

## Appendix A: Measure Characteristics and Assumptions

This Appendix includes measure characteristics, assumptions, and sources.

Below, definitions are provided for variables whose names may require further description for the reader.

Variable	Definition
<i>Participation</i>	
First Year of Participation (So Year)	First year of the analysis in which participation is forecasted to occur for a measure. In some cases, participation does not occur in the first year of the analysis (2015) because the baseline is not relevant until after 2015; in some cases we forecasted it would take a year or more before a program could realize savings for a measure due to program processes or historically slow adoption rates.
First Year Annual Participation Rate (So)	Annual (incremental) participation rate in first year in which participation is forecasted to occur.
Year of Maximum Annual Participation (Smax Year)	Year of the analysis in which the maximum participation rate is forecasted to occur for this measure.
Maximum Annual Participation Rate (Smax)	Annual (incremental) participation rate in the year in which the maximum participation rate is forecasted to occur.
Final Year of Participation (Fo Year)	Final year in the analysis in which participation is forecasted to occur for this measure. If not 2034, this is due to a baseline change.
Final Year Annual Participation Rate (Fo)	Annual (incremental) participation rate in the final year in which participation is forecasted to occur for this measure.
<i>Applicability Factors</i>	
Total Sub-Sector Units	# of applicable buildings for commercial and residential, or # of applicable kWh for industrial process
Measure Units per Sub-Sector Unit	# of measure units applicable per sub-sector unit
Applicability	% of subsector measure is applicable to
Technical Feasibility	% of cases where measure can technically be installed
Distribution of Measure Permutation by Measure Size	If multiple measure permutations by size, the % applicability of the measure permutation's size across the relevant size options. Based on baseline data on relevant buildings/subsectors.
Distribution of Measure Permutation by Efficiency Level	If multiple measure permutations by efficiency level, the % applicability of the measure permutation's efficiency level across relevant efficiency levels. Based upon relative payback acceptance, and/or professional judgment as needed.
Not Yet Adopted Rate	One minus the current measure saturation rate
Annual Replacement Eligibility	1/measure life for replace on burnout; 100% for retrofit and new construction.
Total Applicable Measure Units	Product of all other applicability factors. Total market size for measure in 2014.

Residential Measures

							MEASURE DESCRIPTION	
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Base Measure Definition
1	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	15 W CFL - General Purpose Lighting	43W EISA compliant lamp
2	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	15 W CFL - Generic Specialty Lamp	60W EISA-exempt incandescent generic specialty lamp
3	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	12 W LED - A-type Omni-directional General Purpose Lighting	43W EISA compliant lamp
4	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	12 W LED - Generic Specialty Lamp	60W EISA-exempt incandescent generic specialty lamp
5	NWS	Residential	All	All	Consumer Electronics	Consumer Electronics	ENERGY STAR TV	Standard TV
6	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	MEF>2.0 and WF<6.0	MEF>1.26 and WF<9.5
7	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	MEF>2.0 and WF<6.0	MEF>1.26 and WF<9.5
8	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	MEF>2.0 and WF<6.0	MEF>1.26 and WF<9.5
9	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	MEF>2.0 and WF<6.0	MEF>1.26 and WF<9.5
10	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Dishwasher	<=307 KWh/yr Standard, <=222 KWh/yr Compact	<=355 KWh/yr Standard, <=260 KWh/yr Compact
11	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Dishwasher	<=307 KWh/yr Standard, <=222 KWh/yr Compact	<=355 KWh/yr Standard, <=260 KWh/yr Compact
12	NWS	Residential	All	All	Appliances	HE Refrigerator	2014 CEE Tier 3 Refrigerator	2011 DOE Standards = 2014 CEE Tier2
13	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	CEE Tier1 Window Unit 8000 btu; 11.3 EER	DOE 2014 Standard 8000 btu window unit; EER10.9
14	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	CEE Tier1 Wall Unit 20000 btu; 9.8 EER	DOE 2014 Standard Wall Unit 20000 btu; 9.4 EER
15	NWS	Residential	All	All	Appliances	Advanced Power Strips	advanced power strip	standard surge protector or wall outlet
16	NWS	Residential	All	All	Appliances	ENERGY STAR Dehumidifier	ENERGY STAR Dehumidifier, 1.85 LkWh	Federal Standard Dehumidifier, 1.5 LkWh
17	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	50 Gallon Heat Pump Water Heater - EF 2	50 Gallon Electric Storage Water Heater EF .94
18	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	50 Gallon Heat Pump Water Heater - EF 2.35	50 Gallon Electric Storage Water Heater EF .94
19	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	80 Gallon Heat Pump Water Heater - EF 2.35	80 Gallon Electric Storage Water Heater - EF 2
20	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacements	0.99 EF - Tankless Water Heater	50 Gallon Electric Storage Water Heater EF .93
21	NWS	Residential	SingleFamily&Duplex	All	Other	Home Energy Audit	Duct and Envelope Test-in/Test-out	Duct and Envelope Test-in/Test-out
22	NWS	Residential	SingleFamily&Duplex	All	Lighting	Residential Lighting Efficiency	15 W CFL - General Purpose Lighting Direct Install	43W EISA compliant lamp
23	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Faucet Aerators	1.5 GPM	2.2 GPM
24	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Low Flow Showerheads	1.5 GPM	2.5 GPM
25	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Air Infiltration	14.3 ACH50 ~ 1.9 CFM50/sq ft	10.5 ACH50 ~ 1.4 CFM50/sq ft
26	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Air Infiltration	14.3 ACH50 ~ 1.9 CFM50/sq ft	10.5 ACH50 ~ 1.4 CFM50/sq ft
27	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Air Infiltration	14.3 ACH50 ~ 1.9 CFM50/sq ft	10.5 ACH50 ~ 1.4 CFM50/sq ft
28	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Air Infiltration	14.3 ACH50 ~ 1.9 CFM50/sq ft	10.5 ACH50 ~ 1.4 CFM50/sq ft
29	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Attic Knee Wall Insulation	R-30	No Insulation
30	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Attic Knee Wall Insulation	R-30	No Insulation
31	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Attic Knee Wall Insulation	R-30	No Insulation
32	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Attic Knee Wall Insulation	R-30	No Insulation
33	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	10"-12" of Insulation	0"-2" of Insulation
34	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	10"-12" of Insulation	2"-4" of Insulation
35	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	10"-12" of Insulation	4"-6" of Insulation
36	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	10"-12" of Insulation	6"-8" of Insulation
37	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	10"-12" of Insulation	0"-2" of Insulation
38	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	10"-12" of Insulation	2"-4" of Insulation
39	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	10"-12" of Insulation	4"-6" of Insulation
40	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	10"-12" of Insulation	6"-8" of Insulation
41	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	10"-12" of Insulation	0"-2" of Insulation
42	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	10"-12" of Insulation	2"-4" of Insulation
43	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	10"-12" of Insulation	4"-6" of Insulation
44	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	10"-12" of Insulation	6"-8" of Insulation
45	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	10"-12" of Insulation	0"-2" of Insulation
46	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	10"-12" of Insulation	2"-4" of Insulation
47	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	10"-12" of Insulation	4"-6" of Insulation
48	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	10"-12" of Insulation	6"-8" of Insulation
49	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Sealing	6.8 CFM25 per 100sqft of Conditioned Space	23 CFM25 per 100sqft of Conditioned Space
50	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Sealing	6.8 CFM25 per 100sqft of Conditioned Space	23 CFM25 per 100sqft of Conditioned Space
51	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Sealing	6.8 CFM25 per 100sqft of Conditioned Space	23 CFM25 per 100sqft of Conditioned Space
52	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	U-0.35 and SHGC 0.3	single pane
53	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	U-0.35 and SHGC 0.3	single pane
54	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	U-0.35 and SHGC 0.3	single pane
55	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	U-0.35 and SHGC 0.3	single pane
56	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	U-0.35 and SHGC 0.3	double pane
57	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	U-0.35 and SHGC 0.3	double pane
58	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	U-0.35 and SHGC 0.3	double pane
59	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	U-0.35 and SHGC 0.3	double pane
60	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	U-0.35 and SHGC 0.3	double pane

Residential Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	MEASURE DESCRIPTION	
							Efficient Measure Definition	Base Measure Definition
61	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Floor Insulation	R-19	No Insulation
62	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Floor Insulation	R-19	No Insulation
63	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Floor Insulation	R-19	No Insulation
64	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Floor Insulation	R-19	No Insulation
65	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Radiant Barriers	Ceiling insulation > R-19w/radiant barrier	Ceiling insulation > R-19w/o radiant barrier
66	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Radiant Barriers	Ceiling insulation > R-19w/radiant barrier	Ceiling insulation > R-19w/o radiant barrier
67	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Radiant Barriers	Ceiling insulation > R-19w/radiant barrier	Ceiling insulation > R-19w/o radiant barrier
68	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Radiant Barriers	Ceiling insulation > R-19w/radiant barrier	Ceiling insulation > R-19w/o radiant barrier
69	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Wall Insulation	R-13	No Insulation
70	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Wall Insulation	R-13	No Insulation
71	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Wall Insulation	R-13	No Insulation
72	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Wall Insulation	R-13	No Insulation
73	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Jackets	3" WHJ	No Insulation
74	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Pipe Insulation	3/4" Insulation	No Insulation
75	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Window Film	Film SHGC < 0.5	double pane
76	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Film SHGC < 0.5	Film SHGC < 0.5	double pane
77	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Window Film	Film SHGC < 0.5	double pane
78	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Window Film	Film SHGC < 0.5	double pane
79	NWS	Residential	SingleFamily&Duplex	All	Other	ENERGY STAR Variable Speed Drive Pool Pump	VSD Pump ≥1.0 HP and ≤2.0 HP - Summer-Only Operation (5.5 months)	Single Speed Pump - ≥1.0 HP and ≤2.0 HP - Summer-Only Operation (5.5 months)
80	NWS	Residential	SingleFamily&Duplex	All	HVAC	High Efficiency Bathroom Exhaust Fan	Exhaust fan, 8.3 CFM/W, <2.0 sones (quiet), operating in accordance with ASHRAE 62.2	Exhaust fan, 3.1 CFM/W, <2.0 sones (quiet), operating in accordance with ASHRAE 62.2
82	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	SEER 15 CAC	SEER 14 CAC
83	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	SEER 16 CAC	SEER 14 CAC
84	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	SEER 18 CAC	SEER 14 CAC
85	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	SEER 15 CAC	SEER 13 CAC
86	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	SEER 16 CAC	SEER 13 CAC
87	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	SEER 18 CAC	SEER 13 CAC
88	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	SEER 15 CAC with ECM Furnace Motor	SEER 14 CAC with PSC Furnace Motor
89	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	SEER 16 CAC with ECM Furnace Motor	SEER 14 CAC with PSC Furnace Motor
90	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	SEER 18 CAC with ECM Furnace Motor	SEER 14 CAC with PSC Furnace Motor
91	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	SEER 15 CAC with ECM Furnace Motor	SEER 13 CAC with PSC Furnace Motor
92	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	SEER 16 CAC with ECM Furnace Motor	SEER 13 CAC with PSC Furnace Motor
93	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	SEER 18 CAC with ECM Furnace Motor	SEER 13 CAC with PSC Furnace Motor
94	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	SEER 15 HP	SEER 14 HP
95	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	SEER 16 HP	SEER 14 HP
96	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	SEER 18 HP	SEER 14 HP
97	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	SEER 15 HP	SEER 13 HP
98	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	SEER 16 HP	SEER 13 HP
99	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	SEER 18 HP	SEER 13 HP
100	WS	Residential	All	AC	HVAC	Mini-Split AC	SEER 15 Mini-Split AC	SEER 14 CAC
101	WS	Residential	All	AC	HVAC	Mini-Split AC	SEER 22 Mini-Split AC	SEER 14 CAC
102	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	SEER 15 Mini-Split Heat Pump	SEER 14 Central Heat Pump
103	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	SEER 22 Mini-Split Heat Pump	SEER 14 Central Heat Pump
104	WS	Residential	All	AC	HVAC	Mini-Split AC	SEER 15 Mini-Split AC	SEER 13 CAC
105	WS	Residential	All	AC	HVAC	Mini-Split AC	SEER 22 Mini-Split AC	SEER 13 CAC
106	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	SEER 15 Mini-Split Heat Pump	SEER 13 Central Heat Pump
107	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	SEER 22 Mini-Split Heat Pump	SEER 13 Central Heat Pump
108	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	ENERGY STAR Open Loop Water-to-Air System with Desuperheater	SEER 13 Air Source Heat Pump
109	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	ENERGY STAR Open Loop Water-to-Air System with Desuperheater	SEER 14 Air Source Heat Pump
111	WS	Residential	All	AC	HVAC	Central AC Tune-up	5% improvement in efficiency of existing equipment (11.2 EER)	Existing equipment (10.6 EER)
112	WS	Residential	All	Heat Pump	HVAC	Heat Pump Tune-up	5% improvement in efficiency of existing equipment (11.2 EER)	Existing equipment (10.6 EER)
114	NWS	Residential	All	All	Appliances	Refrigerator/Freezer Recycling	Recycling Secondary Refrigerator/Freezer	Functioning Secondary Refrigerator/Freezer
115	NWS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner Recycling	Recycling of non-efficient window AC unit	Inefficient window AC unit
117	NWS	Residential	Multi-family	All	Other	Home Energy Audit	Direct Install	Direct Install
118	NWS	Residential	Multi-family	All	Lighting	Residential Lighting Efficiency	15 W CFL - General Purpose Lighting Direct Install	43W EISA compliant lamp
119	NWS	Residential	Multi-family	Electric WH	Hot Water	Faucet Aerators	1.5 GPM	2.2 GPM
120	NWS	Residential	Multi-family	Electric WH	Hot Water	Low Flow Showerheads	1.5 GPM	2.5 GPM

Residential Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	MEASURE DESCRIPTION	
							Efficient Measure Definition	Base Measure Definition
121	NWS	Residential	Multifamily	Common Area	Lighting	Hallway Lighting Efficiency	High Performance T8/T5 with Low-BF Ballast	2-Lamp 32W HPT8/T5 with Low-BF Ballast
122	NWS	Residential	Multifamily	Common Area	Lighting	Exterior Lighting Efficiency	75 W Outdoor LED lamp	250W Metal Halide
124	WS	Residential	SingleFamily&Duplex	All	Lighting	New home - lighting	High Performance Homes - Lighting Package	
125	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	High Performance Homes - HVAC and Shell Improvements	Code level home with SEER 13 cooling equipment
126	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	High Performance Homes - HVAC and Shell Improvements	Code level home with SEER 14 cooling equipment
127	WS	Residential	SingleFamily&Duplex	All	Other	New home - furnace	High Performance Homes - Furnace Improvements	Code level home with standard furnace
129	WS	Residential	All	All	Other	Benchmarking	2% Energy savings on average	
130	WS	Residential	All	AC	Other	Direct Load Control Switch	0.85 kW Savings	
131	WS	Residential	All	Heat Pump	Other	Direct Load Control Switch	0.85 kW Savings	
132	WS	Residential	All	AC	Other	Direct Load Control Thermostat	0.85 kW Savings	
133	WS	Residential	All	Heat Pump	Other	Direct Load Control Thermostat	0.85 kW Savings	
134	WS	Residential	All	AC	Other	Enabled Dynamic Pricing (Res)	27.5% Peak Demand Savings	
135	WS	Residential	All	AC	Other	Non-Enabled Dynamic Pricing (Res)	11% Peak Demand Savings	
136	WS	Residential	All	All	Other	Low-Income Weatherization Package		
137	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	Solar DHW 3.0 EF meeting SRCC OG-300 Standard; 80 gallon tank (LA State Tax Credit version, valid through 2017)	
138	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	Solar DHW 3.0 EF meeting SRCC OG-300 Standard; 80 gallon tank	
140	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Insulation	R-8	Un-insulated metal supply and return ductwork
141	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Duct Insulation	R-8	Un-insulated metal supply and return ductwork
142	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Insulation	R-8	Un-insulated metal supply and return ductwork
143	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Insulation	R-8	Un-insulated metal supply and return ductwork
144	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Gas Furnace Replacement	ENERGY STAR 90% AFUE	80% AFUE
145	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	ENERGY STAR 90% AFUE	80% AFUE
146	WS	Residential	Multifamily	AC/Gas Heat	HVAC	Gas Furnace Replacement	ENERGY STAR 90% AFUE	80% AFUE
147	WS	Residential	Multifamily	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	ENERGY STAR 90% AFUE	80% AFUE
148	WS	Residential	All	AC/Gas Heat	HVAC	Gas Furnace Tune-Up	Tune-up of an existing residential gas furnace	Existing residential furnace
149	WS	Residential	All	Gas Heat (No AC)	HVAC	Gas Furnace Tune-Up	Tune-up of an existing residential gas furnace	Existing residential furnace
150	WS	Residential	All	Gas WH	Hot Water	Efficient Gas water heaters	.62 EF storage water heater	.59 EF storage water heater
151	WS	Residential	All	Gas WH	Hot Water	Tankless Gas water heater	.82 EF tankless water heater	.59 EF storage water heater
152	WS	Residential	All	Gas WH	Hot Water	Gas WH jacket	R-6.7 insulation (40, gallons, 3" insulation)	uninsulated post 1991 storage-type water heater (40 gallons)
153	WS	Residential	All	Gas WH	Hot Water	Gas WH pipe insulation	1/2" insulation on hot water pipes	uninsulated hot water pipes
154	NWS	Residential	All	Gas WH	Hot Water	Faucet aerators – Gas WH	1.5 GPM	2.2 GPM
155	NWS	Residential	All	Gas WH	Hot Water	Low Flow Showerheads	1.5 GPM	2.5 GPM

Residential Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Unit Name	EPM Logic (RET/ROB/N/EW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	MEASURE INCREMENTAL SAVING PER UNIT					
											Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
1	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	per lamp	ROB	2	8	\$1.50	15	0.00330	0	0	0
2	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	per lamp	ROB	2	8	\$5.00	25	0.00530	0	0	0
3	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	per lamp	ROB	2	20	\$10.00	19	0.00410	0	0	0
4	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	per lamp	ROB	2	20	\$10.00	29	0.00630	0	0	0
5	NWS	Residential	All	All	Consumer Electronics	Consumer Electronics	per appliance	ROB	8	8	\$40.00	140	0.00160	0	0	0
6	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	per appliance	ROB	11	11	\$175.76	24	0.00300	9	0	0
7	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	per appliance	ROB	11	11	\$175.76	224	0.03100	0	0	0
8	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	per appliance	ROB	11	11	\$175.76	141	0.01900	3	0	0
9	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	per appliance	ROB	11	11	\$175.76	97	0.01300	6	0	0
10	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Dishwasher	per appliance	ROB	11	11	\$259.00	74	0.01000	0	0	0
11	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Dishwasher	per appliance	ROB	11	11	\$259.00	33	0.00400	2	0	0
12	NWS	Residential	All	All	Appliances	HE Refrigerator	per appliance	ROB	16	16	\$84.00	26	0.00397	0	0	0
13	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	per appliance	ROB	10	10	\$40.00	20	0.02260	0	0	0
14	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	per appliance	ROB	10	10	\$40.00	27	0.03020	0	0	0
15	NWS	Residential	All	All	Appliances	Advanced Power Strips	per home	RET	10	10	\$15.50	112	0.01400	0	0	0
16	NWS	Residential	All	All	Appliances	ENERGY STAR Dehumidifier	per home	ROB	12	12	\$60.00	163	0.03693	0	0	0
17	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Installed Units	ROB	13	13	\$1,000.00	2,403	0.21070	0	0	0
18	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Installed Units	ROB	13	13	\$1,128.00	2,723	0.23880	0	0	0
19	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Installed Units	ROB	13	13	\$128.00	357	0.03130	0	0	0
20	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacements	Installed Units	ROB	20	20	\$800.00	207	0.01820	0	0	0
22	NWS	Residential	SingleFamily&Duplex	All	Other	Home Energy Audit	per home	RET	1	1	\$250.00	0	0.00000	0	0	0
23	NWS	Residential	SingleFamily&Duplex	All	Lighting	Residential Lighting Efficiency	per lamp	RET	2	8	\$4.65	17	0.00400	0	0	0
24	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Faucet Aerators	per faucet	RET	10	10	\$3.00	33	0.00350	0	0	0
25	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Low Flow Showerheads	per showerhead	RET	10	10	\$9.75	295	0.03070	0	0	0
26	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Air Infiltration	per home	RET	11	11	\$537.00	488	0.47268	20	0	0
27	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Air Infiltration	per home	RET	11	11	\$537.00	19	0.00000	20	0	0
28	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Air Infiltration	per home	RET	11	11	\$537.00	948	0.47268	0	0	0
29	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Air Infiltration	per home	RET	11	11	\$537.00	577	0.47268	0	0	0
30	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Attic Knee Wall Insulation	per home	RET	20	20	\$1,028.00	304	0.25896	7	0	0
31	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Attic Knee Wall Insulation	per home	RET	20	20	\$1,028.00	12	0.00375	7	0	0
32	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Attic Knee Wall Insulation	per home	RET	20	20	\$1,028.00	472	0.26030	0	0	0
33	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Attic Knee Wall Insulation	per home	RET	20	20	\$1,028.00	343	0.25799	0	0	0
34	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	per home	RET	20	20	\$1,803.06	2,790	0.97921	105	0	0
35	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	per home	RET	20	20	\$1,252.66	1,461	0.47822	55	0	0
36	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	per home	RET	20	20	\$1,252.66	797	0.24670	31	0	0
37	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	per home	RET	20	20	\$797.14	380	0.11955	16	0	0
38	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	per home	RET	20	20	\$1,803.06	114	0.03893	105	0	0
39	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	per home	RET	20	20	\$1,252.66	69	0.02282	55	0	0
40	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	per home	RET	20	20	\$1,252.66	45	0.01464	31	0	0
41	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	per home	RET	20	20	\$797.14	29	0.00932	16	0	0
42	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	per home	RET	20	20	\$1,803.06	5,200	0.97921	0	0	0
43	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	per home	RET	20	20	\$1,252.66	2,714	0.47822	0	0	0
44	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	per home	RET	20	20	\$1,252.66	1,499	0.24670	0	0	0
45	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	per home	RET	20	20	\$797.14	740	0.11955	0	0	0
46	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	per home	RET	20	20	\$1,803.06	3,852	1.00198	0	0	0
47	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	per home	RET	20	20	\$1,252.66	2,012	0.47822	0	0	0
48	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	per home	RET	20	20	\$1,252.66	1,101	0.24670	0	0	0
49	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	per home	RET	20	20	\$797.14	531	0.11955	0	0	0
50	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Sealing	per home	RET	18	18	\$1,165.00	4,933	0.66656	0	0	0
51	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Sealing	per home	RET	18	18	\$1,165.00	3,280	0.66656	0	0	0
52	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Sealing	per home	RET	18	18	\$1,165.00	1,830	0.66656	132	0	0
53	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	per home	RET	20	20	\$6,482.60	1,457	0.91364	105	0	0
54	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	per home	RET	20	20	\$6,482.60	92	0.03659	105	0	0
55	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	per home	RET	20	20	\$6,482.60	3,854	0.98128	0	0	0
56	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	per home	RET	20	20	\$6,482.60	2,618	0.99520	0	0	0
57	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	per home	ROB	20	20	\$1,365.23	937	0.57984	28	0	0
58	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	per home	ROB	20	20	\$1,365.23	41	0.01616	28	0	0
59	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	per home	ROB	20	20	\$1,365.23	1,577	0.57984	0	0	0
60	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	per home	ROB	20	20	\$1,365.23	1,261	0.57984	0	0	0

Residential Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	MEASURE DESCRIPTION				MEASURE INCREMENTAL SAVING PER UNIT								
				Building Type	End Use	Measure Name	Measure Unit Name	EPM Logic (RET/ROB/N EW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
61	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Floor Insulation	per home	RET	20	20	\$1,973.60	228	0.34918	120	0	0
62	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Floor Insulation	per home	RET	20	20	\$1,973.60	214	0.00000	120	0	0
63	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Floor Insulation	per home	RET	20	20	\$1,973.60	2,960	0.34918	0	0	0
64	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Floor Insulation	per home	RET	20	20	\$1,973.60	1,499	0.34918	0	0	0
65	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Radiant Barriers	per home	RET	25	25	\$1,423.27	303	0.34139	18	0	0
66	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Radiant Barriers	per home	RET	25	25	\$1,423.27	2	0.00051	18	0	0
67	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Radiant Barriers	per home	RET	25	25	\$1,423.27	711	0.34382	0	0	0
68	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Radiant Barriers	per home	RET	25	25	\$1,423.27	561	0.34495	0	0	0
69	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Wall Insulation	per home	RET	20	20	\$1,310.36	1,073	0.79597	132	0	0
70	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Wall Insulation	per home	RET	20	20	\$1,310.36	280	0.10982	132	0	0
71	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Wall Insulation	per home	RET	20	20	\$1,310.36	4,098	0.79597	0	0	0
72	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Wall Insulation	per home	RET	20	20	\$1,310.36	2,467	0.79597	0	0	0
73	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Jackets	Installed Units	RET	13	13	\$53.50	104	0.00800	0	0	0
74	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Pipe Insulation	Installed Units	RET	13	13	\$38.42	44	0.01400	0	0	0
75	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Window Film	sqft of windows	RET	10	10	\$2.66	2	0.00067	0	0	0
76	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Window Film	sqft of windows	RET	10	10	\$2.66	0	0.00000	0	0	0
77	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Window Film	sqft of windows	RET	10	10	\$2.66	2	0.00067	0	0	0
78	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Window Film	sqft of windows	RET	10	10	\$2.66	2	0.00067	0	0	0
79	NWS	Residential	SingleFamily&Duplex	All	Other	ENERGY STAR Variable Speed Drive Pool Pump	per unit	RET	10	10	\$848.00	2,182	0.47900	0	0	0
80	NWS	Residential	SingleFamily&Duplex	All	HVAC	High Efficiency Bathroom Exhaust Fan	per unit	RET	19	19	\$43.50	89	0.01010	0	0	0
82	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$357.00	409	0.11692	0	0	0
83	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$714.00	768	0.21639	0	0	0
84	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$1,431.00	1,365	0.37379	0	0	0
85	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$714.00	882	0.25509	0	0	0
86	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$1,071.00	1,240	0.35456	0	0	0
87	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$1,788.00	1,837	0.51196	0	0	0
88	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$357.00	610	0.11692	0	0	0
89	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$714.00	968	0.21639	0	0	0
90	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$1,431.00	1,565	0.37379	0	0	0
91	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$714.00	1,082	0.25509	0	0	0
92	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$1,071.00	1,441	0.35456	0	0	0
93	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	Home	ROB	15	15	\$1,788.00	2,038	0.51196	0	0	0
94	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Home	ROB	15	15	\$411.00	555	0.11692	0	0	0
95	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Home	ROB	15	15	\$822.00	1,055	0.21639	0	0	0
96	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Home	ROB	15	15	\$1,698.00	1,912	0.37379	0	0	0
97	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Home	ROB	15	15	\$822.00	1,346	0.25509	0	0	0
98	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Home	ROB	15	15	\$1,233.00	1,846	0.35456	0	0	0
99	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Home	ROB	15	15	\$2,055.00	2,703	0.51196	0	0	0
100	WS	Residential	All	AC	HVAC	Mini-Split AC	Home	ROB	15	13	\$1,394.69	4,064	1.44836	0	0	0
101	WS	Residential	All	AC	HVAC	Mini-Split AC	Home	ROB	15	13	\$3,510.08	5,887	1.90112	0	0	0
102	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	Home	ROB	15	13	\$1,394.69	6,141	1.44836	0	0	0
103	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	Home	ROB	15	13	\$3,510.08	8,806	1.90112	0	0	0
104	WS	Residential	All	AC	HVAC	Mini-Split AC	Home	ROB	15	13	\$1,751.69	3,884	1.34877	0	0	0
105	WS	Residential	All	AC	HVAC	Mini-Split AC	Home	ROB	15	13	\$3,867.08	5,707	1.80153	0	0	0
106	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	Home	ROB	15	13	\$1,751.69	6,126	1.34877	0	0	0
107	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	Home	ROB	15	13	\$3,867.08	8,792	1.80153	0	0	0
108	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	per home	ROB	15	15	\$9,000.00	13,424	1.31207	0	0	0
109	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	per home	ROB	15	15	\$8,500.00	11,996	1.17891	0	0	0
111	WS	Residential	All	AC	HVAC	Central AC Tune-up	Home	ROB	10	10	\$175.00	384	0.14010	0	0	0
112	WS	Residential	All	Heat Pump	HVAC	Heat Pump Tune-up	Home	ROB	10	10	\$175.00	638	0.14010	0	0	0
114	NWS	Residential	All	All	Appliances	Refrigerator/Freezer Recycling	per appliance	RET	8	8	\$120.00	810	0.12240	0	0	0
115	NWS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner Recycling	per appliance	RET	4	4	\$120.00	1,430	0.82170	0	0	0
117	NWS	Residential	Multifamily	All	Other	Home Energy Audit	per home	RET	1	1	\$0.00	0	0.00000	0	0	0
118	NWS	Residential	Multifamily	All	Lighting	Residential Lighting Efficiency	per lamp	RET	2	8	\$4.65	17	0.00400	0	0	0
119	NWS	Residential	Multifamily	Electric WH	Hot Water	Faucet Aerators	per faucet	RET	10	10	\$3.00	33	0.00350	0	0	0
120	NWS	Residential	Multifamily	Electric WH	Hot Water	Low Flow Showerheads	per showerhead	RET	10	10	\$9.75	295	0.03070	0	0	0

Residential Measures

MEASURE DESCRIPTION											MEASURE INCREMENTAL SAVING PER UNIT					
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Unit Name	EEPM Logic (RET/ROB/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
121	NWS	Residential	Multifamily	Common Area	Lighting	Hallway Lighting Efficiency	Per Fixture	RET	11	11	\$55.00	65	0.01000	0	0	0
122	NWS	Residential	Multifamily	Common Area	Lighting	Exterior Lighting Efficiency	Per Fixture	RET	2	11	\$175.00	781	0.00000	0	0	0
124	WS	Residential	SingleFamily&Duplex	All	Lighting	New home - lighting	per home	NEW	2	8	\$38.80	995	0.14120	0	0	0
125	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	per home	NEW	17	17	\$1,797.87	1,507	0.41603	0	0	0
126	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	per home	NEW	17	17	\$1,397.87	1,176	0.30825	0	0	0
127	WS	Residential	SingleFamily&Duplex	All	Other	New home - furnace	per home	NEW	20	20	\$1,028.80	0	0.00000	115	0	0
129	WS	Residential	All	All	Other	Benchmarking	per customer	RET	1	1	\$10.50	270	0.06205	2	0	0
130	WS	Residential	All	AC	Other	Direct Load Control Switch	per customer	RET	5	5	\$170.00	0	1.20000	0	0	0
131	WS	Residential	All	Heat Pump	Other	Direct Load Control Switch	per customer	RET	5	5	\$170.00	0	1.20000	0	0	0
132	WS	Residential	All	AC	Other	Direct Load Control Thermostat	per customer	RET	5	5	\$110.00	0	1.20000	0	0	0
133	WS	Residential	All	Heat Pump	Other	Direct Load Control Thermostat	per customer	RET	5	5	\$110.00	0	1.20000	0	0	0
134	WS	Residential	All	AC	Other	Enabled Dynamic Pricing (Res)	per customer	RET	10	10	\$200.00	0	0.69000	0	0	0
135	WS	Residential	All	AC	Other	Non-Enabled Dynamic Pricing (Res)	per customer	RET	10	10	\$1.00	0	0.31000	0	0	0
136	WS	Residential	All	All	Other	Low-Income Weatherization Package	per home	RET	14	14	\$2,740.00	3,891	1.09431	48	0	0
137	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	per customer	RET	20	20	\$3,149.50	2,628	0.42000	0	0	0
138	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	per customer	RET	20	20	\$6,299.00	2,628	0.42000	0	0	0
140	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Insulation	Home	RET	20	20	\$730.26	268	0.41752	13	0	0
141	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Duct Insulation	Home	RET	20	20	\$730.26	0	0.00000	13	0	0
142	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Insulation	Home	RET	20	20	\$730.26	1,061	0.41752	0	0	0
143	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Insulation	Home	RET	20	20	\$730.26	941	0.41752	0	0	0
144	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Gas Furnace Replacement	Home	ROB	20	20	\$630.00	0	0.00000	14	0	0
145	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	Home	ROB	20	20	\$630.00	0	0.00000	14	0	0
146	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Gas Furnace Replacement	Home	ROB	20	20	\$630.00	0	0.00000	8	0	0
147	WS	Residential	Multifamily	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	Home	ROB	20	20	\$630.00	0	0.00000	8	0	0
148	WS	Residential	All	AC/Gas Heat	HVAC	Gas Furnace Tune-Up	Per Unit	RET	3	3	\$175.00	0	0.00000	34	0	0
149	WS	Residential	All	Gas Heat (No AC)	HVAC	Gas Furnace Tune-Up	Per Unit	RET	3	3	\$175.00	0	0.00000	34	0	0
150	WS	Residential	All	Gas WH	Hot Water	Efficient Gas water heaters	Home	ROB	11	11	\$400.00	0	0.00000	10	0	0
151	WS	Residential	All	Gas WH	Hot Water	Tankless Gas water heater	Home	ROB	20	20	\$605.00	0	0.00000	55	0	0
152	WS	Residential	All	Gas WH	Hot Water	Gas WH jacket	Home	RET	13	13	\$53.50	0	0.00000	5	0	0
153	WS	Residential	All	Gas WH	Hot Water	Gas WH pipe insulation	Home	RET	11	11	\$38.42	0	0.00000	2	0	0
154	NWS	Residential	All	Gas WH	Hot Water	Faucet aerators – Gas WH	per faucet	RET	10	10	\$3.00	0	0.00000	1	0	0
155	NWS	Residential	All	Gas WH	Hot Water	Low Flow Showerheads	per showerhead	RET	10	10	\$9.75	0	0.00000	10	0	0

Residential Measures

MEASURE DESCRIPTION						MEASURE SELECTION					APPLICABILITY							PROGRAM		
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure TRC calculated for 2014	Measure TRC calculated for 2020	Measure TRC calculated for 2022	Passed Measure Screening? (1=Yes, 0=No)	Total Sub-Sector Units	Measure Units per Sub-Sector Unit	Applicability	Technical Feasibility	Distribution by size/model but not Efficiency Level	Distribution by Efficiency Level	Not Yet Adopted	Annual Replacement Eligibility	Total Applicable Measure Units	Program Name
1	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	3.3	4.7	5.1	1	162,863	34	100%	68.0%	0%	50%	100%	50%	938,578	Residential Lighting & Appliances
2	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	1.6	2.3	2.4	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
3	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	1.7	2.0	2.1	1	162,863	34	100%	68.0%	0%	50%	100%	50%	938,578	Residential Lighting & Appliances
4	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	2.6	3.1	3.3	1	162,863	34	100%	32.0%	0%	100%	100%	50%	883,367	Residential Lighting & Appliances
5	NWS	Residential	All	All	Consumer Electronics	Consumer Electronics	1.1	1.2	1.3	1	162,863	1	100%	0%	0%	0%	4%	13%	814	Residential Lighting & Appliances
6	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	0.3	0.3	0.3	0	0	0	0%	0%	0%	0%	0%	0%	0	"N/A"
7	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	0.6	0.8	0.8	0	0	0	0%	0%	0%	0%	0%	0%	0	"N/A"
8	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	0.5	0.6	0.6	0	0	0	0%	0%	0%	0%	0%	0%	0	"N/A"
9	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	0.4	0.5	0.5	0	0	0	0%	0%	0%	0%	0%	0%	0	"N/A"
10	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Dishwasher	0.1	0.2	0.2	0	0	0	0%	0%	0%	0%	0%	0%	0	"N/A"
11	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Dishwasher	0.1	0.1	0.1	0	0	0	0%	0%	0%	0%	0%	0%	0	"N/A"
12	NWS	Residential	All	All	Appliances	HE Refrigerator	0.2	0.3	0.3	0	0	0	0%	0%	0%	0%	0%	0%	0	"N/A"
13	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	0.4	0.8	0.8	0	0	0	0%	0%	0%	0%	0%	0%	0	"N/A"
14	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	0.6	1.0	1.1	1	162,863	2	39%	0%	50%	0%	100%	10%	6,352	Residential Lighting & Appliances
15	NWS	Residential	All	All	Appliances	Advanced Power Strips	3.2	4.0	4.2	1	162,863	1	100%	0%	0%	0%	100%	100%	232,894	Residential Lighting & Appliances
16	NWS	Residential	All	All	Appliances	ENERGY STAR Dehumidifier	1.6	2.1	2.2	1	162,863	1	100%	32.2%	0%	100%	0%	8%	4,370	Residential Lighting & Appliances
17	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	1.3	1.5	1.6	1	162,863	1	27%	0%	50%	50%	100%	8%	842	Water Heating
18	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	1.3	1.5	1.6	1	162,863	1	27%	0%	50%	50%	100%	8%	842	Water Heating
19	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	1.5	1.8	1.9	1	162,863	1	27%	0%	50%	0%	100%	8%	1,691	Water Heating
20	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacements	0.2	0.2	0.2	0	0	0	0%	0%	0%	0%	0%	0%	0	"N/A"
22	NWS	Residential	SingleFamily&Duplex	All	Other	Home Energy Audit	0.0	0.0	0.0	1	131,919	1	100%	56.2%	0%	0%	0%	100%	74,086	Residential Home Audit & Retrofit
23	NWS	Residential	SingleFamily&Duplex	All	Lighting	Residential Lighting Efficiency	1.2	1.7	1.9	1	131,919	12	100%	56.2%	0%	0%	66%	100%	586,758	Residential Home Audit & Retrofit
24	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Faucet Aerators	4.7	5.8	6.1	1	131,919	2	27%	56.2%	0%	0%	0%	100%	40,006	Residential Home Audit & Retrofit
25	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Low Flow Showerheads	13.0	15.9	16.8	1	131,919	1	27%	56.2%	0%	0%	0%	100%	20,003	Residential Home Audit & Retrofit
26	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Air Infiltration	1.0	1.5	1.6	1	131,919	1	36%	56.2%	0%	0%	52%	100%	14,016	Residential Home Audit & Retrofit
27	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Air Infiltration	0.2	0.2	0.2	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
28	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Air Infiltration	1.2	1.7	1.9	1	131,919	1	21%	56.2%	0%	0%	52%	100%	7,943	Residential Home Audit & Retrofit
29	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Air Infiltration	0.9	1.4	1.6	1	131,919	1	4%	56.2%	0%	0%	52%	100%	1,541	Residential Home Audit & Retrofit
30	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Attic Knee Wall Insulation	0.5	0.7	0.7	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
31	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Attic Knee Wall Insulation	0.1	0.1	0.1	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
32	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Attic Knee Wall Insulation	0.6	0.7	0.8	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
33	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Attic Knee Wall Insulation	0.5	0.7	0.7	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
34	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	2.0	2.4	2.5	1	131,919	1	36%	56.2%	0%	0%	25%	100%	6,739	Residential Home Audit & Retrofit
35	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	1.5	1.8	1.9	1	131,919	1	36%	56.2%	0%	33%	75%	100%	6,671	Residential Home Audit & Retrofit
36	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	0.8	1.0	1.0	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
37	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	0.6	0.7	0.8	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
38	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	0.4	0.5	0.5	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
39	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	0.3	0.4	0.4	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
40	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	0.2	0.2	0.2	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
41	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	0.2	0.2	0.2	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
42	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	2.5	3.0	3.1	1	131,919	1	21%	56.2%	0%	0%	25%	100%	3,819	Residential Home Audit & Retrofit
43	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	1.9	2.2	2.3	1	131,919	1	21%	56.2%	0%	33%	75%	100%	3,780	Residential Home Audit & Retrofit
44	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	1.0	1.2	1.2	1	131,919	1	21%	56.2%	0%	33%	75%	100%	3,780	Residential Home Audit & Retrofit
45	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	0.8	0.9	1.0	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
46	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	2.0	2.5	2.6	1	131,919	1	4%	56.2%	0%	0%	25%	100%	741	Residential Home Audit & Retrofit
47	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	1.5	1.8	1.9	1	131,919	1	4%	56.2%	0%	33%	75%	100%	733	Residential Home Audit & Retrofit
48	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	0.8	1.0	1.0	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
49	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	0.6	0.7	0.8	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
50	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Sealing	3.2	3.7	3.9	1	131,919	1	21%	56.2%	0%	0%	52%	100%	7,943	Residential Home Audit & Retrofit
51	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Sealing	2.3	2.8	2.9	1	131,919	1	4%	56.2%	0%	0%	52%	100%	1,541	Residential Home Audit & Retrofit
52	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Sealing	2.2	2.7	2.8	1	131,919	1	36%	56.2%	0%	0%	52%	100%	14,016	Residential Home Audit & Retrofit
53	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	0.4	0.5	0.5	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
54	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	0.1	0.1	0.1	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
55	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	0.6	0.7	0.7	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
56	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	0.4	0.5	0.6	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
57	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	1.1	1.3	1.4	1	131,919	1	36%	56.2%	0%	0%	0%	5%	1,348	Residential Home Audit & Retrofit
58	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	0.2	0.2	0.2	0	0	0	0%	0.0%	0%	0%	0%	0%	0	"N/A"
59	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	1.2	1.5	1.6	1	131,919	1	21%	56.2%	0%	0%	0%	5%	764	Residential Home Audit & Retrofit
60	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	1.1	1.4	1.4	1	131,919	1	4%	56.2%	0%	0%	0%	5%	148	Residential Home Audit & Retrofit



Residential Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				MEASURE SELECTION						APPLICABILITY							PROGRAM	
		Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure TRC calculated for 2014	Measure TRC calculated for 2020	Measure TRC calculated for 2022	Passed Measure Screening? (1=Yes, 0=No)	Total Sub-Sector Units	Measure Units per Sub-Sector Unit	Applicability	Technical Feasibility	Distribution by size/model but not Efficiency Level	Distribution by Efficiency Level	Not Yet Adopted	Annual Replacement Eligibility		Total Applicable Measure Units
61	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Floor Insulation	0.7	0.8	0.8	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
62	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Floor Insulation	0.5	0.5	0.5	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
63	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Floor Insulation	1.2	1.4	1.4	1	131,919	1	21%	56.2%	0%	0%	35%	100%	5,346	Residential Home Audit & Retrofit
64	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Floor Insulation	0.7	0.8	0.9	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
65	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Radiant Barriers	0.6	0.7	0.8	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
66	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Radiant Barriers	0.1	0.1	0.1	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
67	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Radiant Barriers	0.7	0.9	0.9	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
68	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Radiant Barriers	0.6	0.8	0.8	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
69	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Wall Insulation	1.9	2.3	2.4	1	131,919	1	36%	56.2%	0%	0%	35%	100%	9,434	Residential Home Audit & Retrofit
70	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Wall Insulation	0.9	1.0	1.0	1	131,919	1	39%	56.2%	0%	0%	35%	100%	10,113	Residential Home Audit & Retrofit
71	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Wall Insulation	2.8	3.3	3.4	1	131,919	1	21%	56.2%	0%	0%	35%	100%	5,346	Residential Home Audit & Retrofit
72	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Wall Insulation	1.9	2.4	2.5	1	131,919	1	4%	56.2%	0%	0%	35%	100%	1,037	Residential Home Audit & Retrofit
73	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Jackets	1.0	1.2	1.3	1	131,919	1	27%	56.2%	0%	0%	8%	100%	1,539	Residential Home Audit & Retrofit
74	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Pipe Insulation	0.8	1.0	1.1	1	131,919	1	27%	56.2%	0%	0%	8%	100%	1,539	Residential Home Audit & Retrofit
75	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Window Film	0.4	0.6	0.6	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
76	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Window Film	0.0	0.0	0.0	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
77	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Window Film	0.3	0.5	0.5	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
78	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Window Film	0.4	0.6	0.6	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
79	NWS	Residential	SingleFamily&Duplex	All	Other	ENERGY STAR Variable Speed Drive Pool Pump	1.2	1.6	1.8	1	131,919	1	100%	4.3%	0%	0%	100%	0	Pool Pump	
80	NWS	Residential	SingleFamily&Duplex	All	HVAC	High Efficiency Bathroom Exhaust Fan	1.6	1.8	1.9	1	131,919	2	100%	56.2%	0%	0%	100%	148,171	Residential Home Audit & Retrofit	
82	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	0.9	1.1	1.2	1	162,863	1	21%	0%	98%	34%	100%	7%	748	ENERGY STAR Air Conditioning
83	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	0.8	1.0	1.1	1	162,863	1	21%	0%	98%	34%	100%	7%	733	ENERGY STAR Air Conditioning
84	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	0.7	0.9	1.0	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
85	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	1.0	1.2	1.3	1	162,863	1	21%	0%	98%	34%	100%	7%	746	ENERGY STAR Air Conditioning
86	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	0.9	1.1	1.2	1	162,863	1	21%	0%	98%	34%	100%	7%	732	ENERGY STAR Air Conditioning
87	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	0.8	1.0	1.0	1	162,863	1	21%	0%	98%	32%	100%	7%	704	ENERGY STAR Air Conditioning
88	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	1.2	1.5	1.5	1	162,863	1	36%	0%	98%	35%	100%	7%	1,358	ENERGY STAR Air Conditioning
89	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	1.0	1.2	1.3	1	162,863	1	36%	0%	98%	33%	100%	7%	1,286	ENERGY STAR Air Conditioning
90	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	0.8	1.0	1.1	1	162,863	1	36%	0%	98%	31%	100%	7%	1,207	ENERGY STAR Air Conditioning
91	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	1.1	1.4	1.4	1	162,863	1	36%	0%	98%	35%	100%	7%	1,330	ENERGY STAR Air Conditioning
92	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	1.0	1.2	1.3	1	162,863	1	36%	0%	98%	34%	100%	7%	1,291	ENERGY STAR Air Conditioning
93	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	0.8	1.1	1.1	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
94	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	1.0	1.2	1.2	1	162,863	1	4%	0%	97%	34%	100%	7%	144	ENERGY STAR Air Conditioning
95	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	0.9	1.1	1.2	1	162,863	1	4%	0%	97%	34%	100%	7%	142	ENERGY STAR Air Conditioning
96	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	0.8	1.0	1.0	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
97	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	1.1	1.4	1.5	1	162,863	1	4%	0%	97%	34%	100%	7%	144	ENERGY STAR Air Conditioning
98	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	1.0	1.3	1.3	1	162,863	1	4%	0%	97%	33%	100%	7%	141	ENERGY STAR Air Conditioning
99	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	0.9	1.1	1.2	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
100	WS	Residential	All	AC	HVAC	Mini-Split AC	2.1	2.8	3.0	1	162,863	1	57%	0%	3%	52%	100%	7%	81	ENERGY STAR Air Conditioning
101	WS	Residential	All	AC	HVAC	Mini-Split AC	1.2	1.5	1.6	1	162,863	1	57%	0%	3%	48%	100%	7%	74	ENERGY STAR Air Conditioning
102	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	2.8	3.6	3.8	1	162,863	1	4%	0%	3%	52%	100%	7%	6	ENERGY STAR Air Conditioning
103	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	1.6	2.0	2.1	1	162,863	1	4%	0%	3%	48%	100%	7%	5	ENERGY STAR Air Conditioning
104	WS	Residential	All	AC	HVAC	Mini-Split AC	1.6	2.1	2.2	1	162,863	1	57%	0%	3%	52%	100%	7%	80	ENERGY STAR Air Conditioning
105	WS	Residential	All	AC	HVAC	Mini-Split AC	1.0	1.3	1.4	1	162,863	1	57%	0%	3%	48%	100%	7%	74	ENERGY STAR Air Conditioning
106	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	2.2	2.8	2.9	1	162,863	1	4%	0%	3%	51%	100%	7%	6	ENERGY STAR Air Conditioning
107	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	1.4	1.8	1.9	1	162,863	1	4%	0%	3%	49%	100%	7%	5	ENERGY STAR Air Conditioning
108	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	0.9	1.1	1.1	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
109	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	0.9	1.0	1.1	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
111	WS	Residential	All	AC	HVAC	Central AC Tune-up	1.2	1.7	1.8	1	162,863	1	57%	0%	0%	0%	0%	10%	9,283	ENERGY STAR Air Conditioning
112	WS	Residential	All	Heat Pump	HVAC	Heat Pump Tune-up	1.8	2.3	2.5	1	162,863	1	4%	0%	0%	0%	0%	10%	651	ENERGY STAR Air Conditioning
114	NWS	Residential	All	All	Appliances	Refrigerator/Freezer Recycling	2.4	3.2	3.4	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
115	NWS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner Recycling	2.6	4.8	5.7	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
117	NWS	Residential	Multifamily	All	Other	Home Energy Audit	#DIV/0!	#DIV/0!	#DIV/0!	0	0	0	0%	0%	0%	0%	0%	0	'N/A	
118	NWS	Residential	Multifamily	All	Lighting	Residential Lighting Efficiency	1.2	1.7	1.9	1	29,315	8	100%	30.7%	1.2	0%	66%	100%	47,484	Multifamily
119	NWS	Residential	Multifamily	Electric WH	Hot Water	Faucet Aerators	4.7	5.8	6.1	1	29,315	2	27%	30.7%	0%	0%	68%	100%	3,303	Multifamily
120	NWS	Residential	Multifamily	Electric WH	Hot Water	Low Flow Showerheads	13.0	15.9	16.8	1	29,315	1	27%	30.7%	0%	0%	68%	100%	1,652	Multifamily

Residential Measures

MEASURE DESCRIPTION						MEASURE SELECTION						APPLICABILITY						PROGRAM		
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure TRC calculated for 2014	Measure TRC calculated for 2020	Measure TRC calculated for 2022	Passed Measure Screening? (1=Yes, 0=No)	Total Sub-Sector Units	Measure Units per Sub-Sector Unit	Applicability	Technical Feasibility	Distribution by size/model but not Efficiency Level	Distribution by Efficiency Level	Not Yet Adopted	Annual Replacement Eligibility	Total Applicable Measure Units	Program Name
121	NWS	Residential	Multifamily	Common Area	Lighting	Hallway Lighting Efficiency	0.5	0.7	0.7	0	0	0	0%	0%	0%	0%	0%	0%	0	*NA
122	NWS	Residential	Multifamily	Common Area	Lighting	Exterior Lighting Efficiency	1.9	2.1	2.1	1	29,315	1	100%	11.1%	0%	0%	0%	100%	3,244	Multifamily
124	WS	Residential	SingleFamily&Duplex	All	Lighting	New home - lighting	8.0	10.4	11.2	1	591	1	100%	0%	0%	0%	0%	100%	591	Efficient New Homes
125	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	0.7	0.9	0.9	1	591	1	100%	0%	0%	0%	0%	100%	591	Efficient New Homes
126	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	0.7	0.9	0.9	1	591	1	100%	0%	0%	0%	0%	100%	591	Efficient New Homes
127	WS	Residential	SingleFamily&Duplex	All	Other	New home - furnace	0.7	0.8	0.8	1	591	1	100%	0%	0%	0%	0%	100%	591	Efficient New Homes
129	WS	Residential	All	All	Other	Benchmarking	1.3	1.7	2.2	1	162,863	1	100%	0%	0%	0%	0%	100%	162,863	Home Energy Use Benchmarking
130	WS	Residential	All	AC	Other	Direct Load Control Switch	0.9	3.5	4.3	1	162,863	1	57%	0%	0%	0%	0%	100%	92,832	Direct Load Control
131	WS	Residential	All	Heat Pump	Other	Direct Load Control Switch	0.9	3.5	4.3	1	162,863	1	4%	0%	0%	0%	0%	100%	6,515	Direct Load Control
132	WS	Residential	All	AC	Other	Direct Load Control Thermostat	1.4	5.4	6.7	1	162,863	1	57%	0%	0%	0%	0%	100%	92,832	Direct Load Control
133	WS	Residential	All	Heat Pump	Other	Direct Load Control Thermostat	1.4	5.4	6.7	1	162,863	1	4%	0%	0%	0%	0%	100%	6,515	Direct Load Control
134	WS	Residential	All	AC	Other	Enabled Dynamic Pricing (Res)	1.5	3.4	3.8	0	0	0	0%	0%	0%	0%	0%	0	*NA	
135	WS	Residential	All	AC	Other	Non-Enabled Dynamic Pricing (Res)	139.0	303.3	339.0	1	162,863	1	57%	0%	0%	0%	0%	100%	92,832	Dynamic Pricing
136	WS	Residential	All	All	Other	Low-Income Weatherization Package	1.1	1.4	1.5	1	162,863	1	100%	22.0%	0%	0%	0%	100%	35,830	Low-Income Weatherization
137	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	0.7	0.8	0.9	1	162,863	1	27%	0%	0%	0%	0%	100%	43,973	Solar Hot Water
138	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	0.4	0.4	0.4	1	162,863	1	27%	0%	0%	0%	0%	100%	43,973	Solar Hot Water
140	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Insulation	1.0	1.3	1.4	1	131,919	1	36%	0%	0%	0%	79%	100%	37,917	Residential Home Audit & Retrofit
141	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Duct Insulation	0.1	0.1	0.1	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
142	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Insulation	1.6	2.0	2.1	1	131,919	1	21%	0%	0%	0%	79%	100%	21,486	Residential Home Audit & Retrofit
143	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Insulation	1.5	1.9	2.0	1	131,919	1	4%	0%	0%	0%	79%	100%	4,169	Residential Home Audit & Retrofit
144	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Gas Furnace Replacement	0.1	0.2	0.2	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
145	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	0.1	0.2	0.2	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
146	WS	Residential	Multifamily	AC/Gas Heat	HVAC	Gas Furnace Replacement	0.1	0.1	0.1	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
147	WS	Residential	Multifamily	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	0.1	0.1	0.1	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
148	WS	Residential	All	AC/Gas Heat	HVAC	Gas Furnace Tune-Up	0.2	0.3	0.3	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
149	WS	Residential	All	Gas Heat (No AC)	HVAC	Gas Furnace Tune-Up	0.2	0.3	0.3	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
150	WS	Residential	All	Gas WH	Hot Water	Efficient Gas water heaters	0.1	0.1	0.1	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
151	WS	Residential	All	Gas WH	Hot Water	Tankless Gas water heater	0.6	0.6	0.7	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
152	WS	Residential	All	Gas WH	Hot Water	Gas WH jacket	0.5	0.5	0.5	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
153	WS	Residential	All	Gas WH	Hot Water	Gas WH pipe insulation	0.2	0.2	0.2	0	0	0	0%	0%	0%	0%	0%	0	0	*NA
154	NWS	Residential	All	Gas WH	Hot Water	Faucet aerators - Gas WH	1.4	1.6	1.7	1	162,863	2	65%	0%	0%	0%	68%	100%	143,971	Residential Home Audit & Retrofit
155	NWS	Residential	All	Gas WH	Hot Water	Low Flow Showerheads	3.8	4.3	4.5	1	162,863	1	65%	0%	0%	0%	68%	100%	71,985	Residential Home Audit & Retrofit

# Residential Measures

MEASURE DESCRIPTION						MEASURE DOCUMENTATION					
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
1	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	IL TRM	AR TRM	AR TRM	DOE	RASS
2	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	IL TRM	AR TRM	AR TRM	DOE	RASS
3	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	IL TRM	AR TRM	AR TRM	DOE	RASS
4	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	IL TRM	AR TRM	AR TRM	DOE	RASS
5	NWS	Residential	All	All	Consumer Electronics	Consumer Electronics	ICF	ICF	ICF	ICF	RASS
6	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	ICF	ICF	ICF	ICF	RASS
7	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	ICF	ICF	ICF	ICF	RASS
8	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	ICF	ICF	ICF	ICF	RASS
9	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	ICF	ICF	ICF	ICF	RASS
10	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Dishwasher	ICF	ICF	ICF	ICF	RASS
11	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Dishwasher	ICF	ICF	ICF	ICF	RASS
12	NWS	Residential	All	All	Appliances	HE Refrigerator	DOE	IL TRM	AR TRM	ICF	RASS
13	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	IL TRM	ICF/AR TRM	AR TRM	RECS	RASS
14	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	IL TRM	ICF/AR TRM	AR TRM	RECS	RASS
15	NWS	Residential	All	All	Appliances	Advanced Power Strips	ICF	AR TRM	AR TRM	RASS	RASS
16	NWS	Residential	All	All	Appliances	ENERGY STAR Dehumidifier	IL TRM	IL TRM	IL TRM	ICF	RASS
17	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	IL TRM	ICF/AR TRM	AR TRM	ICF	RASS
18	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	IL TRM	ICF/AR TRM	AR TRM	ICF	RASS
19	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	IL TRM	ICF/AR TRM	AR TRM	ICF	RASS
20	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacements	ICF	ICF/AR TRM	AR TRM	ICF	RASS
22	NWS	Residential	SingleFamily&Duplex	All	Other	Home Energy Audit	ICF	ICF	ICF	ICF	RASS
23	NWS	Residential	SingleFamily&Duplex	All	Lighting	Residential Lighting Efficiency	ICF	AR TRM	AR TRM	ICF	RASS
24	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Faucet Aerators	ICF	AR TRM	AR TRM	ICF	RASS
25	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Low Flow Showerheads	ICF	AR TRM	AR TRM	ICF	RASS
26	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Air Infiltration	ICF	ICF/AR TRM	AR TRM	ICF	RASS
27	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Air Infiltration	ICF	ICF/AR TRM	AR TRM	ICF	RASS
28	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Air Infiltration	ICF	ICF/AR TRM	AR TRM	ICF	RASS
29	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Air Infiltration	ICF	ICF/AR TRM	AR TRM	ICF	RASS
30	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Attic Knee Wall Insulation	ICF	ICF/AR TRM	AR TRM	ICF	RASS
31	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Attic Knee Wall Insulation	ICF	ICF/AR TRM	AR TRM	ICF	RASS
32	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Attic Knee Wall Insulation	ICF	ICF/AR TRM	AR TRM	ICF	RASS
33	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Attic Knee Wall Insulation	ICF	ICF/AR TRM	AR TRM	ICF	RASS
34	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
35	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
36	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
37	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
38	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
39	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
40	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
41	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
42	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
43	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
44	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
45	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
46	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
47	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
48	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
49	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
50	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Sealing	ICF	ICF/AR TRM	AR TRM	ICF	RASS
51	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Sealing	ICF	ICF/AR TRM	AR TRM	ICF	RASS
52	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Sealing	ICF	ICF/AR TRM	AR TRM	ICF	RASS
53	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	DEER	ICF/AR TRM	AR TRM	ICF	RASS
54	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	DEER	ICF/AR TRM	AR TRM	ICF	RASS
55	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	DEER	ICF/AR TRM	AR TRM	ICF	RASS
56	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	DEER	ICF/AR TRM	AR TRM	ICF	RASS
57	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	DEER	ICF/AR TRM	AR TRM	ICF	RASS
58	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	DEER	ICF/AR TRM	AR TRM	ICF	RASS
59	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	DEER	ICF/AR TRM	AR TRM	ICF	RASS
60	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	DEER	ICF/AR TRM	AR TRM	ICF	RASS

Residential Measures

MEASURE DESCRIPTION						MEASURE DOCUMENTATION					
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
61	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Floor Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
62	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Floor Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
63	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Floor Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
64	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Floor Insulation	DEER	ICF/AR TRM	AR TRM	RASS	RASS
65	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Radiant Barriers	DEER	ICF/AR TRM	AR TRM	RASS	RASS
66	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Radiant Barriers	DEER	ICF/AR TRM	AR TRM	RASS	RASS
67	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Radiant Barriers	DEER	ICF/AR TRM	AR TRM	RASS	RASS
68	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Radiant Barriers	DEER	ICF/AR TRM	AR TRM	RASS	RASS
69	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Wall Insulation	DEER	ICF/AR TRM	AR TRM	ICF	RASS
70	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Wall Insulation	DEER	ICF/AR TRM	AR TRM	ICF	RASS
71	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Wall Insulation	DEER	ICF/AR TRM	AR TRM	ICF	RASS
72	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Wall Insulation	DEER	ICF/AR TRM	AR TRM	ICF	RASS
73	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Jackets	DEER	ICF/AR TRM	AR TRM	ICF	RASS
74	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Pipe Insulation	DEER	ICF/AR TRM	AR TRM	ICF	RASS
75	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Window Film	DEER	ICF/AR TRM	AR TRM	ICF	RASS
76	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Window Film	DEER	ICF/AR TRM	AR TRM	ICF	RASS
77	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Window Film	DEER	ICF/AR TRM	AR TRM	ICF	RASS
78	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Window Film	DEER	ICF/AR TRM	AR TRM	ICF	RASS
79	NWS	Residential	SingleFamily&Duplex	All	Other	ENERGY STAR Variable Speed Drive Pool Pump	ICF	OK TRM	OK TRM	ICF	RASS
80	NWS	Residential	SingleFamily&Duplex	All	HVAC	High Efficiency Bathroom Exhaust Fan	IL TRM	IL TRM	IL TRM	RECS	RASS
82	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	DEER	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
83	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	DEER	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
84	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	DEER	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
85	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	DEER	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
86	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	DEER	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
87	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	DEER	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
88	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ICF	ICF/OK TRM	AR TRM	ICF	RASS
89	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ICF	ICF/OK TRM	AR TRM	ICF	RASS
90	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ICF	ICF/OK TRM	AR TRM	ICF	RASS
91	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ICF	ICF/OK TRM	AR TRM	ICF	RASS
92	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ICF	ICF/OK TRM	AR TRM	ICF	RASS
93	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ICF	ICF/OK TRM	AR TRM	ICF	RASS
94	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Mid atlantic TRM	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
95	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Mid atlantic TRM	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
96	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Mid atlantic TRM	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
97	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Mid atlantic TRM	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
98	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Mid atlantic TRM	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
99	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	Mid atlantic TRM	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock	AR TRM	ICF	RASS
100	WS	Residential	All	AC	HVAC	Mini-Split AC	DEER/ICF research	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock/AR TRM	OK TRM	ICF	RASS
101	WS	Residential	All	AC	HVAC	Mini-Split AC	DEER/ICF research	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock/AR TRM	OK TRM	ICF	RASS
102	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	DEER/ICF research	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock/AR TRM	OK TRM	ICF	RASS
103	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	DEER/ICF research	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock/AR TRM	OK TRM	ICF	RASS
104	WS	Residential	All	AC	HVAC	Mini-Split AC	DEER/ICF research	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock/AR TRM	OK TRM	ICF	RASS
105	WS	Residential	All	AC	HVAC	Mini-Split AC	DEER/ICF research	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock/AR TRM	OK TRM	ICF	RASS
106	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	DEER/ICF research	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock/AR TRM	OK TRM	ICF	RASS
107	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	DEER/ICF research	OK TRM with EFLH from ENERGY STAR AC/HP savings calculator for Little Rock/AR TRM	OK TRM	ICF	RASS
108	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	ICF/DOE	ICF/OK TRM	OK TRM	ICF	RASS
109	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	ICF/DOE	ICF/OK TRM	OK TRM	ICF	RASS
111	WS	Residential	All	AC	HVAC	Central AC Tune-up	IL TRM	AR TRM	AR TRM	ICF	RASS
112	WS	Residential	All	Heat Pump	HVAC	Heat Pump Tune-up	IL TRM	AR TRM	AR TRM	ICF	RASS
114	NWS	Residential	All	All	Appliances	Refrigerator/Freezer Recycling	IL TRM	Ameren PYS Evaluation Report	IL TRM	RECS	RASS
115	NWS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner Recycling	IL TRM	ICF/AR TRM	IL TRM	RECS	RASS
117	NWS	Residential	MultiFamily	All	Other	Home Energy Audit	ICF	ICF	ICF	ICF	RASS
118	NWS	Residential	MultiFamily	All	Lighting	Residential Lighting Efficiency	ICF	AR TRM	AR TRM	ICF	RASS
119	NWS	Residential	MultiFamily	Electric WH	Hot Water	Faucet Aerators	ICF	AR TRM	AR TRM	ICF	RASS
120	NWS	Residential	MultiFamily	Electric WH	Hot Water	Low Flow Showerheads	ICF	AR TRM	AR TRM	ICF	RASS

Residential Measures

MEASURE DESCRIPTION						MEASURE DOCUMENTATION					
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
121	NWS	Residential	Multifamily	Common Area	Lighting	Hallway Lighting Efficiency	IL TRM	ICF	AR & IL TRM	ICF	RASS
122	NWS	Residential	Multifamily	Common Area	Lighting	Exterior Lighting Efficiency	IL TRM	ICF	AR & IL TRM	ICF	RASS
124	WS	Residential	SingleFamily&Duplex	All	Lighting	New home - lighting	PSO outreachMid atlantic TRM	PSO new homes program w/ Monroe weather file and upgrade lighting and seer baseline	AR-TRM	ICF	RASS
125	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	PSO outreachMid atlantic TRM	PSO new homes program w/ Monroe weather file and upgrade lighting baseline	ICF	ICF	RASS
126	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	PSO outreachMid atlantic TRM	PSO new homes program w/ Monroe weather file and upgrade lighting and seer baseline	ICF	ICF	RASS
127	WS	Residential	SingleFamily&Duplex	All	Other	New home - furnace	Mid atlantic TRM	PSO new homes program w/ Monroe weather file and upgrade lighting baseline	AR-TRM	ICF	RASS
129	WS	Residential	All	All	Other	Benchmarking	2011 Model	ComEd PY5 Program Evaluation	2011 Model	ICF	RASS
130	WS	Residential	All	AC	Other	Direct Load Control Switch	2011 Model	Comverge EAI Study	2011 Model	ICF	RASS
131	WS	Residential	All	Heat Pump	Other	Direct Load Control Switch	2011 Model	Comverge EAI Study	2011 Model	ICF	RASS
132	WS	Residential	All	AC	Other	Direct Load Control Thermostat	2011 Model	Comverge EAI Study	2011 Model	ICF	RASS
133	WS	Residential	All	Heat Pump	Other	Direct Load Control Thermostat	2011 Model	Comverge EAI Study	2011 Model	ICF	RASS
134	WS	Residential	All	AC	Other	Enabled Dynamic Pricing (Res)	2011 Model	2011 Model	2011 Model	ICF	RASS
135	WS	Residential	All	AC	Other	Non-Enabled Dynamic Pricing (Res)	2011 Model	2011 Model	2011 Model	ICF	RASS
136	WS	Residential	All	All	Other	Low-Income Weatherization Package	2011 ICF Model	ICF based EAI 2011 data	ICF based EAI 2011 data	ICF	RASS
137	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	2011 ICF Model	2011 ICF Model	2011 ICF Model	ICF	RASS
138	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	2011 ICF Model	2011 ICF Model	2011 ICF Model	ICF	RASS
140	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Insulation	NREL data base	EAI TRM	EAI TRM (based on NEAT)	ICF	RASS
141	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Duct Insulation	NREL data base	EAI TRM	EAI TRM (based on NEAT)	ICF	RASS
142	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Insulation	NREL data base	EAI TRM	EAI TRM (based on NEAT)	ICF	ICF
143	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Insulation	NREL data base	EAI TRM	EAI TRM (based on NEAT)	ICF	ICF
144	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Gas Furnace Replacement	IL TRM and Mid Atlantic TRM	EAI TRM	EAI TRM (based on DEER 2008)	ICF	ICF
145	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	IL TRM and Mid Atlantic TRM	EAI TRM	EAI TRM (based on DEER 2008)	ICF	ICF
146	WS	Residential	Multifamily	AC/Gas Heat	HVAC	Gas Furnace Replacement	IL TRM and Mid Atlantic TRM	EAI TRM	EAI TRM (based on DEER 2008)	ICF	ICF
147	WS	Residential	Multifamily	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	IL TRM and Mid Atlantic TRM	EAI TRM	EAI TRM (based on DEER 2008)	ICF	ICF
148	WS	Residential	All	AC/Gas Heat	HVAC	Gas Furnace Tune-Up	not in il, not in ok, not in ar, not in nrel, not in mid atlantic, not in RS means. Used AC tune up cost	EAI TRM	EAI TRM (based on NEAT)	ICF	ICF
149	WS	Residential	All	Gas Heat (No AC)	HVAC	Gas Furnace Tune-Up	not in il, not in ok, not in ar, not in nrel, not in mid atlantic, not in RS means. Used AC tune up cost	EAI TRM	EAI TRM (based on NEAT)	ICF	ICF
150	WS	Residential	All	Gas WH	Hot Water	Efficient Gas water heaters	IL TRM	EAI TRM	EAI TRM (based on DEER 2008)	ICF	ICF
151	WS	Residential	All	Gas WH	Hot Water	Tankless Gas water heater	IL TRM	EAI TRM	EAI TRM (based on DEER 2008)	ICF	ICF
152	WS	Residential	All	Gas WH	Hot Water	Gas WH jacket	DEER	EAI TRM	EAI TRM (based on NEAT)	ICF	ICF
153	WS	Residential	All	Gas WH	Hot Water	Gas WH pipe insulation	DEER	EAI TRM	EAI TRM (based on NEAT)	ICF	ICF
154	NWS	Residential	All	Gas WH	Hot Water	Faucet aerators - Gas WH	Based on EAI MF direct install program	EAI TRM	EAI TRM (based on DEER 2008)	ICF	RASS
155	NWS	Residential	All	Gas WH	Hot Water	Low Flow Showerheads	Based on EAI MF direct install program	EAI TRM	EAI TRM (based on DEER 2008)	ICF	RASS

Residential Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Annual Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation (Fo Year)
1	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	Residential Lighting & Appliances	2016	18.803%	2017	39.003600%	2020	6.496152%
2	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
3	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	Residential Lighting & Appliances	2016	4.037%	2020	8.555985%	2020	8.555985%
4	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	Residential Lighting & Appliances	2015	2.924%	2020	20.115380%	2034	0.672113%
5	NWS	Residential	All	All	Consumer Electronics	Consumer Electronics	Residential Lighting & Appliances	2015	1.602%	2034	8.008618%	2034	8.008618%
6	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
7	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
8	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
9	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
10	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
11	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
12	NWS	Residential	All	All	Appliances	HE Refrigerator	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
13	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
14	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	Residential Lighting & Appliances	2015	0.003%	2034	0.015919%	2034	0.015919%
15	NWS	Residential	All	All	Appliances	Advanced Power Strips	Residential Lighting & Appliances	2015	3.147%	2034	15.732867%	2034	15.732867%
16	NWS	Residential	All	All	Appliances	ENERGY STAR Dehumidifier	Residential Lighting & Appliances	2015	0.510%	2034	2.549144%	2034	2.549144%
17	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Water Heating	2015	0.800%	2034	3.997793%	2034	3.997793%
18	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Water Heating	2015	0.804%	2034	4.019057%	2034	4.019057%
19	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Water Heating	2015	0.933%	2034	4.664616%	2034	4.664616%
20	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacements	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
22	NWS	Residential	SingleFamily&Duplex	All	Other	Home Energy Audit	Residential Home Audit & Retrofit	2015	0.250%	2019	1.500000%	2034	1.500000%
23	NWS	Residential	SingleFamily&Duplex	All	Lighting	Residential Lighting Efficiency	Residential Home Audit & Retrofit	2015	0.188%	2019	1.125000%	2034	1.125000%
24	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Faucet Aerators	Residential Home Audit & Retrofit	2015	0.188%	2019	1.125000%	2034	1.125000%
25	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Low Flow Showerheads	Residential Home Audit & Retrofit	2015	0.188%	2019	1.125000%	2034	1.125000%
26	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Air Infiltration	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
27	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Air Infiltration	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
28	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Air Infiltration	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
29	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Air Infiltration	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
30	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
31	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
32	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
33	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
34	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
35	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
36	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
37	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
38	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
39	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
40	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
41	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
42	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
43	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
44	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
45	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
46	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
47	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
48	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
49	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
50	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Sealing	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
51	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Sealing	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
52	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Sealing	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
53	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
54	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
55	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
56	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
57	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
58	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
59	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
60	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%

Residential Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Annual Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation (Fo Year)
61	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Floor Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
62	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Floor Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
63	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Floor Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
64	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Floor Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
65	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
66	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
67	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
68	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
69	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Wall Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
70	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Wall Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
71	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Wall Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
72	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Wall Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
73	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Jackets	Residential Home Audit & Retrofit	2015	0.188%	2019	1.125000%	2034	1.125000%
74	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Pipe Insulation	Residential Home Audit & Retrofit	2015	0.188%	2019	1.125000%	2034	1.125000%
75	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
76	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
77	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
78	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
79	NWS	Residential	SingleFamily&Duplex	All	Other	ENERGY STAR Variable Speed Drive Pool Pump	Pool Pump	2015	0.430%	2034	2.151567%	2034	2.151567%
80	NWS	Residential	SingleFamily&Duplex	All	HVAC	High Efficiency Bathroom Exhaust Fan	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
82	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	25.627131%	2015	0.000000%
83	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	25.203805%	2015	0.000000%
84	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
85	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2016	5.218%	2015	5.217731%	2015	5.217731%
86	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2016	5.138%	2015	5.137650%	2015	5.137650%
87	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2016	4.979%	2015	4.978826%	2015	4.978826%
88	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	27.822445%	2015	0.000000%
89	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	26.635176%	2015	0.000000%
90	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	25.319469%	2015	0.000000%
91	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2016	5.447%	2015	5.447070%	2015	5.447070%
92	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2016	5.318%	2015	5.317856%	2015	5.317856%
93	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
94	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	26.615089%	2015	0.000000%
95	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	26.320437%	2015	0.000000%
96	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
97	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	ENERGY STAR Air Conditioning	2016	5.524%	2015	5.524305%	2015	5.524305%
98	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	ENERGY STAR Air Conditioning	2016	5.434%	2015	5.434376%	2015	5.434376%
99	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
100	WS	Residential	All	AC	HVAC	Mini-Split AC	ENERGY STAR Air Conditioning	2015	0.000%	2034	29.819926%	2015	0.000000%
101	WS	Residential	All	AC	HVAC	Mini-Split AC	ENERGY STAR Air Conditioning	2015	0.000%	2034	27.734872%	2015	0.000000%
102	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	6.166%	2034	30.828174%	2034	30.828174%
103	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	5.870%	2034	29.350306%	2034	29.350306%
104	WS	Residential	All	AC	HVAC	Mini-Split AC	ENERGY STAR Air Conditioning	2016	5.783%	2015	5.782534%	2015	5.782534%
105	WS	Residential	All	AC	HVAC	Mini-Split AC	ENERGY STAR Air Conditioning	2016	5.419%	2015	5.419152%	2015	5.419152%
106	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	6.063%	2034	30.313155%	2034	30.313155%
107	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	5.801%	2034	29.005445%	2034	29.005445%
108	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
109	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
111	WS	Residential	All	AC	HVAC	Central AC Tune-up	ENERGY STAR Air Conditioning	2015	5.776%	2034	28.878397%	2034	28.878397%
112	WS	Residential	All	Heat Pump	HVAC	Heat Pump Tune-up	ENERGY STAR Air Conditioning	2015	6.083%	2034	30.414928%	2034	30.414928%
114	NWS	Residential	All	All	Appliances	Refrigerator/Freezer Recycling	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
115	NWS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner Recycling	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
117	NWS	Residential	Multifamily	All	Other	Home Energy Audit	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
118	NWS	Residential	Multifamily	All	Lighting	Residential Lighting Efficiency	Multifamily	2015	13.500%	2017	26.400000%	2034	1.600000%
119	NWS	Residential	Multifamily	Electric WH	Hot Water	Faucet Aerators	Multifamily	2015	13.500%	2017	26.400000%	2034	1.600000%
120	NWS	Residential	Multifamily	Electric WH	Hot Water	Low Flow Showerheads	Multifamily	2015	13.500%	2017	26.400000%	2034	1.600000%

Residential Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Annual Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation (Fo Year)
121	NWS	Residential	Multifamily	Common Area	Lighting	Hallway Lighting Efficiency	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
122	NWS	Residential	Multifamily	Common Area	Lighting	Exterior Lighting Efficiency	Multifamily	2015	13.5000%	2017	26.400000%	2034	1.600000%
124	WS	Residential	SingleFamily&Duplex	All	Lighting	New home - lighting	Efficient New Homes	2016	1.375%	2018	6.600000%	2020	6.600000%
125	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	Efficient New Homes	2016	1.375%	2015	1.375000%	2015	1.375000%
126	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	Efficient New Homes	2015	0.000%	2018	6.600000%	2015	0.000000%
127	WS	Residential	SingleFamily&Duplex	All	Other	New home - furnace	Efficient New Homes	2016	1.375%	2015	1.375000%	2015	1.375000%
129	WS	Residential	All	All	Other	Benchmarking	Home Energy Use Benchmarking	2015	2.500%	2015	2.500000%	2034	2.500000%
130	WS	Residential	All	AC	Other	Direct Load Control Switch	Direct Load Control	2015	0.328%	2017	0.982500%	2034	0.982500%
131	WS	Residential	All	Heat Pump	Other	Direct Load Control Switch	Direct Load Control	2015	0.328%	2017	0.982500%	2034	0.982500%
132	WS	Residential	All	AC	Other	Direct Load Control Thermostat	Direct Load Control	2015	0.328%	2017	0.982500%	2034	0.982500%
133	WS	Residential	All	Heat Pump	Other	Direct Load Control Thermostat	Direct Load Control	2015	0.328%	2017	0.982500%	2034	0.982500%
134	WS	Residential	All	AC	Other	Enabled Dynamic Pricing (Res)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
135	WS	Residential	All	AC	Other	Non-Enabled Dynamic Pricing (Res)	Dynamic Pricing	2015	0.192%	2018	0.769231%	2034	0.769231%
136	WS	Residential	All	All	Other	Low-Income Weatherization Package	Low-Income Weatherization	2015	0.200%	2015	0.200000%	2034	0.200000%
137	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	Solar Hot Water	2016	0.005%	2015	0.004912%	2017	0.004912%
138	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	Solar Hot Water	2015	0.000%	2018	0.002456%	2015	0.000000%
140	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
141	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Duct Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
142	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
143	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Insulation	Residential Home Audit & Retrofit	2015	0.025%	2019	0.150000%	2034	0.150000%
144	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
145	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
146	WS	Residential	Multifamily	AC/Gas Heat	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
147	WS	Residential	Multifamily	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
148	WS	Residential	All	AC/Gas Heat	HVAC	Gas Furnace Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
149	WS	Residential	All	Gas Heat (No AC)	HVAC	Gas Furnace Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
150	WS	Residential	All	Gas WH	Hot Water	Efficient Gas water heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
151	WS	Residential	All	Gas WH	Hot Water	Tankless Gas water heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
152	WS	Residential	All	Gas WH	Hot Water	Gas WH jacket	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
153	WS	Residential	All	Gas WH	Hot Water	Gas WH pipe insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
154	NWS	Residential	All	Gas WH	Hot Water	Faucet aerators – Gas WH	Residential Home Audit & Retrofit	2015	0.188%	2019	1.125000%	2034	1.125000%
155	NWS	Residential	All	Gas WH	Hot Water	Low Flow Showerheads	Residential Home Audit & Retrofit	2015	0.188%	2019	1.125000%	2034	1.125000%



Residential Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					Measure Name	PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type	End Use	Program Name			First Year of Participation (So Year)	First Year Annual Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation (Fo Year)	Final Year Participation Rate (Fo)
1	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	Residential Lighting & Appliances	2016	75.000%	2015	75.000000%	2020	12.605250%	
2	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
3	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	Residential Lighting & Appliances	2016	18.815%	2020	28.128132%	2020	28.128132%	
4	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	Residential Lighting & Appliances	2015	8.500%	2018	43.621218%	2034	1.000000%	
5	NWS	Residential	All	All	Consumer Electronics	Consumer Electronics	Residential Lighting & Appliances	2015	5.000%	2034	20.000000%	2034	20.000000%	
6	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
7	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
8	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
9	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
10	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
11	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
12	NWS	Residential	All	All	Appliances	HE Refrigerator	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
13	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
14	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	Residential Lighting & Appliances	2015	6.250%	2034	25.000000%	2034	25.000000%	
15	NWS	Residential	All	All	Appliances	Advanced Power Strips	Residential Lighting & Appliances	2015	5.000%	2034	20.000000%	2034	20.000000%	
16	NWS	Residential	All	All	Appliances	ENERGY STAR Dehumidifier	Residential Lighting & Appliances	2015	2.500%	2034	10.000000%	2034	10.000000%	
17	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Water Heating	2015	3.333%	2034	10.000000%	2034	10.000000%	
18	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Water Heating	2015	3.333%	2034	10.000000%	2034	10.000000%	
19	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Water Heating	2015	3.333%	2034	10.000000%	2034	10.000000%	
20	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacements	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
21	NWS	Residential	SingleFamily&Duplex	All	Other	Home Energy Audit	Residential Home Audit & Retrofit	2015	0.250%	2018	2.000000%	2034	2.000000%	
22	NWS	Residential	SingleFamily&Duplex	All	Lighting	Residential Lighting Efficiency	Residential Home Audit & Retrofit	2015	0.188%	2018	1.500000%	2034	1.500000%	
23	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Faucet Aerators	Residential Home Audit & Retrofit	2015	0.188%	2018	1.500000%	2034	1.500000%	
24	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Low Flow Showerheads	Residential Home Audit & Retrofit	2015	0.188%	2018	1.500000%	2034	1.500000%	
25	NWS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Air Infiltration	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
26	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Air Infiltration	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
27	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Air Infiltration	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
28	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Air Infiltration	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
29	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
30	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
31	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
32	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
33	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
34	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
35	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
36	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
37	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
38	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
39	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
40	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
41	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
42	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
43	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
44	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
45	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
46	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
47	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
48	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
49	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
50	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Sealing	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
51	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Sealing	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
52	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Sealing	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
53	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
54	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
55	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
56	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
57	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
58	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
59	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	
60	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%	

Residential Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	MEASURE DESCRIPTION		Measure Name	PROGRAM	PARTICIPATION HIGH CASE					
				Building Type	End Use			Program Name	First Year of Participation (So Year)	First Year Annual Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation (Fo Year)
61	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Floor Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
62	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Floor Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
63	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Floor Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%
64	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Floor Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
65	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
66	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
67	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
68	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
69	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Wall Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%
70	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Wall Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%
71	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Wall Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%
72	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Wall Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%
73	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Electric WH	Residential Home Audit & Retrofit	2015	0.188%	2018	1.500000%	2034	1.500000%
74	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Water Heater Pipe Insulation	Residential Home Audit & Retrofit	2015	0.188%	2018	1.500000%	2034	1.500000%
75	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
76	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
77	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
78	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
79	NWS	Residential	SingleFamily&Duplex	All	Other	ENERGY STAR Variable Speed Drive Pool Pump	Pool Pump	2015	1.375%	2034	4.125063%	2034	4.125063%
80	NWS	Residential	SingleFamily&Duplex	All	HVAC	High Efficiency Bathroom Exhaust Fan	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%
82	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	29.679019%	2015	0.000000%
83	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	29.475798%	2015	0.000000%
84	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
85	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2016	9.966%	2015	9.966104%	2015	9.966104%
86	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2016	9.903%	2015	9.902722%	2015	9.902722%
87	WS	Residential	All	AC/Electric Resistance Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2016	9.775%	2015	9.775278%	2015	9.775278%
88	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	30.702509%	2015	0.000000%
89	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	30.155131%	2015	0.000000%
90	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	29.531522%	2015	0.000000%
91	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2016	10.145%	2015	10.144518%	2015	10.144518%
92	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	ENERGY STAR Air Conditioning	2016	10.045%	2015	10.044551%	2015	10.044551%
93	WS	Residential	All	AC/Gas Heat	HVAC	Central AC Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
94	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	30.145748%	2015	0.000000%
95	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	30.007631%	2015	0.000000%
96	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
97	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	ENERGY STAR Air Conditioning	2016	10.204%	2015	10.203608%	2015	10.203608%
98	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	ENERGY STAR Air Conditioning	2016	10.135%	2015	10.134760%	2015	10.134760%
99	WS	Residential	All	Heat Pump	HVAC	Heat Pump Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
100	WS	Residential	All	AC	HVAC	Mini-Split AC	ENERGY STAR Air Conditioning	2015	0.000%	2034	31.593283%	2015	0.000000%
101	WS	Residential	All	AC	HVAC	Mini-Split AC	ENERGY STAR Air Conditioning	2015	0.000%	2034	30.662609%	2015	0.000000%
102	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	10.677%	2034	32.029619%	2034	32.029619%
103	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	10.462%	2034	31.387087%	2034	31.387087%
104	WS	Residential	All	AC	HVAC	Mini-Split AC	ENERGY STAR Air Conditioning	2016	10.398%	2015	10.397717%	2015	10.397717%
105	WS	Residential	All	AC	HVAC	Mini-Split AC	ENERGY STAR Air Conditioning	2016	10.123%	2015	10.123039%	2015	10.123039%
106	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	10.603%	2034	31.807801%	2034	31.807801%
107	WS	Residential	All	Heat Pump	HVAC	Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	10.411%	2034	31.234432%	2034	31.234432%
108	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
109	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Ground Source Heatpump	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
111	WS	Residential	All	AC	HVAC	Central AC Tune-up	ENERGY STAR Air Conditioning	2015	10.393%	2034	31.177925%	2034	31.177925%
112	WS	Residential	All	Heat Pump	HVAC	Heat Pump Tune-up	ENERGY STAR Air Conditioning	2015	10.617%	2034	31.851809%	2034	31.851809%
114	NWS	Residential	All	All	Appliances	Refrigerator/Freezer Recycling	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
115	NWS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner Recycling	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
117	NWS	Residential	Multifamily	All	Other	Home Energy Audit	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
118	NWS	Residential	Multifamily	All	Lighting	Residential Lighting Efficiency	Multifamily	2015	22.500%	2016	40.000000%	2034	1.600000%
119	NWS	Residential	Multifamily	Electric WH	Hot Water	Faucet Aerators	Multifamily	2015	22.500%	2016	40.000000%	2034	1.600000%
120	NWS	Residential	Multifamily	Electric WH	Hot Water	Low Flow Showerheads	Multifamily	2015	22.500%	2016	40.000000%	2034	1.600000%

Residential Measures

MEASURE DESCRIPTION						PROGRAM		PARTICIPATION HIGH CASE					
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Program Name	First Year of Participation (So Year)	First Year Annual Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation (Fo Year)	Final Year Participation Rate (Fo)
121	NWS	Residential	Multifamily	Common Area	Lighting	Halfway Lighting Efficiency	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
122	NWS	Residential	Multifamily	Common Area	Lighting	Exterior Lighting Efficiency	Multifamily	2015	22.500%	2016	40.000000%	2034	1.600000%
124	WS	Residential	SingleFamily&Duplex	All	Lighting	New home - lighting	Efficient New Homes	2016	3.025%	2017	14.520000%	2020	14.520000%
125	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	Efficient New Homes	2016	3.025%	2015	3.025000%	2015	3.025000%
126	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	Efficient New Homes	2015	0.000%	2017	14.520000%	2015	0.000000%
127	WS	Residential	SingleFamily&Duplex	All	Other	New home - furnace	Efficient New Homes	2016	3.025%	2015	3.025000%	2015	3.025000%
129	WS	Residential	All	All	Other	Benchmarking	Home Energy Use Benchmarking	2015	5.000%	2016	10.000000%	2034	10.000000%
130	WS	Residential	All	AC	Other	Direct Load Control Switch	Direct Load Control	2015	0.655%	2017	1.965000%	2034	1.965000%
131	WS	Residential	All	Heat Pump	Other	Direct Load Control Switch	Direct Load Control	2015	0.655%	2017	1.965000%	2034	1.965000%
132	WS	Residential	All	AC	Other	Direct Load Control Thermostat	Direct Load Control	2015	0.655%	2017	1.965000%	2034	1.965000%
133	WS	Residential	All	Heat Pump	Other	Direct Load Control Thermostat	Direct Load Control	2015	0.655%	2017	1.965000%	2034	1.965000%
134	WS	Residential	All	AC	Other	Enabled Dynamic Pricing (Res)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
135	WS	Residential	All	AC	Other	Non-Enabled Dynamic Pricing (Res)	Dynamic Pricing	2015	0.385%	2018	1.538462%	2034	1.538462%
136	WS	Residential	All	All	Other	Low-Income Weatherization Package	Low-Income Weatherization	2015	0.200%	2015	0.200000%	2034	0.200000%
137	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	Solar Hot Water	2016	0.010%	2015	0.009824%	2017	0.009824%
138	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	Solar Hot Water	2015	0.000%	2018	0.004912%	2015	0.000000%
140	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%
141	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Duct Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
142	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%
143	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Insulation	Residential Home Audit & Retrofit	2015	0.100%	2018	0.800000%	2034	0.800000%
144	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
145	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
146	WS	Residential	Multifamily	AC/Gas Heat	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
147	WS	Residential	Multifamily	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
148	WS	Residential	All	AC/Gas Heat	HVAC	Gas Furnace Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
149	WS	Residential	All	Gas Heat (No AC)	HVAC	Gas Furnace Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
150	WS	Residential	All	Gas WH	Hot Water	Efficient Gas water heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
151	WS	Residential	All	Gas WH	Hot Water	Tankless Gas water heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
152	WS	Residential	All	Gas WH	Hot Water	Gas WH jacket	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
153	WS	Residential	All	Gas WH	Hot Water	Gas WH pipe insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
154	NWS	Residential	All	Gas WH	Hot Water	Faucet aerators – Gas WH	Residential Home Audit & Retrofit	2015	0.188%	2018	1.500000%	2034	1.500000%
155	NWS	Residential	All	Gas WH	Hot Water	Low Flow Showerheads	Residential Home Audit & Retrofit	2015	0.188%	2018	1.500000%	2034	1.500000%

Residential Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					Measure Name	PROGRAM	PARTICIPATION REFERENCE CASE				
		Sector	Sub-Sector	Building Type	End Use	Program Name			First Year of Participation (So Year)	First Year Annual Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation (Fo Year)
1	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	Residential Lighting & Appliances	2016	71.814%	2015	71.813712%	2020	9.695750%
2	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
3	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	Residential Lighting & Appliances	2016	8.542%	2020	12.770127%	2020	12.770127%
4	NWS	Residential	All	All	Lighting	Residential Lighting Efficiency	Residential Lighting & Appliances	2015	3.638%	2020	30.022955%	2034	1.003154%
5	NWS	Residential	All	All	Consumer Electronics	Consumer Electronics	Residential Lighting & Appliances	2015	3.933%	2034	15.732907%	2034	15.732907%
6	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
7	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
8	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
9	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Clothes Washer and Dryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
10	NWS	Residential	All	Electric WH	Appliances	ENERGYSTAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
11	NWS	Residential	All	Gas WH	Appliances	ENERGYSTAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
12	NWS	Residential	All	All	Appliances	HE Refrigerator	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
13	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
14	WS	Residential	All	Gas Heat (No AC)	HVAC	Room Air Conditioner	Residential Lighting & Appliances	2015	0.603%	2034	2.413405%	2034	2.413405%
15	NWS	Residential	All	All	Appliances	Advanced Power Strips	Residential Lighting & Appliances	2015	4.101%	2034	16.404007%	2034	16.404007%
16	NWS	Residential	All	All	Appliances	ENERGY STAR Dehumidifier	Residential Lighting & Appliances	2015	1.967%	2034	7.866454%	2034	7.866454%
17	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Water Heating	2015	1.968%	2034	7.872757%	2034	7.872757%
18	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Water Heating	2015	1.968%	2034	7.872757%	2034	7.872757%
19	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacement	Water Heating	2015	1.968%	2034	7.872757%	2034	7.872757%
20	NWS	Residential	All	Electric WH	Hot Water	Water Heater Replacements	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
21	NWS	Residential	SingleFamily&Duplex	All	Other	Home Energy Audit	Residential Home Audit & Retrofit	2015	0.250%	2018	1.250000%	2034	1.250000%
22	NWS	Residential	SingleFamily&Duplex	All	Lighting	Residential Lighting Efficiency	Residential Home Audit & Retrofit	2015	0.188%	2018	0.937500%	2034	0.937500%
23	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Faucet Aerators	Residential Home Audit & Retrofit	2015	0.188%	2018	0.937500%	2034	0.937500%
24	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Faucet Aerators	Residential Home Audit & Retrofit	2015	0.188%	2018	0.937500%	2034	0.937500%
25	NWS	Residential	SingleFamily&Duplex	Electric WH	Hot Water	Low Flow Showerheads	Residential Home Audit & Retrofit	2015	0.188%	2018	0.937500%	2034	0.937500%
26	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Air Infiltration	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
27	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Air Infiltration	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
28	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Air Infiltration	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
29	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Air Infiltration	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
30	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
31	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
32	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
33	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Attic Knee Wall Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
34	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
35	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
36	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
37	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
38	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
39	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
40	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
41	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
42	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
43	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
44	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
45	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
46	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
47	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
48	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
49	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Ceiling Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
50	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Sealing	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
51	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Sealing	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
52	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Sealing	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
53	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
54	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
55	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
56	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
57	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell	Energy Star Windows	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
58	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell	Energy Star Windows	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
59	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell	Energy Star Windows	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
60	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell	Energy Star Windows	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%

Residential Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	MEASURE DESCRIPTION			Measure Name	PROGRAM	PARTICIPATION REFERENCE CASE					
				Building Type	End Use				Program Name	First Year of Participation (So Year)	First Year Annual Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation (Fo Year)
61	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell		Floor Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
62	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell		Floor Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
63	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell		Floor Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
64	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell		Floor Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
65	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell		Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
66	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell		Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
67	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell		Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
68	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell		Radiant Barriers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
69	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell		Wall Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
70	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell		Wall Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
71	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell		Wall Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
72	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell		Wall Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
73	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water		Water Heater Jackets	Residential Home Audit & Retrofit	2015	0.188%	2018	0.937500%	2034	0.937500%
74	WS	Residential	SingleFamily&Duplex	Electric WH	Hot Water		Water Heater Pipe Insulation	Residential Home Audit & Retrofit	2015	0.188%	2018	0.937500%	2034	0.937500%
75	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	Shell		Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
76	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	Shell		Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
77	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	Shell		Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
78	WS	Residential	SingleFamily&Duplex	Heat Pump	Shell		Window Film	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
79	NWS	Residential	SingleFamily&Duplex	All	Other	ENERGY STAR Variable Speed Drive Pool Pump	Pool Pump	Pool Pump	2015	0.984%	2034	3.96378%	2034	3.96378%
80	NWS	Residential	SingleFamily&Duplex	All	HVAC	High Efficiency Bathroom Exhaust Fan	High Efficiency Bathroom Exhaust Fan	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
82	WS	Residential	All	AC/Electric Resistance Heat	HVAC		Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	26.689083%	2015	0.000000%
83	WS	Residential	All	AC/Electric Resistance Heat	HVAC		Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	26.319358%	2015	0.000000%
84	WS	Residential	All	AC/Electric Resistance Heat	HVAC		Central AC Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
85	WS	Residential	All	AC/Electric Resistance Heat	HVAC		Central AC Replacement	ENERGY STAR Air Conditioning	2016	6.773%	2015	6.772746%	2015	6.772746%
86	WS	Residential	All	AC/Electric Resistance Heat	HVAC		Central AC Replacement	ENERGY STAR Air Conditioning	2016	6.686%	2015	6.685581%	2015	6.685581%
87	WS	Residential	All	AC/Electric Resistance Heat	HVAC		Central AC Replacement	ENERGY STAR Air Conditioning	2016	6.512%	2015	6.512050%	2015	6.512050%
88	WS	Residential	All	AC/Gas Heat	HVAC		Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	28.590942%	2015	0.000000%
89	WS	Residential	All	AC/Gas Heat	HVAC		Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	27.565537%	2015	0.000000%
90	WS	Residential	All	AC/Gas Heat	HVAC		Central AC Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	26.420476%	2015	0.000000%
91	WS	Residential	All	AC/Gas Heat	HVAC		Central AC Replacement	ENERGY STAR Air Conditioning	2016	7.021%	2015	7.021184%	2015	7.021184%
92	WS	Residential	All	AC/Gas Heat	HVAC		Central AC Replacement	ENERGY STAR Air Conditioning	2016	6.881%	2015	6.881422%	2015	6.881422%
93	WS	Residential	All	AC/Gas Heat	HVAC		Central AC Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
94	WS	Residential	All	Heat Pump	HVAC		Heat Pump Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	27.548125%	2015	0.000000%
95	WS	Residential	All	Heat Pump	HVAC		Heat Pump Replacement	ENERGY STAR Air Conditioning	2015	0.000%	2034	27.292472%	2015	0.000000%
96	WS	Residential	All	Heat Pump	HVAC		Heat Pump Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
97	WS	Residential	All	Heat Pump	HVAC		Heat Pump Replacement	ENERGY STAR Air Conditioning	2016	7.104%	2015	7.104465%	2015	7.104465%
98	WS	Residential	All	Heat Pump	HVAC		Heat Pump Replacement	ENERGY STAR Air Conditioning	2016	7.007%	2015	7.007478%	2015	7.007478%
99	WS	Residential	All	Heat Pump	HVAC		Heat Pump Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
100	WS	Residential	All	AC	HVAC		Mini-Split AC	ENERGY STAR Air Conditioning	2015	0.000%	2034	30.300281%	2015	0.000000%
101	WS	Residential	All	AC	HVAC		Mini-Split AC	ENERGY STAR Air Conditioning	2015	0.000%	2034	28.515555%	2015	0.000000%
102	WS	Residential	All	Heat Pump	HVAC		Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	7.789%	2034	31.155965%	2034	31.155965%
103	WS	Residential	All	Heat Pump	HVAC		Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	7.475%	2034	29.900125%	2034	29.900125%
104	WS	Residential	All	AC	HVAC		Mini-Split AC	ENERGY STAR Air Conditioning	2016	7.382%	2015	7.381555%	2015	7.381555%
105	WS	Residential	All	AC	HVAC		Mini-Split AC	ENERGY STAR Air Conditioning	2016	6.991%	2015	6.991033%	2015	6.991033%
106	WS	Residential	All	Heat Pump	HVAC		Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	7.680%	2034	30.719454%	2034	30.719454%
107	WS	Residential	All	Heat Pump	HVAC		Mini-Split Heat Pump	ENERGY STAR Air Conditioning	2015	7.401%	2034	29.605610%	2034	29.605610%
108	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC		Ground Source Heatpump	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
109	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC		Ground Source Heatpump	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
111	WS	Residential	All	AC	HVAC		Central AC Tune-up	ENERGY STAR Air Conditioning	2015	7.374%	2034	29.496968%	2034	29.496968%
112	WS	Residential	All	Heat Pump	HVAC		Heat Pump Tune-up	ENERGY STAR Air Conditioning	2015	7.701%	2034	30.805807%	2034	30.805807%
114	NWS	Residential	All	All	Appliances		Refrigerator/Freezer Recycling	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
115	NWS	Residential	All	Gas Heat (No AC)	HVAC		Room Air Conditioner Recycling	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
117	NWS	Residential	Multifamily	All	Other		Home Energy Audit	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
118	NWS	Residential	Multifamily	All	Lighting		Residential Lighting Efficiency	Multifamily	2015	22.500%	2016	40.000000%	2034	1.600000%
119	NWS	Residential	Multifamily	Electric WH	Hot Water		Faucet Aerators	Multifamily	2015	22.500%	2016	40.000000%	2034	1.600000%
120	NWS	Residential	Multifamily	Electric WH	Hot Water		Low Flow Showerheads	Multifamily	2015	22.500%	2016	40.000000%	2034	1.600000%

Residential Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				End Use	Measure Name	PROGRAM	PARTICIPATION REFERENCE CASE				
		Sector	Sub-Sector	Building Type					Program Name	First Year of Participation (So Year)	First Year Annual Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)
121	NWS	Residential	Multifamily	Common Area	Lighting	Hallway Lighting Efficiency	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
122	NWS	Residential	Multifamily	Common Area	Lighting	Exterior Lighting Efficiency	Multifamily	2015	22.500%	2016	40.000000%	2034	1.600000%
124	WS	Residential	SingleFamily&Duplex	All	Lighting	New home - lighting	Efficient New Homes	2016	2.750%	2017	13.200000%	2020	13.200000%
125	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	Efficient New Homes	2016	2.750%	2015	2.750000%	2015	2.750000%
126	WS	Residential	SingleFamily&Duplex	All	Other	New home - nonlighting	Efficient New Homes	2015	0.000%	2017	13.200000%	2015	0.000000%
127	WS	Residential	SingleFamily&Duplex	All	Other	New home - furnace	Efficient New Homes	2016	2.750%	2015	2.750000%	2015	2.750000%
129	WS	Residential	All	All	Other	Benchmarking	Home Energy Use Benchmarking	2015	2.500%	2016	5.000000%	2034	5.000000%
130	WS	Residential	All	AC	Other	Direct Load Control Switch	Direct Load Control	2015	0.655%	2017	1.965000%	2034	1.965000%
131	WS	Residential	All	Heat Pump	Other	Direct Load Control Switch	Direct Load Control	2015	0.655%	2017	1.965000%	2034	1.965000%
132	WS	Residential	All	AC	Other	Direct Load Control Thermostat	Direct Load Control	2015	0.655%	2017	1.965000%	2034	1.965000%
133	WS	Residential	All	Heat Pump	Other	Direct Load Control Thermostat	Direct Load Control	2015	0.655%	2017	1.965000%	2034	1.965000%
134	WS	Residential	All	AC	Other	Enabled Dynamic Pricing (Res)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
135	WS	Residential	All	AC	Other	Non-Enabled Dynamic Pricing (Res)	Dynamic Pricing	2015	0.385%	2018	1.538462%	2034	1.538462%
136	WS	Residential	All	All	Other	Low-Income Weatherization Package	Low-Income Weatherization	2015	0.200%	2015	0.200000%	2034	0.200000%
137	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	Solar Hot Water	2016	0.005%	2015	0.004912%	2017	0.004912%
138	WS	Residential	All	Electric WH	Hot Water	Solar Hot Water	Solar Hot Water	2015	0.000%	2018	0.002456%	2015	0.000000%
140	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Duct Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
141	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Duct Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
142	WS	Residential	SingleFamily&Duplex	AC/Electric Resistance Heat	HVAC	Duct Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
143	WS	Residential	SingleFamily&Duplex	Heat Pump	HVAC	Duct Insulation	Residential Home Audit & Retrofit	2015	0.050%	2018	0.250000%	2034	0.250000%
144	WS	Residential	SingleFamily&Duplex	AC/Gas Heat	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
145	WS	Residential	SingleFamily&Duplex	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
146	WS	Residential	Multifamily	AC/Gas Heat	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
147	WS	Residential	Multifamily	Gas Heat (No AC)	HVAC	Gas Furnace Replacement	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
148	WS	Residential	All	AC/Gas Heat	HVAC	Gas Furnace Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
149	WS	Residential	All	Gas Heat (No AC)	HVAC	Gas Furnace Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
150	WS	Residential	All	Gas WH	Hot Water	Efficient Gas water heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
151	WS	Residential	All	Gas WH	Hot Water	Tankless Gas water heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
152	WS	Residential	All	Gas WH	Hot Water	Gas WH jacket	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
153	WS	Residential	All	Gas WH	Hot Water	Gas WH pipe insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
154	NWS	Residential	All	Gas WH	Hot Water	Faucet aerators - Gas WH	Residential Home Audit & Retrofit	2015	0.188%	2018	0.937500%	2034	0.937500%
155	NWS	Residential	All	Gas WH	Hot Water	Low Flow Showerheads	Residential Home Audit & Retrofit	2015	0.188%	2018	0.937500%	2034	0.937500%

Industrial Measures

MEASURE DESCRIPTION							
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Fuel Type
1	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Operations and maintenance	Electric
2	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Match Motor Size to Load	Electric
3	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Motor Efficiency Upgrade	Electric
4	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Variable Speed Drives	Electric
5	NWS	Industrial	Small Industrial	All	Pumps	Reduce Overall System Requirements	Electric
6	NWS	Industrial	Small Industrial	All	Pumps	Match Pump Size to Load	Electric
7	NWS	Industrial	Small Industrial	All	Pumps	Reduce or Control Pump Speed	Electric
8	NWS	Industrial	Small Industrial	All	Pumps	Improve Pump Components	Electric
9	NWS	Industrial	Small Industrial	All	Pumps	Operation and Maintenance	Electric
10	NWS	Industrial	Small Industrial	All	Compressed Air	Reduce Overall System Requirements	Electric
11	NWS	Industrial	Small Industrial	All	Compressed Air	Match Compressor Size to Load	Electric
12	NWS	Industrial	Small Industrial	All	Compressed Air	Compressor Control	Electric
13	NWS	Industrial	Small Industrial	All	Compressed Air	Improve Compressor Components	Electric
14	NWS	Industrial	Small Industrial	All	Compressed Air	Operation and Maintenance	Electric
15	NWS	Industrial	Small Industrial	All	Fans	Reduce Overall System Requirements	Electric
16	NWS	Industrial	Small Industrial	All	Fans	Reduce or Control Fan Speed	Electric
17	NWS	Industrial	Small Industrial	All	Fans	Improve Fan Components	Electric
18	NWS	Industrial	Small Industrial	All	Fans	Operation and Maintenance	Electric
19	NWS	Industrial	Small Industrial	All	PH	Advanced water heater controls	Electric
20	NWS	Industrial	Small Industrial	All	PH	Process Heat Recovery to Preheat Makeup Water	Electric
21	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Oven)	Electric
22	NWS	Industrial	Small Industrial	All	PH	Insulation (Oven)	Electric
23	NWS	Industrial	Small Industrial	All	PH	Preventative Oven Maintenance	Electric
24	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Dryer)	Electric
25	NWS	Industrial	Small Industrial	All	PH	Insulation (Dryer)	Electric
26	NWS	Industrial	Small Industrial	All	PH	Preventative Dryer Maintenance	Electric
27	NWS	Industrial	Small Industrial	All	PH	Preventative Furnace Maintenance	Electric
28	NWS	Industrial	Small Industrial	All	PH	Insulation (Furnace)	Electric
29	NWS	Industrial	Small Industrial	All	PH	Preventative Kiln Maintenance	Electric
30	NWS	Industrial	Small Industrial	All	PH	Insulation (Kiln)	Electric
31	NWS	Industrial	Small Industrial	All	PCR	High Efficiency Chiller	Electric
32	NWS	Industrial	Small Industrial	All	PCR	Optimized Distribution System	Electric
33	NWS	Industrial	Small Industrial	All	PCR	Floating head pressure controls	Electric
34	NWS	Industrial	Small Industrial	All	PCR	Premium efficiency refrigeration control system	Electric
35	NWS	Industrial	Small Industrial	All	PCR	Smart Defrost Controls	Electric
36	NWS	Industrial	Small Industrial	All	PCR	Doors, Covers and Curtains	Electric
37	NWS	Industrial	Small Industrial	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Electric
38	NWS	Industrial	Small Industrial	All	PCR	Preventative refrigeration/cooling system maintenance	Electric
39	NWS	Industrial	Small Industrial	All	PCR	Optimized condenser pressure	Electric
40	NWS	Industrial	Small Industrial	All	PCR	VSD on chiller compressor	Electric
41	NWS	Industrial	Small Industrial	All	PCR	Free-cooling	Electric
42	NWS	Industrial	Small Industrial	All	PCR	Improve insulation of refrigeration system	Electric
43	NWS	Industrial	Small Industrial	All	HVAC	Optimized duct design to improve efficiency	Electric
44	NWS	Industrial	Small Industrial	All	HVAC	Air Source Heat Pump for Backup Generators	Electric
45	NWS	Industrial	Small Industrial	All	ONPU	High efficiency battery charger (for forklifts)	Electric
46	NWS	Industrial	Small Industrial	All	ONPU	HE Dry-Type Transformers	Electric
47	NWS	Industrial	Small Industrial	All	HVAC	Free cooling	Electric
48	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	Electric
49	NWS	Industrial	Small Industrial	All	HVAC	High efficiency non-packaged HVAC equipment	Electric
50	NWS	Industrial	Small Industrial	All	HVAC	Seasonal Temperature Settings Adjustments	Electric
51	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Electric
52	NWS	Industrial	Small Industrial	All	HVAC	Ground Source Heat Pump	Electric
53	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	Electric
54	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature Control	Electric
55	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	Electric
56	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	Electric
57	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	Electric
58	NWS	Industrial	Small Industrial	All	HVAC	Preventative Packaged HVAC Maintenance	Electric
59	NWS	Industrial	Small Industrial	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	Electric
60	NWS	Industrial	Small Industrial	All	FL	High efficiency ballasts for lighting	Electric

Industrial Measures

MEASURE DESCRIPTION							
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Fuel Type
61	NWS	Industrial	Small Industrial	All	FL	High Efficiency Light fixtures	Electric
62	NWS	Industrial	Small Industrial	All	FL	Efficient Lighting Design	Electric
63	NWS	Industrial	Small Industrial	All	FL	Lighting controls: on/off timer settings	Electric
64	NWS	Industrial	Small Industrial	All	FL	Lighting controls: occupancy sensors	Electric
65	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	Electric
66	NWS	Industrial	Small Industrial	All	HVAC	Premium efficiency ventilation control with VSD	Electric
67	NWS	Industrial	Small Industrial	All	HVAC	Demand-Controlled Ventilation	Electric
68	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Operations and maintenance	Electric
69	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Match Motor Size to Load	Electric
70	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Motor Efficiency Upgrade	Electric
71	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Variable Speed Drives	Electric
72	NWS	Industrial	Other - Combined	All	Pumps	Reduce Overall System Requirements	Electric
73	NWS	Industrial	Other - Combined	All	Pumps	Match Pump Size to Load	Electric
74	NWS	Industrial	Other - Combined	All	Pumps	Reduce or Control Pump Speed	Electric
75	NWS	Industrial	Other - Combined	All	Pumps	Improve Pump Components	Electric
76	NWS	Industrial	Other - Combined	All	Pumps	Operation and Maintenance	Electric
77	NWS	Industrial	Other - Combined	All	Compressed Air	Reduce Overall System Requirements	Electric
78	NWS	Industrial	Other - Combined	All	Compressed Air	Match Compressor Size to Load	Electric
79	NWS	Industrial	Other - Combined	All	Compressed Air	Compressor Control	Electric
80	NWS	Industrial	Other - Combined	All	Compressed Air	Improve Compressor Components	Electric
81	NWS	Industrial	Other - Combined	All	Compressed Air	Operation and Maintenance	Electric
82	NWS	Industrial	Other - Combined	All	Fans	Reduce Overall System Requirements	Electric
83	NWS	Industrial	Other - Combined	All	Fans	Reduce or Control Fan Speed	Electric
84	NWS	Industrial	Other - Combined	All	Fans	Improve Fan Components	Electric
85	NWS	Industrial	Other - Combined	All	Fans	Operation and Maintenance	Electric
86	NWS	Industrial	Other - Combined	All	HVAC	Optimized Duct Design to Improve Efficiency	Electric
87	NWS	Industrial	Other - Combined	All	PH	Advanced Water Heater Controls	Electric
88	NWS	Industrial	Other - Combined	All	PH	Process Heat Recovery to Preheat Makeup Water	Electric
89	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Oven)	Electric
90	NWS	Industrial	Other - Combined	All	PH	Insulation (Oven)	Electric
91	NWS	Industrial	Other - Combined	All	PH	Preventative Oven Maintenance	Electric
92	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Dryer)	Electric
93	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	Electric
94	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	Electric
95	NWS	Industrial	Other - Combined	All	PH	Optimized Distribution System	Electric
96	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	Electric
97	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	Electric
98	NWS	Industrial	Other - Combined	All	PH	Preventative Furnace Maintenance	Electric
99	NWS	Industrial	Other - Combined	All	PH	Insulation (Furnace)	Electric
100	NWS	Industrial	Other - Combined	All	PCR	High Efficiency Chiller	Electric
101	NWS	Industrial	Other - Combined	All	PCR	Floating head pressure controls	Electric
102	NWS	Industrial	Other - Combined	All	PCR	Premium Efficiency Refrigeration Control System	Electric
103	NWS	Industrial	Other - Combined	All	PCR	Smart Defrost Controls	Electric
104	NWS	Industrial	Other - Combined	All	PCR	Doors, Covers and Curtains	Electric
105	NWS	Industrial	Other - Combined	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Electric
106	NWS	Industrial	Other - Combined	All	PCR	Preventative Refrigeration/cooling System Maintenance	Electric
107	NWS	Industrial	Other - Combined	All	PCR	Optimized condenser pressure	Electric
108	NWS	Industrial	Other - Combined	All	PCR	Free-cooling	Electric
109	NWS	Industrial	Other - Combined	All	PCR	Improve Insulation of Refrigeration System	Electric
110	NWS	Industrial	Other - Combined	All	ONPU	HE Dry-Type Transformers	Electric
111	NWS	Industrial	Other - Combined	All	HVAC	Air Source Heat Pump for Backup Generators	Electric
112	NWS	Industrial	Other - Combined	All	ONPU	High efficiency battery charger (for forklifts)	Electric
113	NWS	Industrial	Other - Combined	All	HVAC	Radiant Heaters	Electric
114	NWS	Industrial	Other - Combined	All	HVAC	High efficiency non-packaged HVAC equipment	Electric
115	NWS	Industrial	Other - Combined	All	HVAC	Seasonal Temperature Settings Adjustments	Electric
116	NWS	Industrial	Other - Combined	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Electric
117	NWS	Industrial	Other - Combined	All	HVAC	Ground Source Heat Pump	Electric
118	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Heat Recovery	Electric
119	NWS	Industrial	Other - Combined	All	HVAC	Automated Temperature Control	Electric
120	NWS	Industrial	Other - Combined	All	HVAC	Reduced Temperature Settings	Electric



Industrial Measures

MEASURE DESCRIPTION							
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Fuel Type
121	NWS	Industrial	Other - Combined	All	HVAC	Destratification Fans	Electric
122	NWS	Industrial	Other - Combined	All	HVAC	Warehouse Loading Dock Seals	Electric
123	NWS	Industrial	Other - Combined	All	HVAC	Preventative Packaged HVAC Maintenance	Electric
124	NWS	Industrial	Other - Combined	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	Electric
125	NWS	Industrial	Other - Combined	All	FL	High efficiency ballasts for lighting	Electric
126	NWS	Industrial	Other - Combined	All	FL	High Efficiency Light fixtures	Electric
127	NWS	Industrial	Other - Combined	All	FL	Efficient Lighting Design	Electric
128	NWS	Industrial	Other - Combined	All	FL	Lighting controls: on/off timer settings	Electric
129	NWS	Industrial	Other - Combined	All	FL	Lighting controls: occupancy sensors	Electric
130	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Optimization	Electric
131	NWS	Industrial	Other - Combined	All	HVAC	Premium efficiency ventilation control with VSD	Electric
132	NWS	Industrial	Other - Combined	All	HVAC	Demand-Controlled Ventilation	Electric
133	NWS	Industrial	Food Products	All	Motors - Other Applications	Operations and maintenance	Electric
134	NWS	Industrial	Food Products	All	Motors - Other Applications	Match Motor Size to Load	Electric
135	NWS	Industrial	Food Products	All	Motors - Other Applications	Motor Efficiency Upgrade	Electric
136	NWS	Industrial	Food Products	All	Motors - Other Applications	Variable Speed Drives	Electric
137	NWS	Industrial	Food Products	All	Pumps	Reduce Overall System Requirements	Electric
138	NWS	Industrial	Food Products	All	Pumps	Match Pump Size to Load	Electric
139	NWS	Industrial	Food Products	All	Pumps	Reduce or Control Pump Speed	Electric
140	NWS	Industrial	Food Products	All	Pumps	Improve Pump Components	Electric
141	NWS	Industrial	Food Products	All	Pumps	Operation and Maintenance	Electric
142	NWS	Industrial	Food Products	All	Compressed Air	Reduce Overall System Requirements	Electric
143	NWS	Industrial	Food Products	All	Compressed Air	Match Compressor Size to Load	Electric
144	NWS	Industrial	Food Products	All	Compressed Air	Compressor Control	Electric
145	NWS	Industrial	Food Products	All	Compressed Air	Improve Compressor Components	Electric
146	NWS	Industrial	Food Products	All	Compressed Air	Operation and Maintenance	Electric
147	NWS	Industrial	Food Products	All	Fans	Reduce Overall System Requirements	Electric
148	NWS	Industrial	Food Products	All	Fans	Reduce or Control Fan Speed	Electric
149	NWS	Industrial	Food Products	All	Fans	Improve Fan Components	Electric
150	NWS	Industrial	Food Products	All	Fans	Operation and Maintenance	Electric
151	NWS	Industrial	Food Products	All	HVAC	Optimized Duct Design to Improve Efficiency	Electric
152	NWS	Industrial	Food Products	All	PH	Advanced Water Heater Controls	Electric
153	NWS	Industrial	Food Products	All	PH	Process Heat Recovery to Preheat Makeup Water	Electric
154	NWS	Industrial	Food Products	All	PH	Air Curtains (Oven)	Electric
155	NWS	Industrial	Food Products	All	PH	Insulation (Oven)	Electric
156	NWS	Industrial	Food Products	All	PH	Preventative Oven Maintenance	Electric
157	NWS	Industrial	Food Products	All	PH	Air Curtains (Dryer)	Electric
158	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	Electric
159	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	Electric
160	NWS	Industrial	Food Products	All	PH	Optimized Distribution System	Electric
161	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	Electric
162	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	Electric
163	NWS	Industrial	Food Products	All	PH	Preventative Furnace Maintenance	Electric
164	NWS	Industrial	Food Products	All	PH	Insulation (Furnace)	Electric
165	NWS	Industrial	Food Products	All	PCR	High Efficiency Chiller	Electric
166	NWS	Industrial	Food Products	All	PCR	Floating head pressure controls	Electric
167	NWS	Industrial	Food Products	All	PCR	Premium Efficiency Refrigeration Control System	Electric
168	NWS	Industrial	Food Products	All	PCR	Smart Defrost Controls	Electric
169	NWS	Industrial	Food Products	All	PCR	Doors, Covers and Curtains	Electric
170	NWS	Industrial	Food Products	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Electric
171	NWS	Industrial	Food Products	All	PCR	Preventative Refrigeration/cooling System Maintenance	Electric
172	NWS	Industrial	Food Products	All	PCR	Optimized condenser pressure	Electric
173	NWS	Industrial	Food Products	All	PCR	Free-cooling	Electric
174	NWS	Industrial	Food Products	All	PCR	Improve Insulation of Refrigeration System	Electric
175	NWS	Industrial	Food Products	All	ONPU	HE Dry-Type Transformers	Electric
176	NWS	Industrial	Food Products	All	HVAC	Air Source Heat Pump for Backup Generators	Electric
177	NWS	Industrial	Food Products	All	ONPU	High efficiency battery charger (for forklifts)	Electric
178	NWS	Industrial	Food Products	All	HVAC	Radiant Heaters	Electric
179	NWS	Industrial	Food Products	All	HVAC	High efficiency non-packaged HVAC equipment	Electric
180	NWS	Industrial	Food Products	All	HVAC	Seasonal Temperature Settings Adjustments	Electric

Industrial Measures

MEASURE DESCRIPTION							
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Fuel Type
181	NWS	Industrial	Food Products	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Electric
182	NWS	Industrial	Food Products	All	HVAC	Ground Source Heat Pump	Electric
183	NWS	Industrial	Food Products	All	HVAC	Ventilation Heat Recovery	Electric
184	NWS	Industrial	Food Products	All	HVAC	Automated Temperature Control	Electric
185	NWS	Industrial	Food Products	All	HVAC	Reduced Temperature Settings	Electric
186	NWS	Industrial	Food Products	All	HVAC	Destratification Fans	Electric
187	NWS	Industrial	Food Products	All	HVAC	Warehouse Loading Dock Seals	Electric
188	NWS	Industrial	Food Products	All	HVAC	Preventative Packaged HVAC Maintenance	Electric
189	NWS	Industrial	Food Products	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	Electric
190	NWS	Industrial	Food Products	All	FL	High efficiency ballasts for lighting	Electric
191	NWS	Industrial	Food Products	All	FL	High Efficiency Light fixtures	Electric
192	NWS	Industrial	Food Products	All	FL	Efficient Lighting Design	Electric
193	NWS	Industrial	Food Products	All	FL	Lighting controls: on/off timer settings	Electric
194	NWS	Industrial	Food Products	All	FL	Lighting controls: occupancy sensors	Electric
195	NWS	Industrial	Food Products	All	HVAC	Ventilation Optimization	Electric
196	NWS	Industrial	Food Products	All	HVAC	Premium efficiency ventilation control with VSD	Electric
197	NWS	Industrial	Food Products	All	HVAC	Demand-Controlled Ventilation	Electric
199	NWS	Industrial	Industrial Gases	All	Total	Integrated Control System	Gas
200	NWS	Industrial	Industrial Gases	All	Total	Process Integration and Pinch Analysis	Gas
201	NWS	Industrial	Industrial Gases	All	Total	Sub-Metering	Gas
202	NWS	Industrial	Industrial Gases	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	Gas
203	NWS	Industrial	Industrial Gases	All	Process Heating	Water-heater right sizing and load management	Gas
204	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Gas
205	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Control	Gas
206	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Right Sizing	Gas
207	NWS	Industrial	Industrial Gases	All	Boilers	Condensing Boiler	Gas
208	NWS	Industrial	Industrial Gases	All	Boilers	Direct-Contact Hot Water Heaters	Gas
209	NWS	Industrial	Industrial Gases	All	Boilers	High Efficiency Burner	Gas
210	NWS	Industrial	Industrial Gases	All	Boilers	Instantaneous Steam Generation	Gas
211	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Heat Recovery	Gas
212	NWS	Industrial	Industrial Gases	All	Boilers	Boiler combustion air preheat	Gas
213	NWS	Industrial	Industrial Gases	All	Boilers	Preventative Boiler Maintenance	Gas
214	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Water Treatment	Gas
215	NWS	Industrial	Industrial Gases	All	Boilers	Condensate Return	Gas
216	NWS	Industrial	Industrial Gases	All	Boilers	Economizer	Gas
217	NWS	Industrial	Industrial Gases	All	Boilers	Insulation	Gas
218	NWS	Industrial	Industrial Gases	All	Boilers	Minimize Deaerator Vent Losses	Gas
219	NWS	Industrial	Industrial Gases	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Gas
220	NWS	Industrial	Industrial Gases	All	Boilers	Steam Trap Survey and Repair	Gas
221	NWS	Industrial	Industrial Gases	All	Boilers	First Generation Super Boilers	Gas
222	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Gas
223	NWS	Industrial	Industrial Gases	All	Process Heating	Infrared Ovens	Gas
224	NWS	Industrial	Industrial Gases	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Gas
225	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Gas
226	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Gas
227	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Gas
228	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Gas
229	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	Gas
230	NWS	Industrial	Industrial Gases	All	Process Heating	Radiant Tube burners	Gas
231	NWS	Industrial	Industrial Gases	All	HVAC	Radiant Heaters	Gas
232	NWS	Industrial	Industrial Gases	All	Process Heating	Solar Walls	Gas
233	NWS	Industrial	Industrial Gases	All	HVAC	Air Compressor Heat Recovery	Gas
234	NWS	Industrial	Industrial Gases	All	HVAC	Air Curtains	Gas
235	NWS	Industrial	Industrial Gases	All	HVAC	Destratification Fans	Gas
236	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Heat Recovery	Gas
237	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Optimization	Gas
238	NWS	Industrial	Industrial Gases	All	HVAC	Warehouse Loading Dock Seals	Gas
239	NWS	Industrial	Industrial Gases	All	HVAC	Automated Temperature reset Control	Gas
240	NWS	Industrial	Industrial Gases	All	HVAC	Reduced Temperature Settings	Gas

Industrial Measures

MEASURE DESCRIPTION							
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Fuel Type
241	NWS	Industrial	Industrial Gases	All	Total	Pollution Control Measures	Gas
242	NWS	Industrial	Industrial Gases	All	Process Heating	CFD Modelling	Gas
243	NWS	Industrial	Industrial Gases	All	Total	Energy Management	Gas
244	NWS	Industrial	Industrial Gases	All	Process Heating	Improved airflow in dryer windbox	Gas
245	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Oven Maintenance	Gas
246	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Furnace Maintenance	Gas
247	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Dryer Maintenance	Gas
248	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Gas
249	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Gas
250	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Gas
251	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Gas
252	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Gas
253	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	Gas
254	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Gas
255	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Gas
256	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Gas
257	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Gas
258	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Gas
259	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	Gas
260	NWS	Industrial	All Other	All	Total	Integrated Control System	Gas
261	NWS	Industrial	All Other	All	Total	Process Integration and Pinch Analysis	Gas
262	NWS	Industrial	All Other	All	Total	Sub-Metering	Gas
263	NWS	Industrial	All Other	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	Gas
264	NWS	Industrial	All Other	All	Process Heating	Water-heater right sizing and load management	Gas
265	NWS	Industrial	All Other	All	Process Heating	Insulation	Gas
266	NWS	Industrial	All Other	All	Boilers	Blowdown Control	Gas
267	NWS	Industrial	All Other	All	Boilers	Boiler Right Sizing	Gas
268	NWS	Industrial	All Other	All	Boilers	Condensing Boiler	Gas
269	NWS	Industrial	All Other	All	Boilers	Direct-Contact Hot Water Heaters	Gas
270	NWS	Industrial	All Other	All	Boilers	High Efficiency Burner	Gas
271	NWS	Industrial	All Other	All	Boilers	Instantaneous Steam Generation	Gas
272	NWS	Industrial	All Other	All	Boilers	Blowdown Heat Recovery	Gas
273	NWS	Industrial	All Other	All	Boilers	Boiler combustion air preheat	Gas
274	NWS	Industrial	All Other	All	Boilers	Preventative Boiler Maintenance	Gas
275	NWS	Industrial	All Other	All	Boilers	Boiler Water Treatment	Gas
276	NWS	Industrial	All Other	All	Boilers	Condensate Return	Gas
277	NWS	Industrial	All Other	All	Boilers	Economizer	Gas
278	NWS	Industrial	All Other	All	Boilers	Insulation	Gas
279	NWS	Industrial	All Other	All	Boilers	Minimize Deaerator Vent Losses	Gas
280	NWS	Industrial	All Other	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Gas
281	NWS	Industrial	All Other	All	Boilers	Steam Trap Survey and Repair	Gas
282	NWS	Industrial	All Other	All	Boilers	First Generation Super Boilers	Gas
283	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Gas
284	NWS	Industrial	All Other	All	Process Heating	Infrared Ovens	Gas
285	NWS	Industrial	All Other	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Gas
286	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Gas
287	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Gas
288	NWS	Industrial	All Other	All	Process Heating	Insulation	Gas
289	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Gas
290	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	Gas
291	NWS	Industrial	All Other	All	Process Heating	Radiant Tube burners	Gas
292	NWS	Industrial	All Other	All	Process Heating	Radiant Heaters	Gas
293	NWS	Industrial	All Other	All	Process Heating	Solar Walls	Gas
294	NWS	Industrial	All Other	All	HVAC	Air Compressor Heat Recovery	Gas
295	NWS	Industrial	All Other	All	HVAC	Air Curtains	Gas
296	NWS	Industrial	All Other	All	HVAC	Destratification Fans	Gas
297	NWS	Industrial	All Other	All	HVAC	Ventilation Heat Recovery	Gas
298	NWS	Industrial	All Other	All	HVAC	Ventilation Optimization	Gas
299	NWS	Industrial	All Other	All	HVAC	Warehouse Loading Dock Seals	Gas
300	NWS	Industrial	All Other	All	HVAC	Automated Temperature reset Control	Gas

Industrial Measures

MEASURE DESCRIPTION							
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Fuel Type
301	NWS	Industrial	All Other	All	HVAC	Reduced Temperature Settings	Gas
302	NWS	Industrial	All Other	All	Process Heating	Pollution Control Measures	Gas
303	NWS	Industrial	All Other	All	Process Heating	CFD Modelling	Gas
304	NWS	Industrial	All Other	All	Total	Energy Management	Gas
305	NWS	Industrial	All Other	All	Process Heating	Improved airflow in dryer windbox	Gas
306	NWS	Industrial	All Other	All	Process Heating	Preventative Oven Maintenance	Gas
307	NWS	Industrial	All Other	All	Process Heating	Preventative Furnace Maintenance	Gas
308	NWS	Industrial	All Other	All	Process Heating	Preventative Dryer Maintenance	Gas
309	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Gas
310	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Gas
311	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Gas
312	NWS	Industrial	All Other	All	Process Heating	Insulation	Gas
313	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Gas
314	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	Gas
315	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Gas
316	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Gas
317	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Gas
318	NWS	Industrial	All Other	All	Process Heating	Insulation	Gas
319	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Gas
320	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	Gas
321	NWS	Industrial	Small Industrial	All	Total	Integrated Control System	Gas
322	NWS	Industrial	Small Industrial	All	Total	Process Integration and Pinch Analysis	Gas
323	NWS	Industrial	Small Industrial	All	Total	Sub-Metering	Gas
324	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	Gas
325	NWS	Industrial	Small Industrial	All	Process Heating	Water-heater right sizing and load management	Gas
326	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	Gas
327	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Control	Gas
328	NWS	Industrial	Small Industrial	All	Boilers	Boiler Right Sizing	Gas
329	NWS	Industrial	Small Industrial	All	Boilers	Condensing Boiler	Gas
330	NWS	Industrial	Small Industrial	All	Boilers	Direct-Contact Hot Water Heaters	Gas
331	NWS	Industrial	Small Industrial	All	Boilers	High Efficiency Burner	Gas
332	NWS	Industrial	Small Industrial	All	Boilers	Instantaneous Steam Generation	Gas
333	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Heat Recovery	Gas
334	NWS	Industrial	Small Industrial	All	Boilers	Boiler combustion air preheat	Gas
335	NWS	Industrial	Small Industrial	All	Boilers	Preventative Boiler Maintenance	Gas
336	NWS	Industrial	Small Industrial	All	Boilers	Boiler Water Treatment	Gas
337	NWS	Industrial	Small Industrial	All	Boilers	Condensate Return	Gas
338	NWS	Industrial	Small Industrial	All	Boilers	Economizer	Gas
339	NWS	Industrial	Small Industrial	All	Boilers	Insulation	Gas
340	NWS	Industrial	Small Industrial	All	Boilers	Minimize Deaerator Vent Losses	Gas
341	NWS	Industrial	Small Industrial	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Gas
342	NWS	Industrial	Small Industrial	All	Boilers	Steam Trap Survey and Repair	Gas
343	NWS	Industrial	Small Industrial	All	Boilers	First Generation Super Boilers	Gas
344	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Gas
345	NWS	Industrial	Small Industrial	All	Process Heating	Infrared Ovens	Gas
346	NWS	Industrial	Small Industrial	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Gas
347	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Gas
348	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Gas
349	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	Gas
350	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	Gas
351	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	Gas
352	NWS	Industrial	Small Industrial	All	Process Heating	Radiant Tube burners	Gas
353	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	Gas
354	NWS	Industrial	Small Industrial	All	Process Heating	Solar Walls	Gas
355	NWS	Industrial	Small Industrial	All	HVAC	Air Compressor Heat Recovery	Gas
356	NWS	Industrial	Small Industrial	All	HVAC	Air Curtains	Gas
357	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	Gas
358	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	Gas
359	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	Gas
360	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	Gas

Industrial Measures

MEASURE DESCRIPTION							
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Fuel Type
361	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature reset Control	Gas
362	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	Gas
363	NWS	Industrial	Small Industrial	All	Total	Pollution Control Measures	Gas
364	NWS	Industrial	Small Industrial	All	Process Heating	CFD Modelling	Gas
365	NWS	Industrial	Small Industrial	All	Total	Energy Management	Gas
366	NWS	Industrial	Small Industrial	All	Process Heating	Improved airflow in dryer windbox	Gas
367	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Oven Maintenance	Gas
368	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Furnace Maintenance	Gas
369	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Dryer Maintenance	Gas
370	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Gas
371	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Gas
372	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Gas
373	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	Gas
374	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	Gas
375	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	Gas
376	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Gas
377	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Gas
378	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Gas
379	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	Gas
380	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	Gas
381	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	Gas

Industrial Measures

MEASURE DESCRIPTION															
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	EPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	MEASURE INCREMENTAL SAVING PER UNIT				
											Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
1	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Operations and maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
2	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Match Motor Size to Load	RET	15	15	0.00	0.0120	0.00000	0	0	0
3	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Motor Efficiency Upgrade	RET	15	15	0.00	0.0200	0.00000	0	0	0
4	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Variable Speed Drives	RET	15	15	0.00	0.2000	0.00002	0	0	0
5	NWS	Industrial	Small Industrial	All	Pumps	Reduce Overall System Requirements	RET	3	3	0.00	0.1000	0.00001	0	0	0
6	NWS	Industrial	Small Industrial	All	Pumps	Match Pump Size to Load	RET	15	15	0.00	0.2000	0.00002	0	0	0
7	NWS	Industrial	Small Industrial	All	Pumps	Reduce or Control Pump Speed	RET	15	15	0.01	0.3000	0.00003	0	0	0
8	NWS	Industrial	Small Industrial	All	Pumps	Improve Pump Components	RET	15	15	0.00	0.0500	0.00001	0	0	0
9	NWS	Industrial	Small Industrial	All	Pumps	Operation and Maintenance	RET	3	3	0.00	0.0200	0.00000	0	0	0
10	NWS	Industrial	Small Industrial	All	Compressed Air	Reduce Overall System Requirements	RET	15	15	0.00	0.2000	0.00002	0	0	0
11	NWS	Industrial	Small Industrial	All	Compressed Air	Match Compressor Size to Load	RET	15	15	0.00	0.0300	0.00000	0	0	0
12	NWS	Industrial	Small Industrial	All	Compressed Air	Compressor Control	RET	15	15	0.00	0.1000	0.00001	0	0	0
13	NWS	Industrial	Small Industrial	All	Compressed Air	Improve Compressor Components	RET	15	15	0.00	0.0500	0.00001	0	0	0
14	NWS	Industrial	Small Industrial	All	Compressed Air	Operation and Maintenance	RET	3	3	0.00	0.1000	0.00001	0	0	0
15	NWS	Industrial	Small Industrial	All	Fans	Reduce Overall System Requirements	RET	15	15	0.00	0.1000	0.00001	0	0	0
16	NWS	Industrial	Small Industrial	All	Fans	Reduce or Control Fan Speed	RET	15	15	0.00	0.2000	0.00002	0	0	0
17	NWS	Industrial	Small Industrial	All	Fans	Improve Fan Components	RET	15	15	0.00	0.0500	0.00001	0	0	0
18	NWS	Industrial	Small Industrial	All	Fans	Operation and Maintenance	RET	3	3	0.00	0.0200	0.00000	0	0	0
19	NWS	Industrial	Small Industrial	All	PH	Advanced water heater controls	RET	20	20	0.00	0.0300	0.00000	0	0	0
20	NWS	Industrial	Small Industrial	All	PH	Process Heat Recovery to Preheat Makeup Water	RET	20	20	0.00	0.0600	0.00001	0	0	0
21	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Oven)	RET	20	20	0.00	0.1500	0.00002	0	0	0
22	NWS	Industrial	Small Industrial	All	PH	Insulation (Oven)	RET	15	15	0.00	0.0500	0.00001	0	0	0
23	NWS	Industrial	Small Industrial	All	PH	Preventative Oven Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
24	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Dryer)	RET	20	20	0.00	0.1500	0.00002	0	0	0
25	NWS	Industrial	Small Industrial	All	PH	Insulation (Dryer)	RET	15	15	0.00	0.0500	0.00001	0	0	0
26	NWS	Industrial	Small Industrial	All	PH	Preventative Dryer Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
27	NWS	Industrial	Small Industrial	All	PH	Preventative Furnace Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
28	NWS	Industrial	Small Industrial	All	PH	Insulation (Furnace)	RET	15	15	0.00	0.0500	0.00001	0	0	0
29	NWS	Industrial	Small Industrial	All	PH	Preventative Kiln Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
30	NWS	Industrial	Small Industrial	All	PH	Insulation (Kiln)	RET	15	15	0.00	0.0500	0.00001	0	0	0
31	NWS	Industrial	Small Industrial	All	PCR	High Efficiency Chiller	RET	20	20	0.03	0.1900	0.00002	0	0	0
32	NWS	Industrial	Small Industrial	All	PCR	Optimized Distribution System	RET	25	25	0.00	0.0300	0.00000	0	0	0
33	NWS	Industrial	Small Industrial	All	PCR	Floating head pressure controls	RET	15	15	0.00	0.0650	0.00001	0	0	0
34	NWS	Industrial	Small Industrial	All	PCR	Premium efficiency refrigeration control system	RET	15	15	0.02	0.0900	0.00001	0	0	0
35	NWS	Industrial	Small Industrial	All	PCR	Smart Defrost Controls	RET	16	16	0.00	0.1000	0.00001	0	0	0
36	NWS	Industrial	Small Industrial	All	PCR	Doors, Covers and Curtains	RET	5	5	0.00	0.0700	0.00001	0	0	0
37	NWS	Industrial	Small Industrial	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	RET	3	3	0.00	0.0205	0.00000	0	0	0
38	NWS	Industrial	Small Industrial	All	PCR	Preventative refrigeration/cooling system maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
39	NWS	Industrial	Small Industrial	All	PCR	Optimized condenser pressure	RET	3	3	0.00	0.0600	0.00001	0	0	0
40	NWS	Industrial	Small Industrial	All	PCR	VSD on chiller compressor	RET	15	15	0.02	0.3000	0.00003	0	0	0
41	NWS	Industrial	Small Industrial	All	PCR	Free-cooling	RET	12	12	0.00	0.2100	0.00002	0	0	0
42	NWS	Industrial	Small Industrial	All	PCR	Improve insulation of refrigeration system	RET	10	10	0.00	0.0500	0.00001	0	0	0
43	NWS	Industrial	Small Industrial	All	HVAC	Optimized duct design to improve efficiency	RET	15	15	0.01	0.1000	0.00001	0	0	0
44	NWS	Industrial	Small Industrial	All	HVAC	Air Source Heat Pump for Backup Generators	RET	15	15	0.27	0.6800	0.00008	0	0	0
45	NWS	Industrial	Small Industrial	All	ONPU	High efficiency battery charger (for forklifts)	RET	20	20	0.00	0.1000	0.00001	0	0	0
46	NWS	Industrial	Small Industrial	All	ONPU	HE Dry-Type Transformers	RET	30	30	0.00	0.0100	0.00000	0	0	0
47	NWS	Industrial	Small Industrial	All	HVAC	Free cooling	RET	15	15	0.01	0.5250	0.00006	0	0	0
48	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	RET	20	20	0.00	0.0000	0.00000	0	0	0
49	NWS	Industrial	Small Industrial	All	HVAC	High efficiency non-packaged HVAC equipment	RET	20	20	0.65	0.2500	0.00003	0	0	0
50	NWS	Industrial	Small Industrial	All	HVAC	Seasonal Temperature Settings Adjustments	RET	3	3	0.00	0.0700	0.00001	0	0	0
51	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	RET	15	15	0.01	0.1680	0.00002	0	0	0
52	NWS	Industrial	Small Industrial	All	HVAC	Ground Source Heat Pump	RET	20	20	0.40	0.5100	0.00006	0	0	0
53	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	RET	20	20	0.26	0.2000	0.00002	0	0	0
54	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature Control	RET	25	25	0.00	0.0700	0.00001	0	0	0
55	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	RET	3	3	0.00	0.0700	0.00001	0	0	0
56	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	RET	20	20	0.00	0.0800	0.00001	0	0	0
57	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	RET	10	10	0.00	0.0500	0.00001	0	0	0
58	NWS	Industrial	Small Industrial	All	HVAC	Preventative Packaged HVAC Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
59	NWS	Industrial	Small Industrial	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	RET	15	15	0.75	0.1500	0.00002	0	0	0
60	NWS	Industrial	Small Industrial	All	FL	High efficiency ballasts for lighting	RET	11	11	0.00	0.2500	0.00003	0	0	0

Industrial Measures

MEASURE DESCRIPTION															
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	EPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	MEASURE INCREMENTAL SAVING PER UNIT				
											Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
61	NWS	Industrial	Small Industrial	All	FL	High Efficiency Light fixtures	RET	16	16	0.05	0.4500	0.00005	0	0	0
62	NWS	Industrial	Small Industrial	All	FL	Efficient Lighting Design	RET	16	16	0.00	0.1500	0.00002	0	0	0
63	NWS	Industrial	Small Industrial	All	FL	Lighting controls: on/off timer settings	RET	8	8	0.00	0.1500	0.00002	0	0	0
64	NWS	Industrial	Small Industrial	All	FL	Lighting controls: occupancy sensors	RET	8	8	0.04	0.1500	0.00002	0	0	0
65	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	RET	15	15	0.03	0.2000	0.00002	0	0	0
66	NWS	Industrial	Small Industrial	All	HVAC	Premium efficiency ventilation control with VSD	RET	10	10	0.01	0.3000	0.00003	0	0	0
67	NWS	Industrial	Small Industrial	All	HVAC	Demand-Controlled Ventilation	RET	15	15	0.05	0.2000	0.00002	0	0	0
68	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Operations and maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
69	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Match Motor Size to Load	RET	15	15	0.00	0.0120	0.00000	0	0	0
70	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Motor Efficiency Upgrade	RET	15	15	0.00	0.0200	0.00000	0	0	0
71	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Variable Speed Drives	RET	15	15	0.00	0.2000	0.00002	0	0	0
72	NWS	Industrial	Other - Combined	All	Pumps	Reduce Overall System Requirements	RET	3	3	0.00	0.1000	0.00001	0	0	0
73	NWS	Industrial	Other - Combined	All	Pumps	Match Pump Size to Load	RET	15	15	0.00	0.2000	0.00002	0	0	0
74	NWS	Industrial	Other - Combined	All	Pumps	Reduce or Control Pump Speed	RET	15	15	0.00	0.3000	0.00003	0	0	0
75	NWS	Industrial	Other - Combined	All	Pumps	Improve Pump Components	RET	15	15	0.00	0.0500	0.00001	0	0	0
76	NWS	Industrial	Other - Combined	All	Pumps	Operation and Maintenance	RET	3	3	0.00	0.0200	0.00000	0	0	0
77	NWS	Industrial	Other - Combined	All	Compressed Air	Reduce Overall System Requirements	RET	15	15	0.00	0.2000	0.00002	0	0	0
78	NWS	Industrial	Other - Combined	All	Compressed Air	Match Compressor Size to Load	RET	15	15	0.00	0.0300	0.00000	0	0	0
79	NWS	Industrial	Other - Combined	All	Compressed Air	Compressor Control	RET	15	15	0.00	0.1000	0.00001	0	0	0
80	NWS	Industrial	Other - Combined	All	Compressed Air	Improve Compressor Components	RET	15	15	0.00	0.0500	0.00001	0	0	0
81	NWS	Industrial	Other - Combined	All	Compressed Air	Operation and Maintenance	RET	3	3	0.00	0.1000	0.00001	0	0	0
82	NWS	Industrial	Other - Combined	All	Fans	Reduce Overall System Requirements	RET	15	15	0.00	0.1000	0.00001	0	0	0
83	NWS	Industrial	Other - Combined	All	Fans	Reduce or Control Fan Speed	RET	15	15	0.00	0.2000	0.00002	0	0	0
84	NWS	Industrial	Other - Combined	All	Fans	Improve Fan Components	RET	15	15	0.00	0.0500	0.00001	0	0	0
85	NWS	Industrial	Other - Combined	All	Fans	Operation and Maintenance	RET	3	3	0.00	0.0200	0.00000	0	0	0
86	NWS	Industrial	Other - Combined	All	HVAC	Optimized Duct Design to Improve Efficiency	RET	15	15	0.01	0.1000	0.00001	0	0	0
87	NWS	Industrial	Other - Combined	All	PH	Advanced Water Heater Controls	RET	20	20	0.00	0.0300	0.00000	0	0	0
88	NWS	Industrial	Other - Combined	All	PH	Process Heat Recovery to Preheat Makeup Water	RET	20	20	0.00	0.0600	0.00001	0	0	0
89	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Oven)	RET	20	20	0.00	0.1500	0.00002	0	0	0
90	NWS	Industrial	Other - Combined	All	PH	Insulation (Oven)	RET	15	15	0.00	0.0500	0.00001	0	0	0
91	NWS	Industrial	Other - Combined	All	PH	Preventative Oven Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
92	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Dryer)	RET	20	20	0.00	0.1500	0.00002	0	0	0
93	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	RET	15	15	0.00	0.0500	0.00001	0	0	0
94	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
95	NWS	Industrial	Other - Combined	All	PH	Optimized Distribution System	RET	25	25	0.00	0.0300	0.00000	0	0	0
96	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	RET	15	15	0.00	0.0500	0.00001	0	0	0
97	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
98	NWS	Industrial	Other - Combined	All	PH	Preventative Furnace Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
99	NWS	Industrial	Other - Combined	All	PH	Insulation (Furnace)	RET	15	15	0.00	0.0500	0.00001	0	0	0
100	NWS	Industrial	Other - Combined	All	PCR	High Efficiency Chiller	RET	20	20	0.02	0.1900	0.00002	0	0	0
101	NWS	Industrial	Other - Combined	All	PCR	Floating head pressure controls	RET	15	15	0.00	0.0650	0.00001	0	0	0
102	NWS	Industrial	Other - Combined	All	PCR	Premium Efficiency Refrigeration Control System	RET	15	15	0.01	0.0900	0.00001	0	0	0
103	NWS	Industrial	Other - Combined	All	PCR	Smart Defrost Controls	RET	16	16	0.00	0.1000	0.00001	0	0	0
104	NWS	Industrial	Other - Combined	All	PCR	Doors, Covers and Curtains	RET	5	5	0.00	0.0700	0.00001	0	0	0
105	NWS	Industrial	Other - Combined	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	RET	3	3	0.00	0.0205	0.00000	0	0	0
106	NWS	Industrial	Other - Combined	All	PCR	Preventative Refrigeration/cooling System Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
107	NWS	Industrial	Other - Combined	All	PCR	Optimized condenser pressure	RET	3	3	0.00	0.0600	0.00001	0	0	0
108	NWS	Industrial	Other - Combined	All	PCR	Free-cooling	RET	12	12	0.00	0.3000	0.00003	0	0	0
109	NWS	Industrial	Other - Combined	All	PCR	Improve Insulation of Refrigeration System	RET	10	10	0.00	0.0500	0.00001	0	0	0
110	NWS	Industrial	Other - Combined	All	ONPU	HE Dry-Type Transformers	RET	30	30	0.00	0.0100	0.00000	0	0	0
111	NWS	Industrial	Other - Combined	All	HVAC	Air Source Heat Pump for Backup Generators	RET	15	15	0.18	0.6800	0.00008	0	0	0
112	NWS	Industrial	Other - Combined	All	ONPU	High efficiency battery charger (for forklifts)	RET	20	20	0.00	0.1000	0.00001	0	0	0
113	NWS	Industrial	Other - Combined	All	HVAC	Radiant Heaters	RET	20	20	0.00	0.0000	0.00000	0	0	0
114	NWS	Industrial	Other - Combined	All	HVAC	High efficiency non-packaged HVAC equipment	RET	20	20	0.43	0.2500	0.00003	0	0	0
115	NWS	Industrial	Other - Combined	All	HVAC	Seasonal Temperature Settings Adjustments	RET	3	3	0.00	0.0700	0.00001	0	0	0
116	NWS	Industrial	Other - Combined	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	RET	15	15	0.01	0.1680	0.00002	0	0	0
117	NWS	Industrial	Other - Combined	All	HVAC	Ground Source Heat Pump	RET	20	20	0.26	0.5100	0.00006	0	0	0
118	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Heat Recovery	RET	20	20	0.18	0.2000	0.00002	0	0	0
119	NWS	Industrial	Other - Combined	All	HVAC	Automated Temperature Control	RET	25	25	0.00	0.0700	0.00001	0	0	0
120	NWS	Industrial	Other - Combined	All	HVAC	Reduced Temperature Settings	RET	3	3	0.00	0.0700	0.00001	0	0	0

Industrial Measures

MEASURE DESCRIPTION															MEASURE INCREMENTAL SAVING PER UNIT			
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	EPPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases			
121	NWS	Industrial	Other - Combined	All	HVAC	Destratification Fans	RET	20	20	0.00	0.0800	0.00001	0	0	0			
122	NWS	Industrial	Other - Combined	All	HVAC	Warehouse Loading Dock Seals	RET	10	10	0.00	0.0500	0.00001	0	0	0			
123	NWS	Industrial	Other - Combined	All	HVAC	Preventative Packaged HVAC Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0			
124	NWS	Industrial	Other - Combined	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	RET	15	15	0.50	0.1500	0.00002	0	0	0			
125	NWS	Industrial	Other - Combined	All	FL	High efficiency ballasts for lighting	RET	11	11	0.00	0.2500	0.00003	0	0	0			
126	NWS	Industrial	Other - Combined	All	FL	High Efficiency Light fixtures	RET	16	16	0.03	0.4500	0.00006	0	0	0			
127	NWS	Industrial	Other - Combined	All	FL	Efficient Lighting Design	RET	16	16	0.00	0.1500	0.00002	0	0	0			
128	NWS	Industrial	Other - Combined	All	FL	Lighting controls: on/off timer settings	RET	8	8	0.00	0.1500	0.00002	0	0	0			
129	NWS	Industrial	Other - Combined	All	FL	Lighting controls: occupancy sensors	RET	8	8	0.03	0.1500	0.00002	0	0	0			
130	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Optimization	RET	15	15	0.02	0.2000	0.00002	0	0	0			
131	NWS	Industrial	Other - Combined	All	HVAC	Premium efficiency ventilation control with VSD	RET	10	10	0.01	0.3000	0.00003	0	0	0			
132	NWS	Industrial	Other - Combined	All	HVAC	Demand-Controlled Ventilation	RET	15	15	0.03	0.2000	0.00002	0	0	0			
133	NWS	Industrial	Food Products	All	Motors - Other Applications	Operations and maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0			
134	NWS	Industrial	Food Products	All	Motors - Other Applications	Match Motor Size to Load	RET	15	15	0.00	0.0120	0.00000	0	0	0			
135	NWS	Industrial	Food Products	All	Motors - Other Applications	Motor Efficiency Upgrade	RET	15	15	0.00	0.0200	0.00000	0	0	0			
136	NWS	Industrial	Food Products	All	Motors - Other Applications	Variable Speed Drives	RET	15	15	0.00	0.2000	0.00002	0	0	0			
137	NWS	Industrial	Food Products	All	Pumps	Reduce Overall System Requirements	RET	3	3	0.00	0.1000	0.00001	0	0	0			
138	NWS	Industrial	Food Products	All	Pumps	Match Pump Size to Load	RET	15	15	0.00	0.2000	0.00002	0	0	0			
139	NWS	Industrial	Food Products	All	Pumps	Reduce or Control Pump Speed	RET	15	15	0.00	0.3000	0.00003	0	0	0			
140	NWS	Industrial	Food Products	All	Pumps	Improve Pump Components	RET	15	15	0.00	0.0500	0.00001	0	0	0			
141	NWS	Industrial	Food Products	All	Pumps	Operation and Maintenance	RET	3	3	0.00	0.0200	0.00000	0	0	0			
142	NWS	Industrial	Food Products	All	Compressed Air	Reduce Overall System Requirements	RET	15	15	0.00	0.2000	0.00002	0	0	0			
143	NWS	Industrial	Food Products	All	Compressed Air	Match Compressor Size to Load	RET	15	15	0.00	0.0300	0.00000	0	0	0			
144	NWS	Industrial	Food Products	All	Compressed Air	Compressor Control	RET	15	15	0.00	0.1000	0.00001	0	0	0			
145	NWS	Industrial	Food Products	All	Compressed Air	Improve Compressor Components	RET	15	15	0.00	0.0500	0.00001	0	0	0			
146	NWS	Industrial	Food Products	All	Compressed Air	Operation and Maintenance	RET	3	3	0.00	0.1000	0.00001	0	0	0			
147	NWS	Industrial	Food Products	All	Fans	Reduce Overall System Requirements	RET	15	15	0.00	0.1000	0.00001	0	0	0			
148	NWS	Industrial	Food Products	All	Fans	Reduce or Control Fan Speed	RET	15	15	0.00	0.2000	0.00002	0	0	0			
149	NWS	Industrial	Food Products	All	Fans	Improve Fan Components	RET	15	15	0.00	0.0500	0.00001	0	0	0			
150	NWS	Industrial	Food Products	All	Fans	Operation and Maintenance	RET	3	3	0.00	0.0200	0.00000	0	0	0			
151	NWS	Industrial	Food Products	All	HVAC	Optimized Duct Design to Improve Efficiency	RET	15	15	0.01	0.1000	0.00001	0	0	0			
152	NWS	Industrial	Food Products	All	PH	Advanced Water Heater Controls	RET	20	20	0.00	0.0300	0.00000	0	0	0			
153	NWS	Industrial	Food Products	All	PH	Process Heat Recovery to Preheat Makeup Water	RET	20	20	0.00	0.0600	0.00001	0	0	0			
154	NWS	Industrial	Food Products	All	PH	Air Curtains (Oven)	RET	20	20	0.00	0.1500	0.00002	0	0	0			
155	NWS	Industrial	Food Products	All	PH	Insulation (Oven)	RET	15	15	0.00	0.0500	0.00001	0	0	0			
156	NWS	Industrial	Food Products	All	PH	Preventative Oven Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0			
157	NWS	Industrial	Food Products	All	PH	Air Curtains (Dryer)	RET	20	20	0.00	0.1500	0.00002	0	0	0			
158	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	RET	15	15	0.00	0.0500	0.00001	0	0	0			
159	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0			
160	NWS	Industrial	Food Products	All	PH	Optimized Distribution System	RET	25	25	0.00	0.0300	0.00000	0	0	0			
161	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	RET	15	15	0.00	0.0500	0.00001	0	0	0			
162	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0			
163	NWS	Industrial	Food Products	All	PH	Preventative Furnace Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0			
164	NWS	Industrial	Food Products	All	PH	Insulation (Furnace)	RET	15	15	0.00	0.0500	0.00001	0	0	0			
165	NWS	Industrial	Food Products	All	PCR	High Efficiency Chiller	RET	20	20	0.02	0.1900	0.00002	0	0	0			
166	NWS	Industrial	Food Products	All	PCR	Floating head pressure controls	RET	15	15	0.00	0.0650	0.00001	0	0	0			
167	NWS	Industrial	Food Products	All	PCR	Premium Efficiency Refrigeration Control System	RET	15	15	0.01	0.0900	0.00001	0	0	0			
168	NWS	Industrial	Food Products	All	PCR	Smart Defrost Controls	RET	16	16	0.00	0.1000	0.00001	0	0	0			
169	NWS	Industrial	Food Products	All	PCR	Doors, Covers and Curtains	RET	5	5	0.00	0.0700	0.00001	0	0	0			
170	NWS	Industrial	Food Products	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	RET	3	3	0.00	0.0205	0.00000	0	0	0			
171	NWS	Industrial	Food Products	All	PCR	Preventative Refrigeration/cooling System Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0			
172	NWS	Industrial	Food Products	All	PCR	Optimized condenser pressure	RET	3	3	0.00	0.0600	0.00001	0	0	0			
173	NWS	Industrial	Food Products	All	PCR	Free-cooling	RET	12	12	0.00	0.3000	0.00003	0	0	0			
174	NWS	Industrial	Food Products	All	PCR	Improve Insulation of Refrigeration System	RET	10	10	0.00	0.0500	0.00001	0	0	0			
175	NWS	Industrial	Food Products	All	ONPU	HE Dry-Type Transformers	RET	30	30	0.00	0.0100	0.00000	0	0	0			
176	NWS	Industrial	Food Products	All	HVAC	Air Source Heat Pump for Backup Generators	RET	15	15	0.18	0.6800	0.00008	0	0	0			
177	NWS	Industrial	Food Products	All	ONPU	High efficiency battery charger (for forklifts)	RET	20	20	0.00	0.1000	0.00001	0	0	0			
178	NWS	Industrial	Food Products	All	HVAC	Radiant Heaters	RET	20	20	0.00	0.0000	0.00000	0	0	0			
179	NWS	Industrial	Food Products	All	HVAC	High efficiency non-packaged HVAC equipment	RET	20	20	0.43	0.2500	0.00003	0	0	0			
180	NWS	Industrial	Food Products	All	HVAC	Seasonal Temperature Settings Adjustments	RET	3	3	0.00	0.0700	0.00001	0	0	0			



Industrial Measures

MEASURE DESCRIPTION										MEASURE INCREMENTAL SAVING PER UNIT					
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	EPPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
181	NWS	Industrial	Food Products	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	RET	15	15	0.01	0.1680	0.00002	0	0	0
182	NWS	Industrial	Food Products	All	HVAC	Ground Source Heat Pump	RET	20	20	0.26	0.5100	0.00006	0	0	0
183	NWS	Industrial	Food Products	All	HVAC	Ventilation Heat Recovery	RET	20	20	0.18	0.2000	0.00002	0	0	0
184	NWS	Industrial	Food Products	All	HVAC	Automated Temperature Control	RET	25	25	0.00	0.0700	0.00001	0	0	0
185	NWS	Industrial	Food Products	All	HVAC	Reduced Temperature Settings	RET	3	3	0.00	0.0700	0.00001	0	0	0
186	NWS	Industrial	Food Products	All	HVAC	Destratification Fans	RET	20	20	0.00	0.0800	0.00001	0	0	0
187	NWS	Industrial	Food Products	All	HVAC	Warehouse Loading Dock Seals	RET	10	10	0.00	0.0500	0.00001	0	0	0
188	NWS	Industrial	Food Products	All	HVAC	Preventative Packaged HVAC Maintenance	RET	3	3	0.00	0.0500	0.00001	0	0	0
189	NWS	Industrial	Food Products	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	RET	15	15	0.50	0.1500	0.00002	0	0	0
190	NWS	Industrial	Food Products	All	FL	High efficiency ballasts for lighting	RET	11	11	0.00	0.2500	0.00003	0	0	0
191	NWS	Industrial	Food Products	All	FL	High Efficiency Light fixtures	RET	16	16	0.03	0.4500	0.00006	0	0	0
192	NWS	Industrial	Food Products	All	FL	Efficient Lighting Design	RET	16	16	0.00	0.1500	0.00002	0	0	0
193	NWS	Industrial	Food Products	All	FL	Lighting controls: on/off timer settings	RET	8	8	0.00	0.1500	0.00002	0	0	0
194	NWS	Industrial	Food Products	All	FL	Lighting controls: occupancy sensors	RET	8	8	0.03	0.1500	0.00002	0	0	0
195	NWS	Industrial	Food Products	All	HVAC	Ventilation Optimization	RET	15	15	0.02	0.2000	0.00002	0	0	0
196	NWS	Industrial	Food Products	All	HVAC	Premium efficiency ventilation control with VSD	RET	10	10	0.01	0.3000	0.00003	0	0	0
197	NWS	Industrial	Food Products	All	HVAC	Demand-Controlled Ventilation	RET	15	15	0.03	0.2000	0.00002	0	0	0
199	NWS	Industrial	Industrial Gases	All	Total	Integrated Control System	RET	10	10	0.00	0	0.00000	0	0	0
200	NWS	Industrial	Industrial Gases	All	Total	Process Integration and Pinch Analysis	RET	5	5	0.00	0	0.00000	0	0	0
201	NWS	Industrial	Industrial Gases	All	Total	Sub-Metering	RET	15	15	0.00	0	0.00000	0	0	0
202	NWS	Industrial	Industrial Gases	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	RET	15	15	0.00	0	0.00000	0	0	0
203	NWS	Industrial	Industrial Gases	All	Process Heating	Water-heater right sizing and load management	RET	20	20	0.00	0	0.00000	0	0	0
204	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	RET	15	15	0.00	0	0.00000	0	0	0
205	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Control	RET	20	20	0.17	0	0.00000	0	0	0
206	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Right Sizing	RET	20	20	3.62	0	0.00000	0	0	0
207	NWS	Industrial	Industrial Gases	All	Boilers	Condensing Boiler	RET	20	20	4.73	0	0.00000	0	0	0
208	NWS	Industrial	Industrial Gases	All	Boilers	Direct-Contact Hot Water Heaters	RET	20	20	3.62	0	0.00000	0	0	0
209	NWS	Industrial	Industrial Gases	All	Boilers	High Efficiency Burner	RET	20	20	0.59	0	0.00000	0	0	0
210	NWS	Industrial	Industrial Gases	All	Boilers	Instantaneous Steam Generation	RET	15	15	4.73	0	0.00000	0	0	0
211	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Heat Recovery	RET	20	20	0.29	0	0.00000	0	0	0
212	NWS	Industrial	Industrial Gases	All	Boilers	Boiler combustion air preheat	RET	15	15	0.72	0	0.00000	0	0	0
213	NWS	Industrial	Industrial Gases	All	Boilers	Preventative Boiler Maintenance	RET	5	5	0.25	0	0.00000	0	0	0
214	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Water Treatment	RET	10	10	0.08	0	0.00000	0	0	0
215	NWS	Industrial	Industrial Gases	All	Boilers	Condensate Return	RET	20	20	0.56	0	0.00000	0	0	0
216	NWS	Industrial	Industrial Gases	All	Boilers	Economizer	RET	20	20	0.50	0	0.00000	0	0	0
217	NWS	Industrial	Industrial Gases	All	Boilers	Insulation	RET	15	15	0.23	0	0.00000	0	0	0
218	NWS	Industrial	Industrial Gases	All	Boilers	Minimize Deaerator Vent Losses	RET	20	20	0.21	0	0.00000	0	0	0
219	NWS	Industrial	Industrial Gases	All	Boilers	Process Heat Recovery to Preheat Makeup Water	RET	20	20	0.58	0	0.00000	0	0	0
220	NWS	Industrial	Industrial Gases	All	Boilers	Steam Trap Survey and Repair	RET	3	3	0.29	0	0.00000	0	0	0
221	NWS	Industrial	Industrial Gases	All	Boilers	First Generation Super Boilers	RET	30	30	39.88	0	0.00000	0	0	0
222	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	RET	20	20	3.75	0	0.00000	0	0	0
223	NWS	Industrial	Industrial Gases	All	Process Heating	Infrared Ovens	RET	20	20	7.05	0	0.00000	0	0	0
224	NWS	Industrial	Industrial Gases	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	RET	15	15	1.50	0	0.00000	0	0	0
225	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	RET	20	20	0.72	0	0.00000	0	0	0
226	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	RET	15	15	6.98	0	0.00000	0	0	0
227	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	RET	15	15	1.00	0	0.00000	0	0	0
228	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	RET	15	15	3.30	0	0.00000	0	0	0
229	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	RET	3	3	0.00	0	0.00000	0	0	0
230	NWS	Industrial	Industrial Gases	All	Process Heating	Radiant Tube burners	RET	20	20	0.00	0	0.00000	0	0	0
231	NWS	Industrial	Industrial Gases	All	HVAC	Radiant Heaters	RET	20	20	5.77	0	0.00000	0	0	0
232	NWS	Industrial	Industrial Gases	All	Process Heating	Solar Walls	RET	20	20	0.00	0	0.00000	0	0	0
233	NWS	Industrial	Industrial Gases	All	HVAC	Air Compressor Heat Recovery	RET	20	20	0.00	0	0.00000	0	0	0
234	NWS	Industrial	Industrial Gases	All	HVAC	Air Curtains	RET	15	15	0.00	0	0.00000	0	0	0
235	NWS	Industrial	Industrial Gases	All	HVAC	Destratification Fans	RET	20	20	0.00	0	0.00000	0	0	0
236	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Heat Recovery	RET	20	20	2.33	0	0.00000	0	0	0
237	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Optimization	RET	15	15	2.24	0	0.00000	0	0	0
238	NWS	Industrial	Industrial Gases	All	HVAC	Warehouse Loading Dock Seals	RET	10	10	0.00	0	0.00000	0	0	0
239	NWS	Industrial	Industrial Gases	All	HVAC	Automated Temperature reset Control	RET	25	25	0.00	0	0.00000	0	0	0
240	NWS	Industrial	Industrial Gases	All	HVAC	Reduced Temperature Settings	RET	5	5	0.00	0	0.00000	0	0	0

Industrial Measures

MEASURE DESCRIPTION						MEASURE INCREMENTAL SAVING PER UNIT									
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	EEPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
241	NWS	Industrial	Industrial Gases	All	Total	Pollution Control Measures	RET	20	20	0.00	0	0.00000	0	0	0
242	NWS	Industrial	Industrial Gases	All	Process Heating	CFD Modelling	RET	15	15	0.51	0	0.00000	0	0	0
243	NWS	Industrial	Industrial Gases	All	Total	Energy Management	RET	5	5	0.12	0	0.00000	0	0	0
244	NWS	Industrial	Industrial Gases	All	Process Heating	Improved airflow in dryer windbox	RET	3	3	0.00	0	0.00000	0	0	0
245	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Oven Maintenance	RET	3	3	0.00	0	0.00000	0	0	0
246	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Furnace Maintenance	RET	3	3	0.00	0	0.00000	0	0	0
247	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Dryer Maintenance	RET	3	3	0.00	0	0.00000	0	0	0
248	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	RET	20	20	0.75	0	0.00000	0	0	0
249	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	RET	20	20	0.14	0	0.00000	0	0	0
250	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	RET	15	15	1.40	0	0.00000	0	0	0
251	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	RET	15	15	0.20	0	0.00000	0	0	0
252	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	RET	15	15	0.66	0	0.00000	0	0	0
253	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	RET	3	3	0.00	0	0.00000	0	0	0
254	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	RET	20	20	3.75	0	0.00000	0	0	0
255	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	RET	20	20	0.72	0	0.00000	0	0	0
256	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	RET	15	15	6.98	0	0.00000	0	0	0
257	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	RET	15	15	1.00	0	0.00000	0	0	0
258	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	RET	15	15	3.30	0	0.00000	0	0	0
259	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	RET	3	3	0.00	0	0.00000	0	0	0
260	NWS	Industrial	All Other	All	Total	Integrated Control System	RET	10	10	0.00	0	0.00000	0	0	0
261	NWS	Industrial	All Other	All	Total	Process Integration and Pinch Analysis	RET	5	5	0.00	0	0.00000	0	0	0
262	NWS	Industrial	All Other	All	Total	Sub-Metering	RET	15	15	0.00	0	0.00000	0	0	0
263	NWS	Industrial	All Other	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	RET	15	15	0.00	0	0.00000	0	0	0
264	NWS	Industrial	All Other	All	Process Heating	Water-heater right sizing and load management	RET	20	20	0.00	0	0.00000	0	0	0
265	NWS	Industrial	All Other	All	Process Heating	Insulation	RET	15	15	0.00	0	0.00000	0	0	0
266	NWS	Industrial	All Other	All	Boilers	Blowdown Control	RET	20	20	0.17	0	0.00000	0	0	0
267	NWS	Industrial	All Other	All	Boilers	Boiler Right Sizing	RET	20	20	3.62	0	0.00000	0	0	0
268	NWS	Industrial	All Other	All	Boilers	Condensing Boiler	RET	20	20	4.73	0	0.00000	0	0	0
269	NWS	Industrial	All Other	All	Boilers	Direct-Contact Hot Water Heaters	RET	20	20	3.62	0	0.00000	0	0	0
270	NWS	Industrial	All Other	All	Boilers	High Efficiency Burner	RET	20	20	0.59	0	0.00000	0	0	0
271	NWS	Industrial	All Other	All	Boilers	Instantaneous Steam Generation	RET	15	15	4.73	0	0.00000	0	0	0
272	NWS	Industrial	All Other	All	Boilers	Blowdown Heat Recovery	RET	20	20	0.29	0	0.00000	0	0	0
273	NWS	Industrial	All Other	All	Boilers	Boiler combustion air preheat	RET	15	15	0.72	0	0.00000	0	0	0
274	NWS	Industrial	All Other	All	Boilers	Preventative Boiler Maintenance	RET	5	5	0.25	0	0.00000	0	0	0
275	NWS	Industrial	All Other	All	Boilers	Boiler Water Treatment	RET	10	10	0.08	0	0.00000	0	0	0
276	NWS	Industrial	All Other	All	Boilers	Condensate Return	RET	20	20	0.56	0	0.00000	0	0	0
277	NWS	Industrial	All Other	All	Boilers	Economizer	RET	20	20	0.50	0	0.00000	0	0	0
278	NWS	Industrial	All Other	All	Boilers	Insulation	RET	15	15	0.23	0	0.00000	0	0	0
279	NWS	Industrial	All Other	All	Boilers	Minimize Deaerator Vent Losses	RET	20	20	0.21	0	0.00000	0	0	0
280	NWS	Industrial	All Other	All	Boilers	Process Heat Recovery to Preheat Makeup Water	RET	20	20	0.58	0	0.00000	0	0	0
281	NWS	Industrial	All Other	All	Boilers	Steam Trap Survey and Repair	RET	3	3	0.29	0	0.00000	0	0	0
282	NWS	Industrial	All Other	All	Boilers	First Generation Super Boilers	RET	30	30	39.88	0	0.00000	0	0	0
283	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	RET	20	20	3.75	0	0.00000	0	0	0
284	NWS	Industrial	All Other	All	Process Heating	Infrared Ovens	RET	20	20	7.05	0	0.00000	0	0	0
285	NWS	Industrial	All Other	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	RET	15	15	1.50	0	0.00000	0	0	0
286	NWS	Industrial	All Other	All	Process Heating	Air Curtains	RET	20	20	0.72	0	0.00000	0	0	0
287	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	RET	15	15	6.98	0	0.00000	0	0	0
288	NWS	Industrial	All Other	All	Process Heating	Insulation	RET	15	15	1.00	0	0.00000	0	0	0
289	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	RET	15	15	3.30	0	0.00000	0	0	0
290	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	RET	3	3	0.00	0	0.00000	0	0	0
291	NWS	Industrial	All Other	All	Process Heating	Radiant Tube burners	RET	20	20	0.00	0	0.00000	0	0	0
292	NWS	Industrial	All Other	All	Process Heating	Radiant Heaters	RET	20	20	5.77	0	0.00000	0	0	0
293	NWS	Industrial	All Other	All	Process Heating	Solar Walls	RET	20	20	0.00	0	0.00000	0	0	0
294	NWS	Industrial	All Other	All	HVAC	Air Compressor Heat Recovery	RET	20	20	0.00	0	0.00000	0	0	0
295	NWS	Industrial	All Other	All	HVAC	Air Curtains	RET	15	15	0.00	0	0.00000	0	0	0
296	NWS	Industrial	All Other	All	HVAC	Destratification Fans	RET	20	20	0.00	0	0.00000	0	0	0
297	NWS	Industrial	All Other	All	HVAC	Ventilation Heat Recovery	RET	20	20	2.33	0	0.00000	0	0	0
298	NWS	Industrial	All Other	All	HVAC	Ventilation Optimization	RET	15	15	2.24	0	0.00000	0	0	0
299	NWS	Industrial	All Other	All	HVAC	Warehouse Loading Dock Seals	RET	10	10	0.00	0	0.00000	0	0	0
300	NWS	Industrial	All Other	All	HVAC	Automated Temperature reset Control	RET	25	25	0.00	0	0.00000	0	0	0

Industrial Measures

MEASURE DESCRIPTION															MEASURE INCREMENTAL SAVING PER UNIT				
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	EEPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases				
301	NWS	Industrial	All Other	All	HVAC	Reduced Temperature Settings	RET	5	5	0.00	0	0.00000	0	0	0				
302	NWS	Industrial	All Other	All	Process Heating	Pollution Control Measures	RET	20	20	0.00	0	0.00000	0	0	0				
303	NWS	Industrial	All Other	All	Process Heating	CFD Modelling	RET	15	15	0.51	0	0.00000	0	0	0				
304	NWS	Industrial	All Other	All	Total	Energy Management	RET	5	5	0.00	0	0.00000	0	0	0				
305	NWS	Industrial	All Other	All	Process Heating	Improved airflow in dryer windbox	RET	3	3	0.00	0	0.00000	0	0	0				
306	NWS	Industrial	All Other	All	Process Heating	Preventative Oven Maintenance	RET	3	3	0.00	0	0.00000	0	0	0				
307	NWS	Industrial	All Other	All	Process Heating	Preventative Furnace Maintenance	RET	3	3	0.00	0	0.00000	0	0	0				
308	NWS	Industrial	All Other	All	Process Heating	Preventative Dryer Maintenance	RET	3	3	0.00	0	0.00000	0	0	0				
309	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	RET	20	20	0.75	0	0.00000	0	0	0				
310	NWS	Industrial	All Other	All	Process Heating	Air Curtains	RET	20	20	0.14	0	0.00000	0	0	0				
311	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	RET	15	15	1.40	0	0.00000	0	0	0				
312	NWS	Industrial	All Other	All	Process Heating	Insulation	RET	15	15	0.20	0	0.00000	0	0	0				
313	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	RET	15	15	0.66	0	0.00000	0	0	0				
314	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	RET	3	3	0.00	0	0.00000	0	0	0				
315	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	RET	20	20	3.75	0	0.00000	0	0	0				
316	NWS	Industrial	All Other	All	Process Heating	Air Curtains	RET	20	20	0.72	0	0.00000	0	0	0				
317	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	RET	15	15	6.98	0	0.00000	0	0	0				
318	NWS	Industrial	All Other	All	Process Heating	Insulation	RET	15	15	1.00	0	0.00000	0	0	0				
319	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	RET	15	15	3.30	0	0.00000	0	0	0				
320	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	RET	3	3	0.00	0	0.00000	0	0	0				
321	NWS	Industrial	Small Industrial	All	Total	Integrated Control System	RET	10	10	0.00	0	0.00000	0	0	0				
322	NWS	Industrial	Small Industrial	All	Total	Process Integration and Pinch Analysis	RET	5	5	0.00	0	0.00000	0	0	0				
323	NWS	Industrial	Small Industrial	All	Total	Sub-Metering	RET	15	15	0.00	0	0.00000	0	0	0				
324	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	RET	15	15	0.00	0	0.00000	0	0	0				
325	NWS	Industrial	Small Industrial	All	Process Heating	Water-heater right sizing and load management	RET	20	20	2.41	0	0.00000	0	0	0				
326	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	RET	15	15	0.67	0	0.00000	0	0	0				
327	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Control	RET	20	20	1.12	0	0.00000	0	0	0				
328	NWS	Industrial	Small Industrial	All	Boilers	Boiler Right Sizing	RET	20	20	2.29	0	0.00000	0	0	0				
329	NWS	Industrial	Small Industrial	All	Boilers	Condensing Boiler	RET	20	20	4.04	0	0.00000	0	0	0				
330	NWS	Industrial	Small Industrial	All	Boilers	Direct-Contact Hot Water Heaters	RET	20	20	2.44	0	0.00000	0	0	0				
331	NWS	Industrial	Small Industrial	All	Boilers	High Efficiency Burner	RET	20	20	1.55	0	0.00000	0	0	0				
332	NWS	Industrial	Small Industrial	All	Boilers	Instantaneous Steam Generation	RET	15	15	4.04	0	0.00000	0	0	0				
333	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Heat Recovery	RET	20	20	0.74	0	0.00000	0	0	0				
334	NWS	Industrial	Small Industrial	All	Boilers	Boiler combustion air preheat	RET	15	15	1.78	0	0.00000	0	0	0				
335	NWS	Industrial	Small Industrial	All	Boilers	Preventative Boiler Maintenance	RET	5	5	1.15	0	0.00000	0	0	0				
336	NWS	Industrial	Small Industrial	All	Boilers	Boiler Water Treatment	RET	10	10	0.36	0	0.00000	0	0	0				
337	NWS	Industrial	Small Industrial	All	Boilers	Condensate Return	RET	20	20	1.40	0	0.00000	0	0	0				
338	NWS	Industrial	Small Industrial	All	Boilers	Economizer	RET	20	20	0.89	0	0.00000	0	0	0				
339	NWS	Industrial	Small Industrial	All	Boilers	Insulation	RET	15	15	0.62	0	0.00000	0	0	0				
340	NWS	Industrial	Small Industrial	All	Boilers	Minimize Deaerator Vent Losses	RET	20	20	1.12	0	0.00000	0	0	0				
341	NWS	Industrial	Small Industrial	All	Boilers	Process Heat Recovery to Preheat Makeup Water	RET	20	20	2.28	0	0.00000	0	0	0				
342	NWS	Industrial	Small Industrial	All	Boilers	Steam Trap Survey and Repair	RET	3	3	0.60	0	0.00000	0	0	0				
343	NWS	Industrial	Small Industrial	All	Boilers	First Generation Super Boilers	RET	30	30	18.27	0	0.00000	0	0	0				
344	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	RET	20	20	1.63	0	0.00000	0	0	0				
345	NWS	Industrial	Small Industrial	All	Process Heating	Infrared Ovens	RET	20	20	1.92	0	0.00000	0	0	0				
346	NWS	Industrial	Small Industrial	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	RET	15	15	1.03	0	0.00000	0	0	0				
347	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	RET	20	20	1.73	0	0.00000	0	0	0				
348	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	RET	15	15	3.46	0	0.00000	0	0	0				
349	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	RET	15	15	0.00	0	0.00000	0	0	0				
350	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	RET	15	15	0.00	0	0.00000	0	0	0				
351	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	RET	3	3	0.00	0	0.00000	0	0	0				
352	NWS	Industrial	Small Industrial	All	Process Heating	Radiant Tube burners	RET	20	20	0.00	0	0.00000	0	0	0				
353	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	RET	20	20	8.40	0	0.00000	0	0	0				
354	NWS	Industrial	Small Industrial	All	Process Heating	Solar Walls	RET	20	20	0.00	0	0.00000	0	0	0				
355	NWS	Industrial	Small Industrial	All	HVAC	Air Compressor Heat Recovery	RET	20	20	0.00	0	0.00000	0	0	0				
356	NWS	Industrial	Small Industrial	All	HVAC	Air Curtains	RET	15	15	0.00	0	0.00000	0	0	0				
357	NWS	Industrial	Small Industrial	All	HVAC	Deaerification Fans	RET	20	20	0.00	0	0.00000	0	0	0				
358	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	RET	20	20	5.40	0	0.00000	0	0	0				
359	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	RET	15	15	5.23	0	0.00000	0	0	0				
360	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	RET	10	10	0.00	0	0.00000	0	0	0				

Industrial Measures

MEASURE DESCRIPTION															
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	EPPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	MEASURE INCREMENTAL SAVING PER UNIT				
											Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
361	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature reset Control	RET	25	25	0.00	0	0.00000	0	0	0
362	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	RET	5	5	0.00	0	0.00000	0	0	0
363	NWS	Industrial	Small Industrial	All	Total	Pollution Control Measures	RET	20	20	0.00	0	0.00000	0	0	0
364	NWS	Industrial	Small Industrial	All	Process Heating	CFD Modelling	RET	15	15	0.00	0	0.00000	0	0	0
365	NWS	Industrial	Small Industrial	All	Total	Energy Management	RET	5	5	0.00	0	0.00000	0	0	0
366	NWS	Industrial	Small Industrial	All	Process Heating	Improved airflow in dryer windbox	RET	3	3	0.00	0	0.00000	0	0	0
367	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Oven Maintenance	RET	3	3	0.00	0	0.00000	0	0	0
368	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Furnace Maintenance	RET	3	3	0.00	0	0.00000	0	0	0
369	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Dryer Maintenance	RET	3	3	0.00	0	0.00000	0	0	0
370	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	RET	20	20	0.03	0	0.00000	0	0	0
371	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	RET	20	20	0.03	0	0.00000	0	0	0
372	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	RET	15	15	0.07	0	0.00000	0	0	0
373	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	RET	15	15	0.00	0	0.00000	0	0	0
374	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	RET	15	15	0.00	0	0.00000	0	0	0
375	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	RET	3	3	0.00	0	0.00000	0	0	0
376	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	RET	20	20	1.63	0	0.00000	0	0	0
377	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	RET	20	20	1.73	0	0.00000	0	0	0
378	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	RET	15	15	3.46	0	0.00000	0	0	0
379	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	RET	15	15	0.00	0	0.00000	0	0	0
380	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	RET	15	15	0.00	0	0.00000	0	0	0
381	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	RET	3	3	0.00	0	0.00000	0	0	0













Industrial Measures

MEASURE DESCRIPTION						MEASURE SELECTION				APPLICABILITY								PROGRAM		
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure TRC calculated for 2014	Measure TRC calculated for 2020	Measure TRC calculated for 2022	Passed Measure Screening? (1=Yes, 0=No)	Total Sub-Sector Units	Measure Units per Sub-Sector Unit	Applicability	Technical Feasibility	Distribution by size/model but not Efficiency Level	Distribution by Efficiency Level	Not Yet Adopted	Annual Replacement Eligibility	Total Applicable Measure Units	Program Name
301	NWS	Industrial	All Other	All	HVAC	Reduced Temperature Settings	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
302	NWS	Industrial	All Other	All	Process Heating	Pollution Control Measures	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
303	NWS	Industrial	All Other	All	Process Heating	CFD Modelling	10.4	11.7	12.1	1	18,672	0.42	100%	0%	0%	0%	50%	100%	0	Process Heating
304	NWS	Industrial	All Other	All	Total	Energy Management	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
305	NWS	Industrial	All Other	All	Process Heating	Improved airflow in dryer windbox	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
306	NWS	Industrial	All Other	All	Process Heating	Preventative Oven Maintenance	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
307	NWS	Industrial	All Other	All	Process Heating	Preventative Furnace Maintenance	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
308	NWS	Industrial	All Other	All	Process Heating	Preventative Dryer Maintenance	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
309	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	8.8	9.7	9.9	1	18,672	0.42	100%	100%	0%	0%	50%	100%	3,921	Process Heating
310	NWS	Industrial	All Other	All	Process Heating	Air Curtains	70.7	77.9	79.7	1	18,672	0.42	100%	100%	0%	0%	50%	100%	3,921	Process Heating
311	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	5.7	6.4	6.6	1	18,672	0.42	100%	100%	0%	0%	50%	100%	3,921	Process Heating
312	NWS	Industrial	All Other	All	Process Heating	Insulation	13.3	15.0	15.4	1	18,672	0.42	100%	100%	0%	0%	50%	100%	3,921	Process Heating
313	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	8.0	9.1	9.3	1	18,672	0.42	100%	100%	0%	0%	50%	100%	3,921	Process Heating
314	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
315	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	1.8	1.9	2.0	1	18,672	0.42	100%	100%	0%	0%	50%	100%	3,921	Process Heating
316	NWS	Industrial	All Other	All	Process Heating	Air Curtains	13.7	15.2	15.5	1	18,672	0.42	100%	100%	0%	0%	50%	100%	3,921	Process Heating
317	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	1.1	1.3	1.3	1	18,672	0.42	100%	100%	0%	0%	50%	100%	3,921	Process Heating
318	NWS	Industrial	All Other	All	Process Heating	Insulation	2.7	3.0	3.1	1	18,672	0.42	100%	100%	0%	0%	50%	100%	3,921	Process Heating
319	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	1.6	1.8	1.9	1	18,672	0.42	100%	100%	0%	0%	50%	100%	3,921	Process Heating
320	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
321	NWS	Industrial	Small Industrial	All	Total	Integrated Control System	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
322	NWS	Industrial	Small Industrial	All	Total	Process Integration and Pinch Analysis	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
323	NWS	Industrial	Small Industrial	All	Total	Sub-Metering	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
324	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
325	NWS	Industrial	Small Industrial	All	Process Heating	Water-heater right sizing and load management	2.7	3.0	3.1	1	69,829	0.42	100%	0%	0%	0%	50%	100%	0	Process Heating
326	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	4.0	4.5	4.6	1	69,829	0.42	100%	0%	0%	0%	50%	100%	0	Process Heating
327	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Control	0.6	0.6	0.7	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
328	NWS	Industrial	Small Industrial	All	Boilers	Boiler Right Sizing	2.9	3.2	3.2	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
329	NWS	Industrial	Small Industrial	All	Boilers	Condensing Boiler	1.6	1.8	1.8	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
330	NWS	Industrial	Small Industrial	All	Boilers	Direct-Contact Hot Water Heaters	2.7	3.0	3.0	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
331	NWS	Industrial	Small Industrial	All	Boilers	High Efficiency Burner	2.1	2.3	2.4	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
332	NWS	Industrial	Small Industrial	All	Boilers	Instantaneous Steam Generation	2.0	2.2	2.3	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
333	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Heat Recovery	1.8	2.0	2.0	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
334	NWS	Industrial	Small Industrial	All	Boilers	Boiler combustion air preheat	1.5	1.7	1.7	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
335	NWS	Industrial	Small Industrial	All	Boilers	Preventative Boiler Maintenance	0.9	1.0	1.1	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
336	NWS	Industrial	Small Industrial	All	Boilers	Boiler Water Treatment	1.0	1.2	1.2	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
337	NWS	Industrial	Small Industrial	All	Boilers	Condensate Return	0.9	1.0	1.1	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
338	NWS	Industrial	Small Industrial	All	Boilers	Economizer	3.0	3.3	3.3	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
339	NWS	Industrial	Small Industrial	All	Boilers	Insulation	4.3	4.8	5.0	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
340	NWS	Industrial	Small Industrial	All	Boilers	Minimize Deaerator Vent Losses	1.2	1.3	1.3	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
341	NWS	Industrial	Small Industrial	All	Boilers	Process Heat Recovery to Preheat Makeup Water	1.7	1.9	2.0	1	69,829	0.13	100%	100%	0%	0%	50%	100%	4,539	Boilers
342	NWS	Industrial	Small Industrial	All	Boilers	Steam Trap Survey and Repair	0.8	1.0	1.0	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
343	NWS	Industrial	Small Industrial	All	Boilers	First Generation Super Boilers	0.7	0.7	0.8	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
344	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	4.0	4.5	4.6	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
345	NWS	Industrial	Small Industrial	All	Process Heating	Infrared Ovens	4.1	4.5	4.6	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
346	NWS	Industrial	Small Industrial	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	7.7	8.7	8.9	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
347	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	5.7	6.3	6.4	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
348	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	2.3	2.6	2.7	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
349	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	0.0	0.0	0.0	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
350	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
351	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
352	NWS	Industrial	Small Industrial	All	Process Heating	Radiant Tube burners	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
353	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	2.0	2.2	2.2	1	69,829	0.03	100%	100%	0%	0%	50%	100%	1,047	HVAC
354	NWS	Industrial	Small Industrial	All	Process Heating	Solar Walls	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
355	NWS	Industrial	Small Industrial	All	HVAC	Air Compressor Heat Recovery	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
356	NWS	Industrial	Small Industrial	All	HVAC	Air Curtains	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
357	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
358	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	2.4	2.7	2.8	1	69,829	0.03	100%	0%	0%	0%	50%	100%	0	HVAC
359	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	2.0	2.3	2.4	1	69,829	0.03	100%	100%	0%	0%	50%	100%	1,047	HVAC
360	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A

Industrial Measures

MEASURE DESCRIPTION						MEASURE SELECTION				APPLICABILITY								PROGRAM		
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure TRC calculated for 2014	Measure TRC calculated for 2020	Measure TRC calculated for 2022	Passed Measure Screening? (1=Yes, 0=No)	Total Sub-Sector Units	Measure Units per Sub-Sector Unit	Applicability	Technical Feasibility	Distribution by size/model but not Efficiency Level	Distribution by Efficiency Level	Not Yet Adopted	Annual Replacement Eligibility	Total Applicable Measure Units	Program Name
361	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature reset Control	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
362	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
363	NWS	Industrial	Small Industrial	All	Total	Pollution Control Measures	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
364	NWS	Industrial	Small Industrial	All	Process Heating	CFD Modelling	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
365	NWS	Industrial	Small Industrial	All	Total	Energy Management	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
366	NWS	Industrial	Small Industrial	All	Process Heating	Improved airflow in dryer windbox	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
367	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Oven Maintenance	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
368	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Furnace Maintenance	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
369	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Dryer Maintenance	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
370	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	219.8	242.5	247.8	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
371	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	329.8	363.7	371.7	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
372	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	113.8	128.3	131.7	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
373	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
374	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
375	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
376	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	4.0	4.5	4.6	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
377	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	5.7	6.3	6.4	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
378	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	2.3	2.6	2.7	1	69,829	0.42	100%	100%	0%	0%	50%	100%	14,664	Process Heating
379	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
380	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
381	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A

Industrial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	MEASURE DESCRIPTION			MEASURE DOCUMENTATION			
					End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	
1	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Operations and maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
2	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Match Motor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
3	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Motor Efficiency Upgrade	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
4	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Variable Speed Drives	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
5	NWS	Industrial	Small Industrial	All	Pumps	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
6	NWS	Industrial	Small Industrial	All	Pumps	Match Pump Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
7	NWS	Industrial	Small Industrial	All	Pumps	Reduce or Control Pump Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
8	NWS	Industrial	Small Industrial	All	Pumps	Improve Pump Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
9	NWS	Industrial	Small Industrial	All	Pumps	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
10	NWS	Industrial	Small Industrial	All	Compressed Air	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
11	NWS	Industrial	Small Industrial	All	Compressed Air	Match Compressor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
12	NWS	Industrial	Small Industrial	All	Compressed Air	Compressor Control	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
13	NWS	Industrial	Small Industrial	All	Compressed Air	Improve Compressor Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
14	NWS	Industrial	Small Industrial	All	Compressed Air	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
15	NWS	Industrial	Small Industrial	All	Fans	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
16	NWS	Industrial	Small Industrial	All	Fans	Reduce or Control Fan Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
17	NWS	Industrial	Small Industrial	All	Fans	Improve Fan Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
18	NWS	Industrial	Small Industrial	All	Fans	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
19	NWS	Industrial	Small Industrial	All	PH	Advanced water heater controls	ICF	ICF	ICF	ICF	
20	NWS	Industrial	Small Industrial	All	PH	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF	
21	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Oven)	ICF	ICF	ICF	ICF	
22	NWS	Industrial	Small Industrial	All	PH	Insulation (Oven)	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	
23	NWS	Industrial	Small Industrial	All	PH	Preventative Oven Maintenance	ICF	ICF	ICF	ICF	
24	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Dryer)	ICF	ICF	ICF	ICF	
25	NWS	Industrial	Small Industrial	All	PH	Insulation (Dryer)	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	
26	NWS	Industrial	Small Industrial	All	PH	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF	
27	NWS	Industrial	Small Industrial	All	PH	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF	
28	NWS	Industrial	Small Industrial	All	PH	Insulation (Furnace)	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	
29	NWS	Industrial	Small Industrial	All	PH	Preventative Kiln Maintenance	ICF	ICF	ICF	ICF	
30	NWS	Industrial	Small Industrial	All	PH	Insulation (Kiln)	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	
31	NWS	Industrial	Small Industrial	All	PCR	High Efficiency Chiller	FEMP	FEMP	FEMP	FEMP	
32	NWS	Industrial	Small Industrial	All	PCR	Optimized Distribution System	ICF	ICF	ICF	ICF	
33	NWS	Industrial	Small Industrial	All	PCR	Floating head pressure controls	NRCAn	NRCAn	NRCAn	NRCAn	
34	NWS	Industrial	Small Industrial	All	PCR	Premium efficiency refrigeration control system	ICF	ICF	ICF	ICF	
35	NWS	Industrial	Small Industrial	All	PCR	Smart Defrost Controls	BC Hydro	BC Hydro	BC Hydro	BC Hydro	
36	NWS	Industrial	Small Industrial	All	PCR	Doors, Covers and Curtains	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	
37	NWS	Industrial	Small Industrial	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	
38	NWS	Industrial	Small Industrial	All	PCR	Preventative refrigeration/cooling system maintenance	Betterbricks	Betterbricks	Betterbricks	Betterbricks	
39	NWS	Industrial	Small Industrial	All	PCR	Optimized condenser pressure	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	
40	NWS	Industrial	Small Industrial	All	PCR	VSD on chiller compressor	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	
41	NWS	Industrial	Small Industrial	All	PCR	Free-cooling	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	
42	NWS	Industrial	Small Industrial	All	PCR	Improve insulation of refrigeration system	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group	
43	NWS	Industrial	Small Industrial	All	HVAC	Optimized duct design to improve efficiency	ICF	ICF	ICF	ICF	
44	NWS	Industrial	Small Industrial	All	HVAC	Air Source Heat Pump for Backup Generators	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services	
45	NWS	Industrial	Small Industrial	All	ONPU	High efficiency battery charger (for forklifts)	NRCAn	NRCAn	NRCAn	NRCAn	
46	NWS	Industrial	Small Industrial	All	ONPU	HE Dry-Type Transformers	NRCAn	NRCAn	NRCAn	NRCAn	
47	NWS	Industrial	Small Industrial	All	HVAC	Free cooling	ICF	ICF	ICF	ICF	
48	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	ICF	ICF	ICF	ICF	
49	NWS	Industrial	Small Industrial	All	HVAC	High efficiency non-packaged HVAC equipment	ICF	ICF	ICF	ICF	
50	NWS	Industrial	Small Industrial	All	HVAC	Seasonal Temperature Settings Adjustments	ICF	ICF	ICF	ICF	
51	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	ICF	ICF	ICF	ICF	
52	NWS	Industrial	Small Industrial	All	HVAC	Ground Source Heat Pump	ICF	ICF	ICF	ICF	
53	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF	
54	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature Control	ICF	ICF	ICF	ICF	
55	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF	
56	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF	
57	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF	
58	NWS	Industrial	Small Industrial	All	HVAC	Preventative Packaged HVAC Maintenance	ICF	ICF	ICF	ICF	
59	NWS	Industrial	Small Industrial	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	
60	NWS	Industrial	Small Industrial	All	FL	High efficiency ballasts for lighting	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency	

Industrial Measures

MEASURE DESCRIPTION						MEASURE DOCUMENTATION				
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source
61	NWS	Industrial	Small Industrial	All	FL	High Efficiency Light fixtures	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
62	NWS	Industrial	Small Industrial	All	FL	Efficient Lighting Design	ICF	ICF	ICF	ICF
63	NWS	Industrial	Small Industrial	All	FL	Lighting controls: on/off timer settings	ICF	ICF	ICF	ICF
64	NWS	Industrial	Small Industrial	All	FL	Lighting controls: occupancy sensors	ICF	ICF	ICF	ICF
65	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF
66	NWS	Industrial	Small Industrial	All	HVAC	Premium efficiency ventilation control with VSD	BC Hydro	BC Hydro	BC Hydro	BC Hydro
67	NWS	Industrial	Small Industrial	All	HVAC	Demand-Controlled Ventilation	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
68	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Operations and maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
69	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Match Motor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
70	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Motor Efficiency Upgrade	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
71	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Variable Speed Drives	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
72	NWS	Industrial	Other - Combined	All	Pumps	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
73	NWS	Industrial	Other - Combined	All	Pumps	Match Pump Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
74	NWS	Industrial	Other - Combined	All	Pumps	Reduce or Control Pump Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
75	NWS	Industrial	Other - Combined	All	Pumps	Improve Pump Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
76	NWS	Industrial	Other - Combined	All	Pumps	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
77	NWS	Industrial	Other - Combined	All	Compressed Air	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
78	NWS	Industrial	Other - Combined	All	Compressed Air	Match Compressor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
79	NWS	Industrial	Other - Combined	All	Compressed Air	Compressor Control	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
80	NWS	Industrial	Other - Combined	All	Compressed Air	Improve Compressor Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
81	NWS	Industrial	Other - Combined	All	Compressed Air	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
82	NWS	Industrial	Other - Combined	All	Fans	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
83	NWS	Industrial	Other - Combined	All	Fans	Reduce or Control Fan Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
84	NWS	Industrial	Other - Combined	All	Fans	Improve Fan Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
85	NWS	Industrial	Other - Combined	All	Fans	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
86	NWS	Industrial	Other - Combined	All	HVAC	Optimized Duct Design to Improve Efficiency	ICF	ICF	ICF	ICF
87	NWS	Industrial	Other - Combined	All	PH	Advanced Water Heater Controls	ICF	ICF	ICF	ICF
88	NWS	Industrial	Other - Combined	All	PH	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF
89	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Oven)	ICF	ICF	ICF	ICF
90	NWS	Industrial	Other - Combined	All	PH	Insulation (Oven)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
91	NWS	Industrial	Other - Combined	All	PH	Preventative Oven Maintenance	ICF	ICF	ICF	ICF
92	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Dryer)	ICF	ICF	ICF	ICF
93	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
94	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF
95	NWS	Industrial	Other - Combined	All	PH	Optimized Distribution System	ICF	ICF	ICF	ICF
96	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
97	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF
98	NWS	Industrial	Other - Combined	All	PH	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF
99	NWS	Industrial	Other - Combined	All	PH	Insulation (Furnace)	ICF	ICF	ICF	ICF
100	NWS	Industrial	Other - Combined	All	PCR	High Efficiency Chiller	FEMP	FEMP	FEMP	FEMP
101	NWS	Industrial	Other - Combined	All	PCR	Floating head pressure controls	NRCAn	NRCAn	NRCAn	NRCAn
102	NWS	Industrial	Other - Combined	All	PCR	Premium Efficiency Refrigeration Control System	ICF	ICF	ICF	ICF
103	NWS	Industrial	Other - Combined	All	PCR	Smart Defrost Controls	BC Hydro	BC Hydro	BC Hydro	BC Hydro
104	NWS	Industrial	Other - Combined	All	PCR	Doors, Covers and Curtains	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
105	NWS	Industrial	Other - Combined	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
106	NWS	Industrial	Other - Combined	All	PCR	Preventative Refrigeration/cooling System Maintenance	Betterbricks	Betterbricks	Betterbricks	Betterbricks
107	NWS	Industrial	Other - Combined	All	PCR	Optimized condenser pressure	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
108	NWS	Industrial	Other - Combined	All	PCR	Free-cooling	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
109	NWS	Industrial	Other - Combined	All	PCR	Improve Insulation of Refrigeration System	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group
110	NWS	Industrial	Other - Combined	All	ONPU	HE Dry-Type Transformers	NRCAn	NRCAn	NRCAn	NRCAn
111	NWS	Industrial	Other - Combined	All	HVAC	Air Source Heat Pump for Backup Generators	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services
112	NWS	Industrial	Other - Combined	All	ONPU	High efficiency battery charger (for forklifts)	NRCAn	NRCAn	NRCAn	NRCAn
113	NWS	Industrial	Other - Combined	All	HVAC	Radiant Heaters	ICF	ICF	ICF	ICF
114	NWS	Industrial	Other - Combined	All	HVAC	High efficiency non-packaged HVAC equipment	ICF	ICF	ICF	ICF
115	NWS	Industrial	Other - Combined	All	HVAC	Seasonal Temperature Settings Adjustments	ICF	ICF	ICF	ICF
116	NWS	Industrial	Other - Combined	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	ICF	ICF	ICF	ICF
117	NWS	Industrial	Other - Combined	All	HVAC	Ground Source Heat Pump	ICF	ICF	ICF	ICF
118	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF
119	NWS	Industrial	Other - Combined	All	HVAC	Automated Temperature Control	ICF	ICF	ICF	ICF
120	NWS	Industrial	Other - Combined	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF

Industrial Measures

MEASURE DESCRIPTION							MEASURE DOCUMENTATION			
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source
121	NWS	Industrial	Other - Combined	All	HVAC	Deaerification Fans	ICF	ICF	ICF	ICF
122	NWS	Industrial	Other - Combined	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF
123	NWS	Industrial	Other - Combined	All	HVAC	Preventative Packaged HVAC Maintenance	ICF	ICF	ICF	ICF
124	NWS	Industrial	Other - Combined	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
125	NWS	Industrial	Other - Combined	All	FL	High efficiency ballasts for lighting	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency
126	NWS	Industrial	Other - Combined	All	FL	High Efficiency Light fixtures	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
127	NWS	Industrial	Other - Combined	All	FL	Efficient Lighting Design	ICF	ICF	ICF	ICF
128	NWS	Industrial	Other - Combined	All	FL	Lighting controls: on/off timer settings	ICF	ICF	ICF	ICF
129	NWS	Industrial	Other - Combined	All	FL	Lighting controls: occupancy sensors	ICF	ICF	ICF	ICF
130	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF
131	NWS	Industrial	Other - Combined	All	HVAC	Premium efficiency ventilation control with VSD	BC Hydro	BC Hydro	BC Hydro	BC Hydro
132	NWS	Industrial	Other - Combined	All	HVAC	Demand-Controlled Ventilation	Oregon Office of Energy	Oregon Office of Energy	Oregon Office of Energy	Oregon Office of Energy
133	NWS	Industrial	Food Products	All	Motors - Other Applications	Operations and maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
134	NWS	Industrial	Food Products	All	Motors - Other Applications	Match Motor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
135	NWS	Industrial	Food Products	All	Motors - Other Applications	Motor Efficiency Upgrade	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
136	NWS	Industrial	Food Products	All	Motors - Other Applications	Variable Speed Drives	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
137	NWS	Industrial	Food Products	All	Pumps	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
138	NWS	Industrial	Food Products	All	Pumps	Match Pump Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
139	NWS	Industrial	Food Products	All	Pumps	Reduce or Control Pump Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
140	NWS	Industrial	Food Products	All	Pumps	Improve Pump Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
141	NWS	Industrial	Food Products	All	Pumps	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
142	NWS	Industrial	Food Products	All	Compressed Air	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
143	NWS	Industrial	Food Products	All	Compressed Air	Match Compressor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
144	NWS	Industrial	Food Products	All	Compressed Air	Compressor Control	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
145	NWS	Industrial	Food Products	All	Compressed Air	Improve Compressor Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
146	NWS	Industrial	Food Products	All	Compressed Air	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
147	NWS	Industrial	Food Products	All	Fans	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
148	NWS	Industrial	Food Products	All	Fans	Reduce or Control Fan Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
149	NWS	Industrial	Food Products	All	Fans	Improve Fan Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
150	NWS	Industrial	Food Products	All	Fans	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
151	NWS	Industrial	Food Products	All	HVAC	Optimized Duct Design to Improve Efficiency	ICF	ICF	ICF	ICF
152	NWS	Industrial	Food Products	All	PH	Advanced Water Heater Controls	ICF	ICF	ICF	ICF
153	NWS	Industrial	Food Products	All	PH	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF
154	NWS	Industrial	Food Products	All	PH	Air Curtains (Oven)	ICF	ICF	ICF	ICF
155	NWS	Industrial	Food Products	All	PH	Insulation (Oven)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
156	NWS	Industrial	Food Products	All	PH	Preventative Oven Maintenance	ICF	ICF	ICF	ICF
157	NWS	Industrial	Food Products	All	PH	Air Curtains (Dryer)	ICF	ICF	ICF	ICF
158	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
159	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF
160	NWS	Industrial	Food Products	All	PH	Optimized Distribution System	ICF	ICF	ICF	ICF
161	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
162	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF
163	NWS	Industrial	Food Products	All	PH	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF
164	NWS	Industrial	Food Products	All	PH	Insulation (Furnace)	ICF	ICF	ICF	ICF
165	NWS	Industrial	Food Products	All	PCR	High Efficiency Chiller	FEMP	FEMP	FEMP	FEMP
166	NWS	Industrial	Food Products	All	PCR	Floating head pressure controls	NRCAN	NRCAN	NRCAN	NRCAN
167	NWS	Industrial	Food Products	All	PCR	Premium Efficiency Refrigeration Control System	ICF	ICF	ICF	ICF
168	NWS	Industrial	Food Products	All	PCR	Smart Defrost Controls	BC Hydro	BC Hydro	BC Hydro	BC Hydro
169	NWS	Industrial	Food Products	All	PCR	Doors, Covers and Curtains	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
170	NWS	Industrial	Food Products	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
171	NWS	Industrial	Food Products	All	PCR	Preventative Refrigeration/cooling System Maintenance	Betterbricks	Betterbricks	Betterbricks	Betterbricks
172	NWS	Industrial	Food Products	All	PCR	Optimized condenser pressure	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
173	NWS	Industrial	Food Products	All	PCR	Free-cooling	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
174	NWS	Industrial	Food Products	All	PCR	Improve Insulation of Refrigeration System	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group
175	NWS	Industrial	Food Products	All	ONPU	HE Dry-Type Transformers	NRCAN	NRCAN	NRCAN	NRCAN
176	NWS	Industrial	Food Products	All	HVAC	Air Source Heat Pump for Backup Generators	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services
177	NWS	Industrial	Food Products	All	ONPU	High efficiency battery charger (for forklifts)	NRCAN	NRCAN	NRCAN	NRCAN
178	NWS	Industrial	Food Products	All	HVAC	Radiant Heaters	ICF	ICF	ICF	ICF
179	NWS	Industrial	Food Products	All	HVAC	High efficiency non-packaged HVAC equipment	ICF	ICF	ICF	ICF
180	NWS	Industrial	Food Products	All	HVAC	Seasonal Temperature Settings Adjustments	ICF	ICF	ICF	ICF

Industrial Measures

MEASURE DESCRIPTION						MEASURE DOCUMENTATION				
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source
181	NWS	Industrial	Food Products	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	ICF	ICF	ICF	ICF
182	NWS	Industrial	Food Products	All	HVAC	Ground Source Heat Pump	ICF	ICF	ICF	ICF
183	NWS	Industrial	Food Products	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF
184	NWS	Industrial	Food Products	All	HVAC	Automated Temperature Control	ICF	ICF	ICF	ICF
185	NWS	Industrial	Food Products	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF
186	NWS	Industrial	Food Products	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF
187	NWS	Industrial	Food Products	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF
188	NWS	Industrial	Food Products	All	HVAC	Preventative Packaged HVAC Maintenance	ICF	ICF	ICF	ICF
189	NWS	Industrial	Food Products	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
190	NWS	Industrial	Food Products	All	FL	High efficiency ballasts for lighting	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency
191	NWS	Industrial	Food Products	All	FL	High Efficiency Light fixtures	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
192	NWS	Industrial	Food Products	All	FL	Efficient Lighting Design	ICF	ICF	ICF	ICF
193	NWS	Industrial	Food Products	All	FL	Lighting controls: on/off timer settings	ICF	ICF	ICF	ICF
194	NWS	Industrial	Food Products	All	FL	Lighting controls: occupancy sensors	ICF	ICF	ICF	ICF
195	NWS	Industrial	Food Products	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF
196	NWS	Industrial	Food Products	All	HVAC	Premium efficiency ventilation control with VSD	BC Hydro	BC Hydro	BC Hydro	BC Hydro
197	NWS	Industrial	Food Products	All	HVAC	Demand-Controlled Ventilation	Oregon Office of Energy	Oregon Office of Energy	Oregon Office of Energy	Oregon Office of Energy
199	NWS	Industrial	Industrial Gases	All	Total	Integrated Control System	ICF	ICF	ICF	ICF
200	NWS	Industrial	Industrial Gases	All	Total	Process Integration and Pinch Analysis	ICF	ICF	ICF	ICF
201	NWS	Industrial	Industrial Gases	All	Total	Sub-Metering	ICF	ICF	ICF	ICF
202	NWS	Industrial	Industrial Gases	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	ICF	ICF	ICF	ICF
203	NWS	Industrial	Industrial Gases	All	Process Heating	Water-heater right sizing and load management	ICF	ICF	ICF	ICF
204	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
205	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Control	ICF	ICF	ICF	ICF
206	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Right Sizing	ICF	ICF	ICF	ICF
207	NWS	Industrial	Industrial Gases	All	Boilers	Condensing Boiler	ICF	ICF	ICF	ICF
208	NWS	Industrial	Industrial Gases	All	Boilers	Direct-Contact Hot Water Heaters	ICF	ICF	ICF	ICF
209	NWS	Industrial	Industrial Gases	All	Boilers	High Efficiency Burner	ICF	ICF	ICF	ICF
210	NWS	Industrial	Industrial Gases	All	Boilers	Instantaneous Steam Generation	ICF	ICF	ICF	ICF
211	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Heat Recovery	ICF	ICF	ICF	ICF
212	NWS	Industrial	Industrial Gases	All	Boilers	Boiler combustion air preheat	ICF	ICF	ICF	ICF
213	NWS	Industrial	Industrial Gases	All	Boilers	Preventative Boiler Maintenance	ICF	ICF	ICF	ICF
214	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Water Treatment	ICF	ICF	ICF	ICF
215	NWS	Industrial	Industrial Gases	All	Boilers	Condensate Return	ICF	ICF	ICF	ICF
216	NWS	Industrial	Industrial Gases	All	Boilers	Economizer	ICF	ICF	ICF	ICF
217	NWS	Industrial	Industrial Gases	All	Boilers	Insulation	ICF	ICF	ICF	ICF
218	NWS	Industrial	Industrial Gases	All	Boilers	Minimize Deaerator Vent Losses	ICF	ICF	ICF	ICF
219	NWS	Industrial	Industrial Gases	All	Boilers	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF
220	NWS	Industrial	Industrial Gases	All	Boilers	Steam Trap Survey and Repair	ICF	ICF	ICF	ICF
221	NWS	Industrial	Industrial Gases	All	Boilers	First Generation Super Boilers	ICF	ICF	ICF	ICF
222	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF
223	NWS	Industrial	Industrial Gases	All	Process Heating	Infrared Ovens	ICF	ICF	ICF	ICF
224	NWS	Industrial	Industrial Gases	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF
225	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF
226	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF
227	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
228	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF
229	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF
230	NWS	Industrial	Industrial Gases	All	Process Heating	Radiant Tube burners	ICF	ICF	ICF	ICF
231	NWS	Industrial	Industrial Gases	All	HVAC	Radiant Heaters	ICF	ICF	ICF	ICF
232	NWS	Industrial	Industrial Gases	All	Process Heating	Solar Walls	ICF	ICF	ICF	ICF
233	NWS	Industrial	Industrial Gases	All	HVAC	Air Compressor Heat Recovery	ICF	ICF	ICF	ICF
234	NWS	Industrial	Industrial Gases	All	HVAC	Air Curtains	ICF	ICF	ICF	ICF
235	NWS	Industrial	Industrial Gases	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF
236	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF
237	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF
238	NWS	Industrial	Industrial Gases	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF
239	NWS	Industrial	Industrial Gases	All	HVAC	Automated Temperature reset Control	ICF	ICF	ICF	ICF
240	NWS	Industrial	Industrial Gases	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF

Industrial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	MEASURE DESCRIPTION			MEASURE DOCUMENTATION			
				Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source
241	NWS	Industrial	Industrial Gases	All	Total	Pollution Control Measures	ICF	ICF	ICF	ICF
242	NWS	Industrial	Industrial Gases	All	Process Heating	CFD Modelling	ICF	ICF	ICF	ICF
243	NWS	Industrial	Industrial Gases	All	Total	Energy Management	ICF	ICF	ICF	ICF
244	NWS	Industrial	Industrial Gases	All	Process Heating	Improved airflow in dryer windbox	ICF	ICF	ICF	ICF
245	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Oven Maintenance	ICF	ICF	ICF	ICF
246	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF
247	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF
248	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF
249	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF
250	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF
251	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
252	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF
253	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF
254	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF
255	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF
256	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF
257	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
258	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF
259	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF
260	NWS	Industrial	All Other	All	Total	Integrated Control System	ICF	ICF	ICF	ICF
261	NWS	Industrial	All Other	All	Total	Process Integration and Pinch Analysis	ICF	ICF	ICF	ICF
262	NWS	Industrial	All Other	All	Total	Sub-Metering	ICF	ICF	ICF	ICF
263	NWS	Industrial	All Other	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	ICF	ICF	ICF	ICF
264	NWS	Industrial	All Other	All	Process Heating	Water-heater right sizing and load management	ICF	ICF	ICF	ICF
265	NWS	Industrial	All Other	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
266	NWS	Industrial	All Other	All	Boilers	Blowdown Control	ICF	ICF	ICF	ICF
267	NWS	Industrial	All Other	All	Boilers	Boiler Right Sizing	ICF	ICF	ICF	ICF
268	NWS	Industrial	All Other	All	Boilers	Condensing Boiler	ICF	ICF	ICF	ICF
269	NWS	Industrial	All Other	All	Boilers	Direct-Contact Hot Water Heaters	ICF	ICF	ICF	ICF
270	NWS	Industrial	All Other	All	Boilers	High Efficiency Burner	ICF	ICF	ICF	ICF
271	NWS	Industrial	All Other	All	Boilers	Instantaneous Steam Generation	ICF	ICF	ICF	ICF
272	NWS	Industrial	All Other	All	Boilers	Blowdown Heat Recovery	ICF	ICF	ICF	ICF
273	NWS	Industrial	All Other	All	Boilers	Boiler combustion air preheat	ICF	ICF	ICF	ICF
274	NWS	Industrial	All Other	All	Boilers	Preventative Boiler Maintenance	ICF	ICF	ICF	ICF
275	NWS	Industrial	All Other	All	Boilers	Boiler Water Treatment	ICF	ICF	ICF	ICF
276	NWS	Industrial	All Other	All	Boilers	Condensate Return	ICF	ICF	ICF	ICF
277	NWS	Industrial	All Other	All	Boilers	Economizer	ICF	ICF	ICF	ICF
278	NWS	Industrial	All Other	All	Boilers	Insulation	ICF	ICF	ICF	ICF
279	NWS	Industrial	All Other	All	Boilers	Minimize Deaerator Vent Losses	ICF	ICF	ICF	ICF
280	NWS	Industrial	All Other	All	Boilers	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF
281	NWS	Industrial	All Other	All	Boilers	Steam Trap Survey and Repair	ICF	ICF	ICF	ICF
282	NWS	Industrial	All Other	All	Boilers	First Generation Super Boilers	ICF	ICF	ICF	ICF
283	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF
284	NWS	Industrial	All Other	All	Process Heating	Infrared Ovens	ICF	ICF	ICF	ICF
285	NWS	Industrial	All Other	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF
286	NWS	Industrial	All Other	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF
287	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF
288	NWS	Industrial	All Other	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
289	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF
290	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF
291	NWS	Industrial	All Other	All	Process Heating	Radiant Tube burners	ICF	ICF	ICF	ICF
292	NWS	Industrial	All Other	All	Process Heating	Radiant Heaters	ICF	ICF	ICF	ICF
293	NWS	Industrial	All Other	All	Process Heating	Solar Walls	ICF	ICF	ICF	ICF
294	NWS	Industrial	All Other	All	HVAC	Air Compressor Heat Recovery	ICF	ICF	ICF	ICF
295	NWS	Industrial	All Other	All	HVAC	Air Curtains	ICF	ICF	ICF	ICF
296	NWS	Industrial	All Other	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF
297	NWS	Industrial	All Other	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF
298	NWS	Industrial	All Other	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF
299	NWS	Industrial	All Other	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF
300	NWS	Industrial	All Other	All	HVAC	Automated Temperature reset Control	ICF	ICF	ICF	ICF



Industrial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	MEASURE DESCRIPTION			MEASURE DOCUMENTATION			
				Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source
301	NWS	Industrial	All Other	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF
302	NWS	Industrial	All Other	All	Process Heating	Pollution Control Measures	ICF	ICF	ICF	ICF
303	NWS	Industrial	All Other	All	Process Heating	CFD Modelling	ICF	ICF	ICF	ICF
304	NWS	Industrial	All Other	All	Total	Energy Management	ICF	ICF	ICF	ICF
305	NWS	Industrial	All Other	All	Process Heating	Improved airflow in dryer windbox	ICF	ICF	ICF	ICF
306	NWS	Industrial	All Other	All	Process Heating	Preventative Oven Maintenance	ICF	ICF	ICF	ICF
307	NWS	Industrial	All Other	All	Process Heating	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF
308	NWS	Industrial	All Other	All	Process Heating	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF
309	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF
310	NWS	Industrial	All Other	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF
311	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF
312	NWS	Industrial	All Other	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
313	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF
314	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF
315	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF
316	NWS	Industrial	All Other	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF
317	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF
318	NWS	Industrial	All Other	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
319	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF
320	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF
321	NWS	Industrial	Small Industrial	All	Total	Integrated Control System	ICF	ICF	ICF	ICF
322	NWS	Industrial	Small Industrial	All	Total	Process Integration and Pinch Analysis	ICF	ICF	ICF	ICF
323	NWS	Industrial	Small Industrial	All	Total	Sub-Metering	ICF	ICF	ICF	ICF
324	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	ICF	ICF	ICF	ICF
325	NWS	Industrial	Small Industrial	All	Process Heating	Water-heater right sizing and load management	ICF	ICF	ICF	ICF
326	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
327	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Control	ICF	ICF	ICF	ICF
328	NWS	Industrial	Small Industrial	All	Boilers	Boiler Right Sizing	ICF	ICF	ICF	ICF
329	NWS	Industrial	Small Industrial	All	Boilers	Condensing Boiler	ICF	ICF	ICF	ICF
330	NWS	Industrial	Small Industrial	All	Boilers	Direct-Contact Hot Water Heaters	ICF	ICF	ICF	ICF
331	NWS	Industrial	Small Industrial	All	Boilers	High Efficiency Burner	ICF	ICF	ICF	ICF
332	NWS	Industrial	Small Industrial	All	Boilers	Instantaneous Steam Generation	ICF	ICF	ICF	ICF
333	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Heat Recovery	ICF	ICF	ICF	ICF
334	NWS	Industrial	Small Industrial	All	Boilers	Boiler combustion air preheat	ICF	ICF	ICF	ICF
335	NWS	Industrial	Small Industrial	All	Boilers	Preventative Boiler Maintenance	ICF	ICF	ICF	ICF
336	NWS	Industrial	Small Industrial	All	Boilers	Boiler Water Treatment	ICF	ICF	ICF	ICF
337	NWS	Industrial	Small Industrial	All	Boilers	Condensate Return	ICF	ICF	ICF	ICF
338	NWS	Industrial	Small Industrial	All	Boilers	Economizer	ICF	ICF	ICF	ICF
339	NWS	Industrial	Small Industrial	All	Boilers	Insulation	ICF	ICF	ICF	ICF
340	NWS	Industrial	Small Industrial	All	Boilers	Minimize Deaerator Vent Losses	ICF	ICF	ICF	ICF
341	NWS	Industrial	Small Industrial	All	Boilers	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF
342	NWS	Industrial	Small Industrial	All	Boilers	Steam Trap Survey and Repair	ICF	ICF	ICF	ICF
343	NWS	Industrial	Small Industrial	All	Boilers	First Generation Super Boilers	ICF	ICF	ICF	ICF
344	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF
345	NWS	Industrial	Small Industrial	All	Process Heating	Infrared Ovens	ICF	ICF	ICF	ICF
346	NWS	Industrial	Small Industrial	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF
347	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF
348	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF
349	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
350	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF
351	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF
352	NWS	Industrial	Small Industrial	All	Process Heating	Radiant Tube burners	ICF	ICF	ICF	ICF
353	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	ICF	ICF	ICF	ICF
354	NWS	Industrial	Small Industrial	All	Process Heating	Solar Walls	ICF	ICF	ICF	ICF
355	NWS	Industrial	Small Industrial	All	HVAC	Air Compressor Heat Recovery	ICF	ICF	ICF	ICF
356	NWS	Industrial	Small Industrial	All	HVAC	Air Curtains	ICF	ICF	ICF	ICF
357	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF
358	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF
359	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF
360	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF

Industrial Measures

MEASURE DESCRIPTION						MEASURE DOCUMENTATION				
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source
361	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature reset Control	ICF	ICF	ICF	ICF
362	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF
363	NWS	Industrial	Small Industrial	All	Total	Pollution Control Measures	ICF	ICF	ICF	ICF
364	NWS	Industrial	Small Industrial	All	Process Heating	CFD Modelling	ICF	ICF	ICF	ICF
365	NWS	Industrial	Small Industrial	All	Total	Energy Management	ICF	ICF	ICF	ICF
366	NWS	Industrial	Small Industrial	All	Process Heating	Improved airflow in dryer windbox	ICF	ICF	ICF	ICF
367	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Oven Maintenance	ICF	ICF	ICF	ICF
368	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF
369	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF
370	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF
371	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF
372	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF
373	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
374	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF
375	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF
376	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF
377	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF
378	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF
379	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	ICF	ICF	ICF	ICF
380	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF
381	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF

# Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					MEASURE DOCUMENTATION				
		Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
1	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Operations and maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
2	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Match Motor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
3	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Motor Efficiency Upgrade	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
4	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Variable Speed Drives	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
5	NWS	Industrial	Small Industrial	All	Pumps	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
6	NWS	Industrial	Small Industrial	All	Pumps	Match Pump Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
7	NWS	Industrial	Small Industrial	All	Pumps	Reduce or Control Pump Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
8	NWS	Industrial	Small Industrial	All	Pumps	Improve Pump Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
9	NWS	Industrial	Small Industrial	All	Pumps	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
10	NWS	Industrial	Small Industrial	All	Compressed Air	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
11	NWS	Industrial	Small Industrial	All	Compressed Air	Match Compressor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
12	NWS	Industrial	Small Industrial	All	Compressed Air	Compressor Control	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
13	NWS	Industrial	Small Industrial	All	Compressed Air	Improve Compressor Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
14	NWS	Industrial	Small Industrial	All	Compressed Air	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
15	NWS	Industrial	Small Industrial	All	Fans	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
16	NWS	Industrial	Small Industrial	All	Fans	Reduce or Control Fan Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
17	NWS	Industrial	Small Industrial	All	Fans	Improve Fan Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
18	NWS	Industrial	Small Industrial	All	Fans	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
19	NWS	Industrial	Small Industrial	All	PH	Advanced water heater controls	ICF	ICF	ICF	ICF	ICF
20	NWS	Industrial	Small Industrial	All	PH	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF	ICF
21	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Oven)	ICF	ICF	ICF	ICF	ICF
22	NWS	Industrial	Small Industrial	All	PH	Insulation (Oven)	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
23	NWS	Industrial	Small Industrial	All	PH	Preventative Oven Maintenance	ICF	ICF	ICF	ICF	ICF
24	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Dryer)	ICF	ICF	ICF	ICF	ICF
25	NWS	Industrial	Small Industrial	All	PH	Insulation (Dryer)	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
26	NWS	Industrial	Small Industrial	All	PH	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF	ICF
27	NWS	Industrial	Small Industrial	All	PH	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF	ICF
28	NWS	Industrial	Small Industrial	All	PH	Insulation (Furnace)	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
29	NWS	Industrial	Small Industrial	All	PH	Preventative Kiln Maintenance	ICF	ICF	ICF	ICF	ICF
30	NWS	Industrial	Small Industrial	All	PH	Insulation (Kiln)	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
31	NWS	Industrial	Small Industrial	All	PCR	High Efficiency Chiller	FEMP	FEMP	FEMP	FEMP	FEMP
32	NWS	Industrial	Small Industrial	All	PCR	Optimized Distribution System	ICF	ICF	ICF	ICF	ICF
33	NWS	Industrial	Small Industrial	All	PCR	Floating head pressure controls	NRCan	NRCan	NRCan	NRCan	NRCan
34	NWS	Industrial	Small Industrial	All	PCR	Premium efficiency refrigeration control system	ICF	ICF	ICF	ICF	ICF
35	NWS	Industrial	Small Industrial	All	PCR	Smart Defrost Controls	BC Hydro	BC Hydro	BC Hydro	BC Hydro	BC Hydro
36	NWS	Industrial	Small Industrial	All	PCR	Doors, Covers and Curtains	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
37	NWS	Industrial	Small Industrial	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
38	NWS	Industrial	Small Industrial	All	PCR	Preventative refrigeration/cooling system maintenance	Betterbricks	Betterbricks	Betterbricks	Betterbricks	Betterbricks
39	NWS	Industrial	Small Industrial	All	PCR	Optimized condenser pressure	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
40	NWS	Industrial	Small Industrial	All	PCR	VSD on chiller compressor	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
41	NWS	Industrial	Small Industrial	All	PCR	Free-cooling	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
42	NWS	Industrial	Small Industrial	All	PCR	Improve insulation of refrigeration system	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group
43	NWS	Industrial	Small Industrial	All	HVAC	Optimized duct design to improve efficiency	ICF	ICF	ICF	ICF	ICF
44	NWS	Industrial	Small Industrial	All	HVAC	Air Source Heat Pump for Backup Generators	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services
45	NWS	Industrial	Small Industrial	All	ONPU	High efficiency battery charger (for forklifts)	NRCan	NRCan	NRCan	NRCan	NRCan
46	NWS	Industrial	Small Industrial	All	ONPU	HE Dry-Type Transformers	NRCan	NRCan	NRCan	NRCan	NRCan
47	NWS	Industrial	Small Industrial	All	HVAC	Free cooling	ICF	ICF	ICF	ICF	ICF
48	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	ICF	ICF	ICF	ICF	ICF
49	NWS	Industrial	Small Industrial	All	HVAC	High efficiency non-packaged HVAC equipment	ICF	ICF	ICF	ICF	ICF
50	NWS	Industrial	Small Industrial	All	HVAC	Seasonal Temperature Settings Adjustments	ICF	ICF	ICF	ICF	ICF
51	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	ICF	ICF	ICF	ICF	ICF
52	NWS	Industrial	Small Industrial	All	HVAC	Ground Source Heat Pump	ICF	ICF	ICF	ICF	ICF
53	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF	ICF
54	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature Control	ICF	ICF	ICF	ICF	ICF
55	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF	ICF
56	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF	ICF
57	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF	ICF
58	NWS	Industrial	Small Industrial	All	HVAC	Preventative Packaged HVAC Maintenance	ICF	ICF	ICF	ICF	ICF
59	NWS	Industrial	Small Industrial	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
60	NWS	Industrial	Small Industrial	All	FL	High efficiency ballasts for lighting	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency

Industrial Measures

MEASURE DESCRIPTION					MEASURE DOCUMENTATION						
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
61	NWS	Industrial	Small Industrial	All	FL	High Efficiency Light fixtures	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
62	NWS	Industrial	Small Industrial	All	FL	Efficient Lighting Design	ICF	ICF	ICF	ICF	ICF
63	NWS	Industrial	Small Industrial	All	FL	Lighting controls: on/off timer settings	ICF	ICF	ICF	ICF	ICF
64	NWS	Industrial	Small Industrial	All	FL	Lighting controls: occupancy sensors	ICF	ICF	ICF	ICF	ICF
65	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF	ICF
66	NWS	Industrial	Small Industrial	All	HVAC	Premium efficiency ventilation control with VSD	BC Hydro	BC Hydro	BC Hydro	BC Hydro	BC Hydro
67	NWS	Industrial	Small Industrial	All	HVAC	Demand-Controlled Ventilation	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
68	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Operations and maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
69	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Match Motor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
70	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Motor Efficiency Upgrade	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
71	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Variable Speed Drives	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
72	NWS	Industrial	Other - Combined	All	Pumps	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
73	NWS	Industrial	Other - Combined	All	Pumps	Match Pump Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
74	NWS	Industrial	Other - Combined	All	Pumps	Reduce or Control Pump Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
75	NWS	Industrial	Other - Combined	All	Pumps	Improve Pump Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
76	NWS	Industrial	Other - Combined	All	Pumps	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
77	NWS	Industrial	Other - Combined	All	Compressed Air	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
78	NWS	Industrial	Other - Combined	All	Compressed Air	Match Compressor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
79	NWS	Industrial	Other - Combined	All	Compressed Air	Compressor Control	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
80	NWS	Industrial	Other - Combined	All	Compressed Air	Improve Compressor Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
81	NWS	Industrial	Other - Combined	All	Compressed Air	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
82	NWS	Industrial	Other - Combined	All	Fans	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
83	NWS	Industrial	Other - Combined	All	Fans	Reduce or Control Fan Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
84	NWS	Industrial	Other - Combined	All	Fans	Improve Fan Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
85	NWS	Industrial	Other - Combined	All	Fans	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
86	NWS	Industrial	Other - Combined	All	HVAC	Optimized Duct Design to Improve Efficiency	ICF	ICF	ICF	ICF	ICF
87	NWS	Industrial	Other - Combined	All	PH	Advanced Water Heater Controls	ICF	ICF	ICF	ICF	ICF
88	NWS	Industrial	Other - Combined	All	PH	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF	ICF
89	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Oven)	ICF	ICF	ICF	ICF	ICF
90	NWS	Industrial	Other - Combined	All	PH	Insulation (Oven)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
91	NWS	Industrial	Other - Combined	All	PH	Preventative Oven Maintenance	ICF	ICF	ICF	ICF	ICF
92	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Dryer)	ICF	ICF	ICF	ICF	ICF
93	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
94	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF	ICF
95	NWS	Industrial	Other - Combined	All	PH	Optimized Distribution System	ICF	ICF	ICF	ICF	ICF
96	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
97	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF	ICF
98	NWS	Industrial	Other - Combined	All	PH	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF	ICF
99	NWS	Industrial	Other - Combined	All	PH	Insulation (Furnace)	ICF	ICF	ICF	ICF	ICF
100	NWS	Industrial	Other - Combined	All	PCR	High Efficiency Chiller	FEMP	FEMP	FEMP	FEMP	FEMP
101	NWS	Industrial	Other - Combined	All	PCR	Floating head pressure controls	NRCan	NRCan	NRCan	NRCan	NRCan
102	NWS	Industrial	Other - Combined	All	PCR	Premium Efficiency Refrigeration Control System	ICF	ICF	ICF	ICF	ICF
103	NWS	Industrial	Other - Combined	All	PCR	Smart Defrost Controls	BC Hydro	BC Hydro	BC Hydro	BC Hydro	BC Hydro
104	NWS	Industrial	Other - Combined	All	PCR	Doors, Covers and Curtains	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
105	NWS	Industrial	Other - Combined	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
106	NWS	Industrial	Other - Combined	All	PCR	Preventative Refrigeration/cooling System Maintenance	Betterbricks	Betterbricks	Betterbricks	Betterbricks	Betterbricks
107	NWS	Industrial	Other - Combined	All	PCR	Optimized condenser pressure	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
108	NWS	Industrial	Other - Combined	All	PCR	Free-cooling	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
109	NWS	Industrial	Other - Combined	All	PCR	Improve Insulation of Refrigeration System	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group
110	NWS	Industrial	Other - Combined	All	ONPU	HE Dry-Type Transformers	NRCan	NRCan	NRCan	NRCan	NRCan
111	NWS	Industrial	Other - Combined	All	HVAC	Air Source Heat Pump for Backup Generators	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services
112	NWS	Industrial	Other - Combined	All	ONPU	High efficiency battery charger (for forklifts)	NRCan	NRCan	NRCan	NRCan	NRCan
113	NWS	Industrial	Other - Combined	All	HVAC	Radiant Heaters	ICF	ICF	ICF	ICF	ICF
114	NWS	Industrial	Other - Combined	All	HVAC	High efficiency non-packaged HVAC equipment	ICF	ICF	ICF	ICF	ICF
115	NWS	Industrial	Other - Combined	All	HVAC	Seasonal Temperature Settings Adjustments	ICF	ICF	ICF	ICF	ICF
116	NWS	Industrial	Other - Combined	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	ICF	ICF	ICF	ICF	ICF
117	NWS	Industrial	Other - Combined	All	HVAC	Ground Source Heat Pump	ICF	ICF	ICF	ICF	ICF
118	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF	ICF
119	NWS	Industrial	Other - Combined	All	HVAC	Automated Temperature Control	ICF	ICF	ICF	ICF	ICF
120	NWS	Industrial	Other - Combined	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF	ICF

# Industrial Measures

MEASURE DESCRIPTION					MEASURE DOCUMENTATION						
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
121	NWS	Industrial	Other - Combined	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF	ICF
122	NWS	Industrial	Other - Combined	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF	ICF
123	NWS	Industrial	Other - Combined	All	HVAC	Preventative Packaged HVAC Maintenance	ICF	ICF	ICF	ICF	ICF
124	NWS	Industrial	Other - Combined	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
125	NWS	Industrial	Other - Combined	All	FL	High efficiency ballasts for lighting	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency	CADDET Energy Efficiency
126	NWS	Industrial	Other - Combined	All	FL	High Efficiency Light fixtures	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
127	NWS	Industrial	Other - Combined	All	FL	Efficient Lighting Design	ICF	ICF	ICF	ICF	ICF
128	NWS	Industrial	Other - Combined	All	FL	Lighting controls: on/off timer settings	ICF	ICF	ICF	ICF	ICF
129	NWS	Industrial	Other - Combined	All	FL	Lighting controls: occupancy sensors	ICF	ICF	ICF	ICF	ICF
130	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF	ICF
131	NWS	Industrial	Other - Combined	All	HVAC	Premium efficiency ventilation control with VSD	BC Hydro	BC Hydro	BC Hydro	BC Hydro	BC Hydro
132	NWS	Industrial	Other - Combined	All	HVAC	Demand-Controlled Ventilation	Oregon Office of Energy	Oregon Office of Energy	Oregon Office of Energy	Oregon Office of Energy	Oregon Office of Energy
133	NWS	Industrial	Food Products	All	Motors - Other Applications	Operations and maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
134	NWS	Industrial	Food Products	All	Motors - Other Applications	Match Motor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
135	NWS	Industrial	Food Products	All	Motors - Other Applications	Motor Efficiency Upgrade	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
136	NWS	Industrial	Food Products	All	Motors - Other Applications	Variable Speed Drives	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
137	NWS	Industrial	Food Products	All	Pumps	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
138	NWS	Industrial	Food Products	All	Pumps	Match Pump Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
139	NWS	Industrial	Food Products	All	Pumps	Reduce or Control Pump Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
140	NWS	Industrial	Food Products	All	Pumps	Improve Pump Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
141	NWS	Industrial	Food Products	All	Pumps	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
142	NWS	Industrial	Food Products	All	Compressed Air	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
143	NWS	Industrial	Food Products	All	Compressed Air	Match Compressor Size to Load	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
144	NWS	Industrial	Food Products	All	Compressed Air	Compressor Control	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
145	NWS	Industrial	Food Products	All	Compressed Air	Improve Compressor Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
146	NWS	Industrial	Food Products	All	Compressed Air	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
147	NWS	Industrial	Food Products	All	Fans	Reduce Overall System Requirements	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
148	NWS	Industrial	Food Products	All	Fans	Reduce or Control Fan Speed	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
149	NWS	Industrial	Food Products	All	Fans	Improve Fan Components	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
150	NWS	Industrial	Food Products	All	Fans	Operation and Maintenance	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
151	NWS	Industrial	Food Products	All	HVAC	Optimized Duct Design to Improve Efficiency	ICF	ICF	ICF	ICF	ICF
152	NWS	Industrial	Food Products	All	PH	Advanced Water Heater Controls	ICF	ICF	ICF	ICF	ICF
153	NWS	Industrial	Food Products	All	PH	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF	ICF
154	NWS	Industrial	Food Products	All	PH	Air Curtains (Oven)	ICF	ICF	ICF	ICF	ICF
155	NWS	Industrial	Food Products	All	PH	Insulation (Oven)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
156	NWS	Industrial	Food Products	All	PH	Preventative Oven Maintenance	ICF	ICF	ICF	ICF	ICF
157	NWS	Industrial	Food Products	All	PH	Air Curtains (Dryer)	ICF	ICF	ICF	ICF	ICF
158	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
159	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF	ICF
160	NWS	Industrial	Food Products	All	PH	Optimized Distribution System	ICF	ICF	ICF	ICF	ICF
161	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
162	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF	ICF
163	NWS	Industrial	Food Products	All	PH	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF	ICF
164	NWS	Industrial	Food Products	All	PH	Insulation (Furnace)	ICF	ICF	ICF	ICF	ICF
165	NWS	Industrial	Food Products	All	PCR	High Efficiency Chiller	FEMP	FEMP	FEMP	FEMP	FEMP
166	NWS	Industrial	Food Products	All	PCR	Floating head pressure controls	NRCAN	NRCAN	NRCAN	NRCAN	NRCAN
167	NWS	Industrial	Food Products	All	PCR	Premium Efficiency Refrigeration Control System	ICF	ICF	ICF	ICF	ICF
168	NWS	Industrial	Food Products	All	PCR	Smart Defrost Controls	BC Hydro	BC Hydro	BC Hydro	BC Hydro	BC Hydro
169	NWS	Industrial	Food Products	All	PCR	Doors, Covers and Curtains	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
170	NWS	Industrial	Food Products	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
171	NWS	Industrial	Food Products	All	PCR	Preventative Refrigeration/cooling System Maintenance	Betterbricks	Betterbricks	Betterbricks	Betterbricks	Betterbricks
172	NWS	Industrial	Food Products	All	PCR	Optimized condenser pressure	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
173	NWS	Industrial	Food Products	All	PCR	Free-cooling	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency	US Environmental Protection Agency
174	NWS	Industrial	Food Products	All	PCR	Improve Insulation of Refrigeration System	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group	Heschong Machone Group
175	NWS	Industrial	Food Products	All	ONPU	HE Dry-Type Transformers	NRCAN	NRCAN	NRCAN	NRCAN	NRCAN
176	NWS	Industrial	Food Products	All	HVAC	Air Source Heat Pump for Backup Generators	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services	Design & Engineering Services
177	NWS	Industrial	Food Products	All	ONPU	High efficiency battery charger (for forklifts)	NRCAN	NRCAN	NRCAN	NRCAN	NRCAN
178	NWS	Industrial	Food Products	All	HVAC	Radiant Heaters	ICF	ICF	ICF	ICF	ICF
179	NWS	Industrial	Food Products	All	HVAC	High efficiency non-packaged HVAC equipment	ICF	ICF	ICF	ICF	ICF
180	NWS	Industrial	Food Products	All	HVAC	Seasonal Temperature Settings Adjustments	ICF	ICF	ICF	ICF	ICF

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					MEASURE DOCUMENTATION				
		Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
181	NWS	Industrial	Food Products	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	ICF	ICF	ICF	ICF	ICF
182	NWS	Industrial	Food Products	All	HVAC	Ground Source Heat Pump	ICF	ICF	ICF	ICF	ICF
183	NWS	Industrial	Food Products	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF	ICF
184	NWS	Industrial	Food Products	All	HVAC	Automated Temperature Control	ICF	ICF	ICF	ICF	ICF
185	NWS	Industrial	Food Products	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF	ICF
186	NWS	Industrial	Food Products	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF	ICF
187	NWS	Industrial	Food Products	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF	ICF
188	NWS	Industrial	Food Products	All	HVAC	Preventative Packaged HVAC Maintenance	ICF	ICF	ICF	ICF	ICF
189	NWS	Industrial	Food Products	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy	US Department of Energy
190	NWS	Industrial	Food Products	All	FL	High efficiency ballasts for lighting	CADET Energy Efficiency	CADET Energy Efficiency	CADET Energy Efficiency	CADET Energy Efficiency	CADET Energy Efficiency
191	NWS	Industrial	Food Products	All	FL	High Efficiency Light fixtures	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority	Ontario Power Authority
192	NWS	Industrial	Food Products	All	FL	Efficient Lighting Design	ICF	ICF	ICF	ICF	ICF
193	NWS	Industrial	Food Products	All	FL	Lighting controls: on/off timer settings	ICF	ICF	ICF	ICF	ICF
194	NWS	Industrial	Food Products	All	FL	Lighting controls: occupancy sensors	ICF	ICF	ICF	ICF	ICF
195	NWS	Industrial	Food Products	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF	ICF
196	NWS	Industrial	Food Products	All	HVAC	Premium efficiency ventilation control with VSD	BC Hydro	BC Hydro	BC Hydro	BC Hydro	BC Hydro
197	NWS	Industrial	Food Products	All	HVAC	Demand-Controlled Ventilation	Oregon Office of Energy	Oregon Office of Energy	Oregon Office of Energy	Oregon Office of Energy	Oregon Office of Energy
199	NWS	Industrial	Industrial Gases	All	Total	Integrated Control System	ICF	ICF	ICF	ICF	ICF
200	NWS	Industrial	Industrial Gases	All	Total	Process Integration and Pinch Analysis	ICF	ICF	ICF	ICF	ICF
201	NWS	Industrial	Industrial Gases	All	Total	Sub-Metering	ICF	ICF	ICF	ICF	ICF
202	NWS	Industrial	Industrial Gases	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	ICF	ICF	ICF	ICF	ICF
203	NWS	Industrial	Industrial Gases	All	Process Heating	Water-heater right sizing and load management	ICF	ICF	ICF	ICF	ICF
204	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
205	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Control	ICF	ICF	ICF	ICF	ICF
206	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Right Sizing	ICF	ICF	ICF	ICF	ICF
207	NWS	Industrial	Industrial Gases	All	Boilers	Condensing Boiler	ICF	ICF	ICF	ICF	ICF
208	NWS	Industrial	Industrial Gases	All	Boilers	Direct-Contact Hot Water Heaters	ICF	ICF	ICF	ICF	ICF
209	NWS	Industrial	Industrial Gases	All	Boilers	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
210	NWS	Industrial	Industrial Gases	All	Boilers	Instantaneous Steam Generation	ICF	ICF	ICF	ICF	ICF
211	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Heat Recovery	ICF	ICF	ICF	ICF	ICF
212	NWS	Industrial	Industrial Gases	All	Boilers	Boiler combustion air preheat	ICF	ICF	ICF	ICF	ICF
213	NWS	Industrial	Industrial Gases	All	Boilers	Preventative Boiler Maintenance	ICF	ICF	ICF	ICF	ICF
214	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Water Treatment	ICF	ICF	ICF	ICF	ICF
215	NWS	Industrial	Industrial Gases	All	Boilers	Condensate Return	ICF	ICF	ICF	ICF	ICF
216	NWS	Industrial	Industrial Gases	All	Boilers	Economizer	ICF	ICF	ICF	ICF	ICF
217	NWS	Industrial	Industrial Gases	All	Boilers	Insulation	ICF	ICF	ICF	ICF	ICF
218	NWS	Industrial	Industrial Gases	All	Boilers	Minimize Daeerator Vent Losses	ICF	ICF	ICF	ICF	ICF
219	NWS	Industrial	Industrial Gases	All	Boilers	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF	ICF
220	NWS	Industrial	Industrial Gases	All	Boilers	Steam Trap Survey and Repair	ICF	ICF	ICF	ICF	ICF
221	NWS	Industrial	Industrial Gases	All	Boilers	First Generation Super Boilers	ICF	ICF	ICF	ICF	ICF
222	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
223	NWS	Industrial	Industrial Gases	All	Process Heating	Infrared Ovens	ICF	ICF	ICF	ICF	ICF
224	NWS	Industrial	Industrial Gases	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF	ICF
225	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF	ICF
226	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF	ICF
227	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
228	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF	ICF
229	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF	ICF
230	NWS	Industrial	Industrial Gases	All	Process Heating	Radiant Tube burners	ICF	ICF	ICF	ICF	ICF
231	NWS	Industrial	Industrial Gases	All	HVAC	Radiant Heaters	ICF	ICF	ICF	ICF	ICF
232	NWS	Industrial	Industrial Gases	All	Process Heating	Solar Walls	ICF	ICF	ICF	ICF	ICF
233	NWS	Industrial	Industrial Gases	All	HVAC	Air Compressor Heat Recovery	ICF	ICF	ICF	ICF	ICF
234	NWS	Industrial	Industrial Gases	All	HVAC	Air Curtains	ICF	ICF	ICF	ICF	ICF
235	NWS	Industrial	Industrial Gases	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF	ICF
236	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF	ICF
237	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF	ICF
238	NWS	Industrial	Industrial Gases	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF	ICF
239	NWS	Industrial	Industrial Gases	All	HVAC	Automated Temperature reset Control	ICF	ICF	ICF	ICF	ICF
240	NWS	Industrial	Industrial Gases	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF	ICF

Industrial Measures

MEASURE DESCRIPTION					MEASURE DOCUMENTATION						
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
241	NWS	Industrial	Industrial Gases	All	Total	Pollution Control Measures	ICF	ICF	ICF	ICF	ICF
242	NWS	Industrial	Industrial Gases	All	Process Heating	CFD Modelling	ICF	ICF	ICF	ICF	ICF
243	NWS	Industrial	Industrial Gases	All	Total	Energy Management	ICF	ICF	ICF	ICF	ICF
244	NWS	Industrial	Industrial Gases	All	Process Heating	Improved airflow in dryer windbox	ICF	ICF	ICF	ICF	ICF
245	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Oven Maintenance	ICF	ICF	ICF	ICF	ICF
246	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF	ICF
247	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF	ICF
248	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
249	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF	ICF
250	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF	ICF
251	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
252	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF	ICF
253	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF	ICF
254	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
255	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF	ICF
256	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF	ICF
257	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
258	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF	ICF
259	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF	ICF
260	NWS	Industrial	All Other	All	Total	Integrated Control System	ICF	ICF	ICF	ICF	ICF
261	NWS	Industrial	All Other	All	Total	Process Integration and Pinch Analysis	ICF	ICF	ICF	ICF	ICF
262	NWS	Industrial	All Other	All	Total	Sub-Metering	ICF	ICF	ICF	ICF	ICF
263	NWS	Industrial	All Other	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	ICF	ICF	ICF	ICF	ICF
264	NWS	Industrial	All Other	All	Process Heating	Water-heater right sizing and load management	ICF	ICF	ICF	ICF	ICF
265	NWS	Industrial	All Other	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
266	NWS	Industrial	All Other	All	Boilers	Blowdown Control	ICF	ICF	ICF	ICF	ICF
267	NWS	Industrial	All Other	All	Boilers	Boiler Right Sizing	ICF	ICF	ICF	ICF	ICF
268	NWS	Industrial	All Other	All	Boilers	Condensing Boiler	ICF	ICF	ICF	ICF	ICF
269	NWS	Industrial	All Other	All	Boilers	Direct-Contact Hot Water Heaters	ICF	ICF	ICF	ICF	ICF
270	NWS	Industrial	All Other	All	Boilers	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
271	NWS	Industrial	All Other	All	Boilers	Instantaneous Steam Generation	ICF	ICF	ICF	ICF	ICF
272	NWS	Industrial	All Other	All	Boilers	Blowdown Heat Recovery	ICF	ICF	ICF	ICF	ICF
273	NWS	Industrial	All Other	All	Boilers	Boiler combustion air preheat	ICF	ICF	ICF	ICF	ICF
274	NWS	Industrial	All Other	All	Boilers	Preventative Boiler Maintenance	ICF	ICF	ICF	ICF	ICF
275	NWS	Industrial	All Other	All	Boilers	Boiler Water Treatment	ICF	ICF	ICF	ICF	ICF
276	NWS	Industrial	All Other	All	Boilers	Condensate Return	ICF	ICF	ICF	ICF	ICF
277	NWS	Industrial	All Other	All	Boilers	Economizer	ICF	ICF	ICF	ICF	ICF
278	NWS	Industrial	All Other	All	Boilers	Insulation	ICF	ICF	ICF	ICF	ICF
279	NWS	Industrial	All Other	All	Boilers	Minimize Deaerator Vent Losses	ICF	ICF	ICF	ICF	ICF
280	NWS	Industrial	All Other	All	Boilers	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF	ICF
281	NWS	Industrial	All Other	All	Boilers	Steam Trap Survey and Repair	ICF	ICF	ICF	ICF	ICF
282	NWS	Industrial	All Other	All	Boilers	First Generation Super Boilers	ICF	ICF	ICF	ICF	ICF
283	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
284	NWS	Industrial	All Other	All	Process Heating	Infrared Ovens	ICF	ICF	ICF	ICF	ICF
285	NWS	Industrial	All Other	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF	ICF
286	NWS	Industrial	All Other	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF	ICF
287	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF	ICF
288	NWS	Industrial	All Other	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
289	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF	ICF
290	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF	ICF
291	NWS	Industrial	All Other	All	Process Heating	Radiant Tube burners	ICF	ICF	ICF	ICF	ICF
292	NWS	Industrial	All Other	All	Process Heating	Radiant Heaters	ICF	ICF	ICF	ICF	ICF
293	NWS	Industrial	All Other	All	Process Heating	Solar Walls	ICF	ICF	ICF	ICF	ICF
294	NWS	Industrial	All Other	All	HVAC	Air Compressor Heat Recovery	ICF	ICF	ICF	ICF	ICF
295	NWS	Industrial	All Other	All	HVAC	Air Curtains	ICF	ICF	ICF	ICF	ICF
296	NWS	Industrial	All Other	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF	ICF
297	NWS	Industrial	All Other	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF	ICF
298	NWS	Industrial	All Other	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF	ICF
299	NWS	Industrial	All Other	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF	ICF
300	NWS	Industrial	All Other	All	HVAC	Automated Temperature reset Control	ICF	ICF	ICF	ICF	ICF

Industrial Measures

MEASURE DESCRIPTION					MEASURE DOCUMENTATION						
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
301	NWS	Industrial	All Other	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF	ICF
302	NWS	Industrial	All Other	All	Process Heating	Pollution Control Measures	ICF	ICF	ICF	ICF	ICF
303	NWS	Industrial	All Other	All	Process Heating	CFD Modelling	ICF	ICF	ICF	ICF	ICF
304	NWS	Industrial	All Other	All	Total	Energy Management	ICF	ICF	ICF	ICF	ICF
305	NWS	Industrial	All Other	All	Process Heating	Improved airflow in dryer windbox	ICF	ICF	ICF	ICF	ICF
306	NWS	Industrial	All Other	All	Process Heating	Preventative Oven Maintenance	ICF	ICF	ICF	ICF	ICF
307	NWS	Industrial	All Other	All	Process Heating	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF	ICF
308	NWS	Industrial	All Other	All	Process Heating	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF	ICF
309	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
310	NWS	Industrial	All Other	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF	ICF
311	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF	ICF
312	NWS	Industrial	All Other	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
313	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF	ICF
314	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF	ICF
315	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
316	NWS	Industrial	All Other	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF	ICF
317	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF	ICF
318	NWS	Industrial	All Other	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
319	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF	ICF
320	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF	ICF
321	NWS	Industrial	Small Industrial	All	Total	Integrated Control System	ICF	ICF	ICF	ICF	ICF
322	NWS	Industrial	Small Industrial	All	Total	Process Integration and Pinch Analysis	ICF	ICF	ICF	ICF	ICF
323	NWS	Industrial	Small Industrial	All	Total	Sub-Metering	ICF	ICF	ICF	ICF	ICF
324	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	ICF	ICF	ICF	ICF	ICF
325	NWS	Industrial	Small Industrial	All	Process Heating	Water-heater right sizing and load management	ICF	ICF	ICF	ICF	ICF
326	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
327	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Control	ICF	ICF	ICF	ICF	ICF
328	NWS	Industrial	Small Industrial	All	Boilers	Boiler Right Sizing	ICF	ICF	ICF	ICF	ICF
329	NWS	Industrial	Small Industrial	All	Boilers	Condensing Boiler	ICF	ICF	ICF	ICF	ICF
330	NWS	Industrial	Small Industrial	All	Boilers	Direct-Contact Hot Water Heaters	ICF	ICF	ICF	ICF	ICF
331	NWS	Industrial	Small Industrial	All	Boilers	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
332	NWS	Industrial	Small Industrial	All	Boilers	Instantaneous Steam Generation	ICF	ICF	ICF	ICF	ICF
333	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Heat Recovery	ICF	ICF	ICF	ICF	ICF
334	NWS	Industrial	Small Industrial	All	Boilers	Boiler combustion air preheat	ICF	ICF	ICF	ICF	ICF
335	NWS	Industrial	Small Industrial	All	Boilers	Preventative Boiler Maintenance	ICF	ICF	ICF	ICF	ICF
336	NWS	Industrial	Small Industrial	All	Boilers	Boiler Water Treatment	ICF	ICF	ICF	ICF	ICF
337	NWS	Industrial	Small Industrial	All	Boilers	Condensate Return	ICF	ICF	ICF	ICF	ICF
338	NWS	Industrial	Small Industrial	All	Boilers	Economizer	ICF	ICF	ICF	ICF	ICF
339	NWS	Industrial	Small Industrial	All	Boilers	Insulation	ICF	ICF	ICF	ICF	ICF
340	NWS	Industrial	Small Industrial	All	Boilers	Minimize Deaerator Vent Losses	ICF	ICF	ICF	ICF	ICF
341	NWS	Industrial	Small Industrial	All	Boilers	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF	ICF
342	NWS	Industrial	Small Industrial	All	Boilers	Steam Trap Survey and Repair	ICF	ICF	ICF	ICF	ICF
343	NWS	Industrial	Small Industrial	All	Boilers	First Generation Super Boilers	ICF	ICF	ICF	ICF	ICF
344	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
345	NWS	Industrial	Small Industrial	All	Process Heating	Infrared Ovens	ICF	ICF	ICF	ICF	ICF
346	NWS	Industrial	Small Industrial	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	ICF	ICF	ICF	ICF	ICF
347	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF	ICF
348	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF	ICF
349	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
350	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF	ICF
351	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF	ICF
352	NWS	Industrial	Small Industrial	All	Process Heating	Radiant Tube burners	ICF	ICF	ICF	ICF	ICF
353	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	ICF	ICF	ICF	ICF	ICF
354	NWS	Industrial	Small Industrial	All	Process Heating	Solar Walls	ICF	ICF	ICF	ICF	ICF
355	NWS	Industrial	Small Industrial	All	HVAC	Air Compressor Heat Recovery	ICF	ICF	ICF	ICF	ICF
356	NWS	Industrial	Small Industrial	All	HVAC	Air Curtains	ICF	ICF	ICF	ICF	ICF
357	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	ICF	ICF	ICF	ICF	ICF
358	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	ICF	ICF	ICF	ICF	ICF
359	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	ICF	ICF	ICF	ICF	ICF
360	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	ICF	ICF	ICF	ICF	ICF



Industrial Measures

MEASURE DESCRIPTION					MEASURE DOCUMENTATION						
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
361	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature reset Control	ICF	ICF	ICF	ICF	ICF
362	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	ICF	ICF	ICF	ICF	ICF
363	NWS	Industrial	Small Industrial	All	Total	Pollution Control Measures	ICF	ICF	ICF	ICF	ICF
364	NWS	Industrial	Small Industrial	All	Process Heating	CFD Modelling	ICF	ICF	ICF	ICF	ICF
365	NWS	Industrial	Small Industrial	All	Total	Energy Management	ICF	ICF	ICF	ICF	ICF
366	NWS	Industrial	Small Industrial	All	Process Heating	Improved airflow in dryer windbox	ICF	ICF	ICF	ICF	ICF
367	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Oven Maintenance	ICF	ICF	ICF	ICF	ICF
368	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Furnace Maintenance	ICF	ICF	ICF	ICF	ICF
369	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Dryer Maintenance	ICF	ICF	ICF	ICF	ICF
370	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
371	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF	ICF
372	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF	ICF
373	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
374	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF	ICF
375	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF	ICF
376	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	ICF	ICF	ICF	ICF	ICF
377	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	ICF	ICF	ICF	ICF	ICF
378	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	ICF	ICF	ICF	ICF	ICF
379	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	ICF	ICF	ICF	ICF	ICF
380	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	ICF	ICF	ICF	ICF	ICF
381	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	ICF	ICF	ICF	ICF	ICF

Industrial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Program Name	PARTICIPATION LOW CASE					
								First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
1	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Operations and maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
2	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Match Motor Size to Load	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
3	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Motor Efficiency Upgrade	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
4	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Variable Speed Drives	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
5	NWS	Industrial	Small Industrial	All	Pumps	Reduce Overall System Requirements	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
6	NWS	Industrial	Small Industrial	All	Pumps	Match Pump Size to Load	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
7	NWS	Industrial	Small Industrial	All	Pumps	Reduce or Control Pump Speed	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
8	NWS	Industrial	Small Industrial	All	Pumps	Improve Pump Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
9	NWS	Industrial	Small Industrial	All	Pumps	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
10	NWS	Industrial	Small Industrial	All	Compressed Air	Reduce Overall System Requirements	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
11	NWS	Industrial	Small Industrial	All	Compressed Air	Match Compressor Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
12	NWS	Industrial	Small Industrial	All	Compressed Air	Compressor Control	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
13	NWS	Industrial	Small Industrial	All	Compressed Air	Improve Compressor Components	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
14	NWS	Industrial	Small Industrial	All	Compressed Air	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
15	NWS	Industrial	Small Industrial	All	Fans	Reduce Overall System Requirements	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
16	NWS	Industrial	Small Industrial	All	Fans	Reduce or Control Fan Speed	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
17	NWS	Industrial	Small Industrial	All	Fans	Improve Fan Components	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
18	NWS	Industrial	Small Industrial	All	Fans	Operation and Maintenance	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
19	NWS	Industrial	Small Industrial	All	PH	Advanced water heater controls	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
20	NWS	Industrial	Small Industrial	All	PH	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
21	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Oven)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
22	NWS	Industrial	Small Industrial	All	PH	Insulation (Oven)	Process Heating	2015	0.3%	2034	1.5%	2034	1.5%
23	NWS	Industrial	Small Industrial	All	PH	Preventative Oven Maintenance	Process Heating	2015	0.3%	2034	1.5%	2034	1.5%
24	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Dryer)	Process Heating	2015	0.3%	2034	1.5%	2034	1.5%
25	NWS	Industrial	Small Industrial	All	PH	Insulation (Dryer)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
26	NWS	Industrial	Small Industrial	All	PH	Preventative Dryer Maintenance	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
27	NWS	Industrial	Small Industrial	All	PH	Preventative Furnace Maintenance	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
28	NWS	Industrial	Small Industrial	All	PH	Insulation (Furnace)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
29	NWS	Industrial	Small Industrial	All	PH	Preventative Kiln Maintenance	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
30	NWS	Industrial	Small Industrial	All	PH	Insulation (Kiln)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
31	NWS	Industrial	Small Industrial	All	PCR	High Efficiency Chiller	Process Cooling and Refrigeration	2015	0.0%	2034	0.5%	2015	0.0%
32	NWS	Industrial	Small Industrial	All	PCR	Optimized Distribution System	Process Cooling and Refrigeration	2015	0.3%	2034	1.5%	2034	1.5%
33	NWS	Industrial	Small Industrial	All	PCR	Floating head pressure controls	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
34	NWS	Industrial	Small Industrial	All	PCR	Premium efficiency refrigeration control system	Process Cooling and Refrigeration	2015	0.0%	2034	0.2%	2015	0.0%
35	NWS	Industrial	Small Industrial	All	PCR	Smart Defrost Controls	Process Cooling and Refrigeration	2015	0.3%	2034	1.5%	2034	1.5%
36	NWS	Industrial	Small Industrial	All	PCR	Doors, Covers and Curtains	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
37	NWS	Industrial	Small Industrial	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
38	NWS	Industrial	Small Industrial	All	PCR	Preventative refrigeration/cooling system maintenance	Process Cooling and Refrigeration	2015	0.3%	2034	1.5%	2034	1.5%
39	NWS	Industrial	Small Industrial	All	PCR	Optimized condenser pressure	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
40	NWS	Industrial	Small Industrial	All	PCR	VSD on chiller compressor	Process Cooling and Refrigeration	2015	0.0%	2034	1.4%	2015	0.0%
41	NWS	Industrial	Small Industrial	All	PCR	Free-cooling	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
42	NWS	Industrial	Small Industrial	All	PCR	Improve insulation of refrigeration system	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
43	NWS	Industrial	Small Industrial	All	HVAC	Optimized duct design to improve efficiency	Facility HVAC	2015	0.0%	2034	0.5%	2015	0.0%
44	NWS	Industrial	Small Industrial	All	HVAC	Air Source Heat Pump for Backup Generators	Facility HVAC	2015	0.0%	2034	0.0%	2034	0.0%
45	NWS	Industrial	Small Industrial	All	ONPU	High efficiency battery charger (for forklifts)	Other Process/Non-Process Use	2015	0.0%	2034	1.5%	2015	0.0%
46	NWS	Industrial	Small Industrial	All	ONPU	HE Dry-Type Transformers	Other Process/Non-Process Use	2015	0.0%	2034	1.5%	2015	0.0%
47	NWS	Industrial	Small Industrial	All	HVAC	Free cooling	Facility HVAC	2015	0.3%	2034	1.5%	2034	1.5%
48	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
49	NWS	Industrial	Small Industrial	All	HVAC	High efficiency non-packaged HVAC equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
50	NWS	Industrial	Small Industrial	All	HVAC	Seasonal Temperature Settings Adjustments	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
51	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Facility HVAC	2015	0.0%	2034	1.2%	2015	0.0%
52	NWS	Industrial	Small Industrial	All	HVAC	Ground Source Heat Pump	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%
53	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
54	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature Control	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
55	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
56	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
57	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	Facility HVAC	2015	0.0%	2034	1.0%	2015	0.0%
58	NWS	Industrial	Small Industrial	All	HVAC	Preventative Packaged HVAC Maintenance	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
59	NWS	Industrial	Small Industrial	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
60	NWS	Industrial	Small Industrial	All	FL	High efficiency ballasts for lighting	Facility Lighting	2015	0.0%	2034	1.5%	2015	0.0%

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
61	NWS	Industrial	Small Industrial	All	FL	High Efficiency Light fixtures	Facility Lighting	2015	0.0%	2034	0.7%	2015	0.0%
62	NWS	Industrial	Small Industrial	All	FL	Efficient Lighting Design	Facility Lighting	2015	0.0%	2034	1.5%	2015	0.0%
63	NWS	Industrial	Small Industrial	All	FL	Lighting controls: on/off timer settings	Facility Lighting	2015	0.0%	2034	1.5%	2015	0.0%
64	NWS	Industrial	Small Industrial	All	FL	Lighting controls: occupancy sensors	Facility Lighting	2015	0.0%	2034	0.1%	2015	0.0%
65	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	Facility HVAC	2015	0.1%	2034	0.5%	2034	0.5%
66	NWS	Industrial	Small Industrial	All	HVAC	Premium efficiency ventilation control with VSD	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
67	NWS	Industrial	Small Industrial	All	HVAC	Demand-Controlled Ventilation	Facility HVAC	2015	0.0%	2034	0.1%	2015	0.0%
68	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Operations and maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
69	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Match Motor Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
70	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Motor Efficiency Upgrade	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
71	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Variable Speed Drives	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
72	NWS	Industrial	Other - Combined	All	Pumps	Reduce Overall System Requirements	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
73	NWS	Industrial	Other - Combined	All	Pumps	Match Pump Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
74	NWS	Industrial	Other - Combined	All	Pumps	Reduce or Control Pump Speed	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
75	NWS	Industrial	Other - Combined	All	Pumps	Improve Pump Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
76	NWS	Industrial	Other - Combined	All	Pumps	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
77	NWS	Industrial	Other - Combined	All	Compressed Air	Reduce Overall System Requirements	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
78	NWS	Industrial	Other - Combined	All	Compressed Air	Match Compressor Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
79	NWS	Industrial	Other - Combined	All	Compressed Air	Compressor Control	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
80	NWS	Industrial	Other - Combined	All	Compressed Air	Improve Compressor Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
81	NWS	Industrial	Other - Combined	All	Compressed Air	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
82	NWS	Industrial	Other - Combined	All	Fans	Reduce Overall System Requirements	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
83	NWS	Industrial	Other - Combined	All	Fans	Reduce or Control Fan Speed	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
84	NWS	Industrial	Other - Combined	All	Fans	Improve Fan Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
85	NWS	Industrial	Other - Combined	All	Fans	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
86	NWS	Industrial	Other - Combined	All	HVAC	Optimized Duct Design to Improve Efficiency	Facility HVAC	2015	0.2%	2034	0.9%	2034	0.9%
87	NWS	Industrial	Other - Combined	All	PH	Advanced Water Heater Controls	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
88	NWS	Industrial	Other - Combined	All	PH	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
89	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Oven)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
90	NWS	Industrial	Other - Combined	All	PH	Insulation (Oven)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
91	NWS	Industrial	Other - Combined	All	PH	Preventative Oven Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
92	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Dryer)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
93	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
94	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
95	NWS	Industrial	Other - Combined	All	PH	Optimized Distribution System	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
96	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
97	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
98	NWS	Industrial	Other - Combined	All	PH	Preventative Furnace Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
99	NWS	Industrial	Other - Combined	All	PH	Insulation (Furnace)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
100	NWS	Industrial	Other - Combined	All	PCR	High Efficiency Chiller	Process Cooling and Refrigeration	2015	0.6%	2034	3.2%	2034	3.2%
101	NWS	Industrial	Other - Combined	All	PCR	Floating head pressure controls	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
102	NWS	Industrial	Other - Combined	All	PCR	Premium Efficiency Refrigeration Control System	Process Cooling and Refrigeration	2015	0.0%	2034	2.1%	2015	0.0%
103	NWS	Industrial	Other - Combined	All	PCR	Smart Defrost Controls	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
104	NWS	Industrial	Other - Combined	All	PCR	Doors, Covers and Curtains	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%
105	NWS	Industrial	Other - Combined	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%
106	NWS	Industrial	Other - Combined	All	PCR	Preventative Refrigeration/cooling System Maintenance	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
107	NWS	Industrial	Other - Combined	All	PCR	Optimized condenser pressure	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
108	NWS	Industrial	Other - Combined	All	PCR	Free-cooling	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
109	NWS	Industrial	Other - Combined	All	PCR	Improve Insulation of Refrigeration System	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
110	NWS	Industrial	Other - Combined	All	ONPU	HE Dry-Type Transformers	Other Process/Non-Process Use	2015	0.0%	2034	6.0%	2015	0.0%
111	NWS	Industrial	Other - Combined	All	HVAC	Air Source Heat Pump for Backup Generators	Facility HVAC	2015	0.0%	2034	0.5%	2015	0.0%
112	NWS	Industrial	Other - Combined	All	ONPU	High efficiency battery charger (for forklifts)	Other Process/Non-Process Use	2015	0.0%	2034	6.0%	2015	0.0%
113	NWS	Industrial	Other - Combined	All	HVAC	Radiant Heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
114	NWS	Industrial	Other - Combined	All	HVAC	High efficiency non-packaged HVAC equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
115	NWS	Industrial	Other - Combined	All	HVAC	Seasonal Temperature Settings Adjustments	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
116	NWS	Industrial	Other - Combined	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
117	NWS	Industrial	Other - Combined	All	HVAC	Ground Source Heat Pump	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%
118	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Heat Recovery	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%
119	NWS	Industrial	Other - Combined	All	HVAC	Automated Temperature Control	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
120	NWS	Industrial	Other - Combined	All	HVAC	Reduced Temperature Settings	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
121	NWS	Industrial	Other - Combined	All	HVAC	Destratification Fans	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
122	NWS	Industrial	Other - Combined	All	HVAC	Warehouse Loading Dock Seals	Facility HVAC	2015	0.0%	2034	5.4%	2015	0.0%
123	NWS	Industrial	Other - Combined	All	HVAC	Preventative Packaged HVAC Maintenance	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
124	NWS	Industrial	Other - Combined	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
125	NWS	Industrial	Other - Combined	All	FL	High efficiency ballasts for lighting	Facility Lighting	2015	0.0%	2034	6.0%	2015	0.0%
126	NWS	Industrial	Other - Combined	All	FL	High Efficiency Light fixtures	Facility Lighting	2015	0.8%	2034	4.1%	2034	4.1%
127	NWS	Industrial	Other - Combined	All	FL	Efficient Lighting Design	Facility Lighting	2015	0.0%	2034	6.0%	2015	0.0%
128	NWS	Industrial	Other - Combined	All	FL	Lighting controls: on/off timer settings	Facility Lighting	2015	1.2%	2034	6.0%	2034	6.0%
129	NWS	Industrial	Other - Combined	All	FL	Lighting controls: occupancy sensors	Facility Lighting	2015	0.2%	2034	1.1%	2034	1.1%
130	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Optimization	Facility HVAC	2015	0.7%	2034	3.6%	2034	3.6%
131	NWS	Industrial	Other - Combined	All	HVAC	Premium efficiency ventilation control with VSD	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
132	NWS	Industrial	Other - Combined	All	HVAC	Demand-Controlled Ventilation	Facility HVAC	2015	0.3%	2034	1.3%	2034	1.3%
133	NWS	Industrial	Food Products	All	Motors - Other Applications	Operations and maintenance	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
134	NWS	Industrial	Food Products	All	Motors - Other Applications	Match Motor Size to Load	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
135	NWS	Industrial	Food Products	All	Motors - Other Applications	Motor Efficiency Upgrade	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
136	NWS	Industrial	Food Products	All	Motors - Other Applications	Variable Speed Drives	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
137	NWS	Industrial	Food Products	All	Pumps	Reduce Overall System Requirements	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
138	NWS	Industrial	Food Products	All	Pumps	Match Pump Size to Load	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
139	NWS	Industrial	Food Products	All	Pumps	Reduce or Control Pump Speed	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
140	NWS	Industrial	Food Products	All	Pumps	Improve Pump Components	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
141	NWS	Industrial	Food Products	All	Pumps	Operation and Maintenance	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
142	NWS	Industrial	Food Products	All	Compressed Air	Reduce Overall System Requirements	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
143	NWS	Industrial	Food Products	All	Compressed Air	Match Compressor Size to Load	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
144	NWS	Industrial	Food Products	All	Compressed Air	Compressor Control	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
145	NWS	Industrial	Food Products	All	Compressed Air	Improve Compressor Components	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
146	NWS	Industrial	Food Products	All	Compressed Air	Operation and Maintenance	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
147	NWS	Industrial	Food Products	All	Fans	Reduce Overall System Requirements	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
148	NWS	Industrial	Food Products	All	Fans	Reduce or Control Fan Speed	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
149	NWS	Industrial	Food Products	All	Fans	Improve Fan Components	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
150	NWS	Industrial	Food Products	All	Fans	Operation and Maintenance	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%
151	NWS	Industrial	Food Products	All	HVAC	Optimized Duct Design to Improve Efficiency	Facility HVAC	2015	0.7%	2034	3.6%	2034	3.6%
152	NWS	Industrial	Food Products	All	PH	Advanced Water Heater Controls	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
153	NWS	Industrial	Food Products	All	PH	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
154	NWS	Industrial	Food Products	All	PH	Air Curtains (Oven)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
155	NWS	Industrial	Food Products	All	PH	Insulation (Oven)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
156	NWS	Industrial	Food Products	All	PH	Preventative Oven Maintenance	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
157	NWS	Industrial	Food Products	All	PH	Air Curtains (Dryer)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
158	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
159	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
160	NWS	Industrial	Food Products	All	PH	Optimized Distribution System	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
161	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
162	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
163	NWS	Industrial	Food Products	All	PH	Preventative Furnace Maintenance	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
164	NWS	Industrial	Food Products	All	PH	Insulation (Furnace)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%
165	NWS	Industrial	Food Products	All	PCR	High Efficiency Chiller	Process Cooling and Refrigeration	2015	0.6%	2034	3.2%	2034	3.2%
166	NWS	Industrial	Food Products	All	PCR	Floating head pressure controls	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%
167	NWS	Industrial	Food Products	All	PCR	Premium Efficiency Refrigeration Control System	Process Cooling and Refrigeration	2015	0.4%	2034	2.1%	2034	2.1%
168	NWS	Industrial	Food Products	All	PCR	Smart Defrost Controls	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%
169	NWS	Industrial	Food Products	All	PCR	Doors, Covers and Curtains	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%
170	NWS	Industrial	Food Products	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%
171	NWS	Industrial	Food Products	All	PCR	Preventative Refrigeration/cooling System Maintenance	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%
172	NWS	Industrial	Food Products	All	PCR	Optimized condenser pressure	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%
173	NWS	Industrial	Food Products	All	PCR	Free-cooling	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%
174	NWS	Industrial	Food Products	All	PCR	Improve Insulation of Refrigeration System	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%
175	NWS	Industrial	Food Products	All	ONPU	HE Dry-Type Transformers	Other Process/Non-Process Use	2015	1.2%	2034	6.0%	2034	6.0%
176	NWS	Industrial	Food Products	All	HVAC	Air Source Heat Pump for Backup Generators	Facility HVAC	2015	0.1%	2034	0.5%	2034	0.5%
177	NWS	Industrial	Food Products	All	ONPU	High efficiency battery charger (for forklifts)	Other Process/Non-Process Use	2015	1.2%	2034	6.0%	2034	6.0%
178	NWS	Industrial	Food Products	All	HVAC	Radiant Heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
179	NWS	Industrial	Food Products	All	HVAC	High efficiency non-packaged HVAC equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
180	NWS	Industrial	Food Products	All	HVAC	Seasonal Temperature Settings Adjustments	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%

Industrial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Program Name	PARTICIPATION LOW CASE					
								First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
181	NWS	Industrial	Food Products	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
182	NWS	Industrial	Food Products	All	HVAC	Ground Source Heat Pump	Facility HVAC	2015	0.0%	2034	0.0%	2034	0.0%
183	NWS	Industrial	Food Products	All	HVAC	Ventilation Heat Recovery	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%
184	NWS	Industrial	Food Products	All	HVAC	Automated Temperature Control	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
185	NWS	Industrial	Food Products	All	HVAC	Reduced Temperature Settings	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
186	NWS	Industrial	Food Products	All	HVAC	Destratification Fans	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
187	NWS	Industrial	Food Products	All	HVAC	Warehouse Loading Dock Seals	Facility HVAC	2015	1.1%	2034	5.4%	2034	5.4%
188	NWS	Industrial	Food Products	All	HVAC	Preventative Packaged HVAC Maintenance	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
189	NWS	Industrial	Food Products	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
190	NWS	Industrial	Food Products	All	FL	High efficiency ballasts for lighting	Facility Lighting	2015	1.2%	2034	6.0%	2034	6.0%
191	NWS	Industrial	Food Products	All	FL	High Efficiency Light fixtures	Facility Lighting	2015	0.8%	2034	4.1%	2034	4.1%
192	NWS	Industrial	Food Products	All	FL	Efficient Lighting Design	Facility Lighting	2015	1.2%	2034	6.0%	2034	6.0%
193	NWS	Industrial	Food Products	All	FL	Lighting controls: on/off timer settings	Facility Lighting	2015	1.2%	2034	6.0%	2034	6.0%
194	NWS	Industrial	Food Products	All	FL	Lighting controls: occupancy sensors	Facility Lighting	2015	0.2%	2034	1.1%	2034	1.1%
195	NWS	Industrial	Food Products	All	HVAC	Ventilation Optimization	Facility HVAC	2015	0.7%	2034	3.6%	2034	3.6%
196	NWS	Industrial	Food Products	All	HVAC	Premium efficiency ventilation control with VSD	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
197	NWS	Industrial	Food Products	All	HVAC	Demand-Controlled Ventilation	Facility HVAC	2015	0.3%	2034	1.3%	2034	1.3%
199	NWS	Industrial	Industrial Gases	All	Total	Integrated Control System	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
200	NWS	Industrial	Industrial Gases	All	Total	Process Integration and Pinch Analysis	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
201	NWS	Industrial	Industrial Gases	All	Total	Sub-Metering	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
202	NWS	Industrial	Industrial Gases	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
203	NWS	Industrial	Industrial Gases	All	Process Heating	Water-heater right sizing and load management	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
204	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
205	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Control	Boilers	2015	0.0%	2034	0.2%	2034	0.2%
206	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Right Sizing	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
207	NWS	Industrial	Industrial Gases	All	Boilers	Condensing Boiler	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
208	NWS	Industrial	Industrial Gases	All	Boilers	Direct-Contact Hot Water Heaters	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
209	NWS	Industrial	Industrial Gases	All	Boilers	High Efficiency Burner	Boilers	2015	0.1%	2034	0.9%	2034	0.9%
210	NWS	Industrial	Industrial Gases	All	Boilers	Instantaneous Steam Generation	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
211	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Heat Recovery	Boilers	2015	0.1%	2034	0.4%	2034	0.4%
212	NWS	Industrial	Industrial Gases	All	Boilers	Boiler combustion air preheat	Boilers	2015	0.1%	2034	0.4%	2034	0.4%
213	NWS	Industrial	Industrial Gases	All	Boilers	Preventative Boiler Maintenance	Boilers	2015	0.8%	2034	6.0%	2034	6.0%
214	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Water Treatment	Boilers	2015	0.3%	2034	2.6%	2034	2.6%
215	NWS	Industrial	Industrial Gases	All	Boilers	Condensate Return	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
216	NWS	Industrial	Industrial Gases	All	Boilers	Economizer	Boilers	2015	0.1%	2034	0.8%	2034	0.8%
217	NWS	Industrial	Industrial Gases	All	Boilers	Insulation	Boilers	2015	0.8%	2034	6.0%	2034	6.0%
218	NWS	Industrial	Industrial Gases	All	Boilers	Minimize Deaerator Vent Losses	Boilers	2015	0.2%	2034	1.3%	2034	1.3%
219	NWS	Industrial	Industrial Gases	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Boilers	2015	0.2%	2034	1.7%	2034	1.7%
220	NWS	Industrial	Industrial Gases	All	Boilers	Steam Trap Survey and Repair	Boilers	2015	0.4%	2034	3.2%	2034	3.2%
221	NWS	Industrial	Industrial Gases	All	Boilers	First Generation Super Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
222	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
223	NWS	Industrial	Industrial Gases	All	Process Heating	Infrared Ovens	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
224	NWS	Industrial	Industrial Gases	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.1%	2034	0.4%	2034	0.4%
225	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
226	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
227	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
228	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
229	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
230	NWS	Industrial	Industrial Gases	All	Process Heating	Radiant Tube burners	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
231	NWS	Industrial	Industrial Gases	All	HVAC	Radiant Heaters	HVAC	2015	0.0%	2034	0.0%	2034	0.0%
232	NWS	Industrial	Industrial Gases	All	Process Heating	Solar Walls	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
233	NWS	Industrial	Industrial Gases	All	HVAC	Air Compressor Heat Recovery	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
234	NWS	Industrial	Industrial Gases	All	HVAC	Air Curtains	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
235	NWS	Industrial	Industrial Gases	All	HVAC	Destratification Fans	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
236	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Heat Recovery	HVAC	2015	0.1%	2034	1.0%	2034	1.0%
237	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Optimization	HVAC	2015	0.1%	2034	1.1%	2034	1.1%
238	NWS	Industrial	Industrial Gases	All	HVAC	Warehouse Loading Dock Seals	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
239	NWS	Industrial	Industrial Gases	All	HVAC	Automated Temperature reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
240	NWS	Industrial	Industrial Gases	All	HVAC	Reduced Temperature Settings	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A

Industrial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	MEASURE DESCRIPTION		PROGRAM	PARTICIPATION LOW CASE						
					End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
241	NWS	Industrial	Industrial Gases	All	Total	Pollution Control Measures	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
242	NWS	Industrial	Industrial Gases	All	Process Heating	CFD Modelling	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
243	NWS	Industrial	Industrial Gases	All	Total	Energy Management	All	2015	0.1%	2034	1.0%	2034	1.0%	
244	NWS	Industrial	Industrial Gases	All	Process Heating	Improved airflow in dryer windbox	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
245	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Oven Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
246	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Furnace Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
247	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Dryer Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
248	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.1%	2034	0.8%	2034	0.8%	
249	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
250	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.1%	2034	0.5%	2034	0.5%	
251	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
252	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.1%	2034	1.0%	2034	1.0%	
253	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
254	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
255	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
256	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
257	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%	
258	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
259	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
260	NWS	Industrial	All Other	All	Total	Integrated Control System	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
261	NWS	Industrial	All Other	All	Total	Process Integration and Pinch Analysis	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
262	NWS	Industrial	All Other	All	Total	Sub-Metering	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
263	NWS	Industrial	All Other	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
264	NWS	Industrial	All Other	All	Process Heating	Water-heater right sizing and load management	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
265	NWS	Industrial	All Other	All	Process Heating	Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
266	NWS	Industrial	All Other	All	Boilers	Blowdown Control	Boilers	2015	0.0%	2034	0.2%	2034	0.2%	
267	NWS	Industrial	All Other	All	Boilers	Boiler Right Sizing	Boilers	2015	0.0%	2034	0.0%	2015	0.0%	
268	NWS	Industrial	All Other	All	Boilers	Condensing Boiler	Boilers	2015	0.0%	2034	0.0%	2015	0.0%	
269	NWS	Industrial	All Other	All	Boilers	Direct-Contact Hot Water Heaters	Boilers	2015	0.0%	2034	0.0%	2015	0.0%	
270	NWS	Industrial	All Other	All	Boilers	High Efficiency Burner	Boilers	2015	0.1%	2034	0.9%	2034	0.9%	
271	NWS	Industrial	All Other	All	Boilers	Instantaneous Steam Generation	Boilers	2015	0.0%	2034	0.0%	2015	0.0%	
272	NWS	Industrial	All Other	All	Boilers	Blowdown Heat Recovery	Boilers	2015	0.1%	2034	0.4%	2034	0.4%	
273	NWS	Industrial	All Other	All	Boilers	Boiler combustion air preheat	Boilers	2015	0.1%	2034	0.4%	2034	0.4%	
274	NWS	Industrial	All Other	All	Boilers	Preventative Boiler Maintenance	Boilers	2015	0.8%	2034	6.0%	2034	6.0%	
275	NWS	Industrial	All Other	All	Boilers	Boiler Water Treatment	Boilers	2015	0.3%	2034	2.6%	2034	2.6%	
276	NWS	Industrial	All Other	All	Boilers	Condensate Return	Boilers	2015	0.0%	2034	0.0%	2034	0.0%	
277	NWS	Industrial	All Other	All	Boilers	Economizer	Boilers	2015	0.1%	2034	0.8%	2034	0.8%	
278	NWS	Industrial	All Other	All	Boilers	Insulation	Boilers	2015	0.8%	2034	6.0%	2034	6.0%	
279	NWS	Industrial	All Other	All	Boilers	Minimize Deaerator Vent Losses	Boilers	2015	0.2%	2034	1.3%	2034	1.3%	
280	NWS	Industrial	All Other	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Boilers	2015	0.2%	2034	1.7%	2034	1.7%	
281	NWS	Industrial	All Other	All	Boilers	Steam Trap Survey and Repair	Boilers	2015	0.4%	2034	3.2%	2034	3.2%	
282	NWS	Industrial	All Other	All	Boilers	First Generation Super Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
283	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
284	NWS	Industrial	All Other	All	Process Heating	Infrared Ovens	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
285	NWS	Industrial	All Other	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.1%	2034	0.4%	2034	0.4%	
286	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
287	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
288	NWS	Industrial	All Other	All	Process Heating	Insulation	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%	
289	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
290	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
291	NWS	Industrial	All Other	All	Process Heating	Radiant Tube burners	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
292	NWS	Industrial	All Other	All	Process Heating	Radiant Heaters	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%	
293	NWS	Industrial	All Other	All	Process Heating	Solar Walls	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
294	NWS	Industrial	All Other	All	HVAC	Air Compressor Heat Recovery	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
295	NWS	Industrial	All Other	All	HVAC	Air Curtains	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
296	NWS	Industrial	All Other	All	HVAC	Destratification Fans	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
297	NWS	Industrial	All Other	All	HVAC	Ventilation Heat Recovery	HVAC	2015	0.1%	2034	1.0%	2034	1.0%	
298	NWS	Industrial	All Other	All	HVAC	Ventilation Optimization	HVAC	2015	0.1%	2034	1.1%	2034	1.1%	
299	NWS	Industrial	All Other	All	HVAC	Warehouse Loading Dock Seals	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
300	NWS	Industrial	All Other	All	HVAC	Automated Temperature reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				Measure Name	PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use			Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
301	NWS	Industrial	All Other	All	HVAC	Reduced Temperature Settings	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
302	NWS	Industrial	All Other	All	Process Heating	Pollution Control Measures	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
303	NWS	Industrial	All Other	All	Process Heating	CFD Modelling	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
304	NWS	Industrial	All Other	All	Total	Energy Management	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
305	NWS	Industrial	All Other	All	Process Heating	Improved airflow in dryer windbox	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
306	NWS	Industrial	All Other	All	Process Heating	Preventative Oven Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
307	NWS	Industrial	All Other	All	Process Heating	Preventative Furnace Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
308	NWS	Industrial	All Other	All	Process Heating	Preventative Dryer Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
309	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.1%	2034	0.8%	2034	0.8%
310	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
311	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.1%	2034	0.5%	2034	0.5%
312	NWS	Industrial	All Other	All	Process Heating	Insulation	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
313	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.1%	2034	1.0%	2034	1.0%
314	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
315	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
316	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
317	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
318	NWS	Industrial	All Other	All	Process Heating	Insulation	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
319	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
320	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
321	NWS	Industrial	Small Industrial	All	Total	Integrated Control System	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
322	NWS	Industrial	Small Industrial	All	Total	Process Integration and Pinch Analysis	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
323	NWS	Industrial	Small Industrial	All	Total	Sub-Metering	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
324	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
325	NWS	Industrial	Small Industrial	All	Process Heating	Water-heater right sizing and load management	Process Heating	2015	0.0%	2034	0.0%	#N/A	#N/A
326	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	Process Heating	2015	0.0%	2034	0.1%	2034	0.1%
327	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
328	NWS	Industrial	Small Industrial	All	Boilers	Boiler Right Sizing	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
329	NWS	Industrial	Small Industrial	All	Boilers	Condensing Boiler	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
330	NWS	Industrial	Small Industrial	All	Boilers	Direct-Contact Hot Water Heaters	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
331	NWS	Industrial	Small Industrial	All	Boilers	High Efficiency Burner	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
332	NWS	Industrial	Small Industrial	All	Boilers	Instantaneous Steam Generation	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
333	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Heat Recovery	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
334	NWS	Industrial	Small Industrial	All	Boilers	Boiler combustion air preheat	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
335	NWS	Industrial	Small Industrial	All	Boilers	Preventative Boiler Maintenance	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
336	NWS	Industrial	Small Industrial	All	Boilers	Boiler Water Treatment	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
337	NWS	Industrial	Small Industrial	All	Boilers	Condensate Return	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
338	NWS	Industrial	Small Industrial	All	Boilers	Economizer	Boilers	2015	0.0%	2034	0.1%	2034	0.1%
339	NWS	Industrial	Small Industrial	All	Boilers	Insulation	Boilers	2015	0.1%	2034	0.8%	2034	0.8%
340	NWS	Industrial	Small Industrial	All	Boilers	Minimize Deaerator Vent Losses	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
341	NWS	Industrial	Small Industrial	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
342	NWS	Industrial	Small Industrial	All	Boilers	Steam Trap Survey and Repair	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
343	NWS	Industrial	Small Industrial	All	Boilers	First Generation Super Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
344	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.1%	2034	0.1%
345	NWS	Industrial	Small Industrial	All	Process Heating	Infrared Ovens	Process Heating	2015	0.0%	2034	0.1%	2034	0.1%
346	NWS	Industrial	Small Industrial	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.1%	2034	0.9%	2034	0.9%
347	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Process Heating	2015	0.0%	2034	0.2%	2034	0.2%
348	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
349	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
350	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
351	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
352	NWS	Industrial	Small Industrial	All	Process Heating	Radiant Tube burners	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
353	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	HVAC	2015	0.0%	2034	0.0%	2015	0.0%
354	NWS	Industrial	Small Industrial	All	Process Heating	Solar Walls	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
355	NWS	Industrial	Small Industrial	All	HVAC	Air Compressor Heat Recovery	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
356	NWS	Industrial	Small Industrial	All	HVAC	Air Curtains	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
357	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
358	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	HVAC	2015	0.0%	2034	0.0%	2034	0.0%
359	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	HVAC	2015	0.0%	2034	0.0%	2034	0.0%
360	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A

Industrial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	MEASURE DESCRIPTION		PROGRAM	PARTICIPATION LOW CASE					
					End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
361	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
362	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
363	NWS	Industrial	Small Industrial	All	Total	Pollution Control Measures	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
364	NWS	Industrial	Small Industrial	All	Process Heating	CFD Modelling	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
365	NWS	Industrial	Small Industrial	All	Total	Energy Management	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
366	NWS	Industrial	Small Industrial	All	Process Heating	Improved airflow in dryer windbox	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
367	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Oven Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
368	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Furnace Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
369	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Dryer Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
370	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
371	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
372	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
373	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
374	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
375	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
376	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.1%	2034	0.1%
377	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Process Heating	2015	0.0%	2034	0.2%	2034	0.2%
378	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
379	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
380	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
381	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A



Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				End Use	Measure Name	PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type					First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)	Final Year Participation Rate (Fo)
1	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Operations and maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
2	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Match Motor Size to Load	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
3	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Motor Efficiency Upgrade	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
4	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Variable Speed Drives	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
5	NWS	Industrial	Small Industrial	All	Pumps	Reduce Overall System Requirements	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
6	NWS	Industrial	Small Industrial	All	Pumps	Match Pump Size to Load	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
7	NWS	Industrial	Small Industrial	All	Pumps	Reduce or Control Pump Speed	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
8	NWS	Industrial	Small Industrial	All	Pumps	Improve Pump Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
9	NWS	Industrial	Small Industrial	All	Pumps	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
10	NWS	Industrial	Small Industrial	All	Compressed Air	Reduce Overall System Requirements	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
11	NWS	Industrial	Small Industrial	All	Compressed Air	Match Compressor Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
12	NWS	Industrial	Small Industrial	All	Compressed Air	Compressor Control	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
13	NWS	Industrial	Small Industrial	All	Compressed Air	Improve Compressor Components	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
14	NWS	Industrial	Small Industrial	All	Compressed Air	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
15	NWS	Industrial	Small Industrial	All	Fans	Reduce Overall System Requirements	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
16	NWS	Industrial	Small Industrial	All	Fans	Reduce or Control Fan Speed	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
17	NWS	Industrial	Small Industrial	All	Fans	Improve Fan Components	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
18	NWS	Industrial	Small Industrial	All	Fans	Operation and Maintenance	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%	
19	NWS	Industrial	Small Industrial	All	PH	Advanced water heater controls	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%	
20	NWS	Industrial	Small Industrial	All	PH	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%	
21	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Oven)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%	
22	NWS	Industrial	Small Industrial	All	PH	Insulation (Oven)	Process Heating	2015	0.3%	2034	1.5%	2034	1.5%	
23	NWS	Industrial	Small Industrial	All	PH	Preventative Oven Maintenance	Process Heating	2015	0.3%	2034	1.5%	2034	1.5%	
24	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Dryer)	Process Heating	2015	0.3%	2034	1.5%	2034	1.5%	
25	NWS	Industrial	Small Industrial	All	PH	Insulation (Dryer)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%	
26	NWS	Industrial	Small Industrial	All	PH	Preventative Dryer Maintenance	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%	
27	NWS	Industrial	Small Industrial	All	PH	Preventative Furnace Maintenance	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%	
28	NWS	Industrial	Small Industrial	All	PH	Insulation (Furnace)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%	
29	NWS	Industrial	Small Industrial	All	PH	Preventative Kiln Maintenance	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%	
30	NWS	Industrial	Small Industrial	All	PH	Insulation (Kiln)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%	
31	NWS	Industrial	Small Industrial	All	PCR	High Efficiency Chiller	Process Cooling and Refrigeration	2015	0.0%	2034	0.9%	2015	0.0%	
32	NWS	Industrial	Small Industrial	All	PCR	Optimized Distribution System	Process Cooling and Refrigeration	2015	0.3%	2034	1.5%	2034	1.5%	
33	NWS	Industrial	Small Industrial	All	PCR	Floating head pressure controls	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%	
34	NWS	Industrial	Small Industrial	All	PCR	Premium efficiency refrigeration control system	Process Cooling and Refrigeration	2015	0.0%	2034	0.5%	2015	0.0%	
35	NWS	Industrial	Small Industrial	All	PCR	Smart Defrost Controls	Process Cooling and Refrigeration	2015	0.3%	2034	1.5%	2034	1.5%	
36	NWS	Industrial	Small Industrial	All	PCR	Doors, Covers and Curtains	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%	
37	NWS	Industrial	Small Industrial	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%	
38	NWS	Industrial	Small Industrial	All	PCR	Preventative refrigeration/cooling system maintenance	Process Cooling and Refrigeration	2015	0.3%	2034	1.5%	2034	1.5%	
39	NWS	Industrial	Small Industrial	All	PCR	Optimized condenser pressure	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%	
40	NWS	Industrial	Small Industrial	All	PCR	VSD on chiller compressor	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%	
41	NWS	Industrial	Small Industrial	All	PCR	Free-cooling	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%	
42	NWS	Industrial	Small Industrial	All	PCR	Improve insulation of refrigeration system	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%	
43	NWS	Industrial	Small Industrial	All	HVAC	Optimized duct design to improve efficiency	Facility HVAC	2015	0.0%	2034	1.1%	2015	0.0%	
44	NWS	Industrial	Small Industrial	All	HVAC	Air Source Heat Pump for Backup Generators	Facility HVAC	2015	0.0%	2034	0.0%	2034	0.0%	
45	NWS	Industrial	Small Industrial	All	ONPU	High efficiency battery charger (for forklifts)	Other Process/Non-Process Use	2015	0.0%	2034	1.5%	2015	0.0%	
46	NWS	Industrial	Small Industrial	All	ONPU	HE Dry-Type Transformers	Other Process/Non-Process Use	2015	0.0%	2034	1.5%	2015	0.0%	
47	NWS	Industrial	Small Industrial	All	HVAC	Free cooling	Facility HVAC	2015	0.3%	2034	1.5%	2034	1.5%	
48	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
49	NWS	Industrial	Small Industrial	All	HVAC	High efficiency non-packaged HVAC equipment	*N/A	2015	0.0%	2034	0.0%	2015	0.0%	
50	NWS	Industrial	Small Industrial	All	HVAC	Seasonal Temperature Settings Adjustments	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%	
51	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%	
52	NWS	Industrial	Small Industrial	All	HVAC	Ground Source Heat Pump	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%	
53	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	*N/A	2015	0.0%	2034	0.0%	2015	0.0%	
54	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature Control	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%	
55	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%	
56	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%	
57	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%	
58	NWS	Industrial	Small Industrial	All	HVAC	Preventative Packaged HVAC Maintenance	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%	
59	NWS	Industrial	Small Industrial	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	*N/A	2015	0.0%	2034	0.0%	2015	0.0%	
60	NWS	Industrial	Small Industrial	All	FL	High efficiency ballasts for lighting	Facility Lighting	2015	0.0%	2034	1.5%	2015	0.0%	

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
61	NWS	Industrial	Small Industrial	All	FL	High Efficiency Light fixtures	Facility Lighting	2015	0.0%	2034	1.3%	2015	0.0%
62	NWS	Industrial	Small Industrial	All	FL	Efficient Lighting Design	Facility Lighting	2015	0.0%	2034	1.5%	2015	0.0%
63	NWS	Industrial	Small Industrial	All	FL	Lighting controls: on/off timer settings	Facility Lighting	2015	0.0%	2034	1.5%	2015	0.0%
64	NWS	Industrial	Small Industrial	All	FL	Lighting controls: occupancy sensors	Facility Lighting	2015	0.0%	2034	0.2%	2015	0.0%
65	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	Facility HVAC	2015	0.2%	2034	1.1%	2034	1.1%
66	NWS	Industrial	Small Industrial	All	HVAC	Premium efficiency ventilation control with VSD	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
67	NWS	Industrial	Small Industrial	All	HVAC	Demand-Controlled Ventilation	Facility HVAC	2015	0.0%	2034	0.2%	2015	0.0%
68	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Operations and maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
69	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Match Motor Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
70	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Motor Efficiency Upgrade	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
71	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Variable Speed Drives	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
72	NWS	Industrial	Other - Combined	All	Pumps	Reduce Overall System Requirements	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
73	NWS	Industrial	Other - Combined	All	Pumps	Match Pump Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
74	NWS	Industrial	Other - Combined	All	Pumps	Reduce or Control Pump Speed	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
75	NWS	Industrial	Other - Combined	All	Pumps	Improve Pump Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
76	NWS	Industrial	Other - Combined	All	Pumps	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
77	NWS	Industrial	Other - Combined	All	Compressed Air	Reduce Overall System Requirements	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
78	NWS	Industrial	Other - Combined	All	Compressed Air	Match Compressor Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
79	NWS	Industrial	Other - Combined	All	Compressed Air	Compressor Control	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
80	NWS	Industrial	Other - Combined	All	Compressed Air	Improve Compressor Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
81	NWS	Industrial	Other - Combined	All	Compressed Air	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
82	NWS	Industrial	Other - Combined	All	Fans	Reduce Overall System Requirements	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
83	NWS	Industrial	Other - Combined	All	Fans	Reduce or Control Fan Speed	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
84	NWS	Industrial	Other - Combined	All	Fans	Improve Fan Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
85	NWS	Industrial	Other - Combined	All	Fans	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
86	NWS	Industrial	Other - Combined	All	HVAC	Optimized Duct Design to Improve Efficiency	Facility HVAC	2015	0.3%	2034	1.5%	2034	1.5%
87	NWS	Industrial	Other - Combined	All	PH	Advanced Water Heater Controls	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
88	NWS	Industrial	Other - Combined	All	PH	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
89	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Oven)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
90	NWS	Industrial	Other - Combined	All	PH	Insulation (Oven)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
91	NWS	Industrial	Other - Combined	All	PH	Preventative Oven Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
92	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Dryer)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
93	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
94	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
95	NWS	Industrial	Other - Combined	All	PH	Optimized Distribution System	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
96	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
97	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
98	NWS	Industrial	Other - Combined	All	PH	Preventative Furnace Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
99	NWS	Industrial	Other - Combined	All	PH	Insulation (Furnace)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%
100	NWS	Industrial	Other - Combined	All	PCR	High Efficiency Chiller	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
101	NWS	Industrial	Other - Combined	All	PCR	Floating head pressure controls	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
102	NWS	Industrial	Other - Combined	All	PCR	Premium Efficiency Refrigeration Control System	Process Cooling and Refrigeration	2015	0.0%	2034	4.2%	2015	0.0%
103	NWS	Industrial	Other - Combined	All	PCR	Smart Defrost Controls	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
104	NWS	Industrial	Other - Combined	All	PCR	Doors, Covers and Curtains	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
105	NWS	Industrial	Other - Combined	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
106	NWS	Industrial	Other - Combined	All	PCR	Preventative Refrigeration/cooling System Maintenance	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
107	NWS	Industrial	Other - Combined	All	PCR	Optimized condenser pressure	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
108	NWS	Industrial	Other - Combined	All	PCR	Free-cooling	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
109	NWS	Industrial	Other - Combined	All	PCR	Improve Insulation of Refrigeration System	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%
110	NWS	Industrial	Other - Combined	All	ONPU	HE Dry-Type Transformers	Other Process/Non-Process Use	2015	0.0%	2034	6.0%	2015	0.0%
111	NWS	Industrial	Other - Combined	All	HVAC	Air Source Heat Pump for Backup Generators	Facility HVAC	2015	0.0%	2034	0.9%	2015	0.0%
112	NWS	Industrial	Other - Combined	All	ONPU	High efficiency battery charger (for forklifts)	Other Process/Non-Process Use	2015	0.0%	2034	6.0%	2015	0.0%
113	NWS	Industrial	Other - Combined	All	HVAC	Radiant Heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
114	NWS	Industrial	Other - Combined	All	HVAC	High efficiency non-packaged HVAC equipment	*N/A	2015	0.0%	2034	0.0%	2015	0.0%
115	NWS	Industrial	Other - Combined	All	HVAC	Seasonal Temperature Settings Adjustments	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
116	NWS	Industrial	Other - Combined	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
117	NWS	Industrial	Other - Combined	All	HVAC	Ground Source Heat Pump	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%
118	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Heat Recovery	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%
119	NWS	Industrial	Other - Combined	All	HVAC	Automated Temperature Control	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
120	NWS	Industrial	Other - Combined	All	HVAC	Reduced Temperature Settings	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				End Use	Measure Name	PROGRAM	PARTICIPATION HIGH CASE				
		Sector	Sub-Sector	Building Type					First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
121	NWS	Industrial	Other - Combined	All	HVAC	Destratification Fans	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
122	NWS	Industrial	Other - Combined	All	HVAC	Warehouse Loading Dock Seals	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
123	NWS	Industrial	Other - Combined	All	HVAC	Preventative Packaged HVAC Maintenance	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%
124	NWS	Industrial	Other - Combined	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	*N/A	2015	0.0%	2034	0.0%	2015	0.0%
125	NWS	Industrial	Other - Combined	All	FL	High efficiency ballasts for lighting	Facility Lighting	2015	0.0%	2034	6.0%	2015	0.0%
126	NWS	Industrial	Other - Combined	All	FL	High Efficiency Light fixtures	Facility Lighting	2015	1.3%	2034	6.0%	2034	6.0%
127	NWS	Industrial	Other - Combined	All	FL	Efficient Lighting Design	Facility Lighting	2015	0.0%	2034	6.0%	2015	0.0%
128	NWS	Industrial	Other - Combined	All	FL	Lighting controls: on/off timer settings	Facility Lighting	2015	1.3%	2034	6.0%	2034	6.0%
129	NWS	Industrial	Other - Combined	All	FL	Lighting controls: occupancy sensors	Facility Lighting	2015	0.5%	2034	2.1%	2034	2.1%
130	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Optimization	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
131	NWS	Industrial	Other - Combined	All	HVAC	Premium efficiency ventilation control with VSD	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
132	NWS	Industrial	Other - Combined	All	HVAC	Demand-Controlled Ventilation	Facility HVAC	2015	0.6%	2034	2.6%	2034	2.6%
133	NWS	Industrial	Food Products	All	Motors - Other Applications	Operations and maintenance	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
134	NWS	Industrial	Food Products	All	Motors - Other Applications	Match Motor Size to Load	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
135	NWS	Industrial	Food Products	All	Motors - Other Applications	Motor Efficiency Upgrade	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
136	NWS	Industrial	Food Products	All	Motors - Other Applications	Variable Speed Drives	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
137	NWS	Industrial	Food Products	All	Pumps	Reduce Overall System Requirements	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
138	NWS	Industrial	Food Products	All	Pumps	Match Pump Size to Load	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
139	NWS	Industrial	Food Products	All	Pumps	Reduce or Control Pump Speed	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
140	NWS	Industrial	Food Products	All	Pumps	Improve Pump Components	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
141	NWS	Industrial	Food Products	All	Pumps	Operation and Maintenance	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
142	NWS	Industrial	Food Products	All	Compressed Air	Reduce Overall System Requirements	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
143	NWS	Industrial	Food Products	All	Compressed Air	Match Compressor Size to Load	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
144	NWS	Industrial	Food Products	All	Compressed Air	Compressor Control	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
145	NWS	Industrial	Food Products	All	Compressed Air	Improve Compressor Components	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
146	NWS	Industrial	Food Products	All	Compressed Air	Operation and Maintenance	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
147	NWS	Industrial	Food Products	All	Fans	Reduce Overall System Requirements	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
148	NWS	Industrial	Food Products	All	Fans	Reduce or Control Fan Speed	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
149	NWS	Industrial	Food Products	All	Fans	Improve Fan Components	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
150	NWS	Industrial	Food Products	All	Fans	Operation and Maintenance	Machine Drive	2015	1.6%	2034	7.0%	2034	7.0%
151	NWS	Industrial	Food Products	All	HVAC	Optimized Duct Design to Improve Efficiency	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
152	NWS	Industrial	Food Products	All	PH	Advanced Water Heater Controls	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
153	NWS	Industrial	Food Products	All	PH	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
154	NWS	Industrial	Food Products	All	PH	Air Curtains (Oven)	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
155	NWS	Industrial	Food Products	All	PH	Insulation (Oven)	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
156	NWS	Industrial	Food Products	All	PH	Preventative Oven Maintenance	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
157	NWS	Industrial	Food Products	All	PH	Air Curtains (Dryer)	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
158	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
159	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
160	NWS	Industrial	Food Products	All	PH	Optimized Distribution System	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
161	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
162	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
163	NWS	Industrial	Food Products	All	PH	Preventative Furnace Maintenance	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
164	NWS	Industrial	Food Products	All	PH	Insulation (Furnace)	Process Heating	2015	1.3%	2034	6.0%	2034	6.0%
165	NWS	Industrial	Food Products	All	PCR	High Efficiency Chiller	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
166	NWS	Industrial	Food Products	All	PCR	Floating head pressure controls	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
167	NWS	Industrial	Food Products	All	PCR	Premium Efficiency Refrigeration Control System	Process Cooling and Refrigeration	2015	0.9%	2034	4.2%	2034	4.2%
168	NWS	Industrial	Food Products	All	PCR	Smart Defrost Controls	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
169	NWS	Industrial	Food Products	All	PCR	Doors, Covers and Curtains	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
170	NWS	Industrial	Food Products	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
171	NWS	Industrial	Food Products	All	PCR	Preventative Refrigeration/cooling System Maintenance	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
172	NWS	Industrial	Food Products	All	PCR	Optimized condenser pressure	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
173	NWS	Industrial	Food Products	All	PCR	Free-cooling	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
174	NWS	Industrial	Food Products	All	PCR	Improve Insulation of Refrigeration System	Process Cooling and Refrigeration	2015	1.3%	2034	6.0%	2034	6.0%
175	NWS	Industrial	Food Products	All	ONPU	HE Dry-Type Transformers	Other Process/Non-Process Use	2015	1.3%	2034	6.0%	2034	6.0%
176	NWS	Industrial	Food Products	All	HVAC	Air Source Heat Pump for Backup Generators	Facility HVAC	2015	0.2%	2034	0.9%	2034	0.9%
177	NWS	Industrial	Food Products	All	ONPU	High efficiency battery charger (for forklifts)	Other Process/Non-Process Use	2015	1.3%	2034	6.0%	2034	6.0%
178	NWS	Industrial	Food Products	All	HVAC	Radiant Heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
179	NWS	Industrial	Food Products	All	HVAC	High efficiency non-packaged HVAC equipment	*N/A	2015	0.0%	2034	0.0%	2015	0.0%
180	NWS	Industrial	Food Products	All	HVAC	Seasonal Temperature Settings Adjustments	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%

Industrial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	PROGRAM	PARTICIPATION HIGH CASE					
								First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)	Final Year Participation Rate (Fo)
181	NWS	Industrial	Food Products	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
182	NWS	Industrial	Food Products	All	HVAC	Ground Source Heat Pump	Facility HVAC	2015	0.0%	2034	0.0%	2034	0.0%
183	NWS	Industrial	Food Products	All	HVAC	Ventilation Heat Recovery	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%
184	NWS	Industrial	Food Products	All	HVAC	Automated Temperature Control	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
185	NWS	Industrial	Food Products	All	HVAC	Reduced Temperature Settings	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
186	NWS	Industrial	Food Products	All	HVAC	Destratification Fans	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
187	NWS	Industrial	Food Products	All	HVAC	Warehouse Loading Dock Seals	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
188	NWS	Industrial	Food Products	All	HVAC	Preventative Packaged HVAC Maintenance	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
189	NWS	Industrial	Food Products	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	*N/A	2015	0.0%	2034	0.0%	2015	0.0%
190	NWS	Industrial	Food Products	All	FL	High efficiency ballasts for lighting	Facility Lighting	2015	1.3%	2034	6.0%	2034	6.0%
191	NWS	Industrial	Food Products	All	FL	High Efficiency Light fixtures	Facility Lighting	2015	1.3%	2034	6.0%	2034	6.0%
192	NWS	Industrial	Food Products	All	FL	Efficient Lighting Design	Facility Lighting	2015	1.3%	2034	6.0%	2034	6.0%
193	NWS	Industrial	Food Products	All	FL	Lighting controls: on/off timer settings	Facility Lighting	2015	1.3%	2034	6.0%	2034	6.0%
194	NWS	Industrial	Food Products	All	FL	Lighting controls: occupancy sensors	Facility Lighting	2015	0.5%	2034	2.1%	2034	2.1%
195	NWS	Industrial	Food Products	All	HVAC	Ventilation Optimization	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
196	NWS	Industrial	Food Products	All	HVAC	Premium efficiency ventilation control with VSD	Facility HVAC	2015	1.3%	2034	6.0%	2034	6.0%
197	NWS	Industrial	Food Products	All	HVAC	Demand-Controlled Ventilation	Facility HVAC	2015	0.6%	2034	2.6%	2034	2.6%
199	NWS	Industrial	Industrial Gases	All	Total	Integrated Control System	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
200	NWS	Industrial	Industrial Gases	All	Total	Process Integration and Pinch Analysis	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
201	NWS	Industrial	Industrial Gases	All	Total	Sub-Metering	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
202	NWS	Industrial	Industrial Gases	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
203	NWS	Industrial	Industrial Gases	All	Process Heating	Water-heater right sizing and load management	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
204	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
205	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Control	Boilers	2015	0.5%	2034	3.5%	2034	3.5%
206	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Right Sizing	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
207	NWS	Industrial	Industrial Gases	All	Boilers	Condensing Boiler	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
208	NWS	Industrial	Industrial Gases	All	Boilers	Direct-Contact Hot Water Heaters	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
209	NWS	Industrial	Industrial Gases	All	Boilers	High Efficiency Burner	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
210	NWS	Industrial	Industrial Gases	All	Boilers	Instantaneous Steam Generation	Boilers	2015	0.0%	2034	0.1%	2034	0.1%
211	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Heat Recovery	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
212	NWS	Industrial	Industrial Gases	All	Boilers	Boiler combustion air preheat	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
213	NWS	Industrial	Industrial Gases	All	Boilers	Preventative Boiler Maintenance	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
214	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Water Treatment	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
215	NWS	Industrial	Industrial Gases	All	Boilers	Condensate Return	Boilers	2015	0.0%	2034	0.2%	2034	0.2%
216	NWS	Industrial	Industrial Gases	All	Boilers	Economizer	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
217	NWS	Industrial	Industrial Gases	All	Boilers	Insulation	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
218	NWS	Industrial	Industrial Gases	All	Boilers	Minimize Deaerator Vent Losses	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
219	NWS	Industrial	Industrial Gases	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
220	NWS	Industrial	Industrial Gases	All	Boilers	Steam Trap Survey and Repair	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
221	NWS	Industrial	Industrial Gases	All	Boilers	First Generation Super Boilers	*N/A	2015	0.0%	2034	0.0%	2015	0.0%
222	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
223	NWS	Industrial	Industrial Gases	All	Process Heating	Infrared Ovens	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
224	NWS	Industrial	Industrial Gases	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
225	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
226	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
227	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Process Heating	2015	0.1%	2034	0.4%	2034	0.4%
228	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
229	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
230	NWS	Industrial	Industrial Gases	All	Process Heating	Radiant Tube burners	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
231	NWS	Industrial	Industrial Gases	All	HVAC	Radiant Heaters	HVAC	2015	0.1%	2034	0.6%	2034	0.6%
232	NWS	Industrial	Industrial Gases	All	Process Heating	Solar Walls	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
233	NWS	Industrial	Industrial Gases	All	HVAC	Air Compressor Heat Recovery	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
234	NWS	Industrial	Industrial Gases	All	HVAC	Air Curtains	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
235	NWS	Industrial	Industrial Gases	All	HVAC	Destratification Fans	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
236	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Heat Recovery	HVAC	2015	0.8%	2034	6.0%	2034	6.0%
237	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Optimization	HVAC	2015	0.8%	2034	6.0%	2034	6.0%
238	NWS	Industrial	Industrial Gases	All	HVAC	Warehouse Loading Dock Seals	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
239	NWS	Industrial	Industrial Gases	All	HVAC	Automated Temperature reset Control	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
240	NWS	Industrial	Industrial Gases	All	HVAC	Reduced Temperature Settings	*N/A	2015	0.8%	2034	6.0%	2034	6.0%

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
241	NWS	Industrial	Industrial Gases	All	Total	Pollution Control Measures	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
242	NWS	Industrial	Industrial Gases	All	Process Heating	CFD Modelling	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
243	NWS	Industrial	Industrial Gases	All	Total	Energy Management	All	2015	0.1%	2034	1.0%	2034	1.0%
244	NWS	Industrial	Industrial Gases	All	Process Heating	Improved airflow in dryer windbox	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
245	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Oven Maintenance	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
246	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Furnace Maintenance	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
247	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Dryer Maintenance	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
248	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
249	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
250	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
251	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
252	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
253	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
254	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
255	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
256	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
257	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Process Heating	2015	0.1%	2034	0.4%	2034	0.4%
258	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
259	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
260	NWS	Industrial	All Other	All	Total	Integrated Control System	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
261	NWS	Industrial	All Other	All	Total	Process Integration and Pinch Analysis	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
262	NWS	Industrial	All Other	All	Total	Sub-Metering	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
263	NWS	Industrial	All Other	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
264	NWS	Industrial	All Other	All	Process Heating	Water-heater right sizing and load management	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
265	NWS	Industrial	All Other	All	Process Heating	Insulation	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
266	NWS	Industrial	All Other	All	Boilers	Blowdown Control	Boilers	2015	0.5%	2034	3.5%	2034	3.5%
267	NWS	Industrial	All Other	All	Boilers	Boiler Right Sizing	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
268	NWS	Industrial	All Other	All	Boilers	Condensing Boiler	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
269	NWS	Industrial	All Other	All	Boilers	Direct-Contact Hot Water Heaters	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
270	NWS	Industrial	All Other	All	Boilers	High Efficiency Burner	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
271	NWS	Industrial	All Other	All	Boilers	Instantaneous Steam Generation	Boilers	2015	0.0%	2034	0.1%	2034	0.1%
272	NWS	Industrial	All Other	All	Boilers	Blowdown Heat Recovery	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
273	NWS	Industrial	All Other	All	Boilers	Boiler combustion air preheat	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
274	NWS	Industrial	All Other	All	Boilers	Preventative Boiler Maintenance	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
275	NWS	Industrial	All Other	All	Boilers	Boiler Water Treatment	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
276	NWS	Industrial	All Other	All	Boilers	Condensate Return	Boilers	2015	0.0%	2034	0.2%	2034	0.2%
277	NWS	Industrial	All Other	All	Boilers	Economizer	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
278	NWS	Industrial	All Other	All	Boilers	Insulation	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
279	NWS	Industrial	All Other	All	Boilers	Minimize Deaerator Vent Losses	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
280	NWS	Industrial	All Other	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
281	NWS	Industrial	All Other	All	Boilers	Steam Trap Survey and Repair	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
282	NWS	Industrial	All Other	All	Boilers	First Generation Super Boilers	*N/A	2015	0.0%	2034	0.0%	2015	0.0%
283	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
284	NWS	Industrial	All Other	All	Process Heating	Infrared Ovens	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
285	NWS	Industrial	All Other	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
286	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
287	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
288	NWS	Industrial	All Other	All	Process Heating	Insulation	Process Heating	2015	0.1%	2034	0.4%	2034	0.4%
289	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
290	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
291	NWS	Industrial	All Other	All	Process Heating	Radiant Tube burners	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
292	NWS	Industrial	All Other	All	Process Heating	Radiant Heaters	Process Heating	2015	0.0%	2034	0.2%	2034	0.2%
293	NWS	Industrial	All Other	All	Process Heating	Solar Walls	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
294	NWS	Industrial	All Other	All	HVAC	Air Compressor Heat Recovery	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
295	NWS	Industrial	All Other	All	HVAC	Air Curtains	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
296	NWS	Industrial	All Other	All	HVAC	Destratification Fans	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
297	NWS	Industrial	All Other	All	HVAC	Ventilation Heat Recovery	HVAC	2015	0.8%	2034	6.0%	2034	6.0%
298	NWS	Industrial	All Other	All	HVAC	Ventilation Optimization	HVAC	2015	0.8%	2034	6.0%	2034	6.0%
299	NWS	Industrial	All Other	All	HVAC	Warehouse Loading Dock Seals	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
300	NWS	Industrial	All Other	All	HVAC	Automated Temperature reset Control	*N/A	2015	0.8%	2034	6.0%	2034	6.0%

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				End Use	Measure Name	PROGRAM	PARTICIPATION HIGH CASE				
		Sector	Sub-Sector	Building Type	Program Name				First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
301	NWS	Industrial	All Other	All	HVAC	Reduced Temperature Settings	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
302	NWS	Industrial	All Other	All	Process Heating	Pollution Control Measures	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
303	NWS	Industrial	All Other	All	Process Heating	CFD Modelling	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
304	NWS	Industrial	All Other	All	Total	Energy Management	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
305	NWS	Industrial	All Other	All	Process Heating	Improved airflow in dryer windbox	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
306	NWS	Industrial	All Other	All	Process Heating	Preventative Oven Maintenance	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
307	NWS	Industrial	All Other	All	Process Heating	Preventative Furnace Maintenance	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
308	NWS	Industrial	All Other	All	Process Heating	Preventative Dryer Maintenance	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
309	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
310	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
311	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
312	NWS	Industrial	All Other	All	Process Heating	Insulation	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
313	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
314	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
315	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
316	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
317	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
318	NWS	Industrial	All Other	All	Process Heating	Insulation	Process Heating	2015	0.1%	2034	0.4%	2034	0.4%
319	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
320	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
321	NWS	Industrial	Small Industrial	All	Total	Integrated Control System	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
322	NWS	Industrial	Small Industrial	All	Total	Process Integration and Pinch Analysis	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
323	NWS	Industrial	Small Industrial	All	Total	Sub-Metering	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
324	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
325	NWS	Industrial	Small Industrial	All	Process Heating	Water-heater right sizing and load management	Process Heating	2015	0.0%	2034	0.1%	2034	0.1%
326	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
327	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Control	*N/A	2015	0.0%	2034	0.0%	2015	0.0%
328	NWS	Industrial	Small Industrial	All	Boilers	Boiler Right Sizing	Boilers	2015	0.1%	2034	0.7%	2034	0.7%
329	NWS	Industrial	Small Industrial	All	Boilers	Condensing Boiler	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
330	NWS	Industrial	Small Industrial	All	Boilers	Direct-Contact Hot Water Heaters	Boilers	2015	0.1%	2034	0.4%	2034	0.4%
331	NWS	Industrial	Small Industrial	All	Boilers	High Efficiency Burner	Boilers	2015	0.0%	2034	0.1%	2034	0.1%
332	NWS	Industrial	Small Industrial	All	Boilers	Instantaneous Steam Generation	Boilers	2015	0.0%	2034	0.2%	2034	0.2%
333	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Heat Recovery	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
334	NWS	Industrial	Small Industrial	All	Boilers	Boiler combustion air preheat	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
335	NWS	Industrial	Small Industrial	All	Boilers	Preventative Boiler Maintenance	Boilers	2015	0.1%	2034	0.7%	2034	0.7%
336	NWS	Industrial	Small Industrial	All	Boilers	Boiler Water Treatment	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
337	NWS	Industrial	Small Industrial	All	Boilers	Condensate Return	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
338	NWS	Industrial	Small Industrial	All	Boilers	Economizer	Boilers	2015	0.1%	2034	0.8%	2034	0.8%
339	NWS	Industrial	Small Industrial	All	Boilers	Insulation	Boilers	2015	0.9%	2034	6.0%	2034	6.0%
340	NWS	Industrial	Small Industrial	All	Boilers	Minimize Deaerator Vent Losses	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
341	NWS	Industrial	Small Industrial	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
342	NWS	Industrial	Small Industrial	All	Boilers	Steam Trap Survey and Repair	*N/A	2015	0.9%	2034	6.0%	2034	6.0%
343	NWS	Industrial	Small Industrial	All	Boilers	First Generation Super Boilers	*N/A	2015	0.0%	2034	0.0%	2015	0.0%
344	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.1%	2034	1.0%	2034	1.0%
345	NWS	Industrial	Small Industrial	All	Process Heating	Infrared Ovens	Process Heating	2015	0.2%	2034	1.1%	2034	1.1%
346	NWS	Industrial	Small Industrial	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
347	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
348	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.2%	2034	0.2%
349	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
350	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
351	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
352	NWS	Industrial	Small Industrial	All	Process Heating	Radiant Tube burners	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
353	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	HVAC	2015	0.0%	2034	0.0%	2034	0.0%
354	NWS	Industrial	Small Industrial	All	Process Heating	Solar Walls	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
355	NWS	Industrial	Small Industrial	All	HVAC	Air Compressor Heat Recovery	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
356	NWS	Industrial	Small Industrial	All	HVAC	Air Curtains	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
357	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
358	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	HVAC	2015	0.0%	2034	0.2%	2034	0.2%
359	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	HVAC	2015	0.0%	2034	0.3%	2034	0.3%
360	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	*N/A	2015	0.8%	2034	6.0%	2034	6.0%

Industrial Measures

MEASURE DESCRIPTION						PROGRAM	PARTICIPATION HIGH CASE						
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
361	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature reset Control	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
362	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	*N/A	2015	0.8%	2034	6.0%	2034	6.0%
363	NWS	Industrial	Small Industrial	All	Total	Pollution Control Measures	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
364	NWS	Industrial	Small Industrial	All	Process Heating	CFD Modelling	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
365	NWS	Industrial	Small Industrial	All	Total	Energy Management	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
366	NWS	Industrial	Small Industrial	All	Process Heating	Improved airflow in dryer windbox	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
367	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Oven Maintenance	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
368	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Furnace Maintenance	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
369	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Dryer Maintenance	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
370	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
371	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
372	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
373	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
374	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
375	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
376	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.1%	2034	1.0%	2034	1.0%
377	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
378	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.2%	2034	0.2%
379	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
380	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	2015	0.2%	2034	1.5%	2034	1.5%
381	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	2015	0.2%	2034	1.5%	2034	1.5%

Industrial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	PROGRAM	PARTICIPATION HIGH CASE					
								First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
1	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Operations and maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
2	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Match Motor Size to Load	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
3	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Motor Efficiency Upgrade	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
4	NWS	Industrial	Small Industrial	All	Motors - Other Applications	Variable Speed Drives	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
5	NWS	Industrial	Small Industrial	All	Pumps	Reduce Overall System Requirements	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
6	NWS	Industrial	Small Industrial	All	Pumps	Match Pump Size to Load	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
7	NWS	Industrial	Small Industrial	All	Pumps	Reduce or Control Pump Speed	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
8	NWS	Industrial	Small Industrial	All	Pumps	Improve Pump Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
9	NWS	Industrial	Small Industrial	All	Pumps	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
10	NWS	Industrial	Small Industrial	All	Compressed Air	Reduce Overall System Requirements	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
11	NWS	Industrial	Small Industrial	All	Compressed Air	Match Compressor Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
12	NWS	Industrial	Small Industrial	All	Compressed Air	Compressor Control	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
13	NWS	Industrial	Small Industrial	All	Compressed Air	Improve Compressor Components	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
14	NWS	Industrial	Small Industrial	All	Compressed Air	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%
15	NWS	Industrial	Small Industrial	All	Fans	Reduce Overall System Requirements	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
16	NWS	Industrial	Small Industrial	All	Fans	Reduce or Control Fan Speed	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
17	NWS	Industrial	Small Industrial	All	Fans	Improve Fan Components	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
18	NWS	Industrial	Small Industrial	All	Fans	Operation and Maintenance	Machine Drive	2015	0.0%	2034	1.5%	2015	0.0%
19	NWS	Industrial	Small Industrial	All	PH	Advanced water heater controls	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
20	NWS	Industrial	Small Industrial	All	PH	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
21	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Oven)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
22	NWS	Industrial	Small Industrial	All	PH	Insulation (Oven)	Process Heating	2015	0.3%	2034	1.5%	2034	1.5%
23	NWS	Industrial	Small Industrial	All	PH	Preventative Oven Maintenance	Process Heating	2015	0.3%	2034	1.5%	2034	1.5%
24	NWS	Industrial	Small Industrial	All	PH	Air Curtains (Dryer)	Process Heating	2015	0.3%	2034	1.5%	2034	1.5%
25	NWS	Industrial	Small Industrial	All	PH	Insulation (Dryer)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
26	NWS	Industrial	Small Industrial	All	PH	Preventative Dryer Maintenance	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
27	NWS	Industrial	Small Industrial	All	PH	Preventative Furnace Maintenance	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
28	NWS	Industrial	Small Industrial	All	PH	Insulation (Furnace)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
29	NWS	Industrial	Small Industrial	All	PH	Preventative Kiln Maintenance	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
30	NWS	Industrial	Small Industrial	All	PH	Insulation (Kiln)	Process Heating	2015	0.0%	2034	1.5%	2015	0.0%
31	NWS	Industrial	Small Industrial	All	PCR	High Efficiency Chiller	Process Cooling and Refrigeration	2015	0.0%	2034	0.7%	2015	0.0%
32	NWS	Industrial	Small Industrial	All	PCR	Optimized Distribution System	Process Cooling and Refrigeration	2015	0.3%	2034	1.5%	2034	1.5%
33	NWS	Industrial	Small Industrial	All	PCR	Floating head pressure controls	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
34	NWS	Industrial	Small Industrial	All	PCR	Premium efficiency refrigeration control system	Process Cooling and Refrigeration	2015	0.0%	2034	0.4%	2015	0.0%
35	NWS	Industrial	Small Industrial	All	PCR	Smart Defrost Controls	Process Cooling and Refrigeration	2015	0.3%	2034	1.5%	2034	1.5%
36	NWS	Industrial	Small Industrial	All	PCR	Doors, Covers and Curtains	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
37	NWS	Industrial	Small Industrial	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
38	NWS	Industrial	Small Industrial	All	PCR	Preventative refrigeration/cooling system maintenance	Process Cooling and Refrigeration	2015	0.3%	2034	1.5%	2034	1.5%
39	NWS	Industrial	Small Industrial	All	PCR	Optimized condenser pressure	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
40	NWS	Industrial	Small Industrial	All	PCR	VSD on chiller compressor	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
41	NWS	Industrial	Small Industrial	All	PCR	Free-cooling	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
42	NWS	Industrial	Small Industrial	All	PCR	Improve insulation of refrigeration system	Process Cooling and Refrigeration	2015	0.0%	2034	1.5%	2015	0.0%
43	NWS	Industrial	Small Industrial	All	HVAC	Optimized duct design to improve efficiency	Facility HVAC	2015	0.0%	2034	0.8%	2015	0.0%
44	NWS	Industrial	Small Industrial	All	HVAC	Air Source Heat Pump for Backup Generators	Facility HVAC	2015	0.0%	2034	0.0%	2034	0.0%
45	NWS	Industrial	Small Industrial	All	ONPU	High efficiency battery charger (for forklifts)	Other Process/Non-Process Use	2015	0.0%	2034	1.5%	2015	0.0%
46	NWS	Industrial	Small Industrial	All	ONPU	HE Dry-Type Transformers	Other Process/Non-Process Use	2015	0.0%	2034	1.5%	2015	0.0%
47	NWS	Industrial	Small Industrial	All	HVAC	Free cooling	Facility HVAC	2015	0.3%	2034	1.5%	2034	1.5%
48	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
49	NWS	Industrial	Small Industrial	All	HVAC	High efficiency non-packaged HVAC equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
50	NWS	Industrial	Small Industrial	All	HVAC	Seasonal Temperature Settings Adjustments	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
51	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
52	NWS	Industrial	Small Industrial	All	HVAC	Ground Source Heat Pump	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%
53	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
54	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature Control	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
55	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
56	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
57	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
58	NWS	Industrial	Small Industrial	All	HVAC	Preventative Packaged HVAC Maintenance	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%
59	NWS	Industrial	Small Industrial	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
60	NWS	Industrial	Small Industrial	All	FL	High efficiency ballasts for lighting	Facility Lighting	2015	0.0%	2034	1.5%	2015	0.0%



Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				End Use	Measure Name	PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type					First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
61	NWS	Industrial	Small Industrial	All	FL	High Efficiency Light fixtures	Facility Lighting	2015	0.0%	2034	1.0%	2015	0.0%	
62	NWS	Industrial	Small Industrial	All	FL	Efficient Lighting Design	Facility Lighting	2015	0.0%	2034	1.5%	2015	0.0%	
63	NWS	Industrial	Small Industrial	All	FL	Lighting controls: on/off timer settings	Facility Lighting	2015	0.0%	2034	1.5%	2015	0.0%	
64	NWS	Industrial	Small Industrial	All	FL	Lighting controls: occupancy sensors	Facility Lighting	2015	0.0%	2034	0.1%	2015	0.0%	
65	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	Facility HVAC	2015	0.2%	2034	0.8%	2034	0.8%	
66	NWS	Industrial	Small Industrial	All	HVAC	Premium efficiency ventilation control with VSD	Facility HVAC	2015	0.0%	2034	1.5%	2015	0.0%	
67	NWS	Industrial	Small Industrial	All	HVAC	Demand-Controlled Ventilation	Facility HVAC	2015	0.0%	2034	0.2%	2015	0.0%	
68	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Operations and maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
69	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Match Motor Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
70	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Motor Efficiency Upgrade	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
71	NWS	Industrial	Other - Combined	All	Motors - Other Applications	Variable Speed Drives	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
72	NWS	Industrial	Other - Combined	All	Pumps	Reduce Overall System Requirements	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
73	NWS	Industrial	Other - Combined	All	Pumps	Match Pump Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
74	NWS	Industrial	Other - Combined	All	Pumps	Reduce or Control Pump Speed	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
75	NWS	Industrial	Other - Combined	All	Pumps	Improve Pump Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
76	NWS	Industrial	Other - Combined	All	Pumps	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
77	NWS	Industrial	Other - Combined	All	Compressed Air	Reduce Overall System Requirements	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
78	NWS	Industrial	Other - Combined	All	Compressed Air	Match Compressor Size to Load	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
79	NWS	Industrial	Other - Combined	All	Compressed Air	Compressor Control	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
80	NWS	Industrial	Other - Combined	All	Compressed Air	Improve Compressor Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
81	NWS	Industrial	Other - Combined	All	Compressed Air	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
82	NWS	Industrial	Other - Combined	All	Fans	Reduce Overall System Requirements	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
83	NWS	Industrial	Other - Combined	All	Fans	Reduce or Control Fan Speed	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
84	NWS	Industrial	Other - Combined	All	Fans	Improve Fan Components	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
85	NWS	Industrial	Other - Combined	All	Fans	Operation and Maintenance	Machine Drive	2015	0.3%	2034	1.5%	2034	1.5%	
86	NWS	Industrial	Other - Combined	All	HVAC	Optimized Duct Design to Improve Efficiency	Facility HVAC	2015	0.3%	2034	1.4%	2034	1.4%	
87	NWS	Industrial	Other - Combined	All	PH	Advanced Water Heater Controls	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
88	NWS	Industrial	Other - Combined	All	PH	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
89	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Oven)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
90	NWS	Industrial	Other - Combined	All	PH	Insulation (Oven)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
91	NWS	Industrial	Other - Combined	All	PH	Preventative Oven Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
92	NWS	Industrial	Other - Combined	All	PH	Air Curtains (Dryer)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
93	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
94	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
95	NWS	Industrial	Other - Combined	All	PH	Optimized Distribution System	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
96	NWS	Industrial	Other - Combined	All	PH	Insulation (Dryer)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
97	NWS	Industrial	Other - Combined	All	PH	Preventative Dryer Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
98	NWS	Industrial	Other - Combined	All	PH	Preventative Furnace Maintenance	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
99	NWS	Industrial	Other - Combined	All	PH	Insulation (Furnace)	Process Heating	2015	0.0%	2034	6.0%	2015	0.0%	
100	NWS	Industrial	Other - Combined	All	PCR	High Efficiency Chiller	Process Cooling and Refrigeration	2015	1.0%	2034	5.0%	2034	5.0%	
101	NWS	Industrial	Other - Combined	All	PCR	Floating head pressure controls	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%	
102	NWS	Industrial	Other - Combined	All	PCR	Premium Efficiency Refrigeration Control System	Process Cooling and Refrigeration	2015	0.0%	2034	3.3%	2015	0.0%	
103	NWS	Industrial	Other - Combined	All	PCR	Smart Defrost Controls	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%	
104	NWS	Industrial	Other - Combined	All	PCR	Doors, Covers and Curtains	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%	
105	NWS	Industrial	Other - Combined	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%	
106	NWS	Industrial	Other - Combined	All	PCR	Preventative Refrigeration/cooling System Maintenance	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%	
107	NWS	Industrial	Other - Combined	All	PCR	Optimized condenser pressure	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%	
108	NWS	Industrial	Other - Combined	All	PCR	Free-cooling	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%	
109	NWS	Industrial	Other - Combined	All	PCR	Improve Insulation of Refrigeration System	Process Cooling and Refrigeration	2015	0.0%	2034	6.0%	2015	0.0%	
110	NWS	Industrial	Other - Combined	All	ONPU	HE Dry-Type Transformers	Other Process/Non-Process Use	2015	0.0%	2034	6.0%	2015	0.0%	
111	NWS	Industrial	Other - Combined	All	HVAC	Air Source Heat Pump for Backup Generators	Facility HVAC	2015	0.0%	2034	0.7%	2015	0.0%	
112	NWS	Industrial	Other - Combined	All	ONPU	High efficiency battery charger (for forklifts)	Other Process/Non-Process Use	2015	0.0%	2034	6.0%	2015	0.0%	
113	NWS	Industrial	Other - Combined	All	HVAC	Radiant Heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
114	NWS	Industrial	Other - Combined	All	HVAC	High efficiency non-packaged HVAC equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
115	NWS	Industrial	Other - Combined	All	HVAC	Seasonal Temperature Settings Adjustments	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%	
116	NWS	Industrial	Other - Combined	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%	
117	NWS	Industrial	Other - Combined	All	HVAC	Ground Source Heat Pump	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%	
118	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Heat Recovery	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%	
119	NWS	Industrial	Other - Combined	All	HVAC	Automated Temperature Control	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%	
120	NWS	Industrial	Other - Combined	All	HVAC	Reduced Temperature Settings	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%	

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				End Use	Measure Name	PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type					First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
121	NWS	Industrial	Other - Combined	All	HVAC	Destratification Fans	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%	
122	NWS	Industrial	Other - Combined	All	HVAC	Warehouse Loading Dock Seals	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%	
123	NWS	Industrial	Other - Combined	All	HVAC	Preventative Packaged HVAC Maintenance	Facility HVAC	2015	0.0%	2034	6.0%	2015	0.0%	
124	NWS	Industrial	Other - Combined	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
125	NWS	Industrial	Other - Combined	All	FL	High efficiency ballasts for lighting	Facility Lighting	2015	0.0%	2034	6.0%	2015	0.0%	
126	NWS	Industrial	Other - Combined	All	FL	High Efficiency Light fixtures	Facility Lighting	2015	1.2%	2034	6.0%	2034	6.0%	
127	NWS	Industrial	Other - Combined	All	FL	Efficient Lighting Design	Facility Lighting	2015	0.0%	2034	6.0%	2015	0.0%	
128	NWS	Industrial	Other - Combined	All	FL	Lighting controls: on/off timer settings	Facility Lighting	2015	1.2%	2034	6.0%	2034	6.0%	
129	NWS	Industrial	Other - Combined	All	FL	Lighting controls: occupancy sensors	Facility Lighting	2015	0.3%	2034	1.7%	2034	1.7%	
130	NWS	Industrial	Other - Combined	All	HVAC	Ventilation Optimization	Facility HVAC	2015	1.1%	2034	5.6%	2034	5.6%	
131	NWS	Industrial	Other - Combined	All	HVAC	Premium efficiency ventilation control with VSD	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%	
132	NWS	Industrial	Other - Combined	All	HVAC	Demand-Controlled Ventilation	Facility HVAC	2015	0.4%	2034	2.0%	2034	2.0%	
133	NWS	Industrial	Food Products	All	Motors - Other Applications	Operations and maintenance	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
134	NWS	Industrial	Food Products	All	Motors - Other Applications	Match Motor Size to Load	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
135	NWS	Industrial	Food Products	All	Motors - Other Applications	Motor Efficiency Upgrade	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
136	NWS	Industrial	Food Products	All	Motors - Other Applications	Variable Speed Drives	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
137	NWS	Industrial	Food Products	All	Pumps	Reduce Overall System Requirements	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
138	NWS	Industrial	Food Products	All	Pumps	Match Pump Size to Load	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
139	NWS	Industrial	Food Products	All	Pumps	Reduce or Control Pump Speed	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
140	NWS	Industrial	Food Products	All	Pumps	Improve Pump Components	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
141	NWS	Industrial	Food Products	All	Pumps	Operation and Maintenance	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
142	NWS	Industrial	Food Products	All	Compressed Air	Reduce Overall System Requirements	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
143	NWS	Industrial	Food Products	All	Compressed Air	Match Compressor Size to Load	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
144	NWS	Industrial	Food Products	All	Compressed Air	Compressor Control	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
145	NWS	Industrial	Food Products	All	Compressed Air	Improve Compressor Components	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
146	NWS	Industrial	Food Products	All	Compressed Air	Operation and Maintenance	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
147	NWS	Industrial	Food Products	All	Fans	Reduce Overall System Requirements	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
148	NWS	Industrial	Food Products	All	Fans	Reduce or Control Fan Speed	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
149	NWS	Industrial	Food Products	All	Fans	Improve Fan Components	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
150	NWS	Industrial	Food Products	All	Fans	Operation and Maintenance	Machine Drive	2015	1.4%	2034	7.0%	2034	7.0%	
151	NWS	Industrial	Food Products	All	HVAC	Optimized Duct Design to Improve Efficiency	Facility HVAC	2015	1.1%	2034	5.6%	2034	5.6%	
152	NWS	Industrial	Food Products	All	PH	Advanced Water Heater Controls	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
153	NWS	Industrial	Food Products	All	PH	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
154	NWS	Industrial	Food Products	All	PH	Air Curtains (Oven)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
155	NWS	Industrial	Food Products	All	PH	Insulation (Oven)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
156	NWS	Industrial	Food Products	All	PH	Preventative Oven Maintenance	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
157	NWS	Industrial	Food Products	All	PH	Air Curtains (Dryer)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
158	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
159	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
160	NWS	Industrial	Food Products	All	PH	Optimized Distribution System	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
161	NWS	Industrial	Food Products	All	PH	Insulation (Dryer)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
162	NWS	Industrial	Food Products	All	PH	Preventative Dryer Maintenance	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
163	NWS	Industrial	Food Products	All	PH	Preventative Furnace Maintenance	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
164	NWS	Industrial	Food Products	All	PH	Insulation (Furnace)	Process Heating	2015	1.2%	2034	6.0%	2034	6.0%	
165	NWS	Industrial	Food Products	All	PCR	High Efficiency Chiller	Process Cooling and Refrigeration	2015	1.0%	2034	5.0%	2034	5.0%	
166	NWS	Industrial	Food Products	All	PCR	Floating head pressure controls	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%	
167	NWS	Industrial	Food Products	All	PCR	Premium Efficiency Refrigeration Control System	Process Cooling and Refrigeration	2015	0.7%	2034	3.3%	2034	3.3%	
168	NWS	Industrial	Food Products	All	PCR	Smart Defrost Controls	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%	
169	NWS	Industrial	Food Products	All	PCR	Doors, Covers and Curtains	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%	
170	NWS	Industrial	Food Products	All	PCR	Optimized chilled water temperature and/or optimized condenser temperature	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%	
171	NWS	Industrial	Food Products	All	PCR	Preventative Refrigeration/cooling System Maintenance	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%	
172	NWS	Industrial	Food Products	All	PCR	Optimized condenser pressure	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%	
173	NWS	Industrial	Food Products	All	PCR	Free-cooling	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%	
174	NWS	Industrial	Food Products	All	PCR	Improve Insulation of Refrigeration System	Process Cooling and Refrigeration	2015	1.2%	2034	6.0%	2034	6.0%	
175	NWS	Industrial	Food Products	All	ONPU	HE Dry-Type Transformers	Other Process/Non-Process Use	2015	1.2%	2034	6.0%	2034	6.0%	
176	NWS	Industrial	Food Products	All	HVAC	Air Source Heat Pump for Backup Generators	Facility HVAC	2015	0.1%	2034	0.7%	2034	0.7%	
177	NWS	Industrial	Food Products	All	ONPU	High efficiency battery charger (for forklifts)	Other Process/Non-Process Use	2015	1.2%	2034	6.0%	2034	6.0%	
178	NWS	Industrial	Food Products	All	HVAC	Radiant Heaters	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A		
179	NWS	Industrial	Food Products	All	HVAC	High efficiency non-packaged HVAC equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A		
180	NWS	Industrial	Food Products	All	HVAC	Seasonal Temperature Settings Adjustments	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%	

Industrial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Program Name	PARTICIPATION HIGH CASE					
								First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
181	NWS	Industrial	Food Products	All	HVAC	High-efficiency rooftop AC with an EER of 13.5	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
182	NWS	Industrial	Food Products	All	HVAC	Ground Source Heat Pump	Facility HVAC	2015	0.0%	2034	0.0%	2034	0.0%
183	NWS	Industrial	Food Products	All	HVAC	Ventilation Heat Recovery	Facility HVAC	2015	0.0%	2034	0.0%	2015	0.0%
184	NWS	Industrial	Food Products	All	HVAC	Automated Temperature Control	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
185	NWS	Industrial	Food Products	All	HVAC	Reduced Temperature Settings	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
186	NWS	Industrial	Food Products	All	HVAC	Destratification Fans	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
187	NWS	Industrial	Food Products	All	HVAC	Warehouse Loading Dock Seals	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
188	NWS	Industrial	Food Products	All	HVAC	Preventative Packaged HVAC Maintenance	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
189	NWS	Industrial	Food Products	All	HVAC	Heat Recovery from Processes to Heat Ventilation Make-up Air	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
190	NWS	Industrial	Food Products	All	FL	High efficiency ballasts for lighting	Facility Lighting	2015	1.2%	2034	6.0%	2034	6.0%
191	NWS	Industrial	Food Products	All	FL	High Efficiency Light fixtures	Facility Lighting	2015	1.2%	2034	6.0%	2034	6.0%
192	NWS	Industrial	Food Products	All	FL	Efficient Lighting Design	Facility Lighting	2015	1.2%	2034	6.0%	2034	6.0%
193	NWS	Industrial	Food Products	All	FL	Lighting controls: on/off timer settings	Facility Lighting	2015	1.2%	2034	6.0%	2034	6.0%
194	NWS	Industrial	Food Products	All	FL	Lighting controls: occupancy sensors	Facility Lighting	2015	0.3%	2034	1.7%	2034	1.7%
195	NWS	Industrial	Food Products	All	HVAC	Ventilation Optimization	Facility HVAC	2015	1.1%	2034	5.6%	2034	5.6%
196	NWS	Industrial	Food Products	All	HVAC	Premium efficiency ventilation control with VSD	Facility HVAC	2015	1.2%	2034	6.0%	2034	6.0%
197	NWS	Industrial	Food Products	All	HVAC	Demand-Controlled Ventilation	Facility HVAC	2015	0.4%	2034	2.0%	2034	2.0%
199	NWS	Industrial	Industrial Gases	All	Total	Integrated Control System	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
200	NWS	Industrial	Industrial Gases	All	Total	Process Integration and Pinch Analysis	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
201	NWS	Industrial	Industrial Gases	All	Total	Sub-Metering	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
202	NWS	Industrial	Industrial Gases	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
203	NWS	Industrial	Industrial Gases	All	Process Heating	Water-heater right sizing and load management	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
204	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
205	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Control	Boilers	2015	0.1%	2034	0.9%	2034	0.9%
206	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Right Sizing	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
207	NWS	Industrial	Industrial Gases	All	Boilers	Condensing Boiler	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
208	NWS	Industrial	Industrial Gases	All	Boilers	Direct-Contact Hot Water Heaters	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
209	NWS	Industrial	Industrial Gases	All	Boilers	High Efficiency Burner	Boilers	2015	0.5%	2034	3.7%	2034	3.7%
210	NWS	Industrial	Industrial Gases	All	Boilers	Instantaneous Steam Generation	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
211	NWS	Industrial	Industrial Gases	All	Boilers	Blowdown Heat Recovery	Boilers	2015	0.2%	2034	1.7%	2034	1.7%
212	NWS	Industrial	Industrial Gases	All	Boilers	Boiler combustion air preheat	Boilers	2015	0.2%	2034	1.8%	2034	1.8%
213	NWS	Industrial	Industrial Gases	All	Boilers	Preventative Boiler Maintenance	Boilers	2015	0.8%	2034	6.0%	2034	6.0%
214	NWS	Industrial	Industrial Gases	All	Boilers	Boiler Water Treatment	Boilers	2015	0.8%	2034	6.0%	2034	6.0%
215	NWS	Industrial	Industrial Gases	All	Boilers	Condensate Return	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
216	NWS	Industrial	Industrial Gases	All	Boilers	Economizer	Boilers	2015	0.4%	2034	3.0%	2034	3.0%
217	NWS	Industrial	Industrial Gases	All	Boilers	Insulation	Boilers	2015	0.8%	2034	6.0%	2034	6.0%
218	NWS	Industrial	Industrial Gases	All	Boilers	Minimize Deaerator Vent Losses	Boilers	2015	0.7%	2034	5.2%	2034	5.2%
219	NWS	Industrial	Industrial Gases	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Boilers	2015	0.8%	2034	6.0%	2034	6.0%
220	NWS	Industrial	Industrial Gases	All	Boilers	Steam Trap Survey and Repair	Boilers	2015	0.8%	2034	6.0%	2034	6.0%
221	NWS	Industrial	Industrial Gases	All	Boilers	First Generation Super Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
222	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
223	NWS	Industrial	Industrial Gases	All	Process Heating	Infrared Ovens	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
224	NWS	Industrial	Industrial Gases	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
225	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
226	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
227	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Process Heating	2015	0.0%	2034	0.1%	2034	0.1%
228	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
229	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
230	NWS	Industrial	Industrial Gases	All	Process Heating	Radiant Tube burners	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
231	NWS	Industrial	Industrial Gases	All	HVAC	Radiant Heaters	HVAC	2015	0.0%	2034	0.2%	2034	0.2%
232	NWS	Industrial	Industrial Gases	All	Process Heating	Solar Walls	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
233	NWS	Industrial	Industrial Gases	All	HVAC	Air Compressor Heat Recovery	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
234	NWS	Industrial	Industrial Gases	All	HVAC	Air Curtains	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
235	NWS	Industrial	Industrial Gases	All	HVAC	Destratification Fans	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
236	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Heat Recovery	HVAC	2015	0.5%	2034	3.8%	2034	3.8%
237	NWS	Industrial	Industrial Gases	All	HVAC	Ventilation Optimization	HVAC	2015	0.6%	2034	4.3%	2034	4.3%
238	NWS	Industrial	Industrial Gases	All	HVAC	Warehouse Loading Dock Seals	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
239	NWS	Industrial	Industrial Gases	All	HVAC	Automated Temperature reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
240	NWS	Industrial	Industrial Gases	All	HVAC	Reduced Temperature Settings	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				End Use	Measure Name	PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type					Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
241	NWS	Industrial	Industrial Gases	All	Total	Pollution Control Measures	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A
242	NWS	Industrial	Industrial Gases	All	Process Heating	CFD Modelling	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
243	NWS	Industrial	Industrial Gases	All	Total	Energy Management	All	2015	0.1%	2034	1.0%	2034	1.0%	
244	NWS	Industrial	Industrial Gases	All	Process Heating	Improved airflow in dryer windbox	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
245	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Oven Maintenance	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
246	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Furnace Maintenance	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
247	NWS	Industrial	Industrial Gases	All	Process Heating	Preventative Dryer Maintenance	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
248	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
249	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
250	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
251	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
252	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
253	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
254	NWS	Industrial	Industrial Gases	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
255	NWS	Industrial	Industrial Gases	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
256	NWS	Industrial	Industrial Gases	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
257	NWS	Industrial	Industrial Gases	All	Process Heating	Insulation	Process Heating	2015	0.0%	2034	0.1%	2034	0.1%	
258	NWS	Industrial	Industrial Gases	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
259	NWS	Industrial	Industrial Gases	All	Process Heating	Combustion Optimization	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
260	NWS	Industrial	All Other	All	Total	Integrated Control System	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
261	NWS	Industrial	All Other	All	Total	Process Integration and Pinch Analysis	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
262	NWS	Industrial	All Other	All	Total	Sub-Metering	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
263	NWS	Industrial	All Other	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
264	NWS	Industrial	All Other	All	Process Heating	Water-heater right sizing and load management	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
265	NWS	Industrial	All Other	All	Process Heating	Insulation	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
266	NWS	Industrial	All Other	All	Boilers	Blowdown Control	Boilers	2015	0.1%	2034	0.9%	2034	0.9%	
267	NWS	Industrial	All Other	All	Boilers	Boiler Right Sizing	Boilers	2015	0.0%	2034	0.0%	2015	0.0%	
268	NWS	Industrial	All Other	All	Boilers	Condensing Boiler	Boilers	2015	0.0%	2034	0.0%	2015	0.0%	
269	NWS	Industrial	All Other	All	Boilers	Direct-Contact Hot Water Heaters	Boilers	2015	0.0%	2034	0.0%	2015	0.0%	
270	NWS	Industrial	All Other	All	Boilers	High Efficiency Burner	Boilers	2015	0.5%	2034	3.7%	2034	3.7%	
271	NWS	Industrial	All Other	All	Boilers	Instantaneous Steam Generation	Boilers	2015	0.0%	2034	0.0%	2034	0.0%	
272	NWS	Industrial	All Other	All	Boilers	Blowdown Heat Recovery	Boilers	2015	0.2%	2034	1.7%	2034	1.7%	
273	NWS	Industrial	All Other	All	Boilers	Boiler combustion air preheat	Boilers	2015	0.2%	2034	1.8%	2034	1.8%	
274	NWS	Industrial	All Other	All	Boilers	Preventative Boiler Maintenance	Boilers	2015	0.8%	2034	6.0%	2034	6.0%	
275	NWS	Industrial	All Other	All	Boilers	Boiler Water Treatment	Boilers	2015	0.8%	2034	6.0%	2034	6.0%	
276	NWS	Industrial	All Other	All	Boilers	Condensate Return	Boilers	2015	0.0%	2034	0.0%	2034	0.0%	
277	NWS	Industrial	All Other	All	Boilers	Economizer	Boilers	2015	0.4%	2034	3.0%	2034	3.0%	
278	NWS	Industrial	All Other	All	Boilers	Insulation	Boilers	2015	0.8%	2034	6.0%	2034	6.0%	
279	NWS	Industrial	All Other	All	Boilers	Minimize Deaerator Vent Losses	Boilers	2015	0.7%	2034	5.2%	2034	5.2%	
280	NWS	Industrial	All Other	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Boilers	2015	0.8%	2034	6.0%	2034	6.0%	
281	NWS	Industrial	All Other	All	Boilers	Steam Trap Survey and Repair	Boilers	2015	0.8%	2034	6.0%	2034	6.0%	
282	NWS	Industrial	All Other	All	Boilers	First Generation Super Boilers	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
283	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
284	NWS	Industrial	All Other	All	Process Heating	Infrared Ovens	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
285	NWS	Industrial	All Other	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
286	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%	
287	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
288	NWS	Industrial	All Other	All	Process Heating	Insulation	Process Heating	2015	0.0%	2034	0.1%	2034	0.1%	
289	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%	
290	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
291	NWS	Industrial	All Other	All	Process Heating	Radiant Tube burners	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
292	NWS	Industrial	All Other	All	Process Heating	Radiant Heaters	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%	
293	NWS	Industrial	All Other	All	Process Heating	Solar Walls	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
294	NWS	Industrial	All Other	All	HVAC	Air Compressor Heat Recovery	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
295	NWS	Industrial	All Other	All	HVAC	Air Curtains	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
296	NWS	Industrial	All Other	All	HVAC	Destratification Fans	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
297	NWS	Industrial	All Other	All	HVAC	Ventilation Heat Recovery	HVAC	2015	0.5%	2034	3.8%	2034	3.8%	
298	NWS	Industrial	All Other	All	HVAC	Ventilation Optimization	HVAC	2015	0.6%	2034	4.3%	2034	4.3%	
299	NWS	Industrial	All Other	All	HVAC	Warehouse Loading Dock Seals	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	
300	NWS	Industrial	All Other	All	HVAC	Automated Temperature reset Control	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	"N/A	

Industrial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
301	NWS	Industrial	All Other	All	HVAC	Reduced Temperature Settings	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
302	NWS	Industrial	All Other	All	Process Heating	Pollution Control Measures	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
303	NWS	Industrial	All Other	All	Process Heating	CFD Modelling	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
304	NWS	Industrial	All Other	All	Total	Energy Management	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
305	NWS	Industrial	All Other	All	Process Heating	Improved airflow in dryer windbox	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
306	NWS	Industrial	All Other	All	Process Heating	Preventative Oven Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
307	NWS	Industrial	All Other	All	Process Heating	Preventative Furnace Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
308	NWS	Industrial	All Other	All	Process Heating	Preventative Dryer Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
309	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
310	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
311	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
312	NWS	Industrial	All Other	All	Process Heating	Insulation	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
313	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
314	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
315	NWS	Industrial	All Other	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
316	NWS	Industrial	All Other	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
317	NWS	Industrial	All Other	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
318	NWS	Industrial	All Other	All	Process Heating	Insulation	Process Heating	2015	0.0%	2034	0.1%	2034	0.1%
319	NWS	Industrial	All Other	All	Process Heating	Advanced heating and Process Control	Process Heating	2015	0.0%	2034	0.0%	2015	0.0%
320	NWS	Industrial	All Other	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
321	NWS	Industrial	Small Industrial	All	Total	Integrated Control System	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
322	NWS	Industrial	Small Industrial	All	Total	Process Integration and Pinch Analysis	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
323	NWS	Industrial	Small Industrial	All	Total	Sub-Metering	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
324	NWS	Industrial	Small Industrial	All	HVAC	High-efficiency rooftop AC with an EER of 13.13	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
325	NWS	Industrial	Small Industrial	All	Process Heating	Water-heater right sizing and load management	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
326	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	Process Heating	2015	0.1%	2034	0.6%	2034	0.6%
327	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
328	NWS	Industrial	Small Industrial	All	Boilers	Boiler Right Sizing	Boilers	2015	0.0%	2034	0.2%	2034	0.2%
329	NWS	Industrial	Small Industrial	All	Boilers	Condensing Boiler	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
330	NWS	Industrial	Small Industrial	All	Boilers	Direct-Contact Hot Water Heaters	Boilers	2015	0.0%	2034	0.1%	2034	0.1%
331	NWS	Industrial	Small Industrial	All	Boilers	High Efficiency Burner	Boilers	2015	0.0%	2034	0.0%	2034	0.0%
332	NWS	Industrial	Small Industrial	All	Boilers	Instantaneous Steam Generation	Boilers	2015	0.0%	2034	0.1%	2034	0.1%
333	NWS	Industrial	Small Industrial	All	Boilers	Blowdown Heat Recovery	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
334	NWS	Industrial	Small Industrial	All	Boilers	Boiler combustion air preheat	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
335	NWS	Industrial	Small Industrial	All	Boilers	Preventative Boiler Maintenance	Boilers	2015	0.0%	2034	0.2%	2034	0.2%
336	NWS	Industrial	Small Industrial	All	Boilers	Boiler Water Treatment	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
337	NWS	Industrial	Small Industrial	All	Boilers	Condensate Return	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
338	NWS	Industrial	Small Industrial	All	Boilers	Economizer	Boilers	2015	0.0%	2034	0.2%	2034	0.2%
339	NWS	Industrial	Small Industrial	All	Boilers	Insulation	Boilers	2015	0.4%	2034	3.1%	2034	3.1%
340	NWS	Industrial	Small Industrial	All	Boilers	Minimize Deaerator Vent Losses	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
341	NWS	Industrial	Small Industrial	All	Boilers	Process Heat Recovery to Preheat Makeup Water	Boilers	2015	0.0%	2034	0.0%	2015	0.0%
342	NWS	Industrial	Small Industrial	All	Boilers	Steam Trap Survey and Repair	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
343	NWS	Industrial	Small Industrial	All	Boilers	First Generation Super Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
344	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.3%	2034	0.3%
345	NWS	Industrial	Small Industrial	All	Process Heating	Infrared Ovens	Process Heating	2015	0.0%	2034	0.3%	2034	0.3%
346	NWS	Industrial	Small Industrial	All	Process Heating	Process Heat Recovery to Preheat Makeup Water	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
347	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Process Heating	2015	0.1%	2034	1.0%	2034	1.0%
348	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
349	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
350	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
351	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
352	NWS	Industrial	Small Industrial	All	Process Heating	Radiant Tube burners	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
353	NWS	Industrial	Small Industrial	All	HVAC	Radiant Heaters	HVAC	2015	0.0%	2034	0.0%	#N/A	#N/A
354	NWS	Industrial	Small Industrial	All	Process Heating	Solar Walls	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
355	NWS	Industrial	Small Industrial	All	HVAC	Air Compressor Heat Recovery	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
356	NWS	Industrial	Small Industrial	All	HVAC	Air Curtains	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
357	NWS	Industrial	Small Industrial	All	HVAC	Destratification Fans	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
358	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Heat Recovery	HVAC	2015	0.0%	2034	0.1%	2034	0.1%
359	NWS	Industrial	Small Industrial	All	HVAC	Ventilation Optimization	HVAC	2015	0.0%	2034	0.1%	2034	0.1%
360	NWS	Industrial	Small Industrial	All	HVAC	Warehouse Loading Dock Seals	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A

Industrial Measures

MEASURE DESCRIPTION						PROGRAM	PARTICIPATION HIGH CASE						
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
361	NWS	Industrial	Small Industrial	All	HVAC	Automated Temperature reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
362	NWS	Industrial	Small Industrial	All	HVAC	Reduced Temperature Settings	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
363	NWS	Industrial	Small Industrial	All	Total	Pollution Control Measures	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
364	NWS	Industrial	Small Industrial	All	Process Heating	CFD Modelling	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
365	NWS	Industrial	Small Industrial	All	Total	Energy Management	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
366	NWS	Industrial	Small Industrial	All	Process Heating	Improved airflow in dryer windbox	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
367	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Oven Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
368	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Furnace Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
369	NWS	Industrial	Small Industrial	All	Process Heating	Preventative Dryer Maintenance	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
370	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
371	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
372	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.2%	2034	1.5%	2034	1.5%
373	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
374	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
375	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
376	NWS	Industrial	Small Industrial	All	Process Heating	High Efficiency Burner	Process Heating	2015	0.0%	2034	0.3%	2034	0.3%
377	NWS	Industrial	Small Industrial	All	Process Heating	Air Curtains	Process Heating	2015	0.1%	2034	1.0%	2034	1.0%
378	NWS	Industrial	Small Industrial	All	Process Heating	Exhaust Gas Heat Recovery	Process Heating	2015	0.0%	2034	0.0%	2034	0.0%
379	NWS	Industrial	Small Industrial	All	Process Heating	Insulation	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
380	NWS	Industrial	Small Industrial	All	Process Heating	Advanced heating and Process Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
381	NWS	Industrial	Small Industrial	All	Process Heating	Combustion Optimization	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A



# Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	MEASURE DESCRIPTION	
							Efficient Measure Definition	Base Measure Definition
61	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Water-Cooled Non-Centrifugal Chiller - 200 tons - 0.65 kW/ton full load & 0.4 kW/ton IPLV	Water-Cooled Non-Centrifugal Chiller - 200 tons - ASHRAE 90.1-2013 Path A: 0.66kW/ton full load & 0.54kW/ton IPLV
62	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Water-Cooled Centrifugal Chiller - 500 tons - 0.53 kW/ton full load & 0.45 kW/ton IPLV	Water-Cooled Centrifugal Chiller - 500 tons - ASHRAE 90.1-2013 Path A: 0.56kW/ton full load & 0.5kW/ton IPLV
63	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Water-Cooled Centrifugal Chiller - 500 tons - 0.53 kW/ton full load & 0.45 kW/ton IPLV	Water-Cooled Centrifugal Chiller - 500 tons - ASHRAE 90.1-2013 Path A: 0.56kW/ton full load & 0.5kW/ton IPLV
64	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Water-Cooled Centrifugal Chiller - 500 tons - 0.53 kW/ton full load & 0.45 kW/ton IPLV	Water-Cooled Centrifugal Chiller - 500 tons - ASHRAE 90.1-2013 Path A: 0.56kW/ton full load & 0.5kW/ton IPLV
65	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Water-Cooled Centrifugal Chiller - 500 tons - 0.53 kW/ton full load & 0.45 kW/ton IPLV	Water-Cooled Centrifugal Chiller - 500 tons - ASHRAE 90.1-2013 Path A: 0.56kW/ton full load & 0.5kW/ton IPLV
66	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Water-Cooled Centrifugal Chiller - 500 tons - 0.55 kW/ton full load & 0.34 kW/ton IPLV	Water-Cooled Centrifugal Chiller - 500 tons - ASHRAE 90.1-2013 Path A: 0.56kW/ton full load & 0.5kW/ton IPLV
67	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Water-Cooled Centrifugal Chiller - 500 tons - 0.55 kW/ton full load & 0.34 kW/ton IPLV	Water-Cooled Centrifugal Chiller - 500 tons - ASHRAE 90.1-2013 Path A: 0.56kW/ton full load & 0.5kW/ton IPLV
68	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Water-Cooled Centrifugal Chiller - 500 tons - 0.55 kW/ton full load & 0.34 kW/ton IPLV	Water-Cooled Centrifugal Chiller - 500 tons - ASHRAE 90.1-2013 Path A: 0.56kW/ton full load & 0.5kW/ton IPLV
69	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Water-Cooled Centrifugal Chiller - 500 tons - 0.55 kW/ton full load & 0.34 kW/ton IPLV	Water-Cooled Centrifugal Chiller - 500 tons - ASHRAE 90.1-2013 Path A: 0.56kW/ton full load & 0.5kW/ton IPLV
71	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Supply & Return Fans with VFD	Supply & Return Fans without VFD
72	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Chilled Water Pumps with VFD	Chilled Water Pumps without VFD
73	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Heating Pumps with VFD	Heating Pumps without VFD
74	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Cooling Tower Fan with VFD	Cooling Tower Fan without VFD
75	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Supply & Return Fans with VFD	Supply & Return Fans without VFD
76	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Chilled Water Pumps with VFD	Chilled Water Pumps without VFD
77	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Heating Pumps with VFD	Heating Pumps without VFD
78	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Cooling Tower Fan with VFD	Cooling Tower Fan without VFD
79	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Supply & Return Fans with VFD	Supply & Return Fans without VFD
80	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Chilled Water Pumps with VFD	Chilled Water Pumps without VFD
81	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Heating Pumps with VFD	Heating Pumps without VFD
82	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Cooling Tower Fan with VFD	Cooling Tower Fan without VFD
83	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Supply & Return Fans with VFD	Supply & Return Fans without VFD
84	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Chilled Water Pumps with VFD	Chilled Water Pumps without VFD
85	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Heating Pumps with VFD	Heating Pumps without VFD
86	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Cooling Tower Fan with VFD	Cooling Tower Fan without VFD
87	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Supply & Return Fans with VFD	Supply & Return Fans without VFD
88	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Chilled Water Pumps with VFD	Chilled Water Pumps without VFD
89	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Heating Pumps with VFD	Heating Pumps without VFD
90	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Cooling Tower Fan with VFD	Cooling Tower Fan without VFD
92	NWS	Non-Residential	Small Commercial	All	HVAC	Dual Enthalpy Economizer	Differential Enthalpy Economizer	Fixed Enthalpy Economizer
93	NWS	Non-Residential	Large Commercial	All	HVAC	Dual Enthalpy Economizer	Differential Enthalpy Economizer	Fixed Enthalpy Economizer
95	NWS	Non-Residential	Small Commercial	All	HVAC	Demand Controlled Ventilation	Demand Controlled Ventilation	Standard Ventilation Rates
96	NWS	Non-Residential	Large Commercial	All	HVAC	Demand Controlled Ventilation	Demand Controlled Ventilation	Standard Ventilation Rates
98	WS	Non-Residential	Small Commercial	All	HVAC	Ground Source Heatpump	GSHP - 16 EER	Standard Unitary ASHP - 10 Ton Unit - 11.2 EER
100	WS	Non-Residential	Small Commercial	All	HVAC	AC Tune-Up	Tuned-up Unitary AC	Unserviced Unitary AC
102	NWS	Non-Residential	Small Commercial	All	HVAC	Electronically Commutated Motors for Refrigeration and HVAC Applications	ECM HVAC Fan Motor less than 1HP	Shaded Pole HVAC Fan Motor less than 1HP
103	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	1-Lamp 32W HPT8/T5 with Low-BF Ballast	1-Lamp 34w T12 and 32w T8 w/ Elec. ballast
104	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	2-Lamp 32W HPT8/T5 with Low-BF Ballast	2-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
105	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	3-Lamp 32W HPT8/T5 with Low-BF Ballast	3-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
106	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	4-Lamp 32W HPT8/T5 with Low-BF Ballast	4-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
107	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	1-Lamp 32W HPT8/T5 with Low-BF Ballast	1-Lamp 34w T12 and 32w T8 w/ Elec. ballast
108	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	2-Lamp 32W HPT8/T5 with Low-BF Ballast	2-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
109	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	3-Lamp 32W HPT8/T5 with Low-BF Ballast	3-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
110	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	4-Lamp 32W HPT8/T5 with Low-BF Ballast	4-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
111	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	1-Lamp 32W HPT8/T5 with Low-BF Ballast	1-Lamp 34w T12 and 32w T8 w/ Elec. ballast
112	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	2-Lamp 32W HPT8/T5 with Low-BF Ballast	2-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
113	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	3-Lamp 32W HPT8/T5 with Low-BF Ballast	3-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
114	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	4-Lamp 32W HPT8/T5 with Low-BF Ballast	4-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
115	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	1-Lamp 32W HPT8/T5 with Low-BF Ballast	1-Lamp 34w T12 and 32w T8 w/ Elec. ballast
116	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	2-Lamp 32W HPT8/T5 with Low-BF Ballast	2-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
117	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	3-Lamp 32W HPT8/T5 with Low-BF Ballast	3-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
118	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	4-Lamp 32W HPT8/T5 with Low-BF Ballast	4-Lamp 34w T12 and 32w T8 w/ Elec. Ballast
119	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	1-Lamp 32W HPT8/T5 with Low-BF Ballast	1-Lamp 34w T12 and 32w T8 w/ Elec. ballast
120	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	2-Lamp 32W HPT8/T5 with Low-BF Ballast	2-Lamp 34w T12 and 32w T8 w/ Elec. Ballast





Commercial Measures

							MEASURE DESCRIPTION		
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Efficient Measure Definition	Base Measure Definition	
181	NWS	Non-Residential	All	Lodging	Lighting	LED Bulbs	12.5 W Omni-directional Energystar LED	43W EISA compliant lamp	
182	NWS	Non-Residential	All	Lodging	Lighting	LED Bulbs	19 W LED replacing EISA-exempt incandescent lamp	79W EISA-exempt incandescent lamp	
183	NWS	Non-Residential	All	General Large Commercial	Lighting	LED Bulbs	12.5 W Omni-directional Energystar LED	43W EISA compliant lamp	
184	NWS	Non-Residential	All	General Large Commercial	Lighting	LED Bulbs	19 W LED replacing EISA-exempt incandescent lamp	79W EISA-exempt incandescent lamp	
185	NWS	Non-Residential	All	General Small Commercial	Lighting	LED Bulbs	12.5 W Omni-directional Energystar LED	43W EISA compliant lamp	
186	NWS	Non-Residential	All	General Small Commercial	Lighting	LED Bulbs	19 W LED replacing EISA-exempt incandescent lamp	79W EISA-exempt incandescent lamp	
187	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	4-Lamp 32W HPT8 with High-BF Ballast	200W Pulse Start Metal-Halide	
188	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	4-Lamp 32W HPT8 with High-BF Ballast	200W Pulse Start Metal-Halide	
189	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	6-Lamp 32W HPT8 with High-BF Ballast or Equivalent LED	320W Pulse Start Metal-Halide	
190	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	6-Lamp 32W HPT8 with High-BF Ballast or Equivalent LED	320W Pulse Start Metal-Halide	
191	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	4-Lamp 32W HPT8 with High-BF Ballast	250 W Metal-Halide	
192	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	4-Lamp 32W HPT8 with High-BF Ballast	250 W Metal-Halide	
193	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	6-Lamp 32W HPT8 with High-BF Ballast or Equivalent LED	400W Metal-Halide	
194	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	6-Lamp 32W HPT8 with High-BF Ballast or Equivalent LED	400W Metal-Halide	
195	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	75W LED High Bay Fixtures	250 W Metal-Halide	
196	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	75W LED High Bay Fixtures	250 W Metal-Halide	
197	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	75W LED High Bay Fixtures	200W Pulse Start Metal-Halide	
198	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	75W LED High Bay Fixtures	200W Pulse Start Metal-Halide	
199	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Daylighting Control – Continuous Dimming	Uncontrolled Lighting System	
200	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Daylighting Control – Multiple Step Dimming	Uncontrolled Lighting System	
201	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Daylighting Control – ON/OFF (Indoor)	Uncontrolled Lighting System	
202	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Occupancy Sensor	Uncontrolled Lighting System	
203	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Occupancy Sensor w/ Daylighting Control – Continuous Dimming	Uncontrolled Lighting System	
204	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Occupancy Sensor w/ Daylighting Control – Multiple Step Dimming	Uncontrolled Lighting System	
205	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Occupancy Sensor w/ Daylighting Control – ON/OFF	Uncontrolled Lighting System	
206	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Daylighting Control – Continuous Dimming	Uncontrolled Lighting System	
207	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Daylighting Control – Multiple Step Dimming	Uncontrolled Lighting System	
208	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Daylighting Control – ON/OFF (Indoor)	Uncontrolled Lighting System	
209	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Occupancy Sensor	Uncontrolled Lighting System	
210	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Occupancy Sensor w/ Daylighting Control – Continuous Dimming	Uncontrolled Lighting System	
211	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Occupancy Sensor w/ Daylighting Control – Multiple Step Dimming	Uncontrolled Lighting System	
212	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Occupancy Sensor w/ Daylighting Control – ON/OFF	Uncontrolled Lighting System	
213	NWS	Non-Residential	Small Commercial	All	Lighting	LED Exit Signs	LED exit sign	non-LED light-source	
214	NWS	Non-Residential	All	Hospital	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Shaded Pole Motor	
215	NWS	Non-Residential	All	K12 Education	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Shaded Pole Motor	
216	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Shaded Pole Motor	
217	NWS	Non-Residential	All	Lodging	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Shaded Pole Motor	
218	NWS	Non-Residential	All	Food Sales	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Shaded Pole Motor	
219	NWS	Non-Residential	All	Restaurant	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Shaded Pole Motor	
220	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - up to 15 ft3 capacity	Existing EPAAct 2005-Compliant Refrigerator	
221	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - 15 to 30ft3 capacity	Existing EPAAct 2005-Compliant Refrigerator	
222	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - 30 to 50 ft3	Existing EPAAct 2005-Compliant Refrigerator	
223	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - greater than 50 ft3 capacity	Existing EPAAct 2005-Compliant Refrigerator	
224	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Estar Commercial Freezers - Solid Door - up to 15 ft3 capacity	Existing EPAAct 2005-Compliant Freezer	
225	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Estar Commercial Freezers - Solid Door - 15 to 30ft3 capacity	Existing EPAAct 2005-Compliant Freezer	
226	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Estar Commercial Freezers - Solid Door - 30 to 50 ft3	Existing EPAAct 2005-Compliant Freezer	
227	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Estar Commercial Freezers - Solid Door - greater than 50 ft3 capacity	Existing EPAAct 2005-Compliant Freezer	
228	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - up to 15 ft3 capacity	Existing EPAAct 2005-Compliant Refrigerator	
229	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - 15 to 30ft3 capacity	Existing EPAAct 2005-Compliant Refrigerator	
230	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - 30 to 50 ft3	Existing EPAAct 2005-Compliant Refrigerator	
231	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - greater than 50 ft3 capacity	Existing EPAAct 2005-Compliant Refrigerator	
232	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Estar Commercial Freezers - Solid Door - up to 15 ft3 capacity	Existing EPAAct 2005-Compliant Freezer	
233	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Estar Commercial Freezers - Solid Door - 15 to 30ft3 capacity	Existing EPAAct 2005-Compliant Freezer	
234	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Estar Commercial Freezers - Solid Door - 30 to 50 ft3	Existing EPAAct 2005-Compliant Freezer	
235	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Estar Commercial Freezers - Solid Door - greater than 50 ft3 capacity	Existing EPAAct 2005-Compliant Freezer	
236	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - up to 15 ft3 capacity	Existing EPAAct 2005-Compliant Refrigerator	
237	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - 15 to 30ft3 capacity	Existing EPAAct 2005-Compliant Refrigerator	
238	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - 30 to 50 ft3	Existing EPAAct 2005-Compliant Refrigerator	
239	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Estar Commercial Refrigerators - Solid Door - greater than 50 ft3 capacity	Existing EPAAct 2005-Compliant Refrigerator	
240	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Freezer	Estar Commercial Freezers - Solid Door - up to 15 ft3 capacity	Existing EPAAct 2005-Compliant Freezer	









Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	MEASURE DESCRIPTION	
							Efficient Measure Definition	Base Measure Definition
481	NWS	Non-Residential	Small Commercial	All	Misc	Small Business Program Audit & Direct Install	Small Business Program Audit & Direct Install Cost	
482	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	15 W CFL	43W EISA compliant lamp
483	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	12.5 W Omni-directional EnergyStar LED	43W EISA compliant lamp
484	NWS	Non-Residential	Small Commercial	All	Service Hot Water	Small Business Program Audit & Direct Install	Faucet Aerators and Pre-Rinse Valves	
485	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Lighting Upgrade Package	Lighting Upgrade Package Including Linear Fluorescents and LEDs	
486	NWS	Non-Residential	Small Commercial	All	Refrigeration	Small Business Program Refrigeration Upgrade Package	Refrigeration Upgrade Package	
488	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	High-efficiency airflow configuration - Data Center - 5000 ft2	Baseline data center post energy audit - Data Center - 5000 ft2
489	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	High-efficiency airflow configuration - Data Center - 10000 ft2	Baseline data center post energy audit - Data Center - 10000 ft2
490	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	High-efficiency airflow configuration - Data Center - 25000 ft2	Baseline data center post energy audit - Data Center - 25000 ft2
491	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	High-efficiency airflow configuration - Data Center - 50000 ft2	Baseline data center post energy audit - Data Center - 50000 ft2
492	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data center with application optimization and load balancing - Data Center - 5000 ft2	Baseline data center post energy audit - Data Center - 5000 ft2
493	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data center with application optimization and load balancing - Data Center - 10000 ft2	Baseline data center post energy audit - Data Center - 10000 ft2
494	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data center with application optimization and load balancing - Data Center - 25000 ft2	Baseline data center post energy audit - Data Center - 25000 ft2
495	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data center with application optimization and load balancing - Data Center - 50000 ft2	Baseline data center post energy audit - Data Center - 50000 ft2
496	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	Waterside economizer and associate controls installed - Data Center - 25000 ft2	Baseline data center post energy audit - Data Center - 25000 ft2
497	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	Waterside economizer and associate controls installed - Data Center - 50000 ft2	Baseline data center post energy audit - Data Center - 50000 ft2
498	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	High-efficiency airflow configuration - Data Center - 5000 ft2	Baseline data center post energy audit - Data Center - 5000 ft2
499	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	High-efficiency airflow configuration - Data Center - 10000 ft2	Baseline data center post energy audit - Data Center - 10000 ft2
500	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	High-efficiency airflow configuration - Data Center - 25000 ft2	Baseline data center post energy audit - Data Center - 25000 ft2
501	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	High-efficiency airflow configuration - Data Center - 50000 ft2	Baseline data center post energy audit - Data Center - 50000 ft2
502	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data center with transformerless PDU's and load balancing - Data Center - 5000 ft2	Baseline data center post energy audit - Data Center - 5000 ft2
503	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data center with transformerless PDU's and load balancing - Data Center - 10000 ft2	Baseline data center post energy audit - Data Center - 10000 ft2
504	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data center with transformerless PDU's and load balancing - Data Center - 25000 ft2	Baseline data center post energy audit - Data Center - 25000 ft2
505	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data center with transformerless PDU's and load balancing - Data Center - 50000 ft2	Baseline data center post energy audit - Data Center - 50000 ft2
506	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	Waterside economizer and associate controls installed - Data Center - 25000 ft2	Baseline data center post energy audit - Data Center - 25000 ft2
507	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	Waterside economizer and associate controls installed - Data Center - 50000 ft2	Baseline data center post energy audit - Data Center - 50000 ft2
509	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	Large Commercial Building performing 10% better than ASHRAE90.1-2010	ASHRAE90.1-2010 Compliant Building
510	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	Commercial Building performing 10% better than ASHRAE90.1-2013	ASHRAE90.1-2013 Compliant Building
511	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	Small Commercial Building performing 10% better than ASHRAE90.1-2010	ASHRAE90.1-2010 Compliant Building
512	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	Small Commercial Building performing 10% better than ASHRAE90.1-2013	ASHRAE90.1-2013 Compliant Building
514	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	RCx of Commercial Building over 100,000sqft area	
515	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	RCx of Commercial Building between 25,000 and 100,000 sqft area	
517	NWS	Non-Residential	All	All	Misc	Interruptible Rate	Interruptible Rate	
518	NWS	Non-Residential	All	All	Misc	Enabled Dynamic Pricing (Non-Res)	Enabled Pricing	
519	NWS	Non-Residential	All	All	Misc	Non-Enabled Dynamic Pricing (Non-Res)	Non-Enabled Pricing	
521	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Cut-Out Control	Installation of boiler cutout controls,	Baseline boiler combustion efficiency of 70% w/o control
522	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Cut-Out Control	Installation of boiler cutout controls,	Baseline boiler combustion efficiency of 70% w/o control
523	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Cut-Out Control	Installation of boiler cutout controls,	Baseline boiler combustion efficiency of 70% w/o control
524	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Cut-Out Control	Installation of boiler cutout controls,	Baseline boiler combustion efficiency of 70% w/o control
525	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Cut-Out Control	Installation of boiler cutout controls,	Baseline boiler combustion efficiency of 70% w/o control
526	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler or Furnace Vent Damper	Installation of a vent damper	Baseline boiler combustion efficiency of 70% w/o control
527	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler or Furnace Vent Damper	Installation of a vent damper	Baseline boiler combustion efficiency of 70% w/o control
528	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler or Furnace Vent Damper	Installation of a vent damper	Baseline boiler combustion efficiency of 70% w/o control
529	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler or Furnace Vent Damper	Installation of a vent damper	Baseline boiler combustion efficiency of 70% w/o control
530	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler or Furnace Vent Damper	Installation of a vent damper	Baseline boiler combustion efficiency of 70% w/o control
531	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Reset Control	Installation of a temprture controller	Baseline boiler combustion efficiency of 70% w/o control
532	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Reset Control	Installation of a temprture controller	Baseline boiler combustion efficiency of 70% w/o control
533	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Reset Control	Installation of a temprture controller	Baseline boiler combustion efficiency of 70% w/o control
534	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Reset Control	Installation of a temprture controller	Baseline boiler combustion efficiency of 70% w/o control
535	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Reset Control	Installation of a temprture controller	Baseline boiler combustion efficiency of 70% w/o control
536	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Tune-Up	Tune-up for an existing boiler	Baseline boiler combustion efficiency of 70% w/o control
537	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Tune-Up	Tune-up for an existing boiler	Baseline boiler combustion efficiency of 70% w/o control
538	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Tune-Up	Tune-up for an existing boiler	Baseline boiler combustion efficiency of 70% w/o control
539	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Tune-Up	Tune-up for an existing boiler	Baseline boiler combustion efficiency of 70% w/o control
540	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Tune-Up	Tune-up for an existing boiler	Baseline boiler combustion efficiency of 70% w/o control

Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	MEASURE DESCRIPTION	
							Efficient Measure Definition	Base Measure Definition
541	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Burner Replacement for Commercial Boilers	70% baseline burner efficiency	75% new burner efficiency,
542	WS	Non-Residential	Large Commercial	Lodging	HVAC	Burner Replacement for Commercial Boilers	70% baseline burner efficiency	75% new burner efficiency,
543	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Burner Replacement for Commercial Boilers	70% baseline burner efficiency	75% new burner efficiency,
544	WS	Non-Residential	Large Commercial	Hospital	HVAC	Burner Replacement for Commercial Boilers	70% baseline burner efficiency	75% new burner efficiency,
545	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Burner Replacement for Commercial Boilers	70% baseline burner efficiency	75% new burner efficiency,
546	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Efficient Commercial Boilers	95% Efficient Energy Star Boiler	82% Efficient Energy Star Boiler
547	WS	Non-Residential	Large Commercial	Lodging	HVAC	Efficient Commercial Boilers	95% Efficient Energy Star Boiler	82% Efficient Energy Star Boiler
548	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Efficient Commercial Boilers	95% Efficient Energy Star Boiler	82% Efficient Energy Star Boiler
549	WS	Non-Residential	Large Commercial	Hospital	HVAC	Efficient Commercial Boilers	95% Efficient Energy Star Boiler	82% Efficient Energy Star Boiler
550	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Efficient Commercial Boilers	95% Efficient Energy Star Boiler	82% Efficient Energy Star Boiler
551	NWS	Non-Residential	Small Commercial	All	HVAC	Direct Vent Heaters (Small Commercial)	Direct Vent Wall Furnace: 80.8% AFUE	Fan Driven Wall Furnace: 78% AFUE
552	WS	Non-Residential	Small Commercial	All	HVAC	Gas Furnace (Small Commercial)	Warm air furnaces, gas fired- TE of 90%	Warm air furnaces, gas fired- TE of 80%
553	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient storage gas water heater	50 gallon Energy Star 0.67 EF Water Heater	50 gallon water heater with 0.525 EF
554	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient instantaneous gas water heater	Instantaneous gas water heater with 0.95 EF	50 gallon water heater with 0.525 EF
555	NWS	Non-Residential	Small Commercial	All	Water Heating	Faucet Aerator	1 GPM	2.2 GPM
556	NWS	Non-Residential	Large Commercial	All	Water Heating	Faucet Aerator	1 GPM	2.2 GPM
557	NWS	Non-Residential	Small Commercial	All	Water Heating	Gas WH pipe insulation (Small Commercial)	High Efficiency Insulation R = 6.5	Baseline insulation of R = 1.85



Commercial Measures

MEASURE DESCRIPTION							MEASURE INCREMENTAL SAVING PER UNIT									
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Unit	EEPM Logic (RET/ROB/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
1	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$140.00	176	0.05300	0	0	0
2	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	168	0.07700	0	0	0
3	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$180.00	124	0.05300	0	0	0
4	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$200.00	293	0.07700	0	0	0
5	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$140.00	66	0.05300	0	0	0
6	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	150	0.07700	0	0	0
7	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	129	0.09400	0	0	0
8	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	247	0.07800	0	0	0
9	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$180.00	124	0.05300	0	0	0
10	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$200.00	293	0.07700	0	0	0
11	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$200.00	249	0.09400	0	0	0
12	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$200.00	308	0.07800	0	0	0
13	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	98	0.06300	0	0	0
14	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	211	0.06300	0	0	0
15	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	332	0.06800	0	0	0
16	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	217	0.07500	0	0	0
17	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$200.00	122	0.06300	0	0	0
18	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$200.00	264	0.06300	0	0	0
19	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$200.00	414	0.06800	0	0	0
20	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$200.00	270	0.07500	0	0	0
21	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	87	0.05900	0	0	0
22	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	189	0.05900	0	0	0
23	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	297	0.06400	0	0	0
24	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	194	0.07000	0	0	0
26	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$140.00	124	0.05300	0	0	0
27	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	151	0.07700	0	0	0
28	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$140.00	124	0.05300	0	0	0
29	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	151	0.07700	0	0	0
30	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	128	0.09400	0	0	0
31	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	129	0.07800	0	0	0
32	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	51	0.06300	0	0	0
33	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	111	0.06300	0	0	0
34	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	174	0.06800	0	0	0
35	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	114	0.07500	0	0	0
36	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	26	0.05900	0	0	0
37	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	56	0.05900	0	0	0
38	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	88	0.06400	0	0	0
39	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	per ton	ROB	15	15	\$160.00	58	0.07000	0	0	0
41	WS	Non-Residential	Small Commercial	Lodging	HVAC	PTAC	Per Guest Room	ROB	10	10	\$84.00	38	0.02800	0	0	0
42	NWS	Non-Residential	Small Commercial	Lodging	HVAC	Occupancy-Based PTAC/PTHP Controls	Retrofit	RET	8	8	\$260.00	305	0.18000	0	0	0
44	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$137.00	37	0.03979	0	0	0
45	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$137.00	81	0.04708	0	0	0
46	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$137.00	127	0.04315	0	0	0
47	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$137.00	83	0.04708	0	0	0
48	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$224.07	85	0.00827	0	0	0
49	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$224.07	185	0.00978	0	0	0
50	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$224.07	291	0.00897	0	0	0
51	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$224.07	190	0.00987	0	0	0
52	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$80.00	91	0.02550	0	0	0
53	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$80.00	23	0.02130	0	0	0
54	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$80.00	50	0.02520	0	0	0
55	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$80.00	78	0.02310	0	0	0
56	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$80.00	51	0.02520	0	0	0
57	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$80.00	253	0.00850	0	0	0
58	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$80.00	64	0.00710	0	0	0
59	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$80.00	139	0.00840	0	0	0
60	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$80.00	219	0.00770	0	0	0

Commercial Measures

MEASURE DESCRIPTION						MEASURE INCREMENTAL SAVING PER UNIT										
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Unit Name	EEPM Logic (RET/ROB/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
61	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	20	20	\$80.00	143	0.00848	0	0	0
62	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	25	25	\$58.00	91	0.02550	0	0	0
63	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	25	25	\$58.00	50	0.02520	0	0	0
64	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	25	25	\$58.00	78	0.02310	0	0	0
65	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	25	25	\$58.00	51	0.02520	0	0	0
66	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	25	25	\$138.09	290	0.00850	0	0	0
67	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	25	25	\$138.09	159	0.00840	0	0	0
68	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	25	25	\$138.09	250	0.00770	0	0	0
69	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	per ton	ROB	25	25	\$138.09	163	0.00848	0	0	0
71	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$175.00	2,921	0.07800	0	0	0
72	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$280.00	1,478	0.17700	0	0	0
73	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$280.00	3,109	0.00000	0	0	0
74	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$175.00	4,409	0.10500	0	0	0
75	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$175.00	833	0.07800	0	0	0
76	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$280.00	561	0.17700	0	0	0
77	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$280.00	3,109	0.00000	0	0	0
78	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$175.00	1,258	0.10500	0	0	0
79	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$175.00	985	0.07800	0	0	0
80	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$280.00	627	0.17700	0	0	0
81	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$280.00	3,109	0.00000	0	0	0
82	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$175.00	1,487	0.10500	0	0	0
83	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$175.00	1,167	0.07800	0	0	0
84	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$280.00	708	0.17700	0	0	0
85	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$280.00	3,109	0.00000	0	0	0
86	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$175.00	1,762	0.10500	0	0	0
87	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$175.00	1,428	0.07800	0	0	0
88	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$280.00	822	0.17700	0	0	0
89	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$280.00	3,109	0.00000	0	0	0
90	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Per HP	RET	15	15	\$175.00	2,156	0.10500	0	0	0
92	NWS	Non-Residential	Small Commercial	All	HVAC	Dual Enthalpy Economizer	Per Sqft	ROB	10	10	\$250.00	896	0.00000	0	0	0
93	NWS	Non-Residential	Large Commercial	All	HVAC	Dual Enthalpy Economizer	Per Sqft	ROB	10	10	\$2,000.00	8,545	0.00000	0	0	0
95	NWS	Non-Residential	Small Commercial	All	HVAC	Demand Controlled Ventilation	Per Sqft	ROB	10	10	\$600.00	2,536	2.26414	0	0	0
96	NWS	Non-Residential	Large Commercial	All	HVAC	Demand Controlled Ventilation	Per Sqft	ROB	10	10	\$3,960.55	8,221	0.00000	0	0	0
98	WS	Non-Residential	Small Commercial	All	HVAC	Ground Source Heatpump	Per ton	ROB	15	15	\$750.00	345	0.29101	0	0	0
100	WS	Non-Residential	Small Commercial	All	HVAC	AC Tune-Up	Per ton	RET	5	5	\$35.00	56	0.05029	0	0	0
102	NWS	Non-Residential	Small Commercial	All	HVAC	Electronically Commutated Motors for Refrigeration and HVAC Applications	Per HP	RET	15	15	\$400.00	2,895	0.66000	0	0	0
103	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	12.21640489	12.21640489	\$50.00	39	0.00655	0	0	0
104	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	12.21640489	12.21640489	\$55.00	56	0.00936	0	0	0
105	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	12.21640489	12.21640489	\$60.00	90	0.01498	0	0	0
106	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	12.21640489	12.21640489	\$65.00	112	0.01872	0	0	0
107	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	25.20705798	25.20705798	\$50.00	19	0.00395	0	0	0
108	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	25.20705798	25.20705798	\$55.00	27	0.00564	0	0	0
109	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	25.20705798	25.20705798	\$60.00	44	0.00902	0	0	0
110	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	25.20705798	25.20705798	\$65.00	54	0.01128	0	0	0
111	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	19.56947162	19.56947162	\$50.00	25	0.00580	0	0	0
112	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	19.56947162	19.56947162	\$55.00	35	0.00828	0	0	0
113	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	19.56947162	19.56947162	\$60.00	56	0.01325	0	0	0
114	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	19.56947162	19.56947162	\$65.00	70	0.01656	0	0	0
115	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	10.55806938	10.55806938	\$50.00	45	0.00689	0	0	0
116	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	10.55806938	10.55806938	\$55.00	65	0.00984	0	0	0
117	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	10.55806938	10.55806938	\$60.00	104	0.01574	0	0	0
118	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	10.55806938	10.55806938	\$65.00	130	0.01968	0	0	0
119	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	18.73160289	18.73160289	\$50.00	26	0.00647	0	0	0
120	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	18.73160289	18.73160289	\$55.00	37	0.00924	0	0	0

Commercial Measures

MEASURE DESCRIPTION							MEASURE INCREMENTAL SAVING PER UNIT									
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Unit Name	EPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
121	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	18.73160289	18.73160289	\$60.00	59	0.01478	0	0	0
122	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	18.73160289	18.73160289	\$65.00	73	0.01848	0	0	0
123	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	16.87289089	16.87289089	\$50.00	28	0.00764	0	0	0
124	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	16.87289089	16.87289089	\$55.00	41	0.01092	0	0	0
125	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	16.87289089	16.87289089	\$60.00	65	0.01747	0	0	0
126	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	Per Fixture	RET	16.87289089	16.87289089	\$65.00	81	0.02184	0	0	0
127	NWS	Non-Residential	All	Hospital	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	ROB	2.617801047	6.282722513	\$2.00	34	0.00562	0	0	0
128	NWS	Non-Residential	All	K12 Education	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	ROB	5.401512423	12.96362982	\$2.00	16	0.00338	0	0	0
129	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	ROB	4.193458205	10.06429969	\$2.00	21	0.00497	0	0	0
130	NWS	Non-Residential	All	Lodging	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	ROB	2.262443439	5.429864253	\$2.00	39	0.00590	0	0	0
131	NWS	Non-Residential	All	General Large Commercial	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	ROB	4.013914905	9.633395772	\$2.00	22	0.00554	0	0	0
132	NWS	Non-Residential	All	General Small Commercial	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	ROB	3.615619476	8.677486743	\$2.00	24	0.00655	0	0	0
133	NWS	Non-Residential	All	Hospital	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	RET	2.617801047	6.282722513	\$7.17	34	0.00562	0	0	0
134	NWS	Non-Residential	All	K12 Education	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	RET	5.401512423	12.96362982	\$7.17	16	0.00338	0	0	0
135	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	RET	4.193458205	10.06429969	\$7.17	21	0.00497	0	0	0
136	NWS	Non-Residential	All	Lodging	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	RET	2.262443439	5.429864253	\$7.17	39	0.00590	0	0	0
137	NWS	Non-Residential	All	General Large Commercial	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	RET	4.013914905	9.633395772	\$7.17	22	0.00554	0	0	0
138	NWS	Non-Residential	All	General Small Commercial	Lighting	Reduced Wattage T8/T5 Lamps	Per Lamp	RET	3.615619476	8.677486743	\$7.17	24	0.00655	0	0	0
139	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$49.00	112	0.01872	0	0	0
140	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$49.00	54	0.01128	0	0	0
141	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$49.00	42	0.01656	0	0	0
142	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$49.00	130	0.01968	0	0	0
143	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$49.00	73	0.01848	0	0	0
144	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$49.00	81	0.02184	0	0	0
145	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$53.00	225	0.03744	0	0	0
146	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$53.00	109	0.02256	0	0	0
147	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$53.00	140	0.03312	0	0	0
148	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$53.00	260	0.03936	0	0	0
149	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$53.00	146	0.03696	0	0	0
150	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$53.00	163	0.04368	0	0	0
151	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	112	0.01872	0	0	0
152	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	54	0.01128	0	0	0
153	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	70	0.01656	0	0	0
154	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	130	0.01968	0	0	0
155	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	73	0.01848	0	0	0
156	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	81	0.02184	0	0	0
157	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	225	0.03744	0	0	0
158	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	109	0.02256	0	0	0
159	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	140	0.03312	0	0	0
160	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	260	0.03936	0	0	0
161	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	146	0.03696	0	0	0
162	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Per Lamp	RET	0	11	\$80.00	163	0.04368	0	0	0
163	NWS	Non-Residential	All	Hospital	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.17452007	1.396160558	\$1.50	160	0.02659	0	0	0
164	NWS	Non-Residential	All	Hospital	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.17452007	1.396160558	\$5.00	325	0.05419	0	0	0
165	NWS	Non-Residential	All	K12 Education	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.360100828	1	\$1.50	77	0.01602	0	0	0
166	NWS	Non-Residential	All	K12 Education	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.360100828	2.880806626	\$5.00	158	0.03266	0	0	0
167	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.27956388	2.236511043	\$1.50	100	0.02353	0	0	0
168	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.27956388	2.236511043	\$5.00	203	0.04794	0	0	0
169	NWS	Non-Residential	All	Lodging	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.327332242	2.618657938	\$1.50	85	0.00852	0	0	0
170	NWS	Non-Residential	All	Lodging	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.327332242	2	\$5.00	173	0.01737	0	0	0
171	NWS	Non-Residential	All	General Large Commercial	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.267594327	2.140754616	\$1.50	104	0.02625	0	0	0
172	NWS	Non-Residential	All	General Large Commercial	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.267594327	2.140754616	\$5.00	212	0.05350	0	0	0
173	NWS	Non-Residential	All	General Small Commercial	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.241041298	2	\$1.50	116	0.03103	0	0	0
174	NWS	Non-Residential	All	General Small Commercial	Lighting	Commercial Standard CFL	Per Lamp	ROB	0.241041298	1	\$5.00	235	0.06323	0	0	0
175	NWS	Non-Residential	All	Hospital	Lighting	LED Bulbs	Per Lamp	ROB	0.17452007	8.72600349	\$10.00	168	0.02801	0	0	0
176	NWS	Non-Residential	All	Hospital	Lighting	LED Bulbs	Per Lamp	ROB	0.17452007	8.72600349	\$15.00	337	0.05625	0	0	0
177	NWS	Non-Residential	All	K12 Education	Lighting	LED Bulbs	Per Lamp	ROB	0.360100828	18.00504141	\$10.00	81	0.01688	0	0	0
178	NWS	Non-Residential	All	K12 Education	Lighting	LED Bulbs	Per Lamp	ROB	0.360100828	18.00504141	\$15.00	164	0.03390	0	0	0
179	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	LED Bulbs	Per Lamp	ROB	0.27956388	13.97819402	\$10.00	105	0.02478	0	0	0
180	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	LED Bulbs	Per Lamp	ROB	0.27956388	13.97819402	\$15.00	211	0.04976	0	0	0

Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Description	Measure Name	Measure Unit	EPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	MEASURE INCREMENTAL SAVING PER UNIT				
												Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases
181	NWS	Non-Residential	All	Lodging	Lighting	LED Bulbs	Per Lamp	ROB	0.327332242	16.36661211	\$10.00	90	0.00898	0	0	0
182	NWS	Non-Residential	All	Lodging	Lighting	LED Bulbs	Per Lamp	ROB	0.327332242	16.36661211	\$15.00	180	0.01803	0	0	0
183	NWS	Non-Residential	All	General Large Commercial	Lighting	LED Bulbs	Per Lamp	ROB	0.267594327	13.37971635	\$10.00	110	0.02765	0	0	0
184	NWS	Non-Residential	All	General Large Commercial	Lighting	LED Bulbs	Per Lamp	ROB	0.267594327	13.37971635	\$15.00	220	0.05533	0	0	0
185	NWS	Non-Residential	All	General Small Commercial	Lighting	LED Bulbs	Per Lamp	ROB	0.241041298	12.05206492	\$10.00	122	0.03268	0	0	0
186	NWS	Non-Residential	All	General Small Commercial	Lighting	LED Bulbs	Per Lamp	ROB	0.241041298	12.05206492	\$15.00	244	0.06563	0	0	0
187	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	10.70377308	18.73160289	\$200.00	315	0.07946	0	0	0
188	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	9.641651936	16.87289089	\$200.00	350	0.09391	0	0	0
189	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	9.641651936	16.87289089	\$225.00	524	0.14087	0	0	0
190	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	9.641651936	16.87289089	\$225.00	524	0.14087	0	0	0
191	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	10.70377308	18.73160289	\$200.00	546	0.13768	0	0	0
192	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	10.70377308	18.73160289	\$200.00	546	0.13768	0	0	0
193	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	9.641651936	16.87289089	\$225.00	951	0.25553	0	0	0
194	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	9.641651936	16.87289089	\$225.00	951	0.25553	0	0	0
195	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	2.67594327	8.02782981	\$200.00	494	0.12456	0	0	0
196	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	2.410412984	7.231238952	\$200.00	548	0.14720	0	0	0
197	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	2.67594327	8.02782981	\$200.00	263	0.06600	0	0	0
198	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Per Fixture	RET	2.410412984	7.231238952	\$200.00	292	0.07800	0	0	0
199	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	370	0.09898	0	0	0
200	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	247	0.06599	0	0	0
201	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	123	0.03299	0	0	0
202	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	370	0.09898	0	0	0
203	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	493	0.13197	0	0	0
204	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	432	0.11548	0	0	0
205	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	432	0.11548	0	0	0
206	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	411	0.09898	0	0	0
207	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	274	0.06599	0	0	0
208	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	137	0.03299	0	0	0
209	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	411	0.09898	0	0	0
210	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	548	0.13197	0	0	0
211	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	479	0.11548	0	0	0
212	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Per Fixture	RET	0	8	\$77.67	479	0.11548	0	0	0
213	NWS	Non-Residential	Small Commercial	All	Lighting	LED Exit Signs	Per Fixture	RET	1.37	16	\$30.00	77	0.00983	0	0	0
214	NWS	Non-Residential	All	Hospital	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Per Motor	RET	15	15	\$50.00	411	0.03300	0	0	0
215	NWS	Non-Residential	All	K12 Education	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Per Motor	RET	15	15	\$50.00	411	0.03300	0	0	0
216	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Per Motor	RET	15	15	\$50.00	411	0.03300	0	0	0
217	NWS	Non-Residential	All	Lodging	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Per Motor	RET	15	15	\$50.00	411	0.03300	0	0	0
218	NWS	Non-Residential	All	Food Sales	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Per Motor	RET	15	15	\$50.00	392	0.05100	0	0	0
219	NWS	Non-Residential	All	Restaurant	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Per Motor	RET	15	15	\$50.00	411	0.03300	0	0	0
220	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$143.00	1,292	0.15000	0	0	0
221	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	1,840	0.21000	0	0	0
222	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	2,570	0.29000	0	0	0
223	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$249.00	3,300	0.38000	0	0	0
224	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$142.00	2,694	0.31000	0	0	0
225	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	4,884	0.56000	0	0	0
226	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	7,804	0.89000	0	0	0
227	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$407.00	10,724	1.22000	0	0	0
228	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$143.00	1,292	0.15000	0	0	0
229	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	1,840	0.21000	0	0	0
230	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	2,570	0.29000	0	0	0
231	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$249.00	3,300	0.38000	0	0	0
232	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$142.00	2,694	0.31000	0	0	0
233	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	4,884	0.56000	0	0	0
234	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	7,804	0.89000	0	0	0
235	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$407.00	10,724	1.22000	0	0	0
236	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$143.00	1,292	0.15000	0	0	0
237	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	1,840	0.21000	0	0	0
238	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	2,570	0.29000	0	0	0
239	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$249.00	3,300	0.38000	0	0	0
240	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$142.00	2,694	0.31000	0	0	0

Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	MEASURE DESCRIPTION Measure Name	Measure Unit Name	EPM Logic (RET/ROB/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	MEASURE INCREMENTAL SAVING PER UNIT					
											Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
241	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	4,884	0.56000	0	0	0
242	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	7,804	0.89000	0	0	0
243	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$407.00	10,724	1.22000	0	0	0
244	NWS	Non-Residential	All	Lodging	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$143.00	1,292	0.15000	0	0	0
245	NWS	Non-Residential	All	Lodging	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	1,840	0.21000	0	0	0
246	NWS	Non-Residential	All	Lodging	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	2,570	0.29000	0	0	0
247	NWS	Non-Residential	All	Lodging	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$249.00	3,300	0.38000	0	0	0
248	NWS	Non-Residential	All	Lodging	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$142.00	2,694	0.31000	0	0	0
249	NWS	Non-Residential	All	Lodging	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	4,884	0.56000	0	0	0
250	NWS	Non-Residential	All	Lodging	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	7,804	0.89000	0	0	0
251	NWS	Non-Residential	All	Lodging	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$407.00	10,724	1.22000	0	0	0
252	NWS	Non-Residential	All	Food Sales	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$143.00	1,292	0.15000	0	0	0
253	NWS	Non-Residential	All	Food Sales	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	1,840	0.21000	0	0	0
254	NWS	Non-Residential	All	Food Sales	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	2,570	0.29000	0	0	0
255	NWS	Non-Residential	All	Food Sales	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$249.00	3,300	0.38000	0	0	0
256	NWS	Non-Residential	All	Food Sales	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$142.00	2,694	0.31000	0	0	0
257	NWS	Non-Residential	All	Food Sales	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	4,884	0.56000	0	0	0
258	NWS	Non-Residential	All	Food Sales	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	7,804	0.89000	0	0	0
259	NWS	Non-Residential	All	Food Sales	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$407.00	10,724	1.22000	0	0	0
260	NWS	Non-Residential	All	Restaurant	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$143.00	1,292	0.15000	0	0	0
261	NWS	Non-Residential	All	Restaurant	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	1,840	0.21000	0	0	0
262	NWS	Non-Residential	All	Restaurant	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$164.00	2,570	0.29000	0	0	0
263	NWS	Non-Residential	All	Restaurant	Refrigeration	ENERGY STAR Solid Door Refrigerator	Per Unit	ROB	12	12	\$249.00	3,300	0.38000	0	0	0
264	NWS	Non-Residential	All	Restaurant	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$142.00	2,694	0.31000	0	0	0
265	NWS	Non-Residential	All	Restaurant	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	4,884	0.56000	0	0	0
266	NWS	Non-Residential	All	Restaurant	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$166.00	7,804	0.89000	0	0	0
267	NWS	Non-Residential	All	Restaurant	Refrigeration	ENERGY STAR Solid Door Freezer	Per Unit	ROB	12	12	\$407.00	10,724	1.22000	0	0	0
268	NWS	Non-Residential	All	Hospital	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,612	0.03000	0	0	0
269	NWS	Non-Residential	All	Hospital	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,086	0.03500	0	0	0
270	NWS	Non-Residential	All	Hospital	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$80.00	387	0.00600	0	0	0
271	NWS	Non-Residential	All	K12 Education	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,612	0.03000	0	0	0
272	NWS	Non-Residential	All	K12 Education	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,086	0.03500	0	0	0
273	NWS	Non-Residential	All	K12 Education	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$80.00	387	0.00600	0	0	0
274	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,612	0.03000	0	0	0
275	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,086	0.03500	0	0	0
276	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$80.00	387	0.00600	0	0	0
277	NWS	Non-Residential	All	Lodging	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,612	0.03000	0	0	0
278	NWS	Non-Residential	All	Lodging	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,086	0.03500	0	0	0
279	NWS	Non-Residential	All	Lodging	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$80.00	387	0.00600	0	0	0
280	NWS	Non-Residential	All	Food Sales	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,612	0.03000	0	0	0
281	NWS	Non-Residential	All	Food Sales	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,086	0.03500	0	0	0
282	NWS	Non-Residential	All	Food Sales	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$80.00	387	0.00600	0	0	0
283	NWS	Non-Residential	All	Restaurant	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,612	0.03000	0	0	0
284	NWS	Non-Residential	All	Restaurant	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$180.00	1,086	0.03500	0	0	0
285	NWS	Non-Residential	All	Restaurant	Refrigeration	Vending Machine Occupancy Controls	Per Unit	RET	5	5	\$80.00	387	0.00600	0	0	0
286	NWS	Non-Residential	All	Hospital	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	943	0.13700	0	0	0
287	NWS	Non-Residential	All	Hospital	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	2,307	0.30900	0	0	0
288	NWS	Non-Residential	All	K12 Education	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	943	0.13700	0	0	0
289	NWS	Non-Residential	All	K12 Education	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	2,307	0.30900	0	0	0
290	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	943	0.13700	0	0	0
291	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	2,307	0.30900	0	0	0
292	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	943	0.13700	0	0	0
293	NWS	Non-Residential	All	Lodging	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	2,307	0.30900	0	0	0
294	NWS	Non-Residential	All	Food Sales	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	943	0.13700	0	0	0
295	NWS	Non-Residential	All	Food Sales	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	2,307	0.30900	0	0	0
296	NWS	Non-Residential	All	Restaurant	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	943	0.13700	0	0	0
297	NWS	Non-Residential	All	Restaurant	Refrigeration	Automatic Door Closer for Walk-in Coolers and Freezers	Per Unit	RET	8	8	\$156.82	2,307	0.30900	0	0	0
298	NWS	Non-Residential	All	Food Sales	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$300.00	2,555	0.00000	0	0	0
299	NWS	Non-Residential	All	Food Sales	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$300.00	1,082	0.00000	0	0	0
300	NWS	Non-Residential	All	Food Sales	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$300.00	1,082	0.00000	0	0	0

Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Description	Measure Name	Measure Unit	EPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	MEASURE INCREMENTAL SAVING PER UNIT				
												Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases
301	NWS	Non-Residential	All	Food Sales	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$200.00	3,252	0.00000	0	0	0
302	NWS	Non-Residential	All	Food Sales	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$200.00	1,377	0.00000	0	0	0
303	NWS	Non-Residential	All	Food Sales	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$200.00	1,377	0.00000	0	0	0
304	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$300.00	2,555	0.00000	0	0	0
305	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$300.00	1,082	0.00000	0	0	0
306	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$300.00	1,082	0.00000	0	0	0
307	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$200.00	3,252	0.00000	0	0	0
308	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$200.00	1,377	0.00000	0	0	0
309	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Per Unit	RET	12	12	\$200.00	1,377	0.00000	0	0	0
310	NWS	Non-Residential	All	Hospital	Refrigeration	Evaporator Fan Control	Per Unit	RET	16	16	\$291.00	478	0.06000	0	0	0
311	NWS	Non-Residential	All	K12 Education	Refrigeration	Evaporator Fan Control	Per Unit	RET	16	16	\$291.00	478	0.06000	0	0	0
312	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Evaporator Fan Control	Per Unit	RET	16	16	\$291.00	478	0.06000	0	0	0
313	NWS	Non-Residential	All	Lodging	Refrigeration	Evaporator Fan Control	Per Unit	RET	16	16	\$291.00	478	0.06000	0	0	0
314	NWS	Non-Residential	All	Food Sales	Refrigeration	Evaporator Fan Control	Per Unit	RET	16	16	\$291.00	478	0.06000	0	0	0
315	NWS	Non-Residential	All	Restaurant	Refrigeration	Evaporator Fan Control	Per Unit	RET	16	16	\$291.00	478	0.06000	0	0	0
316	NWS	Non-Residential	All	Hospital	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	2,974	0.35000	0	0	0
317	NWS	Non-Residential	All	Hospital	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	422	0.05000	0	0	0
318	NWS	Non-Residential	All	K12 Education	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	2,974	0.35000	0	0	0
319	NWS	Non-Residential	All	K12 Education	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	422	0.05000	0	0	0
320	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	2,974	0.35000	0	0	0
321	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	422	0.05000	0	0	0
322	NWS	Non-Residential	All	Lodging	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	2,974	0.35000	0	0	0
323	NWS	Non-Residential	All	Lodging	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	422	0.05000	0	0	0
324	NWS	Non-Residential	All	Food Sales	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	2,974	0.35000	0	0	0
325	NWS	Non-Residential	All	Food Sales	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	422	0.05000	0	0	0
326	NWS	Non-Residential	All	Restaurant	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	2,974	0.35000	0	0	0
327	NWS	Non-Residential	All	Restaurant	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Per Unit	RET	6	6	\$286.16	422	0.05000	0	0	0
328	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$50.00	2,540	0.32469	0	0	0
329	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$0.00	16,153	2.06517	0	0	0
330	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$0.00	13,626	1.74219	0	0	0
331	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,811	2.40509	0	0	0
332	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$120.00	3,171	0.40538	0	0	0
333	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$770.00	11,863	1.51676	0	0	0
334	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$2,050.00	9,212	1.17774	0	0	0
335	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	27,408	3.50417	0	0	0
336	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$1,710.00	3,311	0.42330	0	0	0
337	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$50.00	2,540	0.32469	0	0	0
338	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$0.00	16,153	2.06517	0	0	0
339	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$0.00	13,626	1.74219	0	0	0
340	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,811	2.40509	0	0	0
341	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$120.00	2,553	0.32636	25.84156083	0	0
342	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$770.00	7,850	1.00368	167.7828877	0	0
343	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$2,050.00	6,775	0.86622	101.8681818	0	0
344	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,163	2.32224	386.4998663	0	0
345	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$1,710.00	2,107	0.26937	50.33486631	0	0
346	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$50.00	2,540	0.32469	0	0	0
347	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$0.00	16,153	2.06517	0	0	0
348	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$0.00	13,626	1.74219	0	0	0
349	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,811	2.40509	0	0	0
350	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$120.00	3,171	0.40538	0	0	0
351	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$770.00	11,863	1.51676	0	0	0
352	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$2,050.00	9,212	1.17774	0	0	0
353	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	27,408	3.50417	0	0	0
354	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$1,710.00	3,311	0.42330	0	0	0
355	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$50.00	2,540	0.32469	0	0	0
356	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$0.00	16,153	2.06517	0	0	0
357	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$0.00	13,626	1.74219	0	0	0
358	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,811	2.40509	0	0	0
359	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$120.00	2,553	0.32636	25.84156083	0	0
360	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$770.00	7,850	1.00368	167.7828877	0	0

Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	MEASURE DESCRIPTION Measure Name	Measure Unit Name	EPM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	MEASURE INCREMENTAL SAVING PER UNIT					
											Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
361	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$2,050.00	6,775	0.86622	101.8681818	0	0
362	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,163	2.32224	386.4998663	0	0
363	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$1,710.00	2,107	0.26937	50.33486631	0	0
364	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$50.00	2,540	0.32469	0	0	0
365	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$0.00	16,153	2.06517	0	0	0
366	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$0.00	13,626	1.74219	0	0	0
367	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,811	2.40509	0	0	0
368	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$120.00	3,171	0.40538	0	0	0
369	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$770.00	11,863	1.51676	0	0	0
370	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$2,050.00	9,212	1.17774	0	0	0
371	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	27,408	3.50417	0	0	0
372	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$1,710.00	3,311	0.42330	0	0	0
373	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$50.00	2,540	0.32469	0	0	0
374	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$0.00	16,153	2.06517	0	0	0
375	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$0.00	13,626	1.74219	0	0	0
376	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,811	2.40509	0	0	0
377	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$120.00	2,553	0.32636	25.84156083	0	0
378	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$770.00	7,850	1.00368	167.7828877	0	0
379	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$2,050.00	6,775	0.86622	101.8681818	0	0
380	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,163	2.32224	386.4998663	0	0
381	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$1,710.00	2,107	0.26937	50.33486631	0	0
382	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$50.00	2,540	0.32469	0	0	0
383	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$0.00	16,153	2.06517	0	0	0
384	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$0.00	13,626	1.74219	0	0	0
385	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,811	2.40509	0	0	0
386	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$120.00	3,171	0.40538	0	0	0
387	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$770.00	11,863	1.51676	0	0	0
388	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$2,050.00	9,212	1.17774	0	0	0
389	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	27,408	3.50417	0	0	0
390	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$1,710.00	3,311	0.42330	0	0	0
391	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$50.00	2,540	0.32469	0	0	0
392	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$0.00	16,153	2.06517	0	0	0
393	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$0.00	13,626	1.74219	0	0	0
394	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,811	2.40509	0	0	0
395	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$120.00	2,553	0.32636	25.84156083	0	0
396	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$770.00	7,850	1.00368	167.7828877	0	0
397	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$2,050.00	6,775	0.86622	101.8681818	0	0
398	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,163	2.32224	386.4998663	0	0
399	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$1,710.00	2,107	0.26937	50.33486631	0	0
400	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$50.00	2,540	0.32469	0	0	0
401	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$0.00	16,153	2.06517	0	0	0
402	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$0.00	13,626	1.74219	0	0	0
403	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,811	2.40509	0	0	0
404	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$120.00	3,171	0.40538	0	0	0
405	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$770.00	11,863	1.51676	0	0	0
406	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$2,050.00	9,212	1.17774	0	0	0
407	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	27,408	3.50417	0	0	0
408	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$1,710.00	3,311	0.42330	0	0	0
409	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$50.00	2,540	0.32469	0	0	0
410	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$0.00	16,153	2.06517	0	0	0
411	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$0.00	13,626	1.74219	0	0	0
412	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,811	2.40509	0	0	0
413	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$120.00	2,553	0.32636	25.84156083	0	0
414	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	15	15	\$770.00	7,850	1.00368	167.7828877	0	0
415	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$2,050.00	6,775	0.86622	101.8681818	0	0
416	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	20	20	\$970.00	18,163	2.32224	386.4998663	0	0
417	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Dishwasher	Per Unit	ROB	10	10	\$1,710.00	2,107	0.26937	50.33486631	0	0
418	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Fryer	Per Unit	ROB	12	12	\$210.00	1,179	0.20000	0	0	0
419	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Fryer	Per Unit	ROB	12	12	\$0.00	2,659	0.51000	0	0	0
420	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Fryer	Per Unit	ROB	12	12	\$210.00	1,179	0.20000	0	0	0

Commercial Measures

MEASURE DESCRIPTION											MEASURE INCREMENTAL SAVING PER UNIT					
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Unit	EEMP Logic (RET/ROB/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
421	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Fryer	Per Unit	ROB	12	12	\$0.00	2,659	0.51000	0	0	0
422	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Fryer	Per Unit	ROB	12	12	\$210.00	1,179	0.20000	0	0	0
423	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Fryer	Per Unit	ROB	12	12	\$0.00	2,659	0.51000	0	0	0
424	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Fryer	Per Unit	ROB	12	12	\$210.00	1,179	0.20000	0	0	0
425	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Fryer	Per Unit	ROB	12	12	\$0.00	2,659	0.51000	0	0	0
426	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Fryer	Per Unit	ROB	12	12	\$210.00	1,179	0.20000	0	0	0
427	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Fryer	Per Unit	ROB	12	12	\$0.00	2,659	0.51000	0	0	0
428	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Griddle	Per Unit	ROB	12	12	\$0.00	2,595	0.49767	0	0	0
429	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Griddle	Per Unit	ROB	12	12	\$0.00	2,595	0.49767	0	0	0
430	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Griddle	Per Unit	ROB	12	12	\$0.00	2,595	0.49767	0	0	0
431	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Griddle	Per Unit	ROB	12	12	\$0.00	2,595	0.49767	0	0	0
432	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Griddle	Per Unit	ROB	12	12	\$0.00	2,595	0.49767	0	0	0
433	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	Per Unit	ROB	12	12	\$0.00	1,730	0.26544	0	0	0
434	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	Per Unit	ROB	12	12	\$0.00	1,730	0.26544	0	0	0
435	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	Per Unit	ROB	12	12	\$0.00	1,730	0.26544	0	0	0
436	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	Per Unit	ROB	12	12	\$0.00	1,730	0.26544	0	0	0
437	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	Per Unit	ROB	12	12	\$0.00	1,730	0.26544	0	0	0
438	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Electric Convection Ovens	Per Unit	ROB	12	12	\$0.00	1,879	0.36036	0	0	0
439	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Electric Convection Ovens	Per Unit	ROB	12	12	\$0.00	1,988	0.38126	0	0	0
440	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Electric Convection Ovens	Per Unit	ROB	12	12	\$0.00	1,879	0.36036	0	0	0
441	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Electric Convection Ovens	Per Unit	ROB	12	12	\$0.00	1,988	0.38126	0	0	0
442	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Electric Convection Ovens	Per Unit	ROB	12	12	\$0.00	1,879	0.36036	0	0	0
443	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Electric Convection Ovens	Per Unit	ROB	12	12	\$0.00	1,988	0.38126	0	0	0
444	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Electric Convection Ovens	Per Unit	ROB	12	12	\$0.00	1,879	0.36036	0	0	0
445	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Electric Convection Ovens	Per Unit	ROB	12	12	\$0.00	1,988	0.38126	0	0	0
446	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Electric Convection Ovens	Per Unit	ROB	12	12	\$0.00	1,879	0.36036	0	0	0
447	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Electric Convection Ovens	Per Unit	ROB	12	12	\$0.00	1,988	0.38126	0	0	0
448	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Steam Cooker	Per Unit	ROB	12	12	\$630.00	1,730	0.33180	0	0	0
449	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Steam Cooker	Per Unit	ROB	12	12	\$630.00	1,730	0.33180	0	0	0
450	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Steam Cooker	Per Unit	ROB	12	12	\$630.00	1,730	0.33180	0	0	0
451	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Steam Cooker	Per Unit	ROB	12	12	\$630.00	1,730	0.33180	0	0	0
452	NWS	Non-Residential	All	Hospital	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	Per Unit	ROB	12	9	\$0.00	1,284	0.14843	0	0	0
453	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	Per Unit	ROB	12	9	\$0.00	964	0.14843	0	0	0
454	NWS	Non-Residential	All	Lodging	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	Per Unit	ROB	12	9	\$0.00	1,284	0.14843	0	0	0
455	NWS	Non-Residential	All	Restaurant	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	Per Unit	ROB	12	9	\$0.00	1,284	0.14843	0	0	0
456	NWS	Non-Residential	All	Hospital	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,050.00	1,185	0.09741	0	0	0
457	NWS	Non-Residential	All	Hospital	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,050.00	2,306	0.18956	0	0	0
458	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,050.00	22	0.00541	0	0	0
459	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,050.00	42	0.01053	0	0	0
460	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,950.00	57	0.01421	0	0	0
461	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,050.00	29	0.00541	0	0	0
462	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,050.00	56	0.01053	0	0	0
463	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,950.00	76	0.01421	0	0	0
464	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,050.00	227	0.01242	0	0	0
465	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,050.00	441	0.02417	0	0	0
466	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,950.00	595	0.03262	0	0	0
467	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,050.00	2,365	0.28082	0	0	0
468	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,050.00	4,603	0.54651	0	0	0
469	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Per 1000 sqft	ROB	15	15	\$1,950.00	6,213	0.73758	0	0	0
470	NWS	Non-Residential	All	Hospital	Service Hot Water	Heat Pump Storage Water Heater	Per 1000 sqft	ROB	15	15	\$925.00	11,514	0.94638	0	0	0
471	NWS	Non-Residential	All	K12 Education	Service Hot Water	Heat Pump Storage Water Heater	Per 1000 sqft	ROB	15	15	\$925.00	210	0.02528	0	0	0
472	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Heat Pump Storage Water Heater	Per 1000 sqft	ROB	15	15	\$925.00	280	0.02528	0	0	0
473	NWS	Non-Residential	All	Lodging	Service Hot Water	Heat Pump Storage Water Heater	Per 1000 sqft	ROB	15	15	\$925.00	2,202	0.12065	0	0	0
474	NWS	Non-Residential	All	Restaurant	Service Hot Water	Heat Pump Storage Water Heater	Per 1000 sqft	ROB	15	15	\$925.00	22,981	2.72838	0	0	0
475	NWS	Non-Residential	All	Hospital	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	Per Unit	RET	10	10	\$8.00	72	0.00590	0	0	0
476	NWS	Non-Residential	All	K12 Education	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	Per Unit	RET	10	10	\$8.00	393	0.09835	0	0	0
477	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	Per Unit	RET	10	10	\$8.00	525	0.09835	0	0	0
478	NWS	Non-Residential	All	Lodging	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	Per Unit	RET	10	10	\$8.00	72	0.00393	0	0	0
479	NWS	Non-Residential	All	Restaurant	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	Per Unit	RET	10	10	\$8.00	718	0.08524	0	0	0



Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Description	Measure Unit Name	EEM Logic (RET/RO B/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	MEASURE INCREMENTAL SAVING PER UNIT				
												Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
481	NWS	Non-Residential	Small Commercial	All	Misc	Small Business Program Audit & Direct Install	Per Participant	RET	1	1	\$200.00	0	0.00000	0	0	0
482	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	Per Participant	RET	0.2	2	\$6.12	472	0.06700	0	0	0
483	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	Per Participant	RET	0.2	12	\$40.82	497	0.13700	0	0	0
484	NWS	Non-Residential	Small Commercial	All	Service Hot Water	Small Business Program Audit & Direct Install	Per Participant	RET	9	9	\$95.81	2,752	0.74000	0	0	0
485	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Lighting Upgrade Package	Per Participant	RET	15	15	\$2,958.29	4,890	0.78000	0	0	0
486	NWS	Non-Residential	Small Commercial	All	Refrigeration	Small Business Program Refrigeration Upgrade Package	Per Participant	RET	15	15	\$90.85	552	0.04000	0	0	0
488	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	per building	RET	12	12	\$41,851.85	496,692	57.00000	0	0	0
489	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	per building	RET	12	12	\$83,703.70	722,700	83.00000	0	0	0
490	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	per building	RET	12	12	\$209,259.26	658,051	75.00000	0	0	0
491	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	per building	RET	12	12	\$418,518.52	1,314,000	150.00000	0	0	0
492	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	per building	RET	12	12	\$37,037.04	115,895	13.00000	0	0	0
493	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	per building	RET	12	12	\$74,074.07	229,950	26.00000	0	0	0
494	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	per building	RET	12	12	\$185,185.19	575,795	66.00000	0	0	0
495	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	per building	RET	12	12	\$370,370.37	1,149,750	131.00000	0	0	0
496	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	per building	RET	12	12	\$370,370.37	329,026	0.00000	0	0	0
497	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	per building	RET	12	12	\$740,740.74	657,000	0.00000	0	0	0
498	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	per building	NEW	12	12	\$41,851.85	883,008	101.00000	0	0	0
499	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	per building	NEW	12	12	\$83,703.70	2,518,500	288.00000	0	0	0
500	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	per building	NEW	12	12	\$209,259.26	1,919,316	219.00000	0	0	0
501	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	per building	NEW	12	12	\$418,518.52	3,832,500	437.00000	0	0	0
502	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	per building	NEW	12	12	\$37,037.04	386,316	44.00000	0	0	0
503	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	per building	NEW	12	12	\$74,074.07	766,500	87.00000	0	0	0
504	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	per building	NEW	12	12	\$185,185.19	1,919,316	219.00000	0	0	0
505	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	per building	NEW	12	12	\$370,370.37	3,832,500	437.00000	0	0	0
506	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	per building	NEW	12	12	\$370,370.37	822,564	0.00000	0	0	0
507	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	per building	NEW	12	12	\$740,740.74	1,642,500	0.00000	0	0	0
509	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	per building	NEW	15	15	\$36,768.00	132,429	13.60000	0	0	0
510	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	per building	NEW	15	15	\$36,768.00	117,026	12.02000	0	0	0
511	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	per building	NEW	15	15	\$1,479.00	5,574	0.44000	0	0	0
512	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	per building	NEW	15	15	\$1,479.00	4,926	0.39000	0	0	0
514	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	per building	RET	5	5	\$11,062.00	149,245	2.10000	0	0	0
515	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	per building	RET	5	5	\$1,216.00	28,212	0.40000	0	0	0
517	NWS	Non-Residential	All	All	Misc	Interruptible Rate	per customer	RET	10	10	\$1.00	0	25.71000	0	0	0
518	NWS	Non-Residential	All	All	Misc	Enabled Dynamic Pricing (Non-Res)	per customer	RET	10	10	\$504.00	0	3.07000	0	0	0
519	NWS	Non-Residential	All	All	Misc	Non-Enabled Dynamic Pricing (Non-Res)	per customer	RET	10	10	\$1.00	0	1.98000	0	0	0
521	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Cut-Out Control	Building	RET	20	20	\$1,000.00	0	0.00000	75.88127968	0	0
522	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Cut-Out Control	Building	RET	20	20	\$1,000.00	0	0.00000	338.7474872	0	0
523	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Cut-Out Control	Building	RET	20	20	\$1,000.00	0	0.00000	63.63733774	0	0
524	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Cut-Out Control	Building	RET	20	20	\$1,000.00	0	0.00000	1071.912162	0	0
525	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Cut-Out Control	Building	RET	20	20	\$1,000.00	0	0.00000	51.35424435	0	0
526	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler or Furnace Vent Damper	Building	RET	12	12	\$0.00	0	0.00000	312.4523281	0	0
527	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler or Furnace Vent Damper	Building	RET	12	12	\$0.00	0	0.00000	1394.842594	0	0
528	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler or Furnace Vent Damper	Building	RET	12	12	\$0.00	0	0.00000	262.0360966	0	0
529	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler or Furnace Vent Damper	Building	RET	12	12	\$0.00	0	0.00000	4413.755963	0	0
530	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler or Furnace Vent Damper	Building	RET	12	12	\$0.00	0	0.00000	211.4586532	0	0
531	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Reset Control	Building	RET	20	20	\$2,500.00	0	0.00000	169.6169781	0	0
532	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Reset Control	Building	RET	20	20	\$2,500.00	0	0.00000	757.2002655	0	0
533	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Reset Control	Building	RET	20	20	\$2,500.00	0	0.00000	142.2481667	0	0
534	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Reset Control	Building	RET	20	20	\$2,500.00	0	0.00000	2396.038951	0	0
535	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Reset Control	Building	RET	20	20	\$2,500.00	0	0.00000	114.7918403	0	0
536	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Tune-Up	Building	RET	2	2	\$2,818.86	0	0.00000	89.27209375	0	0
537	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Tune-Up	Building	RET	2	2	\$2,484.38	0	0.00000	398.5264555	0	0
538	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Tune-Up	Building	RET	2	2	\$2,364.02	0	0.00000	74.86745616	0	0
539	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Tune-Up	Building	RET	2	2	\$7,861.41	0	0.00000	1261.073132	0	0
540	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Tune-Up	Building	RET	2	2	\$835.26	0	0.00000	60.41675806	0	0

Commercial Measures

MEASURE DESCRIPTION											MEASURE INCREMENTAL SAVING PER UNIT					
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Unit Name	EEM Logic (RET/ROB/NEW)	Baseline Unit Lifetime (Years)	Efficient Unit Lifetime (Years)	Total Incremental Cost	Annual kWh Savings	Annual kW Coincident Peak Savings	Annual Gas Savings (Therms)	Annual kWh Increases	Annual kW Coincident Peak Increases
541	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Burner Replacement for Commercial Boilers	Building	ROB	12	12	\$0.00	0	0.00000	312.4523281	0	0
542	WS	Non-Residential	Large Commercial	Lodging	HVAC	Burner Replacement for Commercial Boilers	Building	ROB	12	12	\$0.00	0	0.00000	1394.842594	0	0
543	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Burner Replacement for Commercial Boilers	Building	ROB	12	12	\$0.00	0	0.00000	262.0360966	0	0
544	WS	Non-Residential	Large Commercial	Hospital	HVAC	Burner Replacement for Commercial Boilers	Building	ROB	12	12	\$0.00	0	0.00000	4413.755963	0	0
545	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Burner Replacement for Commercial Boilers	Building	ROB	12	12	\$0.00	0	0.00000	211.4586532	0	0
546	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Efficient Commercial Boilers	Building	ROB	20	20	\$3,370.00	0	0.00000	521.4223704	0	0
547	WS	Non-Residential	Large Commercial	Lodging	HVAC	Efficient Commercial Boilers	Building	ROB	20	20	\$3,370.00	0	0.00000	2327.721916	0	0
548	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Efficient Commercial Boilers	Building	ROB	20	20	\$3,370.00	0	0.00000	437.2874525	0	0
549	WS	Non-Residential	Large Commercial	Hospital	HVAC	Efficient Commercial Boilers	Building	ROB	20	20	\$3,370.00	0	0.00000	7365.703147	0	0
550	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Efficient Commercial Boilers	Building	ROB	20	20	\$3,370.00	0	0.00000	352.8835034	0	0
551	NWS	Non-Residential	Small Commercial	All	HVAC	Direct Vent Heaters (Small Commercial)	Building	ROB	20	20	\$0.00	0	0.00000	177.979518	0	0
552	WS	Non-Residential	Small Commercial	All	HVAC	Gas Furnace (Small Commercial)	Building	ROB	20	20	\$477.00	0	0.00000	25.86669038	0	0
553	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient storage gas water heater	Building	ROB	15	15	\$209.00	0	0.00000	64.283698	0	0
554	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient instantaneous gas water heater	Building	ROB	15	15	\$2,526.00	0	0.00000	132.8840872	0	0
555	NWS	Non-Residential	Small Commercial	All	Water Heating	Faucet Aerator	Building	RET	10	10	\$29.00	0	0.00000	122.8	0	0
556	NWS	Non-Residential	Large Commercial	All	Water Heating	Faucet Aerator	Building	RET	10	10	\$135.00	0	0.00000	428.3	0	0
557	NWS	Non-Residential	Small Commercial	All	Water Heating	Gas WH pipe insulation (Small Commercial)	Building	RET	15	15	\$24.00	0	0.00000	1.1	0	0





















Commercial Measures

MEASURE DESCRIPTION						MEASURE SELECTION				APPLICABILITY								PROGRAM		
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure TRC calculated for 2014	Measure TRC calculated for 2020	Measure TRC calculated for 2022	Passed Measure Screening? (1=Yes, 0=No)	Total Sub-Sector Units	Measure Units per Sub-Sector Unit	Applicability	Technical Feasibility	Distribution by size/model but not Efficiency Level	Distribution by Efficiency Level	Not Yet Adopted	Annual Replacement Eligibility	Total Applicable Measure Units	Program Name
541	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
542	WS	Non-Residential	Large Commercial	Lodging	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
543	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
544	WS	Non-Residential	Large Commercial	Hospital	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
545	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
546	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Efficient Commercial Boilers	1.0	1.1	1.1	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
547	WS	Non-Residential	Large Commercial	Lodging	HVAC	Efficient Commercial Boilers	4.4	4.9	5.0	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
548	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Efficient Commercial Boilers	0.8	0.9	0.9	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
549	WS	Non-Residential	Large Commercial	Hospital	HVAC	Efficient Commercial Boilers	14.0	15.4	15.8	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
550	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Efficient Commercial Boilers	0.7	0.7	0.8	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
551	NWS	Non-Residential	Small Commercial	All	HVAC	Direct Vent Heaters (Small Commercial)	*N/A	*N/A	*N/A	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
552	WS	Non-Residential	Small Commercial	All	HVAC	Gas Furnace (Small Commercial)	0.3	0.4	0.4	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
553	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient storage gas water heater	1.6	1.8	1.8	1	12,887	1	100%	63%	27%	0%	0%	7%	147,1986674	Commercial Prescriptive & Custom
554	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient instantaneous gas water heater	0.3	0.3	0.3	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
555	NWS	Non-Residential	Small Commercial	All	Water Heating	Faucet Aerator	15.4	17.8	18.5	1	12,887	1	100%	63%	27%	0%	68%	100%	1501.426407	Small Business Solutions
556	NWS	Non-Residential	Large Commercial	All	Water Heating	Faucet Aerator	11.6	13.3	13.8	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A
557	NWS	Non-Residential	Small Commercial	All	Water Heating	Gas WH pipe insulation (Small Commercial)	0.2	0.3	0.3	0	0	0	0%	0%	0%	0%	0%	0%	0	*N/A



Commercial Measures

MEASURE DESCRIPTION						MEASURE DOCUMENTATION					
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
61	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	ICF	ICF	AR TRM	ICF	ICF
62	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	ICF	ICF	AR TRM	ICF	ICF
63	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	ICF	ICF	AR TRM	ICF	ICF
64	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	ICF	ICF	AR TRM	ICF	ICF
65	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	ICF	ICF	AR TRM	ICF	ICF
66	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	ICF	ICF	AR TRM	ICF	ICF
67	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	ICF	ICF	AR TRM	ICF	ICF
68	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	ICF	ICF	AR TRM	ICF	ICF
69	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	ICF	ICF	AR TRM	ICF	ICF
71	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
72	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
73	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
74	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
75	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
76	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
77	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
78	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
79	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
80	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
81	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
82	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
83	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
84	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
85	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
86	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
87	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
88	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
89	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
90	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	MidAtlantic TRM	MidAtlantic TRM	MidAtlantic TRM	ICF	ICF
92	NWS	Non-Residential	Small Commercial	All	HVAC	Dual Enthalpy Economizer	ICF	Honeywell	MidAtlantic TRM	ICF	ICF
93	NWS	Non-Residential	Large Commercial	All	HVAC	Dual Enthalpy Economizer	ICF	Honeywell	MidAtlantic TRM	ICF	ICF
95	NWS	Non-Residential	Small Commercial	All	HVAC	Demand Controlled Ventilation	ICF	Honeywell	ICF	ICF	ICF
96	NWS	Non-Residential	Large Commercial	All	HVAC	Demand Controlled Ventilation	ICF	Honeywell	ICF	ICF	ICF
98	WS	Non-Residential	Small Commercial	All	HVAC	Ground Source Heatpump	ICF	ICF	ICF	ICF	ICF
100	WS	Non-Residential	Small Commercial	All	HVAC	AC Tune-Up	ICF	ICF	ICF	ICF	ICF
102	NWS	Non-Residential	Small Commercial	All	HVAC	Electronically Commutated Motors for Refrigeration and HVAC Applications	ICF	ICF	ICF	ICF	ICF
103	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
104	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
105	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
106	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
107	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
108	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
109	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
110	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
111	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
112	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
113	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
114	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
115	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
116	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
117	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
118	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
119	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF
120	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	IL TRM	ICF	AR & IL TRM	ICF	ICF















Commercial Measures

MEASURE DESCRIPTION							MEASURE DOCUMENTATION				
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
481	NWS	Non-Residential	Small Commercial	All	Misc	Small Business Program Audit & Direct Install	ICF	ICF	ICF	ICF	ICF
482	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	ICF	ICF	ICF	ICF	ICF
483	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	ICF	ICF	ICF	ICF	ICF
484	NWS	Non-Residential	Small Commercial	All	Service Hot Water	Small Business Program Audit & Direct Install	ICF	ICF	ICF	ICF	ICF
485	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Lighting Upgrade Package	ICF	ICF	ICF	ICF	ICF
486	NWS	Non-Residential	Small Commercial	All	Refrigeration	Small Business Program Refrigeration Upgrade Package	ICF	ICF	ICF	ICF	ICF
488	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	ICF	ICF	ICF	ICF	ICF
489	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	ICF	ICF	ICF	ICF	ICF
490	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	ICF	ICF	ICF	ICF	ICF
491	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	ICF	ICF	ICF	ICF	ICF
492	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	ICF	ICF	ICF	ICF	ICF
493	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	ICF	ICF	ICF	ICF	ICF
494	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	ICF	ICF	ICF	ICF	ICF
495	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	ICF	ICF	ICF	ICF	ICF
496	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	ICF	ICF	ICF	ICF	ICF
497	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	ICF	ICF	ICF	ICF	ICF
498	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	ICF	ICF	ICF	ICF	ICF
499	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	ICF	ICF	ICF	ICF	ICF
500	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	ICF	ICF	ICF	ICF	ICF
501	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	ICF	ICF	ICF	ICF	ICF
502	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	ICF	ICF	ICF	ICF	ICF
503	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	ICF	ICF	ICF	ICF	ICF
504	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	ICF	ICF	ICF	ICF	ICF
505	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	ICF	ICF	ICF	ICF	ICF
506	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	ICF	ICF	ICF	ICF	ICF
507	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	ICF	ICF	ICF	ICF	ICF
509	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	ICF	ICF	ICF	ICF	ICF
510	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	ICF	ICF	ICF	ICF	ICF
511	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	ICF	ICF	ICF	ICF	ICF
512	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	ICF	ICF	ICF	ICF	ICF
514	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	ICF	ICF	ICF	ICF	ICF
515	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	ICF	ICF	ICF	ICF	ICF
517	NWS	Non-Residential	All	All	Misc	Interruptible Rate	ICF	ICF	ICF	ICF	ICF
518	NWS	Non-Residential	All	All	Misc	Enabled Dynamic Pricing (Non-Res)	ICF	ICF	ICF	ICF	ICF
519	NWS	Non-Residential	All	All	Misc	Non-Enabled Dynamic Pricing (Non-Res)	ICF	ICF	ICF	ICF	ICF
521	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Cut-Out Control	ICF	AR TRM	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
522	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Cut-Out Control	ICF	AR TRM	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
523	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Cut-Out Control	ICF	AR TRM	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
524	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Cut-Out Control	ICF	AR TRM	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
525	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Cut-Out Control	ICF	AR TRM	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
526	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler or Furnace Vent Damper	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
527	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler or Furnace Vent Damper	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
528	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler or Furnace Vent Damper	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
529	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler or Furnace Vent Damper	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
530	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler or Furnace Vent Damper	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
531	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Reset Control	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
532	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Reset Control	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
533	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Reset Control	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
534	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Reset Control	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
535	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Reset Control	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
536	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Tune-Up	IL TRM	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
537	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Tune-Up	IL TRM	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
538	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Tune-Up	IL TRM	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
539	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Tune-Up	IL TRM	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
540	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Tune-Up	IL TRM	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF

Commercial Measures

MEASURE DESCRIPTION						MEASURE DOCUMENTATION					
Measure ID	Weather Sensitive	Sector	Sub-Sector	Building Type	End Use	Measure Name	Measure Cost Source	Measure Savings Source	Measure Lifetime Source	Measure Unit per SubSector Unit Source	Applicability
541	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Burner Replacement for Commercial Boilers	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
542	WS	Non-Residential	Large Commercial	Lodging	HVAC	Burner Replacement for Commercial Boilers	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
543	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Burner Replacement for Commercial Boilers	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
544	WS	Non-Residential	Large Commercial	Hospital	HVAC	Burner Replacement for Commercial Boilers	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
545	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Burner Replacement for Commercial Boilers	ICF	ICF	AR TRM (via NYSERDA Natural Gas Database)	ICF	ICF
546	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Efficient Commercial Boilers	IL TRM	ICF	AR TRM (via DEER 2008)	ICF	ICF
547	WS	Non-Residential	Large Commercial	Lodging	HVAC	Efficient Commercial Boilers	IL TRM	ICF	AR TRM (via DEER 2008)	ICF	ICF
548	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Efficient Commercial Boilers	IL TRM	ICF	AR TRM (via DEER 2008)	ICF	ICF
549	WS	Non-Residential	Large Commercial	Hospital	HVAC	Efficient Commercial Boilers	IL TRM	ICF	AR TRM (via DEER 2008)	ICF	ICF
550	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Efficient Commercial Boilers	IL TRM	ICF	AR TRM (via DEER 2008)	ICF	ICF
551	NWS	Non-Residential	Small Commercial	All	HVAC	Direct Vent Heaters (Small Commercial)	ICF	ICF	AR TRM (via DEER 2008)	ICF	ICF
552	WS	Non-Residential	Small Commercial	All	HVAC	Gas Furnace (Small Commercial)	IL TRM	ICF	AR TRM (via DEER 2008)	ICF	ICF
553	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient storage gas water heater	IL TRM	ICF	AR TRM (via DEER 2008)	ICF	ICF
554	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient instantaneous gas water heater	IL TRM	ICF	AR TRM (via DEER 2008)	ICF	ICF
555	NWS	Non-Residential	Small Commercial	All	Water Heating	Faucet Aerator	IL TRM	ICF	AR TRM	ICF	ICF
556	NWS	Non-Residential	Large Commercial	All	Water Heating	Faucet Aerator	IL TRM	ICF	AR TRM	ICF	ICF
557	NWS	Non-Residential	Small Commercial	All	Water Heating	Gas WH pipe insulation (Small Commercial)	IL TRM (Res cost, per Colin suggestion)	ICF	AR TRM	ICF	ICF

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
1	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	1.939%	2015	1.938560%	2015	1.938560%
2	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	1.302%	2015	1.301759%	2015	1.301759%
3	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
4	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	2.613%	2015	2.612528%	2015	2.612528%
5	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	0.065%	2015	0.064750%	2015	0.064750%
6	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	0.973%	2015	0.972931%	2015	0.972931%
7	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	0.623%	2015	0.622544%	2015	0.622544%
8	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	2.848%	2015	2.847748%	2015	2.847748%
9	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	0.361%	2015	0.361223%	2015	0.361223%
10	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	2.613%	2015	2.612528%	2015	2.612528%
11	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	1.906%	2015	1.905791%	2015	1.905791%
12	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	2.837%	2015	2.837289%	2015	2.837289%
13	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
14	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	1.550%	2015	1.549645%	2015	1.549645%
15	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	3.553%	2015	3.553442%	2015	3.553442%
16	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	1.640%	2015	1.640433%	2015	1.640433%
17	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
18	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	1.542%	2015	1.542274%	2015	1.542274%
19	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	3.543%	2015	3.542524%	2015	3.542524%
20	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	1.631%	2015	1.630991%	2015	1.630991%
21	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
22	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	1.183%	2015	1.183488%	2015	1.183488%
23	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	2.991%	2015	2.991386%	2015	2.991386%
24	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	1.259%	2015	1.259152%	2015	1.259152%
26	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	4.978173%	2015	0.000000%
27	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	5.923090%	2015	0.000000%
28	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	4.978173%	2015	0.000000%
29	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	5.923090%	2015	0.000000%
30	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	3.643328%	2015	0.000000%
31	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	3.725977%	2015	0.000000%
32	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
33	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	1.166935%	2015	0.000000%
34	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	5.688521%	2015	0.000000%
35	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	1.299364%	2015	0.000000%
36	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
37	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
38	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
39	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
41	WS	Non-Residential	Small Commercial	Lodging	HVAC	PTAC	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
42	NWS	Non-Residential	Small Commercial	Lodging	HVAC	Occupancy-Based PTAC/PTHP Controls	Commercial Prescriptive & Custom	2015	0.002%	2034	0.010084%	2034	0.010084%
44	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
45	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.091%	2034	0.546124%	2034	0.546124%
46	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.584%	2034	3.503667%	2034	3.503667%
47	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.103%	2034	0.619150%	2034	0.619150%
48	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
49	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
50	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	1.489%	2034	8.931306%	2034	8.931306%
51	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
52	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	1.056%	2034	6.333502%	2034	6.333502%
53	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
54	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.119%	2034	0.711121%	2034	0.711121%
55	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.691%	2034	4.145311%	2034	4.145311%
56	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.134%	2034	0.801011%	2034	0.801011%
57	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	5.873%	2034	35.237454%	2034	35.237454%
58	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
59	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	2.690%	2034	16.137115%	2034	16.137115%
60	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	5.048%	2034	30.287208%	2034	30.287208%

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
61	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	2.806%	2034	16.837916%	2034	16.837916%
62	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	2.200%	2034	13.197529%	2034	13.197529%
63	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.451%	2034	2.703709%	2034	2.703709%
64	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	1.618%	2034	9.705763%	2034	9.705763%
65	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.491%	2034	2.947398%	2034	2.947398%
66	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	3.610%	2034	21.661247%	2034	21.661247%
67	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	1.110%	2034	6.659056%	2034	6.659056%
68	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	2.872%	2034	17.234018%	2034	17.234018%
69	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	1.183%	2034	7.100632%	2034	7.100632%
71	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.013%	2034	0.074999%	2034	0.074999%
72	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.009%	2034	0.051596%	2034	0.051596%
73	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.012%	2034	0.069657%	2034	0.069657%
74	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.013%	2034	0.074999%	2034	0.074999%
75	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.008%	2034	0.048478%	2034	0.048478%
76	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.003%	2034	0.020251%	2034	0.020251%
77	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.012%	2034	0.069657%	2034	0.069657%
78	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.010%	2034	0.060067%	2034	0.060067%
79	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.009%	2034	0.053464%	2034	0.053464%
80	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.004%	2034	0.023733%	2034	0.023733%
81	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.012%	2034	0.069657%	2034	0.069657%
82	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.011%	2034	0.064082%	2034	0.064082%
83	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.010%	2034	0.058131%	2034	0.058131%
84	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.005%	2034	0.027693%	2034	0.027693%
85	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.012%	2034	0.069657%	2034	0.069657%
86	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.011%	2034	0.067737%	2034	0.067737%
87	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.011%	2034	0.063147%	2034	0.063147%
88	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.005%	2034	0.032682%	2034	0.032682%
89	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.012%	2034	0.069657%	2034	0.069657%
90	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.012%	2034	0.071553%	2034	0.071553%
92	NWS	Non-Residential	Small Commercial	All	HVAC	Dual Enthalpy Economizer	Commercial Prescriptive & Custom	2015	0.007%	2034	0.044447%	2034	0.044447%
93	NWS	Non-Residential	Large Commercial	All	HVAC	Dual Enthalpy Economizer	Commercial Prescriptive & Custom	2015	0.008%	2034	0.045092%	2034	0.045092%
95	NWS	Non-Residential	Small Commercial	All	HVAC	Demand Controlled Ventilation	Commercial Prescriptive & Custom	2015	0.008%	2034	0.049581%	2034	0.049581%
96	NWS	Non-Residential	Large Commercial	All	HVAC	Demand Controlled Ventilation	Commercial Prescriptive & Custom	2015	0.004%	2034	0.021341%	2034	0.021341%
98	WS	Non-Residential	Small Commercial	All	HVAC	Ground Source Heatpump	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
100	WS	Non-Residential	Small Commercial	All	HVAC	AC Tune-Up	Small Business Solutions	2015	0.093%	2034	0.555942%	2034	0.555942%
102	NWS	Non-Residential	Small Commercial	All	HVAC	Electronically Commutated Motors for Refrigeration and HVAC Applications	Commercial Prescriptive & Custom	2015	0.011%	2034	0.063960%	2034	0.063960%
103	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
104	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
105	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
106	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
107	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
108	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
109	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
110	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
111	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
112	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
113	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
114	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
115	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
116	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
117	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
118	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
119	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
120	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A



Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
121	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
122	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
123	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
124	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
125	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
126	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
127	NWS	Non-Residential	All	Hospital	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.667%	2034	3.999937%	2034	3.999937%
128	NWS	Non-Residential	All	K12 Education	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.595%	2034	3.567325%	2034	3.567325%
129	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.638%	2034	3.825633%	2034	3.825633%
130	NWS	Non-Residential	All	Lodging	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.667%	2034	3.999937%	2034	3.999937%
131	NWS	Non-Residential	All	General Large Commercial	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.644%	2034	3.865588%	2034	3.865588%
132	NWS	Non-Residential	All	General Small Commercial	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.659%	2034	3.955719%	2034	3.955719%
133	NWS	Non-Residential	All	Hospital	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
134	NWS	Non-Residential	All	K12 Education	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
135	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
136	NWS	Non-Residential	All	Lodging	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
137	NWS	Non-Residential	All	General Large Commercial	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
138	NWS	Non-Residential	All	General Small Commercial	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
139	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.334%	2034	2.001914%	2034	2.001914%
140	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.102%	2034	0.612691%	2034	0.612691%
141	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.050%	2034	0.301845%	2034	0.301845%
142	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.388%	2034	2.328555%	2034	2.328555%
143	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.184%	2034	1.105495%	2034	1.105495%
144	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.218%	2034	1.309572%	2034	1.309572%
145	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.556%	2034	3.338004%	2034	3.338004%
146	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.293%	2034	1.759531%	2034	1.759531%
147	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.387%	2034	2.323167%	2034	2.323167%
148	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.604%	2034	3.622319%	2034	3.622319%
149	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.404%	2034	2.421121%	2034	2.421121%
150	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.442%	2034	2.653419%	2034	2.653419%
151	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.165%	2034	0.989741%	2034	0.989741%
152	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.024%	2034	0.143220%	2034	0.143220%
153	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.055%	2034	0.331384%	2034	0.331384%
154	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.211%	2034	1.266750%	2034	1.266750%
155	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.063%	2034	0.375387%	2034	0.375387%
156	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.082%	2034	0.494991%	2034	0.494991%
157	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.409%	2034	2.456190%	2034	2.456190%
158	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.156%	2034	0.934337%	2034	0.934337%
159	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.237%	2034	1.421239%	2034	1.421239%
160	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.463%	2034	2.778732%	2034	2.778732%
161	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.252%	2034	1.512658%	2034	1.512658%
162	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.290%	2034	1.737001%	2034	1.737001%
163	NWS	Non-Residential	All	Hospital	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
164	NWS	Non-Residential	All	Hospital	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
165	NWS	Non-Residential	All	K12 Education	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
166	NWS	Non-Residential	All	K12 Education	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
167	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
168	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
169	NWS	Non-Residential	All	Lodging	Lighting	Commercial Standard CFL	Commercial Prescriptive & Custom	2015	0.500%	2034	2.999953%	2034	2.999953%
170	NWS	Non-Residential	All	Lodging	Lighting	Commercial Standard CFL	Commercial Prescriptive & Custom	2015	0.500%	2034	2.999953%	2034	2.999953%
171	NWS	Non-Residential	All	General Large Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
172	NWS	Non-Residential	All	General Large Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
173	NWS	Non-Residential	All	General Small Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
174	NWS	Non-Residential	All	General Small Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
175	NWS	Non-Residential	All	Hospital	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	0.833%	2020	4.243150%	2020	4.243150%
176	NWS	Non-Residential	All	Hospital	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.167%	2034	6.999890%	2034	6.999890%
177	NWS	Non-Residential	All	K12 Education	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	0.743%	2020	3.781270%	2020	3.781270%
178	NWS	Non-Residential	All	K12 Education	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.125%	2034	6.752857%	2034	6.752857%
179	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	0.797%	2020	4.055779%	2020	4.055779%
180	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.167%	2034	6.999890%	2034	6.999890%

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					Measure Name	PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Program Name			First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)	Final Year Participation Rate (Fo)
181	NWS	Non-Residential	All	Lodging	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	0.764%	2020	3.890645%	2020	3.890645%	
182	NWS	Non-Residential	All	Lodging	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.150%	2034	6.898218%	2034	6.898218%	
183	NWS	Non-Residential	All	General Large Commercial	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	0.805%	2020	4.098245%	2020	4.098245%	
184	NWS	Non-Residential	All	General Large Commercial	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.167%	2034	6.999890%	2034	6.999890%	
185	NWS	Non-Residential	All	General Small Commercial	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	0.824%	2020	4.194043%	2020	4.194043%	
186	NWS	Non-Residential	All	General Small Commercial	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.167%	2034	6.999890%	2034	6.999890%	
187	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.030%	2034	0.177324%	2034	0.177324%	
188	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.046%	2034	0.274922%	2034	0.274922%	
189	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.055%	2034	0.330353%	2034	0.330353%	
190	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.066%	2034	0.397946%	2034	0.397946%	
191	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.066%	2034	0.398964%	2034	0.398964%	
192	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.078%	2034	0.467740%	2034	0.467740%	
193	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.098%	2034	0.590836%	2034	0.590836%	
194	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.109%	2034	0.654691%	2034	0.654691%	
195	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.059%	2034	0.355052%	2034	0.355052%	
196	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.078%	2034	0.469668%	2034	0.469668%	
197	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
198	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
199	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.323%	2034	1.939755%	2034	1.939755%	
200	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.235%	2034	1.412679%	2034	1.412679%	
201	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.091%	2034	0.545674%	2034	0.545674%	
202	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.323%	2034	1.939755%	2034	1.939755%	
203	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.379%	2034	2.272996%	2034	2.272996%	
204	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.354%	2034	2.123688%	2034	2.123688%	
205	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.354%	2034	2.123688%	2034	2.123688%	
206	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.374%	2034	2.242429%	2034	2.242429%	
207	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.293%	2034	1.755905%	2034	1.755905%	
208	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.141%	2034	0.843041%	2034	0.843041%	
209	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.374%	2034	2.242429%	2034	2.242429%	
210	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.422%	2034	2.534121%	2034	2.534121%	
211	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.401%	2034	2.404731%	2034	2.404731%	
212	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.401%	2034	2.404731%	2034	2.404731%	
213	NWS	Non-Residential	Small Commercial	All	Lighting	LED Exit Signs	Commercial Prescriptive & Custom	2015	0.223%	2034	1.339811%	2034	1.339811%	
214	NWS	Non-Residential	All	Hospital	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.447%	2034	2.681158%	2034	2.681158%	
215	NWS	Non-Residential	All	K12 Education	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.447%	2034	2.681158%	2034	2.681158%	
216	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.447%	2034	2.681158%	2034	2.681158%	
217	NWS	Non-Residential	All	Lodging	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.447%	2034	2.681158%	2034	2.681158%	
218	NWS	Non-Residential	All	Food Sales	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.440%	2034	2.641115%	2034	2.641115%	
219	NWS	Non-Residential	All	Restaurant	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.447%	2034	2.681158%	2034	2.681158%	
220	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.460%	2034	2.757303%	2034	2.757303%	
221	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.486%	2034	2.913193%	2034	2.913193%	
222	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
223	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
224	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
225	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
226	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
227	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
228	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.460%	2034	2.757303%	2034	2.757303%	
229	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.486%	2034	2.913193%	2034	2.913193%	
230	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
231	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
232	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
233	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
234	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
235	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
236	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.460%	2034	2.757303%	2034	2.757303%	
237	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.486%	2034	2.913193%	2034	2.913193%	
238	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
239	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	
240	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.99953%	2034	2.99953%	



Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
301	NWS	Non-Residential	All	Food Sales	Refrigeration	Door Heater Controls for Cooler or Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.999953%	2034	2.999953%
302	NWS	Non-Residential	All	Food Sales	Refrigeration	Door Heater Controls for Cooler or Freezer	Commercial Prescriptive & Custom	2015	0.421%	2034	2.524187%	2034	2.524187%
303	NWS	Non-Residential	All	Food Sales	Refrigeration	Door Heater Controls for Cooler or Freezer	Commercial Prescriptive & Custom	2015	0.421%	2034	2.524187%	2034	2.524187%
304	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Commercial Prescriptive & Custom	2015	0.452%	2034	2.710460%	2034	2.710460%
305	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Commercial Prescriptive & Custom	2015	0.300%	2034	1.801892%	2034	1.801892%
306	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Commercial Prescriptive & Custom	2015	0.300%	2034	1.801892%	2034	1.801892%
307	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Commercial Prescriptive & Custom	2015	0.500%	2034	2.999953%	2034	2.999953%
308	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Commercial Prescriptive & Custom	2015	0.421%	2034	2.524187%	2034	2.524187%
309	NWS	Non-Residential	All	Restaurant	Refrigeration	Door Heater Controls for Cooler or Freezer	Commercial Prescriptive & Custom	2015	0.421%	2034	2.524187%	2034	2.524187%
310	NWS	Non-Residential	All	Hospital	Refrigeration	Evaporator Fan Control	Commercial Prescriptive & Custom	2015	0.129%	2034	0.773442%	2034	0.773442%
311	NWS	Non-Residential	All	K12 Education	Refrigeration	Evaporator Fan Control	Commercial Prescriptive & Custom	2015	0.129%	2034	0.773442%	2034	0.773442%
312	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Evaporator Fan Control	Commercial Prescriptive & Custom	2015	0.129%	2034	0.773442%	2034	0.773442%
313	NWS	Non-Residential	All	Lodging	Refrigeration	Evaporator Fan Control	Commercial Prescriptive & Custom	2015	0.129%	2034	0.773442%	2034	0.773442%
314	NWS	Non-Residential	All	Food Sales	Refrigeration	Evaporator Fan Control	Commercial Prescriptive & Custom	2015	0.129%	2034	0.773442%	2034	0.773442%
315	NWS	Non-Residential	All	Restaurant	Refrigeration	Evaporator Fan Control	Commercial Prescriptive & Custom	2015	0.129%	2034	0.773442%	2034	0.773442%
316	NWS	Non-Residential	All	Hospital	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Commercial Prescriptive & Custom	2015	0.477%	2034	2.860956%	2034	2.860956%
317	NWS	Non-Residential	All	Hospital	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
318	NWS	Non-Residential	All	K12 Education	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Commercial Prescriptive & Custom	2015	0.477%	2034	2.860956%	2034	2.860956%
319	NWS	Non-Residential	All	K12 Education	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
320	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Commercial Prescriptive & Custom	2015	0.477%	2034	2.860956%	2034	2.860956%
321	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
322	NWS	Non-Residential	All	Lodging	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Commercial Prescriptive & Custom	2015	0.477%	2034	2.860956%	2034	2.860956%
323	NWS	Non-Residential	All	Lodging	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
324	NWS	Non-Residential	All	Food Sales	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Commercial Prescriptive & Custom	2015	0.477%	2034	2.860956%	2034	2.860956%
325	NWS	Non-Residential	All	Food Sales	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
326	NWS	Non-Residential	All	Restaurant	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	Commercial Prescriptive & Custom	2015	0.477%	2034	2.860956%	2034	2.860956%
327	NWS	Non-Residential	All	Restaurant	Refrigeration	Strip Curtain for Walk-in Coolers and Freezers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
328	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
329	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
330	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
331	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
332	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
333	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
334	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.173%	2034	1.036270%	2034	1.036270%
335	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
336	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.082%	2034	0.489423%	2034	0.489423%
337	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
338	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
339	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
340	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
341	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
342	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.242%	2034	1.450710%	2034	1.450710%
343	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.147%	2034	0.880845%	2034	0.880845%
344	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
345	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
346	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
347	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
348	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
349	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
350	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
351	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
352	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.173%	2034	1.036270%	2034	1.036270%
353	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
354	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.082%	2034	0.489423%	2034	0.489423%
355	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
356	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
357	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
358	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
359	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.250%	2034	1.499976%	2034	1.499976%
360	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Dishwasher	Commercial Prescriptive & Custom	2015	0.242%	2034	1.450710%	2034	1.450710%



Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				Program Name	PARTICIPATION LOW CASE						
		Sector	Sub-Sector	Building Type	End Use		Measure Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
421	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
422	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Fryer	Commercial Prescriptive & Custom	2015	0.193%	2034	1.160630%	2034	1.160630%
423	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
424	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Fryer	Commercial Prescriptive & Custom	2015	0.193%	2034	1.160630%	2034	1.160630%
425	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
426	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Fryer	Commercial Prescriptive & Custom	2015	0.193%	2034	1.160630%	2034	1.160630%
427	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
428	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
429	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
430	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
431	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
432	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
433	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
434	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
435	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
436	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
437	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
438	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
439	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
440	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
441	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
442	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
443	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
444	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
445	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
446	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
447	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
448	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.319%	2034	1.275806%	2034	1.275806%
449	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.319%	2034	1.275806%	2034	1.275806%
450	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.319%	2034	1.275806%	2034	1.275806%
451	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.319%	2034	1.275806%	2034	1.275806%
452	NWS	Non-Residential	All	Hospital	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
453	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
454	NWS	Non-Residential	All	Lodging	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
455	NWS	Non-Residential	All	Restaurant	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
456	NWS	Non-Residential	All	Hospital	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
457	NWS	Non-Residential	All	Hospital	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
458	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
459	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
460	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
461	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
462	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
463	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
464	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
465	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
466	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
467	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Commercial Prescriptive & Custom	2015	0.638%	2034	2.551612%	2034	2.551612%
468	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Commercial Prescriptive & Custom	2015	0.708%	2034	2.830914%	2034	2.830914%
469	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Commercial Prescriptive & Custom	2015	0.643%	2034	2.570979%	2034	2.570979%
470	NWS	Non-Residential	All	Hospital	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
471	NWS	Non-Residential	All	K12 Education	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
472	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
473	NWS	Non-Residential	All	Lodging	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
474	NWS	Non-Residential	All	Restaurant	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
475	NWS	Non-Residential	All	Hospital	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
476	NWS	Non-Residential	All	K12 Education	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
477	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
478	NWS	Non-Residential	All	Lodging	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
479	NWS	Non-Residential	All	Restaurant	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	Commercial Prescriptive & Custom	2015	0.750%	2034	3.000000%	2034	3.000000%

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					Program Name	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
481	NWS	Non-Residential	Small Commercial	All	Misc	Small Business Program Audit & Direct Install	Small Business Solutions	2016	0.000%	2015	0.000000%	2015	0.000000%
482	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
483	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	Small Business Solutions	2015	0.500%	2034	2.000000%	2034	2.000000%
484	NWS	Non-Residential	Small Commercial	All	Service Hot Water	Small Business Program Audit & Direct Install	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
485	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Lighting Upgrade Package	Small Business Solutions	2015	0.500%	2034	2.000000%	2034	2.000000%
486	NWS	Non-Residential	Small Commercial	All	Refrigeration	Small Business Program Refrigeration Upgrade Package	Small Business Solutions	2015	0.500%	2034	2.000000%	2034	2.000000%
488	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
489	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
490	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
491	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
492	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
493	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
494	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
495	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
496	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
497	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
498	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
499	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
500	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
501	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
502	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
503	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
504	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
505	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
506	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
507	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
509	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2016	10.000%	2017	20.000000%	2017	20.000000%
510	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2015	0.000%	2019	33.000000%	2015	0.000000%
511	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2016	10.000%	2017	20.000000%	2017	20.000000%
512	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2015	0.000%	2019	33.000000%	2015	0.000000%
514	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	RetroCommissioning	2015	0.500%	2018	2.500000%	2034	1.142032%
515	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	RetroCommissioning	2015	0.500%	2018	2.500000%	2034	1.142032%
517	NWS	Non-Residential	All	All	Misc	Interruptible Rate	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
518	NWS	Non-Residential	All	All	Misc	Enabled Dynamic Pricing (Non-Res)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
519	NWS	Non-Residential	All	All	Misc	Non-Enabled Dynamic Pricing (Non-Res)	Non-Residential Dynamic Pricing	2015	0.622%	2034	0.724512%	2034	0.724512%
521	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
522	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
523	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
524	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
525	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
526	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
527	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
528	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
529	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
530	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
531	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
532	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
533	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
534	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
535	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
536	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
537	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
538	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
539	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
540	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION LOW CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
541	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
542	WS	Non-Residential	Large Commercial	Lodging	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
543	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
544	WS	Non-Residential	Large Commercial	Hospital	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
545	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
546	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
547	WS	Non-Residential	Large Commercial	Lodging	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
548	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
549	WS	Non-Residential	Large Commercial	Hospital	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
550	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
551	NWS	Non-Residential	Small Commercial	All	HVAC	Direct Vent Heaters (Small Commercial)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
552	WS	Non-Residential	Small Commercial	All	HVAC	Gas Furnace (Small Commercial)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
553	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient storage gas water heater	Commercial Prescriptive & Custom	2015	0.033%	2034	0.195309%	2034	0.195309%
554	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient instantaneous gas water heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
555	NWS	Non-Residential	Small Commercial	All	Water Heating	Faucet Aerator	Small Business Solutions	2015	0.250%	2034	1.499976%	2034	1.499976%
556	NWS	Non-Residential	Large Commercial	All	Water Heating	Faucet Aerator	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
557	NWS	Non-Residential	Small Commercial	All	Water Heating	Gas WH pipe insulation (Small Commercial)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A





Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					Measure Name	PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type	End Use	Program Name			First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
61	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	15.948%	2034	63.790290%	2034	63.790290%	
62	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	15.948%	2034	63.790290%	2034	63.790290%	
63	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	15.948%	2034	63.790290%	2034	63.790290%	
64	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	15.948%	2034	63.790290%	2034	63.790290%	
65	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	15.948%	2034	63.790290%	2034	63.790290%	
66	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	15.948%	2034	63.790290%	2034	63.790290%	
67	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	15.948%	2034	63.790290%	2034	63.790290%	
68	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	15.948%	2034	63.790290%	2034	63.790290%	
69	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	15.948%	2034	63.790290%	2034	63.790290%	
71	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
72	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.018%	2034	0.071083%	2034	0.071083%	
73	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
74	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
75	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.017%	2034	0.069160%	2034	0.069160%	
76	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.016%	2034	0.063790%	2034	0.063790%	
77	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
78	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
79	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.018%	2034	0.072205%	2034	0.072205%	
80	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.016%	2034	0.063790%	2034	0.063790%	
81	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
82	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
83	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.074913%	2034	0.074913%	
84	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.016%	2034	0.063790%	2034	0.063790%	
85	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
86	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
87	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
88	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.016%	2034	0.063790%	2034	0.063790%	
89	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
90	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
92	NWS	Non-Residential	Small Commercial	All	HVAC	Dual Enthalpy Economizer	Commercial Prescriptive & Custom	2015	0.017%	2034	0.066568%	2034	0.066568%	
93	NWS	Non-Residential	Large Commercial	All	HVAC	Dual Enthalpy Economizer	Commercial Prescriptive & Custom	2015	0.017%	2034	0.066992%	2034	0.066992%	
95	NWS	Non-Residential	Small Commercial	All	HVAC	Demand Controlled Ventilation	Commercial Prescriptive & Custom	2015	0.017%	2034	0.069849%	2034	0.069849%	
96	NWS	Non-Residential	Large Commercial	All	HVAC	Demand Controlled Ventilation	Commercial Prescriptive & Custom	2015	0.016%	2034	0.063790%	2034	0.063790%	
98	WS	Non-Residential	Small Commercial	All	HVAC	Ground Source Heatpump	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
100	WS	Non-Residential	Small Commercial	All	HVAC	AC Tune-Up	Small Business Solutions	2015	0.500%	2034	2.000000%	2034	2.000000%	
102	NWS	Non-Residential	Small Commercial	All	HVAC	Electronically Commutated Motors for Refrigeration and HVAC Applications	Commercial Prescriptive & Custom	2015	0.019%	2034	0.075000%	2034	0.075000%	
103	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
104	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
105	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
106	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
107	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
108	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
109	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
110	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
111	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
112	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
113	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
114	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
115	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
116	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
117	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
118	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
119	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
120	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				Measure Name	PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type	End Use			Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
121	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
122	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
123	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
124	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
125	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
126	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
127	NWS	Non-Residential	All	Hospital	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.667%	2034	3.999937%	2034	3.999937%
128	NWS	Non-Residential	All	K12 Education	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.595%	2034	3.567325%	2034	3.567325%
129	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.638%	2034	3.825633%	2034	3.825633%
130	NWS	Non-Residential	All	Lodging	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.667%	2034	3.999937%	2034	3.999937%
131	NWS	Non-Residential	All	General Large Commercial	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.644%	2034	3.865588%	2034	3.865588%
132	NWS	Non-Residential	All	General Small Commercial	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.659%	2034	3.955719%	2034	3.955719%
133	NWS	Non-Residential	All	Hospital	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
134	NWS	Non-Residential	All	K12 Education	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
135	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
136	NWS	Non-Residential	All	Lodging	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
137	NWS	Non-Residential	All	General Large Commercial	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
138	NWS	Non-Residential	All	General Small Commercial	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
139	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
140	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
141	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
142	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
143	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
144	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
145	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.169%	2034	4.676732%	2034	4.676732%
146	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
147	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
148	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.212%	2034	4.847998%	2034	4.847998%
149	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
150	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
151	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
152	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
153	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
154	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
155	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
156	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
157	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
158	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
159	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
160	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.079%	2034	4.314205%	2034	4.314205%
161	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
162	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	1.063%	2034	4.252686%	2034	4.252686%
163	NWS	Non-Residential	All	Hospital	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
164	NWS	Non-Residential	All	Hospital	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
165	NWS	Non-Residential	All	K12 Education	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
166	NWS	Non-Residential	All	K12 Education	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
167	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
168	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
169	NWS	Non-Residential	All	Lodging	Lighting	Commercial Standard CFL	Commercial Prescriptive & Custom	2015	0.750%	2034	3.000000%	2034	3.000000%
170	NWS	Non-Residential	All	Lodging	Lighting	Commercial Standard CFL	Commercial Prescriptive & Custom	2015	0.750%	2034	3.000000%	2034	3.000000%
171	NWS	Non-Residential	All	General Large Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
172	NWS	Non-Residential	All	General Large Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
173	NWS	Non-Residential	All	General Small Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
174	NWS	Non-Residential	All	General Small Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
175	NWS	Non-Residential	All	Hospital	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	2.500%	2020	4.966536%	2020	4.966536%
176	NWS	Non-Residential	All	Hospital	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.750%	2034	7.000000%	2034	7.000000%
177	NWS	Non-Residential	All	K12 Education	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	2.500%	2020	4.966536%	2020	4.966536%
178	NWS	Non-Residential	All	K12 Education	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.750%	2034	7.000000%	2034	7.000000%
179	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	2.500%	2020	4.966536%	2020	4.966536%
180	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.750%	2034	7.000000%	2034	7.000000%









Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	MEASURE DESCRIPTION			Measure Name	PROGRAM	PARTICIPATION HIGH CASE				
				Building Type	End Use	Program Name			First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
421	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
422	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Fryer	Commercial Prescriptive & Custom	2015	0.374%	2034	1.497137%	2034	1.497137%
423	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
424	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Fryer	Commercial Prescriptive & Custom	2015	0.374%	2034	1.497137%	2034	1.497137%
425	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
426	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Fryer	Commercial Prescriptive & Custom	2015	0.374%	2034	1.497137%	2034	1.497137%
427	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
428	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
429	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
430	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
431	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
432	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
433	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
434	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
435	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
436	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
437	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
438	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
439	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
440	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
441	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
442	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
443	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
444	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
445	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
446	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
447	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
448	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.319%	2034	1.275806%	2034	1.275806%
449	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.319%	2034	1.275806%	2034	1.275806%
450	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.319%	2034	1.275806%	2034	1.275806%
451	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.319%	2034	1.275806%	2034	1.275806%
452	NWS	Non-Residential	All	Hospital	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
453	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
454	NWS	Non-Residential	All	Lodging	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
455	NWS	Non-Residential	All	Restaurant	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
456	NWS	Non-Residential	All	Hospital	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
457	NWS	Non-Residential	All	Hospital	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
458	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
459	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
460	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
461	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
462	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
463	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
464	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
465	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
466	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
467	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Commercial Prescriptive & Custom	2015	0.638%	2034	2.551612%	2034	2.551612%
468	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Commercial Prescriptive & Custom	2015	0.708%	2034	2.830914%	2034	2.830914%
469	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Commercial Prescriptive & Custom	2015	0.643%	2034	2.570979%	2034	2.570979%
470	NWS	Non-Residential	All	Hospital	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
471	NWS	Non-Residential	All	K12 Education	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
472	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
473	NWS	Non-Residential	All	Lodging	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
474	NWS	Non-Residential	All	Restaurant	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
475	NWS	Non-Residential	All	Hospital	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
476	NWS	Non-Residential	All	K12 Education	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
477	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
478	NWS	Non-Residential	All	Lodging	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
479	NWS	Non-Residential	All	Restaurant	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	Commercial Prescriptive & Custom	2015	0.750%	2034	3.000000%	2034	3.000000%



Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION HIGH CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
481	NWS	Non-Residential	Small Commercial	All	Misc	Small Business Program Audit & Direct Install	Small Business Solutions	2016	0.000%	2015	0.000000%	2015	0.000000%
482	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
483	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	Small Business Solutions	2015	0.500%	2034	2.000000%	2034	2.000000%
484	NWS	Non-Residential	Small Commercial	All	Service Hot Water	Small Business Program Audit & Direct Install	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
485	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Lighting Upgrade Package	Small Business Solutions	2015	0.500%	2034	2.000000%	2034	2.000000%
486	NWS	Non-Residential	Small Commercial	All	Refrigeration	Small Business Program Refrigeration Upgrade Package	Small Business Solutions	2015	0.500%	2034	2.000000%	2034	2.000000%
488	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
489	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
490	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
491	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
492	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
493	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
494	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
495	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
496	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
497	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
498	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
499	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
500	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
501	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
502	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
503	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
504	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
505	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
506	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
507	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	Data Center	2015	7.143%	2015	7.142857%	2034	7.142857%
509	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2016	25.000%	2017	75.000000%	2017	75.000000%
510	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2015	0.000%	2018	85.000000%	2015	0.000000%
511	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2016	25.000%	2017	75.000000%	2017	75.000000%
512	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2015	0.000%	2018	85.000000%	2015	0.000000%
514	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	RetroCommissioning	2015	1.500%	2018	7.500000%	2034	3.426096%
515	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	RetroCommissioning	2015	1.500%	2018	7.500000%	2034	3.426096%
517	NWS	Non-Residential	All	All	Misc	Interruptible Rate	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
518	NWS	Non-Residential	All	All	Misc	Enabled Dynamic Pricing (Non-Res)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
519	NWS	Non-Residential	All	All	Misc	Non-Enabled Dynamic Pricing (Non-Res)	Non-Residential Dynamic Pricing	2015	1.243%	2034	1.449024%	2034	1.449024%
521	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
522	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
523	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
524	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
525	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
526	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
527	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
528	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
529	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
530	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
531	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
532	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
533	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
534	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
535	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
536	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
537	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
538	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
539	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
540	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A

Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	MEASURE DESCRIPTION			PROGRAM	PARTICIPATION HIGH CASE					
				Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)
541	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
542	WS	Non-Residential	Large Commercial	Lodging	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
543	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
544	WS	Non-Residential	Large Commercial	Hospital	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
545	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
546	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
547	WS	Non-Residential	Large Commercial	Lodging	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
548	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
549	WS	Non-Residential	Large Commercial	Hospital	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
550	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
551	NWS	Non-Residential	Small Commercial	All	HVAC	Direct Vent Heaters (Small Commercial)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
552	WS	Non-Residential	Small Commercial	All	HVAC	Gas Furnace (Small Commercial)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
553	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient storage gas water heater	Commercial Prescriptive & Custom	2015	0.638%	2034	2.551612%	2034	2.551612%
554	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient instantaneous gas water heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
555	NWS	Non-Residential	Small Commercial	All	Water Heating	Faucet Aerator	Small Business Solutions	2015	0.500%	2034	2.000000%	2034	2.000000%
556	NWS	Non-Residential	Large Commercial	All	Water Heating	Faucet Aerator	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
557	NWS	Non-Residential	Small Commercial	All	Water Heating	Gas WH pipe insulation (Small Commercial)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION REFERENCE CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
1	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	4.625%	2015	4.625413%	2015	4.625413%
2	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	3.547%	2015	3.546919%	2015	3.546919%
3	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
4	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	5.643%	2015	5.643367%	2015	5.643367%
5	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	0.480%	2015	0.479721%	2015	0.479721%
6	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	2.921%	2015	2.921140%	2015	2.921140%
7	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	2.169%	2015	2.169090%	2015	2.169090%
8	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	5.977%	2015	5.977213%	2015	5.977213%
9	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	1.509%	2015	1.508974%	2015	1.508974%
10	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	5.643%	2015	5.643367%	2015	5.643367%
11	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	4.573%	2015	4.573140%	2015	4.573140%
12	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	5.963%	2015	5.962569%	2015	5.962569%
13	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
14	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	3.984%	2015	3.983998%	2015	3.983998%
15	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	6.928%	2015	6.927829%	2015	6.927829%
16	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	4.138%	2015	4.138123%	2015	4.138123%
17	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
18	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	3.971%	2015	3.971356%	2015	3.971356%
19	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	6.914%	2015	6.913632%	2015	6.913632%
20	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	4.122%	2015	4.122229%	2015	4.122229%
21	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
22	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	3.329%	2015	3.328692%	2015	3.328692%
23	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	6.177%	2015	6.176551%	2015	6.176551%
24	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2016	3.469%	2015	3.469098%	2015	3.469098%
26	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	13.134604%	2015	0.000000%
27	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	14.748094%	2015	0.000000%
28	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	13.134604%	2015	0.000000%
29	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	14.748094%	2015	0.000000%
30	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	10.666841%	2015	0.000000%
31	WS	Non-Residential	Small Commercial	All	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	10.827556%	2015	0.000000%
32	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
33	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	4.993458%	2015	0.000000%
34	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	14.356103%	2015	0.000000%
35	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	Commercial Prescriptive & Custom	2015	0.000%	2034	5.364438%	2015	0.000000%
36	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
37	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
38	WS	Non-Residential	Large Commercial	Lodging	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
39	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Unitary and Split System AC/HP Equipment	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
41	WS	Non-Residential	Small Commercial	Lodging	HVAC	PTAC	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
42	NWS	Non-Residential	Small Commercial	Lodging	HVAC	Occupancy-Based PTAC/PTHP Controls	Commercial Prescriptive & Custom	2015	0.004%	2034	0.021028%	2034	0.021028%
44	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
45	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.602%	2034	3.009984%	2034	3.009984%
46	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	2.078%	2034	10.392472%	2034	10.392472%
47	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.655%	2034	3.272660%	2034	3.272660%
48	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
49	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
50	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	3.879%	2034	19.393088%	2034	19.393088%
51	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
52	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	3.084%	2034	15.421723%	2034	15.421723%
53	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
54	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.718%	2034	3.589215%	2034	3.589215%
55	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	2.325%	2034	11.625413%	2034	11.625413%
56	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	0.777%	2034	3.885642%	2034	3.885642%
57	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	9.684%	2034	48.421695%	2034	48.421695%
58	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
59	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	5.754%	2034	28.768744%	2034	28.768744%
60	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	8.755%	2034	43.773351%	2034	43.773351%

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				End Use	Measure Name	PROGRAM	PARTICIPATION REFERENCE CASE				
		Sector	Sub-Sector	Building Type	Program Name				First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
61	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	5.919%	2034	29.595740%	2034	29.595740%
62	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	5.032%	2034	25.159309%	2034	25.159309%
63	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	1.749%	2034	8.743332%	2034	8.743332%
64	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	4.100%	2034	20.498564%	2034	20.498564%
65	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	1.852%	2034	9.261106%	2034	9.261106%
66	WS	Non-Residential	Large Commercial	Hospital	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	7.001%	2034	35.007353%	2034	35.007353%
67	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	3.189%	2034	15.945768%	2034	15.945768%
68	WS	Non-Residential	Large Commercial	Lodging	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	6.012%	2034	30.058087%	2034	30.058087%
69	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Air or Water Cooled Chilling Equipment (Chillers)	Commercial Prescriptive & Custom	2015	3.329%	2034	16.643130%	2034	16.643130%
71	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.015%	2034	0.075000%	2034	0.075000%
72	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.012%	2034	0.062437%	2034	0.062437%
73	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.015%	2034	0.075000%	2034	0.075000%
74	NWS	Non-Residential	Large Commercial	Hospital	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.015%	2034	0.075000%	2034	0.075000%
75	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.012%	2034	0.059896%	2034	0.059896%
76	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.007%	2034	0.033471%	2034	0.033471%
77	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.015%	2034	0.075000%	2034	0.075000%
78	NWS	Non-Residential	Large Commercial	K12 Education	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.014%	2034	0.069097%	2034	0.069097%
79	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.013%	2034	0.063936%	2034	0.063936%
80	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.007%	2034	0.037206%	2034	0.037206%
81	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.015%	2034	0.075000%	2034	0.075000%
82	NWS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.014%	2034	0.072143%	2034	0.072143%
83	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.014%	2034	0.067604%	2034	0.067604%
84	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.008%	2034	0.041237%	2034	0.041237%
85	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.015%	2034	0.075000%	2034	0.075000%
86	NWS	Non-Residential	Large Commercial	Lodging	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.015%	2034	0.074861%	2034	0.074861%
87	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.014%	2034	0.071440%	2034	0.071440%
88	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.009%	2034	0.046052%	2034	0.046052%
89	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.015%	2034	0.075000%	2034	0.075000%
90	NWS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Variable Speed Drives for HVAC	Commercial Prescriptive & Custom	2015	0.015%	2034	0.075000%	2034	0.075000%
92	NWS	Non-Residential	Small Commercial	All	HVAC	Dual Enthalpy Economizer	Commercial Prescriptive & Custom	2015	0.011%	2034	0.056528%	2034	0.056528%
93	NWS	Non-Residential	Large Commercial	All	HVAC	Dual Enthalpy Economizer	Commercial Prescriptive & Custom	2015	0.011%	2034	0.057074%	2034	0.057074%
95	NWS	Non-Residential	Small Commercial	All	HVAC	Demand Controlled Ventilation	Commercial Prescriptive & Custom	2015	0.012%	2034	0.060802%	2034	0.060802%
96	NWS	Non-Residential	Large Commercial	All	HVAC	Demand Controlled Ventilation	Commercial Prescriptive & Custom	2015	0.007%	2034	0.034662%	2034	0.034662%
98	WS	Non-Residential	Small Commercial	All	HVAC	Ground Source Heatpump	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
100	WS	Non-Residential	Small Commercial	All	HVAC	AC Tune-Up	Small Business Solutions	2015	0.393%	2034	1.963591%	2034	1.963591%
102	NWS	Non-Residential	Small Commercial	All	HVAC	Electronically Commutated Motors for Refrigeration and HVAC Applications	Commercial Prescriptive & Custom	2015	0.014%	2034	0.072051%	2034	0.072051%
103	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
104	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
105	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
106	NWS	Non-Residential	All	Hospital	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
107	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
108	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
109	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
110	NWS	Non-Residential	All	K12 Education	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
111	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
112	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
113	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
114	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
115	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
116	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
117	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
118	NWS	Non-Residential	All	Lodging	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
119	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
120	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					Measure Name	PROGRAM	PARTICIPATION REFERENCE CASE					
		Sector	Sub-Sector	Building Type	End Use	Program Name			First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
121	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
122	NWS	Non-Residential	All	General Large Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
123	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
124	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
125	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
126	NWS	Non-Residential	All	General Small Commercial	Lighting	High Performance T8/T5 with Low-BF Ballast	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
127	NWS	Non-Residential	All	Hospital	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.800%	2034	3.999990%	2034	3.999990%	
128	NWS	Non-Residential	All	K12 Education	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.792%	2034	3.959117%	2034	3.959117%	
129	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.800%	2034	3.999990%	2034	3.999990%	
130	NWS	Non-Residential	All	Lodging	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.800%	2034	3.999990%	2034	3.999990%	
131	NWS	Non-Residential	All	General Large Commercial	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.800%	2034	3.999990%	2034	3.999990%	
132	NWS	Non-Residential	All	General Small Commercial	Lighting	Reduced Wattage T8/T5 Lamps	Commercial Prescriptive & Custom	2015	0.800%	2034	3.999990%	2034	3.999990%	
133	NWS	Non-Residential	All	Hospital	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
134	NWS	Non-Residential	All	K12 Education	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
135	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
136	NWS	Non-Residential	All	Lodging	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
137	NWS	Non-Residential	All	General Large Commercial	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
138	NWS	Non-Residential	All	General Small Commercial	Lighting	Reduced Wattage T8/T5 Lamps	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
139	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.580%	2034	2.901595%	2034	2.901595%	
140	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.264%	2034	1.317754%	2034	1.317754%	
141	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.164%	2034	0.821982%	2034	0.821982%	
142	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.642%	2034	3.209206%	2034	3.209206%	
143	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.391%	2034	1.953040%	2034	1.953040%	
144	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.437%	2034	2.186551%	2034	2.186551%	
145	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.816%	2034	4.080041%	2034	4.080041%	
146	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.532%	2034	2.662387%	2034	2.662387%	
147	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.641%	2034	3.204253%	2034	3.204253%	
148	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.862%	2034	4.308549%	2034	4.308549%	
149	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.659%	2034	3.293702%	2034	3.293702%	
150	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.700%	2034	3.501148%	2034	3.501148%	
151	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.363%	2034	1.814210%	2034	1.814210%	
152	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.100%	2034	0.500046%	2034	0.500046%	
153	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.175%	2034	0.874771%	2034	0.874771%	
154	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.428%	2034	2.138621%	2034	2.138621%	
155	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.190%	2034	0.950588%	2034	0.950588%	
156	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.229%	2034	1.143067%	2034	1.143067%	
157	NWS	Non-Residential	All	Hospital	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.665%	2034	3.325430%	2034	3.325430%	
158	NWS	Non-Residential	All	K12 Education	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.349%	2034	1.745858%	2034	1.745858%	
159	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.462%	2034	2.309146%	2034	2.309146%	
160	NWS	Non-Residential	All	Lodging	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.722%	2034	3.610530%	2034	3.610530%	
161	NWS	Non-Residential	All	General Large Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.481%	2034	2.407135%	2034	2.407135%	
162	NWS	Non-Residential	All	General Small Commercial	Lighting	Linear Florescent Fixture Upgrade	Commercial Prescriptive & Custom	2015	0.528%	2034	2.639611%	2034	2.639611%	
163	NWS	Non-Residential	All	Hospital	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
164	NWS	Non-Residential	All	Hospital	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
165	NWS	Non-Residential	All	K12 Education	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
166	NWS	Non-Residential	All	K12 Education	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
167	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
168	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
169	NWS	Non-Residential	All	Lodging	Lighting	Commercial Standard CFL	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%	
170	NWS	Non-Residential	All	Lodging	Lighting	Commercial Standard CFL	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%	
171	NWS	Non-Residential	All	General Large Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
172	NWS	Non-Residential	All	General Large Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
173	NWS	Non-Residential	All	General Small Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
174	NWS	Non-Residential	All	General Small Commercial	Lighting	Commercial Standard CFL	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
175	NWS	Non-Residential	All	Hospital	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	2.500%	2020	4.966536%	2020	4.966536%	
176	NWS	Non-Residential	All	Hospital	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.400%	2034	6.999982%	2034	6.999982%	
177	NWS	Non-Residential	All	K12 Education	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	2.228%	2020	4.425913%	2020	4.425913%	
178	NWS	Non-Residential	All	K12 Education	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.400%	2034	6.999982%	2034	6.999982%	
179	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	2.390%	2020	4.747222%	2020	4.747222%	
180	NWS	Non-Residential	All	Education with Summer Sessions	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.400%	2034	6.999982%	2034	6.999982%	

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				End Use	Measure Name	PROGRAM	PARTICIPATION REFERENCE CASE				
		Sector	Sub-Sector	Building Type	Program Name				First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
181	NWS	Non-Residential	All	Lodging	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	2.292%	2020	4.553935%	2020	4.553935%
182	NWS	Non-Residential	All	Lodging	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.400%	2034	6.999982%	2034	6.999982%
183	NWS	Non-Residential	All	General Large Commercial	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	2.415%	2020	4.796927%	2020	4.796927%
184	NWS	Non-Residential	All	General Large Commercial	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.400%	2034	6.999982%	2034	6.999982%
185	NWS	Non-Residential	All	General Small Commercial	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2016	2.471%	2020	4.909057%	2020	4.909057%
186	NWS	Non-Residential	All	General Small Commercial	Lighting	LED Bulbs	Commercial Prescriptive & Custom	2015	1.400%	2034	6.999982%	2034	6.999982%
187	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.067%	2034	0.336052%	2034	0.336052%
188	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.090%	2034	0.450161%	2034	0.450161%
189	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.102%	2034	0.508800%	2034	0.508800%
190	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.115%	2034	0.576029%	2034	0.576029%
191	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.115%	2034	0.577011%	2034	0.577011%
192	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.128%	2034	0.641551%	2034	0.641551%
193	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.150%	2034	0.749675%	2034	0.749675%
194	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.161%	2034	0.802760%	2034	0.802760%
195	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.107%	2034	0.533855%	2034	0.533855%
196	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	Commercial Prescriptive & Custom	2015	0.129%	2034	0.643313%	2034	0.643313%
197	NWS	Non-Residential	Large Commercial	All	Lighting	Efficient High Bay Lighting	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
198	NWS	Non-Residential	Small Commercial	All	Lighting	Efficient High Bay Lighting	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
199	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.479%	2034	2.396376%	2034	2.396376%
200	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.388%	2034	1.939781%	2034	1.939781%
201	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.206%	2034	1.028835%	2034	1.028835%
202	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.479%	2034	2.396376%	2034	2.396376%
203	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.533%	2034	2.663521%	2034	2.663521%
204	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.509%	2034	2.545565%	2034	2.545565%
205	NWS	Non-Residential	Large Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.509%	2034	2.545565%	2034	2.545565%
206	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.528%	2034	2.639588%	2034	2.639588%
207	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.448%	2034	2.242458%	2034	2.242458%
208	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.275%	2034	1.374958%	2034	1.374958%
209	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.528%	2034	2.639588%	2034	2.639588%
210	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.573%	2034	2.863795%	2034	2.863795%
211	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.553%	2034	2.765464%	2034	2.765464%
212	NWS	Non-Residential	Small Commercial	All	Lighting	Lighting Controls	Commercial Prescriptive & Custom	2015	0.553%	2034	2.765464%	2034	2.765464%
213	NWS	Non-Residential	Small Commercial	All	Lighting	LED Exit Signs	Commercial Prescriptive & Custom	2015	0.374%	2034	1.872490%	2034	1.872490%
214	NWS	Non-Residential	All	Hospital	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.595%	2034	2.973527%	2034	2.973527%
215	NWS	Non-Residential	All	K12 Education	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.595%	2034	2.973527%	2034	2.973527%
216	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.595%	2034	2.973527%	2034	2.973527%
217	NWS	Non-Residential	All	Lodging	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.595%	2034	2.973527%	2034	2.973527%
218	NWS	Non-Residential	All	Food Sales	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.589%	2034	2.943847%	2034	2.943847%
219	NWS	Non-Residential	All	Restaurant	Refrigeration	Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers/Freezers	Commercial Prescriptive & Custom	2015	0.595%	2034	2.973527%	2034	2.973527%
220	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
221	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
222	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
223	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
224	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
225	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
226	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
227	NWS	Non-Residential	All	Hospital	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
228	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
229	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
230	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
231	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
232	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
233	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
234	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
235	NWS	Non-Residential	All	K12 Education	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
236	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
237	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
238	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
239	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Refrigerator	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%
240	NWS	Non-Residential	All	Education with Summer Sessions	Refrigeration	ENERGY STAR Solid Door Freezer	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%









Commercial Measures

Measure ID	Weather Sensitive	Sector	Sub-Sector	MEASURE DESCRIPTION			Measure Name	PROGRAM	PARTICIPATION REFERENCE CASE					
				Building Type	End Use	Program Name			First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)	Final Year Participation Rate (Fo)
421	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
422	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Fryer	Commercial Prescriptive & Custom	2015	0.270%	2034	1.350547%	2034	1.350547%	
423	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
424	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Fryer	Commercial Prescriptive & Custom	2015	0.270%	2034	1.350547%	2034	1.350547%	
425	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
426	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Fryer	Commercial Prescriptive & Custom	2015	0.270%	2034	1.350547%	2034	1.350547%	
427	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Fryer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
428	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
429	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
430	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
431	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
432	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Griddle	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
433	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
434	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
435	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
436	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
437	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Hot Food Holding Cabinets	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
438	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
439	NWS	Non-Residential	All	Hospital	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
440	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
441	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
442	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
443	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
444	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
445	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
446	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
447	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Electric Convection Ovens	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
448	NWS	Non-Residential	All	K12 Education	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.197%	2034	0.984181%	2034	0.984181%	
449	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.197%	2034	0.984181%	2034	0.984181%	
450	NWS	Non-Residential	All	Lodging	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.197%	2034	0.984181%	2034	0.984181%	
451	NWS	Non-Residential	All	Restaurant	Food Services Equipment	ENERGY STAR Steam Cooker	Commercial Prescriptive & Custom	2015	0.197%	2034	0.984181%	2034	0.984181%	
452	NWS	Non-Residential	All	Hospital	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
453	NWS	Non-Residential	All	Education with Summer Sessions	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
454	NWS	Non-Residential	All	Lodging	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
455	NWS	Non-Residential	All	Restaurant	Food Services Equipment	EPA WaterSense Pre-Rinse Spray Valve	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
456	NWS	Non-Residential	All	Hospital	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
457	NWS	Non-Residential	All	Hospital	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
458	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
459	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
460	NWS	Non-Residential	All	K12 Education	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
461	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
462	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
463	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
464	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
465	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
466	NWS	Non-Residential	All	Lodging	Service Hot Water	Electric Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
467	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Commercial Prescriptive & Custom	2015	0.344%	2034	1.718572%	2034	1.718572%	
468	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Commercial Prescriptive & Custom	2015	0.496%	2034	2.480980%	2034	2.480980%	
469	NWS	Non-Residential	All	Restaurant	Service Hot Water	Electric Storage Water Heater	Commercial Prescriptive & Custom	2015	0.429%	2034	2.144111%	2034	2.144111%	
470	NWS	Non-Residential	All	Hospital	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
471	NWS	Non-Residential	All	K12 Education	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
472	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
473	NWS	Non-Residential	All	Lodging	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
474	NWS	Non-Residential	All	Restaurant	Service Hot Water	Heat Pump Storage Water Heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
475	NWS	Non-Residential	All	Hospital	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
476	NWS	Non-Residential	All	K12 Education	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
477	NWS	Non-Residential	All	Education with Summer Sessions	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
478	NWS	Non-Residential	All	Lodging	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	
479	NWS	Non-Residential	All	Restaurant	Service Hot Water	Low Flow Faucet Aerators - Electric DHW fuel	Commercial Prescriptive & Custom	2015	0.600%	2034	2.999992%	2034	2.999992%	

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION				Program Name	PARTICIPATION REFERENCE CASE						
		Sector	Sub-Sector	Building Type	End Use		Measure Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (-2034 if baseline shift)	Final Year Participation Rate (Fo)
481	NWS	Non-Residential	Small Commercial	All	Misc	Small Business Program Audit & Direct Install	Small Business Solutions	2016	0.000%	2015	0.000000%	2015	0.000000%
482	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
483	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Audit & Direct Install	Small Business Solutions	2015	0.400%	2034	1.999995%	2034	1.999995%
484	NWS	Non-Residential	Small Commercial	All	Service Hot Water	Small Business Program Audit & Direct Install	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
485	NWS	Non-Residential	Small Commercial	All	Lighting	Small Business Program Lighting Upgrade Package	Small Business Solutions	2015	0.396%	2034	1.979112%	2034	1.979112%
486	NWS	Non-Residential	Small Commercial	All	Refrigeration	Small Business Program Refrigeration Upgrade Package	Small Business Solutions	2015	0.400%	2034	1.999995%	2034	1.999995%
488	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
489	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
490	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
491	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
492	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
493	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
494	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
495	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
496	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
497	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
498	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
499	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
500	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
501	NWS	Non-Residential	All	Data Center	HVAC	Air Flow Management	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
502	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
503	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
504	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
505	NWS	Non-Residential	All	Data Center	Miscellaneous	Load Distribution	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
506	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
507	NWS	Non-Residential	All	Data Center	HVAC	Waterside Economizer	Data Center	2015	4.762%	2015	4.761905%	2034	4.761905%
509	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2016	10.000%	2017	20.000000%	2017	20.000000%
510	WS	Non-Residential	Large Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2015	0.000%	2020	75.000000%	2015	0.000000%
511	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2016	10.000%	2017	20.000000%	2017	20.000000%
512	WS	Non-Residential	Small Commercial	All	Misc	Commercial New Construction	Commercial New Construction	2015	0.000%	2020	75.000000%	2015	0.000000%
514	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	RetroCommissioning	2015	1.000%	2018	5.000000%	2034	2.284064%
515	WS	Non-Residential	Large Commercial	All	Misc	Retrocommissioning	RetroCommissioning	2015	1.000%	2018	5.000000%	2034	2.284064%
517	NWS	Non-Residential	All	All	Misc	Interruptible Rate	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
518	NWS	Non-Residential	All	All	Misc	Enabled Dynamic Pricing (Non-Res)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
519	NWS	Non-Residential	All	All	Misc	Non-Enabled Dynamic Pricing (Non-Res)	Non-Residential Dynamic Pricing	2015	1.243%	2034	1.449024%	2034	1.449024%
521	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
522	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
523	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
524	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
525	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Cut-Out Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
526	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
527	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
528	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
529	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
530	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler or Furnace Vent Damper	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
531	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
532	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
533	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
534	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
535	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Reset Control	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
536	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
537	WS	Non-Residential	Large Commercial	Lodging	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
538	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
539	WS	Non-Residential	Large Commercial	Hospital	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
540	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Boiler Tune-Up	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A

Commercial Measures

Measure ID	Weather Sensitive	MEASURE DESCRIPTION					PROGRAM	PARTICIPATION REFERENCE CASE					
		Sector	Sub-Sector	Building Type	End Use	Measure Name		Program Name	First Year of Participation (So Year)	First Year Participation Rate (So)	Year of Maximum Annual Participation (Smax)	Maximum Annual Participation Rate (Smax)	Final Year of Participation, Fo (<2034 if baseline shift)
541	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
542	WS	Non-Residential	Large Commercial	Lodging	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
543	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
544	WS	Non-Residential	Large Commercial	Hospital	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
545	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Burner Replacement for Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
546	WS	Non-Residential	Large Commercial	K12 Education	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
547	WS	Non-Residential	Large Commercial	Lodging	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
548	WS	Non-Residential	Large Commercial	Education with Summer Sessions	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
549	WS	Non-Residential	Large Commercial	Hospital	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
550	WS	Non-Residential	Large Commercial	General Large Commercial	HVAC	Efficient Commercial Boilers	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
551	NWS	Non-Residential	Small Commercial	All	HVAC	Direct Vent Heaters (Small Commercial)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
552	WS	Non-Residential	Small Commercial	All	HVAC	Gas Furnace (Small Commercial)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
553	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient storage gas water heater	Commercial Prescriptive & Custom	2015	0.104%	2034	0.518647%	2034	0.518647%
554	WS	Non-Residential	Small Commercial	All	Water Heating	Efficient instantaneous gas water heater	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
555	NWS	Non-Residential	Small Commercial	All	Water Heating	Faucet Aerator	Small Business Solutions	2015	0.400%	2034	1.999995%	2034	1.999995%
556	NWS	Non-Residential	Large Commercial	All	Water Heating	Faucet Aerator	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A
557	NWS	Non-Residential	Small Commercial	All	Water Heating	Gas WH pipe insulation (Small Commercial)	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A