51 kW/ton, 500 tons	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	302	Window Film (Standard)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	303	EMS - Chiller	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	304	Cool Roof - Chiller	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	305	Chiller Tune Up/Diagnostics	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	306	VSD for Chiller Pumps and Towers	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	307	EMS Optimization	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	308	Economizer - Chiller	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	309	Duct/Pipe Insulation - Chiller	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	311	High Efficiency Chiller Motors	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	350	Base DX Packaged System, EER=10.3, 10 tons	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	351	DX Tune Up/ Advanced Diagnostics	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	352	DX Packaged System, EER=10.9, 10 tons	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	353	DX Packaged System, EER=11.5, 10 tons	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	354	DX Packaged System, EER=13.4, 10 tons	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	357	Window Film (Standard)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	358	Prog. Thermostat - DX	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	359	Cool Roof - DX	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	360	Optimize Controls	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	361	Economizer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	362	Aerosol Duct Sealing - DX	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	363	Ceiling/roof Insulation - DX	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	364	Duct/Pipe Insulation - DX	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	365	DX Coil Cleaning	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	400	Base Fan Motor, 5hp, 1800rpm, 87.5%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	401	Fan Motor, 5hp, 1800rpm, 89.5%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	402	Variable Speed Drive Control, 5 HP	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	403	Demand Controlled Ventilation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	410	Base Fan Motor, 15hp, 1800rpm, 91.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	411	Fan Motor, 15hp, 1800rpm, 92.4%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	412	Variable Speed Drive Control, 15 HP	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	413	Air Handler Optimization, 15 HP	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	414	Energy Recovery Ventilation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	415	Electronically Commutated Motors (ECM) on an air handler unit	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	416	Separate Makeup Air/Exhaust Hoods AC	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	417	Demand Controlled Ventilation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	420	Base Fan Motor, 40hp, 1800rpm, 93.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	421	Fan Motor, 40hp, 1800rpm, 94.1%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	422	Variable Speed Drive Control, 40 HP	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	423	Air Handler Optimization, 40 HP	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	424	Demand Controlled Ventilation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	500	Base Non-Commercial Refrigerator	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	501	Energy Star Refrigerator	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	502	HE Refrigerator - CEE Tier 2 (side by side freezer)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	520	Base Refrigeration System	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	521	High-efficiency fan motors	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	522	Strip curtains for walk-ins	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	523	Night covers for display cases	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	524	Evaporator fan controller for MT walk-ins	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

APPENDIX E

COMMERCIAL

MEASURE INPUT DATA

1	525	Efficient compressor motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	526	Compressor VSD retrofit	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	527	Floating head pressure controls	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	528	Refrigeration Commissioning	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	529	Demand Hot Gas Defrost	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	530	Demand Defrost Electric	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	531	Anti-sweat (humidistat) controls	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	533	Freezer-Cooler Replacement Gaskets	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	534	High R-Value Glass Doors	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	535	Multiplex Compressor System	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	536	Oversized Air-Cooled Condenser	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	537	LED Display Lighting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	538	Fiber Optic Display Lighting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	539	Beverage Merchandisers	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	540	Reach-In Refrigerators	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	541	Reach-In Freezers	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	542	Walk-Ins	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	610	Base Desktop PC	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	611	Energy Star or Better PC	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	612	PC Manual Power Management Enabling	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	613	PC Network Power Management Enabling	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	620	Base Monitor, CRT	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	621	Energy Star or Better Monitor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	622	Monitor Power Management Enabling	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	630	Base Monitor, LCD	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	631	Energy Star or Better Monitor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	632	Monitor Power Management Enabling	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	640	Base Copier	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	641	Energy Star or Better Copier	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	642	Copier Power Management Enabling	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	650	Base Laser Printer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	651	Printer Power Management Enabling	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	660	Base Data Center/Server Room	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	661	Data Center Improved Operations	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	662	Data Center Best Practices	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	663	Data Center State of the Art practices	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	700	Base Water Heating	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	701	Demand controlled circulating systems	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	702	High Efficiency Water Heater (electric)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	703	Heat Pump Water Heater (air source)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	704	Hot Water Pipe Insulation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	706	Heat Recovery Unit	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	707	Heat Trap	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	708	Tankless Water Heater	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	709	Solar Water Heater	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	800	Base Vending Machines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	801	Vending Misers (cooled machines only)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	900	Base Oven	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	901	Convection Oven	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	905	Base Fryer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	906	Efficient Fryer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	910	Base Steamer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	911	Efficient Steamer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	915	Base Hot Food Holding Cabinets	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	916	Energy Star Hot Food Holding Cabinets	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	940	Base Heating	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	941	XHeat	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	970	Base Miscellaneous	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

APPENDIX E

COMMERCIAL

MEASURE INPUT DATA

1	971	XMisc	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
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**FEASIBILITY FACTOR
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	Grocery	Warehousing	School	College	Health Care	Hotel	Miscellaneous
1	100	Base Fluorescent Fixture, 4L4'T12, 34W, 2EEMAG	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	101	RET 4L4' Premium T8, 1EB, base 4L4'T12	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	102	RET 2L4' Premium T8, 1EB, Reflector, base 4L4'T12	30.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
1	103	LED Indoor Lighting - Base 4L4'T12	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	104	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4'T12	40.0%	10.0%	10.0%	7.0%	20.0%	50.0%	35.0%	50.0%	20.0%	20.0%
1	105	Continuous Dimming, 5L4' Fluorescent Fixtures - Base 4L4'T12	40.0%	50.0%	12.0%	18.2%	40.0%	30.0%	21.0%	10.0%	30.0%	30.0%
1	106	Lighting Control Tuneup	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	107	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4'T12	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	120	Base Fluorescent Fixture, 2L8'T12, 34W, 1EEMAG	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	121	RET 2L4' Premium T8, 1EB -- base 2L4'T12	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%
1	122	RET 1L4' Premium T8, 1EB, Reflector OEM - Base 2L4'T12	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	123	LED Indoor Lighting - Base 2L4'T12	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	124	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4'T12	40.0%	10.0%	10.0%	7.0%	20.0%	50.0%	35.0%	50.0%	20.0%	20.0%
1	125	Continuous Dimming, 10L4' Fluorescent Fixtures - Base 2L4'T12	40.0%	50.0%	12.0%	18.2%	40.0%	30.0%	21.0%	10.0%	30.0%	30.0%
1	126	Lighting Control Tuneup - Base 2L4'T12	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	127	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4'T12	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	130	Base Fluorescent Fixture, 2L8'T12, 60W, 1EEMAG	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	131	RET 2 - 2L4' Premium T8, 1EB - Base 2L8'T12	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	132	RET 2 - 1L4' Premium T8, 1EB, Reflector OEM - Base 2L8'T12	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	133	LED Indoor Lighting - Base 2L8'T12	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	134	Occupancy Sensor, 4L8' Fluorescent Fixtures - Base 2L8'T12	40.0%	10.0%	10.0%	7.0%	20.0%	50.0%	35.0%	50.0%	20.0%	20.0%
1	135	Continuous Dimming, 5L8' Fluorescent Fixtures - Base 2L8'T12	40.0%	50.0%	12.0%	18.2%	40.0%	30.0%	21.0%	10.0%	30.0%	30.0%
1	136	High Performance Lighting Remod/Renov - 25% Savings - Base 2L8'T12	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	140	Base Incandescent Flood, 75W to Screw-in Replacement	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	141	CFL Screw-in 18W	90.0%	50.0%	50.0%	90.0%	90.0%	90.0%	90.0%	90.0%	70.0%	90.0%
1	142	Cold Cathode Lamps	90.0%	50.0%	50.0%	90.0%	90.0%	90.0%	90.0%	90.0%	70.0%	90.0%
1	143	Screw-in LED--Base Incandescent	90.0%	50.0%	50.0%	90.0%	90.0%	90.0%	90.0%	90.0%	70.0%	90.0%
1	145	Base CFL to screw-in replacement	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	146	Screw-in LED--Base CFL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	150	Base Incandescent Flood, 75W to Hardwired CFL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	151	CFL Hardwired, Modular 18W	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	152	Ceramic Metal Halide	50.0%	50.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	5.0%	50.0%
1	153	Hardwired LED fixture--Base Incandescent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	155	Base CFL to Hardwired replacement	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	156	Hardwired LED fixture--Base CFL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	160	Base High Bay Probe-start Metal Halide, 400W	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	161	High Bay T5 - Base Std MH	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	162	PSMH + electronic ballast	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	163	Induction High Bay Lighting - Base Std MH	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	164	Occupancy Sensor, High Bay T5 - Base Std MH	18.5%	18.5%	18.5%	18.5%	18.5%	18.5%	18.5%	18.5%	18.5%	18.5%
1	165	High Performance Lighting Remod/Renov - 25% Savings - Base High Bay PSMH	30%	30%	30%	30.0%	30%	30%	30.0%	30%	30%	30%
1	180	Base 4L4'T8, 1EB	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	181	ROB 4L4' Premium T8, 1EB - Base 4L4'T8	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	182	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4'T8	40.0%	10.0%	10.0%	7.0%	20.0%	50.0%	35.0%	50.0%	20.0%	20.0%
1	183	Lighting Control Tuneup - Base 4L4'T8	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	184	LED Indoor Lighting - Base 4L4'T8	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	185	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4'T8	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	190	Base 2L4'T8, 1EB	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	191	ROB 2L4' Premium T8, 1EB - Base 2L4'T8	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	192	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4'T8	40.0%	10.0%	10.0%	7.0%	50.0%	50.0%	35.0%	50.0%	20.0%	20.0%
1	193	Lighting Control Tuneup - Base 2L4'T8	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	194	LED Indoor Lighting - Base 2L4'T8	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
1	196	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4'T8	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	200	Base Exit Sign	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

APPENDIX E

COMMERCIAL

MEASURE INPUT DATA

1	201	LED Exit Sign	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	210	Base Outdoor Mercury Vapor 400W Lamp	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	211	High Pressure Sodium 250W Lamp	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	212	LED Outdoor Area Lighting	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	213	LED Outdoor Bi-level Fixtures	50 0%	50.0%	50.0%	50 0%	50.0%	50.0%	50 0%	50.0%	50 0%	50 0%
1	214	Outdoor Lighting Controls (Photocell/Timeclock)	90 0%	90.0%	90.0%	90 0%	90.0%	90.0%	90 0%	90.0%	90 0%	90 0%
1	220	Base Street Lighting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	221	Induction Streetlighting	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	222	LED Streetlighting	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	300	Base Centrifugal Chiller, 0.58 kW/ton, 500 tons	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	301	Centrifugal Chiller, 0.51 kW/ton, 500 tons	100.0%	0.0%	100 0%	0.0%	100.0%	100 0%	100.0%	100.0%	0 0%	100.0%
1	302	Window Film (Standard)	75 0%	75.0%	50.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	303	EMS - Chiller	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	304	Cool Roof - Chiller	50 0%	50.0%	50.0%	50 0%	50.0%	50.0%	50 0%	50.0%	50.0%	50 0%
1	305	Chiller Tune Up/Diagnostics	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	306	VSD for Chiller Pumps and Towers	66 8%	0.0%	0 0%	0.0%	0.0%	0 0%	100.0%	100.0%	0 0%	100.0%
1	307	EMS Optimization	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	308	Economizer - Chiller	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	89 5%
1	309	Duct/Pipe Insulation - Chiller	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1	311	High Efficiency Chiller Motors	63%	100%	100%	0%	100%	100%	100%	100%	0%	100%
1	350	Base DX Packaged System, EER=10.3, 10 tons	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	351	DX Tune Up/ Advanced Diagnostics	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	352	DX Packaged System, EER=10.9, 10 tons	86 2%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	98.7%
1	353	DX Packaged System, EER=11.5, 10 tons	86 2%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	98.7%
1	354	DX Packaged System, EER=13.4, 10 tons	86 2%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	98.7%
1	357	Window Film (Standard)	75 0%	75.0%	50.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	358	Prog. Thermostat - DX	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	359	Cool Roof - DX	50 0%	50.0%	50.0%	50 0%	50.0%	50.0%	50 0%	50.0%	50.0%	50 0%
1	360	Optimize Controls	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	361	Economizer	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	89 5%
1	362	Aerosol Duct Sealing - DX	32 0%	32.0%	32.0%	32 0%	32.0%	32.0%	32 0%	32.0%	32.0%	32 0%
1	363	Ceiling/roof Insulation - DX	22 0%	43.0%	100.0%	100.0%	100 0%	3.0%	100.0%	100 0%	100.0%	100.0%
1	364	Duct/Pipe Insulation - DX	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	365	DX Coil Cleaning	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	400	Base Fan Motor, 5hp, 1800rpm, 87.5%	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	401	Fan Motor, 5hp, 1800rpm, 89 5%	94.4%	100 0%	91.8%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	402	Variable Speed Drive Control, 5 HP	82 6%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	0 0%	100.0%
1	403	Demand Controlled Ventilation	78 6%	92.2%	70.0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	91 2%
1	410	Base Fan Motor, 15hp, 1800rpm, 91 0%	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	411	Fan Motor, 15hp, 1800rpm, 92.4%	94.4%	100 0%	91.8%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	412	Variable Speed Drive Control, 15 HP	82 6%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	0 0%	100.0%
1	413	Air Handler Optimization, 15 HP	51 0%	24.2%	37.2%	17.7%	24.4%	65.7%	37.1%	27 9%	58.8%	91.4%
1	414	Energy Recovery Ventilation	55 2%	100 0%	100 0%	100.0%	100.0%	69.3%	100.0%	100.0%	100 0%	87 6%
1	415	Electronically Commutated Motors (ECM) on an air handler unit	100.0%	100 0%	100 0%	100.0%	100.0%	81.8%	0.0%	100.0%	100 0%	81.4%
1	416	Separate Makeup Air/Exhaust Hoods AC	0.0%	100 0%	0 0%	10 0%	0.0%	0.0%	0.0%	0.0%	0 0%	0.0%
1	417	Demand Controlled Ventilation	78 6%	92.2%	70.0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	91 2%
1	420	Base Fan Motor, 40hp, 1800rpm, 93 0%	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	421	Fan Motor, 40hp, 1800rpm, 94.1%	94.4%	100 0%	91.8%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	422	Variable Speed Drive Control, 40 HP	82 6%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	0 0%	100.0%
1	423	Air Handler Optimization, 40 HP	51 0%	24.2%	37.2%	17.7%	24.4%	65.7%	37.1%	27 9%	58.8%	91.4%
1	424	Demand Controlled Ventilation	78 6%	92.2%	70.0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	91 2%
1	500	Base Non-Commercial Refrigerator	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	501	Energy Star Refrigerator	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	502	HE Refrigerator - CEE Tier 2 (side by side freezer)	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	520	Base Refrigeration System	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	521	High-efficiency fan motors	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	0 0%	100.0%
1	522	Strip curtains for walk-ins	0.0%	100 0%	100 0%	100.0%	100.0%	100 0%	0.0%	100.0%	0 0%	100.0%
1	523	Night covers for display cases	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%

APPENDIX E

COMMERCIAL

MEASURE INPUT DATA

1	524	Evaporator fan controller for MT walk-ins	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	0 0%	41 2%
1	525	Efficient compressor motor	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	0 0%	100.0%
1	526	Compressor VSD retrofit	0.0%	100 0%	100 0%	100.0%	100.0%	0 0%	0.0%	100.0%	0 0%	100.0%
1	527	Floating head pressure controls	0.0%	100 0%	100 0%	100.0%	100.0%	100 0%	0.0%	100.0%	0 0%	100.0%
1	528	Refrigeration Commissioning	20 0%	20.0%	20.0%	100.0%	20.0%	20.0%	20 0%	20.0%	20 0%	20 0%
1	529	Demand Hot Gas Defrost	0.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	0 0%	0.0%
1	530	Demand Defrost Electric	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	0 0%	100.0%
1	531	Anti-sweat (humidistat) controls	0.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	0.0%	0 0%	100.0%
1	533	Freezer-Cooler Replacement Gaskets	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	534	High R-Value Glass Doors	0.0%	0.0%	100 0%	100.0%	100.0%	0 0%	100.0%	0.0%	0 0%	100.0%
1	535	Multiplex Compressor System	0.0%	100 0%	100 0%	100.0%	100.0%	0 0%	0.0%	0.0%	0 0%	0.0%
1	536	Oversized Air-Cooled Condenser	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	537	LED Display Lighting	50 0%	50.0%	50.0%	50 0%	50.0%	50.0%	50 0%	50.0%	50.0%	50 0%
1	538	Fiber Optic Display Lighting	50 0%	50.0%	50.0%	50 0%	50.0%	50.0%	50 0%	50.0%	50.0%	50 0%
1	539	Beverage Merchandisers	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	540	Reach-In Refrigerators	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	541	Reach-In Freezers	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	542	Walk-Ins	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	610	Base Desktop PC	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	611	Energy Star or Better PC	75 0%	100 0%	75 0%	100 0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	612	PC Manual Power Management Enabling	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75 0%	75 0%
1	613	PC Network Power Management Enabling	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	620	Base Monitor, CRT	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	621	Energy Star or Better Monitor	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	622	Monitor Power Management Enabling	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	630	Base Monitor, LCD	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	631	Energy Star or Better Monitor	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	632	Monitor Power Management Enabling	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	640	Base Copier	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	641	Energy Star or Better Copier	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	642	Copier Power Management Enabling	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	650	Base Laser Printer	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	651	Printer Power Management Enabling	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	660	Base Data Center/Server Room	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	661	Data Center Improved Operations	60 0%	60.0%	60.0%	60 0%	60.0%	60.0%	60 0%	60.0%	60.0%	60 0%
1	662	Data Center Best Practices	30 0%	30.0%	30.0%	30 0%	30.0%	30.0%	30 0%	30.0%	30.0%	30 0%
1	663	Data Center State of the Art practices	10 0%	10.0%	10.0%	10 0%	10.0%	10.0%	10 0%	10.0%	10.0%	10 0%
1	700	Base Water Heating	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	701	Demand controlled circulating systems	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	702	High Efficiency Water Heater (electric)	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	703	Heat Pump Water Heater (air source)	80 0%	80.0%	80.0%	80 0%	80.0%	80.0%	80 0%	80.0%	80.0%	80 0%
1	704	Hot Water Pipe Insulation	32 0%	5.0%	73.8%	17.7%	75.9%	8 3%	12 3%	18.8%	31.9%	2.4%
1	706	Heat Recovery Unit	10 0%	80.0%	5 0%	80 0%	10.0%	15.0%	15 0%	80.0%	20.0%	5.0%
1	707	Heat Trap	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	708	Tankless Water Heater	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%	75.0%	75.0%	75 0%
1	709	Solar Water Heater	76 0%	20.0%	4 0%	20 0%	49.0%	20.0%	0.0%	20.0%	20.0%	0.0%
1	800	Base Vending Machines	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	801	Vending Misers (cooled machines only)	70 0%	70.0%	70.0%	70 0%	70.0%	70.0%	70 0%	70.0%	70.0%	70 0%
1	900	Base Oven	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	901	Convection Oven	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	905	Base Fryer	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	906	Efficient Fryer	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	910	Base Steamer	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	911	Efficient Steamer	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	915	Base Hot Food Holding Cabinets	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	916	Energy Star Hot Food Holding Cabinets	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	940	Base Heating	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	941	XHeat	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%

1	970	Base Miscellaneous	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
1	971	XMisc	100.0%	100 0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%

**INCOMPLETE FACTOR
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	Grocery	Warehousing	School	College	Health Care	Hotel	Miscellaneous
1	100	Base Fluorescent Fixture, 4L4'T12, 34W, 2EEMF	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	101	RET 4L4' Premium T8, 1EB, base 4L4'T12	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	102	RET 2L4' Premium T8, 1EB, Reflector, base 4L4	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	103	LED Indoor Lighting - Base 4L4'T12	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	104	Occupancy Sensor, 4L4' Fluorescent Fixtures - E	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	105	Continuous Dimming, 5L4' Fluorescent Fixtures -	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	106	Lighting Control Tuneup	25.8%	43.0%	37.9%	62.6%	31.2%	8.4%	0.0%	87.7%	6.9%	60.1%
1	107	High Performance Lighting Remod/Renov - 25%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	120	Base Fluorescent Fixture, 2L4'T12, 34W, 1EEMF	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	121	RET 2L4' Premium T8, 1EB -- base 2L4'T12	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	122	RET 1L4' Premium T8, 1EB, Reflector OEM - Ba	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	123	LED Indoor Lighting - Base 2L4'T12	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	124	Occupancy Sensor, 8L4' Fluorescent Fixtures - E	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	93.7%	100.0%	100.0%	100.0%
1	125	Continuous Dimming, 10L4' Fluorescent Fixtures	100.0%	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	126	Lighting Control Tuneup - Base 2L4'T12	25.8%	43.0%	37.9%	62.6%	31.2%	8.4%	0.0%	87.7%	6.9%	60.1%
1	127	High Performance Lighting Remod/Renov - 25%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	130	Base Fluorescent Fixture, 2L8'T12, 60W, 1EEMF	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	131	RET 2 - 2L4' Premium T8, 1EB - Base 2L8'T12	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	132	RET 2 - 1L4' Premium T8, 1EB, Reflector OEM -	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	133	LED Indoor Lighting - Base 2L8'T12	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	134	Occupancy Sensor, 4L8' Fluorescent Fixtures - E	97.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	135	Continuous Dimming, 5L8' Fluorescent Fixtures -	100.0%	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	136	High Performance Lighting Remod/Renov - 25%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	140	Base Incandescent Flood, 75W to Screw-in Rep	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	141	CFL Screw-in 18W	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	142	Cold Cathode Lamps	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	143	Screw-in LED--Base Incandescent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	145	Base CFL to screw-in replacement	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	146	Screw-in LED--Base CFL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	150	Base Incandescent Flood, 75W to Hardwired CF	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	151	CFL Hardwired, Modular 18W	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	152	Ceramic Metal Halide	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	153	Hardwired LED fixture--Base Incandescent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	155	Base CFL to Hardwired replacement	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	156	Hardwired LED fixture--Base CFL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	160	Base High Bay Probe-start Metal Halide, 400W	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	161	High Bay T5 - Base Std MH	100.0%	100.0%	87.7%	100.0%	46.3%	36.0%	100.0%	100.0%	100.0%	100.0%
1	162	PSMH + electronic ballast	100%	100%	100%	58%	100%	79%	68%	100%	100%	74%
1	163	Induction High Bay Lighting - Base Std MH	100%	100%	100%	100.0%	100%	100.0%	100.0%	100%	100%	100.0%
1	164	Occupancy Sensor, High Bay T5 - Base Std MH	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%
1	165	High Performance Lighting Remod/Renov - 25%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	180	Base 4L4'T8, 1EB	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	181	ROB 4L4' Premium T8, 1EB - Base 4L4'T8	59.1%	78.0%	62.3%	0.0%	39.0%	100.0%	76.6%	98.6%	0.0%	59.3%
1	182	Occupancy Sensor, 4L4' Fluorescent Fixtures - E	99.4%	100.0%	100.0%	100.0%	100.0%	82.6%	77.4%	97.1%	100.0%	96.3%
1	183	Lighting Control Tuneup - Base 4L4'T8	25.8%	43.0%	37.9%	62.6%	31.2%	8.4%	0.0%	87.7%	6.9%	60.1%
1	184	LED Indoor Lighting - Base 4L4'T8	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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1	185	High Performance Lighting Remod/Renov - 25%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	190	Base 2L4'T8, 1EB	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	191	ROB 2L4' Premium T8, 1EB - Base 2L4'T8	59.2%	100.0%	63.3%	0.0%	100.0%	100.0%	74.5%	98.8%	0.0%	54.5%
1	192	Occupancy Sensor, 8L4' Fluorescent Fixtures - E	99.7%	100.0%	97.1%	100.0%	100.0%	87.4%	70.9%	94.0%	100.0%	95.2%
1	193	Lighting Control Tuneup - Base 2L4'T8	25.8%	43.0%	37.9%	62.6%	31.2%	8.4%	0.0%	87.7%	6.9%	60.1%
1	194	LED Indoor Lighting - Base 2L4'T8	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	196	High Performance Lighting Remod/Renov - 25%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	200	Base Exit Sign	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	201	LED Exit Sign	81.2%	93.3%	97.8%	100.0%	91.4%	89.9%	83.8%	94.7%	86.5%	95.4%
1	210	Base Outdoor Mercury Vapor 400W Lamp	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	211	High Pressure Sodium 250W Lamp	57.5%	62.0%	65.2%	100.0%	88.5%	44.5%	64.9%	73.8%	100.0%	57.4%
1	212	LED Outdoor Area Lighting	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	213	LED Outdoor Bi-level Fixtures	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	214	Outdoor Lighting Controls (Photocell/Timeclock)	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
1	220	Base Street Lighting	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	221	Induction Streetlighting	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
1	222	LED Streetlighting	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.0%
1	300	Base Centrifugal Chiller, 0.58 kW/ton, 500 tons	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	301	Centrifugal Chiller, 0.51 kW/ton, 500 tons	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%
1	302	Window Film (Standard)	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
1	303	EMS - Chiller	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	304	Cool Roof - Chiller	65.0%	68.0%	63.0%	80.0%	47.0%	80.0%	66.0%	84.0%	100.0%	78.0%
1	305	Chiller Tune Up/Diagnostics	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
1	306	VSD for Chiller Pumps and Towers	74.0%	74.0%	74.0%	74.0%	74.0%	74.0%	74.0%	74.0%	74.0%	74.0%
1	307	EMS Optimization	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
1	308	Economizer - Chiller	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
1	309	Duct/Pipe Insulation - Chiller	3.0%	12.0%	79.0%	11.0%	83.0%	3.0%	3.0%	3.0%	3.0%	10.0%
1	311	High Efficiency Chiller Motors	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%
1	350	Base DX Packaged System, EER=10.3, 10 tons	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	351	DX Tune Up/ Advanced Diagnostics	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%
1	352	DX Packaged System, EER=10.9, 10 tons	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	353	DX Packaged System, EER=11.5, 10 tons	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	354	DX Packaged System, EER=13.4, 10 tons	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	357	Window Film (Standard)	83.6%	90.4%	69.4%	100.0%	95.0%	100.0%	81.8%	84.8%	100.0%	89.7%
1	358	Prog. Thermostat - DX	67.0%	67.0%	67.0%	67.0%	67.0%	67.0%	67.0%	67.0%	67.0%	67.0%
1	359	Cool Roof - DX	65.0%	68.0%	63.0%	80.0%	47.0%	80.0%	66.0%	84.0%	100.0%	78.0%
1	360	Optimize Controls	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%
1	361	Economizer	53.0%	53.0%	53.0%	53.0%	53.0%	53.0%	53.0%	53.0%	53.0%	53.0%
1	362	Aerosol Duct Sealing - DX	100.0%	91.6%	100.0%	100.0%	97.4%	100.0%	37.1%	100.0%	100.0%	96.0%
1	363	Ceiling/roof Insulation - DX	13.9%	21.6%	16.1%	33.0%	53.7%	20.8%	0.0%	0.0%	0.0%	48.1%
1	364	Duct/Pipe Insulation - DX	89.8%	77.6%	61.1%	86.7%	85.1%	88.7%	75.7%	86.2%	41.2%	23.9%
1	365	DX Coil Cleaning	79.0%	47.3%	51.9%	10.6%	92.9%	55.1%	29.8%	0.0%	37.5%	57.4%
1	400	Base Fan Motor, 5hp, 1800rpm, 87.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	401	Fan Motor, 5hp, 1800rpm, 89.5%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%
1	402	Variable Speed Drive Control, 5 HP	47.3%	100.0%	82.4%	100.0%	100.0%	100.0%	0.0%	84.8%	100.0%	26.5%
1	403	Demand Controlled Ventilation	79.6%	76.3%	100.0%	55.9%	100.0%	59.2%	37.1%	100.0%	100.0%	33.5%
1	410	Base Fan Motor, 15hp, 1800rpm, 91.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	411	Fan Motor, 5hp, 1800rpm, 89.5%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%
1	412	Variable Speed Drive Control, 15 HP	47.3%	100.0%	82.4%	100.0%	100.0%	100.0%	0.0%	84.8%	100.0%	26.5%
1	413	Air Handler Optimization, 15 HP	56.2%	100.0%	97.1%	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%	21.7%

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1	414	Energy Recovery Ventilation	58.7%	100.0%	97.8%	100.0%	100.0%	100.0%	26.2%	100.0%	100.0%	19.9%
1	415	Electronically Commutated Motors (ECM) on an	100.0%	71.8%	100.0%	100.0%	100.0%	80.4%	100.0%	100.0%	100.0%	100.0%
1	416	Separate Makeup Air/Exhaust Hoods AC	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	417	Demand Controlled Ventilation	79.6%	76.3%	100.0%	55.9%	100.0%	59.2%	37.1%	100.0%	100.0%	33.5%
1	420	Base Fan Motor, 40hp, 1800rpm, 93.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	421	Fan Motor, 5hp, 1800rpm, 89.5%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%
1	422	Variable Speed Drive Control, 40 HP	47.3%	100.0%	82.4%	100.0%	100.0%	100.0%	0.0%	84.8%	100.0%	26.5%
1	423	Air Handler Optimization, 40 HP	56.2%	100.0%	97.1%	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%	21.7%
1	424	Demand Controlled Ventilation	79.6%	76.3%	100.0%	55.9%	100.0%	59.2%	37.1%	100.0%	100.0%	33.5%
1	500	Base Non-Commercial Refrigerator	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	501	Energy Star Refrigerator	0.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	98.4%	0.0%	0.0%
1	502	HE Refrigerator - CEE Tier 2 (side by side freeze	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	520	Base Refrigeration System	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	521	High-efficiency fan motors	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	67.3%
1	522	Strip curtains for walk-ins	100.0%	79.5%	100.0%	82.3%	94.3%	100.0%	100.0%	87.3%	100.0%	100.0%
1	523	Night covers for display cases	84.3%	100.0%	100.0%	82.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	524	Evaporator fan controller for MT walk-ins	84.3%	94.3%	94.6%	100.0%	88.6%	100.0%	0.0%	100.0%	100.0%	67.3%
1	525	Efficient compressor motor	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	67.3%
1	526	Compressor VSD retrofit	100.0%	100.0%	98.4%	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%	100.0%
1	527	Floating head pressure controls	100.0%	100.0%	100.0%	50.7%	100.0%	100.0%	100.0%	100.0%	100.0%	67.3%
1	528	Refrigeration Commissioning	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
1	529	Demand Hot Gas Defrost	100.0%	100.0%	100.0%	70.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	530	Demand Defrost Electric	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	531	Anti-sweat (humidistat) controls	100.0%	100.0%	98.4%	33.0%	100.0%	100.0%	100.0%	100.0%	100.0%	67.3%
1	533	Freezer-Cooler Replacement Gaskets	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
1	534	High R-Value Glass Doors	100.0%	100.0%	100.0%	70.4%	94.3%	100.0%	100.0%	100.0%	100.0%	67.3%
1	535	Multiplex Compressor System	100.0%	100.0%	100.0%	70.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	536	Oversized Air-Cooled Condenser	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
1	537	LED Display Lighting	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	67.3%
1	538	Fiber Optic Display Lighting	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	539	Beverage Merchandisers	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%
1	540	Reach-In Refrigerators	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%
1	541	Reach-In Freezers	66.0%	66.0%	66.0%	66.0%	66.0%	66.0%	66.0%	66.0%	66.0%	66.0%
1	542	Walk-Ins	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	610	Base Desktop PC	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	611	Energy Star or Better PC	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%
1	612	PC Manual Power Management Enabling	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
1	613	PC Network Power Management Enabling	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
1	620	Base Monitor, CRT	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	621	Energy Star or Better Monitor	89.2%	100.0%	92.2%	100.0%	97.6%	100.0%	100.0%	92.8%	100.0%	100.0%
1	622	Monitor Power Management Enabling	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
1	630	Base Monitor, LCD	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	631	Energy Star or Better Monitor	56.3%	100.0%	87.0%	70.4%	38.3%	88.7%	88.9%	100.0%	41.2%	89.1%
1	632	Monitor Power Management Enabling	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%
1	640	Base Copier	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	641	Energy Star or Better Copier	81.0%	81.0%	81.0%	81.0%	81.0%	81.0%	81.0%	81.0%	81.0%	81.0%
1	642	Copier Power Management Enabling	71.0%	71.0%	71.0%	71.0%	71.0%	71.0%	71.0%	71.0%	71.0%	71.0%
1	650	Base Laser Printer	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	651	Printer Power Management Enabling	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	660	Base Data Center/Server Room	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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1	661	Data Center Improved Operations	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
1	662	Data Center Best Practices	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%
1	663	Data Center State of the Art practices	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	700	Base Water Heating	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	701	Demand controlled circulating systems	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	87.7%	100.0%	100.0%	100.0%
1	702	High Efficiency Water Heater (electric)	100.0%	100.0%	92.8%	100.0%	100.0%	100.0%	88.5%	100.0%	100.0%	100.0%
1	703	Heat Pump Water Heater (air source)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	704	Hot Water Pipe Insulation	83.5%	100.0%	86.2%	100.0%	45.1%	91.7%	91.1%	100.0%	68.1%	100.0%
1	706	Heat Recovery Unit	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	707	Heat Trap	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
1	708	Tankless Water Heater	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	709	Solar Water Heater	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	800	Base Vending Machines	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	801	Vending Misers (cooled machines only)	91.6%	100.0%	93.0%	100.0%	98.6%	83.9%	100.0%	100.0%	100.0%	100.0%
1	900	Base Oven	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	901	Convection Oven	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	905	Base Fryer	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	906	Efficient Fryer	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	910	Base Steamer	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	911	Efficient Steamer	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	915	Base Hot Food Holding Cabinets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	916	Energy Star Hot Food Holding Cabinets	100.00%	100.00%	29.00%	100.00%	100.00%	100.00%	21.00%	100.00%	100.00%	100.00%
1	940	Base Heating	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	941	XHeat	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	970	Base Miscellaneous	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	971	XMisc	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

TECHNOLOGY SATURATION
 (units/square foot)

Segment	Measure #	Measure Description	Office	Restaurant	Retail	Grocery	Warehousing	School	College	Health Care	Hotel	Miscellaneous	Cost units	savings unit
1	100	Base Fluorescent Fixture, 4L4'T12, 34W, 2EEMAG	0.0133	0.0072	0.0112	0.0132	0.0688	0.0151	0.0085	0.0103	0.0075	0.0105	fixture	per sq ft
1	101	RET 4L4' Premium T8, 1EB, base 4L4'T12	0.0133	0.0072	0.0112	0.0132	0.0688	0.0151	0.0085	0.0103	0.0075	0.0105	fixture	per sq ft
1	102	RET 2L4' Premium T8, 1EB, Reflector, base 4L4'T12	0.0133	0.0072	0.0112	0.0132	0.0688	0.0151	0.0085	0.0103	0.0075	0.0105	fixture	per sq ft
1	103	LED Indoor Lighting - Base 4L4'T12	0.0133	0.0072	0.0112	0.0132	0.0688	0.0151	0.0085	0.0103	0.0075	0.0105	fixture	per sq ft
1	104	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4'T12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sq ft	per sq ft
1	105	Continuous Dimming, 5L4' Fluorescent Fixtures - Base 4L4'T12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sq ft	per sq ft
1	106	Lighting Control Tuneup	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per sq ft
1	107	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4'T12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per sq ft
1	120	Base Fluorescent Fixture, 2L4'T12, 34W, 1EEMAG	0.0267	0.0143	0.0223	0.0265	0.1376	0.0301	0.0170	0.0205	0.0149	0.0209	fixture	per sq ft
1	121	RET 2L4' Premium T8, 1EB - base 2L4'T12	0.0267	0.0143	0.0223	0.0265	0.1376	0.0301	0.0170	0.0205	0.0149	0.0209	fixture	per sq ft
1	122	RET 1L4' Premium T8, 1EB, Reflector OEM - Base 2L4'T12	0.0267	0.0143	0.0223	0.0265	0.1376	0.0301	0.0170	0.0205	0.0149	0.0209	fixture	per sq ft
1	123	LED Indoor Lighting - Base 2L4'T12	0.0267	0.0143	0.0223	0.0265	0.1376	0.0301	0.0170	0.0205	0.0149	0.0209	fixture	per sq ft
1	124	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4'T12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sq ft	per sq ft
1	125	Continuous Dimming, 10L4' Fluorescent Fixtures - Base 2L4'T12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sq ft	per sq ft
1	126	Lighting Control Tuneup - Base 2L4'T12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per sq ft
1	127	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4'T12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per sq ft
1	130	Base Fluorescent Fixture, 2L8'T12, 60W, 1EEMAG	0.0156	0.0084	0.0131	0.0155	0.0806	0.0176	0.0100	0.0120	0.0087	0.0123	fixture	per sq ft
1	131	RET 2 - 2L4' Premium T8, 1EB - Base 2L8'T12	0.0156	0.0084	0.0131	0.0155	0.0806	0.0176	0.0100	0.0120	0.0087	0.0123	fixture	per sq ft
1	132	RET 2 - 1L4' Premium T8, 1EB, Reflector OEM - Base 2L8'T12	0.0156	0.0084	0.0131	0.0155	0.0806	0.0176	0.0100	0.0120	0.0087	0.0123	fixture	per sq ft
1	133	LED Indoor Lighting - Base 2L8'T12	0.0156	0.0084	0.0131	0.0155	0.0806	0.0176	0.0100	0.0120	0.0087	0.0123	fixture	per sq ft
1	134	Occupancy Sensor, 4L8' Fluorescent Fixtures - Base 2L8'T12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sq ft	per sq ft
1	135	Continuous Dimming, 5L8' Fluorescent Fixtures - Base 2L8'T12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sq ft	per sq ft
1	136	High Performance Lighting Remod/Renov - 25% Savings - Base 2L8'T12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per sq ft
1	140	Base Incandescent Flood, 75W to Screw-in Replacement	0.0316	0.0435	0.0684	0.1000	0.0672	0.1050	0.0641	0.0288	0.0389	0.0164	fixture	per sq ft
1	141	CFL Screw-in 18W	0.0316	0.0435	0.0684	0.1000	0.0672	0.1050	0.0641	0.0288	0.0389	0.0164	fixture	per sq ft
1	142	Cold Cathode Lamps	0.0316	0.0435	0.0684	0.1000	0.0672	0.1050	0.0641	0.0288	0.0389	0.0164	fixture	per sq ft
1	143	Screw-in LED--Base Incandescent	0.0316	0.0435	0.0684	0.1000	0.0672	0.1050	0.0641	0.0288	0.0389	0.0164		
1	145	Base CFL to screw-in replacement	0.0360	0.0496	0.0780	0.1141	0.0766	0.1197	0.0731	0.0328	0.0443	0.0187		
1	146	Screw-in LED--Base CFL	0.0360	0.0496	0.0780	0.1141	0.0766	0.1197	0.0731	0.0328	0.0443	0.0187		
1	150	Base Incandescent Flood, 75W to Hardwired CFL	0.0316	0.0435	0.0684	0.1000	0.0672	0.1050	0.0641	0.0288	0.0389	0.0164	fixture	per sq ft
1	151	CFL Hardwired, Modular 18W	0.0316	0.0435	0.0684	0.1000	0.0672	0.1050	0.0641	0.0288	0.0389	0.0164	fixture	per sq ft
1	152	Ceramic Metal Halide	0.0316	0.0435	0.0684	0.1000	0.0672	0.1050	0.0641	0.0288	0.0389	0.0164	fixture	per sq ft
1	153	Hardwired LED fixture--Base Incandescent	0.0316	0.0435	0.0684	0.1000	0.0672	0.1050	0.0641	0.0288	0.0389	0.0164		
1	155	Base CFL to Hardwired replacement	0.0360	0.0496	0.0780	0.1141	0.0766	0.1197	0.0731	0.0328	0.0443	0.0187		
1	156	Hardwired LED fixture--Base CFL	0.0360	0.0496	0.0780	0.1141	0.0766	0.1197	0.0731	0.0328	0.0443	0.0187		
1	160	Base High Bay Probe-Start Metal Halide, 400W	0.0049	0.0027	0.0041	0.0049	0.0255	0.0056	0.0031	0.0038	0.0028	0.0039	fixture	per sq ft
1	161	High Bay T5 - Base Std MH	0.0049	0.0027	0.0041	0.0049	0.0255	0.0056	0.0031	0.0038	0.0028	0.0039	fixture	per sq ft
1	162	PSMH + electronic ballast	0.0049	0.0027	0.0041	0.0049	0.0255	0.0056	0.0031	0.0038	0.0028	0.0039	fixture	per sq ft
1	163	Induction High Bay Lighting - Base Std MH	0.0049	0.0027	0.0041	0.0049	0.0255	0.0056	0.0031	0.0038	0.0028	0.0039	fixture	per sq ft
1	164	Occupancy Sensor, High Bay T5 - Base Std MH	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sq ft	per sq ft
1	165	High Performance Lighting Remod/Renov - 25% Savings - Base High Bay PSMH	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per sq ft
1	180	Base 4L4'T8, 1EB	0.0099	0.0053	0.0083	0.0183	0.0950	0.0111	0.0117	0.0076	0.0055	0.0077	fixture	per sq ft
1	181	ROB 4L4' Premium T8, 1EB - Base 4L4'T8	0.0099	0.0053	0.0083	0.0183	0.0950	0.0111	0.0117	0.0076	0.0055	0.0077	fixture	per sq ft
1	182	Occupancy Sensor, 4L4' Fluorescent Fixtures - Base 4L4'T8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sq ft	per sq ft
1	183	Lighting Control Tuneup - Base 4L4'T8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per sq ft
1	184	LED Indoor Lighting - Base 4L4'T8	0.0099	0.0053	0.0083	0.0183	0.0950	0.0111	0.0117	0.0076	0.0055	0.0077	fixture	per sq ft
1	185	High Performance Lighting Remod/Renov - 25% Savings - Base 4L4'T8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per sq ft
1	190	Base 2L4'T8, 1EB	0.0190	0.0102	0.0159	0.0228	0.1187	0.0215	0.0147	0.0146	0.0107	0.0149	fixture	per sq ft
1	191	ROB 2L4' Premium T8, 1EB - Base 2L4'T8	0.0190	0.0102	0.0159	0.0228	0.1187	0.0215	0.0147	0.0146	0.0107	0.0149	fixture	per sq ft
1	192	Occupancy Sensor, 8L4' Fluorescent Fixtures - Base 2L4'T8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sq ft	per sq ft
1	193	Lighting Control Tuneup - Base 2L4'T8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per sq ft
1	194	LED Indoor Lighting - Base 2L4'T8	0.0190	0.0102	0.0159	0.0228	0.1187	0.0215	0.0147	0.0146	0.0107	0.0149	fixture	per sq ft
1	196	High Performance Lighting Remod/Renov - 25% Savings - Base 2L4'T8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per sq ft
1	200	Base Exit Sign	0.0003	0.0005	0.0002	0.0001	0.0004	0.0001	0.0002	0.0005	0.0003	0.0001	fixture	per sq ft
1	201	LED Exit Sign	0.0003	0.0005	0.0002	0.0001	0.0004	0.0001	0.0002	0.0005	0.0003	0.0001	fixture	per sq ft
1	210	Base Outdoor Mercury Vapor 400W Lamp	0.0011	0.0027	0.0008	0.0014	0.0015	0.0008	0.0002	0.0003	0.0004	0.0007	fixture	per sq ft
1	211	High Pressure Sodium 250W Lamp	0.0011	0.0027	0.0008	0.0014	0.0015	0.0008	0.0002	0.0003	0.0004	0.0007	fixture	per sq ft
1	212	LED Outdoor Area Lighting	0.0011	0.0027	0.0008	0.0014	0.0015	0.0008	0.0002	0.0003	0.0004	0.0007	fixture	per sq ft
1	213	LED Outdoor Bi-level Fixtures	0.0011	0.0027	0.0008	0.0014	0.0015	0.0008	0.0002	0.0003	0.0004	0.0007	fixture	per sq ft
1	214	Outdoor Lighting Controls (Photocell/Timeclock)	0.0003	0.0007	0.0002	0.0003	0.0004	0.0002	0.0000	0.0001	0.0001	0.0002	fixture	per sq ft
1	220	Base Street Lighting	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	fixture	per sq ft
1	221	Induction Streetlighting										0.0026	fixture	per sq ft
1	222	LED Streetlighting										0.0026	fixture	per sq ft
1	300	Base Centrifugal Chiller, 0.58 kW/ton, 500 tons	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per sq ft
1	301	Centrifugal Chiller, 0.51 kW/ton, 500 tons	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per sq ft
1	302	Window Film (Standard)	0.0877	0.0284	0.0409	0.0460	0.0945	0.0242	0.0625	0.0171	0.0171	0.0284	sf-window	per sq ft
1	303	EMS - Chiller	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per sq ft
1	304	Cool Roof - Chiller	0.5000	1.0000	1.0000	1.0000	0.0833	0.5000	0.4333	1.0000	1.0000	1.0000	sf-roof	per sq ft

APPENDIX E

COMMERCIAL

MEASURE INPUT DATA

1	305	Chiller Tune Up/Diagnostics	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	306	VSD for Chiller Pumps and Towers	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per	sq ft
1	307	EMS Optimization	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	308	Economizer - Chiller	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per	sq ft
1	309	Duct/Pipe Insulation - Chiller	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	sqft-insulation	per	sq ft
1	311	High Efficiency Chiller Motors	0.0024	0.0034	0.0021	0.0025	0.0018	0.0033	0.0026	0.0035	0.0028	0.0039	ton	per	sq ft
1	350	Base DX Packaged System, EER=10.3, 10 tons	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per	sq ft
1	351	DX Tune Up/ Advanced Diagnostics	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	352	DX Packaged System, EER=10.9, 10 tons	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per	sq ft
1	353	DX Packaged System, EER=11.5, 10 tons	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per	sq ft
1	354	DX Packaged System, EER=13.4, 10 tons	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per	sq ft
1	357	Window Film (Standard)	0.0877	0.0284	0.0409	0.0460	1.0172	0.0242	0.0625	0.0171	0.0171	0.0284	sf-window	per	sq ft
1	358	Prog. Thermostat - DX	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per	sq ft
1	359	Cool Roof - DX	0.5000	1.0000	1.0000	1.0000	0.0833	0.5000	0.4333	1.0000	1.0000	1.0000	sf-roof	per	sq ft
1	360	Optimize Controls	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	361	Economizer	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per	sq ft
1	362	Aerosol Duct Sealing - DX	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per	sq ft
1	363	Ceiling/roof Insulation - DX	0.5000	1.0000	1.0000	1.0000	0.0833	0.5000	0.4333	1.0000	1.0000	1.0000	sf-ceiling	per	sq ft
1	364	Duct/Pipe Insulation - DX	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	365	DX Coil Cleaning	0.0030	0.0030	0.0030	0.0025	0.0189	0.0025	0.0026	0.0025	0.0035	0.0020	ton	per	sq ft
1	400	Base Fan Motor, 5hp, 1800rpm, 87.5%	0.0003	0.0018	0.0003	0.0005	0.0003	0.0004	0.0001	0.0003	0.0003	0.0005	HP	per	sq ft
1	401	Fan Motor, 5hp, 1800rpm, 89.5%	0.0003	0.0018	0.0003	0.0005	0.0003	0.0004	0.0001	0.0003	0.0003	0.0005	HP	per	sq ft
1	402	Variable Speed Drive Control, 5 HP	0.0003	0.0018	0.0003	0.0005	0.0003	0.0004	0.0001	0.0003	0.0003	0.0005	HP	per	sq ft
1	403	Demand Controlled Ventilation	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	410	Base Fan Motor, 15hp, 1800rpm, 91.0%	0.0002	0.0010	0.0013	0.0000	0.0000	0.0007	0.0003	0.0002	0.0000	0.0009	HP	per	sq ft
1	411	Fan Motor, 15hp, 1800rpm, 92.4%	0.0002	0.0010	0.0013	0.0000	0.0000	0.0007	0.0003	0.0002	0.0000	0.0009	HP	per	sq ft
1	412	Variable Speed Drive Control, 15 HP	0.0002	0.0010	0.0013	0.0000	0.0000	0.0007	0.0003	0.0002	0.0000	0.0009	HP	per	sq ft
1	413	Air Handler Optimization, 15 HP	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	414	Energy Recovery Ventilation	0.0024	0.0037	0.0016	0.0035	0.0004	0.0026	0.0020	0.0042	0.0017	0.0014	ton	per	sq ft
1	415	Electronically Commutated Motors (ECM) on an air handler unit	0.0024	0.0037	0.0016	0.0035	0.0004	0.0026	0.0020	0.0042	0.0017	0.0014	ton	per	sq ft
1	416	Separate Makeup Air/Exhaust Hoods AC	0.0002	0.0010	0.0013	0.0000	0.0000	0.0007	0.0003	0.0002	0.0000	0.0009	HP	per	sq ft
1	417	Demand Controlled Ventilation	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	420	Base Fan Motor, 40hp, 1800rpm, 93.0%	0.0012	0.0000	0.0019	0.0000	0.0004	0.0000	0.0005	0.0000	0.0000	0.0024	HP	per	sq ft
1	421	Fan Motor, 40hp, 1800rpm, 94.1%	0.0012	0.0000	0.0019	0.0000	0.0004	0.0000	0.0005	0.0000	0.0000	0.0024	HP	per	sq ft
1	422	Variable Speed Drive Control, 40 HP	0.0012	0.0000	0.0019	0.0000	0.0004	0.0000	0.0005	0.0000	0.0000	0.0024	HP	per	sq ft
1	423	Air Handler Optimization, 40 HP	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	424	Demand Controlled Ventilation	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	500	Base Non-Commercial Refrigerator	0.0005	0.0005	0.0001	0.0000	0.0001	0.0004	0.0000	0.0007	0.0009	0.0001	refrigerator	per	sq ft
1	501	Energy Star Refrigerator	0.0005	0.0005	0.0001	0.0000	0.0001	0.0004	0.0000	0.0007	0.0009	0.0001	refrigerator	per	sq ft
1	502	HE Refrigerator - CEE Tier 2 (side by side freezer)	0.0005	0.0005	0.0001	0.0000	0.0001	0.0004	0.0000	0.0007	0.0009	0.0001	refrigerator	per	sq ft
1	520	Base Refrigeration System	0.00000	0.00001	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	40,000 sqft stor	per	sq ft
1	521	High-efficiency fan motors	0.00000	0.00001	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	40,000 sqft stor	per	sq ft
1	522	Strip curtains for walk-ins	0.00000	0.00001	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	40,000 sqft stor	per	sq ft
1	523	Night covers for display cases	0.00015	0.00615	0.00123	0.01230	0.00123	0.00123	0.00015	0.00021	0.00015	0.00123	linear ft. displa	per	sq ft
1	524	Evaporator fan controller for MT walk-ins	0.00000	0.00008	0.00002	0.00015	0.00002	0.00002	0.00000	0.00000	0.00000	0.00002	controller	per	sq ft
1	525	Efficient compressor motor	0.00000	0.00001	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	40,000 sqft stor	per	sq ft
1	526	Compressor VSD retrofit	0.00000	0.00001	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	40,000 sqft stor	per	sq ft
1	527	Floating head pressure controls	0.00000	0.00001	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	40,000 sqft stor	per	sq ft
1	528	Refrigeration Commissioning	0.00002	0.00078	0.00016	0.00155	0.00016	0.00016	0.00002	0.00003	0.00002	0.00016	Ton of Load	per	sq ft
1	529	Demand Hot Gas Defrost	0.00002	0.00065	0.00013	0.00130	0.00013	0.00013	0.00002	0.00002	0.00002	0.00013	HP	per	sq ft
1	530	Demand Defrost Electric	0.00002	0.00065	0.00013	0.00130	0.00013	0.00013	0.00002	0.00002	0.00002	0.00013	HP	per	sq ft
1	531	Anti-sweat (humidistat) controls	0.00000	0.00001	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	40,000 sqft stor	per	sq ft
1	533	Freezer-Cooler Replacement Gaskets	0.00009	0.00346	0.00069	0.00692	0.00069	0.00069	0.00009	0.00012	0.00009	0.00069	lin ft doors	per	sq ft
1	534	High R-Value Glass Doors	0.00002	0.00065	0.00013	0.00130	0.00013	0.00013	0.00002	0.00002	0.00002	0.00013	lin ft glass door	per	sq ft
1	535	Multiplex Compressor System	0.00002	0.00078	0.00016	0.00155	0.00016	0.00016	0.00002	0.00003	0.00002	0.00016	tons	per	sq ft
1	536	Oversized Air-Cooled Condenser	0.00002	0.00078	0.00016	0.00155	0.00016	0.00016	0.00002	0.00003	0.00002	0.00016	tons	per	sq ft
1	537	LED Display Lighting	0.00002	0.00065	0.00013	0.00130	0.00013	0.00013	0.00002	0.00002	0.00002	0.00013	lin ft glass door	per	sq ft
1	538	Fiber Optic Display Lighting	0.00002	0.00065	0.00013	0.00130	0.00013	0.00013	0.00002	0.00002	0.00002	0.00013	lin ft glass door	per	sq ft
1	539	Beverage Merchandisers	0.00002	0.00021	0.00170	0.00020	0.00000	0.00001	0.00000	0.00001	0.00000	0.00003	merchandise	per	sq ft
1	540	Reach-In Refrigerators	0.00001	0.00047	0.00029	0.00008	0.00000	0.00001	0.00001	0.00002	0.00002	0.00008	merchandise	per	sq ft
1	541	Reach-In Freezers	0.00000	0.00027	0.00026	0.00494	0.00000	0.00001	0.00000	0.00000	0.00003	0.00000	merchandise	per	sq ft
1	542	Walk-Ins	0.00000	0.00061	0.00022	0.00023	0.00006	0.00001	0.00000	0.00001	0.00000	0.00003	walk-in	per	sq ft
1	610	Base Desktop PC	0.0013	0.0007	0.0006	0.0006	0.0002	0.0016	0.0030	0.0031	0.0003	0.0007	PC	per	sq ft
1	611	Energy Star or Better PC	0.0013	0.0007	0.0006	0.0002	0.0002	0.0016	0.0030	0.0015	0.0001	0.0007	PC	per	sq ft
1	612	PC Manual Power Management Enabling	0.0013	0.0007	0.0006	0.0002	0.0002	0.0016	0.0030	0.0015	0.0001	0.0007	PC	per	sq ft
1	613	PC Network Power Management Enabling	0.0013	0.0007	0.0006	0.0002	0.0002	0.0016	0.0030	0.0015	0.0001	0.0007	PC	per	sq ft
1	620	Base Monitor, CRT	0.0006	0.0008	0.0003	0.0007	0.0001	0.0005	0.0001	0.0004	0.0004	0.0001	PC	per	sq ft
1	621	Energy Star or Better Monitor	0.0006	0.0008	0.0004	0.0004	0.0001	0.0005	0.0001	0.0004	0.0004	0.0001	PC	per	sq ft
1	622	Monitor Power Management Enabling	0.0006	0.0008	0.0004	0.0004	0.0001	0.0005	0.0001	0.0004	0.0004	0.0001	PC	per	sq ft
1	630	Base Monitor, LCD	0.0014	0.0005	0.0006	0.0002	0.0001	0.0012	0.0029	0.0028	0.0002	0.0006	Monitor	per	sq ft
1	631	Energy Star or Better Monitor	0.0014	0.0005	0.0006	0.0001	0.0001	0.0012	0.0029	0.0013	0.0001	0.0006	Monitor	per	sq ft

1	632	Monitor Power Management Enabling	0.0014	0.0005	0.0006	0.0001	0.0001	0.0012	0.0029	0.0013	0.0001	0.0006	Monitor	per	sq ft
1	640	Base Copier	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	Copier	per	sq ft
1	641	Energy Star or Better Copier	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	Copier	per	sq ft
1	642	Copier Power Management Enabling	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	Copier	per	sq ft
1	650	Base Laser Printer	0.0010	0.0002	0.0001	0.0002	0.0001	0.0006	0.0012	0.0005	0.0003	0.0002	Printer	per	sq ft
1	651	Printer Power Management Enabling	0.0010	0.0002	0.0001	0.0002	0.0001	0.0006	0.0012	0.0005	0.0003	0.0002	Printer	per	sq ft
1	660	Base Data Center/Server Room	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	data center sq/	per	sq ft
1	661	Data Center Improved Operations	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	data center sq/	per	sq ft
1	662	Data Center Best Practices	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	data center sq/	per	sq ft
1	663	Data Center State of the Art practices	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	data center sq/	per	sq ft
1	700	Base Water Heating	0.0015	0.0027	0.0013	0.0021	0.0080	0.0025	0.0025	0.0026	0.0038	0.0016	kBtu/hr	per	sq ft
1	701	Demand controlled circulating systems	0.0001	0.0002	0.0001	0.0001	0.0002	0.0001	0.0000	0.0000	0.0001	0.0001	unit	per	sq ft
1	702	High Efficiency Water Heater (electric)	0.0015	0.0027	0.0013	0.0021	0.0080	0.0025	0.0025	0.0026	0.0038	0.0016	kBtu/hr	per	sq ft
1	703	Heat Pump Water Heater (air source)	0.0015	0.0027	0.0013	0.0021	0.0080	0.0025	0.0025	0.0026	0.0038	0.0016	kBtu/hr	per	sq ft
1	704	Hot Water Pipe Insulation	0.0011	0.0021	0.0010	0.0016	0.0061	0.0019	0.0019	0.0020	0.0029	0.0012	Lin Ft Pipe	per	sq ft
1	706	Heat Recovery Unit	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	sqft	per	sq ft
1	707	Heat Trap	0.0015	0.0027	0.0013	0.0021	0.0080	0.0025	0.0025	0.0026	0.0038	0.0016	kBtu/hr	per	sq ft
1	708	Tankless Water Heater	0.0015	0.0027	0.0013	0.0021	0.0080	0.0025	0.0025	0.0026	0.0038	0.0016	kBtu/hr	per	sq ft
1	709	Solar Water Heater	0.0015	0.0027	0.0013	0.0021	0.0080	0.0025	0.0025	0.0026	0.0038	0.0016	kBtu/hr	per	sq ft
1	800	Base Vending Machines	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0005	0.0001	machine	per	sq ft
1	801	Vending Misers (cooled machines only)	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0005	0.0001	machine	per	sq ft
1	900	Base Oven	0.00000	0.00034	0.00001	0.00004	0.00000	0.00005	0.00000	0.00000	0.00002	0.00000	single oven	per	sq ft
1	901	Convection Oven	0.00000	0.00034	0.00001	0.00004	0.00000	0.00005	0.00000	0.00000	0.00002	0.00000	single oven	per	sq ft
1	905	Base Fryer	0.00001	0.00005	0.00000	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001			
1	906	Efficient Fryer	0.00001	0.00005	0.00000	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	unit	per	sq ft
1	910	Base Steamer	0.00001	0.00032	0.00000	0.00004	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000			
1	911	Efficient Steamer	0.00001	0.00032	0.00000	0.00004	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	unit	per	sq ft
1	915	Base Hot Food Holding Cabinets	0.0001	0.0000	0.0001	0.0000	0.0005	0.0000	0.0001	0.0000	0.0000	0.0000			
1	916	Energy Star Hot Food Holding Cabinets	0.0001	0.0000	0.0001	0.0000	0.0005	0.0000	0.0001	0.0000	0.0000	0.0000	cu ft	per	sq ft
1	940	Base Heating	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0000	per	sq ft
1	941	XHeat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	per	sq ft
1	970	Base Miscellaneous	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	per	sq ft
1	971	XMisc	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	per	sq ft

DSM TECHNOLOGY INPUT TABLES

UTILITY:	Missouri	BATCH:	1
SECTOR:	COM	ANALYSIS:	Basic
SEGMENT:	All Electric	VINTAGE:	N

**BASE TECHNOLOGY EUIs
(kWh/square foot)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	20.42	43.84	13.36	67.57	7.97	9.42	9.42	23.49	11.85	9.92
2	200	Base Bldg Design - 50%	20.42	43.84	13.36	67.57	7.97	9.42	9.42	23.49	11.85	9.92
2	300	Base Bldg Design - 70%	20.42	43.84	13.36	67.57	7.97	9.42	9.42	23.49	11.85	9.92

MEASURE COSTS

MEASURE COSTS																									Implementation	
Segment	Measure #	Measure Description	Savings Units	Cost Units	Unit Equipment Cost	Unit Labor Cost	NPV of Lifetime O & M Cost	Implement Cost Units			Full = 1 Incr. = 0 Initial Cost	Replace Cost	Full Unit Cost	Relative Energy Reduction Factors							End Use	1=1 time	Implementation			
								Cost Factor	per Unit	Saving Service Life				SP	SPP	SOP	WP	WPP	WOP	2=ROB		Curve Type				
2	100	Base Bldg Design - 30%	sqft	sqft (1-story	\$0.00		\$0.00	\$0.00	1	20	1	1		\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	12	2				
2	101	High Performance Building/Int Design - Tier 1 30%	sqft	sqft (1-story	\$2.43		\$0.00	\$2.43	1	20	1	1		\$2.43	1.00	1.00	1.00	1.00	1.00	1.00	12	2				
2	200	Base Bldg Design - 50%	sqft	sqft (1-story	\$0.00		\$0.00	\$0.00	1	20	1	1		\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	12	2				
2	201	High Performance Building/Int Design - Tier 2 50%	sqft	sqft (1-story	\$4.86		\$0.00	\$4.86	1	20	1	1		\$4.86	1.00	1.00	1.00	1.00	1.00	1.00	12	2				
2	300	Base Bldg Design - 70%	sqft	sqft (1-story	\$0.00		\$0.00	\$0.00	1	20	1	1		\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	12	2				
2	301	Near Zero Energy (60-75%)	sqft	sqft (1-story	\$14.59		\$0.00	\$14.59	1	20	1	1		\$14.59	1.00	1.00	1.00	1.00	1.00	1.00	12	2				

**Standards Adjustment Factor
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	101	High Performance Building/Int Design - Tier 1 30%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	200	Base Bldg Design - 50%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	201	High Performance Building/Int Design - Tier 2 50%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	300	Base Bldg Design - 70%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	301	Near Zero Energy (60-75%)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**ENERGY SAVINGS
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%										
2	101	High Performance Building/Int Design - Tier 1 30%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
2	200	Base Bldg Design - 50%										
2	201	High Performance Building/Int Design - Tier 2 50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
2	300	Base Bldg Design - 70%										
2	301	Near Zero Energy (60-75%)	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%

**APPLICABILITY FACTOR
(percent)**

Segment Measure # Measure Description			Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	60.00%	60.00%	60.00%	60.00%	100.00%	100.00%	100.00%	60.00%	60.00%	60.00%
2	101	High Performance Building/Int Design - Tier 1 30%	60.00%	60.00%	60.00%	60.00%	100.00%	100.00%	100.00%	60.00%	60.00%	60.00%
2	200	Base Bldg Design - 50%	40.00%	40.00%	40.00%	35.00%	0.00%	0.00%	0.00%	40.00%	40.00%	40.00%
2	201	High Performance Building/Int Design - Tier 2 50%	40.00%	40.00%	40.00%	35.00%	0.00%	0.00%	0.00%	40.00%	40.00%	40.00%
2	300	Base Bldg Design - 70%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	301	Near Zero Energy (60-75%)	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

**FEASIBILITY FACTOR
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	100 0%	100.0%	100.0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
2	101	High Performance Building/Int Design - Tier 1 30%	100 0%	100.0%	100.0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
2	200	Base Bldg Design - 50%	100 0%	100.0%	100.0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
2	201	High Performance Building/Int Design - Tier 2 50%	100 0%	100.0%	100.0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
2	300	Base Bldg Design - 70%	100 0%	100.0%	100.0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%
2	301	Near Zero Energy (60-75%)	100 0%	100.0%	100.0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%

**INCOMPLETE FACTOR
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	101	High Performance Building/Int Design - Tier 1 30%	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	200	Base Bldg Design - 50%	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	201	High Performance Building/Int Design - Tier 2 50%	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	300	Base Bldg Design - 70%	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	301	Near Zero Energy (60-75%)	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

TECHNOLOGY SATURATION
(units/square foot)

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	1.0000	1.1483	0.6624	0.6022	0.5281	0.9398	1.0012	1.7366	0.9589	0.9530
2	101	High Performance Building/Int Design - Tier	1.0000	1.1483	0.6624	0.6022	0.5281	0.9398	1.0012	1.7366	0.9589	0.9530
2	200	Base Bldg Design - 50%	1.0000	1.1483	0.6624	0.6022	0.5281	0.9398	1.0012	1.7366	0.9589	0.9530
2	201	High Performance Building/Int Design - Tier	1.0000	1.1483	0.6624	0.6022	0.5281	0.9398	1.0012	1.7366	0.9589	0.9530
2	300	Base Bldg Design - 70%	1.0000	1.1483	0.6624	0.6022	0.5281	0.9398	1.0012	1.7366	0.9589	0.9530
2	301	Near Zero Energy (60-75%)	1.0000	1.1483	0.6624	0.6022	0.5281	0.9398	1.0012	1.7366	0.9589	0.9530

DSM TECHNOLOGY INPUT TABLES

UTILITY:	Missouri	BATCH:	1
SECTOR:	COM	ANALYSIS	Basic
SEGMENT:	Existing	VINTAGE:	E

BASE TECHNOLOGY EUIs
(therms/square foot)

Segment	Measure #	Measure Description	Office	Restaurant	Retail	Grocery	Warehouse	School	College	Hospital	Lodging	Other
1	100	Base Cooking - Fryer	0.0060	0.6888	0.0328	0.0809	0.0280	0.0062	0.0136	0.0154	0.0338	0.0150
1	110	Base Cooking - Steamer	0.0035	0.4019	0.0192	0.0472	0.0163	0.0036	0.0079	0.0090	0.0197	0.0087
1	120	Base Cooking - Convection O	0.0009	0.1039	0.0050	0.0122	0.0042	0.0009	0.0020	0.0023	0.0051	0.0023
1	130	Base Cooking - Griddle	0.0024	0.2745	0.0131	0.0322	0.0112	0.0025	0.0054	0.0061	0.0135	0.0060
1	140	Base Cooking - Range	0.0030	0.3495	0.0167	0.0411	0.0142	0.0031	0.0069	0.0078	0.0171	0.0076
1	200	Base Heating	0.6333	0.1505	0.2889	0.2848	0.1883	0.3359	0.1503	0.1484	0.3564	0.2156
1	300	Base Miscellaneous	0.2776	0.4355	0.1213	0.1000	0.1125	0.0366	0.1101	0.2106	0.0384	0.7529
1	400	Base Water Heating - high sta	0.090	0.224	0.048	0.208	0.020	0.000	0.000	0.000	0.000	0.330
1	500	Base Water Heating - low sta	0.000	0.281	0.000	0.000	0.000	0.102	0.118	0.245	0.287	0.000

MEASURE COSTS

Segment	Measure #	Measure Description	Savings Units	Cost Units	Unit Equipment Cost	Unit Labor Cost	NPV of Lifetime O & M Cost	Implementation Cost Factor	Cost Units per Savings Unit	Service Life	Full 1 Incr. 0 Cost	Replace Cost	Full Unit Cost	Relative Energy Reduction Factors SP	SPP	SOP	WP	WPP	WOP	End Use	Implementation Type 1 1 time 2 ROB	
1	100	Base Cooking - Fryer	unit	\$/unit	\$ -	\$ -	\$ -	\$ -	1	12	1	1	\$ -	1.00	1.00	1.00	1.00	1.00	1.00	3	2	2
1	101	Energy Star Fryer	unit	\$/unit	\$1,100.00	\$0.00	\$0.00	\$1,100.00	1	12	0	1	\$ 1,100.00	1.00	1.00	1.00	1.00	1.00	1.00	3	2	2
1	110	Base Cooking - Steamer	unit	\$/unit	\$ -	\$ -	\$ -	\$ -	1	10	1	1	\$ -	1.00	1.00	1.00	1.00	1.00	1.00	3	2	2
1	111	Energy Star Steamer	unit	\$/unit	\$2,075.00	\$0.00	\$0.00	\$2,075.00	1	10	0	1	\$ 2,075.00	1.00	1.00	1.00	1.00	1.00	1.00	3	2	2
1	120	Base Cooking - Convection Oven	unit	\$/unit	\$ -	\$ -	\$ -	\$ -	1	12	1	1	\$ -	1.00	1.00	1.00	1.00	1.00	1.00	3	2	2
1	121	High-Efficiency Convection Oven	unit	\$/unit	\$1,571.00	\$0.00	\$0.00	\$1,571.00	1	12	0	1	\$ 1,571.00	1.00	1.00	1.00	1.00	1.00	1.00	3	2	2
1	130	Base Cooking - Griddle	unit	\$/unit	\$ -	\$ -	\$ -	\$ -	1	12	1	1	\$ -	1.00	1.00	1.00	1.00	1.00	1.00	3	2	2
1	131	High-Efficiency Griddle	unit	\$/unit	\$1,165.00	\$0.00	\$0.00	\$1,165.00	1	12	0	1	\$ 1,165.00	1.00	1.00	1.00	1.00	1.00	1.00	3	2	2
1	140	Base Cooking - Range	unit	\$/unit	\$ -	\$ -	\$ -	\$ -	1	12	1	1	\$ -	1.00	1.00	1.00	1.00	1.00	1.00	3	2	2
1	141	High-Efficiency Range	unit	\$/unit	\$2,493.00	\$0.00	\$0.00	\$2,493.00	1	12	0	1	\$ 2,493.00	1.00	1.00	1.00	1.00	1.00	1.00	3	2	2
1	200	Base Heating	sq ft	\$/kBtuH	\$ -	\$ -	\$ -	\$ -	1	20	1	1	\$ -	1.00	1.00	1.00	1.00	1.00	1.00	1	2	2
1	201	High Efficiency Windows (Multiple Glazed, Low Emissivity)	sq ft	\$/sf-window	\$ 6.99	\$0.00	\$0.00	\$6.99	1	20	0	1	\$ 6.99	1.00	1.00	1.00	1.00	1.00	1.00	1	2	2
1	202	Insulation (ceiling)	sq ft	\$/sf-ceiling	\$ 0.23	\$0.15	\$0.00	\$0.62	1	20	0	1	\$ 0.62	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	203	Insulation (wall)	sq ft	\$/sf-wall	\$ 3.50	\$0.00	\$0.00	\$3.50	1	20	0	1	\$ 3.50	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	206	Duct Repair and Sealing	sq ft	\$/sf building	\$ 0.16	\$0.00	\$0.00	\$0.16	1	18	0	1	\$ 0.16	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	207	Duct Insulation	sq ft	\$/sf insulation	\$ 0.68	\$2.4	\$0.00	\$3.08	1	20	0	1	\$ 3.08	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	209	Insulation of Pipes	sq ft	\$/Lin Ft Pipe	\$ 0.37	\$2.44	\$0.00	\$2.81	1	15	0	1	\$ 2.81	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	212	Boiler Tune-Up	sq ft	\$/boiler	\$ -	\$300.00	\$0.00	\$300.00	1	2	0	1	\$ 300.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	216	Clock / Programmable Thermostat	sq ft	\$/sqft	\$ 0.06	\$0.06	\$0.00	\$0.12	1	11	0	1	\$ 0.12	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	218	Installation of Energy Management Systems (EMS)	sq ft	\$/control point	\$ 213.00	\$294.58	\$0.00	\$507.58	1	14	0	1	\$ 507.58	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	219	EMS Optimization	sq ft	\$/sqft	\$ -	\$0.03	\$0.00	\$0.03	1	5	0	1	\$ 0.03	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	221	Heat Recovery from AC	sq ft	\$/CFM	\$ 2.30	\$0.00	\$0.00	\$2.30	1	20	0	1	\$ 2.30	1.00	1.00	1.00	1.00	1.00	1.00	1	2	2
1	222	Installation of Air Side Heat Recovery Systems	sq ft	\$/O-A CFM	\$ 1.00	\$0.00	\$0.00	\$1.00	1	20	0	1	\$ 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	227	High Efficiency (Power Burner/ Premium) Furnace 95% efficiency (in situ base 82%)	sq ft	\$/kBtuH	\$ 14.00	\$0.00	\$0.00	\$14.00	1	20	0	1	\$ 14.00	1.00	1.00	1.00	1.00	1.00	1.00	1	2	2
1	228	High Efficiency (Power Burner/ Premium) Boiler 95% efficiency (in situ base 82%)	sq ft	\$/kBtuH	\$ 14.00	\$0.00	\$0.00	\$14.00	1	20	0	1	\$ 14.00	1.00	1.00	1.00	1.00	1.00	1.00	1	2	2
1	229	Stack Heat Exchanger	sq ft	\$/kBtuH boiler capacity	\$ 1.00	\$0.00	\$0.00	\$1.00	1	20	0	1	\$ 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	230	Condensing unit heaters	sq ft	\$/unit	\$1,325.00	\$0.00	\$0.00	\$1,325.00	1	20	0	1	\$ 1,325.00	1.00	1.00	1.00	1.00	1.00	1.00	1	2	2
1	231	Radiant heater	sq ft	\$/unit	\$1,938.00	\$0.00	\$0.00	\$1,938.00	1	20	0	1	\$ 1,938.00	1.00	1.00	1.00	1.00	1.00	1.00	1	2	2
1	232	Hot water temperature reset	sq ft	\$/unit	\$300.00	\$0.00	\$0.00	\$300.00	1	15	0	1	\$ 300.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	233	Demand controlled ventilation (DCV)	sq ft	\$/zone	\$700.00	\$0.00	\$0.00	\$700.00	1	10	0	1	\$ 700.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	234	Refrigeration heat recovery - space conditioning	sq ft	\$/bldg	\$ -	\$40,000.00	\$0.00	\$40,000.00	1	15	0	1	\$ 40,000.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	235	Retrocommissioning	sq ft	\$/sqft	\$ -	\$0.06	\$0.00	\$0.06	1	7	0	1	\$ 0.06	1.00	1.00	1.00	1.00	1.00	1.00	1	1	1
1	300	Base Miscellaneous	sq ft	\$/unit	\$ -	\$ -	\$ -	\$ -	1	10	1	1	\$ -	1.00	1.00	1.00	1.00	1.00	1.00	4	1	1
1	400	Base Water Heating - high standby loss (as % of load)	sq ft	\$/kBtuH	\$ -	\$ -	\$ -	\$ -	1	15	1	1	\$ -	1.00	1.00	1.00	1.00	1.00	1.00	2	1	1
1	401	Hot Water Pipe Insulation	sq ft	\$/Lin Ft Pipe	\$1.59	\$3.63	\$0.00	\$5.22	1	15	0	1	\$ 5.22	1.00	1.00	1.00	1.00	1.00	1.00	2	1	1
1	402	Demand controlled circulating systems	sq ft	\$/unit	\$65.79	\$165.00	\$0.00	\$230.79	1	15	0	1	\$ 230.79	1.00	1.00	1.00	1.00	1.00	1.00	2	1	1
1	403	Tankless Water Heater	sq ft	\$/unit	\$950.00	\$0.00	\$0.00	\$950.00	1	20	0	1	\$ 950.00	1.00	1.00	1.00	1.00	1.00	1.00	2	2	2
1	404	Thermally activated heat pump/chiller	sq ft	\$/kBtuH	\$5.10	\$4.05	\$0.00	\$9.15	1	15	0	1	\$ 9.15	1.00	1.00	1.00	1.00	1.00	1.00	2	1	1
1	500	Base Water Heating - low standby loss (as % of load)	sq ft	\$/kBtuH	\$ -	\$ -	\$ -	\$ -	1	15	1	1	\$ -	1.00	1.00	1.00	1.00	1.00	1.00	2	1	1
1	501	Hot Water Pipe Insulation	sq ft	\$/Lin Ft Pipe	\$1.59	\$3.63	\$0.00	\$5.22	1	15	0	1	\$ 5.22	1.00	1.00	1.00	1.00	1.00	1.00	2	1	1
1	502	Demand controlled circulating systems	sq ft	\$/unit	\$65.79	\$165.28	\$0.00	\$231.07	1	15	0	1	\$ 231.07	1.00	1.00	1.00	1.00	1.00	1.00	2	1	1
1	503	Condensing Water Heater (gas, 95% thermal efficiency)	sq ft	\$/unit	\$1,000.00	\$0.00	\$68.48	\$1,068.48	1	15	0	1	\$ 1,000.00	1.00	1.00	1.00	1.00	1.00	1.00	2	2	2
1	504	Thermally activated heat pump/chiller	sq ft	\$/kBtuH	\$5.10	\$4.05	\$0.00	\$9.15	1	15	0	1	\$ 9.15	1.00	1.00	1.00	1.00	1.00	1.00	2	1	1
1	505	Pre-Rinse Spray Valve	unit	\$/unit	\$10.00	\$0.00	\$0.00	\$10.00	1	5	0	1	\$ 10.00	1.00	1.00	1.00	1.00	1.00	1.00	2	1	1

**APPLICABILITY FACTOR
(percent)**

Measure Description	Office	Restaurant	Retail	Grocery	Warehouse	School	College	Hospital	Lodging	Other
1 100 Base Cooking - Fryer	21%	88%	0%	66%	0%	48%	0%	34%	36%	6%
1 101 Energy Star Fryer	21%	88%	0%	66%	0%	48%	0%	34%	36%	6%
1 110 Base Cooking - Steamer	0%	17%	0%	33%	0%	69%	0%	80%	36%	1%
1 111 Energy Star Steamer	0%	17%	0%	33%	0%	69%	0%	80%	36%	1%
1 120 Base Cooking - Convection Oven	31%	31%	28%	33%	0%	69%	0%	80%	36%	16%
1 121 High-Efficiency Convection Oven	31%	31%	28%	33%	0%	69%	0%	80%	36%	16%
1 130 Base Cooking - Griddle	21%	73%	0%	0%	0%	42%	0%	34%	36%	8%
1 131 High-Efficiency Griddle	21%	73%	0%	0%	0%	42%	0%	34%	36%	8%
1 140 Base Cooking - Range	23%	87%	0%	0%	0%	2%	0%	67%	36%	29%
1 141 High-Efficiency Range	23%	87%	0%	0%	0%	2%	0%	67%	36%	29%
1 200 Base Heating	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 201 High Efficiency Windows (Multiple Glazed, Low Emissivity)	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 202 Insulation (ceiling)	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 203 Insulation (wall)	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 206 Duct Repair and Sealing	17%	22%	40%	67%	29%	12%	5%	8%	4%	30%
1 207 Duct Insulation	17%	22%	40%	67%	29%	12%	5%	8%	4%	30%
1 209 Insulation of Pipes	35%	10%	0%	0%	10%	46%	88%	49%	23%	25%
1 212 Boiler Tune-Up	35%	10%	0%	0%	10%	46%	88%	49%	23%	25%
1 216 Clock / Programmable Thermostat	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 218 Installation of Energy Management Systems (EMS)	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 219 EMS Optimization	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 221 Heat Recovery from AC	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 222 Installation of Air Side Heat Recovery Systems	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 227 High Efficiency (Power Burner/ Premium) Furnace 95% efficiency (in situ base=82%)	17%	22%	40%	67%	29%	12%	5%	8%	4%	30%
1 228 High Efficiency (Power Burner/ Premium) Boiler 95% efficiency (in situ base=82%)	35%	10%	0%	0%	10%	46%	88%	49%	23%	25%
1 229 Stack Heat Exchanger	35%	10%	0%	0%	10%	46%	88%	49%	23%	25%
1 230 Condensing unit heaters	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 231 Radiant heater	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 232 Hot water temperature reset	35%	10%	0%	0%	10%	46%	88%	49%	23%	25%
1 233 Demand controlled ventilation (DCV)	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 234 Refrigeration heat recovery - space conditioning	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 235 Retrocommissioning	71%	74%	74%	98%	88%	79%	89%	83%	39%	82%
1 300 Base Miscellaneous	0%	6%	0%	0%	11%	6%	10%	10%	6%	1%
1 400 Base Water Heating - high standby loss (as % of load)	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%
1 401 Hot Water Pipe Insulation	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%
1 402 Demand controlled circulating systems	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%
1 403 Tankless Water Heater	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%
1 404 Thermally activated heat pump/chiller	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%
1 500 Base Water Heating - low standby loss (as % of load)	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%
1 501 Hot Water Pipe Insulation	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%
1 502 Demand controlled circulating systems	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%
1 503 Condensing Water Heater (gas, 95% thermal efficiency)	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%
1 504 Thermally activated heat pump/chiller	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%
1 505 Pre-Rinse Spray Valve	51%	79%	57%	75%	55%	77%	85%	80%	94%	69%

**FEASIBILITY FACTOR
(percent)**

Measure Description	Office	Restaurant	Retail	Grocery	Warehouse	School	College	Hospital	Lodging	Other
1 100 Base Cooking - Fryer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 101 Energy Star Fryer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 110 Base Cooking - Steamer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 111 Energy Star Steamer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 120 Base Cooking - Convection Oven	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 121 High-Efficiency Convection Oven	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 130 Base Cooking - Griddle	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 131 High-Efficiency Griddle	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 140 Base Cooking - Range	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 141 High-Efficiency Range	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 200 Base Heating	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 201 High Efficiency Windows (Multiple Glazed, Low Emissivity)	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 202 Insulation (ceiling)	22%	100%	43%	100%	100%	3%	100%	100%	100%	100%
1 203 Insulation (wall)	48%	37%	2%	0%	29%	0%	0%	100%	100%	26%
1 206 Duct Repair and Sealing	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%
1 207 Duct Insulation	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 209 Insulation of Pipes	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 212 Boiler Tune-Up	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 216 Clock / Programmable Thermostat	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 218 Installation of Energy Management Systems (EMS)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 219 EMS Optimization	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 221 Heat Recovery from AC	10%	80%	5%	80%	10%	15%	15%	80%	20%	5%
1 222 Installation of Air Side Heat Recovery Systems	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 227 High Efficiency (Power Burner/ Premium) Furnace 95% efficiency (in situ base=82%)	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
1 228 High Efficiency (Power Burner/ Premium) Boiler 95% efficiency (in situ base=82%)	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
1 229 Stack Heat Exchanger	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
1 230 Condensing unit heaters	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%
1 231 Radiant heater	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%
1 232 Hot water temperature reset	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
1 233 Demand controlled ventilation (DCV)	79%	92%	70%	100%	100%	100%	100%	100%	100%	91%
1 234 Refrigeration heat recovery - space conditioning	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%
1 235 Retrocommissioning	42%	0%	11%	12%	31%	39%	56%	69%	74%	31%
1 300 Base Miscellaneous	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 400 Base Water Heating - high standby loss (as % of load)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 401 Hot Water Pipe Insulation	32%	5%	74%	18%	76%	8%	12%	19%	32%	2%
1 402 Demand controlled circulating systems	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 403 Tankless Water Heater	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 404 Thermally activated heat pump/chiller	0%	0%	0%	0%	0%	0%	0%	50%	50%	0%
1 500 Base Water Heating - low standby loss (as % of load)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 501 Hot Water Pipe Insulation	32%	5%	74%	18%	76%	8%	12%	19%	32%	2%
1 502 Demand controlled circulating systems	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 503 Condensing Water Heater (gas, 95% thermal efficiency)	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
1 504 Thermally activated heat pump/chiller	0%	0%	0%	0%	0%	0%	0%	50%	50%	0%
1 505 Pre-Rinse Spray Valve	0%	100%	0%	100%	100%	100%	100%	100%	100%	100%

APPENDIX E

COMMERCIAL

MEASURE INPUT DATA

INCOMPLETE FACTOR
(percent)

Measure Description	Office	Restaurant	Retail	Grocery	Warehouse	School	College	Hospital	Lodging	Other
1 100 Base Cooking - Fryer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 101 Energy Star Fryer	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%
1 110 Base Cooking - Steamer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 111 Energy Star Steamer	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%
1 120 Base Cooking - Convection Oven	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 121 High-Efficiency Convection Oven	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
1 130 Base Cooking - Griddle	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 131 High-Efficiency Griddle	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
1 140 Base Cooking - Range	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 141 High-Efficiency Range	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
1 200 Base Heating	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 201 High Efficiency Windows (Multiple Glazed, Low Emissivity)	22%	61%	47%	34%	75%	28%	74%	1%	17%	25%
1 202 Insulation (ceiling)	15%	57%	15%	0%	33%	0%	0%	0%	0%	19%
1 203 Insulation (wall)	10%	33%	25%	5%	7%	12%	10%	30%	33%	3%
1 206 Duct Repair and Sealing	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
1 207 Duct Insulation	59%	57%	85%	72%	62%	72%	74%	70%	79%	83%
1 209 Insulation of Pipes	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
1 212 Boiler Tune-Up	10%	10%	10%	10%	10%	25%	10%	10%	10%	10%
1 216 Clock / Programmable Thermostat	71%	43%	49%	72%	29%	80%	70%	64%	60%	69%
1 218 Installation of Energy Management Systems (EMS)	44%	98%	81%	65%	97%	27%	35%	68%	79%	66%
1 219 EMS Optimization	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
1 221 Heat Recovery from AC	34%	100%	100%	74%	83%	100%	70%	100%	100%	99%
1 222 Installation of Air Side Heat Recovery Systems	10%	100%	100%	79%	98%	99%	70%	100%	100%	74%
1 227 High Efficiency (Power Burner/ Premium) Furnace 95% efficiency (in situ base=82%)	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
1 228 High Efficiency (Power Burner/ Premium) Boiler 95% efficiency (in situ base=82%)	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
1 229 Stack Heat Exchanger	84%	86%	85%	87%	84%	84%	81%	79%	85%	84%
1 230 Condensing unit heaters	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
1 231 Radiant heater	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
1 232 Hot water temperature reset	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
1 233 Demand controlled ventilation (DCV)	34%	100%	5%	100%	83%	59%	0%	17%	100%	99%
1 234 Refrigeration heat recovery - space conditioning	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
1 235 Retrocommissioning	32%	77%	5%	80%	81%	70%	98%	91%	15%	44%
1 300 Base Miscellaneous	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 400 Base Water Heating - high standby loss (as % of load)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 401 Hot Water Pipe Insulation	1%	36%	1%	28%	56%	6%	0%	11%	2%	42%
1 402 Demand controlled circulating systems	86%	100%	98%	100%	100%	93%	47%	93%	10%	97%
1 403 Tankless Water Heater	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
1 404 Thermally activated heat pump/chiller	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
1 500 Base Water Heating - low standby loss (as % of load)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 501 Hot Water Pipe Insulation	1%	36%	1%	28%	56%	6%	0%	11%	2%	42%
1 502 Demand controlled circulating systems	86%	100%	98%	100%	100%	93%	47%	93%	10%	97%
1 503 Condensing Water Heater (gas, 95% thermal efficiency)	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
1 504 Thermally activated heat pump/chiller	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
1 505 Pre-Rinse Spray Valve	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%

**ENERGY SAVINGS
(percent)**

Measure Description	Office	Restaurant	Retail	Grocery	Warehouse	School	College	Hospital	Lodging	Other
1 100 Base Cooking - Fryer	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 101 Energy Star Fryer	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%
1 110 Base Cooking - Steamer	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 111 Energy Star Steamer	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
1 120 Base Cooking - Convection Oven	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 121 High-Efficiency Convection Oven	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
1 130 Base Cooking - Griddle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 131 High-Efficiency Griddle	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1 140 Base Cooking - Range	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 141 High-Efficiency Range	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%
1 200 Base Heating	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 201 High Efficiency Windows (Multiple Glazed, Low Emissivity)	18%	1%	5%	3%	0%	1%	0%	1%	3%	3%
1 202 Insulation (ceiling)	33%	40%	23%	20%	23%	16%	16%	6%	25%	23%
1 203 Insulation (wall)	41%	33%	29%	38%	29%	18%	18%	35%	7%	29%
1 206 Duct Repair and Sealing	2%	2%	2%	1%	1%	1%	2%	2%	0%	0%
1 207 Duct Insulation	2%	0%	2%	0%	0%	0%	4%	2%	2%	2%
1 209 Insulation of Pipes	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
1 212 Boiler Tune-Up	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
1 216 Clock / Programmable Thermostat	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
1 218 Installation of Energy Management Systems (EMS)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
1 219 EMS Optimization	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
1 221 Heat Recovery from AC	20%	63%	0%	84%	0%	20%	20%	20%	20%	10%
1 222 Installation of Air Side Heat Recovery Systems	15%	25%	5%	15%	0%	15%	9%	25%	5%	10%
1 227 High Efficiency (Power Burner/ Premium) Furnace 95% efficiency (in situ base=82%)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
1 228 High Efficiency (Power Burner/ Premium) Boiler 95% efficiency (in situ base=82%)	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%
1 229 Stack Heat Exchanger	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1 230 Condensing unit heaters	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%
1 231 Radiant heater	0%	0%	0%	0%	40%	0%	0%	0%	0%	0%
1 232 Hot water temperature reset	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
1 233 Demand controlled ventilation (DCV)	4%	22%	15%	37%	21%	32%	32%	0%	12%	12%
1 234 Refrigeration heat recovery - space conditioning	0%	0%	0%	75%	0%	0%	0%	0%	0%	0%
1 235 Retrocommissioning	6%	0%	4%	4%	2%	6%	6%	10%	6%	6%
1 300 Base Miscellaneous	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 400 Base Water Heating - high standby loss (as % of load)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 401 Hot Water Pipe Insulation	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
1 402 Demand controlled circulating systems	6%	2%	1%	1%	4%	5%	7%	6%	3%	4%
1 403 Tankless Water Heater	51%	0%	41%	43%	50%	28%	0%	26%	19%	40%
1 404 Thermally activated heat pump/chiller	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%
1 500 Base Water Heating - low standby loss (as % of load)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 501 Hot Water Pipe Insulation	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
1 502 Demand controlled circulating systems	6%	2%	1%	1%	4%	5%	7%	6%	3%	4%
1 503 Condensing Water Heater (gas, 95% thermal efficiency)	26%	27%	26%	25%	27%	26%	25%	25%	25%	27%
1 504 Thermally activated heat pump/chiller	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%
1 505 Pre-Rinse Spray Valve	0%	4%	0%	3%	2%	1%	4%	1%	0%	1%

**FEASIBILITY FACTOR
(percent)**

Measure Description	Office	Restaurant	Retail	Grocery	Warehouse	School	College	Hospital	Lodging	Other
1 100 Base Cooking - Fryer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 101 Energy Star Fryer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 110 Base Cooking - Steamer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 111 Energy Star Steamer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 120 Base Cooking - Convection Oven	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 121 High-Efficiency Convection Oven	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 130 Base Cooking - Griddle	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 131 High-Efficiency Griddle	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 140 Base Cooking - Range	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 141 High-Efficiency Range	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 200 Base Heating	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 201 High Efficiency Windows (Multiple Glazed, Low Emissivity)	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 202 Insulation (ceiling)	22%	100%	43%	100%	100%	3%	100%	100%	100%	100%
1 203 Insulation (wall)	48%	37%	2%	0%	29%	0%	0%	100%	100%	26%
1 206 Duct Repair and Sealing	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%
1 207 Duct Insulation	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 209 Insulation of Pipes	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 212 Boiler Tune-Up	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 216 Clock / Programmable Thermostat	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 218 Installation of Energy Management Systems (EMS)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 219 EMS Optimization	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 221 Heat Recovery from AC	10%	80%	5%	80%	10%	15%	15%	80%	20%	5%
1 222 Installation of Air Side Heat Recovery Systems	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 227 High Efficiency (Power Burner/ Premium) Furnace 95% efficiency (in situ base=82%)	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
1 228 High Efficiency (Power Burner/ Premium) Boiler 95% efficiency (in situ base=82%)	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
1 229 Stack Heat Exchanger	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
1 230 Condensing unit heaters	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%
1 231 Radiant heater	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%
1 232 Hot water temperature reset	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
1 233 Demand controlled ventilation (DCV)	79%	92%	70%	100%	100%	100%	100%	100%	100%	91%
1 234 Refrigeration heat recovery - space conditioning	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%
1 235 Retrocommissioning	42%	0%	11%	12%	31%	39%	56%	69%	74%	31%
1 300 Base Miscellaneous	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 400 Base Water Heating - high standby loss (as % of load)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 401 Hot Water Pipe Insulation	32%	5%	74%	18%	76%	8%	12%	19%	32%	2%
1 402 Demand controlled circulating systems	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 403 Tankless Water Heater	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 404 Thermally activated heat pump/chiller	0%	0%	0%	0%	0%	0%	0%	50%	50%	0%
1 500 Base Water Heating - low standby loss (as % of load)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 501 Hot Water Pipe Insulation	32%	5%	74%	18%	76%	8%	12%	19%	32%	2%
1 502 Demand controlled circulating systems	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1 503 Condensing Water Heater (gas, 95% thermal efficiency)	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
1 504 Thermally activated heat pump/chiller	0%	0%	0%	0%	0%	0%	0%	50%	50%	0%
1 505 Pre-Rinse Spray Valve	0%	100%	0%	100%	100%	100%	100%	100%	100%	100%

**TECHNOLOGY SATURATION
(units/square foot)**

Measure Description	Office	Restaurant	Retail	Grocery	Warehouse	School	College	Hospital	Lodging	Other
1 100 Base Cooking - Fryer	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 101 Energy Star Fryer	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 110 Base Cooking - Steamer	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 111 Energy Star Steamer	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 120 Base Cooking - Convection Oven	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 121 High-Efficiency Convection Oven	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 130 Base Cooking - Griddle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 131 High-Efficiency Griddle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 140 Base Cooking - Range	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 141 High-Efficiency Range	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 200 Base Heating	1%	4%	2%	2%	1%	6%	2%	2%	1%	3%
1 201 High Efficiency Windows (Multiple Glazed, Low Emissivity)	9%	5%	3%	4%	2%	2%	6%	2%	9%	3%
1 202 Insulation (ceiling)	34%	54%	62%	88%	78%	44%	21%	24%	19%	53%
1 203 Insulation (wall)	14%	58%	37%	36%	19%	14%	17%	11%	12%	19%
1 206 Duct Repair and Sealing	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 207 Duct Insulation	5%	8%	3%	3%	2%	1%	3%	1%	3%	3%
1 209 Insulation of Pipes	4%	8%	5%	6%	3%	3%	1%	4%	2%	6%
1 212 Boiler Tune-Up	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 216 Clock / Programmable Thermostat	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 218 Installation of Energy Management Systems (EMS)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 219 EMS Optimization	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 221 Heat Recovery from AC	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 222 Installation of Air Side Heat Recovery Systems	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 227 High Efficiency (Power Burner/ Premium) Furnace 95% efficiency (in situ base=82%)	3%	10%	3%	3%	2%	8%	6%	2%	5%	3%
1 228 High Efficiency (Power Burner/ Premium) Boiler 95% efficiency (in situ base=82%)	3%	10%	3%	3%	2%	8%	6%	2%	5%	3%
1 229 Stack Heat Exchanger	3%	10%	3%	3%	2%	8%	6%	2%	5%	3%
1 230 Condensing unit heaters	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 231 Radiant heater	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 232 Hot water temperature reset	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 233 Demand controlled ventilation (DCV)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 234 Refrigeration heat recovery - space conditioning	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 235 Retrocommissioning	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1 300 Base Miscellaneous	0%	0%	0%	0%	0%	2%	2%	0%	2%	31%
1 400 Base Water Heating - high standby loss (as % of load)	0%	2%	1%	1%	0%	2%	4%	3%	3%	3%
1 401 Hot Water Pipe Insulation	0%	1%	1%	0%	0%	0%	1%	0%	1%	0%
1 402 Demand controlled circulating systems	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 403 Tankless Water Heater	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 404 Thermally activated heat pump/chiller	0%	2%	1%	1%	0%	2%	4%	3%	3%	3%
1 500 Base Water Heating - low standby loss (as % of load)	0%	2%	1%	1%	0%	2%	4%	3%	3%	3%
1 501 Hot Water Pipe Insulation	0%	1%	1%	0%	0%	0%	1%	0%	1%	0%
1 502 Demand controlled circulating systems	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 503 Condensing Water Heater (gas, 95% thermal efficiency)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 504 Thermally activated heat pump/chiller	0%	2%	1%	1%	0%	2%	4%	3%	3%	3%
1 505 Pre-Rinse Spray Valve	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

DSM TECHNOLOGY INPUT TABLES

UTILITY:	Missouri	BATCH:	1
SECTOR:	COM	ANALYSIS:	Basic
SEGMENT:	New	VINTAGE:	N

BASE TECHNOLOGY EUIs (therms/square foot)														
Segment	Measure #	Measure Description	Office 1	Restaurant 2	Retail 3	FoodStore 4	Warehouse 5	School 6	College 7	Hospital 8	Hotel 9	Miscellaneous 10		
2	100	Base Bldg Design - 30%	0.50	1.75	0.24	0.51	0.19	0.35	0.24	0.36	0.44		0.42	
2	200	Base Bldg Design - 50%	0.50	1.75	0.24	0.51	0.19	0.35	0.24	0.36	0.44		0.42	
2	300	Base Bldg Design - 70%	0.50	1.75	0.24	0.51	0.19	0.35	0.24	0.36	0.44		0.42	

MEASURE COSTS																										
Segment	Measure #	Measure Description	Savings		Cost Units	Unit Equipment Cost	Unit Labor Cost	NPV of Lifetime O & M Cost	Implementation Cost Factor	Cost Units per Savings	Service Life	Full 10 Year Incremental Cost		Full Unit Cost	Relative Energy Reduction Factors										Implementation Type	
			Units	sqft								Initial Cost	Replace Cost		WIN	SUM	n/a	n/a	n/a	n/a	n/a	End Use	1 time	2 ROB		
2	100	Base Bldg Design - 30%	sqft	sqft		\$0.00		\$0.00	\$0.00	1	20	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5	2			
2	101	High Performance Building/Int Design - Tier 1 30%	sqft	sqft		\$0.90		\$0.00	\$0.90	1	20	1	1	\$0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5	2			
2	200	Base Bldg Design - 50%	sqft	sqft		\$0.00		\$0.00	\$0.00	1	20	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5	2			
2	201	High Performance Building/Int Design - Tier 2 50%	sqft	sqft		\$1.80		\$0.00	\$1.80	1	20	1	1	\$1.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5	2			
2	300	Base Bldg Design - 70%	sqft	sqft		\$0.00		\$0.00	\$0.00	1	20	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5	2			
2	301	Near Zero Energy (60-75%)	sqft	sqft		\$5.40		\$0.00	\$5.40	1	20	1	1	\$5.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5	2			

**APPLICABILITY FACTOR
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	60.00%	60.00%	60.00%	60.00%	100.00%	100.00%	100.00%	60.00%	60.00%	60.00%
2	101	High Performance Building/Int Design - Tier	60.00%	60.00%	60.00%	60.00%	100.00%	100.00%	100.00%	60.00%	60.00%	60.00%
2	200	Base Bldg Design - 50%	40.00%	40.00%	40.00%	35.00%	0.00%	0.00%	0.00%	40.00%	40.00%	40.00%
2	201	High Performance Building/Int Design - Tier	40.00%	40.00%	40.00%	35.00%	0.00%	0.00%	0.00%	40.00%	40.00%	40.00%
2	300	Base Bldg Design - 70%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	301	Near Zero Energy (60-75%)	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

**FEASIBILITY FACTOR
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	101	High Performance Building/Int Design - Tier	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	200	Base Bldg Design - 50%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	201	High Performance Building/Int Design - Tier	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	300	Base Bldg Design - 70%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	301	Near Zero Energy (60-75%)	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**INCOMPLETE FACTOR
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	101	High Performance Building/Int Design - Tier 1 30%	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	200	Base Bldg Design - 50%	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	201	High Performance Building/Int Design - Tier 2 50%	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	300	Base Bldg Design - 70%	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	301	Near Zero Energy (60-75%)	100.0%	100.0%	100 0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

ENERGY SAVINGS (percent)												
			Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
Segment	Measure #	Measure Description										
2	100	Base Bldg Design - 30%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%	0.0%
2	101	High Performance Building/Int Design - Tier 1 30%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
2	200	Base Bldg Design - 50%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%	0.0%
2	201	High Performance Building/Int Design - Tier 2 50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
2	300	Base Bldg Design - 70%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%	0.0%
2	301	Near Zero Energy (60-75%)	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%

**Standards Adjustment Factor
(percent)**

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	101	High Performance Building/Int Design - Tier 1 30%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	200	Base Bldg Design - 50%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	201	High Performance Building/Int Design - Tier 2 50%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	300	Base Bldg Design - 70%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2	301	Near Zero Energy (60-75%)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

TECHNOLOGY SATURATION
(units/square foot)

Segment	Measure #	Measure Description	Office	Restaurant	Retail	FoodStore	Warehouse	School	College	Hospital	Hotel	Miscellaneous
2	100	Base Bldg Design - 30%	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	101	High Performance Building/Int Design - Tier	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	200	Base Bldg Design - 50%	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	201	High Performance Building/Int Design - Tier	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	300	Base Bldg Design - 70%	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	301	Near Zero Energy (60-75%)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

DSM TECHNOLOGY INPUT TABLES

UTILITY: Missouri

SECTOR: IND

SEGMENT: All Electric

BATCH: 1

ANALYSIS: Basic

VINTAGE: E

BASE TECHNOLOGY EUIs
(kWh/square foot)

(Square Foot)			Food	Textiles,Apprel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Gl	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.	Mining	Water/WW
Segment	Measure #	Measure Description																	
1	100	Base Compressed Air	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	200	Base Fans	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	300	Base Pumps	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	400	Base Drives	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	500	Base Heating	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	550	Base Refrigeration	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	600	Base Other Process	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	700	Base Chiller	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	710	Base DX	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	800	Base Lighting	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	900	Base Other	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

MEASURE COSTS

MEASURE COSTS			NPV of Lifetime										Full = 1		Full										Implementa	
Segment	Measure #	Measure Description	Savings Units	Cost Units	Equipment Cost	Unit Labor Cost	O & M Cost	Implementati Cost Factor	Cost Units per Saving	Service Life	Incr. = 0 Initial Cost	Replace Cost	Full Unit Cost	Relative SP	Energy SPP	Reduction SOP	Factors WP	WPP	WOP	End Use	Type 1=1 time 2=ROB					
1	100	Base Compressed Air	\$/kWh	\$/kWh	\$0.00	\$0.00	\$0.00	\$0.00	1	14.5	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1					
1	101	Compressed Air-O&M	\$/kWh	\$/kWh	\$0.01	\$0.0011	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	1	1					
1	102	Compressed Air - Controls	\$/kWh	\$/kWh	\$0.02	\$0.0018	\$0.00	\$0.02	1	10	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	1	2					
1	103	Compressed Air - System Optimization	\$/kWh	\$/kWh	\$0.01	\$0.0017	\$0.00	\$0.02	1	10	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	1	1					
1	104	Compressed Air- Sizing	\$/kWh	\$/kWh	\$0.00	\$0.0005	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	1	2					
1	105	Comp Air - Replace 1-5 HP motor	\$/kWh	\$/kWh	\$0.05	\$0.0056	\$0.00	\$0.05	1	14.5	1	1	\$0.05	1.00	1.00	1.00	1.00	1.00	1.00	1	2					
1	106	Comp Air - ASD (1-5 hp)	\$/kWh	\$/kWh	\$0.07	\$0.0081	\$0.00	\$0.08	1	14.5	1	1	\$0.08	0.09	1.00	1.00	1.00	1.00	1.00	1	1					
1	107	Comp Air - Motor practices-1 (1-5 HP)	\$/kWh	\$/kWh	\$0.02	\$0.0022	\$0.00	\$0.02	1	14.5	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	1	1					
1	108	Comp Air - Replace 6-100 HP motor	\$/kWh	\$/kWh	\$0.03	\$0.0031	\$0.00	\$0.03	1	10	1	1	\$0.03	1.00	1.00	1.00	1.00	1.00	1.00	1	2					
1	109	Comp Air - ASD (6-100 hp)	\$/kWh	\$/kWh	\$0.00	\$0.0003	\$0.00	\$0.00	1	10	1	1	\$0.00	0.09	1.00	1.00	1.00	1.00	1.00	1	2					
1	110	Comp Air - Motor practices-1 (6-100 HP)	\$/kWh	\$/kWh	\$0.00	\$0.0006	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	1	1					
1	111	Comp Air - Replace 100+ HP motor	\$/kWh	\$/kWh	\$0.01	\$0.0009	\$0.00	\$0.01	1	6	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	1	2					
1	112	Comp Air - ASD (100+ hp)	\$/kWh	\$/kWh	\$0.01	\$0.0006	\$0.00	\$0.01	1	6	1	1	\$0.01	0.09	1.00	1.00	1.00	1.00	1.00	1	1					
1	113	Comp Air - Motor practices-1 (100+ HP)	\$/kWh	\$/kWh	\$0.00	\$0.0002	\$0.00	\$0.00	1	6	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1					
1	114	Power recovery	\$/kWh	\$/kWh	\$0.00	\$0.0003	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	1	1					
1	200	Base Fans	\$/kWh	\$/kWh	\$0.00	\$0.0000	\$0.00	\$0.00	1	14.5	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	2	1					
1	201	Fans - O&M	\$/kWh	\$/kWh	\$0.00	\$0.0001	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	2	1					
1	202	Fans - Controls	\$/kWh	\$/kWh	\$0.084	\$0.0097	\$0.00	\$0.09	1	10	1	1	\$0.09	1.00	1.00	1.00	1.00	1.00	1.00	2	2					
1	203	Fans - System Optimization	\$/kWh	\$/kWh	\$0.055	\$0.0063	\$0.00	\$0.06	1	10	1	1	\$0.06	0.47	1.00	1.00	1.00	1.00	1.00	2	1					
1	204	Fans- Improve components	\$/kWh	\$/kWh	\$0.005	\$0.0005	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	2	2					
1	205	Fans - Replace 1-5 HP motor	\$/kWh	\$/kWh	\$0.048	\$0.0056	\$0.00	\$0.05	1	14.5	1	1	\$0.05	1.00	1.00	1.00	1.00	1.00	1.00	2	2					
1	206	Fans - ASD (1-5 hp)	\$/kWh	\$/kWh	\$0.07	\$0.0081	\$0.00	\$0.08	1	14.5	1	1	\$0.08	0.09	1.00	1.00	1.00	1.00	1.00	2	1					
1	207	Fans - Motor practices-1 (1-5 HP)	\$/kWh	\$/kWh	\$0.02	\$0.0022	\$0.00	\$0.02	1	14.5	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	2	1					
1	208	Fans - Replace 6-100 HP motor	\$/kWh	\$/kWh	\$0.03	\$0.0031	\$0.00	\$0.03	1	10	1	1	\$0.03	1.00	1.00	0.50	1.00	1.00	0.50	2	2					
1	209	Fans - ASD (6-100 hp)	\$/kWh	\$/kWh	\$0.00	\$0.0003	\$0.00	\$0.00	1	10	1	1	\$0.00	0.09	0.50	0.00	1.00	0.75	0.00	2	2					
1	210	Fans - Motor practices-1 (6-100 HP)	\$/kWh	\$/kWh	\$0.00	\$0.0006	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	2	1					
1	211	Fans - Replace 100+ HP motor	\$/kWh	\$/kWh	\$0.01	\$0.0009	\$0.00	\$0.01	1	6	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	2	2					
1	212	Fans - ASD (100+ hp)	\$/kWh	\$/kWh	\$0.01	\$0.0006	\$0.00	\$0.01	1	6	1	1	\$0.01	0.09	1.00	0.50	1.00	1.00	0.50	2	1					
1	213	Fans - Motor practices-1 (100+ HP)	\$/kWh	\$/kWh	\$0.00	\$0.0002	\$0.00	\$0.00	1	6	1	1	\$0.00	1.00	0.50	0.00	1.00	0.75	0.00	2	1					
1	214	Optimize drying process	\$/kWh	\$/kWh	\$0.05	\$0.0053	\$0.00	\$0.05	1	10	1	1	\$0.05	1.00	1.00	1.00	1.00	1.00	1.00	2	1					
1	215	Power recovery	\$/kWh	\$/kWh	\$0.00	\$0.0003	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	2	1					
1	300	Base Pumps	\$/kWh	\$/kWh	\$0.00	\$0.0000	\$0.00	\$0.00	1	14.5	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	3	1					
1	301	Pumps - O&M	\$/kWh	\$/kWh	\$0.00	\$0.0005	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	3	1					
1	302	Pumps - Controls	\$/kWh	\$/kWh	\$0.02	\$0.0028	\$0.00	\$0.03	1	10	1	1	\$0.03	1.00	1.00	1.00	1.00	1.00	1.00	3	2					
1	303	Pumps - System Optimization	\$/kWh	\$/kWh	\$0.06	\$0.0070	\$0.00	\$0.07	1	10	1	1	\$0.07	1.00	1.00	1.00	1.00	1.00	1.00	3	1					
1	304	Pumps - Sizing	\$/kWh	\$/kWh	\$0.02	\$0.0021	\$0.00	\$0.02	1	10	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	3	2					
1	305	Pumps - Replace 1-5 HP motor	\$/kWh	\$/kWh	\$0.05	\$0.0056	\$0.00	\$0.05	1	14.5	1	1	\$0.05	1.00	1.00	1.00	1.00	1.00	1.00	3	2					
1	306	Pumps - ASD (1-5 hp)	\$/kWh	\$/kWh	\$0.07	\$0.0081	\$0.00	\$0.08	1	14.5	1	1	\$0.08	0.09	1.00	1.00	1.00	1.00	1.00	3	1					
1	307	Pumps - Motor practices-1 (1-5 HP)	\$/kWh	\$/kWh	\$0.02	\$0.0022	\$0.00	\$0.02	1	14.5	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	3	1					
1	308	Pumps - Replace 6-100 HP motor	\$/kWh	\$/kWh	\$0.03	\$0.0031	\$0.00	\$0.03	1	10	1	1	\$0.03	1.00	1.00	1.00	1.00	1.00	1.00	3	2					
1	309	Pumps - ASD (6-100 hp)	\$/kWh	\$/kWh	\$0.00	\$0.0003	\$0.00	\$0.00	1	10	1	1	\$0.00	0.09	1.00	1.00	1.00	1.00	1.00	3	1					
1	310	Pumps - Motor practices-1 (6-100 HP)	\$/kWh	\$/kWh	\$0.00	\$0.0006	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	3	1					
1	311	Pumps - Replace 100+ HP motor	\$/kWh	\$/kWh	\$0.01	\$0.0009	\$0.00	\$0.01	1	6	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	3	2					
1	312	Pumps - ASD (100+ hp)	\$/kWh	\$/kWh	\$0.01	\$0.0006	\$0.00	\$0.01	1	6	1	1	\$0.01	0.09	1.00	1.00	1.00	1.00	1.00	3	1					
1	313	Pumps - Motor practices-1 (100+ HP)	\$/kWh	\$/kWh	\$0.00	\$0.0002	\$0.00	\$0.00	1	6	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	3	1					
1	314	Power recovery	\$/kWh	\$/kWh	\$0.00	\$0.0003	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	3	1					
1	400	Base Drives	\$/kWh	\$/kWh	\$0.00	\$0.0000	\$0.00	\$0.00	1	20	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	4	1					
1	401	Bakery - Process (Mixing) - O&M	\$/kWh	\$/kWh	\$0.00	\$0.0005	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	4	1					
1	402	O&M/drives spinning machines	\$/kWh	\$/kWh	\$0.03	\$0.0034	\$0.00	\$0.03	1	10	1	1	\$0.03	1.00	1.00	1.00	1.00	1.00	1.00	4	1					
1	403	Air conveying systems	\$/kWh	\$/kWh	\$0.03	\$0.0040	\$0.00	\$0.04	1	14	1	1	\$0.04	0.24	1.00	1.00	1.00	1.00	1.00	4	2					
1	404	Replace V-Belts	\$/kWh	\$/kWh	\$0.01	\$0.0006	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	4	2					
1	405	Drives - EE motor	\$/kWh	\$/kWh	\$0.01	\$0.0007	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	4	2					
1	406	Gap Forming papermachine	\$/kWh	\$/kWh	\$0.01	\$0.0008	\$0.00	\$0.01	1	20	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	4	2					
1	407	High Consistency forming	\$/kWh	\$/kWh	\$0.01	\$0.0008	\$0.00	\$0.01	1	20	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	4	2					
1	408	Optimization control PM	\$/kWh	\$/kWh	\$0.01	\$0.0013	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	4	1					
1	409	Efficient practices printing press	\$/k																							

APPENDIX E

INDUSTRIAL

MEASURE INPUT DATA

1	420	Injection Moulding - Impulse Cooling	\$/kWh	\$/kWh	\$0.06	\$0.0073	\$0.00	\$0.07	1	12	1	1	\$0.07	1.00	1.00	1.00	1.00	1.00	1.00	4	2
1	421	Injection Moulding - Direct drive	\$/kWh	\$/kWh	\$0.09	\$0.0102	\$0.00	\$0.10	1	12	1	1	\$0.10	1.00	1.00	1.00	1.00	1.00	1.00	4	2
1	422	Efficient grinding	\$/kWh	\$/kWh	\$0.21	\$0.0244	\$0.00	\$0.23	1	15	1	1	\$0.23	1.00	1.00	1.00	1.00	1.00	1.00	4	2
1	423	Process control	\$/kWh	\$/kWh	\$0.00	\$0.0002	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	4	2
1	424	Process optimization	\$/kWh	\$/kWh	\$0.03	\$0.0032	\$0.00	\$0.03	1	10	1	1	\$0.03	1.00	1.00	1.00	1.00	1.00	1.00	4	1
1	425	Drives - Process Control	\$/kWh	\$/kWh	\$0.01	\$0.0016	\$0.00	\$0.02	1	15	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	4	2
1	426	Efficient drives - rolling	\$/kWh	\$/kWh	\$0.01	\$0.0010	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	4	2
1	427	Drives - Optimization process (M&T)	\$/kWh	\$/kWh	\$0.01	\$0.0008	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	4	1
1	428	Drives - Scheduling	\$/kWh	\$/kWh	\$0.01	\$0.0011	\$0.00	\$0.01	1	10	1	1	\$0.01	0.18	1.00	1.00	1.00	1.00	1.00	4	1
1	429	Machinery	\$/kWh	\$/kWh	\$0.01	\$0.0013	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	4	2
1	430	Efficient Machinery	\$/kWh	\$/kWh	\$0.01	\$0.0007	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	4	2
1	500	Base Heating	\$/kWh	\$/kWh	\$0.00	\$0.0000	\$0.00	\$0.00	1	20	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	5	1
1	501	Bakery - Process	\$/kWh	\$/kWh	\$0.05	\$0.0053	\$0.00	\$0.05	1	15	1	1	\$0.05	1.00	1.00	1.00	1.00	1.00	1.00	5	2
1	502	Drying (UV/IR)	\$/kWh	\$/kWh	\$0.07	\$0.0079	\$0.00	\$0.08	1	8	1	1	\$0.08	0.57	1.00	1.00	1.00	1.00	1.00	5	2
1	503	Heat Pumps - Drying	\$/kWh	\$/kWh	\$0.16	\$0.0186	\$0.00	\$0.18	1	15	1	1	\$0.18	1.00	1.00	1.00	1.00	1.00	1.00	5	2
1	504	Top-heating (glass)	\$/kWh	\$/kWh	\$0.00	\$0.0004	\$0.00	\$0.00	1	8	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	5	2
1	505	Efficient electric melting	\$/kWh	\$/kWh	\$0.03	\$0.0035	\$0.00	\$0.03	1	20	1	1	\$0.03	1.00	1.00	1.00	1.00	1.00	1.00	5	2
1	506	Intelligent extruder (DOE)	\$/kWh	\$/kWh	\$0.01	\$0.0017	\$0.00	\$0.02	1	10	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	5	2
1	507	Near Net Shape Casting	\$/kWh	\$/kWh	\$0.01	\$0.0013	\$0.00	\$0.01	1	15	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	5	2
1	508	Heating - Process Control	\$/kWh	\$/kWh	\$0.01	\$0.0016	\$0.00	\$0.02	1	15	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	5	2
1	509	Efficient Curing ovens	\$/kWh	\$/kWh	\$0.07	\$0.0084	\$0.00	\$0.08	1	15	1	1	\$0.08	1.00	1.00	1.00	1.00	1.00	1.00	5	2
1	510	Heating - Optimization process (M&T)	\$/kWh	\$/kWh	\$0.01	\$0.0008	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	5	1
1	511	Heating - Scheduling	\$/kWh	\$/kWh	\$0.01	\$0.0011	\$0.00	\$0.01	1	10	1	1	\$0.01	0.18	1.00	1.00	1.00	1.00	1.00	5	1
1	550	Base Refrigeration	\$/kWh	\$/kWh	\$0.00	\$0.0000	\$0.00	\$0.00	1	20	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	6	1
1	551	Efficient Refrigeration - Operations	\$/kWh	\$/kWh	\$0.01	\$0.0008	\$0.00	\$0.01	1	10	1	1	\$0.01	1.00	1.00	1.00	1.00	1.00	1.00	6	2
1	552	Optimization Refrigeration	\$/kWh	\$/kWh	\$0.10	\$0.0115	\$0.00	\$0.11	1	15	1	1	\$0.11	1.00	1.00	1.00	1.00	1.00	1.00	6	1
1	600	Base Other Process	\$/kWh	\$/kWh	\$0.00	\$0.0000	\$0.00	\$0.00	1	15	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	7	1
1	601	Other Process Controls (batch + site)	\$/kWh	\$/kWh	\$0.02	\$0.0025	\$0.00	\$0.02	1	10	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	7	2
1	602	Efficient desalter	\$/kWh	\$/kWh	\$0.04	\$0.0042	\$0.00	\$0.04	1	10	1	1	\$0.04	1.00	1.00	1.00	1.00	1.00	1.00	7	2
1	603	New transformers welding	\$/kWh	\$/kWh	\$0.05	\$0.0053	\$0.00	\$0.05	1	15	1	1	\$0.05	1.00	1.00	1.00	1.00	1.00	1.00	7	2
1	604	Efficient processes (welding, etc.)	\$/kWh	\$/kWh	\$0.05	\$0.0053	\$0.00	\$0.05	1	15	1	1	\$0.05	1.00	1.00	1.00	1.00	1.00	1.00	7	2
1	605	Process control	\$/kWh	\$/kWh	\$0.01	\$0.0017	\$0.00	\$0.02	1	15	1	1	\$0.02	1.00	1.00	1.00	1.00	1.00	1.00	7	2
1	606	Power recovery	\$/kWh	\$/kWh	\$0.00	\$0.0003	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	7	1
1	700	Base Centrifugal Chiller, 0.58 kW/ton, 500 t	\$/ton	\$/ton	\$0.00	\$0.0000	\$0.00	\$0.00	1	20	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	8	2
1	701	Centrifugal Chiller, 0.51 kW/ton, 500 tons	\$/ton	\$/ton	\$21.14	\$2.4502		\$23.59	1	20	1	1	\$23.59	1.00	1.00	1.00	1.00	1.00	1.00	8	2
1	702	Window Film - Chiller	\$/sf-window	\$/sf-window	\$3.07	\$0.3558		\$3.43	1	10	1	1	\$3.43	1.00	1.00	1.00	1.00	1.00	1.00	8	1
1	703	EMS - Chiller	\$/ton	\$/ton	\$60.00	\$6.9541		\$66.95	1	10	1	1	\$66.95	1.00	1.00	1.00	1.00	1.00	1.00	8	1
1	704	Cool Roof - Chiller	\$/sf-roof	\$/sf-roof	\$0.47	\$0.0545		\$0.52	1	10	1	1	\$0.52	1.00	1.00	1.00	1.00	1.00	1.00	8	1
1	705	Chiller Tune Up/Diagnostics	\$/ton	\$/ton	\$16.67	\$1.9317	\$20.91	\$39.51	1	10	1	1	\$39.51	1.00	1.00	1.00	1.00	1.00	1.00	8	1
1	706	Cooling Circ. Pumps - VSD	\$/ton	\$/ton	\$65.04	\$7.5382		\$72.58	1	15	1	1	\$72.58	1.00	1.00	1.00	1.00	1.00	1.00	8	1
1	710	Base DX Packaged System, EER=10.3, 10	\$/ton	\$/ton	\$0.00	\$0.0000		\$0.00	1	15	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	8	2
1	711	DX Tune Up/ Advanced Diagnostics	\$/ton	\$/ton	\$78.00	\$9.0403		\$87.04	1	3	1	1	\$87.04	1.00	1.00	1.00	1.00	1.00	1.00	8	1
1	712	DX Packaged System, EER=10.9, 10 tons	\$/ton	\$/ton	\$51.60	\$5.9805		\$57.58	1	15	1	1	\$57.58	1.00	1.00	1.00	1.00	1.00	1.00	8	2
1	713	Window Film - DX	\$/sf-window	\$/sf-window	\$3.07	\$0.3558		\$3.43	1	10	1	1	\$3.43	1.00	1.00	1.00	1.00	1.00	1.00	8	1
1	714	Evaporative Pre-Cooler	\$/ton	\$/ton	\$133.33	\$15.4535		\$148.79	1	10	1	1	\$148.79	1.00	1.00	1.00	1.00	1.00	1.00	8	1
1	715	Prog. Thermostat - DX	\$/ton	\$/ton	\$5.50	\$0.6375		\$6.14	1	10	1	1	\$6.14	0.25	1.00	1.00	1.00	1.00	1.00	8	1
1	716	Cool Roof - DX	\$/sf-roof	\$/sf-roof	\$0.47	\$0.0545		\$0.52	1	10	1	1	\$0.52	1.00	1.00	1.00	1.00	1.00	1.00	8	1
1	800	Base Lighting	fixture	fixture	\$0.00	\$0.0000	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	9	1
1	801	RET 2L4' Premium T8, 1EB	fixture	fixture	\$25.00	\$2.8975	\$0.00	\$27.90	1	15	1	1	\$27.90	1.00	1.00	1.00	1.00	1.00	1.00	9	1
1	802	CFL Hardwired, Modular 36W	fixture	fixture	\$41.70	\$4.8331	(\$8.41)	\$38.12	1	4	1	1	\$38.12	1.00	1.00	1.00	1.00	1.00	1.00	9	1
1	803	Metal Halide, 50W	fixture	fixture	\$224.70	\$26.0431	\$0.00	\$250.74	1	5	1	1	\$250.74	1.00	1.00	1.00	1.00	1.00	1.00	9	1
1	804	Occupancy Sensor, 4L4' Fluorescent Fixtur	fixture	fixture	\$12.25	\$1.4198	\$0.00	\$13.67	1	9	1	1	\$13.67	1.00	1.00	0.50	1.00	1.00	0.50	9	1
1	900	Base Other	\$/kWh	\$/kWh	\$0.00	\$0.0000	\$0.00	\$0.00	1	15	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	10	1
1	901	Replace V-belts	\$/kWh	\$/kWh	\$0.00	\$0.0000	\$0.00	\$0.00	1	5	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	10	2
1	902	Membranes for wastewater	\$/kWh	\$/kWh	\$0.03	\$0.0037	\$0.00	\$0.04	1	15	1	1	\$0.04	1.00	1.00	1.00	1.00	1.00	1.00	10	2

APPLICABILITY FACTOR (percent)			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
			Food	Textiles,Apprel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Gl	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.	Water/VWV
Segment	Measure #	Measure Description																
1	100	Base Compressed Air	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	101	Compressed Air-O&M	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	102	Compressed Air - Controls	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	103	Compressed Air - System Optimization	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	104	Compressed Air- Sizing	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	105	Comp Air - Replace 1-5 HP motor	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	106	Comp Air - ASD (1-5 hp)	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	107	Comp Air - Motor practices-1 (1-5 HP)	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	108	Comp Air - Replace 6-100 HP motor	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	109	Comp Air - ASD (6-100 hp)	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	110	Comp Air - Motor practices-1 (6-100 HP)	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	111	Comp Air - Replace 100+ HP motor	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	112	Comp Air - ASD (100+ hp)	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	113	Comp Air - Motor practices-1 (100+ HP)	8%	4%	5%	4%	4%	3%	12%	4%	6%	3%	12%	14%	10%	12%	9%	0%
1	114	Power recovery	0%	0%	0%	0%	0%	0%	12%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	200	Base Fans	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	201	Fans - O&M	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	202	Fans - Controls	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	203	Fans - System Optimization	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	204	Fans- Improve components	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	205	Fans - Replace 1-5 HP motor	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	206	Fans - ASD (1-5 hp)	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	207	Fans - Motor practices-1 (1-5 HP)	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	208	Fans - Replace 6-100 HP motor	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	209	Fans - ASD (6-100 hp)	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	210	Fans - Motor practices-1 (6-100 HP)	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	211	Fans - Replace 100+ HP motor	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	212	Fans - ASD (100+ hp)	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	213	Fans - Motor practices-1 (100+ HP)	8%	7%	9%	15%	7%	6%	7%	7%	14%	8%	7%	5%	3%	5%	3%	30%
1	214	Optimize drying process	0%	0%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	215	Power recovery	0%	0%	0%	0%	0%	0%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	300	Base Pumps	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	301	Pumps - O&M	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	302	Pumps - Controls	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	303	Pumps - System Optimization	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	304	Pumps - Sizing	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	305	Pumps - Replace 1-5 HP motor	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	306	Pumps - ASD (1-5 hp)	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	307	Pumps - Motor practices-1 (1-5 HP)	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	308	Pumps - Replace 6-100 HP motor	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	309	Pumps - ASD (6-100 hp)	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	310	Pumps - Motor practices-1 (6-100 HP)	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	311	Pumps - Replace 100+ HP motor	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	312	Pumps - ASD (100+ hp)	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	313	Pumps - Motor practices-1 (100+ HP)	15%	9%	11%	24%	9%	26%	49%	9%	18%	10%	9%	7%	4%	7%	4%	62%
1	314	Power recovery	0%	0%	0%	0%	0%	0%	49%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	400	Base Drives	14%	30%	41%	32%	32%	21%	13%	31%	20%	11%	22%	18%	9%	12%	16%	0%
1	401	Bakery - Process (Mixing) - O&M	14%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	402	O&M/drives spinning machines	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	403	Air conveying systems	0%	0%	41%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	404	Replace V-Belts	0%	0%	41%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	405	Drives - EE motor	0%	0%	41%	32%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
1	406	Gap Forming papermachine	0%	0%	0%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	407	High Consistency forming	0%	0%	0%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	408	Optimization control PM	0%	0%	0%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	409	Efficient practices printing press	0%	0%	0%	0%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	410	Efficient Printing press (fewer cylinders)	0%	0%	0%	0%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	411	Light cylinders	0%	0%	0%	0%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	412	Efficient drives	0%	0%	0%	0%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	413	Clean Room - Controls	0%	0%	0%	0%	0%	21%	0%	0%	0%	0%	0%	0%	9%	0%	0%	0%
1	414	Clean Room - New Designs	0%	0%	0%	0%	0%	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	415	Drives - Process Controls (batch + site)	0%	0%	0%	0%	0%	21%	0%	0%	20%	11%	0%	0%	0%	0%	0%	0%
1	416	Process Drives - ASD	0%	0%	0%	0%	0%	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	417	O&M - Extruders/Injection Moulding	0%	0%	0%	0%	0%	0%	0%	31%	0%	0%	0%	0%	0%	0%	0%	0%
1	418	Extruders/injection Moulding-multipump	0%	0%	0%	0%	0%	0%	0%	31%	0%	0%	0%	0%	0%	0%	0%	0%
1	419	Direct drive Extruders	0%	0%	0%	0%	0%	0%	0%	31%	0%	0%	0%	0%	0%	0%	0%	0%

APPENDIX E

INDUSTRIAL

MEASURE INPUT DATA

1	420	Injection Moulding - Impulse Cooling	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	421	Injection Moulding - Direct drive	0%	0%	0%	0%	0%	0%	0%	31%	0%	0%	0%	0%	0%	0%	0%	0%
1	422	Efficient grinding	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
1	423	Process control	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
1	424	Process optimization	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%
1	425	Drives - Process Control	0%	0%	0%	0%	0%	0%	0%	0%	0%	11%	0%	0%	0%	0%	0%	0%
1	426	Efficient drives - rolling	0%	0%	0%	0%	0%	0%	0%	0%	0%	11%	0%	0%	0%	0%	0%	0%
1	427	Drives - Optimization process (M&T)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	22%	18%	0%	12%	16%	0%
1	428	Drives - Scheduling	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	22%	18%	9%	12%	16%	0%
1	429	Machinery	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	22%	18%	9%	12%	16%	0%
1	430	Efficient Machinery	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16%	0%
1	500	Base Heating	8%	10%	9%	12%	4%	9%	5%	16%	22%	29%	20%	7%	15%	14%	10%	1%
1	501	Bakery - Process	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	502	Drying (UV/IR)	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	503	Heat Pumps - Drying	0%	0%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	504	Top-heating (glass)	0%	0%	0%	0%	0%	0%	0%	0%	22%	0%	0%	0%	0%	0%	0%	0%
1	505	Efficient electric melting	0%	0%	0%	0%	0%	0%	0%	0%	0%	29%	0%	0%	0%	0%	0%	0%
1	506	Intelligent extruder (DOE)	0%	0%	0%	0%	0%	0%	0%	0%	0%	29%	0%	0%	0%	0%	0%	0%
1	507	Near Net Shape Casting	0%	0%	0%	0%	0%	0%	0%	0%	0%	29%	0%	0%	0%	0%	0%	0%
1	508	Heating - Process Control	0%	0%	0%	0%	0%	0%	0%	0%	0%	29%	0%	0%	0%	0%	0%	0%
1	509	Efficient Curing ovens	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	7%	15%	14%	10%	0%
1	510	Heating - Optimization process (M&T)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	7%	0%	14%	0%	0%
1	511	Heating - Scheduling	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	7%	0%	0%	0%	0%
1	550	Base Refrigeration	26%	12%	1%	2%	6%	8%	5%	9%	3%	1%	4%	3%	9%	6%	6%	0%
1	551	Efficient Refrigeration - Operations	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	552	Optimization Refrigeration	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	600	Base Other Process	1%	1%	1%	2%	1%	14%	1%	2%	3%	31%	5%	2%	8%	3%	2%	0%
1	601	Other Process Controls (batch + site)	0%	0%	0%	0%	0%	14%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	602	Efficient desalter	0%	0%	0%	0%	0%	0%	0.6%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	603	New transformers welding	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	2%	0%	3%	1.5%	0%
1	604	Efficient processes (welding, etc.)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%	0%	0%	0%
1	605	Process control	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	606	Power recovery	0%	0%	0%	0%	0%	0%	0.6%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	700	Base Centrifugal Chiller, 0.58 kW/ton, 500 tons	1%	7%	4%	1%	10%	1%	0%	6%	1%	0%	5%	12%	13%	10%	13%	0%
1	701	Centrifugal Chiller, 0.51 kW/ton, 500 tons	1.1%	7.3%	3.6%	0.6%	10.1%	0.8%	0.5%	5.8%	0.8%	0.4%	5.4%	12.0%	12.8%	10.3%	13.3%	0.3%
1	702	Window Film - Chiller	1.1%	7.3%	3.6%	0.6%	10.1%	0.8%	0.5%	5.8%	0.8%	0.4%	5.4%	12.0%	12.8%	10.3%	13.3%	0.3%
1	703	EMS - Chiller	1.1%	7.3%	3.6%	0.6%	10.1%	0.8%	0.5%	5.8%	0.8%	0.4%	5.4%	12.0%	12.8%	10.3%	13.3%	0.3%
1	704	Cool Roof - Chiller	1.1%	7.3%	3.6%	0.6%	10.1%	0.8%	0.5%	5.8%	0.8%	0.4%	5.4%	12.0%	12.8%	10.3%	13.3%	0.3%
1	705	Chiller Tune Up/Diagnostics	1.1%	7.3%	3.6%	0.6%	10.1%	0.8%	0.5%	5.8%	0.8%	0.4%	5.4%	12.0%	12.8%	10.3%	13.3%	0.3%
1	706	Cooling Circ. Pumps - VSD	1.1%	7.3%	3.6%	0.6%	10.1%	0.8%	0.5%	5.8%	0.8%	0.4%	5.4%	12.0%	12.8%	10.3%	13.3%	0.3%
1	710	Base DX Packaged System, EER=10.3, 10 tons	7%	6%	3%	4%	9%	5%	3%	5%	5%	3%	5%	10%	11%	9%	11%	2%
1	711	DX Tune Up/ Advanced Diagnostics	7.4%	6.3%	3.1%	3.8%	8.7%	5.1%	3.1%	5.0%	5.4%	2.9%	4.6%	10.3%	11.0%	8.8%	11.4%	2.0%
1	712	DX Packaged System, EER=10.9, 10 tons	7.4%	6.3%	3.1%	3.8%	8.7%	5.1%	3.1%	5.0%	5.4%	2.9%	4.6%	10.3%	11.0%	8.8%	11.4%	2.0%
1	713	Window Film - DX	7.4%	6.3%	3.1%	3.8%	8.7%	5.1%	3.1%	5.0%	5.4%	2.9%	4.6%	10.3%	11.0%	8.8%	11.4%	2.0%
1	714	Evaporative Pre-Cooler	7.4%	6.3%	3.1%	3.8%	8.7%	5.1%	3.1%	5.0%	5.4%	2.9%	4.6%	10.3%	11.0%	8.8%	11.4%	2.0%
1	715	Prog. Thermostat - DX	7.4%	6.3%	3.1%	3.8%	8.7%	5.1%	3.1%	5.0%	5.4%	2.9%	4.6%	10.3%	11.0%	8.8%	11.4%	2.0%
1	716	Cool Roof - DX	7.4%	6.3%	3.1%	3.8%	8.7%	5.1%	3.1%	5.0%	5.4%	2.9%	4.6%	10.3%	11.0%	8.8%	11.4%	2.0%
1	800	Base Lighting	7%	10%	8%	4%	12%	4%	2%	9%	5%	3%	9%	15%	12%	15%	17%	4%
1	801	RET 2L4' Premium T8, 1EB	4%	5%	4%	2%	6%	2%	1%	4%	3%	2%	5%	8%	6%	8%	9%	2%
1	802	CFL Hardwired, Modular 36W	0.05%	0.07%	0.06%	0.03%	0.08%	0.03%	0.02%	0.06%	0.04%	0.02%	0.07%	0.10%	0.08%	0.10%	0.12%	0.03%
1	803	Metal Halide, 50W	3%	4%	3%	2%	5%	1%	1%	3%	2%	1%	4%	6%	5%	6%	7%	2%
1	804	Occupancy Sensor, 4L4' Fluorescent Fixtures	4%	6%	5%	2%	7%	2%	1%	5%	3%	2%	5%	8%	6%	8%	9%	2%
1	900	Base Other	4%	3%	9%	2%	7%	3%	1%	4%	3%	1%	3%	6%	7%	5%	8%	0%
1	901	Replace V-belts	4%	3%	9%	2%	7%	3%	1%	4%	3%	1%	3%	6%	7%	5%	8%	0%
1	902	Membranes for wastewater	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

ENERGY SAVINGS
(percent)

Segment	Measure #	Measure Description	Food	Textiles,Apprel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastir	Stone,Clay,Gl	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.	Water/WW
1	100	Base Compressed Air	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	101	Compressed Air-O&M	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%	16.8%
1	102	Compressed Air - Controls	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
1	103	Compressed Air - System Optimization	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
1	104	Compressed Air- Sizing	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
1	105	Comp Air - Replace 1-5 HP motor	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
1	106	Comp Air - ASD (1-5 hp)	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
1	107	Comp Air - Motor practices-1 (1-5 HP)	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%
1	108	Comp Air - Replace 6-100 HP motor	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
1	109	Comp Air - ASD (6-100 hp)	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
1	110	Comp Air - Motor practices-1 (6-100 HP)	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
1	111	Comp Air - Replace 100+ HP motor	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
1	112	Comp Air - ASD (100+ hp)	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
1	113	Comp Air - Motor practices-1 (100+ HP)	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
1	114	Power recovery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	200	Base Fans	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	201	Fans - O&M	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
1	202	Fans - Controls	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	203	Fans - System Optimization	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%
1	204	Fans- Improve components	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	205	Fans - Replace 1-5 HP motor	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
1	206	Fans - ASD (1-5 hp)	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
1	207	Fans - Motor practices-1 (1-5 HP)	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%
1	208	Fans - Replace 6-100 HP motor	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
1	209	Fans - ASD (6-100 hp)	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
1	210	Fans - Motor practices-1 (6-100 HP)	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
1	211	Fans - Replace 100+ HP motor	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
1	212	Fans - ASD (100+ hp)	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
1	213	Fans - Motor practices-1 (100+ HP)	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
1	214	Optimize drying process	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	215	Power recovery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	300	Base Pumps	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	301	Pumps - O&M	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	302	Pumps - Controls	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
1	303	Pumps - System Optimization	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%
1	304	Pumps - Sizing	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
1	305	Pumps - Replace 1-5 HP motor	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
1	306	Pumps - ASD (1-5 hp)	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
1	307	Pumps - Motor practices-1 (1-5 HP)	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%
1	308	Pumps - Replace 6-100 HP motor	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
1	309	Pumps - ASD (6-100 hp)	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
1	310	Pumps - Motor practices-1 (6-100 HP)	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
1	311	Pumps - Replace 100+ HP motor	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
1	312	Pumps - ASD (100+ hp)	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
1	313	Pumps - Motor practices-1 (100+ HP)	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
1	314	Power recovery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	400	Base Drives	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	401	Bakery - Process (Mixing) - O&M	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	402	O&M/drives spinning machines	0.0%	16.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	403	Air conveying systems	0.0%	0.0%	41.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	404	Replace V-Belts	0.0%	0.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	405	Drives - EE motor	0.0%	0.0%	3.5%	3.1%	0.0%	0.0%	0.0%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	406	Gap Forming papermachine	0.0%	0.0%	0.0%	7.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	407	High Consistency forming	0.0%	0.0%	0.0%	7.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	408	Optimization control PM	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	409	Efficient practices printing press	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	410	Efficient Printing press (fewer cylinders)	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	411	Light cylinders	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	412	Efficient drives	0.0%	0.0%	0.0%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	413	Clean Room - Controls	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%
1	414	Clean Room - New Designs	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	415	Drives - Process Controls (batch + site)	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	0.0%	0.0%	2.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	416	Process Drives - ASD	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%
1	417	O&M - Extruders/injection Moulding	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	418	Extruders/injection Moulding-multipump	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	419	Direct drive Extruders	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

APPENDIX E

INDUSTRIAL

MEASURE INPUT DATA

1	420	Injection Moulding - Impulse Cooling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	21.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	421	Injection Moulding - Direct drive	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	422	Efficient grinding	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	21.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	423	Process control	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	424	Process optimization	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	425	Drives - Process Control	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	426	Efficient drives - rolling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	427	Drives - Optimization process (M&T)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	0.0%	10.0%	0.0%	0.0%
1	428	Drives - Scheduling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	5.5%	5.0%	5.5%	5.0%	0.0%
1	429	Machinery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	7.0%	3.5%	10.8%	0.0%	0.0%
1	430	Efficient Machinery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	3.5%
1	500	Base Heating	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	501	Bakery - Process	37.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	502	Drying (UV/IR)	0.0%	26.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	503	Heat Pumps - Drying	0.0%	0.0%	22.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	504	Top-heating (glass)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	505	Efficient electric melting	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	506	Intelligent extruder (DOE)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	507	Near Net Shape Casting	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	508	Heating - Process Control	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	509	Efficient Curing ovens	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	20.0%	20.0%	20.0%	20.0%	0.0%
1	510	Heating - Optimization process (M&T)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	0.0%	10.0%	0.0%	0.0%
1	511	Heating - Scheduling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%
1	550	Base Refrigeration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	551	Efficient Refrigeration - Operations	12.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	552	Optimization Refrigeration	26.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	600	Base Other Process	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	601	Other Process Controls (batch + site)	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	602	Efficient desalter	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	603	New transformers welding	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	25.0%	0.0%	25.0%	0.0%	0.0%
1	604	Efficient processes (welding, etc.)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%
1	605	Process control	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	0.0%
1	606	Power recovery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	700	Base Centrifugal Chiller, 0.58 kW/ton, 500 tons	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	701	Centrifugal Chiller, 0.51 kW/ton, 500 tons	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%
1	702	Window Film - Chiller	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%
1	703	EMS - Chiller	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	704	Cool Roof - Chiller	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
1	705	Chiller Tune Up/Diagnostics	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
1	706	Cooling Circ. Pumps - VSD	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
1	710	Base DX Packaged System, EER=10.3, 10 tons	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	711	DX Tune Up/ Advanced Diagnostics	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	712	DX Packaged System, EER=10.9, 10 tons	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
1	713	Window Film - DX	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%
1	714	Evaporative Pre-Cooler	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	715	Prog. Thermostat - DX	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	716	Cool Roof - DX	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
1	800	Base Lighting	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	801	RET 2L4' Premium T8, 1EB	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%	31.4%
1	802	CFL Hardwired, Modular 36W	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%
1	803	Metal Halide, 50W	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%
1	804	Occupancy Sensor, 4L4' Fluorescent Fixtures	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
1	900	Base Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	901	Replace V-belts	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
1	902	Membranes for wastewater	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Standards Adjustment Factor (percent)			Food	Textiles,Apprel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Gl	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.	Water/WW
Segment	Measure #	Measure Description																
1	100	Base Compressed Air	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	101	Compressed Air-O&M	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	102	Compressed Air - Controls	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	103	Compressed Air - System Optimization	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	104	Compressed Air- Sizing	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	105	Comp Air - Replace 1-5 HP motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	106	Comp Air - ASD (1-5 hp)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	107	Comp Air - Motor practices-1 (1-5 HP)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	108	Comp Air - Replace 6-100 HP motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	109	Comp Air - ASD (6-100 hp)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	110	Comp Air - Motor practices-1 (6-100 HP)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	111	Comp Air - Replace 100+ HP motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	112	Comp Air - ASD (100+ hp)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	113	Comp Air - Motor practices-1 (100+ HP)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	114	Power recovery	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	200	Base Fans	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	201	Fans - O&M	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	202	Fans - Controls	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	203	Fans - System Optimization	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	204	Fans- Improve components	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	205	Fans - Replace 1-5 HP motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	206	Fans - ASD (1-5 hp)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	207	Fans - Motor practices-1 (1-5 HP)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	208	Fans - Replace 6-100 HP motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	209	Fans - ASD (6-100 hp)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	210	Fans - Motor practices-1 (6-100 HP)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	211	Fans - Replace 100+ HP motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	212	Fans - ASD (100+ hp)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	213	Fans - Motor practices-1 (100+ HP)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	214	Optimize drying process	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	215	Power recovery	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	300	Base Pumps	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	301	Pumps - O&M	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	302	Pumps - Controls	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	303	Pumps - System Optimization	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	304	Pumps - Sizing	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	305	Pumps - Replace 1-5 HP motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	306	Pumps - ASD (1-5 hp)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	307	Pumps - Motor practices-1 (1-5 HP)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	308	Pumps - Replace 6-100 HP motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	309	Pumps - ASD (6-100 hp)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	310	Pumps - Motor practices-1 (6-100 HP)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	311	Pumps - Replace 100+ HP motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	312	Pumps - ASD (100+ hp)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	313	Pumps - Motor practices-1 (100+ HP)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	314	Power recovery	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	400	Base Drives	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	401	Bakery - Process (Mixing) - O&M	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	402	O&M/drives spinning machines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	403	Air conveying systems	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	404	Replace V-Belts	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	405	Drives - EE motor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	406	Gap Forming papermachine	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	407	High Consistency forming	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	408	Optimization control PM	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	409	Efficient practices printing press	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	410	Efficient Printing press (fewer cylinders)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	411	Light cylinders	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	412	Efficient drives	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	413	Clean Room - Controls	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	414	Clean Room - New Designs	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	415	Drives - Process Controls (batch + site)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	416	Process Drives - ASD	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	417	O&M - Extruders/Injection Moulding	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	418	Extruders/injection Moulding-multipump	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	419	Direct drive Extruders	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

APPENDIX E

INDUSTRIAL

MEASURE INPUT DATA

1	420	Injection Moulding - Impulse Cooling	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	421	Injection Moulding - Direct drive	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	422	Efficient grinding	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	423	Process control	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	424	Process optimization	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	425	Drives - Process Control	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	426	Efficient drives - rolling	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	427	Drives - Optimization process (M&T)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	428	Drives - Scheduling	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	429	Machinery	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	430	Efficient Machinery	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	500	Base Heating	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	501	Bakery - Process	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	502	Drying (UV/IR)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	503	Heat Pumps - Drying	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	504	Top-heating (glass)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	505	Efficient electric melting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	506	Intelligent extruder (DOE)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	507	Near Net Shape Casting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	508	Heating - Process Control	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	509	Efficient Curing ovens	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	510	Heating - Optimization process (M&T)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	511	Heating - Scheduling	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	550	Base Refrigeration	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	551	Efficient Refrigeration - Operations	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	552	Optimization Refrigeration	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	600	Base Other Process	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	601	Other Process Controls (batch + site)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	602	Efficient desalter	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	603	New transformers welding	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	604	Efficient processes (welding, etc.)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	605	Process control	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	606	Power recovery	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	700	Base Centrifugal Chiller, 0.58 kW/ton, 500 t	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	701	Centrifugal Chiller, 0.51 kW/ton, 500 tons	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%
1	702	Window Film - Chiller	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	703	EMS - Chiller	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	704	Cool Roof - Chiller	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	705	Chiller Tune Up/Diagnostics	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	706	Cooling Circ. Pumps - VSD	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	710	Base DX Packaged System, EER=10.3, 10	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	711	DX Tune Up/ Advanced Diagnostics	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	712	DX Packaged System, EER=10.9, 10 tons	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%
1	713	Window Film - DX	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	714	Evaporative Pre-Cooler	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	715	Prog. Thermostat - DX	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	716	Cool Roof - DX	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	800	Base Lighting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	801	RET 2L4' Premium T8, 1EB	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	802	CFL Hardwired, Modular 36W	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	803	Metal Halide, 50W	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	804	Occupancy Sensor, 4L4' Fluorescent Fixtur	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	900	Base Other	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	901	Replace V-belts	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	902	Membranes for wastewater	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

**FEASIBILITY FACTOR
(percent)**

Segment	Measure #	Measure Description	Food	Textiles,Apprel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Gl	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.	Water/WW
1	100	Base Compressed Air	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	101	Compressed Air -O&M	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	102	Compressed Air - Controls	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	103	Compressed Air - System Optimization	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	104	Compressed Air- Sizing	56%	47%	47%	56%	56%	56%	56%	56%	56%	56%	56%	47%	47%	47%	47%	100%
1	105	Comp Air - Replace 1-5 HP motor	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1	106	Comp Air - ASD (1-5 hp)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1	107	Comp Air - Motor practices-1 (1-5 HP)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1	108	Comp Air - Replace 6-100 HP motor	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%
1	109	Comp Air - ASD (6-100 hp)	96%	36%	36%	96%	96%	96%	96%	96%	96%	96%	36%	36%	36%	36%	36%	36%
1	110	Comp Air - Motor practices-1 (6-100 HP)	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%
1	111	Comp Air - Replace 100+ HP motor	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%
1	112	Comp Air - ASD (100+ hp)	87%	100%	100%	87%	87%	87%	87%	87%	87%	87%	100%	100%	100%	100%	100%	59%
1	113	Comp Air - Motor practices-1 (100+ HP)	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%
1	114	Power recovery	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	200	Base Fans	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	201	Fans - O&M	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	202	Fans - Controls	83%	89%	89%	83%	83%	83%	83%	83%	83%	83%	89%	89%	89%	89%	89%	100%
1	203	Fans - System Optimization	83%	87%	87%	83%	83%	83%	83%	83%	83%	83%	87%	87%	87%	87%	87%	100%
1	204	Fans - Improve components	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	205	Fans - Replace 1-5 HP motor	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1	206	Fans - ASD (1-5 hp)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1	207	Fans - Motor practices-1 (1-5 HP)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1	208	Fans - Replace 6-100 HP motor	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%
1	209	Fans - ASD (6-100 hp)	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%
1	210	Fans - Motor practices-1 (6-100 HP)	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%
1	211	Fans - Replace 100+ HP motor	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%
1	212	Fans - ASD (100+ hp)	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%
1	213	Fans - Motor practices-1 (100+ HP)	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%
1	214	Optimize drying process	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	215	Power recovery	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	300	Base Pumps	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	301	Pumps - O&M	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	302	Pumps - Controls	100%	79%	79%	100%	100%	100%	100%	100%	100%	100%	79%	79%	79%	79%	79%	100%
1	303	Pumps - System Optimization	99%	77%	77%	99%	99%	99%	99%	99%	99%	99%	77%	77%	77%	77%	77%	100%
1	304	Pumps - Sizing	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	305	Pumps - Replace 1-5 HP motor	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1	306	Pumps - ASD (1-5 hp)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1	307	Pumps - Motor practices-1 (1-5 HP)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
1	308	Pumps - Replace 6-100 HP motor	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%
1	309	Pumps - ASD (6-100 hp)	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%
1	310	Pumps - Motor practices-1 (6-100 HP)	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%
1	311	Pumps - Replace 100+ HP motor	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%
1	312	Pumps - ASD (100+ hp)	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%
1	313	Pumps - Motor practices-1 (100+ HP)	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%	59%
1	314	Power recovery	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	400	Base Drives	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	401	Bakery - Process (Mixing) - O&M	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	402	O&M/drives spinning machines	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	403	Air conveying systems	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	404	Replace V-Belts	0%	0%	70%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	405	Drives - EE motor	73%	27%	27%	73%	73%	73%	73%	73%	73%	73%	27%	27%	27%	27%	27%	0%
1	406	Gap Forming papermachine	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	407	High Consistency forming	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	408	Optimization control PM	82%	47%	47%	82%	82%	82%	82%	82%	82%	82%	47%	47%	47%	47%	47%	0%
1	409	Efficient practices printing press	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	410	Efficient Printing press (fewer cylinders)	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	411	Light cylinders	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	412	Efficient drives	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	413	Clean Room - Controls	0%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	60%	0%	0%	0%
1	414	Clean Room - New Designs	0%	0%	0%	0%	0%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	415	Drives - Process Controls (batch + site)	0%	0%	0%	0%	0%	86%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%
1	416	Process Drives - ASD	0%	0%	0%	0%	0%	70%	0%	0%	0%	0%	0%	0%	0%	0%	40%	0%
1	417	O&M - Extruders/Injection Moulding	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%
1	418	Extruders/injection Moulding-multipump	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%
1	419	Direct drive Extruders	40%	0%	0%	40%	40%	40%	40%	40%	40%	40%	0%	0%	0%	0%	0%	0%

APPENDIX E

INDUSTRIAL

MEASURE INPUT DATA

1	420	Injection Moulding - Impulse Cooling	45%	0%	0%	45%	45%	45%	45%	45%	45%	45%	0%	0%	0%	0%	0%	0%
1	421	Injection Moulding - Direct drive	46%	0%	0%	46%	46%	46%	46%	46%	46%	46%	0%	0%	0%	0%	0%	0%
1	422	Efficient grinding	100%	85%	85%	100%	100%	100%	100%	100%	100%	100%	85%	85%	85%	85%	85%	0%
1	423	Process control	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%
1	424	Process optimization	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%
1	425	Drives - Process Control	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%
1	426	Efficient drives - rolling	95%	0%	0%	95%	95%	95%	95%	95%	95%	95%	0%	0%	0%	0%	0%	0%
1	427	Drives - Optimization process (M&T)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	40%	40%	0%	40%	0%	0%
1	428	Drives - Scheduling	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	40%	40%	40%	40%	40%	0%
1	429	Machinery	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	50%	50%	0%	0%
1	430	Efficient Machinery	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%
1	500	Base Heating	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	501	Bakery - Process	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	502	Drying (UV/IR)	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	503	Heat Pumps - Drying	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	504	Top-heating (glass)	84%	0%	0%	84%	84%	84%	84%	84%	84%	84%	0%	0%	0%	0%	0%	0%
1	505	Efficient electric melting	0%	0%	0%	0%	0%	0%	0%	0%	0%	90%	0%	0%	0%	0%	0%	0%
1	506	Intelligent extruder (DOE)	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%
1	507	Near Net Shape Casting	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%
1	508	Heating - Process Control	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%
1	509	Efficient Curing ovens	84%	0%	0%	84%	84%	84%	84%	84%	84%	84%	70%	50%	50%	50%	50%	50%
1	510	Heating - Optimization process (M&T)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	40%	40%	0%	40%	0%	0%
1	511	Heating - Scheduling	14%	0%	0%	14%	14%	14%	14%	14%	14%	14%	40%	40%	0%	0%	0%	0%
1	550	Base Refrigeration	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	551	Efficient Refrigeration - Operations	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	552	Optimization Refrigeration	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	600	Base Other Process	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	601	Other Process Controls (batch + site)	0%	0%	0%	0%	0%	86%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	602	Efficient desalter	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	603	New transformers welding	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	50%	0%	100%	0%	0%
1	604	Efficient processes (welding, etc.)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%
1	605	Process control	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
1	606	Power recovery	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1	700	Base Centrifugal Chiller, 0.58 kW/ton, 500 t	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	701	Centrifugal Chiller, 0.51 kW/ton, 500 tons	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	702	Window Film - Chiller	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1	703	EMS - Chiller	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	704	Cool Roof - Chiller	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
1	705	Chiller Tune Up/Diagnostics	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
1	706	Cooling Circ. Pumps - VSD	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1	710	Base DX Packaged System, EER=10.3, 10	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	711	DX Tune Up/ Advanced Diagnostics	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1	712	DX Packaged System, EER=10.9, 10 tons	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	713	Window Film - DX	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1	714	Evaporative Pre-Cooler	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
1	715	Prog. Thermostat - DX	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
1	716	Cool Roof - DX	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
1	800	Base Lighting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	801	RET 2L4' Premium T8, 1EB	76%	86%	87%	80%	96%	77%	80%	62%	66%	85%	87%	90%	89%	93%	93%	93%
1	802	CFL Hardwired, Modular 36W	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	6%
1	803	Metal Halide, 50W	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
1	804	Occupancy Sensor, 4L4' Fluorescent Fixtur	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
1	900	Base Other	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	901	Replace V-belts	73%	71%	80%	79%	39%	0%	7%	53%	70%	20%	53%	40%	33%	55%	55%	55%
1	902	Membranes for wastewater	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	29%

INCOMPLETE FACTOR
(percent)

Segment	Measure #	Measure Description	Food	Textiles,Apprel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Pla	Stone,Clay, Prim	Metals Fab	Metals	Ind Mach	Electronics	Transp Equ	Misc.	Water/WW
1	100	Base Compressed Air	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	101	Compressed Air-O&M	31.00%	22.00%	22.00%	31.00%	31.00%	31.00%	31.00%	31.00%	31.00%	31.00%	22.00%	22.00%	22.00%	22.00%	22.00%	31.00%
1	102	Compressed Air - Controls	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
1	103	Compressed Air - System Optimization	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
1	104	Compressed Air- Sizing	17.53%	99.26%	99.26%	17.53%	17.53%	17.53%	17.53%	17.53%	17.53%	17.53%	99.26%	99.26%	99.26%	99.26%	17.53%	17.53%
1	105	Comp Air - Replace 1-5 HP motor	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%	87.00%
1	106	Comp Air - ASD (1-5 hp)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	107	Comp Air - Motor practices-1 (1-5 HP)	99.98%	100.00%	100.00%	99.98%	99.98%	99.98%	99.98%	99.98%	99.98%	99.98%	100.00%	100.00%	100.00%	100.00%	100.00%	99.98%
1	108	Comp Air - Replace 6-100 HP motor	63.61%	20.84%	20.84%	63.61%	63.61%	63.61%	63.61%	63.61%	63.61%	63.61%	20.84%	20.84%	20.84%	20.84%	20.84%	63.61%
1	109	Comp Air - ASD (6-100 hp)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	110	Comp Air - Motor practices-1 (6-100 HP)	14.03%	100.00%	100.00%	14.03%	14.03%	14.03%	14.03%	14.03%	14.03%	14.03%	100.00%	100.00%	100.00%	100.00%	100.00%	14.03%
1	111	Comp Air - Replace 100+ HP motor	26.12%	38.00%	38.00%	26.12%	26.12%	26.12%	26.12%	26.12%	26.12%	26.12%	38.00%	38.00%	38.00%	38.00%	38.00%	26.12%
1	112	Comp Air - ASD (100+ hp)	68.02%	100.00%	100.00%	68.02%	68.02%	68.02%	68.02%	68.02%	68.02%	68.02%	100.00%	100.00%	100.00%	100.00%	100.00%	68.02%
1	113	Comp Air - Motor practices-1 (100+ HP)	64.18%	39.66%	39.66%	64.18%	64.18%	64.18%	64.18%	64.18%	64.18%	64.18%	39.66%	39.66%	39.66%	39.66%	39.66%	64.18%
1	114	Power recovery	86.04%	19.68%	19.68%	86.04%	86.04%	86.04%	86.04%	86.04%	86.04%	86.04%	19.68%	19.68%	19.68%	19.68%	19.68%	86.04%
1	200	Base Fans	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	201	Fans - O&M	84.47%	12.87%	12.87%	84.47%	84.47%	84.47%	84.47%	84.47%	84.47%	84.47%	12.87%	12.87%	12.87%	12.87%	12.87%	84.47%
1	202	Fans - Controls	72.02%	21.21%	21.21%	72.02%	72.02%	72.02%	72.02%	72.02%	72.02%	72.02%	21.21%	21.21%	21.21%	21.21%	21.21%	72.02%
1	203	Fans - System Optimization	85.79%	21.87%	21.87%	85.79%	85.79%	85.79%	85.79%	85.79%	85.79%	85.79%	21.87%	21.87%	21.87%	21.87%	21.87%	85.79%
1	204	Fans- Improve components	68.08%	35.69%	35.69%	68.08%	68.08%	68.08%	68.08%	68.08%	68.08%	68.08%	35.69%	35.69%	35.69%	35.69%	35.69%	68.08%
1	205	Fans - Replace 1-5 HP motor	98.47%	87.00%	87.00%	98.47%	98.47%	98.47%	98.47%	98.47%	98.47%	98.47%	87.00%	87.00%	87.00%	87.00%	87.00%	98.47%
1	206	Fans - ASD (1-5 hp)	99.72%	81.94%	81.94%	99.72%	99.72%	99.72%	99.72%	99.72%	99.72%	99.72%	81.94%	81.94%	81.94%	81.94%	81.94%	99.72%
1	207	Fans - Motor practices-1 (1-5 HP)	99.63%	100.00%	100.00%	99.63%	99.63%	99.63%	99.63%	99.63%	99.63%	99.63%	100.00%	100.00%	100.00%	100.00%	100.00%	99.63%
1	208	Fans - Replace 6-100 HP motor	89.52%	47.03%	47.03%	89.52%	89.52%	89.52%	89.52%	89.52%	89.52%	89.52%	47.03%	47.03%	47.03%	47.03%	47.03%	89.52%
1	209	Fans - ASD (6-100 hp)	92.64%	91.96%	91.96%	92.64%	92.64%	92.64%	92.64%	92.64%	92.64%	92.64%	91.96%	91.96%	91.96%	91.96%	91.96%	92.64%
1	210	Fans - Motor practices-1 (6-100 HP)	89.03%	41.35%	41.35%	89.03%	89.03%	89.03%	89.03%	89.03%	89.03%	89.03%	41.35%	41.35%	41.35%	41.35%	41.35%	89.03%
1	211	Fans - Replace 100+ HP motor	93.70%	89.94%	89.94%	93.70%	93.70%	93.70%	93.70%	93.70%	93.70%	93.70%	89.94%	89.94%	89.94%	89.94%	89.94%	93.70%
1	212	Fans - ASD (100+ hp)	93.70%	10.92%	10.92%	93.70%	93.70%	93.70%	93.70%	93.70%	93.70%	93.70%	10.92%	10.92%	10.92%	10.92%	10.92%	93.70%
1	213	Fans - Motor practices-1 (100+ HP)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	214	Optimize drying process	100.00%	80.13%	80.13%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	80.13%	80.13%	80.13%	80.13%	80.13%	100.00%
1	215	Power recovery	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	25.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	300	Base Pumps	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	301	Pumps - O&M	17.61%	55.31%	55.31%	17.61%	17.61%	17.61%	17.61%	17.61%	17.61%	17.61%	55.31%	55.31%	55.31%	55.31%	55.31%	17.61%
1	302	Pumps - Controls	13.55%	24.06%	24.06%	13.55%	13.55%	13.55%	13.55%	13.55%	13.55%	13.55%	24.06%	24.06%	24.06%	24.06%	24.06%	13.55%
1	303	Pumps - System Optimization	15.00%	79.30%	79.30%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	79.30%	79.30%	79.30%	79.30%	79.30%	15.00%
1	304	Pumps - Sizing	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
1	305	Pumps - Replace 1-5 HP motor	89.37%	92.74%	92.74%	89.37%	89.37%	89.37%	89.37%	89.37%	89.37%	89.37%	92.74%	92.74%	92.74%	92.74%	92.74%	89.37%
1	306	Pumps - ASD (1-5 hp)	100.00%	80.42%	80.42%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	80.42%	80.42%	80.42%	80.42%	80.42%	100.00%
1	307	Pumps - Motor practices-1 (1-5 HP)	40.42%	53.83%	53.83%	40.42%	40.42%	40.42%	40.42%	40.42%	40.42%	40.42%	53.83%	53.83%	53.83%	53.83%	53.83%	40.42%
1	308	Pumps - Replace 6-100 HP motor	96.71%	88.90%	88.90%	96.71%	96.71%	96.71%	96.71%	96.71%	96.71%	96.71%	88.90%	88.90%	88.90%	88.90%	88.90%	96.71%
1	309	Pumps - ASD (6-100 hp)	97.88%	46.59%	46.59%	97.88%	97.88%	97.88%	97.88%	97.88%	97.88%	97.88%	46.59%	46.59%	46.59%	46.59%	46.59%	97.88%
1	310	Pumps - Motor practices-1 (6-100 HP)	62.84%	80.97%	80.97%	62.84%	62.84%	62.84%	62.84%	62.84%	62.84%	62.84%	80.97%	80.97%	80.97%	80.97%	80.97%	62.84%
1	311	Pumps - Replace 100+ HP motor	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%
1	312	Pumps - ASD (100+ hp)	100.00%	97.76%	97.76%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	97.76%	97.76%	97.76%	97.76%	97.76%	100.00%
1	313	Pumps - Motor practices-1 (100+ HP)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	314	Power recovery	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	25.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	400	Base Drives	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	401	Bakery - Process (Mixing) - O&M	70.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	402	O&M/drives spinning machines	100.00%	40.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	403	Air conveying systems	100.00%	100.00%	25.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	404	Replace V-Belts	47.03%	20.92%	20.92%	47.03%	47.03%	47.03%	47.03%	47.03%	47.03%	47.03%	20.92%	20.92%	20.92%	20.92%	20.92%	47.03%
1	405	Drives - EE motor	63.25%	14.43%	14.43%	63.25%	63.25%	63.25%	63.25%	63.25%	63.25%	63.25%	14.43%	14.43%	14.43%	14.43%	14.43%	63.25%
1	406	Gap Forming papermachine	100.00%	100.00%	100.00%	10.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	407	High Consistency forming	100.00%	100.00%	100.00%	10.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

APPENDIX E

INDUSTRIAL

MEASURE INPUT DATA

1	408	Optimization control PM	56.71%	97.67%	97.67%	56.71%	56.71%	56.71%	56.71%	56.71%	56.71%	56.71%	97.67%	97.67%	97.67%	97.67%	97.67%	56.71%
1	409	Efficient practices printing press	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	410	Efficient Printing press (fewer cylinders)	100.00%	100.00%	100.00%	100.00%	20.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	411	Light cylinders	100.00%	100.00%	100.00%	100.00%	20.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	412	Efficient drives	100.00%	100.00%	100.00%	100.00%	30.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	413	Clean Room - Controls	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%
1	414	Clean Room - New Designs	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	415	Drives - Process Controls (batch + site)	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	50.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	416	Process Drives - ASD	97.67%	65.04%	65.04%	97.67%	97.67%	97.67%	97.67%	97.67%	97.67%	97.67%	65.04%	65.04%	65.04%	65.04%	65.04%	97.67%
1	417	O&M - Extruders/Injection Moulding	57.13%	37.55%	37.55%	57.13%	57.13%	57.13%	57.13%	57.13%	57.13%	57.13%	37.55%	37.55%	37.55%	37.55%	37.55%	57.13%
1	418	Extruders/Injection Moulding-multipump	79.06%	100.00%	100.00%	79.06%	79.06%	79.06%	79.06%	79.06%	79.06%	79.06%	100.00%	100.00%	100.00%	100.00%	100.00%	79.06%
1	419	Direct drive Extruders	90.49%	100.00%	100.00%	90.49%	90.49%	90.49%	90.49%	90.49%	90.49%	90.49%	100.00%	100.00%	100.00%	100.00%	100.00%	90.49%
1	420	Injection Moulding - Impulse Cooling	83.81%	100.00%	100.00%	83.81%	83.81%	83.81%	83.81%	83.81%	83.81%	83.81%	100.00%	100.00%	100.00%	100.00%	100.00%	83.81%
1	421	Injection Moulding - Direct drive	89.89%	100.00%	100.00%	89.89%	89.89%	89.89%	89.89%	89.89%	89.89%	89.89%	100.00%	100.00%	100.00%	100.00%	100.00%	89.89%
1	422	Efficient grinding	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	423	Process control	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	424	Process optimization	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	25.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	425	Drives - Process Control	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	426	Efficient drives - rolling	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	427	Drives - Optimization process (M&T)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	50.00%	100.00%	40.00%	100.00%	100.00%
1	428	Drives - Scheduling	72.38%	29.00%	29.00%	72.38%	72.38%	72.38%	72.38%	72.38%	72.38%	72.38%	29.00%	29.00%	29.00%	29.00%	29.00%	72.38%
1	429	Machinery	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	25.00%	25.00%	25.00%	20.00%	100.00%	100.00%
1	430	Efficient Machinery	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	25.00%	100.00%
1	500	Base Heating	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	501	Bakery - Process	49.76%	100.00%	100.00%	49.76%	49.76%	49.76%	49.76%	49.76%	49.76%	49.76%	100.00%	100.00%	100.00%	100.00%	100.00%	49.76%
1	502	Drying (UV/ R)	100.00%	20.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	503	Heat Pumps - Drying	100.00%	100.00%	20.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	504	Top-heating (glass)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%
1	505	Efficient electric melting	99.78%	100.00%	100.00%	99.78%	99.78%	99.78%	99.78%	99.78%	99.78%	99.78%	100.00%	100.00%	100.00%	100.00%	100.00%	99.78%
1	506	Intelligent extruder (DOE)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	25.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	507	Near Net Shape Casting	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	25.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	508	Heating - Process Control	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	509	Efficient Curing ovens	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	25.00%	25.00%	25.00%	25.00%	25.00%	100.00%
1	510	Heating - Optimization process (M&T)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	50.00%	100.00%	40.00%	100.00%	100.00%
1	511	Heating - Scheduling	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	30.00%	30.00%	100.00%	100.00%	100.00%	100.00%
1	550	Base Refrigeration	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	551	Efficient Refrigeration - Operations	83.26%	51.76%	51.76%	83.26%	83.26%	83.26%	83.26%	83.26%	83.26%	83.26%	51.76%	51.76%	51.76%	51.76%	51.76%	83.26%
1	552	Optimization Refrigeration	95.06%	44.99%	44.99%	95.06%	95.06%	95.06%	95.06%	95.06%	95.06%	95.06%	44.99%	44.99%	44.99%	44.99%	44.99%	95.06%
1	600	Base Other Process	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	601	Other Process Controls (batch + site)	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	602	Efficient desalter	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	603	New transformers welding	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	50.00%	100.00%	50.00%	100.00%	100.00%
1	604	Efficient processes (welding, etc.)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	50.00%	100.00%	100.00%	100.00%
1	605	Process control	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	25.00%	100.00%
1	606	Power recovery	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	25.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	700	Base Centrifugal Chiller, 0.58 kW/ton, 500 tons	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	701	Centrifugal Chiller, 0.51 kW/ton, 500 tons	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	702	Window Film - Chiller	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%	50.48%
1	703	EMS - Chiller	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%	63.20%
1	704	Cool Roof - Chiller	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%	58.65%
1	705	Chiller Tune Up/Diagnostics	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
1	706	Cooling Circ. Pumps - VSD	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%	75.00%
1	710	Base DX Packaged System, EER=10.3, 10 tons	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	711	DX Tune Up/ Advanced Diagnostics	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
1	712	DX Packaged System, EER=10.9, 10 tons	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	713	Window Film - DX	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%	30.70%
1	714	Evaporative Pre-Cooler	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
1	715	Prog. Thermostat - DX	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%	45.30%

1	716	Cool Roof - DX	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%	61.49%
1	800	Base Lighting	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	801	RET 2L4' Premium T8, 1EB	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%	95.88%
1	802	CFL Hardwired, Modular 36W	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	200.00%	300.00%
1	803	Metal Halide, 50W	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%	73.81%
1	804	Occupancy Sensor, 4L4' Fluorescent Fixtur	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%	96.88%
1	900	Base Other	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	901	Replace V-belts	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
1	902	Membranes for wastewater	100.00%	15.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

TECHNOLOGY SATURATION
 (units/square foot)

Segment	Measure #	Measure Description	Food	Textiles,Apprel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Gli	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.	Water/WW
1	100	Base Compressed Air	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	101	Compressed Air-O&M	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	102	Compressed Air - Controls	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	103	Compressed Air - System Optimization	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	104	Compressed Air- Sizing	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	105	Comp Air - Replace 1-5 HP motor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	106	Comp Air - ASD (1-5 hp)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	107	Comp Air - Motor practices-1 (1-5 HP)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	108	Comp Air - Replace 6-100 HP motor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	109	Comp Air - ASD (6-100 hp)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	110	Comp Air - Motor practices-1 (6-100 HP)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	111	Comp Air - Replace 100+ HP motor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	112	Comp Air - ASD (100+ hp)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	113	Comp Air - Motor practices-1 (100+ HP)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	114	Power recovery	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	200	Base Fans	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	201	Fans - O&M	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	202	Fans - Controls	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	203	Fans - System Optimization	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	204	Fans - Improve components	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	205	Fans - Replace 1-5 HP motor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	206	Fans - ASD (1-5 hp)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	207	Fans - Motor practices-1 (1-5 HP)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	208	Fans - Replace 6-100 HP motor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	209	Fans - ASD (6-100 hp)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	210	Fans - Motor practices-1 (6-100 HP)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	211	Fans - Replace 100+ HP motor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	212	Fans - ASD (100+ hp)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	213	Fans - Motor practices-1 (100+ HP)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	214	Optimize drying process	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	215	Power recovery	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	300	Base Pumps	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	301	Pumps - O&M	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	302	Pumps - Controls	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	303	Pumps - System Optimization	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	304	Pumps - Sizing	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	305	Pumps - Replace 1-5 HP motor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	306	Pumps - ASD (1-5 hp)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	307	Pumps - Motor practices-1 (1-5 HP)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	308	Pumps - Replace 6-100 HP motor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	309	Pumps - ASD (6-100 hp)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	310	Pumps - Motor practices-1 (6-100 HP)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	311	Pumps - Replace 100+ HP motor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	312	Pumps - ASD (100+ hp)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	313	Pumps - Motor practices-1 (100+ HP)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	314	Power recovery	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	400	Base Drives	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	401	Bakery - Process (Mixing) - O&M	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	402	O&M/drives spinning machines	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	403	Air conveying systems	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	404	Replace V-Belts	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	405	Drives - EE motor	1.0000	1.0000	1.0000	0.8860	1.0000	1.0000	1.0000	1.0000	0.8330	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	406	Gap Forming papermachine	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	407	High Consistency forming	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	408	Optimization control PM	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	409	Efficient practices printing press	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	410	Efficient Printing press (fewer cylinders)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	411	Light cylinders	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	412	Efficient drives																

APPENDIX E

INDUSTRIAL

MEASURE INPUT DATA

1	420	Injection Moulding - Impulse Cooling	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	421	Injection Moulding - Direct drive	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	422	Efficient grinding	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	423	Process control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	424	Process optimization	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	425	Drives - Process Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	426	Efficient drives - rolling	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	427	Drives - Optimization process (M&T)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	428	Drives - Scheduling	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	429	Machinery	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.5000	1.5430	1.0000	1.0000
1	430	Efficient Machinery	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	500	Base Heating	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	501	Bakery - Process	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	502	Drying (UV/IR)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	503	Heat Pumps - Drying	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	504	Top-heating (glass)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	505	Efficient electric melting	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	506	Intelligent extruder (DOE)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	507	Near Net Shape Casting	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	508	Heating - Process Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	509	Efficient Curing ovens	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	510	Heating - Optimization process (M&T)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	511	Heating - Scheduling	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	550	Base Refrigeration	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	551	Efficient Refrigeration - Operations	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	552	Optimization Refrigeration	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	600	Base Other Process	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	601	Other Process Controls (batch + site)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	602	Efficient desalter	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	603	New transformers welding	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	604	Efficient processes (welding, etc.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	605	Process control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	606	Power recovery	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	700	Base Centrifugal Chiller, 0.58 kW/ton, 500 t	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
1	701	Centrifugal Chiller, 0.51 kW/ton, 500 tons	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
1	702	Window Film - Chiller	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170
1	703	EMS - Chiller	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
1	704	Cool Roof - Chiller	0.2992	0.2992	0.2992	0.2992	0.2992	0.2992	0.2992	0.2992	0.2992	0.2992	0.2992	0.2992	0.2992	0.2992	0.2992
1	705	Chiller Tune Up/Diagnostics	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
1	706	Cooling Circ. Pumps - VSD	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
1	710	Base DX Packaged System, EER=10.3, 10	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
1	711	DX Tune Up/ Advanced Diagnostics	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
1	712	DX Packaged System, EER=10.9, 10 tons	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
1	713	Window Film - DX	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099	0.0099
1	714	Evaporative Pre-Cooler	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
1	715	Prog. Thermostat - DX	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
1	716	Cool Roof - DX	0.1745	0.1745	0.1745	0.1745	0.1745	0.1745	0.1745	0.1745	0.1745	0.1745	0.1745	0.1745	0.1745	0.1745	0.1745
1	800	Base Lighting	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037
1	801	RET 2L4' Premium T8, 1EB	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037
1	802	CFL Hardwired, Modular 36W	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027
1	803	Metal Halide, 50W	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027	0.0027
1	804	Occupancy Sensor, 4L4' Fluorescent Fixtur	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037
1	900	Base Other	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	901	Replace V-belts	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	902	Membranes for wastewater	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

DSM TECHNOLOGY INPUT TABLES

UTILITY: Missouri

SECTOR: Ind

SEGMENT: All Gas

BATCH: 1

ANALYSIS: Basic

VINTAGE: E

MEASURE COSTS

MEASURE COSTS			NPV of Lifetime										Full = 1										Implementa
Segment	Measure #	Measure Description	Savings	Cost	Equipment	Unit	O & M	Implementati	Cost Units	Initial	Replace	Unit	Relative Energy Reduction Factors			WP	WPP	WOP	End Use	1=1 time	2=ROB		
			Units	Units	Cost	Cost	Cost	Cost Factor	per Saving				Service	Cost	SP							SPP	SOP
1	100	Base Boiler	\$/Therm	\$/Therm	\$0.000	\$0.00	\$0.00	\$0.000	1	20	1	1	\$0.000	1.00	1.00	1.00	1.00	1.00	1.00	3	1		
1	101	Improved process control	\$/Therm	\$/Therm	\$0.013	\$0.00	\$0.0013	\$0.016	1	15	1	1	\$0.016	1.00	1.00	1.00	1.00	1.00	1.00	3	2		
1	102	Maintain boilers	\$/Therm	\$/Therm	\$0.001	\$0.00	\$0.000	\$0.002	1	2	1	1	\$0.002	1.00	1.00	1.00	1.00	1.00	1.00	3	1		
1	103	Flue gas heat recovery/economizer	\$/Therm	\$/Therm	\$0.029	\$0.00	\$0.01	\$0.044	1	15	1	1	\$0.044	1.00	1.00	1.00	1.00	1.00	1.00	3	2		
1	104	Blowdown steam heat recovery	\$/Therm	\$/Therm	\$0.026	\$0.00	\$0.0039	\$0.039	1	15	1	1	\$0.039	1.00	1.00	1.00	1.00	1.00	1.00	3	2		
1	105	Upgrade burner efficiency	\$/Therm	\$/Therm	\$0.017	\$0.00	\$0.01	\$0.028	1	20	1	1	\$0.028	1.00	1.00	1.00	1.00	1.00	1.00	3	2		
1	106	Water treatment	\$/Therm	\$/Therm	\$0.007	\$0.00	\$0.00	\$0.010	1	10	1	1	\$0.010	1.00	1.00	1.00	1.00	1.00	1.00	3	1		
1	107	Load control	\$/Therm	\$/Therm	\$0.015	\$0.00	\$0.00	\$0.018	1	15	1	1	\$0.018	1.00	1.00	1.00	1.00	1.00	1.00	3	1		
1	108	Improved insulation	\$/Therm	\$/Therm	\$0.064	\$0.01	\$0.01	\$0.085	1	15	1	1	\$0.085	1.00	1.00	1.00	1.00	1.00	1.00	3	1		
1	109	Steam trap maintenance	\$/Therm	\$/Therm	\$0.046	\$0.01	\$0.00	\$0.053	1	2	1	1	\$0.053	1.00	1.00	1.00	1.00	1.00	1.00	3	1		
1	110	Automatic steam trap monitoring	\$/Therm	\$/Therm	\$0.037	\$0.00	\$0.00	\$0.044	1	15	1	1	\$0.044	1.00	1.00	1.00	1.00	1.00	1.00	3	2		
1	111	Leak repair	\$/Therm	\$/Therm	\$0.012	\$0.00	\$0.00	\$0.013	1	2	1	1	\$0.013	1.00	1.00	1.00	1.00	1.00	1.00	3	1		
1	112	Condensate return	\$/Therm	\$/Therm	\$0.080	\$0.01	\$0.03	\$0.122	1	15	1	1	\$0.122	1.00	1.00	1.00	1.00	1.00	1.00	3	2		
1	113	Thermally activated heat pump/chiller	\$/Therm	\$/Therm	\$0.529	\$0.06	\$0.00	\$0.590	1	15	1	1	\$0.590	1.00	1.00	1.00	1.00	1.00	1.00	3	1		
1	200	Base HVAC	\$/Therm	\$/Therm	\$0.000	\$0.00	\$0.00	\$0.000	1	20	1	1	\$0.000	1.00	1.00	1.00	1.00	1.00	1.00	2	1		
1	201	Improve ceiling insulation	\$/Therm	\$/Therm	\$0.711	\$0.08	\$0.17	\$0.965	1	20	1	1	\$0.965	1.00	1.00	1.00	1.00	1.00	1.00	2	1		
1	202	Install high efficiency (95%) condensing	\$/Therm	\$/Therm	\$0.263	\$0.03	\$0.13	\$0.421	1	20	1	1	\$0.421	1.00	1.00	1.00	1.00	1.00	1.00	2	2		
1	203	Stack heat exchanger	\$/Therm	\$/Therm	\$0.128	\$0.01	\$0.06	\$0.204	1	20	1	1	\$0.204	1.00	1.00	1.00	1.00	1.00	1.00	2	1		
1	204	Duct insulation	\$/Therm	\$/Therm	\$0.029	\$0.00	\$0.01	\$0.040	1	20	1	1	\$0.040	1.00	1.00	1.00	1.00	1.00	1.00	2	1		
1	205	EMS install	\$/Therm	\$/Therm	\$0.292	\$0.03	\$0.04	\$0.361	1	20	1	1	\$0.361	1.00	1.00	1.00	1.00	1.00	1.00	2	1		
1	206	EMS optimization	\$/Therm	\$/Therm	\$0.007	\$0.00	\$0.00	\$0.008	1	5	1	1	\$0.008	1.00	1.00	1.00	1.00	1.00	1.00	2	1		
1	300	Base CHP	\$/Therm	\$/Therm	\$0.000	\$0.00	\$0.00	\$0.000	1	20	1	1	\$0.000	1.00	1.00	1.00	1.00	1.00	1.00	4	1		
1	400	Base Other	\$/Therm	\$/Therm	\$0.000	\$0.00	\$0.00	\$0.000	1	20	1	1	\$0.000	1.00	1.00	1.00	1.00	1.00	1.00	5	1		
1	500	Base Process Heat	\$/Therm	\$/Therm	\$0.000	\$0.00	\$0.00	\$0.000	1	20	1	1	\$0.000	1.00	1.00	1.00	1.00	1.00	1.00	1	1		
1	501	Process Controls & Management	\$/Therm	\$/Therm	\$0.055	\$0.01	\$0.00	\$0.065	1	8	1	1	\$0.065	1.00	1.00	1.00	1.00	1.00	1.00	1	1		
1	502	Heat Recovery	\$/Therm	\$/Therm	\$0.639	\$0.07	\$0.31	\$1.022	1	20	1	1	\$1.022	1.00	1.00	1.00	1.00	1.00	1.00	1	1		
1	503	Efficient burners	\$/Therm	\$/Therm	\$0.164	\$0.02	\$0.05	\$0.233	1	10	1	1	\$0.233	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	504	Process integration	\$/Therm	\$/Therm	\$0.730	\$0.08	\$0.30	\$1.111	1	15	1	1	\$1.111	1.00	1.00	1.00	1.00	1.00	1.00	1	1		
1	505	Efficient drying	\$/Therm	\$/Therm	\$0.427	\$0.05	\$0.21	\$0.683	1	20	1	1	\$0.683	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	506	Closed hood	\$/Therm	\$/Therm	\$0.292	\$0.03	\$0.12	\$0.444	1	15	1	1	\$0.444	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	507	Extended nip press	\$/Therm	\$/Therm	\$0.642	\$0.07	\$0.31	\$1.028	1	20	1	1	\$1.028	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	508	Improved separation processes	\$/Therm	\$/Therm	\$0.183	\$0.02	\$0.09	\$0.292	1	20	1	1	\$0.292	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	509	Thermal oxidizers	\$/Therm	\$/Therm	\$1.752	\$0.20	\$0.71	\$2.666	1	15	1	1	\$2.666	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	510	Flare gas controls and recovery	\$/Therm	\$/Therm	\$0.730	\$0.08	\$0.30	\$1.111	1	15	1	1	\$1.111	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	511	Fouling control	\$/Therm	\$/Therm	\$0.041	\$0.00	\$0.00	\$0.049	1	5	1	1	\$0.049	1.00	1.00	1.00	1.00	1.00	1.00	1	1		
1	512	Efficient furnaces	\$/Therm	\$/Therm	\$0.096	\$0.01	\$0.05	\$0.154	1	20	1	1	\$0.154	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	513	Oxyfuel	\$/Therm	\$/Therm	\$0.438	\$0.05	\$0.21	\$0.701	1	20	1	1	\$0.701	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	514	Batch cullet preheating	\$/Therm	\$/Therm	\$0.234	\$0.03	\$0.09	\$0.355	1	15	1	1	\$0.355	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	515	Preventative maintenance	\$/Therm	\$/Therm	\$0.007	\$0.00	\$0.00	\$0.008	1	5	1	1	\$0.008	1.00	1.00	1.00	1.00	1.00	1.00	1	1		
1	516	Combustion controls	\$/Therm	\$/Therm	\$0.088	\$0.01	\$0.01	\$0.103	1	8	1	1	\$0.103	1.00	1.00	1.00	1.00	1.00	1.00	1	2		
1	517	Optimize furnace operations	\$/Therm	\$/Therm	\$0.110	\$0.01	\$0.03	\$0.155	1	10	1	1	\$0.155	1.00	1.00	1.00	1.00	1.00	1.00	1	1		
1	518	Insulation/reduce heat losses	\$/Therm	\$/Therm	\$0.292	\$0.03	\$0.06	\$0.385	1	15	1	1	\$0.385	1.00	1.00	1.00	1.00	1.00	1.00	1	1		

BASE TECHNOLOGY EUIs
(Thm/Base Thm)

Segment	Measure #	Measure Description	Food	Textiles,Apparel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Gl	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.
1	100	Base Boiler	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	200	Base HVAC	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	300	Base CHP	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	400	Base Other	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	500	Base Process Heat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

**APPLICABILITY FACTOR
(percent)**

Segment	Measure #	Measure Description	Food	Textiles,Apparel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Glt	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.
1	100	Base Boiler	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	101	Improved process control	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	102	Maintain boilers	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	103	Flue gas heat recovery/economizer	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	104	Blowdown steam heat recovery	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	105	Upgrade burner efficiency	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	106	Water treatment	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	107	Load control	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	108	Improved insulation	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	109	Steam trap maintenance	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	110	Automatic steam trap monitoring	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	111	Leak repair	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	112	Condensate return	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	113	Thermally activated heat pump/chiller	52.4%	35.0%	16.0%	25.4%	13.2%	27.5%	14.1%	45.2%	4.5%	5.1%	14.5%	19.5%	31.0%	14.9%	16.0%
1	200	Base HVAC	5 0%	5.7%	13.0%	2.8%	18.4%	1.6%	0.8%	19.4%	3.8%	6.5%	14.5%	36.6%	28.6%	34.3%	48.0%
1	201	Improve ceiling insulation	5 0%	5.7%	13.0%	2.8%	18.4%	1.6%	0.8%	19.4%	3.8%	6.5%	14.5%	36.6%	28.6%	34.3%	48.0%
1	202	Install high efficiency (95%) condensing furnace/bc	5 0%	5.7%	13.0%	2.8%	18.4%	1.6%	0.8%	19.4%	3.8%	6.5%	14.5%	36.6%	28.6%	34.3%	48.0%
1	203	Stack heat exchanger	5 0%	5.7%	13.0%	2.8%	18.4%	1.6%	0.8%	19.4%	3.8%	6.5%	14.5%	36.6%	28.6%	34.3%	48.0%
1	204	Duct insulation	5 0%	5.7%	13.0%	2.8%	18.4%	1.6%	0.8%	19.4%	3.8%	6.5%	14.5%	36.6%	28.6%	34.3%	48.0%
1	205	EMS install	5 0%	5.7%	13.0%	2.8%	18.4%	1.6%	0.8%	19.4%	3.8%	6.5%	14.5%	36.6%	28.6%	34.3%	48.0%
1	206	EMS optimization	5 0%	5.7%	13.0%	2.8%	18.4%	1.6%	0.8%	19.4%	3.8%	6.5%	14.5%	36.6%	28.6%	34.3%	48.0%
1	300	Base CHP	4.4%	12.3%	0.4%	33.2%	0.0%	31.7%	18.9%	0.2%	0.2%	4.8%	0.9%	4.9%	0.2%	1.7%	0.0%
1	400	Base Other	6.7%	16.5%	17.6%	12.6%	2.6%	11.4%	6.8%	10.3%	13.7%	5.3%	6.0%	9.8%	10.5%	19.0%	12.0%
1	500	Base Process Heat	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	501	Process Controls & Management	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	502	Heat Recovery	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	503	Efficient burners	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	504	Process integration	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	505	Efficient drying	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	506	Closed hood	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	507	Extended nip press	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	508	Improved separation processes	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	509	Thermal oxidizers	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	510	Flare gas controls and recovery	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	511	Fouling control	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	512	Efficient furnaces	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	513	Oxyfuel	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	514	Batch cullet preheating	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	515	Preventative maintenance	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	516	Combustion controls	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	517	Optimize furnace operations	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%
1	518	Insulation/reduce heat losses	31.5%	30.4%	53.0%	26.0%	65.8%	27.8%	59.4%	25.0%	77.8%	78.3%	64.1%	29.3%	29.8%	30.2%	24.0%

ENERGY SAVINGS
(percent)

Segment	Measure #	Measure Description	Food	Textiles,Apparel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Glc	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.
1	100	Base Boiler	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	101	Improved process control	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
1	102	Maintain boilers	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	103	Flue gas heat recovery/economizer	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
1	104	Blowdown steam heat recovery	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
1	105	Upgrade burner efficiency	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
1	106	Water treatment	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
1	107	Load control	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
1	108	Improved insulation	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
1	109	Steam trap maintenance	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
1	110	Automatic steam trap monitoring	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	111	Leak repair	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
1	112	Condensate return	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	113	Thermally activated heat pump/chiller	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%
1	200	Base HVAC	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	201	Improve ceiling insulation	24.3%	24.3%	24.3%	24.3%	24.3%	24.3%	24.3%	24.3%	24.3%	24.3%	24.3%	24.3%	24.3%	24.3%	24.3%
1	202	Install high efficiency (95%) condensing furnace/boiler	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%
1	203	Stack heat exchanger	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
1	204	Duct insulation	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
1	205	EMS install	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
1	206	EMS optimization	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
1	300	Base CHP	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	400	Base Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	500	Base Process Heat	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	501	Process Controls & Management	8.0%	5.0%	5.0%	3.0%	5.0%	4.0%	6.0%	5.0%	7.0%	6.0%	0.0%	5.0%	5.0%	8.0%	5.0%
1	502	Heat Recovery	10.0%	25.0%	25.0%	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%	5.0%	0.0%	20.0%	20.0%	20.0%	20.0%
1	503	Efficient burners	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.0%	20.0%	20.0%	0.0%	0.0%	0.0%	0.0%
1	504	Process integration	25.0%	0.0%	0.0%	15.0%	0.0%	13.0%	13.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	505	Efficient drying	13.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%
1	506	Closed hood	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	507	Extended nip press	0.0%	0.0%	0.0%	16.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	508	Improved separation processes	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	509	Thermal oxidizers	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	510	Flare gas controls and recovery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	511	Fouling control	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	512	Efficient furnaces	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	513	Oxyfuel	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	514	Batch cullet preheating	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	515	Preventative maintenance	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	516	Combustion controls	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	0.0%	0.0%	0.0%	0.0%
1	517	Optimize furnace operations	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%
1	518	Insulation/reduce heat losses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%

Standards Adjustment Factor
(percent)

		Food	Textiles,Apparel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Gla	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.
Segment	Measure # Measure Description															
1	100 Base Boiler	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	101 Improved process control	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	102 Maintain boilers	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	103 Flue gas heat recovery/economizer	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	104 Blowdown steam heat recovery	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	105 Upgrade burner efficiency	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	106 Water treatment	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	107 Load control	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	108 Improved insulation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	109 Steam trap maintenance	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	110 Automatic steam trap monitoring	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	111 Leak repair	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	112 Condensate return	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	113 Thermally activated heat pump/chiller	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	200 Base HVAC	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	201 Improve ceiling insulation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	202 Install high efficiency (95%) condensing	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	203 Stack heat exchanger	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	204 Duct insulation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	205 EMS install	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	206 EMS optimization	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	300 Base CHP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	400 Base Other	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	500 Base Process Heat	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	501 Process Controls & Management	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	502 Heat Recovery	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	503 Efficient burners	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	504 Process integration	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	505 Efficient drying	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	506 Closed hood	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	507 Extended nip press	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	508 Improved separation processes	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	509 Thermal oxidizers	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	510 Flare gas controls and recovery	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	511 Fouling control	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	512 Efficient furnaces	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	513 Oxyfuel	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	514 Batch cullet preheating	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	515 Preventative maintenance	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	516 Combustion controls	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	517 Optimize furnace operations	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	518 Insulation/reduce heat losses	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

INCOMPLETE FACTOR
(percent)

Segment	Measure #	Measure Description	Food	Textiles,Apparel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Glc	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.
1	100	Base Boiler	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	101	Improved process control	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	102	Maintain boilers	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	103	Flue gas heat recovery/economizer	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	104	Blowdown steam heat recovery	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	105	Upgrade burner efficiency	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	106	Water treatment	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	107	Load control	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	108	Improved insulation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	109	Steam trap maintenance	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	110	Automatic steam trap monitoring	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	111	Leak repair	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	112	Condensate return	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	113	Thermally activated heat pump/chiller	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	200	Base HVAC	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	201	Improve ceiling insulation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	202	Install high efficiency (95%) condensing	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	203	Stack heat exchanger	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	204	Duct insulation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	205	EMS install	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	206	EMS optimization	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	300	Base CHP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	400	Base Other	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	500	Base Process Heat	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	501	Process Controls & Management	90.0%	90.0%	90.0%	80.0%	80.0%	50.0%	70.0%	80.0%	80.0%	70.0%	100.0%	80.0%	80.0%	80.0%	80.0%
1	502	Heat Recovery	90.0%	70.0%	70.0%	100.0%	100.0%	100.0%	100.0%	60.0%	100.0%	30.0%	100.0%	60.0%	60.0%	60.0%	70.0%
1	503	Efficient burners	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	70.0%	70.0%	80.0%	100.0%	100.0%	100.0%	100.0%
1	504	Process integration	70.0%	100.0%	100.0%	70.0%	100.0%	30.0%	60.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	505	Efficient drying	60.0%	100.0%	100.0%	100.0%	60.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	90.0%
1	506	Closed hood	100.0%	100.0%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	507	Extended nip press	100.0%	100.0%	100.0%	60.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	508	Improved separation processes	100.0%	100.0%	100.0%	100.0%	100.0%	60.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	509	Thermal oxidizers	100.0%	100.0%	100.0%	100.0%	100.0%	30.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	510	Flare gas controls and recovery	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	511	Fouling control	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	55.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	512	Efficient furnaces	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	513	Oxyfuel	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	514	Batch cullet preheating	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	515	Preventative maintenance	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	80.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	516	Combustion controls	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	60.0%	100.0%	100.0%	100.0%	100.0%
1	517	Optimize furnace operations	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%
1	518	Insulation/reduce heat losses	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	10.0%	100.0%	100.0%	100.0%	100.0%

**FEASIBILITY FACTOR
(percent)**

Segment	Measure #	Measure Description	Food	Textiles,Apparel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Glt	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.
1	100	Base Boiler	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	101	Improved process control	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%
1	102	Maintain boilers	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
1	103	Flue gas heat recovery/economizer	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
1	104	Blowdown steam heat recovery	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%	41.0%
1	105	Upgrade burner efficiency	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
1	106	Water treatment	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	107	Load control	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	108	Improved insulation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	109	Steam trap maintenance	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
1	110	Automatic steam trap monitoring	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
1	111	Leak repair	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
1	112	Condensate return	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
1	113	Thermally activated heat pump/chiller	80.0%	0.0%	0.0%	80.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	200	Base HVAC	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	201	Improve ceiling insulation	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
1	202	Install high efficiency (95%) condensing	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
1	203	Stack heat exchanger	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
1	204	Duct insulation	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
1	205	EMS install	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
1	206	EMS optimization	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
1	300	Base CHP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	400	Base Other	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	500	Base Process Heat	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	501	Process Controls & Management	60.0%	80.0%	80.0%	80.0%	80.0%	80.0%	90.0%	90.0%	70.0%	80.0%	0.0%	80.0%	80.0%	80.0%	80.0%
1	502	Heat Recovery	30.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	40.0%	0.0%	50.0%	50.0%	50.0%	40.0%
1	503	Efficient burners	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	62.0%	60.0%	40.0%	0.0%	0.0%	0.0%	0.0%
1	504	Process integration	50.0%	0.0%	0.0%	30.0%	0.0%	60.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	505	Efficient drying	30.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	506	Closed hood	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	507	Extended nip press	0.0%	0.0%	0.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	508	Improved separation processes	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	509	Thermal oxidizers	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	510	Flare gas controls and recovery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	511	Fouling control	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	512	Efficient furnaces	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	513	Oxyfuel	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	514	Batch cullet preheating	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	515	Preventative maintenance	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	90.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	516	Combustion controls	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	80.0%	0.0%	0.0%	0.0%	0.0%
1	517	Optimize furnace operations	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%
1	518	Insulation/reduce heat losses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	80.0%	0.0%	0.0%	0.0%	0.0%

TECHNOLOGY SATURATION
 (units/base thm)

Segment	Measure #	Measure Description	Food	Textiles,Apparel	Lumber,Furniture	Paper	Printing	Chemicals	Petroleum	Rubber,Plastic	Stone,Clay,Gls	Prim Metals	Fab Metals	Ind Mach	Electronics	Transp Equip	Misc.
1	100	Base Boiler	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	101	Improved process control	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	102	Maintain boilers	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	103	Flue gas heat recovery/economizer	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	104	Blowdown steam heat recovery	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	105	Upgrade burner efficiency	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	106	Water treatment	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	107	Load control	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	108	Improved insulation	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	109	Steam trap maintenance	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	110	Automatic steam trap monitoring	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	111	Leak repair	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	112	Condensate return	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	113	Thermally activated heat pump/chiller	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	200	Base HVAC	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	201	Improve ceiling insulation	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	202	Install high efficiency (95%) condensing	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	203	Stack heat exchanger	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	204	Duct insulation	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	205	EMS install	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	206	EMS optimization	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	300	Base CHP	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	400	Base Other	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	500	Base Process Heat	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	501	Process Controls & Management	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	502	Heat Recovery	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	503	Efficient burners	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	504	Process integration	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	505	Efficient drying	1.000	1.000	1.000	1.000	1.197	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	506	Closed hood	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	507	Extended nip press	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	508	Improved separation processes	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	509	Thermal oxidizers	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	510	Flare gas controls and recovery	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	511	Fouling control	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	512	Efficient furnaces	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	513	Oxyfuel	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	514	Batch cullet preheating	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	515	Preventative maintenance	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	516	Combustion controls	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	517	Optimize furnace operations	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1	518	Insulation/reduce heat losses	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

DSM TECHNOLOGY INPUT TABLES

UTILITY: Missouri

BATCH: 1

SECTOR: RES

ANALYSIS: Basic

SEGMENT: All Electric

VINTAGE: Existing

BASE TECHNOLOGY EUIs
(kWh/square foot)

Segment	Measure #	Measure Description
1	100	Base 13 SEER Split-System Air Conditioner
1	130	Base Early Replacement 10 SEER Split-System AC
1	140	Base EER 9.7 Room Air Conditioner
1	160	Base Early Replacement Room Air Conditioner- EER 9.0 to CEE Tier 1 EER 11.3
1	170	Base Dehumidifer (35-45 pints/day; EF = 1.20)
1	180	Base Furnace Fans (Retrofit)
1	200	Base Resistance Space Heating (Electric)
1	220	Base Electric Furnace
1	250	Base Lighting 60 Watt Incandescent, 1.8 hours per day
1	255	Base Lighting 15 Watt CFL, 1.8 hours per day
1	260	Base Lighting Fluorescent Tube, 1.8 hrs/day
1	265	Base Lighting Halogen and HID, 1.8 hrs/day
1	300	Base Refrigerator
1	310	Base Early Replacement Refrigerator
1	340	Base Second Refrigerator
1	400	Base Freezer
1	410	Base Early Replacement Freezer
1	500	Base 40 gal. Water Heating (EF=0.89)
1	550	Base Early Replacement Water Heating to Heat Pump Water Heater
1	600	Base Clotheswasher (MEF=1.26)
1	700	Base Clothes Dryer (EF=.46)
1	800	Base Dishwasher (EF=0.58)
1	900	Base Single Speed Pool Pump to Variable RET
1	905	Base Two Spped Pool Pump to Variable ROB
1	910	Base Plasma Screen TV
1	920	Base LCD TV
1	930	Base Other TV
1	940	Base Laptop Computer
1	945	Base Desktop Computer
1	950	Base Cooking
1	960	Base Miscellaneous
1	970	Base House Practices

MEASURE COSTS

Segment	Measure #	Measure Description	Savings Cost		Unit	Unit	NPV of	Implementat	Cost Units	Full	1	Ful	Relative Energy Reduction Factors				End Use	Implementation	
			Units	Units	Equipment Cost	Labor Cost	Lifetime O & M Cost	Cost Factor	per Unit	Initial Cost	Incr. Cost		SON	SOFF	WON	WOFF		Type 1	Implementation Curve Type
1	100	Base, 13 SEER Split-System Air Conditioner	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	18	1	1	\$0.00	1.00	1.00	1.00	1.00	1	2
1	101	15 SEER Split-System Air Conditioner	home	unit	\$467.5	\$0.00	\$0.00	\$467.50	1	18	1	1	\$467.50	1.00	1.00	1.00	1.00	1	2
1	102	17 SEER Split-System Air Conditioner	home	unit	\$1119.5	\$0.00	\$0.00	\$1,119.50	1	18	1	1	\$1,119.50	1.00	1.00	1.00	1.00	1	2
1	103	Programmable Thermostat	home	unit	\$23.92	\$14.35	\$0.00	\$38.27	1	15	1	1	\$38.27	0.90	1.10	1.00	1.00	1	1
1	104	Ceiling Fans	home	unit	\$80.00	\$40.00	\$0.00	\$120.00	1	15	1	1	\$120.00	1.00	1.00	1.00	1.00	1	1
1	105	Whole House Fans	home	unit	\$243.17	\$269.72	\$0.00	\$512.89	1	15	1	1	\$512.89	1.00	1.00	1.00	1.00	1	1
1	106	Attic Venting	home	unit	\$41.00	\$100.00	\$0.00	\$141.00	1	10	1	1	\$141.00	1.00	1.00	1.00	1.00	1	1
1	107	Proper Refrigerant Charging and Air Flow	home	ton	\$14.11	\$28.23	\$0.00	\$42.34	1	10	1	1	\$42.34	1.00	1.00	1.00	1.00	1	1
1	108	Duct Repair	home	home	\$26.78	\$212.22	\$0.00	\$239.00	1	18	1	1	\$239.00	1.00	1.00	1.00	1.00	1	1
1	109	Duct Insulation	home	linear foot	\$0.38	\$1.33	\$0.00	\$1.70	1	18	1	1	\$1.70	1.00	1.00	1.00	1.00	1	1
1	110	AC maintenance and repair	home	unit	\$0.00	\$125.00	\$0.00	\$125.00	1	5	1	1	\$125.00	1.00	1.00	1.00	1.00	1	1
1	111	Single Pane Windows to Double Pane with Gas	home	sq ft	\$1.22	\$0.00	\$0.00	\$1.22	1	25	1	1	\$1.22	1.00	1.00	1.00	1.00	1	2
1	112	Double Pane with Glazing to Energy Star	home	sq ft	\$1.28	\$0.00	\$0.00	\$1.28	1	25	1	1	\$1.28	1.00	1.00	1.00	1.00	1	2
1	113	Sealed Attic w/Sprayed Foam Insulated Roof Deck	home	sq ft	\$1.90	\$0.00	\$0.00	\$1.90	1	30	1	1	\$1.90	1.00	1.00	1.00	1.00	1	1
1	114	Ceiling R-0 to R-38 Insulation	home	sq ft	\$0.53	\$0.43	\$0.00	\$0.96	1	30	1	1	\$0.96	1.00	1.00	1.00	1.00	1	1
1	115	Ceiling R-11 to R-38 Insulation	home	sq ft	\$0.43	\$0.45	\$0.00	\$0.88	1	30	1	1	\$0.88	1.00	1.00	1.00	1.00	1	1
1	115	Ceiling R-19 to R-38 Insulation	home	sq ft	\$0.29	\$0.30	\$0.00	\$0.59	1	30	1	1	\$0.59	1.00	1.00	1.00	1.00	1	1
1	116	Ceiling R-0 to R-49 Insulation	home	sq ft	\$0.72	\$0.58	\$0.00	\$1.30	1	30	1	1	\$1.30	1.00	1.00	1.00	1.00	1	1
1	117	Ceiling R-19 to R-49 Insulation	home	sq ft	\$0.40	\$0.33	\$0.00	\$0.73	1	30	1	1	\$0.73	1.00	1.00	1.00	1.00	1	1
1	118	Ceiling R-11 to R-49 Insulation	home	sq ft	\$0.42	\$0.34	\$0.00	\$0.76	1	30	1	1	\$0.76	1.00	1.00	1.00	1.00	1	1
1	119	Wall 2x4 R-0 to Blow-In R-13 Insulation	home	sq ft	\$0.14	\$0.27	\$0.00	\$0.41	1	30	1	1	\$0.41	1.00	1.00	1.00	1.00	1	1
1	120	Self Install Weatherization	home	home	\$5.44	\$0.00	\$0.00	\$5.44	1	10	1	1	\$5.44	1.00	1.00	1.00	1.00	1	1
1	121	Infiltration Reduction	home	sq ft	\$0.04	\$0.00	\$0.00	\$0.04	1	10	1	1	\$0.04	1.00	1.00	1.00	1.00	1	1
1	130	Base Early Replacement 10 SEER Split-System AC	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	18	1	1	\$0.00	1.00	1.00	1.00	1.00	1	1
1	131	15 SEER Split-System AC Early Replacement	home	unit	\$514.00	\$0.00	\$0.00	\$514.00	1	18	1	1	\$514.00	1.00	1.00	1.00	1.00	1	1
1	140	Base Room Air Conditioner - EER 9.7	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	12	1	1	\$0.00	1.00	1.00	1.00	1.00	1	2
1	141	HE Room Air Conditioner - Energy star EER 10.8	home	unit	\$50.00	\$0.00	\$0.00	\$50.00	1	12	1	1	\$50.00	1.00	1.00	1.00	1.00	1	2
1	142	HE Room Air Conditioner - CEE Tier 1 EER 11.3	home	unit	\$53.00	\$0.00	\$0.00	\$53.00	1	12	1	1	\$53.00	1.00	1.00	1.00	1.00	1	2
1	143	Ceiling Fans	home	unit	\$80.00	\$40.00	\$0.00	\$120.00	1	15	1	1	\$120.00	1.00	1.00	1.00	1.00	1	1
1	144	Whole House Fans	home	unit	\$243.17	\$0.00	\$0.00	\$243.17	1	10	1	1	\$243.17	1.00	1.00	1.00	1.00	1	1
1	145	Single Pane Windows to Double Pane with Gas	home	sq ft	\$1.22	\$0.00	\$0.00	\$1.22	1	25	1	1	\$1.22	1.00	1.00	1.00	1.00	1	2
1	146	Double Pane with Glazing to Energy Star	home	sq ft	\$1.28	\$0.00	\$0.00	\$1.28	1	25	1	1	\$1.28	1.00	1.00	1.00	1.00	1	2
1	147	Ceiling R-0 to R-38 Insulation	home	sq ft	\$0.53	\$0.43	\$0.00	\$0.96	1	30	1	1	\$0.96	1.00	1.00	1.00	1.00	1	1
1	148	Ceiling R-11 to R-38 Insulation	home	sq ft	\$0.43	\$0.45	\$0.00	\$0.88	1	30	1	1	\$0.88	1.00	1.00	1.00	1.00	1	1
1	149	Ceiling R-19 to R-38 Insulation	home	sq ft	\$0.29	\$0.30	\$0.00	\$0.59	1	30	1	1	\$0.59	1.00	1.00	1.00	1.00	1	1
1	150	Ceiling R-0 to R-49 Insulation	home	sq ft	\$0.72	\$0.58	\$0.00	\$1.30	1	30	1	1	\$1.30	1.00	1.00	1.00	1.00	1	1
1	151	Ceiling R-19 to R-49 Insulation	home	sq ft	\$0.40	\$0.33	\$0.00	\$0.73	1	30	1	1	\$0.73	1.00	1.00	1.00	1.00	1	1
1	152	Ceiling R-11 to R-49 Insulation	home	sq ft	\$0.42	\$0.34	\$0.00	\$0.76	1	30	1	1	\$0.76	1.00	1.00	1.00	1.00	1	1
1	153	Wall 2x4 R-0 to Blow-In R-13 Insulation	home	sq ft	\$0.14	\$0.27	\$0.00	\$0.41	1	30	1	1	\$0.41	1.00	1.00	1.00	1.00	1	1
1	154	Self Install Weatherization	home	home	\$5.44	\$0.00	\$0.00	\$5.44	1	10	1	1	\$5.44	1.00	1.00	1.00	1.00	1	1
1	155	Infiltration Reduction	home	sq ft	\$0.04	\$0.00	\$0.00	\$0.04	1	10	1	1	\$0.04	1.00	1.00	1.00	1.00	1	1
1	156	Ductless Split Heat Pump	home	unit	\$238.92	\$0.00	\$0.00	\$238.92	1	18	1	1	\$238.92	1.00	1.00	1.00	1.00	1	1
1	160	Base Early Replacement Room Air Conditioner- EER 9.0	home	Unit	\$0.00	\$0.00	\$0.00	\$0.00	1	12	1	1	\$0.00	1.00	1.00	1.00	1.00	1	1
1	161	EER 8.5 AC Early Replacement, CEE Tier 1 EER 11.3	home	Unit	\$67.71	\$0.00	\$0.00	\$67.71	1	12	1	1	\$67.71	1.00	1.00	1.00	1.00	1	1
1	170	Base Dehumidifier- New Federal Standard	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	12	1	1	\$0.00	1.00	1.00	1.00	1.00	14	2
1	171	Energy Star Dehumidifier (ROB)	home	unit	\$10.00	\$0.00	\$0.00	\$10.00	1	12	1	1	\$10.00	1.00	1.00	1.00	1.00	14	2
1	180	Base Furnace Fant	home	Unit	\$0.00	\$0.00	\$0.00	\$0.00	1	18	1	1	\$0.00	1.00	1.00	1.00	1.00	13	2
1	181	Variable speed furnace fans (RET)	home	Unit	\$200.00	\$0.00	\$0.00	\$200.00	1	18	1	1	\$200.00	0.60	0.60	0.60	1.00	13	1
1	182	Variable speed furnace fans (ROB)	home	Unit	\$15.00	\$0.00	\$0.00	\$15.00	1	18	1	1	\$15.00	0.60	0.60	0.60	1.00	13	2
1	200	Base Resistance Space Heating	home	Unit	\$0.00	\$0.00	\$0.00	\$0.00	1	18	1	1	\$0.00	1.00	1.00	1.00	1.00	9	2
1	201	Single Pane Windows to Double Pane with Gas	home	sq ft	\$1.03	\$0.00	\$0.00	\$1.03	1	25	1	1	\$1.03	1.00	1.00	1.00	1.00	9	2
1	202	Double Pane with Glazing to Energy Star	home	sq ft	\$1.72	\$0.00	\$0.00	\$1.72	1	25	1	1	\$1.72	1.00	1.00	1.00	1.00	9	2
1	203	Single Pane- Add storm windows	home	sq ft	\$7.33	\$16.00	\$0.00	\$23.33	1	25	1	1	\$23.33	1.00	1.00	1.00	1.00	9	1
1	204	Double Pane- Add storm windows	home	sq ft	\$7.33	\$16.00	\$0.00	\$23.33	1	25	1	1	\$23.33	1.00	1.00	1.00	1.00	9	1
1	205	Ceiling R-0 to R-38 Insulation	home	sq ft	\$0.42	\$0.34	\$0.00	\$0.76	1	30	1	1	\$0.76	1.00	1.00	1.00	1.00	9	1
1	206	Ceiling R-11 to R-38 Insulation	home	sq ft	\$0.29	\$0.30	\$0.00	\$0.59	1	30	1	1	\$0.59	1.00	1.00	1.00	1.00	9	1
1	207	Ceiling R-19 to R-38 Insulation	home	sq ft	\$0.22	\$0.23	\$0.00	\$0.45	1	30	1	1	\$0.45	1.00	1.00	1.00	1.00	9	1
1	208	Ceiling R-0 to R-49 Insulation	home	sq ft	\$0.51	\$0.41	\$0.00	\$0.92	1	30	1	1	\$0.92	1.00	1.00	1.00	1.00	9	1
1	209	Ceiling R-19 to R-49 Insulation	home	sq ft	\$0.35	\$0.28	\$0.00	\$0.63	1	30	1	1	\$0.63	1.00	1.00	1.00	1.00	9	1
1	210	Ceiling R-11 to R-49 Insulation	home	sq ft	\$0.33	\$0.27	\$0.00	\$0.60	1	30	1	1	\$0.60	1.00	1.00	1.00	1.00	9	1
1	211	Wall Blow-in R-0 to R-13 Insulation	home	sq ft	\$0.18	\$0.35	\$0.00	\$0.53	1	30	1	1	\$0.53	1.00	1.00	1.00	1.00	9	1
1	212	Floor R-0 to R-19 Insulation	home	sq ft	\$0.38	\$0.51	\$0.00	\$0.89	1	30	1	1	\$0.89	1.00	1.00	1.00	1.00	9	1
1	213	Basement Insulation	home	sq ft	\$0.29	\$0.58	\$0.00	\$0.87	1	30	1	1	\$0.87	1.00	1.00	1.00	1.00	9	1
1	214	Programmable Thermostat	home	unit	\$70.21	\$42.13	\$0.00	\$112.34	1	10	1	1	\$112.34	0.90	1.10	1.00	1.00	9	1
1	215	Infiltration Reduction	home	sq ft	\$0.08	\$0.00	\$0.00	\$0.08	1	10	1	1	\$0.08	1.00	1.00	1.00	1.00	9	1
1	216	Self Install Weatherization	home	home	\$5.44	\$0.00	\$0.00	\$5.44	1	10	1	1	\$5.44	1.00	1.00	1.00	1.00	9	1
1	217	Ductless Split Heat Pump	home	sq ft	\$5,734.08	\$0.00	\$0.00	\$5,734.08	1	18	1	1	\$5,734.08	1.00	1.00	1.00	1.00	9	1
1	220	Base Electric Furnace	home	Unit	\$0.00	\$0.00	\$0.00	\$0.00	1	18	1	1	\$0.00	1.00	1.00	1.00	1.00	9	2
1	221	Single Pane Windows to Double Pane with Gas	home	sq ft	\$1.03	\$0.00	\$0.00	\$1.03	1	25	1	1	\$1.03	1.00	1.00	1.00	1.00	9	2
1	222	Double Pane with Glazing to Energy Star	home	sq ft	\$1.72	\$0.00	\$0.00	\$1.72	1	25	1	1	\$1.72	1.00	1.00	1.00	1.00	9	2
1	223	Single Pane- Add storm windows	home	sq ft	\$7.33	\$16.00	\$0.00	\$23.33	1	25	1	1	\$23.33	1.00	1.00	1.00	1.00	9	1
1	224	Double Pane- Add storm windows	home	sq ft	\$7.33	\$16.00	\$0.00	\$23.33	1	25	1	1	\$23.33	1.00	1.00	1.00	1.00	9	1</

1	231	Wall Blow-in R-0 to R-13 Insulation	home	sq ft	\$0.18	\$0.35	\$0.00	\$0.53	1	30	1	1	\$0.53	1.00	1.00	1.00	1.00	9	1
1	232	Floor R-0 to R-19 Insulation	home	sq ft	\$0.51	\$0.58	\$0.00	\$1.09	1	30	1	1	\$1.09	1.00	1.00	1.00	1.00	9	1
1	233	Basement Insulation	home	sq ft	\$0.29	\$0.58	\$0.00	\$0.87	1	30	1	1	\$0.87	1.00	1.00	1.00	1.00	9	1
1	234	Programmable Thermostat	home	unit	\$70.21	\$42.13	\$0.00	\$112.34	1	10	1	1	\$112.34	0.90	1.10	1.00	1.00	9	1
1	235	Infiltration Reduction	home	sq ft	\$0.08	\$0.00	\$0.00	\$0.08	1	10	1	1	\$0.08	1.00	1.00	1.00	1.00	9	1
1	236	Self Install Weatherization	home	home	\$5.44	\$0.00	\$0.00	\$5.44	1	10	1	1	\$5.44	1.00	1.00	1.00	1.00	9	1
1	237	Ductless Split Heat Pump	home	sq ft	\$5,734.08	\$0.00	\$0.00	\$5,734.08	1	18	1	1	\$5,734.08	1.00	1.00	1.00	1.00	9	1
1	250	Base Lighting 60-Watt Incandescent, 1.8 hr/day	lamp	lamp	\$0.00	\$0.00	\$0.00	\$0.00	1	1000	1	1	\$0.00	1.00	1.00	1.00	1.00	2	1
1	251	CFL (15-Watt integral ballast), 1.8 hr/day	lamp	lamp	\$1.25	\$0.00	\$0.00	\$1.25	1	8000	1	1	\$1.25	1.00	1.00	1.00	1.00	2	1
1	252	LEDs w/ Incandescent Baseline	lamp	lamp	\$20.00	\$0.00	\$0.00	\$20.00	1	35000	1	1	\$9.00	1.00	1.00	1.00	1.00	2	1
1	255	Base Lighting 15-Watt CFL, 1.8 hours per day	lamp	lamp	\$0.00	\$0.00	\$0.00	\$0.00	1	8000	1	1	\$0.00	1.00	1.00	1.00	1.00	2	1
1	256	LEDs w/ CFL Baseline	lamp	lamp	\$20.00	\$0.00	\$0.00	\$20.00	1	35000	1	1	\$9.00	1.00	1.00	1.00	1.00	2	1
1	260	Base Lighting Fluorescent Tube, 1.8 hrs/day	fixture	fixture	\$0.00	\$0.00	\$0.00	\$0.00	1	45000	1	1	\$0.00	1.00	1.00	1.00	1.00	2	1
1	261	RET 2L4T8, 1EB	fixture	fixture	\$20.00	\$40.00	\$0.00	\$60.00	1	70000	1	1	\$60.00	1.00	1.00	1.00	1.00	2	1
1	262	ROB 2L4T8, 1EB	fixture	fixture	\$8.00	\$0.00	\$0.00	\$8.00	1	70000	1	1	\$8.00	1.00	1.00	1.00	1.00	2	2
1	265	Base Lighting Halogen and HID, 1.8 hrs/day	lamp	lamp	\$0.00	\$0.00	\$0.00	\$0.00	1	3000	1	1	\$0.00	1.00	1.00	1.00	1.00	2	1
1	266	LEDs w/ Halogen Baseline	lamp	lamp	\$20.00	\$0.00	\$0.00	\$20.00	1	16000	1	1	\$20.00	1.00	1.00	1.00	1.00	2	1
1	300	Base Refrigerator	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	12	1	1	\$0.00	1.00	1.00	1.00	1.00	3	2
1	301	HE Refrigerator - Energy Star	home	unit	\$79.00	\$0.00	\$0.00	\$79.00	1	12	1	1	\$79.00	1.00	1.00	1.00	1.00	3	2
1	302	HE Refrigerator - CEE tier 2	home	unit	\$179.00	\$0.00	\$0.00	\$179.00	1	12	1	1	\$179.00	1.00	1.00	1.00	1.00	3	2
1	310	Base Early Replacement Refrigerator	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	12	1	1	\$0.00	1.00	1.00	1.00	1.00	3	1
1	311	Refrigerator - Early Replacement to 2008 Energy Star	home	unit	\$204.19	\$0.00	\$0.00	\$204.19	1	5	1	1	\$204.19	1.00	1.00	1.00	1.00	3	1
1	340	Base Second Refrigerator	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	5	1	1	\$0.00	1.00	1.00	1.00	1.00	3	1
1	341	Second Refrigerator Recycling	home	unit	\$125.00	\$0.00	\$0.00	\$125.00	1	5	1	1	\$125.00	1.00	1.00	1.00	1.00	3	1
1	400	Base Freezer	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	12	1	1	\$0.00	1.00	1.00	1.00	1.00	4	2
1	401	Energy Star Freezer	home	unit	\$59.99	\$0.00	\$0.00	\$59.99	1	12	1	1	\$59.99	1.00	1.00	1.00	1.00	4	2
1	410	Base Early Replacement Freezer	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	12	1	1	\$0.00	1.00	1.00	1.00	1.00	4	1
1	411	Early Replacement Freezer to 2008 Energy Star	home	unit	\$75.28	\$0.00	\$0.00	\$75.28	1	12	1	1	\$75.28	1.00	1.00	1.00	1.00	4	1
1	500	Base 40 gal. Water Heating (EF 0.86)	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	15	1	1	\$0.00	1.00	1.00	1.00	1.00	5	2
1	501	Heat Pump Water Heater (EF 2.5)	home	unit	\$1,288.02	\$122.83	\$0.00	\$1,410.85	1	12	1	1	\$1,410.85	1.00	1.00	1.00	1.00	5	2
1	502	HE Water Heater (EF 0.93)	home	unit	\$72.30	\$0.00	\$0.00	\$72.30	1	10	1	1	\$72.30	1.00	1.00	1.00	1.00	5	2
1	503	Low Flow Showerhead	home	unit	\$22.95	\$0.00	\$0.00	\$22.95	1	5	1	1	\$22.95	1.00	1.00	1.00	1.00	5	1
1	504	Pipe Wrap	home	linear foot	\$0.37	\$0.00	\$0.00	\$0.37	1	15	1	1	\$0.37	1.00	1.00	1.00	1.00	5	1
1	505	Faucet Aerator	home	unit	\$7.12	\$0.00	\$0.00	\$7.12	1	5	1	1	\$7.12	1.00	1.00	1.00	1.00	5	1
1	506	2011 Energy Star Clotheswasher (MEF 2.00)	home	unit	\$166.24	\$0.00	\$0.00	\$166.24	1	11	1	1	\$166.24	1.00	1.00	1.00	1.00	6	2
1	507	Tier 3 CW (MEF 2.20)	home	unit	\$393.16	\$0.00	\$0.00	\$393.16	1	11	1	1	\$393.16	1.00	1.00	1.00	1.00	6	2
1	508	Energy Star Dishwasher (EF 0.68)	home	unit	\$143.22	\$0.00	\$0.00	\$143.22	1	11	1	1	\$143.22	1.00	1.00	1.00	1.00	8	2
1	509	CEE Tier 2 DW (EF 0.72)	home	unit	\$222.56	\$0.00	\$0.00	\$222.56	1	11	1	1	\$222.56	1.00	1.00	1.00	1.00	8	2
1	510	Solar Water Heater	home	unit	\$1,650.00	\$1,850.00	\$0.00	\$3,500.00	1	15	1	1	\$3,500.00	1.00	1.00	1.00	1.00	2	2
1	550	Base Early Replacement Water Heating to Heat Pump Water Heater	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	5	1
1	551	Early Replacement Water Heating to Heat Pump Water Heater	home	unit	\$1,374.36	\$0.00	\$0.00	\$1,374.36	1	10	1	1	\$1,374.36	1.00	1.00	1.00	1.00	5	1
1	600	Base Clotheswasher (MEF 1.26)	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	11	1	1	\$0.00	1.00	1.00	1.00	1.00	6	2
1	601	Energy Star Clotheswasher (MEF 2.00)	home	unit	\$129.15	\$0.00	\$0.00	\$129.15	1	11	1	1	\$129.15	1.00	1.00	1.00	1.00	6	2
1	602	Tier 3 CW (MEF 2.20)	home	unit	\$175.23	\$0.00	\$0.00	\$175.23	1	11	1	1	\$175.23	1.00	1.00	1.00	1.00	6	2
1	700	Base Clothes Dryer (EF 3.01)	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	12	1	1	\$0.00	1.00	1.00	1.00	1.00	7	2
1	710	High Efficiency CD (EF 3.01 w/moisture sensor)	home	unit	\$238.23	\$0.00	\$0.00	\$238.23	1	12	1	1	\$238.23	1.00	1.00	1.00	1.00	7	2
1	711	Heat Pump Dryer	home	unit	\$1,680.98	\$0.00	\$0.00	\$1,680.98	1	12	1	1	\$1,680.98	1.00	1.00	1.00	1.00	7	2
1	800	Base Dishwasher (EF 0.65)	home	unit	\$292.65	\$0.00	\$0.00	\$292.65	1	11	1	1	\$292.65	1.00	1.00	1.00	1.00	8	2
1	900	Base Single Speed Pool Pump (RET)	home	unit	\$273.32	\$357.12	\$0.00	\$630.4376	1	10	1	1	\$630.4376	1.00	1.00	1.00	1.00	12	1
1	901	Variable Speed Pool Pump (1.5 hp)	home	unit	\$434.41	\$357.12	\$0.00	\$791.53	1	10	1	1	\$791.53	1.00	1.00	1.00	1.00	12	1
1	905	Base Two Speed Pool Pump (1.5 hp) (ROB)	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	12	2
1	906	Variable Speed Pool Pump (1.5 hp)	home	unit	\$394.47	\$357.12	\$0.00	\$751.59	1	10	1	1	\$751.59	1.00	1.00	1.00	1.00	12	2
1	910	Base Plasma Screen TV	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	6	1	1	\$0.00	1.00	1.00	1.00	1.00	11	2
1	911	Energy Star Plasma Screen TV	home	unit	\$1.00	\$0.00	\$0.00	\$1.00	1	6	1	1	\$1.00	1.00	1.00	1.00	1.00	11	2
1	912	TV Occupancy Sensor Power Strip	home	unit	\$85.00	\$0.00	\$0.00	\$85.00	1	8	1	1	\$85.00	1.00	1.00	1.00	1.00	11	1
1	920	Base LCD Screen TV	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	6	1	1	\$0.00	1.00	1.00	1.00	1.00	11	2
1	921	Energy Star LCD TV	home	unit	\$1.00	\$0.00	\$0.00	\$1.00	1	6	1	1	\$1.00	1.00	1.00	1.00	1.00	11	2
1	922	TV Occupancy Sensor Power Strip	home	unit	\$85.00	\$0.00	\$0.00	\$85.00	1	8	1	1	\$85.00	1.00	1.00	1.00	1.00	11	1
1	930	Base Other TV	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	6	1	1	\$0.00	1.00	1.00	1.00	1.00	11	2
1	931	Energy Star LCD TV	home	unit	\$1.00	\$0.00	\$0.00	\$1.00	1	6	1	1	\$1.00	1.00	1.00	1.00	1.00	11	2
1	932	TV Occupancy Sensor Power Strip	home	unit	\$85.00	\$0.00	\$0.00	\$85.00	1	8	1	1	\$85.00	1.00	1.00	1.00	1.00	11	1
1	940	Base Laptop Computer	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	4	1	1	\$0.00	1.00	1.00	1.00	1.00	14	2
1	941	Energy Star Laptop Computer	home	unit	\$1.00	\$0.00	\$0.00	\$1.00	1	4	1	1	\$1.00	1.00	1.00	1.00	1.00	14	2
1	945	Base Desktop Computer	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	4	1	1	\$0.00	1.00	1.00	1.00	1.00	14	2
1	946	Energy Star Desktop Computer	home	unit	\$1.00	\$0.00	\$0.00	\$1.00	1	4	1	1	\$1.00	1.00	1.00	1.00	1.00	14	2
1	950	Base Cooking	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	15	1	1	\$0.00	1.00	1.00	1.00	1.00	10	2
1	960	Base Miscellaneous	home	unit	\$0.00	\$0.00	\$0.00	\$0.00	1	10	1	1	\$0.00	1.00	1.00	1.00	1.00	14	2
1	962	Plug Load Controls - Smart Power Strip	home	unit	\$25.00	\$0.00	\$0.00	\$25.00	1	5	1	1	\$25.00	1.00	1.00	1.00	1.00	14	1
1	970	Base House Practices	home	home	\$0.00	\$0.00	\$0.00	\$0.00	1	1	1	1	\$0.00	1.00	1.00	1.00	1.00	15	1
1	971	Indirect Feedback	home	home	\$7.00	\$0.00	\$0.00	\$7.00	1	1	1	1	\$7.00	1.00	1.00	1.00	1.00	15	1

TECHNOLOGY SATURATION**(units/square foot)**

Segment	Measure #	Measure Description	SF	MF	LI SF	LI MF
1	100	Base, 13 SEER Split-System Air Conditioner	1	0.67	1	0.67
1	101	15 SEER Split-System Air Conditioner	1	0.67	1	0.67
1	102	17 SEER Split-System Air Conditioner	1	0.67	1	0.67
1	103	Programmable Thermostat	1	1	1	1
1	104	Ceiling Fans	3.14	3.14	3.14	3.14
1	105	Whole House Fans	1	1	1	1
1	106	Attic Venting	1	1	1	1
1	107	Proper Refrigerant Charging and Air Flow	3	2	3	2
1	108	Duct Repair	1	1	1	1
1	109	Duct Insulation	111	60	85	63
1	110	AC maintenance and repair	1	1	1	1
1	111	Single Pane Windows to Double Pane with Gas	353	65	272	68
1	112	Double Pane with Glazing to Energy Star	353	65	272	68
1	113	Sealed Attic w/Sprayed Foam Insulated Roof Deck	1,366	1,366	1,327	1,327
1	114	Ceiling R-0 to R-38 Insulation	2,151	552	1,659	582
1	115	Ceiling R-11 to R-38 Insulation	2,151	552	1,659	582
1	115	Ceiling R-19 to R-38 Insulation	2,151	552	1,659	582
1	116	Ceiling R-0 to R-49 Insulation	2,151	552	1,659	582
1	117	Ceiling R-19 to R-49 Insulation	2,151	552	1,659	582
1	118	Ceiling R-11 to R-49 Insulation	2,151	552	1,659	582
1	119	Wall 2x4 R-0 to Blow-In R-13 Insulation	2189	742	2188.658	741.6
1	120	Self Install Weatherization	1	1	1	1
1	121	Infiltration Reduction	2,938	922	2,267	972
1	130	Base Early Replacement 10 SEER Split-System AC	1	0.67	1	0.67
1	131	15 SEER Split-System AC Early Replacement	1	0.67	1	0.67
1	140	Base Room Air Conditioner - EER 9.7	1.61	2.07	1.56	1.30
1	141	HE Room Air Conditioner - Energy star EER 10.8	1.61	2.07	1.56	1.30
1	142	HE Room Air Conditioner - CEE Tier 1 EER 11.3	1.61	2.07	1.56	1.30
1	143	Ceiling Fans	3.14	3.14	3.14	3.14
1	144	Whole House Fans	1	1	1	1
1	145	Single Pane Windows to Double Pane with Gas	353	65	272	68
1	146	Double Pane with Glazing to Energy Star	353	65	272	68
1	147	Ceiling R-0 to R-38 Insulation	2151	552	1659	582

APPENDIX E

RESIDENTIAL

MEASURE INPUT DATA

1	148	Ceiling R-11 to R-38 Insulation	2151	552	1659	582
1	149	Ceiling R-19 to R-38 Insulation	2151	552	1659	582
1	150	Ceiling R-0 to R-49 Insulation	2151	552	1659	582
1	151	Ceiling R-19 to R-49 Insulation	2151	552	1659	582
1	152	Ceiling R-11 to R-49 Insulation	2151	552	1659	582
1	153	Wall 2x4 R-0 to Blow-In R-13 Insulation	2189	742	2189	742
1	154	Self Install Weatherization	1	1	1	1
1	155	Infiltration Reduction	2,938	922	2,267	972
1	156	Ductless Split Heat Pump	1	0.67	1	0.67
1	160	Base Early Replacement Room Air Conditioner- EER 9.0	1.61	2.07	1.56	1.30
1	161	EER 8.5 AC Early Replacement, CEE Tier 1 EER 11.3	1.61	2.07	1.56	1.30
1	170	Base Dehumidifier- New Federal Standard	1	1	1	1
1	171	Energy Star Dehumidifier (EF=1.50)	1	1	1	1
1	180	Base Furnace Fan - Furnace & CAC	1	1	1	1
1	181	Variable speed furnace fans (RET)	1	1	1	1
1	182	Variable speed furnace fans (ROB)	1	1	1	1
1	200	Base Resistance Space Heating	1	1	1	1
1	201	Single Pane Windows to Double Pane with Gas	353	65	272	68
1	202	Double Pane with Glazing to Energy Star	353	65	272	68
1	203	Single Pane- Add storm windows	353	65	272	68
1	204	Double Pane- Add storm windows	353	65	272	68
1	205	Ceiling R-0 to R-38 Insulation	2151	552	1659	582
1	206	Ceiling R-11 to R-38 Insulation	2151	552	1659	582
1	207	Ceiling R-19 to R-38 Insulation	2151	552	1659	582
1	208	Ceiling R-0 to R-49 Insulation	2151	552	1659	582
1	209	Ceiling R-19 to R-49 Insulation	2151	552	1659	582
1	210	Ceiling R-11 to R-49 Insulation	2151	552	1659	582
1	211	Wall Blow-in R-0 to R-13 Insulation	2189	742	2189	742
1	212	Floor R-0 to R-19 Insulation	2278	767	1974	825
1	213	Basement Insulation	1252	374	1047	574
1	214	Programmable Thermostat	1	1	1	1
1	215	Infiltration Reduction	2,938	922	2,267	972
1	216	Self Install Weatherization	1	1	1	1
1	217	Ductless Split Heat Pump	1	1	1	1
1	220	Base Electric Furnace	1	1	1	1
1	221	Single Pane Windows to Double Pane with Gas	353	65	272	68
1	222	Double Pane with Glazing to Energy Star	353	65	272	68
1	223	Single Pane- Add storm windows	353	65	272	68

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1	224	Double Pane- Add storm windows	353	65	272	68
1	225	Ceiling R-0 to R-38 Insulation	2151	552	1659	582
1	226	Ceiling R-11 to R-38 Insulation	2151	552	1659	582
1	227	Ceiling R-19 to R-38 Insulation	2151	552	1659	582
1	228	Ceiling R-0 to R-49 Insulation	2151	552	1659	582
1	229	Ceiling R-19 to R-49 Insulation	2151	552	1659	582
1	230	Ceiling R-11 to R-49 Insulation	2151	552	1659	582
1	231	Wall Blow-in R-0 to R-13 Insulation	2189	742	2189	742
1	232	Floor R-0 to R-19 Insulation	2278	767	1974	825
1	233	Basement Insulation	1252	374	1047	574
1	234	Programmable Thermostat	1	1	1	1
1	235	Infiltration Reduction	2,938	922	2,267	972
1	236	Self Install Weatherization	1	1	1	1
1	237	Ductless Split Heat Pump	1	1	1	1
1	250	Base Lighting 60-Watt incandescent, 1.8 hr/hday	37.22	20.936	37.22	20.936
1	251	CFL (15-Watt integral ballast), 1.8 hr/day	37.22	20.936	37.22	20.936
1	252	LEDs w/ Incandescent Baseline	37.22	20.936	37.22	20.936
1	255	Base Lighting 15 Watt CFL, 1.8 hours per day	12.44	6.9975	12.44	6.9975
1	256	LEDs w/ CFL Baseline	12.44	6.9975	12.44	6.9975
1	260	Base Lighting Fluorescent Tube, 1.8 hrs/day	5.97	3.36	5.97	3.36
1	261	RET 2L4'T8, 1EB	5.97	3.36	5.97	3.36
1	262	ROB 2L4'T8, 1EB	5.97	3.36	5.97	3.36
1	265	Base Lighting Halogen and HID, 1.8 hrs/day	3.55	2.00	3.55	2.00
1	266	LEDs w/ Halogen Baseline	3.55	2.00	3.55	2.00
1	300	Base Refrigerator	1.22	1.08	1.22	1.08
1	301	HE Refrigerator - Energy Star	1.22	1.08	1.22	1.08
1	302	HE Refrigerator - CEE tier 2	1.22	1.08	1.22	1.08
1	310	Base Early Replacement Refrigerator	1.22	1.08	1.22	1.08
1	311	Refrigerator - Early Replacement to 2008 Energy Star	1.22	1.08	1.22	1.08
1	340	Base Second Refrigerator	1	1	1	1
1	341	Second Refrigerator Recycling	1	1	1	1
1	400	Base Freezer	1	1	1	1
1	401	Energy Star Freezer	1	1	1	1
1	410	Base Early Replacement Freezer	1	1	1	1
1	411	Early Replacement Freezer to 2008 Energy Star	1	1	1	1
1	500	Base 40 gal. Water Heating (EF=0.88)	1	1	1	1
1	501	Heat Pump Water Heater (EF=2.5)	1	1	1	1

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1	502	HE Water Heater (EF=0.93)	1	1	1	1
1	503	Low Flow Showerhead	2.3	2	2.3	2
1	504	Pipe Wrap	8	8	8	8
1	505	Faucet Aerators	3.5	3.1	3.5	3.1
1	506	2011 Energy Star Clotheswasher (MEF 2.00)	1	1	1	1
1	507	Tier 3 CW (MEF=2.20)	1	1	1	1
1	508	Energy Star Dishwasher (EF=0.68)	1	1	1	1
1	509	CEE Tier 2 DW (EF=0.72)	1	1	1	1
1	510	Solar Water Heater	1	1	1	1
1	550	Base Early Replacement Water Heating to Heat Pump Wat	1	1	1	1
1	551	Early Replacement Water Heating to Heat Pump Water He	1	1	1	1
1	600	Base Clotheswasher (MEF=1.26)	1	1	1	1
1	601	Energy Star Clotheswasher (MEF 2.00)	1	1	1	1
1	602	Tier 3 CW (MEF=2.20)	1	1	1	1
1	700	Base Clothes Dryer (EF=3.01)	1	1	1	1
1	710	High Efficiency CD (EF=3.01 w/moisture sensor)	1	1	1	1
1	711	Heat Pump Dryer	1	1	1	1
1	800	Base Dishwasher (EF=0.65)	1	1	1	1
1	900	Base Single Speed Pool Pump (RET)	1	1	1	1
1	901	Variable Speed Pool Pump (1.5 hp)	1	1	1	1
1	905	Base Two Speed Pool Pump (1.5 hp) (ROB)	1	1	1	1
1	906	Variable Speed Pool Pump (1.5 hp)	1	1	1	1
1	910	Base Plasma Screen TV	2.36	2.23	3.58	3.28
1	911	Energy Star Plasma Screen TV	2.36	2.23	3.58	3.28
1	912	TV Occupancy Sensor Power Strip	2.36	2.23	3.58	3.28
1	920	Base LCD Screen TV	2.36	2.23	3.58	3.28
1	921	Energy Star LCD TV	2.36	2.23	3.58	3.28
1	922	TV Occupancy Sensor Power Strip	2.36	2.23	3.58	3.28
1	930	Base Other TV	2.36	2.23	3.58	3.28
1	931	Energy Star other TV	2.36	2.23	3.58	3.28
1	932	TV Occupancy Sensor Power Strip	2.36	2.23	3.58	3.28
1	940	Base Laptop Computer	1.83	1.65	1.83	1.65
1	941	Energy Star Laptop Computer	1.83	1.65	1.83	1.65
1	945	Base Desktop Computer	1.83	1.65	1.83	1.65
1	946	Energy Star Desktop Computer	1.83	1.65	1.83	1.65
1	950	Base Cooking	1	1	1	1
1	960	Base Miscellaneous	1	1	1	1

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MEASURE INPUT DATA

1	962	Plug Load Controls - Smart Power Strip	1	1	1	1
1	970	Base House Practices	1	1	1	1
1	971	Indirect Feedback	1	1	1	1

**ENERGY SAVINGS
(percent)**

Segment	Measure #	Measure Description	SF	MF	LI SF	LI MF
1	100	Base, 13 SEER Split-System Air Conditioner	0.00%	0.00%	0.00%	0.00%
1	101	15 SEER Split-System Air Conditioner	13.33%	13.33%	13.33%	13.33%
1	102	17 SEER Split-System Air Conditioner	23.53%	23.53%	23.53%	23.53%
1	103	Programmable Thermostat	2.00%	2.00%	2.00%	2.00%
1	104	Ceiling Fans	5.00%	5.00%	5.00%	5.00%
1	105	Whole House Fans	20.00%	20.00%	20.00%	20.00%
1	106	Attic Venting	11.00%	9.10%	7.20%	9.10%
1	107	Proper Refrigerant Charging and Air Flow	12.60%	10.90%	9.20%	9.20%
1	108	Duct Repair	7.75%	7.75%	7.75%	7.75%
1	109	Duct Insulation	4.00%	4.00%	4.00%	4.00%
1	110	AC maintenance and repair	4.00%	4.00%	4.00%	4.00%
1	111	Single Pane Windows to Double Pane with Gas	16.00%	16.00%	16.00%	16.00%
1	112	Double Pane with Glazing to Energy Star	6.00%	6.00%	6.00%	6.00%
1	113	Sealed Attic w/Sprayed Foam Insulated Roof Deck	9.00%	9.00%	9.00%	9.00%
1	114	Ceiling R-0 to R-38 Insulation	25.13%	25.13%	25.13%	25.13%
1	115	Ceiling R-11 to R-38 Insulation	8.50%	8.50%	8.50%	8.50%
1	115	Ceiling R-19 to R-38 Insulation	3.5%	3.5%	3.5%	3.5%
1	116	Ceiling R-0 to R-49 Insulation	26.5%	26.5%	26.5%	26.5%
1	117	Ceiling R-19 to R-49 Insulation	5.4%	5.4%	5.4%	5.4%
1	118	Ceiling R-11 to R-49 Insulation	10.20%	10.20%	10.20%	10.20%
1	119	Wall 2x4 R-0 to Blow-In R-13 Insulation	3.0%	3.0%	3.0%	3.0%
1	120	Self Install Weatherization	2.00%	2.00%	2.00%	2.00%
1	121	Infiltration Reduction	20.00%	20.00%	20.00%	20.00%
1	130	Base Early Replacement 10 SEER Split-System AC	0.00%	0.00%	0.00%	0.00%
1	131	15 SEER Split-System AC Early Replacement	20.2%	20.2%	20.2%	20.2%
1	140	Base Room Air Conditioner - EER 9.7	0.00%	0.00%	0.00%	0.00%
1	141	HE Room Air Conditioner - Energy star EER 10.8	10.19%	10.19%	10.19%	10.19%
1	142	HE Room Air Conditioner - CEE Tier 1 EER 11.3	14.16%	14.16%	14.16%	14.16%
1	143	Ceiling Fans	5.00%	5.00%	5.00%	5.00%
1	144	Whole House Fans	20.00%	20.00%	20.00%	20.00%
1	145	Single Pane Windows to Double Pane with Gas	16.00%	16.00%	16.00%	16.00%
1	146	Double Pane with Glazing to Energy Star	6.00%	6.00%	6.00%	6.00%
1	147	Ceiling R-0 to R-38 Insulation	25.13%	25.13%	25.13%	25.13%
1	148	Ceiling R-11 to R-38 Insulation	8.50%	8.50%	8.50%	8.50%
1	149	Ceiling R-19 to R-38 Insulation	3.5%	3.5%	3.5%	3.5%
1	150	Ceiling R-0 to R-49 Insulation	26.5%	26.5%	26.5%	26.5%

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MEASURE INPUT DATA

1	151	Ceiling R-19 to R-49 Insulation	5.4%	5.4%	5.4%	5.4%
1	152	Ceiling R-11 to R-49 Insulation	10.20%	10.20%	10.20%	10.20%
1	153	Wall 2x4 R-0 to Blow-In R-13 Insulation	5.6%	5.6%	5.6%	5.6%
1	154	Self Install Weatherization	2.00%	2.00%	2.00%	2.00%
1	155	Infiltration Reduction	6.40%	6.40%	6.40%	6.40%
1	156	Ductless Split Heat Pump	31.67%	31.67%	33.22%	33.22%
1	160	Base Early Replacement Room Air Conditioner- EER 9.0	0.00%	0.00%	0.00%	0.00%
1	161	EER 8.5 AC Early Replacement, CEE Tier 1 EER 11.3	18.2%	18.2%	18.2%	18.2%
1	170	Base Dehumidifier- New Federal Standard	0.00%	0.00%	0.00%	0.00%
1	171	Energy Star Dehumidifier (EF=1.50)	20.0%	20.0%	20.0%	20.0%
1	180	Base Furnace Fan - Furnace & CAC	0.00%	0.00%	0.00%	0.00%
1	181	Variable speed furnace fans (RET)	50.00%	50.00%	50.00%	50.00%
1	182	Variable speed furnace fans (ROB)	50.00%	50.00%	50.00%	50.00%
1	200	Base Resistance Space Heating	0.00%	0.00%	0.00%	0.00%
1	201	Single Pane Windows to Double Pane with Gas	32.0%	32.0%	32.0%	32.0%
1	202	Double Pane with Glazing to Energy Star	6.0%	6.0%	6.0%	6.0%
1	203	Single Pane- Add storm windows	5.3%	5.3%	5.3%	5.3%
1	204	Double Pane- Add storm windows	13.3%	13.3%	13.3%	13.3%
1	205	Ceiling R-0 to R-38 Insulation	23.95%	23.95%	23.95%	23.95%
1	206	Ceiling R-11 to R-38 Insulation	7.82%	7.82%	7.82%	7.82%
1	207	Ceiling R-19 to R-38 Insulation	3.56%	3.56%	3.56%	3.56%
1	208	Ceiling R-0 to R-49 Insulation	24.60%	24.60%	24.60%	24.60%
1	209	Ceiling R-19 to R-49 Insulation	4.39%	4.39%	4.39%	4.39%
1	210	Ceiling R-11 to R-49 Insulation	8.60%	8.60%	8.60%	8.60%
1	211	Wall Blow-in R-0 to R-13 Insulation	8.79%	8.79%	8.79%	8.79%
1	212	Floor R-0 to R-19 Insulation	10.00%	10.00%	10.00%	10.00%
1	213	Basement Insulation	34.90%	34.90%	34.90%	34.90%
1	214	Programmable Thermostat	7.0%	7.0%	7.0%	7.0%
1	215	Infiltration Reduction	6.40%	8.10%	9.80%	9.80%
1	216	Self Install Weatherization	2.00%	2.00%	2.00%	2.00%
1	217	Ductless Split Heat Pump	59.99%	59.99%	59.99%	59.99%
1	220	Base Electric Furnace	0.00%	0.00%	0.00%	0.00%
1	221	Single Pane Windows to Double Pane with Gas	32.0%	32.0%	32.0%	32.0%
1	222	Double Pane with Glazing to Energy Star	6.0%	6.0%	6.0%	6.0%
1	223	Single Pane- Add storm windows	5.3%	5.3%	5.3%	5.3%
1	224	Double Pane- Add storm windows	13.3%	13.3%	13.3%	13.3%
1	225	Ceiling R-0 to R-38 Insulation	23.95%	23.95%	23.95%	23.95%
1	226	Ceiling R-11 to R-38 Insulation	7.82%	7.82%	7.82%	7.82%
1	227	Ceiling R-19 to R-38 Insulation	3.56%	3.56%	3.56%	3.56%
1	228	Ceiling R-0 to R-49 Insulation	24.60%	24.60%	24.60%	24.60%

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MEASURE INPUT DATA

1	229	Ceiling R-19 to R-49 Insulation	4.39%	4.39%	4.39%	4.39%
1	230	Ceiling R-11 to R-49 Insulation	8.60%	8.60%	8.60%	8.60%
1	231	Wall Blow-in R-0 to R-13 Insulation	8.79%	8.79%	8.79%	8.79%
1	232	Floor R-0 to R-19 Insulation	10.00%	10.00%	10.00%	10.00%
1	233	Basement Insulation	34.90%	34.90%	34.90%	34.90%
1	234	Programmable Thermostat	7.0%	7.0%	7.0%	7.0%
1	235	Infiltration Reduction	6.40%	8.10%	9.80%	9.80%
1	236	Self Install Weatherization	2.00%	2.00%	2.00%	2.00%
1	237	Ductless Split Heat Pump	59.99%	59.99%	59.99%	59.99%
1	250	Base Lighting 60-Watt incandescent, 1.8 hr/hday	0.00%	0.00%	0.00%	0.00%
1	251	CFL (15-Watt integral ballast), 1.8 hr/day	75.0%	75.0%	75.0%	75.0%
1	252	LEDs w/ Incandescent Baseline	90.00%	90.00%	90.00%	90.00%
1	255	Base Lighting 15 Watt CFL, 1.8 hours per day	0.00%	0.00%	0.00%	0.00%
1	256	LEDs w/ CFL Baseline	60.00%	60.00%	60.00%	60.00%
1	260	Base Lighting Fluorescent Tube, 1.8 hrs/day	0.00%	0.00%	0.00%	0.00%
1	261	RET 2L4'T8, 1EB	28.00%	28.00%	28.00%	28.00%
1	262	ROB 2L4'T8, 1EB	28.00%	28.00%	28.00%	28.00%
1	265	Base Lighting Halogen and HID, 1.8 hrs/day	0.00%	0.00%	0.00%	0.00%
1	266	LEDs w/ Halogen Baseline	92.00%	92.00%	92.00%	92.00%
1	300	Base Refrigerator	0.00%	0.00%	0.00%	0.00%
1	301	HE Refrigerator - Energy Star	20.00%	20.00%	20.00%	20.00%
1	302	HE Refrigerator - CEE tier 2	25.00%	25.00%	25.00%	25.00%
1	310	Base Early Replacement Refrigerator	0.00%	0.00%	0.00%	0.00%
1	311	Refrigerator - Early Replacement to 2008 Energy Star	27.63%	27.63%	27.63%	27.63%
1	340	Base Second Refrigerator	0.00%	0.00%	0.00%	0.00%
1	341	Second Refrigerator Recycling	99.9%	99.9%	99.9%	99.9%
1	400	Base Freezer	0.00%	0.00%	0.00%	0.00%
1	401	Energy Star Freezer	15.00%	15.00%	15.00%	15.00%
1	410	Base Early Replacement Freezer	0.00%	0.00%	0.00%	0.00%
1	411	Early Replacement Freezer to 2008 Energy Star	15.20%	15.20%	15.20%	15.20%
1	500	Base 40 gal. Water Heating (EF=0.88)	0.00%	0.00%	0.00%	0.00%
1	501	Heat Pump Water Heater (EF=2.5)	64.8%	64.8%	64.8%	64.8%
1	502	HE Water Heater (EF=0.93)	5.40%	5.40%	5.40%	5.40%
1	503	Low Flow Showerhead	7.50%	7.50%	7.50%	7.50%
1	504	Pipe Wrap	3.00%	3.00%	3.00%	3.00%
1	505	Faucet Aerators	3.00%	3.00%	3.00%	3.00%
1	506	2011 Energy Star Clotheswasher (MEF 2.00)	3.12%	4.09%	3.12%	4.09%
1	507	Tier 3 CW (MEF=2.20)	3.26%	4.28%	3.26%	4.28%
1	508	Energy Star Dishwasher (EF=0.68)	2.14%	2.14%	2.14%	2.14%
1	509	CEE Tier 2 DW (EF=0.72)	2.38%	2.38%	2.38%	2.38%

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MEASURE INPUT DATA

1	510	Solar Water Heater	50.0%	50.0%	50.0%	50.0%
1	550	Base Early Replacement Water Heating to Heat Pump Water Heater	0.00%	0.00%	0.00%	0.00%
1	551	Early Replacement Water Heating to Heat Pump Water Heater	63.58%	63.58%	63.58%	63.58%
1	600	Base Clotheswasher (MEF=1.26)	0.00%	0.00%	0.00%	0.00%
1	601	Energy Star Clotheswasher (MEF 2.00)	29.49%	29.49%	29.49%	29.49%
1	602	Tier 3 CW (MEF=2.20)	31.76%	31.76%	31.76%	31.76%
1	700	Base Clothes Dryer (EF=3.01)	0.00%	0.00%	0.00%	0.00%
1	710	High Efficiency CD (EF=3.01 w/moisture sensor)	15.00%	15.00%	15.00%	15.00%
1	711	Heat Pump Dryer	60.00%	60.00%	60.00%	60.00%
1	800	Base Dishwasher (EF=0.65)	0.00%	0.00%	0.00%	0.00%
1	900	Base Single Speed Pool Pump (RET)	0.00%	0.00%	0.00%	0.00%
1	901	Variable Speed Pool Pump (1.5 hp)	90.00%	90.00%	90.00%	90.00%
1	905	Base Two Speed Pool Pump (1.5 hp) (ROB)	0.00%	0.00%	0.00%	0.00%
1	906	Variable Speed Pool Pump (1.5 hp)	33.00%	33.00%	33.00%	33.00%
1	910	Base Plasma Screen TV	0.00%	0.00%	0.00%	0.00%
1	911	Energy Star Plasma Screen TV	30.00%	30.00%	30.00%	30.00%
1	912	TV Occupancy Sensor Power Strip	5%	4%	5%	5%
1	920	Base LCD Screen TV	0.00%	0.00%	0.00%	0.00%
1	921	Energy Star LCD TV	30.00%	30.00%	30.00%	30.00%
1	922	TV Occupancy Sensor Power Strip	3%	3%	3%	3%
1	930	Base Other TV	0.00%	0.00%	0.00%	0.00%
1	931	Energy Star other TV	40.00%	40.00%	40.00%	40.00%
1	932	TV Occupancy Sensor Power Strip	5%	6%	6%	6%
1	940	Base Laptop Computer	0.00%	0.00%	0.00%	0.00%
1	941	Energy Star Laptop Computer	13.40%	13.40%	13.40%	13.40%
1	945	Base Desktop Computer	0.00%	0.00%	0.00%	0.00%
1	946	Energy Star Desktop Computer	17.90%	17.90%	17.90%	17.90%
1	950	Base Cooking	0.00%	0.00%	0.00%	0.00%
1	960	Base Miscellaneous	0.00%	0.00%	0.00%	0.00%
1	962	Plug Load Controls - Smart Power Strip	2.00%	2.00%	2.00%	2.00%
1	970	Base House Practices	0.00%	0.00%	0.00%	0.00%
1	971	Indirect Feedback	2.00%	2.00%	2.00%	2.00%

**Standards Adjustment Factor
(percent)**

Segment	Measure #	Measure Description	SF	MF	LI SF	LI MF
1	100	Base, 13 SEER Split-System Air Conditioner	100.00%	100.00%	100.00%	100.00%
1	101	15 SEER Split-System Air Conditioner	82.31%	82.31%	82.31%	82.31%
1	102	17 SEER Split-System Air Conditioner	82.31%	82.31%	82.31%	82.31%
1	103	Programmable Thermostat	100.00%	100.00%	100.00%	100.00%
1	104	Ceiling Fans	100.00%	100.00%	100.00%	100.00%
1	105	Whole House Fans	100.00%	100.00%	100.00%	100.00%
1	106	Attic Venting	100.00%	100.00%	100.00%	100.00%
1	107	Proper Refrigerant Charging and Air Flow	100.00%	100.00%	100.00%	100.00%
1	108	Duct Repair	100.00%	100.00%	100.00%	100.00%
1	109	Duct Insulation	100.00%	100.00%	100.00%	100.00%
1	110	AC maintenance and repair	100.00%	100.00%	100.00%	100.00%
1	111	Single Pane Windows to Double Pane with Gas	100.00%	100.00%	100.00%	100.00%
1	112	Double Pane with Glazing to Energy Star	100.00%	100.00%	100.00%	100.00%
1	113	Sealed Attic w/Sprayed Foam Insulated Roof Deck	100.00%	100.00%	100.00%	100.00%
1	114	Ceiling R-0 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	115	Ceiling R-11 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	115	Ceiling R-19 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	116	Ceiling R-0 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	117	Ceiling R-19 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	118	Ceiling R-11 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	119	Wall 2x4 R-0 to Blow-In R-13 Insulation	100.00%	100.00%	100.00%	100.00%
1	120	Self Install Weatherization	100.00%	100.00%	100.00%	100.00%
1	121	Infiltration Reduction	100.00%	100.00%	100.00%	100.00%
1	130	Base Early Replacement 10 SEER Split-System AC	100.00%	100.00%	100.00%	100.00%
1	131	15 SEER Split-System AC Early Replacement	100.00%	100.00%	100.00%	100.00%
1	140	Base Room Air Conditioner - EER 9.7	100.00%	100.00%	100.00%	100.00%
1	141	HE Room Air Conditioner - Energy star EER 10.8	100.00%	100.00%	100.00%	100.00%
1	142	HE Room Air Conditioner - CEE Tier 1 EER 11.3	100.00%	100.00%	100.00%	100.00%
1	143	Ceiling Fans	100.00%	100.00%	100.00%	100.00%
1	144	Whole House Fans	100.00%	100.00%	100.00%	100.00%
1	145	Single Pane Windows to Double Pane with Gas	100.00%	100.00%	100.00%	100.00%
1	146	Double Pane with Glazing to Energy Star	100.00%	100.00%	100.00%	100.00%
1	147	Ceiling R-0 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	148	Ceiling R-11 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%

APPENDIX E

RESIDENTIAL

MEASURE INPUT DATA

1	149	Ceiling R-19 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	150	Ceiling R-0 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	151	Ceiling R-19 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	152	Ceiling R-11 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	153	Wall 2x4 R-0 to Blow-In R-13 Insulation	100.00%	100.00%	100.00%	100.00%
1	154	Self Install Weatherization	100.00%	100.00%	100.00%	100.00%
1	155	Infiltration Reduction	100.00%	100.00%	100.00%	100.00%
1	156	Ductless Split Heat Pump	100.00%	100.00%	100.00%	100.00%
1	160	Base Early Replacement Room Air Conditioner- EER 9.0	100.00%	100.00%	100.00%	100.00%
1	161	EER 8.5 AC Early Replacement, CEE Tier 1 EER 11.3	100.00%	100.00%	100.00%	100.00%
1	170	Base Dehumidifier- New Federal Standard	100.00%	100.00%	100.00%	100.00%
1	171	Energy Star Dehumidifier (EF=1.50)	80.00%	80.00%	80.00%	80.00%
1	180	Base Furnace Fan - Furnace & CAC	100.00%	100.00%	100.00%	100.00%
1	181	Variable speed furnace fans (RET)	100.00%	100.00%	100.00%	100.00%
1	182	Variable speed furnace fans (ROB)	100.00%	100.00%	100.00%	100.00%
1	200	Base Resistance Space Heating	100.00%	100.00%	100.00%	100.00%
1	201	Single Pane Windows to Double Pane with Gas	100.00%	100.00%	100.00%	100.00%
1	202	Double Pane with Glazing to Energy Star	100.00%	100.00%	100.00%	100.00%
1	203	Single Pane- Add storm windows	100.00%	100.00%	100.00%	100.00%
1	204	Double Pane- Add storm windows	100.00%	100.00%	100.00%	100.00%
1	205	Ceiling R-0 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	206	Ceiling R-11 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	207	Ceiling R-19 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	208	Ceiling R-0 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	209	Ceiling R-19 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	210	Ceiling R-11 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	211	Wall Blow-in R-0 to R-13 Insulation	100.00%	100.00%	100.00%	100.00%
1	212	Floor R-0 to R-19 Insulation	100.00%	100.00%	100.00%	100.00%
1	213	Basement Insulation	100.00%	100.00%	100.00%	100.00%
1	214	Programmable Thermostat	100.00%	100.00%	100.00%	100.00%
1	215	Infiltration Reduction	100.00%	100.00%	100.00%	100.00%
1	216	Self Install Weatherization	100.00%	100.00%	100.00%	100.00%
1	217	Ductless Split Heat Pump	100.00%	100.00%	100.00%	100.00%
1	220	Base Electric Furnace	100.00%	100.00%	100.00%	100.00%
1	221	Single Pane Windows to Double Pane with Gas	100.00%	100.00%	100.00%	100.00%
1	222	Double Pane with Glazing to Energy Star	100.00%	100.00%	100.00%	100.00%
1	223	Single Pane- Add storm windows	100.00%	100.00%	100.00%	100.00%
1	224	Double Pane- Add storm windows	100.00%	100.00%	100.00%	100.00%

APPENDIX E

RESIDENTIAL

MEASURE INPUT DATA

1	225	Ceiling R-0 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	226	Ceiling R-11 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	227	Ceiling R-19 to R-38 Insulation	100.00%	100.00%	100.00%	100.00%
1	228	Ceiling R-0 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	229	Ceiling R-19 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	230	Ceiling R-11 to R-49 Insulation	100.00%	100.00%	100.00%	100.00%
1	231	Wall Blow-in R-0 to R-13 Insulation	100.00%	100.00%	100.00%	100.00%
1	232	Floor R-0 to R-19 Insulation	100.00%	100.00%	100.00%	100.00%
1	233	Basement Insulation	100.00%	100.00%	100.00%	100.00%
1	234	Programmable Thermostat	100.00%	100.00%	100.00%	100.00%
1	235	Infiltration Reduction	100.00%	100.00%	100.00%	100.00%
1	236	Self Install Weatherization	100.00%	100.00%	100.00%	100.00%
1	237	Ductless Split Heat Pump	100.00%	100.00%	100.00%	100.00%
1	250	Base Lighting 60-Watt incandescent, 1.8 hr/hday	100.00%	100.00%	100.00%	100.00%
1	251	CFL (15-Watt integral ballast), 1.8 hr/day	100.00%	100.00%	100.00%	100.00%
1	252	LEDs w/ Incandescent Baseline	100.00%	100.00%	100.00%	100.00%
1	255	Base Lighting 15 Watt CFL, 1.8 hours per day	100.00%	100.00%	100.00%	100.00%
1	256	LEDs w/ CFL Baseline	100.00%	100.00%	100.00%	100.00%
1	260	Base Lighting Fluorescent Tube, 1.8 hrs/day	100.00%	100.00%	100.00%	100.00%
1	261	RET 2L4'T8, 1EB	100.00%	100.00%	100.00%	100.00%
1	262	ROB 2L4'T8, 1EB	100.00%	100.00%	100.00%	100.00%
1	265	Base Lighting Halogen and HID, 1.8 hrs/day	100.00%	100.00%	100.00%	100.00%
1	266	LEDs w/ Halogen Baseline	100.00%	100.00%	100.00%	100.00%
1	300	Base Refrigerator	100.00%	100.00%	100.00%	100.00%
1	301	HE Refrigerator - Energy Star	72.00%	72.00%	72.00%	72.00%
1	302	HE Refrigerator - CEE tier 2	72.00%	72.00%	72.00%	72.00%
1	310	Base Early Replacement Refrigerator	100.00%	100.00%	100.00%	100.00%
1	311	Refrigerator - Early Replacement to 2008 Energy Star	100.00%	100.00%	100.00%	100.00%
1	340	Base Second Refrigerator	100.00%	100.00%	100.00%	100.00%
1	341	Second Refrigerator Recycling	100.00%	100.00%	100.00%	100.00%
1	400	Base Freezer	100.00%	100.00%	100.00%	100.00%
1	401	Energy Star Freezer	100.00%	100.00%	100.00%	100.00%
1	410	Base Early Replacement Freezer	100.00%	100.00%	100.00%	100.00%
1	411	Early Replacement Freezer to 2008 Energy Star	100.00%	100.00%	100.00%	100.00%
1	500	Base 40 gal. Water Heating (EF=0.88)	100.00%	100.00%	100.00%	100.00%
1	501	Heat Pump Water Heater (EF=2.5)	100.00%	100.00%	100.00%	100.00%
1	502	HE Water Heater (EF=0.93)	100.00%	100.00%	100.00%	100.00%
1	503	Low Flow Showerhead	100.00%	100.00%	100.00%	100.00%

APPENDIX E

RESIDENTIAL

MEASURE INPUT DATA

1	504	Pipe Wrap	100.00%	100.00%	100.00%	100.00%
1	505	Faucet Aerators	100.00%	100.00%	100.00%	100.00%
1	506	2011 Energy Star Clotheswasher (MEF 2.00)	100.00%	100.00%	100.00%	100.00%
1	507	Tier 3 CW (MEF=2.20)	100.00%	100.00%	100.00%	100.00%
1	508	Energy Star Dishwasher (EF=0.68)	100.00%	100.00%	100.00%	100.00%
1	509	CEE Tier 2 DW (EF=0.72)	100.00%	100.00%	100.00%	100.00%
1	510	Solar Water Heater	100.00%	100.00%	100.00%	100.00%
1	550	Base Early Replacement Water Heating to Heat Pump Wat	100.00%	100.00%	100.00%	100.00%
1	551	Early Replacement Water Heating to Heat Pump Water He	100.00%	100.00%	100.00%	100.00%
1	600	Base Clotheswasher (MEF=1.26)	100.00%	100.00%	100.00%	100.00%
1	601	Energy Star Clotheswasher (MEF 2.00)	100.00%	100.00%	100.00%	100.00%
1	602	Tier 3 CW (MEF=2.20)	100.00%	100.00%	100.00%	100.00%
1	700	Base Clothes Dryer (EF=3.01)	100.00%	100.00%	100.00%	100.00%
1	710	High Efficiency CD (EF=3.01 w/moisture sensor)	100.00%	100.00%	100.00%	100.00%
1	711	Heat Pump Dryer	100.00%	100.00%	100.00%	100.00%
1	800	Base Dishwasher (EF=0.65)	100.00%	100.00%	100.00%	100.00%
1	900	Base Single Speed Pool Pump (RET)	100.00%	100.00%	100.00%	100.00%
1	901	Variable Speed Pool Pump (1.5 hp)	100.00%	100.00%	100.00%	100.00%
1	905	Base Two Speed Pool Pump (1.5 hp) (ROB)	100.00%	100.00%	100.00%	100.00%
1	906	Variable Speed Pool Pump (1.5 hp)	100.00%	100.00%	100.00%	100.00%
1	910	Base Plasma Screen TV	100.00%	100.00%	100.00%	100.00%
1	911	Energy Star Plasma Screen TV	100.00%	100.00%	100.00%	100.00%
1	912	TV Occupancy Sensor Power Strip	100.00%	100.00%	100.00%	100.00%
1	920	Base LCD Screen TV	100.00%	100.00%	100.00%	100.00%
1	921	Energy Star LCD TV	100.00%	100.00%	100.00%	100.00%
1	922	TV Occupancy Sensor Power Strip	100.00%	100.00%	100.00%	100.00%
1	930	Base Other TV	100.00%	100.00%	100.00%	100.00%
1	931	Energy Star other TV	100.00%	100.00%	100.00%	100.00%
1	932	TV Occupancy Sensor Power Strip	100.00%	100.00%	100.00%	100.00%
1	940	Energy Star Desktop Computer	100.00%	100.00%	100.00%	100.00%
1	941	Energy Star Laptop Computer	100.00%	100.00%	100.00%	100.00%
1	945	Energy Star Laptop Computer	100.00%	100.00%	100.00%	100.00%
1	946	Energy Star Desktop Computer	100.00%	100.00%	100.00%	100.00%
1	950	Energy Star TV	100.00%	100.00%	100.00%	100.00%
1	960	Base Miscellaneous	100.00%	100.00%	100.00%	100.00%
1	962	Plug Load Controls - Smart Power Strip	100.00%	100.00%	100.00%	100.00%
1	970	Base Whole House Practices	100.00%	100.00%	100.00%	100.00%
1	971	Indirect Feedback	100.00%	100.00%	100.00%	100.00%

APPLICABILITY FACTOR
(percent)

			SF	MF	LI SF	LI MF
Segment Measure # Measure Description						
1	100	Base, 13 SEER Split-System Air Conditioner	74.0%	73.1%	74.0%	73.1%
1	101	15 SEER Split-System Air Conditioner	74.0%	73.1%	74.0%	73.1%
1	102	17 SEER Split-System Air Conditioner	74.0%	73.1%	74.0%	73.1%
1	103	Programmable Thermostat	74.0%	73.1%	74.0%	73.1%
1	104	Ceiling Fans	74.0%	73.1%	74.0%	73.1%
1	105	Whole House Fans	20.4%	0.0%	15.4%	0.0%
1	106	Attic Venting	20.4%	0.0%	15.4%	0.0%
1	107	Proper Refrigerant Charging and Air Flow	74.0%	73.1%	74.0%	73.1%
1	108	Duct Repair	74.0%	73.1%	74.0%	73.1%
1	109	Duct Insulation	74.0%	73.1%	74.0%	73.1%
1	110	AC maintenance and repair	74.0%	73.1%	74.0%	73.1%
1	111	Single Pane Windows to Double Pane with Gas	74.0%	73.1%	74.0%	73.1%
1	112	Double Pane with Glazing to Energy Star	74.0%	73.1%	74.0%	73.1%
1	113	Sealed Attic w/Sprayed Foam Insulated Roof Deck	20.4%	0.0%	15.4%	0.0%
1	114	Ceiling R-0 to R-38 Insulation	74.0%	27.3%	74.0%	27.3%
1	115	Ceiling R-11 to R-38 Insulation	74.0%	27.3%	74.0%	27.3%
1	115	Ceiling R-19 to R-38 Insulation	74.0%	27.3%	74.0%	27.3%
1	116	Ceiling R-0 to R-49 Insulation	74.0%	27.3%	74.0%	27.3%
1	117	Ceiling R-19 to R-49 Insulation	74.0%	27.3%	74.0%	27.3%
1	118	Ceiling R-11 to R-49 Insulation	74.0%	27.3%	74.0%	27.3%
1	119	Wall 2x4 R-0 to Blow-In R-13 Insulation	74.0%	73.1%	74.0%	73.1%
1	120	Self Install Weatherization	74.0%	73.1%	74.0%	73.1%
1	121	Infiltration Reduction	74.0%	73.1%	74.0%	73.1%
1	130	Base Early Replacement 10 SEER Split-System AC	13.1%	15.5%	13.1%	15.5%
1	131	15 SEER Split-System AC Early Replacement	13.1%	15.5%	13.1%	15.48%
1	140	Base Room Air Conditioner - EER 9.7	5.1%	7.7%	5.1%	7.7%
1	141	HE Room Air Conditioner - Energy star EER 10.8	5.10%	7.65%	5.10%	7.65%
1	142	HE Room Air Conditioner - CEE Tier 1 EER 11.3	5.10%	7.65%	5.10%	7.65%
1	143	Ceiling Fans	5.10%	7.65%	5.10%	7.65%
1	144	Whole House Fans	1.4%	0.0%	1.1%	0.0%
1	145	Single Pane Windows to Double Pane with Gas	5.10%	7.65%	5.10%	7.65%
1	146	Double Pane with Glazing to Energy Star	5.10%	7.65%	5.10%	7.65%
1	147	Ceiling R-0 to R-38 Insulation	5.1%	2.9%	5.1%	2.9%
1	148	Ceiling R-11 to R-38 Insulation	5.1%	2.9%	5.1%	2.9%

APPENDIX E

RESIDENTIAL

MEASURE INPUT DATA

1	149	Ceiling R-19 to R-38 Insulation	5.1%	2.9%	5.1%	2.9%
1	150	Ceiling R-0 to R-49 Insulation	5.1%	2.9%	5.1%	2.9%
1	151	Ceiling R-19 to R-49 Insulation	5.1%	2.9%	5.1%	2.9%
1	152	Ceiling R-11 to R-49 Insulation	5.1%	2.9%	5.1%	2.9%
1	153	Wall 2x4 R-0 to Blow-In R-13 Insulation	5.10%	7.65%	5.10%	7.65%
1	154	Self Install Weatherization	5.10%	7.65%	5.10%	7.65%
1	155	Infiltration Reduction	5.10%	7.65%	5.10%	7.65%
1	156	Ductless Split Heat Pump	0.20%	0.30%	0.20%	0.30%
1	160	Base Early Replacement Room Air Conditioner- EER 9.0	0.9%	1.4%	0.9%	1.4%
1	161	EER 8.5 AC Early Replacement, CEE Tier 1 EER 11.3	0.9%	1.4%	0.90%	1.35%
1	170	Base Dehumidifier- New Federal Standard	27.0%	13.0%	27.0%	13.0%
1	171	Energy Star Dehumidifier (ROB)	27%	13%	27.00%	13.00%
1	180	Base Furnace Fans	87.0%	87.0%	87.0%	87.0%
1	181	Variable speed furnace fans (RET)	87.0%	87.0%	87.0%	87.0%
1	182	Variable speed furnace fans (ROB)	87.0%	87.0%	87.0%	87.0%
1	200	Base Resistance Space Heating	3.9%	3.9%	3.9%	3.9%
1	201	Single Pane Windows to Double Pane with Gas	3.86%	3.86%	3.86%	3.86%
1	202	Double Pane with Glazing to Energy Star	3.86%	3.86%	3.86%	3.86%
1	203	Single Pane- Add storm windows	3.86%	3.86%	3.86%	3.86%
1	204	Double Pane- Add storm windows	3.86%	3.86%	3.86%	3.86%
1	205	Ceiling R-0 to R-38 Insulation	3.9%	1.4%	3.9%	1.4%
1	206	Ceiling R-11 to R-38 Insulation	3.9%	1.4%	3.9%	1.4%
1	207	Ceiling R-19 to R-38 Insulation	3.9%	1.4%	3.9%	1.4%
1	208	Ceiling R-0 to R-49 Insulation	3.9%	1.4%	3.9%	1.4%
1	209	Ceiling R-19 to R-49 Insulation	3.9%	1.4%	3.9%	1.4%
1	210	Ceiling R-11 to R-49 Insulation	3.9%	1.4%	3.9%	1.4%
1	211	Wall Blow-in R-0 to R-13 Insulation	3.9%	3.9%	3.9%	3.9%
1	212	Floor R-0 to R-19 Insulation	1.6%	1.2%	1.9%	1.2%
1	213	Basement Insulation	2.2%	0.2%	2.0%	0.3%
1	214	Programmable Thermostat	3.86%	3.86%	3.86%	3.86%
1	215	Infiltration Reduction	3.86%	3.86%	3.86%	3.86%
1	216	Self Install Weatherization	3.86%	3.86%	3.86%	3.86%
1	217	Ductless Split Heat Pump	0.01%	0.01%	0.01%	0.01%
1	220	Base Electric Furnace	15.0%	15.0%	15.0%	15.0%
1	221	Single Pane Windows to Double Pane with Gas	15.0%	15.0%	15.0%	15.0%
1	222	Double Pane with Glazing to Energy Star	15.0%	15.0%	15.0%	15.0%
1	223	Single Pane- Add storm windows	15.0%	15.0%	15.0%	15.0%
1	224	Double Pane- Add storm windows	15.0%	15.0%	15.0%	15.0%

APPENDIX E

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MEASURE INPUT DATA

1	225	Ceiling R-0 to R-38 Insulation	15.0%	5.6%	15.0%	5.6%
1	226	Ceiling R-11 to R-38 Insulation	15.0%	5.6%	15.0%	5.6%
1	227	Ceiling R-19 to R-38 Insulation	15.0%	5.6%	15.0%	5.6%
1	228	Ceiling R-0 to R-49 Insulation	15.0%	5.6%	15.0%	5.6%
1	229	Ceiling R-19 to R-49 Insulation	15.0%	5.6%	15.0%	5.6%
1	230	Ceiling R-11 to R-49 Insulation	15.0%	5.6%	15.0%	5.6%
1	231	Wall Blow-in R-0 to R-13 Insulation	15.0%	15.0%	15.0%	15.0%
1	232	Floor R-0 to R-19 Insulation	6.4%	4.8%	7.4%	4.5%
1	233	Basement Insulation	8.6%	0.8%	7.6%	1.1%
1	234	Programmable Thermostat	15.0%	15.0%	15.0%	15.0%
1	235	Infiltration Reduction	15.0%	15.0%	15.0%	15.0%
1	236	Self Install Weatherization	15.0%	15.0%	15.0%	15.0%
1	237	Ductless Split Heat Pump	0.8%	1.1%	0.8%	1.1%
1	250	Base Lighting 60-Watt incandescent, 1.8 hr/hday	100.0%	100.0%	100.0%	100.0%
1	251	CFL (15-Watt integral ballast), 1.8 hr/day	100.0%	100.0%	100.0%	100.0%
1	252	LEDs w/ Incandescent Baseline	100.0%	100.0%	100.0%	100.0%
1	255	Base Lighting 15 Watt CFL, 1.8 hours per day	100.0%	100.0%	100.0%	100.0%
1	256	LEDs w/ CFL Baseline	100.0%	100.0%	100.0%	100.0%
1	260	Base Lighting Fluorescent Tube, 1.8 hrs/day	100.0%	100.0%	100.0%	100.0%
1	261	RET 2L4'T8, 1EB	100.0%	100.0%	100.0%	100.0%
1	262	ROB 2L4'T8, 1EB	100.0%	100.0%	100.0%	100.0%
1	265	Base Lighting Halogen and HID, 1.8 hrs/day	100.0%	100.0%	100.0%	100.0%
1	266	LEDs w/ Halogen Baseline	100.0%	100.0%	100.0%	100.0%
1	300	Base Refrigerator	85.0%	85.0%	85.0%	85.0%
1	301	HE Refrigerator - Energy Star	85.0%	85.0%	85.0%	85.0%
1	302	HE Refrigerator - CEE tier 2	85.0%	85.0%	85.0%	85.0%
1	310	Base Early Replacement Refrigerator	15.0%	15.0%	15.0%	15.0%
1	311	Refrigerator - Early Replacement to 2008 Energy Star	15.0%	15.0%	15.0%	15.0%
1	340	Base Second Refrigerator	32.7%	12.0%	16.4%	6.0%
1	341	Second Refrigerator Recycling	32.7%	12.0%	16.4%	6.0%
1	400	Base Freezer	45.9%	16.8%	38.3%	10.5%
1	401	Energy Star Freezer	45.9%	16.8%	38.3%	10.5%
1	410	Base Early Replacement Freezer	8.1%	3.0%	8.1%	3.0%
1	411	Early Replacement Freezer to 2008 Energy Star	8.1%	3.0%	8.1%	3.0%
1	500	Base 40 gal. Water Heating (EF=0.88)	24.6%	33.4%	26.8%	28.9%
1	501	Heat Pump Water Heater (EF=2.5)	24.6%	33.4%	26.8%	28.9%
1	502	HE Water Heater (EF=0.93)	24.6%	33.4%	26.8%	28.9%
1	503	Low Flow Showerhead	24.6%	33.4%	26.8%	28.9%

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MEASURE INPUT DATA

1	504	Pipe Wrap	24.6%	33.4%	26.8%	28.9%
1	505	Faucet Aerators	24.6%	33.4%	26.8%	28.9%
1	506	2011 Energy Star Clotheswasher (MEF 2.00)	24.1%	22.7%	26.3%	19.7%
1	507	Tier 3 CW (MEF=2.20)	24.1%	22.7%	26.3%	19.7%
1	508	Energy Star Dishwasher (EF=0.68)	19.0%	25.0%	14.2%	9.1%
1	509	CEE Tier 2 DW (EF=0.72)	19.0%	25.0%	14.2%	9.1%
1	510	Solar Water Heater	24.6%	33.4%	26.8%	28.9%
1	550	Base Early Replacement Water Heating to Heat Pump Water Heater	1.3%	1.8%	1.4%	1.5%
1	551	Early Replacement Water Heating to Heat Pump Water Heater	1.3%	1.8%	1.4%	1.5%
1	600	Base Clotheswasher (MEF=1.26)	98.0%	68.0%	98.0%	68.0%
1	601	Energy Star Clotheswasher (MEF 2.00)	98.0%	68.0%	98.0%	68.0%
1	602	Tier 3 CW (MEF=2.20)	98.0%	68.0%	98.0%	68.0%
1	700	Base Clothes Dryer (EF=3.01)	87.7%	63.8%	79.7%	57.8%
1	710	High Efficiency CD (EF=3.01 w/moisture sensor)	87.7%	63.8%	79.7%	57.8%
1	711	Heat Pump Dryer	87.7%	63.8%	79.7%	57.8%
1	800	Base Dishwasher (EF=0.65)	77.0%	75.0%	52.9%	31.5%
1	900	Base Single Speed Pool Pump (RET)	0.4%	0.4%	0.0%	0.0%
1	901	Variable Speed Pool Pump (1.5 hp)	0.4%	0.4%	0.0%	0.0%
1	905	Base Two Speed Pool Pump (1.5 hp) (ROB)	0.4%	0.4%	0.0%	0.0%
1	906	Variable Speed Pool Pump (1.5 hp)	0.4%	0.4%	0.0%	0.0%
1	910	Base Plasma Screen TV	11.0%	8.0%	1.1%	0.8%
1	911	Energy Star Plasma Screen TV	26.0%	17.0%	0.0%	0.0%
1	912	TV Occupancy Sensor Power Strip	26.0%	17.0%	0.0%	0.0%
1	920	Base LCD Screen TV	42.0%	35.0%	4.2%	3.5%
1	921	Energy Star LCD TV	42.0%	35.0%	4.2%	3.5%
1	922	TV Occupancy Sensor Power Strip	42.0%	35.0%	4.2%	3.5%
1	930	Base Other TV	87.0%	78.0%	87.0%	78.0%
1	931	Energy Star other TV	87.0%	78.0%	87.0%	78.0%
1	932	TV Occupancy Sensor Power Strip	87.0%	78.0%	87.0%	78.0%
1	940	Base Laptop Computer	46.0%	56.0%	46.0%	56.0%
1	941	Energy Star Laptop Computer	46.0%	56.0%	46.0%	56.0%
1	945	Base Desktop Computer	47.0%	35.0%	47.0%	35.0%
1	946	Energy Star Desktop Computer	47.0%	35.0%	47.0%	35.0%
1	950	Base Cooking	81.4%	81.4%	81.4%	81.4%
1	960	Base Miscellaneous	100.0%	100.0%	100.0%	100.0%
1	962	Plug Load Controls - Smart Power Strip	100.0%	100.0%	100.0%	100.00%
1	970	Base House Practices	100.0%	100.0%	100.0%	100.0%
1	971	Indirect Feedback	100.0%	100.0%	100.0%	100.00%

INCOMPLETE FACTOR
(percent)

Segment	Measure #	Measure Description	SF	MF	LI SF	LI MF
1	100	Base, 13 SEER Split-System Air Conditioner	100.0%	100.0%	100.0%	100.0%
1	101	15 SEER Split-System Air Conditioner	93.7%	56.2%	99.0%	87.5%
1	102	17 SEER Split-System Air Conditioner	99.0%	99.0%	99.0%	99.0%
1	103	Programmable Thermostat	35.7%	50.0%	35.7%	35.7%
1	104	Ceiling Fans	35.0%	35.0%	68.0%	68.0%
1	105	Whole House Fans	78.0%	87.1%	91.0%	99.0%
1	106	Attic Venting	85.3%	80.0%	85.3%	85.3%
1	107	Proper Refrigerant Charging and Air Flow	67.00%	67.00%	67.0%	67.0%
1	108	Duct Repair	95.0%	95.0%	95.0%	95.0%
1	109	Duct Insulation	49.7%	49.7%	76.0%	76.0%
1	110	AC maintenance and repair	60.9%	80.0%	60.9%	60.9%
1	111	Single Pane Windows to Double Pane with Gas	35.3%	32.7%	40.3%	43.6%
1	112	Double Pane with Glazing to Energy Star	48.9%	63.6%	50.6%	46.0%
1	113	Sealed Attic w/Sprayed Foam Insulated Roof Deck	97.2%	97.2%	97.2%	97.2%
1	114	Ceiling R-0 to R-38 Insulation	3.60%	3.60%	3.60%	3.60%
1	115	Ceiling R-11 to R-38 Insulation	14.0%	14.0%	14.0%	14.0%
1	115	Ceiling R-19 to R-38 Insulation	17.8%	17.8%	17.8%	17.8%
1	116	Ceiling R-0 to R-49 Insulation	3.60%	3.60%	3.60%	3.60%
1	117	Ceiling R-19 to R-49 Insulation	17.8%	17.8%	17.8%	17.8%
1	118	Ceiling R-11 to R-49 Insulation	14.0%	14.0%	14.0%	14.0%
1	119	Wall 2x4 R-0 to Blow-In R-13 Insulation	8.6%	11.8%	8.6%	11.8%
1	120	Self Install Weatherization	62.0%	62.0%	62.0%	62.0%
1	121	Infiltration Reduction	70.0%	70.0%	70.0%	70.0%
1	130	Base Early Replacement 10 SEER Split-System AC	100.0%	100.0%	100.0%	100.0%
1	131	15 SEER Split-System AC Early Replacement	100.0%	100.0%	100.0%	100.0%
1	140	Base Room Air Conditioner - EER 9.7	100.0%	100.0%	100.0%	100.0%
1	141	HE Room Air Conditioner - Energy star EER 10.8	69.2%	59.3%	69.2%	59.3%
1	142	HE Room Air Conditioner - CEE Tier 1 EER 11.3	99.0%	99.0%	99.0%	99.0%
1	143	Ceiling Fans	35.0%	35.0%	68.0%	68.0%
1	144	Whole House Fans	83.3%	82.8%	83.3%	82.8%
1	145	Single Pane Windows to Double Pane with Gas	35.3%	32.7%	40.3%	43.6%
1	146	Double Pane with Glazing to Energy Star	48.9%	63.6%	50.6%	46.0%
1	147	Ceiling R-0 to R-38 Insulation	3.60%	3.60%	3.60%	3.60%
1	148	Ceiling R-11 to R-38 Insulation	14.0%	14.0%	14.0%	14.0%
1	149	Ceiling R-19 to R-38 Insulation	17.8%	17.8%	17.8%	17.8%
1	150	Ceiling R-0 to R-49 Insulation	3.60%	3.60%	3.60%	3.60%
1	151	Ceiling R-19 to R-49 Insulation	17.8%	17.8%	17.8%	17.8%
1	152	Ceiling R-11 to R-49 Insulation	14.0%	14.0%	14.0%	14.0%
1	153	Wall 2x4 R-0 to Blow-In R-13 Insulation	8.6%	11.8%	8.6%	11.8%

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MEASURE INPUT DATA

1	154	Self Install Weatherization	62.0%	62.0%	62.0%	62.0%
1	155	Infiltration Reduction	70.0%	70.0%	70.0%	70.0%
1	156	Ductless Split Heat Pump	99.0%	99.0%	99.0%	99.0%
1	160	Base Early Replacement Room Air Conditioner- EER 9.0	100.0%	100.0%	100.0%	100.0%
1	161	EER 8.5 AC Early Replacement, CEE Tier 1 EER 11.3	100.0%	100.0%	100.0%	100.0%
1	170	Base Dehumidifier- New Federal Standard	100.0%	100.0%	100.0%	100.0%
1	171	Energy Star Dehumidifier (EF=1.50)	99.0%	99.0%	99.0%	99.0%
1	180	Base Furnace Fans	100.0%	100.0%	100.0%	100.0%
1	181	Variable speed furnace fans (RET)	97.5%	97.5%	97.5%	97.5%
1	182	Variable speed furnace fans (ROB)	97.5%	97.5%	97.5%	97.5%
1	200	Base Resistance Space Heating	100.0%	100.0%	100.0%	100.0%
1	201	Single Pane Windows to Double Pane with Gas	35.3%	32.7%	40.3%	43.6%
1	202	Double Pane with Glazing to Energy Star	48.9%	63.6%	50.6%	46.0%
1	203	Single Pane- Add storm windows	28.2%	26.1%	32.2%	34.9%
1	204	Double Pane- Add storm windows	44.0%	57.2%	45.5%	41.4%
1	205	Ceiling R-0 to R-38 Insulation	3.60%	3.60%	3.60%	3.60%
1	206	Ceiling R-11 to R-38 Insulation	14.0%	14.0%	14.0%	14.0%
1	207	Ceiling R-19 to R-38 Insulation	17.8%	17.8%	17.8%	17.8%
1	208	Ceiling R-0 to R-49 Insulation	3.60%	3.60%	3.60%	3.60%
1	209	Ceiling R-19 to R-49 Insulation	17.8%	17.8%	17.8%	17.8%
1	210	Ceiling R-11 to R-49 Insulation	14.0%	14.0%	14.0%	14.0%
1	211	Wall Blow-in R-0 to R-13 Insulation	10.5%	20.0%	10.5%	20.0%
1	212	Floor R-0 to R-19 Insulation	96.9%	55.0%	96.9%	55.0%
1	213	Basement Insulation	57.39%	68.75%	69.00%	69.00%
1	214	Programmable Thermostat	35.7%	50.0%	35.7%	35.7%
1	215	Infiltration Reduction	70.0%	70.0%	70.0%	70.0%
1	216	Self Install Weatherization	62.0%	62.0%	62.0%	62.0%
1	217	Ductless Split Heat Pump	99.0%	99.0%	99.0%	99.0%
1	220	Base Electric Furnace	100.0%	100.0%	100.0%	100.0%
1	221	Single Pane Windows to Double Pane with Gas	35.3%	32.7%	40.3%	43.6%
1	222	Double Pane with Glazing to Energy Star	48.9%	63.6%	50.6%	46.0%
1	223	Single Pane- Add storm windows	28.2%	26.1%	32.2%	34.9%
1	224	Double Pane- Add storm windows	44.0%	57.2%	45.5%	41.4%
1	225	Ceiling R-0 to R-38 Insulation	3.60%	3.60%	3.60%	3.60%
1	226	Ceiling R-11 to R-38 Insulation	14.0%	14.0%	14.0%	14.0%
1	227	Ceiling R-19 to R-38 Insulation	17.8%	17.8%	17.8%	17.8%
1	228	Ceiling R-0 to R-49 Insulation	3.60%	3.60%	3.60%	3.60%
1	229	Ceiling R-19 to R-49 Insulation	17.8%	17.8%	17.8%	17.8%
1	230	Ceiling R-11 to R-49 Insulation	14.0%	14.0%	14.0%	14.0%
1	231	Wall Blow-in R-0 to R-13 Insulation	10.5%	20.0%	10.5%	20.0%
1	232	Floor R-0 to R-19 Insulation	96.9%	55.0%	96.9%	55.0%
1	233	Basement Insulation	57.39%	68.75%	69.00%	69.00%
1	234	Programmable Thermostat	35.7%	50.0%	35.7%	35.7%

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MEASURE INPUT DATA

1	235	Infiltration Reduction	70.0%	70.0%	70.0%	70.0%
1	236	Self Install Weatherization	62.0%	62.0%	62.0%	62.0%
1	237	Ductless Split Heat Pump	99.0%	99.0%	99.0%	99.0%
1	250	Base Lighting 60-Watt incandescent, 1.8 hr/hday	100.0%	100.0%	100.0%	100.0%
1	251	CFL (15-Watt integral ballast), 1.8 hr/day	100.0%	100.0%	100.0%	100.0%
1	252	LEDs w/ Incandescent Baseline	99.0%	99.0%	99.0%	99.0%
1	255	Base Lighting 15 Watt CFL, 1.8 hours per day	100.0%	100.0%	100.0%	100.0%
1	256	LEDs w/ CFL Baseline	99.0%	99.0%	99.0%	99.0%
1	260	Base Lighting Fluorescent Tube, 1.8 hrs/day	100.0%	100.0%	100.0%	100.0%
1	261	RET 2L4'T8, 1EB	80.0%	80.0%	80.0%	80.0%
1	262	ROB 2L4'T8, 1EB	80.0%	80.0%	80.0%	80.0%
1	265	Base Lighting Halogen and HID, 1.8 hrs/day	100.0%	100.0%	100.0%	100.0%
1	266	LEDs w/ Halogen Baseline	100%	100%	100%	100%
1	300	Base Refrigerator	100.0%	100.0%	100.0%	100.0%
1	301	HE Refrigerator - Energy Star	59.0%	71.0%	99.0%	99.0%
1	302	HE Refrigerator - CEE tier 2	99.0%	99.0%	99.0%	99.0%
1	310	Base Early Replacement Refrigerator	100.0%	100.0%	100.0%	100.0%
1	311	Refrigerator - Early Replacement to 2008 Energy Star	100.0%	100.0%	100.0%	100.0%
1	340	Base Second Refrigerator	100.0%	100.0%	100.0%	100.0%
1	341	Second Refrigerator Recycling	100.0%	100.0%	100.0%	100.0%
1	400	Base Freezer	100.0%	100.0%	100.0%	100.0%
1	401	Energy Star Freezer	75.2%	75.0%	75.2%	75.0%
1	410	Base Early Replacement Freezer	100.0%	100.0%	100.0%	100.0%
1	411	Early Replacement Freezer to 2008 Energy Star	100.0%	100.0%	100.0%	100.0%
1	500	Base 40 gal. Water Heating (EF=0.88)	100.0%	100.0%	100.0%	100.0%
1	501	Heat Pump Water Heater (EF=2.5)	99.0%	99.0%	99.0%	99.0%
1	502	HE Water Heater (EF=0.93)	88.0%	100.0%	100.0%	100.0%
1	503	Low Flow Showerhead	39.3%	33.3%	45.6%	45.6%
1	504	Pipe Wrap	38.7%	77.8%	49.1%	49.1%
1	505	Faucet Aerators	60.0%	51.3%	79.6%	68.0%
1	506	2011 Energy Star Clotheswasher (MEF 2.00)	83.9%	100.0%	100.0%	100.0%
1	507	Tier 3 CW (MEF=2.20)	99.0%	99.0%	99.0%	99.0%
1	508	Energy Star Dishwasher (EF=0.68)	82.90%	100.00%	100.0%	100.0%
1	509	CEE Tier 2 DW (EF=0.72)	99.0%	99.0%	99.0%	99.0%
1	510	Solar Water Heater	99.0%	99.0%	99.0%	99.0%
1	550	Base Early Replacement Water Heating to Heat Pump Water Heater	100.0%	100.0%	100.0%	100.0%
1	551	Early Replacement Water Heating to Heat Pump Water Heater	100.0%	100.0%	100.0%	100.0%
1	600	Base Clotheswasher (MEF=1.26)	100.0%	100.0%	100.0%	100.0%
1	601	Energy Star Clotheswasher (MEF 2.00)	83.9%	100.0%	100.0%	100.0%
1	602	Tier 3 CW (MEF=2.20)	99.0%	99.0%	99.0%	99.0%
1	700	Base Clothes Dryer (EF=3.01)	100.0%	100.0%	100.0%	100.0%
1	710	High Efficiency CD (EF=3.01 w/moisture sensor)	55.2%	53.8%	55.2%	53.8%
1	711	Heat Pump Dryer	99.0%	99.0%	99.0%	99.0%

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MEASURE INPUT DATA

1	800	Base Dishwasher (EF=0.65)	100.0%	100.0%	100.0%	100.0%
1	900	Base Single Speed Pool Pump (RET)	100.0%	100.0%	100.0%	100.0%
1	901	Variable Speed Pool Pump (1.5 hp)	86.8%	86.8%	86.8%	86.8%
1	905	Base Two Speed Pool Pump (1.5 hp) (ROB)	100.0%	100.0%	100.0%	100.0%
1	906	Variable Speed Pool Pump (1.5 hp)	86.8%	86.8%	86.8%	86.8%
1	910	Base Plasma Screen TV	100.0%	100.0%	100.0%	100.0%
1	911	Energy Star Plasma Screen TV	44.9%	36.9%	44.9%	44.9%
1	912	TV Occupancy Sensor Power Strip	99.0%	99.0%	99.0%	99.0%
1	920	Base LCD Screen TV	100.0%	100.0%	100.0%	100.0%
1	921	Energy Star LCD TV	44.9%	36.9%	44.9%	44.9%
1	922	TV Occupancy Sensor Power Strip	99.0%	99.0%	99.0%	99.0%
1	930	Base Other TV	100.0%	100.0%	100.0%	100.0%
1	931	Energy Star LCD TV	100.0%	100.0%	100.0%	100.0%
1	932	TV Occupancy Sensor Power Strip	99.0%	99.0%	99.0%	99.0%
1	940	Base Laptop Computer	100.0%	100.0%	100.0%	100.0%
1	941	Energy Star Laptop Computer	54.1%	51.2%	54.1%	54.1%
1	945	Base Desktop Computer	100.0%	100.0%	100.0%	100.0%
1	946	Energy Star Desktop Computer	50.6%	47.1%	50.6%	50.6%
1	950	Base Cooking	100.0%	100.0%	100.0%	100.0%
1	960	Base Miscellaneous	100.0%	100.0%	100.0%	100.0%
1	962	Plug Load Controls - Smart Power Strip	99.0%	99.0%	99.0%	99.0%
1	970	Base House Practices	100.0%	100.0%	100.0%	100.0%
1	971	Indirect Feedback	100.0%	100.0%	100.0%	100.0%

FEASIBILITY FACTOR
(percent)

Segment	Measure #	Measure Description	SF	MF	LI SF	LI MF
1	100	Base, 13 SEER Split-System Air Conditioner	100%	100%	100%	100%
1	101	15 SEER Split-System Air Conditioner	100%	100%	100%	100%
1	102	17 SEER Split-System Air Conditioner	100%	100%	100%	100%
1	103	Programmable Thermostat	100%	100%	100%	100%
1	104	Ceiling Fans	100%	100%	100%	100%
1	105	Whole House Fans	90%	25%	63%	63%
1	106	Attic Venting	33%	30%	32%	32%
1	107	Proper Refrigerant Charging and Air Flow	100%	100%	100%	100%
1	108	Duct Repair	100%	100%	100%	100%
1	109	Duct Insulation	100%	100%	100%	100%
1	110	AC maintenance and repair	100%	100%	100%	100%
1	111	Single Pane Windows to Double Pane with Gas	100%	100%	100%	100%
1	112	Double Pane with Glazing to Energy Star	100%	100%	100%	100%
1	113	Sealed Attic w/Sprayed Foam Insulated Roof Deck	33%	30%	32%	32%
1	114	Ceiling R-0 to R-38 Insulation	33%	33%	33%	33%
1	115	Ceiling R-11 to R-38 Insulation	50%	50%	50%	50%
1	115	Ceiling R-19 to R-38 Insulation	83%	83%	83%	83%
1	116	Ceiling R-0 to R-49 Insulation	33%	33%	33%	33%
1	117	Ceiling R-19 to R-49 Insulation	50%	50%	50%	50%
1	118	Ceiling R-11 to R-49 Insulation	50%	50%	50%	50%
1	119	Wall 2x4 R-0 to Blow-In R-13 Insulation	80%	40%	63%	63%
1	120	Self Install Weatherization	100%	100%	100%	100%
1	121	Infiltration Reduction	100%	100%	100%	100%
1	130	Base Early Replacement 10 SEER Split-System AC	100%	100%	100%	100%
1	131	15 SEER Split-System AC Early Replacement	100%	100%	100%	100%
1	140	Base Room Air Conditioner - EER 9.7	100%	100%	100%	100%
1	141	HE Room Air Conditioner - Energy star EER 10.8	100%	100%	100%	100%
1	142	HE Room Air Conditioner - CEE Tier 1 EER 11.3	100%	100%	100%	100%
1	143	Ceiling Fans	100%	100%	100%	100%
1	144	Whole House Fans	90%	25%	63%	63%
1	145	Single Pane Windows to Double Pane with Gas	100%	100%	100%	100%
1	146	Double Pane with Glazing to Energy Star	100%	100%	100%	100%
1	147	Ceiling R-0 to R-38 Insulation	33%	33%	33%	33%

APPENDIX E

RESIDENTIAL

MEASURE INPUT DATA

1	148	Ceiling R-11 to R-38 Insulation	50%	50%	50%	50%
1	149	Ceiling R-19 to R-38 Insulation	83%	83%	83%	83%
1	150	Ceiling R-0 to R-49 Insulation	33%	33%	33%	33%
1	151	Ceiling R-19 to R-49 Insulation	50%	50%	50%	50%
1	152	Ceiling R-11 to R-49 Insulation	50%	50%	50%	50%
1	153	Wall 2x4 R-0 to Blow-In R-13 Insulation	80%	40%	63%	63%
1	154	Self Install Weatherization	100%	100%	100%	100%
1	155	Infiltration Reduction	100%	100%	100%	100%
1	156	Ductless Split Heat Pump	100%	100%	100%	100%
1	160	Base Early Replacement Room Air Conditioner- EER 9.0	100%	100%	100%	100%
1	161	EER 8.5 AC Early Replacement, CEE Tier 1 EER 11.3	100%	100%	100%	100%
1	170	Base Dehumidifier- New Federal Standard	100%	100%	100%	100%
1	171	Energy Star Dehumidifier (ROB)	100%	100%	100%	100%
1	180	Base Furnace Fan - Furnace & CAC	100%	100%	100%	100%
1	181	Variable speed furnace fans (RET)	100%	100%	100%	100%
1	182	Variable speed furnace fans (ROB)	100%	100%	100%	100%
1	200	Base Resistance Space Heating	100%	100%	100%	100%
1	201	Single Pane Windows to Double Pane with Gas	100%	100%	100%	100%
1	202	Double Pane with Glazing to Energy Star	100%	100%	100%	100%
1	203	Single Pane- Add storm windows	100%	100%	100%	100%
1	204	Double Pane- Add storm windows	100%	100%	100%	100%
1	205	Ceiling R-0 to R-38 Insulation	33%	33%	33%	33%
1	206	Ceiling R-11 to R-38 Insulation	50%	50%	50%	50%
1	207	Ceiling R-19 to R-38 Insulation	83%	83%	83%	83%
1	208	Ceiling R-0 to R-49 Insulation	33%	33%	33%	33%
1	209	Ceiling R-19 to R-49 Insulation	50%	50%	50%	50%
1	210	Ceiling R-11 to R-49 Insulation	50%	50%	50%	50%
1	211	Wall Blow-in R-0 to R-13 Insulation	75%	45%	62%	62%
1	212	Floor R-0 to R-19 Insulation	50%	20%	37%	37%
1	213	Basement Insulation	65%	65%	65%	65%
1	214	Programmable Thermostat	100%	100%	100%	100%
1	215	Infiltration Reduction	100%	100%	100%	100%
1	216	Self Install Weatherization	100%	100%	100%	100%
1	217	Ductless Split Heat Pump	100%	100%	100%	100%
1	220	Base Electric Furnace				
1	221	Single Pane Windows to Double Pane with Gas	100%	100%	100%	100%
1	222	Double Pane with Glazing to Energy Star	100%	100%	100%	100%

APPENDIX E

RESIDENTIAL

MEASURE INPUT DATA

1	223	Single Pane- Add storm windows	100%	100%	100%	100%
1	224	Double Pane- Add storm windows	100%	100%	100%	100%
1	225	Ceiling R-0 to R-38 Insulation	33%	33%	33%	33%
1	226	Ceiling R-11 to R-38 Insulation	50%	50%	50%	50%
1	227	Ceiling R-19 to R-38 Insulation	83%	83%	83%	83%
1	228	Ceiling R-0 to R-49 Insulation	33%	33%	33%	33%
1	229	Ceiling R-19 to R-49 Insulation	50%	50%	50%	50%
1	230	Ceiling R-11 to R-49 Insulation	50%	50%	50%	50%
1	231	Wall Blow-in R-0 to R-13 Insulation	75%	45%	62%	62%
1	232	Floor R-0 to R-19 Insulation	50%	20%	37%	37%
1	233	Basement Insulation	65%	65%	65%	65%
1	234	Programmable Thermostat	100%	100%	100%	100%
1	235	Infiltration Reduction	100%	100%	100%	100%
1	236	Self Install Weatherization	100%	100%	100%	100%
1	237	Ductless Split Heat Pump	100%	100%	100%	100%
1	250	Base Lighting 60-Watt incandescent, 1.8 hr/hday	100%	100%	100%	100%
1	251	CFL (15-Watt integral ballast), 1.8 hr/day	90%	90%	90%	90%
1	252	LEDs w/ Incandescent Baseline	100%	100%	100%	100%
1	255	Base Lighting 15 Watt CFL, 1.8 hours per day	100%	100%	100%	100%
1	256	LEDs w/ CFL Baseline	100%	100%	100%	100%
1	260	Base Lighting Fluorescent Tube, 1.8 hrs/day	100%	100%	100%	100%
1	261	RET 2L4'T8, 1EB	100%	100%	100%	100%
1	262	ROB 2L4'T8, 1EB	100%	100%	100%	100%
1	265	Base Lighting Halogen and HID, 1.8 hrs/day	100%	100%	100%	100%
1	266	LEDs w/ Halogen Baseline	100%	100%	100%	100%
1	300	Base Refrigerator	100%	100%	100%	100%
1	301	HE Refrigerator - Energy Star	100%	100%	100%	100%
1	302	HE Refrigerator - CEE tier 2	100%	100%	100%	100%
1	310	Base Early Replacement Refrigerator	100%	100%	100%	100%
1	311	Refrigerator - Early Replacement to 2008 Energy Star	100%	100%	100%	100%
1	340	Base Second Refrigerator	100%	100%	100%	100%
1	341	Second Refrigerator Recycling	90%	90%	90%	90%
1	400	Base Freezer	100%	100%	100%	100%
1	401	Energy Star Freezer	100%	100%	100%	100%
1	410	Base Early Replacement Freezer	100%	100%	100%	100%
1	411	Early Replacement Freezer to 2008 Energy Star	100%	100%	100%	100%
1	500	Base 40 gal. Water Heating (EF=0.88)	100%	100%	100%	100%

APPENDIX E

RESIDENTIAL

MEASURE INPUT DATA

1	501	Heat Pump Water Heater (EF=2.5)	25%	25%	25%	25%
1	502	HE Water Heater (EF=0.93)	100%	100%	100%	100%
1	503	Low Flow Showerhead	100%	100%	100%	100%
1	504	Pipe Wrap	85%	85%	85%	85%
1	505	Faucet Aerators	100%	100%	100%	100%
1	506	2011 Energy Star Clotheswasher (MEF 2.00)	100%	100%	100%	100%
1	507	Tier 3 CW (MEF=2.20)	100%	100%	100%	100%
1	508	Energy Star Dishwasher (EF=0.68)	100%	100%	100%	100%
1	509	CEE Tier 2 DW (EF=0.72)	100%	100%	100%	100%
1	510	Solar Water Heater	100%	100%	100%	100%
1	550	Base Early Replacement Water Heating to Heat Pump Water Heater	100%	100%	100%	100%
1	551	Early Replacement Water Heating to Heat Pump Water Heater	10%	10%	10%	10%
1	600	Base Clotheswasher (MEF=1.26)	100%	100%	100%	100%
1	601	Energy Star Clotheswasher (MEF 2.00)	100%	100%	100%	100%
1	602	Tier 3 CW (MEF=2.20)	100%	100%	100%	100%
1	700	Base Clothes Dryer (EF=3.01)	100%	100%	100%	100%
1	710	High Efficiency CD (EF=3.01 w/moisture sensor)	100%	100%	100%	100%
1	711	Heat Pump Dryer	100%	100%	100%	100%
1	800	Base Dishwasher (EF=0.65)	100%	100%	100%	100%
1	900	Base Single Speed Pool Pump (RET)	100%	100%	100%	100%
1	901	Variable Speed Pool Pump (1.5 hp)	50%	50%	50%	50%
1	905	Base Two Speed Pool Pump (1.5 hp) (ROB)	100%	100%	100%	100%
1	906	Variable Speed Pool Pump (1.5 hp)	50%	50%	50%	50%
1	910	Base Plasma Screen TV	100%	100%	100%	100%
1	911	Energy Star Plasma Screen TV	100%	100%	100%	100%
1	912	TV Occupancy Sensor Power Strip	100%	100%	100%	100%
1	920	Base LCD Screen TV	100%	100%	100%	100%
1	921	Energy Star LCD TV	100%	100%	100%	100%
1	922	TV Occupancy Sensor Power Strip	100%	100%	100%	100%
1	930	Base Other TV	100%	100%	100%	100%
1	931	Energy Star other TV	100%	100%	100%	100%
1	932	TV Occupancy Sensor Power Strip	100%	100%	100%	100%
1	940	Base Laptop Computer	100%	100%	100%	100%
1	941	Energy Star Laptop Computer	100%	100%	100%	100%
1	945	Base Desktop Computer	100%	100%	100%	100%
1	946	Energy Star Desktop Computer	100%	100%	100%	100%
1	950	Base Cooking	100%	100%	100%	100%

APPENDIX E**RESIDENTIAL****MEASURE INPUT DATA**

1	960	Base Miscellaneous	100%	100%	100%	100%
1	962	Plug Load Controls - Smart Power Strip	100%	100%	100%	100%
1	970	Base House Practices	100%	100%	100%	100%
1	971	Indirect Feedback	100%	100%	100%	100%

DSM TECHNOLOGY INPUT TABLES

UTILITY:	Missouri	BATCH:	1
SECTOR:	RES	ANALYSIS:	Basic
SEGMENT:	All	VINTAGE:	NEW

**BASE TECHNOLOGY EUIs
(kWh/square foot)**

				Single Family	Multi Family	Low Income SF	Low Income MF
Segment	Measure #	Measure Description					
2	100	Base Code Home -2011	Energy Star	14890.55	10975.75	13905.40	10012.54

MEASURE COSTS			Savings Units	Cost Units	Unit Equipment Cost	Unit Labor Cost	NPV of Lifetime O & M Cost	Implementation Cost Factor	Cost Units per Savings Unit	Service Life	Full = 1 Incr. = 0 Initial Cost	Replace Cost	Full Unit Cost	ergy Reduction Factors				End Use	Implementa Type 1=1 time 2=ROB	
Segment	Measure #	Measure Description												SP	SPP	SOP	WP			WPP
2	100	Base Code Home - 2011 Energy Star	home	home	\$0.00	\$0.00	\$0.00	\$0.00	1	20	1	1	\$30.00	1.00	1.00	1.00	1.00	1.00	15	2
2	101	2011 ENERGY STAR Home	home	home	\$1,337.02	\$0.00	\$0.00	\$1,337.02	1	20	1	1	\$1,337.02	1.00	1.00	1.00	1.00	1.00	15	2

TECHNOLOGY SATURATION
(units/square foot)

Segment	Measure #	Measure Description	SF	MF	Low Income SF	Low Income MF
2	100	Base Code Home - 2011 Energy Star		1 0.71711657	1	0.717116571
2	101	2011 ENERGY STAR Home		1 0.71711657	1	0.717116571

**Standards Adjustment Factor
(percent)**

Segment	Measure #	Measure Description	SF	MF	Low Income SF	Low Income MF
			Building Type 4			
2	100	Base Code Home - 2011 Energy Star	100.0%	100.0%	100.0%	100.0%
2	101	2011 ENERGY STAR Home	100.0%	100.0%	100.0%	100.0%

ENERGY SAVINGS
(percent)

			SF	MF	Low Income SF	Low Income MF
Segment	Measure #	Measure Description				
2	100	Base Code Home - 2011 Energy Star	0.0%	0.0%	0.0%	0.0%
2	101	2011 ENERGY STAR Home	17.9%	17.9%	17.9%	17.9%

APPLICABILITY FACTOR
(percent)

			SF	MF	Low Income SF	Low Income MF
Segment	Measure #	Measure Description				
2	100	Base Code Home - 2011 Energy Star	100.0%	100.0%	100.0%	100.0%
2	101	2011 ENERGY STAR Home	100.0%	100.0%	100.0%	100.0%

**FEASIBILITY FACTOR
(percent)**

Segment	Measure #	Measure Description	SF	MF	Low Income SF	Low Income MF
2	100	Base Code Home - 2011 Energy Star	100.0%	100.0%	100.0%	100.0%
2	101	2011 ENERGY STAR Home	100.0%	100.0%	100.0%	100.0%

**INCOMPLETE FACTOR
(percent)**

Segment	Measure #	Measure Description	SF	MF	Low Income SF	Low Income MF
2	100	Base Code Home - 2011 Energy Star	100.0%	100.0%	100.0%	100.0%
2	101	2011 ENERGY STAR Home	100.0%	100.0%	100.0%	100.0%

DSM TECHNOLOGY INPUT TABLES

UTILITY:	Missouri	BATCH:	1
SECTOR:	RES	ANALYSIS:	Basic
SEGMENT:	Gas	VINTAGE:	E

BASE TECHNOLOGY EUIs
(Therms/unit)

			Single Family	Multi Family	Low Income- SF	Low Income- MF
Segment	Measure #	Measure Description				
1	100	Base Furnace	641	609	632	753
1	200	Base Boiler	1,127	559	1,166	627
1	300	Base Room Heat	570	223	887	223
1	400	Base Water Heating	311	152	277	235
1	500	Base Clothes Drying	95	95	39	39
1	600	Base Cooking	59	50	49	62
1	700	Base Other	137	137	13	13
1	800	Base House Use	786	621	749	793

MEASURE COSTS

MEASURE COSTS				Unit				NPV of Lifetime O & M				Implement: Cost Units				Full = 1 Incr. = 0				TECHNOLOGY SATURATION (units per dwelling unit; e.g., square feet of ceiling per home, linear feet of ductw								Implement	
Segment	Measure #	Measure Description	Savings Units	Cost Units	Equipment Cost	Labor Cost	O & M Cost	Cost	Factor	Unit	Life	Initial Cost	Replace Cost	Segment	SP	SPP	SOP	WP	WPP	WOP	End Use	Type							
1	100	Base Furnace	home	unit	\$ -	\$ -	\$ -	\$ -	\$ -	1	18	1	1	\$ 1.00	1	1	1	1	1	1	1	2							
1	101	Basement insulation R-13 (Furnace)	home	sq.ft.	\$ 0.69	\$ -	\$ -	\$ 0.69	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	102	Ceiling R-0 to R-38 Insulation	home	sq.ft.	\$ 0.42	\$ 0.34	\$ -	\$ 0.76	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	103	Ceiling R-0 to R-49 Insulation	home	sq.ft.	\$ 0.51	\$ 0.41	\$ -	\$ 0.92	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	104	Ceiling R-11 to R-38 Insulation	home	sq.ft.	\$ 0.29	\$ 0.30	\$ -	\$ 0.59	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	105	Ceiling R-11 to R-49 Insulation	home	sq.ft.	\$ 0.33	\$ 0.27	\$ -	\$ 0.60	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	106	Ceiling R-19 to R-38 Insulation	home	sq.ft.	\$ 0.22	\$ 0.23	\$ -	\$ 0.45	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	107	Ceiling R-19 to R-49 Insulation	home	sq.ft.	\$ 0.35	\$ 0.28	\$ -	\$ 0.63	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	108	Comprehensive Shell Air Sealing - Inf. Reduction	home	sq.ft	\$ 0.08	\$ -	\$ -	\$ 0.08	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	109	Condensing Furnace - 94 AFUE (Tier 2)	home	unit	\$ 974.38	\$ -	\$ -	\$ 974.38	1	18	1	1	\$ 1.00	1	1	1	1	1	1	1	1	2							
1	110	Crawspace insulation	home	sq.ft.	\$ 0.69	\$ -	\$ -	\$ 0.69	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	111	Duct insulation	home	linear ft	\$ 16.67	\$ 91.24	\$ -	\$ 107.91	1	20	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	112	Duct Repair and Sealing	home	home	\$ 55.75	\$ 441.87	\$ -	\$ 497.62	1	18	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	113	ENERGY STAR Programmable Thermostat	home	unit	\$ 70.21	\$ 42.13	\$ -	\$ 112.34	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	114	Floor R-0 to R-19 Insulation-Batts	home	sq.ft.	\$ 0.51	\$ 0.53	\$ -	\$ 1.04	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	115	Floor R-0 to R-30 Insulation-Batts	home	sq.ft.	\$ 0.78	\$ 0.61	\$ -	\$ 1.39	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	116	Floor R-19 to R-30 Insulation-Batts	home	sq.ft.	\$ 0.40	\$ 0.61	\$ -	\$ 1.01	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	117	Furnace controls	home	unit	\$ 585.00	\$ -	\$ -	\$ 585.00	1	18	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	118	Furnace Diagnostic Testing, Repair and Maintenance	home	unit	\$ 150.00	\$ -	\$ -	\$ 150.00	1	5	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	119	Plastic Film (1-2 yr measure, window kit)	home	sq. ft.	\$ 0.27	\$ -	\$ -	\$ 0.27	1	1	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	120	Radiant Barrier	home	sq. ft.	\$ 0.30	\$ 0.10	\$ -	\$ 0.40	1	25	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	121	Self Install Weatherization	home	home	\$ 4.56	\$ -	\$ -	\$ 4.56	1	5	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	122	Slab insulation R-0 to R-5 (4 ft)	home	sq.ft.	\$ 0.19	\$ 0.35	\$ -	\$ 0.54	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	123	Wall 2x4 R-0 to Blow-In R-13 Insulation	home	sq.ft.	\$ 0.18	\$ 0.35	\$ -	\$ 0.53	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	124	Windows - Add Storm Windows to Double-Glazed	home	sq.ft.	\$ 7.33	\$ 16.00	\$ -	\$ 23.33	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	125	Windows - Add Storm Windows to Single-Glazed	home	sq.ft.	\$ 7.33	\$ 16.00	\$ -	\$ 23.33	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	126	Single Pane to Double Pane with Gas	home	sq.ft.	\$ 1.03	\$ -	\$ -	\$ 1.03	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	2							
1	127	Windows - Double-Glazed to Energy Star	home	sq.ft.	\$ 1.72	\$ -	\$ -	\$ 1.72	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	2							
1	200	Base Boiler	home	unit	\$ -	\$ -	\$ -	\$ -	1	20	1	1	\$ 1.00	1	1	1	1	1	1	1	1	2							
1	201	Basement insulation R-13 (Boiler)	home	sq.ft.	\$ 0.69	\$ -	\$ -	\$ 0.69	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	202	Boiler controls	home	unit	\$ 585.00	\$ -	\$ -	\$ 585.00	1	20	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	203	Boiler Diagnostic Testing, Repair and Maintenance	home	unit	\$ 150.00	\$ -	\$ -	\$ 150.00	1	5	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	204	Ceiling R-0 to R-38 Insulation	home	sq.ft.	\$ 0.42	\$ 0.34	\$ -	\$ 0.76	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	205	Ceiling R-0 to R-49 Insulation	home	sq.ft.	\$ 0.51	\$ 0.41	\$ -	\$ 0.92	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	206	Ceiling R-11 to R-38 Insulation	home	sq.ft.	\$ 0.29	\$ 0.30	\$ -	\$ 0.59	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	207	Ceiling R-11 to R-49 Insulation	home	sq.ft.	\$ 0.33	\$ 0.27	\$ -	\$ 0.60	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	208	Ceiling R-19 to R-38 Insulation	home	sq.ft.	\$ 0.22	\$ 0.23	\$ -	\$ 0.45	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	209	Ceiling R-19 to R-49 Insulation	home	sq.ft.	\$ 0.35	\$ 0.28	\$ -	\$ 0.63	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	210	Comprehensive Shell Air Sealing - Inf. Reduction	home	Home	\$ 0.08	\$ -	\$ -	\$ 0.08	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	211	Crawspace insulation	home	sq.ft.	\$ 0.69	\$ -	\$ -	\$ 0.69	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	212	ENERGY STAR Programmable Thermostat	home	unit	\$ 70.21	\$ 42.13	\$ -	\$ 112.34	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	213	Floor R-0 to R-19 Insulation-Batts	home	sq.ft.	\$ 0.51	\$ 0.53	\$ -	\$ 1.04	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	214	Floor R-0 to R-30 Insulation-Batts	home	sq.ft.	\$ 0.78	\$ 0.61	\$ -	\$ 1.39	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	215	Floor R-19 to R-30 Insulation-Batts	home	sq.ft.	\$ 0.40	\$ 0.61	\$ -	\$ 1.01	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	216	High Efficiency Condensing Boiler (AFUE 90%)	home	unit	\$ 900.00	\$ -	\$ -	\$ 900.00	1	20	1	1	\$ 1.00	1	1	1	1	1	1	1	1	2							
1	217	Pipe Insulation (Boiler)	home	linear foot	\$ 1.59	\$ 3.63	\$ -	\$ 5.22	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	218	Plastic Film (1-2 yr measure, window kit)	home	sq.ft.	\$ 0.27	\$ -	\$ -	\$ 0.27	1	1	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	219	Radiant Barrier	home	sq.ft.	\$ 0.30	\$ 0.10	\$ -	\$ 0.40	1	25	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	220	Self Install Weatherization	home	home	\$ 4.56	\$ -	\$ -	\$ 4.56	1	5	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	221	Slab insulation R-0 to R-5 (4 ft)	home	sq.ft.	\$ 0.19	\$ 0.35	\$ -	\$ 0.54	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	222	Stack Damper	home	unit	\$ 150.00	\$ 69.00	\$ -	\$ 219.00	1	5	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	223	Wall 2x4 R-0 to Blow-In R-13 Insulation	home	sq.ft.	\$ 0.18	\$ 0.35	\$ -	\$ 0.53	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	224	Windows - Add Storm Windows to Double-Glazed	home	sq.ft.	\$ 7.33	\$ 16.00	\$ -	\$ 23.33	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	225	Windows - Add Storm Windows to Single-Glazed	home	sq.ft.	\$ 7.33	\$ 16.00	\$ -	\$ 23.33	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	226	Single Pane to Double Pane with Gas	home	sq.ft.	\$ 1.03	\$ -	\$ -	\$ 1.03	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	2							
1	227	Windows - Double-Glazed to Energy Star	home	sq.ft.	\$ 1.72	\$ -	\$ -	\$ 1.72	1	10	1	1	\$ 1.00	1	1	1	1	1	1	1	1	2							
1	300	Base Room Heat	home	unit	\$ -	\$ -	\$ -	\$ -	1	15	1	1	\$ 1.00	1	1	1	1	1	1	1	1	2							
1	301	Basement insulation R-13 (Room Heater)	home	sq.ft.	\$ 0.69	\$ -	\$ -	\$ 0.69	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	302	Ceiling R-0 to R-38 Insulation	home	sq.ft.	\$ 0.42	\$ 0.34	\$ -	\$ 0.76	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	303	Ceiling R-0 to R-49 Insulation	home	sq.ft.	\$ 0.51	\$ 0.41	\$ -	\$ 0.92	1	30	1	1	\$ 1.00	1	1	1	1	1	1	1	1	1							
1	304	Ceiling R-11 to R-38 Insulation	home	sq.ft.	\$ 0.29	\$ 0.30	\$ -	\$ 0.59	1	30	1	1	\$ 1.00	1	1	1	1	1	1										

KEMA

TECHNOLOGY SATURATION

(units per dwelling unit; e.g., square feet of ceiling per home, linear feet of ductwork per home)

Segment	Measure #	Measure Description	SF	MF	SF LI	MF LI
1	100	Base Furnace	1	1		1
1	101	Basement insulation R-13 (Furnace)	1,252	374	1,047	574
1	102	Ceiling R-0 to R-38 Insulation	2,151	552	1,659	582
1	103	Ceiling R-0 to R-49 Insulation	2,151	552	1,659	582
1	104	Ceiling R-11 to R-38 Insulation	2,151	552	1,659	582
1	105	Ceiling R-11 to R-49 Insulation	2,151	552	1,659	582
1	106	Ceiling R-19 to R-38 Insulation	2,151	552	1,659	582
1	107	Ceiling R-19 to R-49 Insulation	2,151	552	1,659	582
1	108	Comprehensive Shell Air Sealing - Inf. Reduction	2,938	922	2,267	972
1	109	Condensing Furnace - 94 AFUE (Tier 2)	1.0	1.0	1.0	1.0
1	110	Crawlspace insulation	2,278	767	1,974	825
1	111	Duct insulation	111	60	85	63
1	112	Duct Repair and Sealing	1.0	1.0	1.0	1.0
1	113	ENERGY STAR Programmable Thermostat	1.0	1.0	1.0	1.0
1	114	Floor R-0 to R-19 Insulation-Batts	2,278	767	1,974	825
1	115	Floor R-0 to R-30 Insulation-Batts	2,278	767	1,974	825
1	116	Floor R-19 to R-30 Insulation-Batts	2,278	767	1,974	825
1	117	Furnace controls	1.0	1.0	1.0	1.0
1	118	Furnace Diagnostic Testing, Repair and Maintenance	1.0	1.0	1.0	1.0
1	119	Plastic Film (1-2 yr measure, window kit)	304.1	114.0	168.8	178.6
1	120	Radiant Barrier	1,366	0	1,327	0
1	121	Self Install Weatherization	1.0	1.0	1.0	1.0
1	122	Slab insulation R-0 to R-5 (4 ft)	1,252	374	1,047	574
1	123	Wall 2x4 R-0 to Blow-In R-13 Insulation	2,189	1,178	1,822	1,191
1	124	Windows - Add Storm Windows to Double-Glazed	353	65	272	68
1	125	Windows - Add Storm Windows to Single-Glazed	353	65	272	68
1	126	Single Pane to Double Pane with Gas	353	65	272	68
1	127	Windows - Double-Glazed to Energy Star	353	65	272	68
1	200	Base Boiler	1.0	1.0	1.0	1.0
1	201	Basement insulation R-13 (Boiler)	1,252	374	1,047	574
1	202	Boiler controls	1.0	1.0	1.0	1.0
1	203	Boiler Diagnostic Testing, Repair and Maintenance	1.0	1.0	1.0	1.0
1	204	Ceiling R-0 to R-38 Insulation	2,151	552	1,659	582
1	205	Ceiling R-0 to R-49 Insulation	2,151	552	1,659	582
1	206	Ceiling R-11 to R-38 Insulation	2,151	552	1,659	582
1	207	Ceiling R-11 to R-49 Insulation	2,151	552	1,659	582

APPENDIX E

RESIDENTIAL

MEASURE INPUT DATA

1	208	Ceiling R-19 to R-38 Insulation	2,151	552	1,659	582
1	209	Ceiling R-19 to R-49 Insulation	2,151	552	1,659	582
1	210	Comprehensive Shell Air Sealing - Inf. Reduction	2,938	922	2,267	972
1	211	Crawlspace insulation	2,278	767	1,974	825
1	212	ENERGY STAR Programmable Thermostat	1.0	1.0	1.0	1.0
1	213	Floor R-0 to R-19 Insulation-Batts	2,278	767	1,974	825
1	214	Floor R-0 to R-30 Insulation-Batts	2,278	767	1,974	825
1	215	Floor R-19 to R-30 Insulation-Batts	2,278	767	1,974	825
1	216	High Efficiency Condensing Boiler (AFUE = 90%)	1.0	1.0	1.0	1.0
1	217	Pipe Insulation (Boiler)	96.0	109.0	84.0	84.0
1	218	Plastic Film (1-2 yr measure, window kit)	304.1	114.0	168.8	178.6
1	219	Radiant Barrier	1,366	0	1,327	0
1	220	Self Install Weatherization	1.0	1.0	1.0	1.0
1	221	Slab insulation R-0 to R-5 (4 ft)	1,252	374	1,047	574
1	222	Stack Damper	1.0	1.0	1.0	1.0
1	223	Wall 2x4 R-0 to Blow-In R-13 Insulation	2,189	1,178	1,822	1,191
1	224	Windows - Add Storm Windows to Double-Glazed	353	65	272	68
1	225	Windows - Add Storm Windows to Single-Glazed	353	65	272	68
1	226	Single Pane to Double Pane with Gas	353	65	272	68
1	227	Windows - Double-Glazed to Energy Star	353	65	272	68
1	300	Base Room Heat	1.0	1.0	1.0	1.0
1	301	Basement insulation R-13 (Room Heater)	1,252	374	1,047	574
1	302	Ceiling R-0 to R-38 Insulation	2,151	552	1,659	582
1	303	Ceiling R-0 to R-49 Insulation	2,151	552	1,659	582
1	304	Ceiling R-11 to R-38 Insulation	2,151	552	1,659	582
1	305	Ceiling R-11 to R-49 Insulation	2,151	552	1,659	582
1	306	Ceiling R-19 to R-38 Insulation	2,151	552	1,659	582
1	307	Ceiling R-19 to R-49 Insulation	2,151	552	1,659	582
1	308	Comprehensive Shell Air Sealing - Inf. Reduction	2,938	922	2,267	972
1	309	Crawlspace insulation	2,278	767	1,974	825
1	310	ENERGY STAR Programmable Thermostat	1.0	1.0	1.0	1.0
1	311	Floor R-0 to R-19 Insulation-Batts	2,278	767	1,974	825
1	312	Floor R-0 to R-30 Insulation-Batts	2,278	767	1,974	825
1	313	Floor R-19 to R-30 Insulation-Batts	2,278	767	1,974	825
1	314	Heater Diagnostic Testing, Repair and Maintenance	1.0	1.0	1.0	1.0
1	315	High efficiency gas room heater	1.0	1.0	1.0	1.0
1	316	Radiant Barrier	304.1	114.0	168.8	178.6
1	317	Plastic Film (1-2 yr measure, window kit)	1,366	0	1,327	0
1	318	Self Install Weatherization	1.0	1.0	1.0	1.0
1	319	Slab insulation R-0 to R-5 (4 ft)	1,252	374	1,047	574

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MEASURE INPUT DATA

1	320	Wall 2x4 R-0 to Blow-In R-13 Insulation	2,189	1,178	1,822	1,191
1	321	Windows - Add Storm Windows to Double-Glazed	353	65	272	68
1	322	Windows - Add Storm Windows to Single-Glazed	353	65	272	68
1	323	Single Pane to Double Pane with Gas	353	65	272	68
1	324	Windows - Double-Glazed to Energy Star	353	65	272	68
1	400	Base Water Heating (.58)	1.0	1.0	1.0	1.0
1	401	Commercial Clotheswasher (MEF = 2.0)	1.0	1.0	1.0	1.0
1	402	Condensing Gas Storage water heater (>0.8 EF)	1.0	1.0	1.0	1.0
1	403	Drain Water Heat Recovery (GFX)	1.0	1.0	1.0	1.0
1	404	2011 Energy Star Clotheswasher (MEF 2.00)	1.0	1.0	1.0	1.0
1	405	Energy Star CW CEE Tier 3 (MEF=2.20)	1.0	1.0	1.0	1.0
1	406	Energy Star Dishwasher (EF=0.68)	1.0	1.0	1.0	1.0
1	407	CEE Tier 2 DW (EF=0.72)	1.0	1.0	1.0	1.0
1	408	Energy Star Water Heater (EF = .67)	1.0	1.0	1.0	1.0
1	409	Faucet Aerators	3.2	1.8	2.1	1.9
1	410	Low-Flow Showerheads	2.1	1.5	1.5	1.4
1	411	Pipe Wrap	8.0	8.0	8.0	8.0
1	412	Solar Water Heater	1.0	1.0	1.0	1.0
1	413	0.82 EF Tankless Hot Water Heater Energy Star Standard	1.0	1.0	1.0	1.0
1	500	Base Clothes Drying	1.0	1.0	1.0	1.0
1	501	Efficient Clothes Dryer (EF = 2.67)	1.0	1.0	1.0	1.0
1	600	Base Cooking	1.0	1.0	1.0	1.0
1	601	Convection Oven	1.0	1.0	1.0	1.0
1	602	EE Gas Range	1.0	1.0	1.0	1.0
1	700	Base Other	1.0	1.0	1.0	1.0
1	800	Base House Use	1.0	1.0	1.0	1.0
1	801	Conservation- Opower	1.0	1.0	1.0	1.0

**Standards Adjustment Factor
(percent)**

Segment	Measure #	Measure Description	SF	MF	SF LI	MF LI
1	100	Base Furnace	100.0%	100.0%	100.0%	100.0%
1	101	Basement insulation R-13 (Furnace)	100.0%	100.0%	100.0%	100.0%
1	102	Ceiling R-0 to R-38 Insulation	100.0%	100.0%	100.0%	100.0%
1	103	Ceiling R-0 to R-49 Insulation	100.0%	100.0%	100.0%	100.0%
1	104	Ceiling R-11 to R-38 Insulation	100.0%	100.0%	100.0%	100.0%
1	105	Ceiling R-11 to R-49 Insulation	100.0%	100.0%	100.0%	100.0%
1	106	Ceiling R-19 to R-38 Insulation	100.0%	100.0%	100.0%	100.0%
1	107	Ceiling R-19 to R-49 Insulation	100.0%	100.0%	100.0%	100.0%
1	108	Comprehensive Shell Air Sealing - Inf. Reduction	100.0%	100.0%	100.0%	100.0%
1	109	Condensing Furnace - 94 AFUE (Tier 2)	95.0%	95.0%	95.0%	95.0%
1	110	Crawlspace insulation	100.0%	100.0%	100.0%	100.0%
1	111	Duct insulation	100.0%	100.0%	100.0%	100.0%
1	112	Duct Repair and Sealing	100.0%	100.0%	100.0%	100.0%
1	113	ENERGY STAR Programmable Thermostat	100.0%	100.0%	100.0%	100.0%
1	114	Floor R-0 to R-19 Insulation-Batts	100.0%	100.0%	100.0%	100.0%
1	115	Floor R-0 to R-30 Insulation-Batts	100.0%	100.0%	100.0%	100.0%
1	116	Floor R-19 to R-30 Insulation-Batts	100.0%	100.0%	100.0%	100.0%
1	117	Furnace controls	100.0%	100.0%	100.0%	100.0%
1	118	Furnace Diagnostic Testing, Repair and Maintenance	100.0%	100.0%	100.0%	100.0%
1	119	Plastic Film (1-2 yr measure, window kit)	100.0%	100.0%	100.0%	100.0%
1	120	Radiant Barrier	100.0%	100.0%	100.0%	100.0%
1	121	Self Install Weatherization	100.0%	100.0%	100.0%	100.0%
1	122	Slab insulation R-0 to R-5 (4 ft)	100.0%	100.0%	100.0%	100.0%
1	123	Wall 2x4 R-0 to Blow-In R-13 Insulation	100.0%	100.0%	100.0%	100.0%
1	124	Windows - Add Storm Windows to Double-Glazed	100.0%	100.0%	100.0%	100.0%
1	125	Windows - Add Storm Windows to Single-Glazed	100.0%	100.0%	100.0%	100.0%
1	126	Single Pane to Double Pane with Gas	100.0%	100.0%	100.0%	100.0%
1	127	Windows - Double-Glazed to Energy Star	100.0%	100.0%	100.0%	100.0%
1	200	Base Boiler	100.0%	100.0%	100.0%	100.0%
1	201	Basement insulation R-13 (Boiler)	100.0%	100.0%	100.0%	100.0%
1	202	Boiler controls	100.0%	100.0%	100.0%	100.0%
1	203	Boiler Diagnostic Testing, Repair and Maintenance	100.0%	100.0%	100.0%	100.0%
1	204	Ceiling R-0 to R-38 Insulation	100.0%	100.0%	100.0%	100.0%

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MEASURE INPUT DATA

1	205	Ceiling R-0 to R-49 Insulation	100.0%	100.0%	100.0%	100.0%
1	206	Ceiling R-11 to R-38 Insulation	100.0%	100.0%	100.0%	100.0%
1	207	Ceiling R-11 to R-49 Insulation	100.0%	100.0%	100.0%	100.0%
1	208	Ceiling R-19 to R-38 Insulation	100.0%	100.0%	100.0%	100.0%
1	209	Ceiling R-19 to R-49 Insulation	100.0%	100.0%	100.0%	100.0%
1	210	Comprehensive Shell Air Sealing - Inf. Reduction	100.0%	100.0%	100.0%	100.0%
1	211	Crawlspace insulation	100.0%	100.0%	100.0%	100.0%
1	212	ENERGY STAR Programmable Thermostat	100.0%	100.0%	100.0%	100.0%
1	213	Floor R-0 to R-19 Insulation-Batts	100.0%	100.0%	100.0%	100.0%
1	214	Floor R-0 to R-30 Insulation-Batts	100.0%	100.0%	100.0%	100.0%
1	215	Floor R-19 to R-30 Insulation-Batts	100.0%	100.0%	100.0%	100.0%
1	216	High Efficiency Condensing Boiler (AFUE = 90%)	95.0%	95.0%	95.0%	95.0%
1	217	Pipe Insulation (Boiler)	100.0%	100.0%	100.0%	100.0%
1	218	Plastic Film (1-2 yr measure, window kit)	100.0%	100.0%	100.0%	100.0%
1	219	Radiant Barrier	100.0%	100.0%	100.0%	100.0%
1	220	Self Install Weatherization	100.0%	100.0%	100.0%	100.0%
1	221	Slab insulation R-0 to R-5 (4 ft)	100.0%	100.0%	100.0%	100.0%
1	222	Stack Damper	100.0%	100.0%	100.0%	100.0%
1	223	Wall 2x4 R-0 to Blow-In R-13 Insulation	100.0%	100.0%	100.0%	100.0%
1	224	Windows - Add Storm Windows to Double-Glazed	100.0%	100.0%	100.0%	100.0%
1	225	Windows - Add Storm Windows to Single-Glazed	100.0%	100.0%	100.0%	100.0%
1	226	Single Pane to Double Pane with Gas	100.0%	100.0%	100.0%	100.0%
1	227	Windows - Double-Glazed to Energy Star	100.0%	100.0%	100.0%	100.0%
1	300	Base Room Heat	100.0%	100.0%	100.0%	100.0%
1	301	Basement insulation R-13 (Room Heater)	100.0%	100.0%	100.0%	100.0%
1	302	Ceiling R-0 to R-38 Insulation	100.0%	100.0%	100.0%	100.0%
1	303	Ceiling R-0 to R-49 Insulation	100.0%	100.0%	100.0%	100.0%
1	304	Ceiling R-11 to R-38 Insulation	100.0%	100.0%	100.0%	100.0%
1	305	Ceiling R-11 to R-49 Insulation	100.0%	100.0%	100.0%	100.0%
1	306	Ceiling R-19 to R-38 Insulation	100.0%	100.0%	100.0%	100.0%
1	307	Ceiling R-19 to R-49 Insulation	100.0%	100.0%	100.0%	100.0%
1	308	Comprehensive Shell Air Sealing - Inf. Reduction	100.0%	100.0%	100.0%	100.0%
1	309	Crawlspace insulation	100.0%	100.0%	100.0%	100.0%
1	310	ENERGY STAR Programmable Thermostat	100.0%	100.0%	100.0%	100.0%
1	311	Floor R-0 to R-19 Insulation-Batts	100.0%	100.0%	100.0%	100.0%
1	312	Floor R-0 to R-30 Insulation-Batts	100.0%	100.0%	100.0%	100.0%
1	313	Floor R-19 to R-30 Insulation-Batts	100.0%	100.0%	100.0%	100.0%

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MEASURE INPUT DATA

1	314	Heater Diagnostic Testing, Repair and Maintenance	100.0%	100.0%	100.0%	100.0%
1	315	High efficiency gas room heater	100.0%	100.0%	100.0%	100.0%
1	316	Radiant Barrier	100.0%	100.0%	100.0%	100.0%
1	317	Plastic Film (1-2 yr measure, window kit)	100.0%	100.0%	100.0%	100.0%
1	318	Self Install Weatherization	100.0%	100.0%	100.0%	100.0%
1	319	Slab insulation R-0 to R-5 (4 ft)	100.0%	100.0%	100.0%	100.0%
1	320	Wall 2x4 R-0 to Blow-In R-13 Insulation	100.0%	100.0%	100.0%	100.0%
1	321	Windows - Add Storm Windows to Double-Glazed	100.0%	100.0%	100.0%	100.0%
1	322	Windows - Add Storm Windows to Single-Glazed	100.0%	100.0%	100.0%	100.0%
1	323	Single Pane to Double Pane with Gas	100.0%	100.0%	100.0%	100.0%
1	324	Windows - Double-Glazed to Energy Star	100.0%	100.0%	100.0%	100.0%
1	400	Base Water Heating (.58)	100.0%	100.0%	100.0%	100.0%
1	401	Commercial Clotheswasher (MEF = 2.0)	100.0%	100.0%	100.0%	100.0%
1	402	Condensing Gas Storage water heater (>0.8 EF)	100.0%	100.0%	100.0%	100.0%
1	403	Drain Water Heat Recovery (GFX)	100.0%	100.0%	100.0%	100.0%
1	404	2011 Energy Star Clotheswasher (MEF 2.00)	100.0%	100.0%	100.0%	100.0%
1	405	Energy Star CW CEE Tier 3 (MEF=2.20)	100.0%	100.0%	100.0%	100.0%
1	406	Energy Star Dishwasher (EF=0.68)	100.0%	100.0%	100.0%	100.0%
1	407	CEE Tier 2 DW (EF=0.72)	100.0%	100.0%	100.0%	100.0%
1	408	Energy Star Water Heater (EF = .67)	100.0%	100.0%	100.0%	100.0%
1	409	Faucet Aerators	100.0%	100.0%	100.0%	100.0%
1	410	Low-Flow Showerheads	100.0%	100.0%	100.0%	100.0%
1	411	Pipe Wrap	100.0%	100.0%	100.0%	100.0%
1	412	Solar Water Heater	100.0%	100.0%	100.0%	100.0%
1	413	0.82 EF Tankless Hot Water Heater Energy Star Standard	100.0%	100.0%	100.0%	100.0%
1	500	Base Clothes Drying	100.0%	100.0%	100.0%	100.0%
1	501	Efficient Clothes Dryer (EF = 2.67)	100.0%	100.0%	100.0%	100.0%
1	600	Base Cooking	100.0%	100.0%	100.0%	100.0%
1	601	Convection Oven	100.0%	100.0%	100.0%	100.0%
1	602	EE Gas Range	100.0%	100.0%	100.0%	100.0%
1	700	Base Other	100.0%	100.0%	100.0%	100.0%
1	800	Base House Use	100.0%	100.0%	100.0%	100.0%
1	801	Conservation- Opower	100.0%	100.0%	100.0%	100.0%

APPLICABILITY FACTOR
(percent)

			SF	MF	SF LI	MF LI
Segment	Measure #	Measure Description				
1	100	Base Furnace	76.5%	76.5%	76.5%	76.5%
1	101	Basement insulation R-13 (Furnace)	43.8%	4.1%	38.8%	5.7%
1	102	Ceiling R-0 to R-38 Insulation	76.5%	28.5%	76.5%	28.5%
1	103	Ceiling R-0 to R-49 Insulation	76.5%	28.5%	76.5%	28.5%
1	104	Ceiling R-11 to R-38 Insulation	76.5%	28.5%	76.5%	28.5%
1	105	Ceiling R-11 to R-49 Insulation	76.5%	28.5%	76.5%	28.5%
1	106	Ceiling R-19 to R-38 Insulation	76.5%	28.5%	76.5%	28.5%
1	107	Ceiling R-19 to R-49 Insulation	76.5%	28.5%	76.5%	28.5%
1	108	Comprehensive Shell Air Sealing - Inf. Reduction	76.5%	76.5%	76.5%	76.5%
1	109	Condensing Furnace - 94 AFUE (Tier 2)	76.5%	76.5%	76.5%	76.5%
1	110	Crawlspace insulation	29.1%	3.5%	29.4%	1.2%
1	111	Duct insulation	76.5%	76.5%	76.5%	76.5%
1	112	Duct Repair and Sealing	76.5%	76.5%	76.5%	76.5%
1	113	ENERGY STAR Programmable Thermostat	76.5%	76.5%	76.5%	76.5%
1	114	Floor R-0 to R-19 Insulation-Batts	3.5%	20.9%	8.3%	21.6%
1	115	Floor R-0 to R-30 Insulation-Batts	3.5%	20.9%	8.3%	21.6%
1	116	Floor R-19 to R-30 Insulation-Batts	3.5%	20.9%	8.3%	21.6%
1	117	Furnace controls	76.5%	76.5%	76.5%	76.5%
1	118	Furnace Diagnostic Testing, Repair and Maintenance	76.5%	76.5%	76.5%	76.5%
1	119	Plastic Film (1-2 yr measure, window kit)	76.5%	76.5%	76.5%	76.5%
1	120	Radiant Barrier	21.1%	0.0%	16.0%	0.0%
1	121	Self Install Weatherization	76.5%	76.5%	76.5%	76.5%
1	122	Slab insulation R-0 to R-5 (4 ft)	3.5%	20.9%	8.3%	21.6%
1	123	Wall 2x4 R-0 to Blow-In R-13 Insulation	76.5%	76.5%	76.5%	76.5%
1	124	Windows - Add Storm Windows to Double-Glazed	76.5%	76.5%	76.5%	76.5%
1	125	Windows - Add Storm Windows to Single-Glazed	76.5%	76.5%	76.5%	76.5%
1	126	Single Pane to Double Pane with Gas	76.5%	76.5%	76.5%	76.5%
1	127	Windows - Double-Glazed to Energy Star	76.5%	76.5%	76.5%	76.5%
1	200	Base Boiler	0.8%	0.8%	0.8%	0.8%
1	201	Basement insulation R-13 (Boiler)	0.4%	0.0%	0.4%	0.1%
1	202	Boiler controls	0.8%	0.8%	0.8%	0.8%
1	203	Boiler Diagnostic Testing, Repair and Maintenance	0.8%	0.8%	0.8%	0.8%
1	204	Ceiling R-0 to R-38 Insulation	0.8%	0.3%	0.8%	0.3%

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RESIDENTIAL

MEASURE INPUT DATA

1	205	Ceiling R-0 to R-49 Insulation	0.8%	0.3%	0.8%	0.3%
1	206	Ceiling R-11 to R-38 Insulation	0.8%	0.3%	0.8%	0.3%
1	207	Ceiling R-11 to R-49 Insulation	0.8%	0.3%	0.8%	0.3%
1	208	Ceiling R-19 to R-38 Insulation	0.8%	0.3%	0.8%	0.3%
1	209	Ceiling R-19 to R-49 Insulation	0.8%	0.3%	0.8%	0.3%
1	210	Comprehensive Shell Air Sealing - Inf. Reduction	0.8%	0.8%	0.8%	0.8%
1	211	Crawlspace insulation	0.3%	0.0%	0.3%	0.0%
1	212	ENERGY STAR Programmable Thermostat	0.8%	0.8%	0.8%	0.8%
1	213	Floor R-0 to R-19 Insulation-Batts	0.0%	0.2%	0.1%	0.2%
1	214	Floor R-0 to R-30 Insulation-Batts	0.0%	0.2%	0.1%	0.2%
1	215	Floor R-19 to R-30 Insulation-Batts	0.0%	0.2%	0.1%	0.2%
1	216	High Efficiency Condensing Boiler (AFUE = 90%)	0.8%	0.8%	0.8%	0.8%
1	217	Pipe Insulation (Boiler)	0.8%	0.8%	0.8%	0.8%
1	218	Plastic Film (1-2 yr measure, window kit)	0.8%	0.8%	0.8%	0.8%
1	219	Radiant Barrier	0.2%	0.0%	0.2%	0.0%
1	220	Self Install Weatherization	0.8%	0.8%	0.8%	0.8%
1	221	Slab insulation R-0 to R-5 (4 ft)	0.0%	0.2%	0.1%	0.2%
1	222	Stack Damper	0.8%	0.8%	0.8%	0.8%
1	223	Wall 2x4 R-0 to Blow-In R-13 Insulation	0.8%	0.8%	0.8%	0.8%
1	224	Windows - Add Storm Windows to Double-Glazed	0.8%	0.8%	0.8%	0.8%
1	225	Windows - Add Storm Windows to Single-Glazed	0.8%	0.8%	0.8%	0.8%
1	226	Single Pane to Double Pane with Gas	0.8%	0.8%	0.8%	0.8%
1	227	Windows - Double-Glazed to Energy Star	0.8%	0.8%	0.8%	0.8%
1	300	Base Room Heat	2.0%	2.0%	2.0%	2.0%
1	301	Basement insulation R-13 (Room Heater)	1.1%	0.1%	1.0%	0.1%
1	302	Ceiling R-0 to R-38 Insulation	2.0%	0.7%	2.0%	0.7%
1	303	Ceiling R-0 to R-49 Insulation	2.0%	0.7%	2.0%	0.7%
1	304	Ceiling R-11 to R-38 Insulation	2.0%	0.7%	2.0%	0.7%
1	305	Ceiling R-11 to R-49 Insulation	2.0%	0.7%	2.0%	0.7%
1	306	Ceiling R-19 to R-38 Insulation	2.0%	0.7%	2.0%	0.7%
1	307	Ceiling R-19 to R-49 Insulation	2.0%	0.7%	2.0%	0.7%
1	308	Comprehensive Shell Air Sealing - Inf. Reduction	2.0%	2.0%	2.0%	2.0%
1	309	Crawlspace insulation	0.7%	0.1%	0.8%	0.0%
1	310	ENERGY STAR Programmable Thermostat	2.0%	2.0%	2.0%	2.0%
1	311	Floor R-0 to R-19 Insulation-Batts	0.1%	0.5%	0.2%	0.6%
1	312	Floor R-0 to R-30 Insulation-Batts	0.1%	0.5%	0.2%	0.6%
1	313	Floor R-19 to R-30 Insulation-Batts	0.1%	0.5%	0.2%	0.6%

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MEASURE INPUT DATA

1	314	Heater Diagnostic Testing, Repair and Maintenance	2.0%	2.0%	2.0%	2.0%
1	315	High efficiency gas room heater	2.0%	2.0%	2.0%	2.0%
1	316	Radiant Barrier	2.0%	2.0%	2.0%	2.0%
1	317	Plastic Film (1-2 yr measure, window kit)	0.5%	0.0%	0.4%	0.0%
1	318	Self Install Weatherization	2.0%	2.0%	2.0%	2.0%
1	319	Slab insulation R-0 to R-5 (4 ft)	0.1%	0.5%	0.2%	0.6%
1	320	Wall 2x4 R-0 to Blow-In R-13 Insulation	2.0%	2.0%	2.0%	2.0%
1	321	Windows - Add Storm Windows to Double-Glazed	2.0%	2.0%	2.0%	2.0%
1	322	Windows - Add Storm Windows to Single-Glazed	2.0%	2.0%	2.0%	2.0%
1	323	Single Pane to Double Pane with Gas	2.0%	2.0%	2.0%	2.0%
1	324	Windows - Double-Glazed to Energy Star	2.0%	2.0%	2.0%	2.0%
1	400	Base Water Heating (.58)	76.5%	76.5%	76.5%	76.5%
1	401	Commercial Clotheswasher (MEF = 2.0)	76.5%	17.6%	76.5%	76.5%
1	402	Condensing Gas Storage water heater (>0.8 EF)	76.5%	76.5%	76.5%	76.5%
1	403	Drain Water Heat Recovery (GFX)	76.5%	76.5%	76.5%	76.5%
1	404	2011 Energy Star Clotheswasher (MEF 2.00)	74.9%	52.0%	74.9%	52.0%
1	405	Energy Star CW CEE Tier 3 (MEF=2.20)	74.9%	52.0%	74.9%	52.0%
1	406	Energy Star Dishwasher (EF=0.68)	58.9%	57.3%	40.3%	24.1%
1	407	CEE Tier 2 DW (EF=0.72)	58.9%	57.3%	40.3%	24.1%
1	408	Energy Star Water Heater (EF = .67)	76.5%	76.5%	76.5%	76.5%
1	409	Faucet Aerators	76.5%	76.5%	76.5%	76.5%
1	410	Low-Flow Showerheads	76.5%	76.5%	76.5%	76.5%
1	411	Pipe Wrap	76.5%	76.5%	76.5%	76.5%
1	412	Solar Water Heater	76.5%	76.5%	76.5%	76.5%
1	413	0.82 EF Tankless Hot Water Heater Energy Star Standard	76.5%	76.5%	76.5%	76.5%
1	500	Base Clothes Drying	11.9%	11.9%	11.9%	11.9%
1	501	Efficient Clothes Dryer (EF = 2.67)	11.9%	11.9%	11.9%	11.9%
1	600	Base Cooking	35.6%	34.4%	45.6%	39.1%
1	601	Convection Oven	35.6%	34.4%	45.6%	39.1%
1	602	EE Gas Range	35.6%	34.4%	45.6%	39.1%
1	700	Base Other	4.7%	1.5%	2.5%	1.0%
1	800	Base House Use	100%	100%	100%	100%
1	801	Conservation- Opower	100%	100%	100%	100%

**INCOMPLETE FACTOR
(percent)**

Segment	Measure #	Measure Description	SF	MF	SF LI	MF LI
1	100	Base Furnace	100.0%	100.0%	100.0%	100.0%
1	101	Basement insulation R-13 (Furnace)	57.39%	68.75%	69.00%	69.00%
1	102	Ceiling R-0 to R-38 Insulation	3.60%	3.60%	3.60%	3.60%
1	103	Ceiling R-0 to R-49 Insulation	3.60%	3.60%	3.60%	3.60%
1	104	Ceiling R-11 to R-38 Insulation	14.0%	14.0%	14.0%	14.0%
1	105	Ceiling R-11 to R-49 Insulation	13.20%	13.20%	13.20%	13.20%
1	106	Ceiling R-19 to R-38 Insulation	17.8%	17.8%	17.8%	17.8%
1	107	Ceiling R-19 to R-49 Insulation	17.8%	17.8%	17.8%	17.8%
1	108	Comprehensive Shell Air Sealing - Inf. Reduction	70.0%	70.0%	70.0%	70.0%
1	109	Condensing Furnace - 94 AFUE (Tier 2)	74.0%	89.0%	74.0%	89.0%
1	110	Crawlspace insulation	65.0%	32.0%	65.0%	32.0%
1	111	Duct insulation	49.7%	49.7%	76.0%	76.0%
1	112	Duct Repair and Sealing	95.0%	95.0%	95.0%	95.0%
1	113	ENERGY STAR Programmable Thermostat	35.7%	50.0%	35.7%	35.7%
1	114	Floor R-0 to R-19 Insulation-Batts	96.9%	55.0%	96.9%	55.0%
1	115	Floor R-0 to R-30 Insulation-Batts	96.9%	55.0%	96.9%	55.0%
1	116	Floor R-19 to R-30 Insulation-Batts	3.1%	8.0%	3.1%	8.0%
1	117	Furnace controls	100.0%	100.0%	100.0%	100.0%
1	118	Furnace Diagnostic Testing, Repair and Maintenance	30.0%	30.0%	30.0%	30.0%
1	119	Plastic Film (1-2 yr measure, window kit)	100.0%	100.0%	100.0%	100.0%
1	120	Radiant Barrier	100.0%	100.0%	100.0%	100.0%
1	121	Self Install Weatherization	62.0%	62.0%	62.0%	62.0%
1	122	Slab insulation R-0 to R-5 (4 ft)	77.0%	77.0%	77.0%	77.0%
1	123	Wall 2x4 R-0 to Blow-In R-13 Insulation	8.6%	11.8%	8.6%	11.8%
1	124	Windows - Add Storm Windows to Double-Glazed	28.2%	26.1%	32.2%	34.9%
1	125	Windows - Add Storm Windows to Single-Glazed	44.0%	57.2%	45.5%	41.4%
1	126	Single Pane to Double Pane with Gas	35.3%	32.7%	40.3%	43.6%
1	127	Windows - Double-Glazed to Energy Star	48.9%	63.6%	50.6%	46.0%
1	200	Base Boiler	100.0%	100.0%	100.0%	100.0%
1	201	Basement insulation R-13 (Boiler)	57.39%	68.75%	69.00%	69.00%
1	202	Boiler controls	100.0%	100.0%	100.0%	100.0%
1	203	Boiler Diagnostic Testing, Repair and Maintenance	30.0%	30.0%	30.0%	30.0%
1	204	Ceiling R-0 to R-38 Insulation	3.60%	3.60%	3.60%	3.60%

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MEASURE INPUT DATA

1	205	Ceiling R-0 to R-49 Insulation	3.60%	3.60%	3.60%	3.60%
1	206	Ceiling R-11 to R-38 Insulation	14.0%	14.0%	14.0%	14.0%
1	207	Ceiling R-11 to R-49 Insulation	13.20%	13.20%	13.20%	13.20%
1	208	Ceiling R-19 to R-38 Insulation	17.8%	17.8%	17.8%	17.8%
1	209	Ceiling R-19 to R-49 Insulation	17.8%	17.8%	17.8%	17.8%
1	210	Comprehensive Shell Air Sealing - Inf. Reduction	70.0%	70.0%	70.0%	70.0%
1	211	Crawlspace insulation	65.0%	32.0%	65.0%	32.0%
1	212	ENERGY STAR Programmable Thermostat	35.7%	50.0%	35.7%	35.7%
1	213	Floor R-0 to R-19 Insulation-Batts	96.9%	55.0%	96.9%	55.0%
1	214	Floor R-0 to R-30 Insulation-Batts	96.9%	55.0%	96.9%	55.0%
1	215	Floor R-19 to R-30 Insulation-Batts	3.1%	8.0%	3.1%	8.0%
1	216	High Efficiency Condensing Boiler (AFUE = 90%)	97.0%	98.0%	97.0%	98.0%
1	217	Pipe Insulation (Boiler)	80.0%	80.0%	80.0%	80.0%
1	218	Plastic Film (1-2 yr measure, window kit)	100.0%	100.0%	100.0%	100.0%
1	219	Radiant Barrier	100.0%	100.0%	100.0%	100.0%
1	220	Self Install Weatherization	62.0%	62.0%	62.0%	62.0%
1	221	Slab insulation R-0 to R-5 (4 ft)	77.0%	77.0%	77.0%	77.0%
1	222	Stack Damper	100.0%	100.0%	100.0%	100.0%
1	223	Wall 2x4 R-0 to Blow-In R-13 Insulation	8.6%	11.8%	8.6%	11.8%
1	224	Windows - Add Storm Windows to Double-Glazed	28.2%	26.1%	32.2%	34.9%
1	225	Windows - Add Storm Windows to Single-Glazed	44.0%	57.2%	45.5%	41.4%
1	226	Single Pane to Double Pane with Gas	35.3%	32.7%	40.3%	43.6%
1	227	Windows - Double-Glazed to Energy Star	48.9%	63.6%	50.6%	46.0%
1	300	Base Room Heat	100.0%	100.0%	100.0%	100.0%
1	301	Basement insulation R-13 (Room Heater)	57.39%	68.75%	69.00%	69.00%
1	302	Ceiling R-0 to R-38 Insulation	3.60%	3.60%	3.60%	3.60%
1	303	Ceiling R-0 to R-49 Insulation	3.60%	3.60%	3.60%	3.60%
1	304	Ceiling R-11 to R-38 Insulation	14.0%	14.0%	14.0%	14.0%
1	305	Ceiling R-11 to R-49 Insulation	13.20%	13.20%	13.20%	13.20%
1	306	Ceiling R-19 to R-38 Insulation	17.8%	17.8%	17.8%	17.8%
1	307	Ceiling R-19 to R-49 Insulation	17.8%	17.8%	17.8%	17.8%
1	308	Comprehensive Shell Air Sealing - Inf. Reduction	70.0%	70.0%	70.0%	70.0%
1	309	Crawlspace insulation	65.0%	32.0%	65.0%	32.0%
1	310	ENERGY STAR Programmable Thermostat	35.7%	50.0%	35.7%	35.7%
1	311	Floor R-0 to R-19 Insulation-Batts	96.9%	55.0%	96.9%	55.0%
1	312	Floor R-0 to R-30 Insulation-Batts	96.9%	55.0%	96.9%	55.0%
1	313	Floor R-19 to R-30 Insulation-Batts	3.1%	8.0%	3.1%	8.0%

APPENDIX E

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MEASURE INPUT DATA

1	314	Heater Diagnostic Testing, Repair and Maintenance	30.0%	30.0%	30.0%	30.0%
1	315	High efficiency gas room heater	97.0%	98.0%	97.0%	98.0%
1	316	Radiant Barrier	100.0%	100.0%	100.0%	100.0%
1	317	Plastic Film (1-2 yr measure, window kit)	100.0%	100.0%	100.0%	100.0%
1	318	Self Install Weatherization	62.0%	62.0%	62.0%	62.0%
1	319	Slab insulation R-0 to R-5 (4 ft)	77.0%	77.0%	77.0%	77.0%
1	320	Wall 2x4 R-0 to Blow-In R-13 Insulation	8.6%	11.8%	8.6%	11.8%
1	321	Windows - Add Storm Windows to Double-Glazed	28.2%	26.1%	32.2%	34.9%
1	322	Windows - Add Storm Windows to Single-Glazed	44.0%	57.2%	45.5%	41.4%
1	323	Single Pane to Double Pane with Gas	35.3%	32.7%	40.3%	43.6%
1	324	Windows - Double-Glazed to Energy Star	48.9%	63.6%	50.6%	46.0%
1	400	Base Water Heating (.58)	100.0%	100.0%	100.0%	100.0%
1	401	Commercial Clotheswasher (MEF = 2.0)	0.0%	80.0%	0.0%	80.0%
1	402	Condensing Gas Storage water heater (>0.8 EF)	98.2%	100.0%	98.2%	100.0%
1	403	Drain Water Heat Recovery (GFX)	99.0%	99.0%	99.0%	99.0%
1	404	2011 Energy Star Clotheswasher (MEF 2.00)	83.9%	83.9%	83.9%	83.9%
1	405	Energy Star CW CEE Tier 3 (MEF=2.20)	99.0%	99.0%	99.0%	99.0%
1	406	Energy Star Dishwasher (EF=0.68)	82.9%	74.7%	82.9%	74.7%
1	407	CEE Tier 2 DW (EF=0.72)	99.0%	99.0%	99.0%	99.0%
1	408	Energy Star Water Heater (EF = .67)	80.0%	80.0%	80.0%	80.0%
1	409	Faucet Aerators	60.0%	51.3%	79.6%	68.0%
1	410	Low-Flow Showerheads	39.3%	33.3%	45.6%	45.6%
1	411	Pipe Wrap	38.7%	77.8%	49.1%	49.1%
1	412	Solar Water Heater	99.0%	99.0%	99.0%	99.0%
1	413	0.82 EF Tankless Hot Water Heater Energy Star Standard	99.0%	99.0%	99.0%	99.0%
1	500	Base Clothes Drying	100.0%	100.0%	100.0%	100.0%
1	501	Efficient Clothes Dryer (EF = 2.67)	10.0%	10.0%	10.0%	10.0%
1	600	Base Cooking	100.0%	100.0%	100.0%	100.0%
1	601	Convection Oven	99.0%	99.0%	99.0%	99.0%
1	602	EE Gas Range	99.0%	99.0%	99.0%	99.0%
1	700	Base Other	100.0%	100.0%	100.0%	100.0%
1	800	Base House Use	100.0%	100.0%	100.0%	100.0%
1	801	Conservation- Opower	100.0%	100.0%	100.0%	100.0%

FEASIBILITY FACTOR
(percent)

Segment	Measure #	Measure Description	SF	MF	SF LI	MF LI
1	100	Base Furnace	100.0%	100.0%	100.0%	100.0%
1	101	Basement insulation R-13 (Furnace)	65%	65%	65%	65%
1	102	Ceiling R-0 to R-38 Insulation	33%	33%	33%	33%
1	103	Ceiling R-0 to R-49 Insulation	33%	33%	33%	33%
1	104	Ceiling R-11 to R-38 Insulation	50%	50%	50%	50%
1	105	Ceiling R-11 to R-49 Insulation	50%	50%	50%	50%
1	106	Ceiling R-19 to R-38 Insulation	83%	83%	83%	83%
1	107	Ceiling R-19 to R-49 Insulation	83%	83%	83%	83%
1	108	Comprehensive Shell Air Sealing - Inf. Reduction	75.0%	75.0%	75.0%	75.0%
1	109	Condensing Furnace - 94 AFUE (Tier 2)	95.0%	95.0%	95.0%	95.0%
1	110	Crawlspace insulation	50.0%	50.0%	50.0%	50.0%
1	111	Duct insulation	100.0%	100.0%	100.0%	100.0%
1	112	Duct Repair and Sealing	100.0%	100.0%	100.0%	100.0%
1	113	ENERGY STAR Programmable Thermostat	100.0%	100.0%	100.0%	100.0%
1	114	Floor R-0 to R-19 Insulation-Batts	50%	20%	37%	37%
1	115	Floor R-0 to R-30 Insulation-Batts	50%	20%	37%	37%
1	116	Floor R-19 to R-30 Insulation-Batts	50%	20%	37%	37%
1	117	Furnace controls	100.0%	100.0%	100.0%	100.0%
1	118	Furnace Diagnostic Testing, Repair and Maintenance	100.0%	100.0%	100.0%	100.0%
1	119	Plastic Film (1-2 yr measure, window kit)	80.0%	80.0%	80.0%	80.0%
1	120	Radiant Barrier	80%	30%	59%	59%
1	121	Self Install Weatherization	100.0%	100.0%	100.0%	100.0%
1	122	Slab insulation R-0 to R-5 (4 ft)	100.0%	100.0%	100.0%	100.0%
1	123	Wall 2x4 R-0 to Blow-In R-13 Insulation	80%	40%	63%	63%
1	124	Windows - Add Storm Windows to Double-Glazed	100.0%	100.0%	100.0%	100.0%
1	125	Windows - Add Storm Windows to Single-Glazed	100.0%	100.0%	100.0%	100.0%
1	126	Single Pane to Double Pane with Gas	100.0%	100.0%	100.0%	100.0%
1	127	Windows - Double-Glazed to Energy Star	100.0%	100.0%	100.0%	100.0%
1	200	Base Boiler	100.0%	100.0%	100.0%	100.0%
1	201	Basement insulation R-13 (Boiler)	50.0%	50.0%	50.0%	50.0%
1	202	Boiler controls	100.0%	100.0%	100.0%	100.0%
1	203	Boiler Diagnostic Testing, Repair and Maintenance	100.0%	100.0%	100.0%	100.0%
1	204	Ceiling R-0 to R-38 Insulation	33%	33%	33%	33%
1	205	Ceiling R-0 to R-49 Insulation	33%	33%	33%	33%

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MEASURE INPUT DATA

1	206	Ceiling R-11 to R-38 Insulation	50%	50%	50%	50%
1	207	Ceiling R-11 to R-49 Insulation	50%	50%	50%	50%
1	208	Ceiling R-19 to R-38 Insulation	83%	83%	83%	83%
1	209	Ceiling R-19 to R-49 Insulation	83%	83%	83%	83%
1	210	Comprehensive Shell Air Sealing - Inf. Reduction	100.0%	100.0%	100.0%	100.0%
1	211	Crawlspace insulation	50.0%	50.0%	50.0%	50.0%
1	212	ENERGY STAR Programmable Thermostat	100.0%	100.0%	100.0%	100.0%
1	213	Floor R-0 to R-19 Insulation-Batts	50%	20%	37%	37%
1	214	Floor R-0 to R-30 Insulation-Batts	50%	20%	37%	37%
1	215	Floor R-19 to R-30 Insulation-Batts	50%	20%	37%	37%
1	216	High Efficiency Condensing Boiler (AFUE = 90%)	95.0%	95.0%	95.0%	95.0%
1	217	Pipe Insulation (Boiler)	85%	85%	85%	85%
1	218	Plastic Film (1-2 yr measure, window kit)	80.0%	80.0%	80.0%	80.0%
1	219	Radiant Barrier	80%	30%	59%	59%
1	220	Self Install Weatherization	100.0%	100.0%	100.0%	100.0%
1	221	Slab insulation R-0 to R-5 (4 ft)	100.0%	100.0%	100.0%	100.0%
1	222	Stack Damper	100.0%	100.0%	100.0%	100.0%
1	223	Wall 2x4 R-0 to Blow-In R-13 Insulation	80%	40%	63%	63%
1	224	Windows - Add Storm Windows to Double-Glazed	100.0%	100.0%	100.0%	100.0%
1	225	Windows - Add Storm Windows to Single-Glazed	100.0%	100.0%	100.0%	100.0%
1	226	Single Pane to Double Pane with Gas	100.0%	100.0%	100.0%	100.0%
1	227	Windows - Double-Glazed to Energy Star	100.0%	100.0%	100.0%	100.0%
1	300	Base Room Heat	100.0%	100.0%	100.0%	100.0%
1	301	Basement insulation R-13 (Room Heater)	50.0%	50.0%	50.0%	50.0%
1	302	Ceiling R-0 to R-38 Insulation	33%	33%	33%	33%
1	303	Ceiling R-0 to R-49 Insulation	33%	33%	33%	33%
1	304	Ceiling R-11 to R-38 Insulation	50%	50%	50%	50%
1	305	Ceiling R-11 to R-49 Insulation	50%	50%	50%	50%
1	306	Ceiling R-19 to R-38 Insulation	83%	83%	83%	83%
1	307	Ceiling R-19 to R-49 Insulation	83%	83%	83%	83%
1	308	Comprehensive Shell Air Sealing - Inf. Reduction	100.0%	100.0%	100.0%	100.0%
1	309	Crawlspace insulation	50.0%	50.0%	50.0%	50.0%
1	310	ENERGY STAR Programmable Thermostat	50.0%	50.0%	50.0%	50.0%
1	311	Floor R-0 to R-19 Insulation-Batts	50%	20%	37%	37%
1	312	Floor R-0 to R-30 Insulation-Batts	50%	20%	37%	37%
1	313	Floor R-19 to R-30 Insulation-Batts	50%	20%	37%	37%
1	314	Heater Diagnostic Testing, Repair and Maintenance	100.0%	100.0%	100.0%	100.0%
1	315	High efficiency gas room heater	95.0%	95.0%	95.0%	95.0%

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MEASURE INPUT DATA

1	316	Radiant Barrier	80.0%	80.0%	80.0%	80.0%
1	317	Plastic Film (1-2 yr measure, window kit)	80%	30%	59%	59%
1	318	Self Install Weatherization	100.0%	100.0%	100.0%	100.0%
1	319	Slab insulation R-0 to R-5 (4 ft)	100.0%	100.0%	100.0%	100.0%
1	320	Wall 2x4 R-0 to Blow-In R-13 Insulation	80%	40%	63%	63%
1	321	Windows - Add Storm Windows to Double-Glazed	100.0%	100.0%	100.0%	100.0%
1	322	Windows - Add Storm Windows to Single-Glazed	100.0%	100.0%	100.0%	100.0%
1	323	Single Pane to Double Pane with Gas	100.0%	100.0%	100.0%	100.0%
1	324	Windows - Double-Glazed to Energy Star	100.0%	100.0%	100.0%	100.0%
1	400	Base Water Heating (.58)	100.0%	100.0%	100.0%	100.0%
1	401	Commercial Clotheswasher (MEF = 2.0)	0.0%	100.0%	0.0%	100.0%
1	402	Condensing Gas Storage water heater (>0.8 EF)	50.0%	50.0%	50.0%	50.0%
1	403	Drain Water Heat Recovery (GFX)	10.0%	10.0%	10.0%	10.0%
1	404	2011 Energy Star Clotheswasher (MEF 2.00)	100.0%	100.0%	100.0%	100.0%
1	405	Energy Star CW CEE Tier 3 (MEF=2.20)	100.0%	100.0%	100.0%	100.0%
1	406	Energy Star Dishwasher (EF=0.68)	100.0%	100.0%	100.0%	100.0%
1	407	CEE Tier 2 DW (EF=0.72)	100.0%	100.0%	100.0%	100.0%
1	408	Energy Star Water Heater (EF = .67)	100.0%	100.0%	100.0%	100.0%
1	409	Faucet Aerators	100%	100%	100%	100%
1	410	Low-Flow Showerheads	100%	100%	100%	100%
1	411	Pipe Wrap	85%	85%	85%	85%
1	412	Solar Water Heater	75.0%	75.0%	75.0%	75.0%
1	413	0.82 EF Tankless Hot Water Heater Energy Star Standard	75.0%	75.0%	75.0%	75.0%
1	500	Base Clothes Drying	100.0%	100.0%	100.0%	100.0%
1	501	Efficient Clothes Dryer (EF = 2.67)	100.0%	100.0%	100.0%	100.0%
1	600	Base Cooking	100.0%	100.0%	100.0%	100.0%
1	601	Convection Oven	100.0%	100.0%	100.0%	100.0%
1	602	EE Gas Range	100.0%	100.0%	100.0%	100.0%
1	700	Base Other	100.0%	100.0%	100.0%	100.0%
1	800	Base House Use	100.0%	100.0%	100.0%	100.0%
1	801	Conservation- Opower	100.0%	100.0%	100.0%	100.0%

ENERGY SAVINGS
(percent)

Segment	Measure #	Measure Description	SF	MF	SF LI	MF LI
1	100	Base Furnace	0.0%	0.0%	0.0%	0.0%
1	101	Basement insulation R-13 (Furnace)	18%	18%	18%	18%
1	102	Ceiling R-0 to R-38 Insulation	24%	24%	24%	24%
1	103	Ceiling R-0 to R-49 Insulation	25%	25%	25%	25%
1	104	Ceiling R-11 to R-38 Insulation	8%	8%	8%	8%
1	105	Ceiling R-11 to R-49 Insulation	9%	9%	9%	9%
1	106	Ceiling R-19 to R-38 Insulation	4%	4%	4%	4%
1	107	Ceiling R-19 to R-49 Insulation	4%	4%	4%	4%
1	108	Comprehensive Shell Air Sealing - Inf. Reduction	6.4%	8.1%	6.4%	6.4%
1	109	Condensing Furnace - 94 AFUE (Tier 2)	17.4%	17.4%	17.4%	17.4%
1	110	Crawlspace insulation	18.2%	18.2%	18.2%	18.2%
1	111	Duct insulation	3.9%	3.9%	3.9%	3.9%
1	112	Duct Repair and Sealing	10.0%	10.0%	10.0%	10.0%
1	113	ENERGY STAR Programmable Thermostat	7.0%	7.0%	7.0%	7.0%
1	114	Floor R-0 to R-19 Insulation-Batts	10%	10%	10%	10%
1	115	Floor R-0 to R-30 Insulation-Batts	12%	12%	12%	12%
1	116	Floor R-19 to R-30 Insulation-Batts	2%	2%	2%	2%
1	117	Furnace controls	12.0%	12.0%	12.0%	12.0%
1	118	Furnace Diagnostic Testing, Repair and Maintenance	10.0%	10.0%	10.0%	10.0%
1	119	Plastic Film (1-2 yr measure, window kit)	2.0%	2.0%	2.0%	2.0%
1	120	Radiant Barrier	7%	7%	7%	7%
1	121	Self Install Weatherization	2.0%	2.0%	2.0%	2.0%
1	122	Slab insulation R-0 to R-5 (4 ft)	6.8%	6.8%	6.8%	6.8%
1	123	Wall 2x4 R-0 to Blow-In R-13 Insulation	9%	9%	9%	9%
1	124	Windows - Add Storm Windows to Double-Glazed	5.3%	5.3%	5.3%	5.3%
1	125	Windows - Add Storm Windows to Single-Glazed	13.3%	13.3%	13.3%	13.3%
1	126	Single Pane to Double Pane with Gas	32.0%	32.0%	32.0%	32.0%
1	127	Windows - Double-Glazed to Energy Star	10.0%	6.0%	10.0%	6.0%
1	200	Base Boiler	0.0%	0.0%	0.0%	0.0%
1	201	Basement insulation R-13 (Boiler)	18.2%	18.2%	18.2%	18.2%
1	202	Boiler controls	11.0%	11.0%	11.0%	11.0%
1	203	Boiler Diagnostic Testing, Repair and Maintenance	10.0%	10.0%	10.0%	10.0%
1	204	Ceiling R-0 to R-38 Insulation	24%	24%	24%	24%
1	205	Ceiling R-0 to R-49 Insulation	25%	25%	25%	25%

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MEASURE INPUT DATA

1	206	Ceiling R-11 to R-38 Insulation	8%	8%	8%	8%
1	207	Ceiling R-11 to R-49 Insulation	9%	9%	9%	9%
1	208	Ceiling R-19 to R-38 Insulation	4%	4%	4%	4%
1	209	Ceiling R-19 to R-49 Insulation	4%	4%	4%	4%
1	210	Comprehensive Shell Air Sealing - Inf. Reduction	6.4%	8.1%	6.4%	6.4%
1	211	Crawlspace insulation	18.2%	18.2%	18.2%	18.2%
1	212	ENERGY STAR Programmable Thermostat	7.0%	7.0%	7.0%	7.0%
1	213	Floor R-0 to R-19 Insulation-Batts	10%	10%	10%	10%
1	214	Floor R-0 to R-30 Insulation-Batts	12%	12%	12%	12%
1	215	Floor R-19 to R-30 Insulation-Batts	2%	2%	2%	2%
1	216	High Efficiency Condensing Boiler (AFUE = 90%)	11.3%	11.3%	11.3%	11.3%
1	217	Pipe Insulation (Boiler)	3%	3%	3%	3%
1	218	Plastic Film (1-2 yr measure, window kit)	2.0%	2.0%	2.0%	2.0%
1	219	Radiant Barrier	7%	7%	7%	7%
1	220	Self Install Weatherization	2.0%	2.0%	2.0%	2.0%
1	221	Slab insulation R-0 to R-5 (4 ft)	8.5%	8.5%	8.5%	8.5%
1	222	Stack Damper	4.0%	4.0%	4.0%	4.0%
1	223	Wall 2x4 R-0 to Blow-In R-13 Insulation	9%	9%	9%	9%
1	224	Windows - Add Storm Windows to Double-Glazed	5.3%	5.3%	5.3%	5.3%
1	225	Windows - Add Storm Windows to Single-Glazed	13.3%	13.3%	13.3%	13.3%
1	226	Single Pane to Double Pane with Gas	32.0%	32.0%	32.0%	32.0%
1	227	Windows - Double-Glazed to Energy Star	10.0%	6.0%	10.0%	6.0%
1	300	Base Room Heat	0.0%	0.0%	0.0%	0.0%
1	301	Basement insulation R-13 (Room Heater)	18.2%	18.2%	18.2%	18.2%
1	302	Ceiling R-0 to R-38 Insulation	24%	24%	24%	24%
1	303	Ceiling R-0 to R-49 Insulation	25%	25%	25%	25%
1	304	Ceiling R-11 to R-38 Insulation	8%	8%	8%	8%
1	305	Ceiling R-11 to R-49 Insulation	9%	9%	9%	9%
1	306	Ceiling R-19 to R-38 Insulation	4%	4%	4%	4%
1	307	Ceiling R-19 to R-49 Insulation	4%	4%	4%	4%
1	308	Comprehensive Shell Air Sealing - Inf. Reduction	6.4%	8.1%	6.4%	6.4%
1	309	Crawlspace insulation	18.2%	18.2%	18.2%	18.2%
1	310	ENERGY STAR Programmable Thermostat	7.0%	7.0%	7.0%	7.0%
1	311	Floor R-0 to R-19 Insulation-Batts	10%	10%	10%	10%
1	312	Floor R-0 to R-30 Insulation-Batts	12%	12%	12%	12%
1	313	Floor R-19 to R-30 Insulation-Batts	2%	2%	2%	2%
1	314	Heater Diagnostic Testing, Repair and Maintenance	10.0%	10.0%	10.0%	10.0%
1	315	High efficiency gas room heater	21.0%	21.0%	21.0%	21.0%

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MEASURE INPUT DATA

1	316	Radiant Barrier	6.8%	6.8%	6.8%	6.8%
1	317	Plastic Film (1-2 yr measure, window kit)	2%	2%	2%	2%
1	318	Self Install Weatherization	2.0%	2.0%	2.0%	2.0%
1	319	Slab insulation R-0 to R-5 (4 ft)	8.5%	8.5%	8.5%	8.5%
1	320	Wall 2x4 R-0 to Blow-In R-13 Insulation	9%	9%	9%	9%
1	321	Windows - Add Storm Windows to Double-Glazed	5.3%	5.3%	5.3%	5.3%
1	322	Windows - Add Storm Windows to Single-Glazed	13.3%	13.3%	13.3%	13.3%
1	323	Single Pane to Double Pane with Gas	32.0%	32.0%	32.0%	32.0%
1	324	Windows - Double-Glazed to Energy Star	10.0%	6.0%	10.0%	6.0%
1	400	Base Water Heating (.58)	0.0%	0.0%	0.0%	0.0%
1	401	Commercial Clotheswasher (MEF = 2.0)		33.0%		0.0%
1	402	Condensing Gas Storage water heater (>0.8 EF)	36.4%	36.4%	36.4%	36.4%
1	403	Drain Water Heat Recovery (GFX)	37.6%	37.6%	37.6%	37.6%
1	404	2011 Energy Star Clotheswasher (MEF 2.00)	4.5%	9.3%	5.1%	6.0%
1	405	Energy Star CW CEE Tier 3 (MEF=2.20)	4.7%	9.7%	5.3%	6.3%
1	406	Energy Star Dishwasher (EF=0.68)	2.1%	2.1%	2.1%	2.1%
1	407	CEE Tier 2 DW (EF=0.72)	2.4%	2.4%	2.4%	2.4%
1	408	Energy Star Water Heater (EF = .67)	11.3%	11.3%	11.3%	11.3%
1	409	Faucet Aerators	8%	8%	8%	8%
1	410	Low-Flow Showerheads	4%	4%	4%	4%
1	411	Pipe Wrap	5%	5%	5%	5%
1	412	Solar Water Heater	50.0%	50.0%	50.0%	50.0%
1	413	0.82 EF Tankless Hot Water Heater Energy Star Standard	27.6%	27.6%	27.6%	27.6%
1	500	Base Clothes Drying	0.0%	0.0%	0.0%	0.0%
1	501	Efficient Clothes Dryer (EF = 2.67)	15.0%	15.0%	15.0%	15.0%
1	600	Base Cooking	0.0%	0.0%	0.0%	0.0%
1	601	Convection Oven	33.0%	33.0%	33.0%	33.0%
1	602	EE Gas Range	10.0%	10.0%	10.0%	10.0%
1	700	Base Other	0.0%	0.0%	0.0%	0.0%
1	800	Base House Use	0.0%	0.0%	0.0%	0.0%
1	801	Conservation- Opower	1.0%	1.0%	1.0%	1.0%

DSM TECHNOLOGY INPUT TABLES

UTILITY:	Missouri	BATCH:	1
SECTOR:	RES	ANALYSIS:	Basic
SEGMENT:	Gas	VINTAGE:	N

BASE TECHNOLOGY EUIs (kWh/square foot)						
Segment	Measure #	Measure Description	SF	MF	Low Income SF	Low Income MF
2	100	Base Code Home - ES	2,572	1,612	2,652	1,697

MEASURE COSTS																			NPV of	Full = 1	Implementa	
Segment	Measure #	Measure Description	Savings Units	Cost Units	Equipment Cost	Labor Cost	Lifetime O & M Cost	ImplementatioCost Units				Initial Cost	Replace Cost	Full Unit Cost	Relative Energy Reduction Factors							Implementa Type
								Cost Factor	per Unit	Saving	Service Life				SP	SPP	SOP	WP	WPP	WOP	End Use	
2	100	Base Code Home - ES	home	home	\$0.00		\$0.00	\$0.00	1	20	1	1	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	6	2	
2	101	ENERGY STAR Home	home	home	\$2,414.98		\$0.00	\$2,414.98	1	20	1	1	\$2,414.98	1.00	1.00	1.00	1.00	1.00	1.00	6	2	

TECHNOLOGY SATURATION
(units/square foot)

Segment	Measure #	Measure Description	SF	MF	Low Income SF	Low Income MF
2	100	Base Code Home - ES	1	0.71711657	1	0.717116571
2	101	ENERGY STAR Home	1	0.7171166	1	0.71711657

**Standards Adjustment Factor
(percent)**

			SF	MF	Low Income SF	Low Income MF
Segment	Measure #	Measure Description				
2	100	Base Code Home - ES	100.0%	100.0%	100.0%	100.0%
2	101	ENERGY STAR Home	100.0%	100.0%	100.0%	100.0%

ENERGY SAVINGS
(percent)

Segment	Measure #	Measure Description	SF	MF	Low Income SF	Low Income MF
2	100	Base Code Home - ES	0.0%	0.0%	0.0%	0.0%
2	101	ENERGY STAR Home	19.35%	19.35%	19.35%	19.35%

**APPLICABILITY FACTOR
(percent)**

			SF	MF	Low Income SF	Low Income MF
Segment	Measure #	Measure Description				
2	100	Base Code Home - ES	100.0%	100.0%	100.0%	100.0%
2	101	ENERGY STAR Home	100.0%	100.0%	100.0%	100.0%

**FEASIBILITY FACTOR
(percent)**

			SF	MF	Low Income SF	Low Income MF
Segment	Measure #	Measure Description				
2	100	Base Code Home - ES	100.0%	100.0%	100.0%	100.0%
2	101	ENERGY STAR Home	100.0%	100.0%	100.0%	100.0%

**INCOMPLETE FACTOR
(percent)**

Segment	Measure #	Measure Description	SF	MF	Low Income SF	Low Income MF
2	100	Base Code Home - ES	100.0%	100.0%	100.0%	100.0%
2	101	ENERGY STAR Home	100.0%	100.0%	100.0%	100.0%