Technical Resource Manual

Table of Abbreviations

Term	Abbrev	Term	Abbrev
Air Source Heat Pump	ASHP	Building Automation System	BAS
Central Air Conditioner	CAC		
Demand Side Management	DSM	Energy Efficiency Ratio	EER
Electronically Commutated Motors	ECM	Energy Management System	EMS
Energy Independence & Security Act	EISA	Equivalent Full Load Hours	EFLH
Evaluation Measurement & Verification	EM&V	Integrated Part Load Value	IPLV
On-line iEnergy Technical Reference Library	iTRL	High Intensity Discharge	HID
Hours of Use	HOU	Heating Ventilation & Air Conditioning	HVAC
Kilowatt per Hour	kWh	Kilowatt	kW
Missouri Energy Efficiency Investment Act	MEEIA	Net Present Value	NPV
National Electrical Manufacturers Association	NEMA	Packaged Terminal Heat Pump	PTHP
Packaged Terminal Air Conditioner	PTAC	Remaining Efficient Life	REL
Real Discount Rate	RDR	Seasonal Energy Efficiency Ratio	SEER
Remaining Useful Life	RUL	Technical Analysis Study	TAS
Solar Heat Gain Coefficient	SHGC	Thermostatic Expansion Valves	TXV
Technical Resource Manual	TRM	Utility Discount Rate	UDR
Typical Meteorological Year	TMY	Variable Air Volume	VAV
Unit Energy Consumption	UEC	Variable Speed Drive	VSD
Variable Frequency Drive	VFD		

Introduction

The Ameren Missouri Technical Resource Manual (TRM) was developed to establish deemed measure level savings values with associated attributes and supporting documentation. For measures which cannot be deemed, the relevant protocols to determine the measure savings values are described. These savings values and protocols will be used prospectively and updated annually.

This TRM appendix was developed using the iEnergy Technical Reference Library (iTRL) as a web-based platform. This web-based interface gives Ameren Missouri the ability to consolidate and organize efficiency measures and measure parameters to update measure savings as new information becomes available from EM&V data and other sources. Data referenced in the TRM are also dynamically linked such that a user will always know what parameters were used to establish measure level savings.

The application delivers improved transparency and consistency by enabling utility program administrators, evaluators and regulators to calculate, verify and audit TRM savings for all DSM programs. The TRM is organized by customer program type: residential and business. Within each section is a listing of energy efficiency measures broken down by programs:

- Residential Programs
  - Lighting
  - HVAC
  - Efficient Products
  - Low Income
  - Energy Efficiency Kits
  - Home Energy Reports

- Business Programs
  - Standard
  - Small Business Direct Install
  - Custom
  - Retro-Commissioning
  - New Construction

A measure level table of efficiency measures is provided for each program. The measure level table contains:

- Measure Reference Number,

- Measure Name,
- Effective Start Date of the savings values,
- Effective End Date of the savings values,
- Incremental Cost of the measure
- Cost Unit of the measure,
- Gross Annual Demand Reduction (kW),
- Gross Incremental Annual Electric Savings (kWh)
- Savings Unit of the measure, and
- Measure Life.

The measure level table displays basic information about the energy efficiency measure while additional savings attributes associated with the measure gross energy and demand savings and supporting documentation is available from the online TRM by using the Measure Reference number.

Accuracy, transparency, and ease of updating measure savings is the overarching reason for converting the TRM to its electronic counterpart, iTRL. Since calculations for similar measures are performed electronically using the same formula, transcription error is eliminated. Within iTRL, the formulas used to calculate savings are displayed, or in the case of deemed values, the reference source for the deemed value is included, increasing transparency. Finally, when better data is available, through EM&V results, for instance, parameters such as Hours of Use (HOU) or Equivalent Full Load Hours (EFLH) can be updated and all affected measures are easily updated.

To arrive at the individual measure level assumptions, Ameren Missouri consulted multiple databases, Ameren Missouri 2013 and 2014 Evaluation Measurement & Verification (EM&V) Reports, and other TRMs. Missouri specific data, where available, took precedence over all other data available. Measure level values were given primary precedence if they came from Ameren Missouri EM&V reports. For measures not contained in the EM&V reports, Ameren Missouri consulted its internal database developed by Morgan Marketing Partners which utilizes Missouri specific weather, building vintages, and home sizes. Finally, other state and utility TRMs were consulted. These other TRMs were mainly used to derive engineering equations for estimating energy savings and other formatting ideas and practices.

The measure level gross annual demand reduction (kW) identified in the TRM is determined by applying the end-use category energy to coincident peak demand factors found in Appendix E of this Stipulation.

The TRM values will be updated annually as better data becomes available. New measure level data savings values will be applied prospectively for the next program year.

The Ameren Missouri web-based TRM can be accessed by Ameren Missouri Energy Efficiency Regulatory Stakeholder Advisory Team member at: https://ameren.dsmcentral.com.

Please contract Greg Lovett @ GLovett@ameren.com to request a password to access the site.

Written instructions on how to navigate through the web-based TRM site can be found starting on page 134 of this document.

The following program measure sections identify various energy efficiency measures for both residential and business customers. The values expressed represent Ameren Missouri's best effort to utilize recent Missouri specific data and, where this type of data was not readily available, national best practices.

Protocol for Deeming New Measures Not Found Within the TRM

A measure or technology maybe discovered to yield cost effective energy and demand savings and is not included within this TRM. The 11 Step Review Process, referenced in Chapter 4 and described in detail in the MEEIA program tariff, will be followed to deem measure level energy and demand savings, incremental costs, effective useful life and other appropriate attributes and supporting documentation.

After the 11 Step Review Process is completed, the TRM will be updated with the new measure savings value and the new measure will be used prospectively.

Residential Energy Efficiency Program Measures

The individual measures included in the specific Residential Programs may be applied to other Residential Programs as long as the attributes associated with the energy and demand savings are constant.

Residential Lighting Program Measures

The Lighting Program provides upstream incentives for replacing lights with high efficiency bulbs and fixtures.

One aspect of the Lighting Program that merits additional discussion is the calculation of incremental costs associated with lighting measures in cases where the efficient technology has a longer life than the baseline measure being replaced. An example of this is an LED bulb. An LED lasts 25 years, while a halogen bulb only lasts 2 years and a compact fluorescent lasts 9 years. This differential in lifetimes indicates that the baseline bulb would actually need to be replaced multiple times over the life of the LED. As a result, the incremental cost of an LED is set to zero even though the initial cost of the LED is greater than a single baseline bulb.

The following is a listing of all the Residential Lighting Measures extracted from iTRL.

Ameren Missouri Residential Lighting Measures for MEEIA Cycle 2016-18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LED - 10.5W Downlight E26: Lighting								
962	Jan 1, 2016		0	per bulb	0.004	26.77	per bulb	25
LED - 10W: Lighting								
1204	Jan 1, 2016		0	per bulb	0.004	28	per bulb	25
LED - 12W Dimmable Light Bulb : Lighting								
963	Jan 1, 2016		0	per bulb	0.004	28	per bulb	25
LED - 15W: Lighting								
1205	Jan 1, 2016		0	per bulb	0.005	33.5	per bulb	25
LED - 15W Flood Light PAR30 Bulb: Lighting								
964	Jan 1, 2016		0	per bulb	0.005	33.5	per bulb	25
LED - 18W Flood Light PAR38 Bulb: Lighting								
965	Jan 1, 2016		0	per bulb	0.005	33.5	per bulb	25
LED - 20W: Lighting								
1206	Jan 1, 2016		0	per bulb	0.008	51	per bulb	25

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LED - 4W Candelabra: Lighting								
1231	Jan 1, 2016		0	per bulb	0.004	26.4	per bulb	25
LED - 8W Globe Light G25 Bulb: Lighting								
966	Jan 1, 2016		0	per bulb	0.005	33.5	per bulb	25

Residential HVAC Program Measures

The HVAC program provides incentives for replacement of HVAC units with energy efficient models. It also provides incentives for HVAC tune-ups and duct sealing.

The replacement of HVAC systems can either be applied as an “early replacement” or as a “replace on fail”. An “early replacement” analysis uses the existing equipment as the baseline for energy and demand savings while “replace on fail” uses the baseline efficiency for a new Standard/Code measure when determining energy and demand savings.

The incremental cost for an “early replacement” is calculated as the difference between the full cost of the efficient measure and the Net Present Value of the Standard/Code baseline equipment assuming the Standard/Code measure will be installed at the expiration of the remaining useful life of the existing equipment, typically after one third of the useful life of the new measure. For “replace on fail”, the incremental cost is the cost of the efficient measure less the cost of the Standard/Code measure.

Some equipment has multiple measures listed based upon what it is replacing. For example, an efficient ASHP can either replace an existing ASHP or a CAC with an electric resistance furnace.

The following is a listing of all the Residential HVAC Measures extracted from iTRL.

Ameren Missouri Residential HVAC Measures for MEEIA Cycle 2016-18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
ASHP - SEER 15 ER Elec Resist Furnace: HVAC								
919	Jan 1, 2016		1607	per measure	7.062	15151.63	per measure	18
ASHP - SEER 15 ER with ASHP: HVAC								
920	Jan 1, 2016		1184	per measure	2.322	4982.71	per measure	18
ASHP SEER 15 MF: HVAC								
1239	Jan 1, 2016		147	per measure	3.018	6475.5	per measure	12
ASHP- SEER 15 Replace at Fail Elec Resist Furnace: HVAC								
921	Jan 1, 2016		1074	per measure	6.514	13976.54	per measure	18
ASHP - SEER 15 Replace at Fail with ASHP: HVAC								
922	Jan 1, 2016		522	per measure	0.709	1520.99	per measure	18
ASHP - SEER 16+ ER Elec Resist Furnace: HVAC								
923	Jan 1, 2016		2018	per measure	7.752	16633.05	per measure	18
ASHP - SEER 16+ ER with ASHP: HVAC								
924	Jan 1, 2016		1595	per measure	3.029	6499.77	per measure	18
ASHP- SEER 16+ Replace at Fail Elec Resist Furnace: HVAC								

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
925	Jan 1, 2016		1485	per measure	7.518	16129.4	per measure	18
ASHP - SEER 16+ Replace at Fail with ASHP: HVAC								
926	Jan 1, 2016		522	per measure	0.86	1844.65	per measure	18
ASHP SEER 16 MF: HVAC								
1240	Jan 1, 2016		294	per measure	3.759	8065.8	per measure	12
CAC - SEER 14 ER: HVAC								
945	Jan 1, 2016		890	per measure	1.555	1641.6	per measure	18
CAC - SEER 14 Replace at Fail: HVAC								
944	Jan 1, 2016		357	per measure	0.31	327.61	per measure	18
CAC - SEER 15 ER: HVAC								
947	Jan 1, 2016		1247	per measure	1.824	1925.35	per measure	18
CAC - SEER 15 Replace at Fail: HVAC								
946	Jan 1, 2016		714	per measure	0.364	383.75	per measure	18
CAC - SEER 16+ ER: HVAC								
949	Jan 1, 2016		1304	per measure	1.823	1924.55	per measure	18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
CAC - SEER 16+ Replace at Fail: HVAC								
948	Jan 1, 2016		771	per measure	0.363	383.4	per measure	18
DFHP - SEER 14_SF: HVAC								
927	Jan 1, 2016		254	per measure	0.539	1157.43	per measure	12
DFHP SEER 15_MF: HVAC								
1241	Jan 1, 2016		139	per measure	0.287	615.2	per measure	12
DFHP - SEER 15_SF: HVAC								
928	Jan 1, 2016		508	per measure	0.628	1348.34	per measure	12
DFHP SEER 16_MF: HVAC								
1242	Jan 1, 2016		278	per measure	0.335	719.4	per measure	12
DFHP - SEER 16_SF: HVAC								
929	Jan 1, 2016		763	per measure	0.566	1213.49	per measure	12
DFHP - SEER 17_SF: HVAC								
930	Jan 1, 2016		1017	per measure	0.713	1529.89	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
DFHP SEER 17+_MF: HVAC								
1243	Jan 1, 2016		417	per measure	0.385	825.5	per measure	12
DFHP - SEER 18_SF: HVAC								
931	Jan 1, 2016		1342	per measure	0.485	1040.13	per measure	12
Ductless ASHP ER: HVAC								
1250	Jan 1, 2016		1982	per measure	1.718	3686	per measure	18
Ductless ASHP Replace Electric Resistance ER: HVAC								
1252	Jan 1, 2016		2108	per measure	2.668	5725	per measure	18
Ductless ASHP Replace Electric Resistance ROF: HVAC								
1253	Jan 1, 2016		1051	per measure	2.037	4370	per measure	18
Ductless ASHP ROF: HVAC								
1251	Jan 1, 2016		888	per measure	1.031	2211	per measure	18
Duct Sealing Level 1: HVAC								
905	Jan 1, 2016		325	per home	0.299	641.1	per home	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Duct Sealing Level 2: HVAC								
906	Jan 1, 2016		325	per home	0.519	1113.1	per home	20
ECM Auto Fan Early Replacement: HVAC								
908	Jan 1, 2016		168	per measure	0.302	647.51	per measure	15
ECM Auto Fan MF: HVAC								
1257	Jan 1, 2016		263	per measure	0.172	368.9	per measure	15
ECM Auto Fan Replace at Fail: HVAC								
907	Jan 1, 2016		263	per measure	0.31	665.16	per measure	15
ECM Continuous Fan Early Replacement: HVAC								
911	Jan 1, 2016		168	per measure	1.626	3488.5	per measure	15
ECM Continuous Fan MF: HVAC								
1244	Jan 1, 2016		263	per measure	0.813	1744	per measure	15
ECM Continuous Fan Replace at Fail: HVAC								
910	Jan 1, 2016		125	per measure	1.626	3488.5	per measure	15
Geothermal HP Desuperheater: HVAC								

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
932	Jan 1, 2016		239	per measure	0.065	730.5	per measure	10
GSHP - 23 EER ER: HVAC								
1248	Jan 1, 2016		4859	per measure	2.199	4717	per measure	18
GSHP - 23 EER Replace at Fail								
1249	Jan 1, 2016		3200	per measure	1.259	2702	per measure	18
GSHP SEER 14+ ER ASHP with GSHP ER: HVAC								
1247	Jan 1, 2016		5250	per measure	2.946	6321.8	per measure	18
GSHP - SEER 14+ ER Elec Resist Furnace: HVAC								
934	Jan 1, 2016		5250	per measure	13.276	28485.3	per measure	18
GSHP - SEER 14+ Replace Elec Resist Furnace: HVAC								
935	Jan 1, 2016		4717	per measure	12.681	27207.5	per measure	18
Heat Pump Strip Installed: HVAC								
913	Jan 1, 2016		154	per measure	0.621	1332.0	per measure	15
Heat Pump Strip Reset: HVAC								
914	Jan 1, 2016		25	per measure	0.621	1332.0	per measure	15

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Heat Pump Water Heater: HVAC								
1232	Jan 1, 2016		1480	per measure	0.198	2229.5	per measure	15
HVAC Maintenance and Tune-up_MF: HVAC								
1245	Jan 1, 2016		70	per emasure	0.165	174	per measure	10
HVAC Maintenance and Tune-up_SF: HVAC								
943	Jan 1, 2016		70	per measure	0.001	2.84	per measure	10
Indoor Coil Cleaning: HVAC								
941	Jan 1, 2016		63	per cleaning	0.104	223.94	per measure	5
Learning Thermostat: HVAC								
1222	Jan 1, 2016		224	per measure	0.438	462	per measure	10
Outdoor Coil Cleaning: HVAC								
942	Jan 1, 2016		31	per cleaning	0.066	140.6	per measure	5
PTAC 10.3 EER_SF: HVAC								
950	Jan 2, 2013		124	per measure	0.126	133.0	per measure	15

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
PTAC 10 EER_MF: HVAC								
1233	Jan 1, 2016		124	per measure	0.126	133	per measure	15
PTAC 9.3 EER_SF: HVAC								
951	Jan 2, 2013		136	per measure	0.201	212.5	per measure	15
PTAC 9 EER_MF: HVAC								
1234	Jan 1, 2016		136	per measure	0.201	212.5	per measure	15
PTHP 10.9 EER_SF: HVAC								
936	Jan 2, 2013		155	per measure	0.114	244.3	per measure	15
PTHP 10 EER_MF: HVAC								
1235	Jan 1, 2016		155	per measure	0.114	244.3	per measure	15
PTHP 9.1 EER_SF: HVAC								
937	Jan 2, 2013		169	per measure	0.157	336.2	per measure	15
PTHP 9 EER_MF: HVAC								
1236	Jan 1, 2016		169	per measure	0.157	336.2	per measure	15

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
RCA 10% improvement_MF: HVAC								
1246	Jan 1, 2016		70	per measure	0.346	365	per measure	10
RCA 10% improvement_SF: HVAC								
940	Jan 1, 2016		127	per measure	0.256	549.51	per measure	10
SEER 14 MF: HVAC								
1237	Jan 1, 2016		139	per measure	0.164	172.9	per measure	12
SEER 15 MF: HVAC								
1238	Jan 1, 2016		278	per measure	0.185	195.5	per measure	12

Efficient Products Program Measures

The Efficient Products Program provides mail-in and online rebates for retail products and the sale of products at a discounted price through an online store. Various end-use cost-effective measures included consist of qualified energy star appliances, power management, water heaters, window air conditioning units, pool pumps, and various building shell measures.

The following is a listing of all the Residential Efficient Products Measures extracted from iTRL.

Ameren Missouri Residential Efficient Products Measures for MEEIA Cycle 2016-18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
AC - Energy Star Room: Efficient Products								
857	Jan 1, 2016		50	per measure	0.047	49.6	per measure	12
Air Sealing (Infiltration reduction) - 50%_SF: Efficient Products								
874	Jan 1, 2016		264	per home	0.345	739.8	per home	13
Ceiling Insulation R5-R30 All Electric: Efficient Products								
875	Jan 1, 2016		.46	per sq ft	2.0E-4	0.46	per sq ft	25
Ceiling Insulation R5-R38 All Electric: Efficient Products								
876	Jan 1, 2016		0.58	per sq ft	2.0E-4	0.48	per sq ft	25
Ceiling Insulation R5-R49 All Electric: Efficient Products								
881	Jan 1, 2016		0.70	per sq ft	2.0E-4	0.49	per sq ft	25
Energy Star Air Purifier:Efficient Products								
1177	Jan 1, 2016		70	per measure	0.225	482	per measure	9
Energy Star Water Cooler - Cold Only: Efficient Products								
1180	Jan 2, 2013		17	per measure	0.006	47.4	per measure	10

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Energy Star Water Cooler - Hot and Cold: Efficient Products								
1181	Jan 1, 2016		17	per measure	0.046	361	per measure	10
Heat Pump Water Heaters: Efficient Products								
872	Jan 1, 2016		1480	per measure	0.294	3315.04	per measure	15
Learning Thermostat: Efficient Products								
1230	Jan 1, 2016		224	per measure	0.438	462	per unit	10
Pool Pump and Motor Single Speed: Efficient Products								
860	Jan 2, 2013		85	per measure	0.0957	694.0	per measure	10
Pool Pump and motor w auto controls - multi speed: Efficient Products								
859	Jan 1, 2016		579	per measure	0.2483	1799.7	per measure	10
Smart Strip - Motion Sensing: Efficient Products								
1258	Jan 1, 2016		8.96	per measure	0.007	64.48	per measure	5
Smart Strip plug outlet_SF Kit Load Sensing: Efficient Products								
1031	Jan 1, 2016		4	per measure	0.006	53.9	per measure	5
Smart Strip plug outlet: Efficient Products								
862	Jan 1, 2016	Jan 27, 2016	4.01	per measure	0.006	53.88	per measure	5

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
VFDs on Residential Swimming Pool Pumps: Efficient Products								
861	Jan 1, 2016		425	per measure	0.363	1543	per measure	10
Window Replacement_SF: Efficient Products								
882	Jan 1, 2016		4.33	per sq ft	0.0021	4.41	per sq ft	20

Low Income Program Measures

The Low Income Program provides the direct installation of energy efficient lighting and hot water measures into low income single family homes and multi-tenant properties. The program can also include the replacement and tune-up of HVAC systems, the replacement of appliances, and the installation of building shell measures.

The following is a listing of all the Residential Low Income Measures extracted from iTRL.

Ameren Missouri Low Income Measures for MEEIA Cycle 2016-18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
AC - Energy Star Room_MF: Low Income								
974	Jan 1, 2016		442	per measure	0.259	273	per measure	12
AC - Energy Star Room_SF: Low Income								
975	Jan 1, 2016		445	per measure	0.259	273	per measure	12
AC - Energy Star Room - Thru-Wall_MF: Low Income								
972	Jan 1, 2016		637	per measure	0.259	273	per measure	12
AC - Energy Star Room - Thru-Wall_SF: Low Income								
973	Jan 1, 2016		641	per measure	0.259	273	per measure	12
Air Sealing (Infiltration reduction) - 50%_MF: Low Income								
1220	Jan 1, 2016		400	per home	0.1864	400	per home	13
Air Sealing (Infiltration reduction) - 50%_SF: Low Income								
1207	Jan 1, 2016		500	per home	0.233	500	per home	10
Ceiling Insulation R5-R30 All Electric_MF: Low Income								
1209	Jan 1, 2016		1.37	per sq ft	2.0E-4	0.46	per sq ft	25

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Ceiling Insulation R5-R30 All Electric_SF: Low Income								
1208	Jan 1, 2016		1.47	per sq ft	2.0E-4	0.46	per sq ft	10
Dirty Filter Alarm_MF: Low Income								
1260	Jan 1, 2016		5	per measure	0.051	110	per measure	14
Dirty Filter Alarm_SF: Low Income								
1259	Jan 1, 2016		5	per measure	0.051	110	per measure	14
Energy Star Refrigerator_MF: Low Income								
968	Jan 1, 2016		750	per measure	0.104	807	per measure	10
Energy Star Refrigerator_SF: Low Income								
1221	Jan 1, 2016		750	per measure	0.104	807	per measure	10
HVAC Maintenance and Tune-up_MF: Low Income								
999	Jan 1, 2016		90	per measure	0.07	150	per measure	10
HVAC Maintenance and Tune-up_SF: Low Income								
1000	Jan 1, 2016		100	per measure	0.081	174	per measure	10

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LED - 10.5W Downlight E26 Light Bulb_MF: Low Income								
1018	Jan 1, 2016		0	per bulb	0.004	28	per bulb	25
LED - 10.5W Downlight E26 Light Bulb_SF: Low Income								
1019	Jan 1, 2016		0	per bulb	0.004	28	per bulb	25
LED - 12W Dimmable Light Bulb_MF: Low Income								
1021	Jan 1, 2016		0	per bulb	0.004	28	per bulb	25
LED - 12W Dimmable Light Bulb _SF: Low Income								
1020	Jan 1, 2016		0	per bulb	0.004	28	per bulb	25
LED - 15W Flood Light PAR30 Bulb_MF: Low Income								
1022	Jan 1, 2016		0	per bulb	0.005	33.5	per bulb	25
LED - 15W Flood Light PAR30 Bulb_SF: Low Income								
1023	Jan 1, 2016		0	per bulb	0.005	33.5	per bulb	25
LED - 18W Flood Light PAR38 Bulb_MF: Low Income								
1024	Jan 1, 2016		0	per bulb	0.005	33.5	per bulb	25

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LED - 18W Flood Light PAR38 Bulb_SF: Low Income								
1025	Jan 1, 2016		0	per bulb	0.005	33.5	per bulb	25
LED - 8W Globe Light G25 Bulb_MF: Low Income								
1026	Jan 1, 2016		0	per bulb	0.005	33.5	per bulb	25
LED - 8W Globe Light G25 Bulb_SF: Low Income								
1027	Jan 1, 2016		0	per bulb	0.005	33.5	per bulb	25
Low Flow Faucet Aerator _MF: Low Income								
1033	Jan 1, 2016		14	per measure	0.003	39	per measure	12
Low Flow Faucet Aerator _SF: Low Income								
1034	Jan 1, 2016		16	per measure	0.005	57	per measure	12
Low Flow Showerhead_MF: Low Income								
1035	Jan 1, 2016		42	per measure	0.019	218	per measure	12
Low Flow Showerhead_SF: Low Income								
1036	Jan 1, 2016		42	per measure	0.032	361	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Pipe Insulation_MF: Low Income								
1037	Jan 1, 2016		1.5	per ft	0.002	23	per ft	6
Pipe Insulation_SF: Low Income								
1038	Jan 1, 2016		1.6	per ft	0.002	25.7	per ft	6
PTAC 10.3 EER_MF: Low Income								
1005	Jan 1, 2016		124	per measure	0.126	133.0	per measure	15
PTAC 9.3 EER_MF: Low Income								
1006	Jan 1, 2016		136	per measure	0.201	212.5	per measure	15
PTHP 10.9 EER_MF: Low Income								
991	Jan 1, 2016		155	per measure	0.114	244.3	per measure	15
PTHP 9.1 EER_MF: Low Income								
992	Jan 1, 2016		169	per measure	0.157	336.2	per measure	15
RCA 10% improvement_MF: Low Income								
995	Jan 1, 2016		75	per measure	0.107	230	per measure	10

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
RCA 10% improvement_SF: Low Income								
996	Jan 1, 2016		80	per measure	0.089	191	per measure	10
Refrigerator Coil Cleaning Brush_SF: Low Income								
1172	Jan 2, 2013		8.5	per measure	0.002	16.5	per measure	2
Setback thermostat - full setback_MF: Low Income								
993	Jan 1, 2016		75	per measure	0.109	234	per measure	9
Setback thermostat - full setback_SF: Low Income								
994	Jan 1, 2016		75	per measure	0.109	234	per measure	15
Smart Strip plug outlet_MF: Low Income								
1030	Jan 1, 2016		40	per measure	0.013	110	per measure	5
Water Heater, Tank Blanket-Insulation - Electric_MF: Low Income								
1039	Jan 1, 2016		18	per measure	0.004	41	per measure	15
Water Heater, Tank Blanket-Insulation - Electric_SF: Low Income								
1041	Jan 1, 2016		58.81	per measure	0.016	180.0	per measure	15

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Window Film_MF: Low Income								
970	Jan 1, 2016		538	per measure	0.1515	325	per measure	10
Window Replacement_SF: Low Income								
1211	Jan 1, 2016		14	per sq ft	0.0012	2.53	per sq ft	20

Energy Efficiency Kit Program Measures

The Kit Program offers free home energy kits to customers and may include lighting and hot water measures for customers with electric water heaters. The kits may be distributed through schools, directly installed into multifamily properties, or distributed to targeted customers that request them.

The following is a listing of all the Kit Measures extracted from iTRL.

Ameren Missouri Kit Measures for MEEIA Cycle 2016-18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Dirty filter alarm_LI: Kits								
1264	Jan 1, 2016		5	per measure	0.051	110	per measure	14
Dirty filter alarm_MF: Kits								
1225	Jan 1, 2016		5	per measure	0.051	110	per measure	14
Dirty filter alarm_SF: Kits								
1224	Jan 1, 2016		5	per measure	0.051	110	per measure	14
Dirty filter alarm_SK: Kits								
1226	Jan 1, 2016		5	per measure	0.051	110	per measure	14
LED - 12 W_LI: Kits								
1263	Jan 1, 2016		0	per measure	0.004	25.8	per measure	25
LED - 12 W_MF: Kits								
1203	Jan 1, 2016		0	per bulb	0.004	25.8	per bulb	25
LED - 12 W_SF: Kits								
1202	Jan 1, 2016		0	per bulb	0.004	25.8	per bulb	25

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LED - 12 W_SK: Kits								
1227	Jan 1, 2016		0	per bulb	0.004	25.8	per bulb	25
Low Flow Faucet Aerator_LI: Kits								
1262	Jan 1, 2016		3	per measure	0.003	39	per measure	12
Low Flow Faucet Aerator - Electric water heater _MF: Kits								
865	Jan 1, 2016		2.5	per measure	0.003	39	per measure	12
Low Flow Faucet Aerator - Electric water heater_SF: Kits								
864	Jan 1, 2016		2.5	per measure	0.003	39	per measure	12
Low Flow Faucet Aerator - Electric water heater_SK: Kits								
1228	Jan 1, 2016		2.5	per measure	0.003	39	per measure	12
Low Flow Showerhead - Electric water heater_LI: Kits								
1261	Jan 1, 2016		9	per measure	0.019	218	per measure	12
Low Flow Showerhead - Electric water heater_MF: Kits								
867	Jan 1, 2016		9	per measure	0.019	218	per measure	12
Low Flow Showerhead - Electric water heater_SF: Kits								
866	Jan 1, 2016		9	per measure	0.019	218	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Low Flow Showerhead - Electric water heater_SK: Kits								
1229	Jan 1, 2016		9	per measure	0.019	218	per measure	12
Pipe Insulation_MF: Kits								
868	Jan 1, 2016		0.42	per ft	0.002	21.4	per ft	6
Pipe Insulation_SF: Kits								
1167	Jan 1, 2016		0.42	per ft	0.002	21.4	per ft	6
Refrigerator Coil Cleaning Brush_LI: Kits								
1265	Jan 1, 2016		3	per measure	0.002	16.5	per measure	2
Refrigerator Coil Cleaning Brush_MF: Kits								
1255	Jan 1, 2016		3	per measure	0.002	16.5	per measure	2
Refrigerator Coil Cleaning Brush_SF: Kits								
1256	Jan 1, 2016		3	per measure	0.002	16.5	per measure	2
Refrigerator Coil Cleaning Brush_SK: Kits								
1254	Jan 1, 2016		3	per measure	0.002	16.5	per measure	2

Home Energy Report Program Measures

The Home Energy Report Program encourages energy consumption behavior changes of participating residential customers by mailing Home Energy Reports to targeted residential customers on an established frequency for the duration of the program.

The following is a listing of all the Home Energy Report Measures extracted from iTRL.

Ameren Missouri Behavior Measures for MEEIA Cycle 2016-18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Home Energy Report: Behavior								
1223	Jan 1, 2016		0	per home	.07	150	per home	1

Business Energy Efficiency Program Measures

The Business Energy Efficiency Prescriptive measures are listed below primarily for the Standard program. The Small Business Direct Install (SBDI) Program can share most of these measures when appropriate for small businesses. The Custom, Retro-Commissioning (RCx) program and New Construction program measures are similar in that they require calculation of the savings by the methodology outlined in the Custom Section. Where they differ is RCx only applies to Compressed Air, Building Automation System (BAS), and Lighting. The New Construction program can include both Custom measures and those listed in the Prescriptive measure list. The individual measures included in the Prescriptive measure list may be applied to other Business Programs as long as the attributes associated with the energy and demand savings are consistent with the deemed values.

The following is a listing of all the Business Prescriptive Measures extracted from iTRL, Ameren Missouri's online database for maintaining information on energy saving measures.

Ameren Missouri Prescriptive Measures Listing for MEEIA Cycle 2016-18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
4L T9: Biz Prescriptive								
3059	Jan 1, 2016		219.50	per measure	0.2216	1166.29	per measure	11
6L T8: Biz Prescriptive								
3060	Jan 1, 2016		208	per measure	0.1579	830.97	per measure	11
AC 135,000 - 240,000: Biz Prescriptive								
726	Jan 2, 2013		110.89	per ton	0.1084	119.0	per ton	15
AC 240,000 - 760,000: Biz Prescriptive								
726-1	Jan 2, 2016		115.13	per ton	0.0568	62.4	per ton	15
AC greater than 760,000: Biz Prescriptive								
727	Jan 2, 2013		98.38	per ton	0.0839	92.1	per ton	15
AC less than 65,000 1 Ph: Biz Prescriptive								
728	Jan 2, 2013		55.57	per ton	0.0594	65.2	per ton	15
Air-Cooled Recip Chiller COP = 2.8, IPLV = 3.41: Biz Prescriptive								
2800	Jan 1, 2016		45.07	per ton	0.02	126.5	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Air-Cooled Recip Chiller COP = 2.8, IPLV = 3.89: Biz Prescriptive								
2801	Jan 1, 2016		92.04	per ton	0.041	268.7	per ton	20
Air-Cooled Recip Chiller COP = 2.8, IPLV = 4.24: Biz Prescriptive								
2802	Jan 1, 2016		119.59	per ton	0.053	338.6	per ton	20
Air-Cooled Recip Chiller COP = 3.08, IPLV = 3.36: Biz Prescriptive								
2803	Jan 1, 2016		58.58	per ton	0.104	222.9	per ton	20
Air-Cooled Recip Chiller COP = 3.08, IPLV = 3.76: Biz Prescriptive								
2804	Jan 1, 2016		99.68	per ton	0.123	338	per ton	20
Air-Cooled Recip Chiller COP = 3.08, IPLV = 4.28: Biz Prescriptive								
2805	Jan 1, 2016		141.63	per ton	0.142	467.5	per ton	20
Air-Cooled Recip Chiller COP = 3.08, IPLV = 4.67: Biz Prescriptive								
2806	Jan 1, 2016		166.96	per ton	0.152	531.2	per ton	20
Air-Cooled Recip Chiller COP = 3.36, IPLV = 3.66: Biz Prescriptive								
2807	Jan 1, 2016		106.23	per ton	0.192	410.9	per ton	20
Air-Cooled Recip Chiller COP = 3.36, IPLV = 4.10: Biz Prescriptive								
2808	Jan 1, 2016		144.29	per ton	0.209	516.5	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Air-Cooled Recip Chiller COP = 3.36, IPLV = 4.67: Biz Prescriptive								
2809	Jan 1, 2016		182.94	per ton	0.227	635.2	per ton	20
Air-Cooled Recip Chiller COP = 3.36, IPLV = 5.09: Biz Prescriptive								
2810	Jan 1, 2016		205.88	per ton	0.236	693.6	per ton	20
Air-Cooled Screw Chiller COP = 2.8, IPLV = 3.46: Biz Prescriptive								
2811	Jan 1, 2016		50.57	per ton	0.024	142.4	per ton	20
Air-Cooled Screw Chiller COP = 2.8, IPLV = 3.64: Biz Prescriptive								
2812	Jan 1, 2016		69.12	per ton	0.044	204.6	per ton	20
Air-Cooled Screw Chiller COP = 2.8, IPLV = 4.75: Biz Prescriptive								
2813	Jan 1, 2016		152.46	per ton	0.065	380.3	per ton	20
Air-Cooled Screw Chiller COP = 3.08, IPLV = 3.36: Biz Prescriptive								
2814	Jan 1, 2016		58.58	per ton	0.106	223.5	per ton	20
Air-Cooled Screw Chiller COP = 3.08, IPLV = 3.80: Biz Prescriptive								
2815	Jan 1, 2016		103.31	per ton	0.128	353.2	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Air-Cooled Screw Chiller COP = 3.08, IPLV = 4.00: Biz Prescriptive								
2816	Jan 1, 2016		120.4	per ton	0.146	409.8	per ton	20
Air-Cooled Screw Chiller COP = 3.08, IPLV = 5.22: Biz Prescriptive								
2817	Jan 1, 2016		196.24	per ton	0.166	569.8	per ton	20
Air-Cooled Screw Chiller COP = 3.36, IPLV = 3.66: Biz Prescriptive								
2818	Jan 1, 2016		106.23	per ton	0.196	412.2	per ton	20
Air-Cooled Screw Chiller COP = 3.36, IPLV = 4.15: Biz Prescriptive								
2819	Jan 1, 2016		148.11	per ton	0.216	531	per ton	20
Air-Cooled Screw Chiller COP = 3.36, IPLV = 4.42: Biz Prescriptive								
2820	Jan 1, 2016		167.22	per ton	0.233	583	per ton	20
Air-Cooled Screw Chiller COP = 3.36, IPLV = 5.69: Biz Prescriptive								
2821	Jan 1, 2016		232.77	per ton	0.251	729.6	per ton	20
Anti-Sweat Heater Controls -- Cooler: Biz Prescriptive								
838	Jan 2, 2013		151	per measure	0.1855	1366.9	per measure	12
Beverage Vending Machine Control: Biz Prescriptive								
839	Jan 1, 2016		216	per measure	0.1086	800	per measure	5

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Built-in to individual fixtures: Biz Prescriptive								
3061	Jan 1, 2016		1	per measure	0.0735	387	per measure	11
Central Lighting Control: College/University: Biz Prescriptive								
776-1	Jan 1, 2016		3700	per 10,000 square feet	3.6517	19223.2	per 10,000 square feet	12
Central Lighting Control: Elementary School: Biz Prescriptive								
776-10	Jan 1, 2016		3700	per 10,000 square feet	1.4378	7568.8	per 10,000 square feet	12
Central Lighting Control: Exterior: Biz Prescriptive								
776-15	Jan 1, 2016		3700	per 10,000 square feet	2.6001	13687.5	per 10,000 square feet	12
Central Lighting Control: Garage, 24/7 lighting: Biz Prescriptive								
776-19	Jan 1, 2016		3700	per 10,000 square feet	5.2003	27375.0	per 10,000 square feet	12
Central Lighting Control: Garage: Biz Prescriptive								
776-4	Jan 1, 2016		3700	per 10,000 square feet	2.1015	11062.5	per 10,000 square feet	12
Central Lighting Control: Grocery: Biz Prescriptive								
776-5	Jan 1, 2016		3700	per 10,000 square feet	3.8611	20325.5	per 10,000 square feet	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Central Lighting Control: Heavy Industry: Biz Prescriptive								
776-11	Jan 1, 2016		3700	per 10,000 square feet	3.6497	19212.4	per 10,000 square feet	12
Central Lighting Control: High School/Middle School: Biz Prescriptive								
776-12	Jan 1, 2016		3700	per 10,000 square feet	2.5592	13471.9	per 10,000 square feet	12
Central Lighting Control: Hospital: Biz Prescriptive								
776-6	Jan 1, 2016		3700	per 10,000 square feet	3.1195	16421.4	per 10,000 square feet	12
Central Lighting Control: Hotel/Motel Common Areas: Biz Prescriptive								
776-7	Jan 1, 2016		3700	per 10,000 square feet	4.5893	24158.7	per 10,000 square feet	12
Central Lighting Control: Hotel/Motel Guest Rooms: Biz Prescriptive								
776-13	Jan 1, 2016		3700	per 10,000 square feet	0.4613	2428.1	per 10,000 square feet	12
Central Lighting Control: Light Industry: Biz Prescriptive								
776-9	Jan 1, 2016		3700	per 10,000 square feet	3.4421	18119.8	per 10,000 square feet	12
Central Lighting Control: Miscellaneous: Biz Prescriptive								
776-14	Jan 1, 2016		3700	per 10,000 square feet	3.2901	17319.9	per 10,000 square feet	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Central Lighting Control: Multifamily Common Areas: Biz Prescriptive								
776-16	Jan 1, 2016		3700	per 10,000 square feet	3.5321	18593.8	per 10,000 square feet	12
Central Lighting Control: Office: Biz Prescriptive								
776-8	Jan 1, 2016		3700	per 10,000 square feet	2.764	14549.9	per 10,000 square feet	12
Central Lighting Control: Religious Worship/Church: Biz Prescriptive								
776-18	Jan 1, 2016		3700	per 10,000 square feet	0.9878	5200.0	per 10,000 square feet	12
Central Lighting Control: Restaurant: Biz Prescriptive								
776-3	Jan 1, 2016		3700	per 10,000 square feet	3.4119	17960.9	per 10,000 square feet	12
Central Lighting Control: Retail/Service: Biz Prescriptive								
776-2	Jan 1, 2016		3700	per 10,000 square feet	3.0003	15793.9	per 10,000 square feet	12
Central Lighting Control: Warehouse: Biz Prescriptive								
776-20	Jan 1, 2016		3700	per 10,000 square feet	2.9961	15771.8	per 10,000 square feet	12
Ceramic Metal Halide 20-100W: College/University: Biz Prescriptive								
731-1	Jan 1, 2016		225	per measure	0.1414	744.3	per measure	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Ceramic Metal Halide 20-100W: Elementary School: Biz Prescriptive								
731-10	Jan 1, 2016		225	per measure	0.0557	293.1	per measure	16
Ceramic Metal Halide 20-100W: Exterior: Biz Prescriptive								
731-15	Jan 1, 2016		225	per measure	0.1007	530.0	per measure	16
Ceramic Metal Halide 20-100W: Garage, 24/7 lighting: Biz Prescriptive								
731-19	Jan 1, 2016		225	per measure	0.2014	1060.0	per measure	16
Ceramic Metal Halide 20-100W: Garage: Biz Prescriptive								
731-4	Jan 1, 2016		225	per measure	0.0814	428.3	per measure	16
Ceramic Metal Halide 20-100W: Grocery: Biz Prescriptive								
731-5	Jan 1, 2016		225	per measure	0.1495	787.0	per measure	16
Ceramic Metal Halide 20-100W: Heavy Industry: Biz Prescriptive								
731-11	Jan 1, 2016		225	per measure	0.1413	743.9	per measure	16
Ceramic Metal Halide 20-100W: High School/Middle School: Biz Prescriptive								
731-12	Jan 1, 2016		225	per measure	0.0991	521.6	per measure	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Ceramic Metal Halide 20-100W: Hospital: Biz Prescriptive								
731-6	Jan 1, 2016		225	per measure	0.1208	635.8	per measure	16
Ceramic Metal Halide 20-100W: Hotel/Motel Common Areas: Biz Prescriptive								
731-7	Jan 1, 2016		225	per measure	0.1777	935.4	per measure	16
Ceramic Metal Halide 20-100W: Hotel/Motel Guest Rooms: Biz Prescriptive								
731-13	Jan 1, 2016		225	per measure	0.0179	94.0	per measure	16
Ceramic Metal Halide 20-100W: Light Industry: Biz Prescriptive								
731-9	Jan 1, 2016		225	per measure	0.1333	701.6	per measure	16
Ceramic Metal Halide 20-100W: Miscellaneous: Biz Prescriptive								
731-14	Jan 1, 2016		225	per measure	0.1274	670.6	per measure	16
Ceramic Metal Halide 20-100W: Multifamily Common Areas: Biz Prescriptive								
731-16	Jan 1, 2016		225	per measure	0.1368	720.0	per measure	16
Ceramic Metal Halide 20-100W: Office: Biz Prescriptive								
731-8	Jan 1, 2016		225	per measure	0.107	563.4	per measure	16
Ceramic Metal Halide 20-100W: Religious Worship/Church: Biz Prescriptive								
731-18	Jan 1, 2016		225	per measure	0.0382	201.3	per measure	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Ceramic Metal Halide 20-100W: Restaurant: Biz Prescriptive								
731-3	Jan 1, 2016		225	per measure	0.1321	695.4	per measure	16
Ceramic Metal Halide 20-100W: Retail/Service: Biz Prescriptive								
731-2	Jan 1, 2016		225	per measure	0.1162	611.5	per measure	16
Ceramic Metal Halide 20-100W: Warehouse: Biz Prescriptive								
731-20	Jan 1, 2016		225	per measure	0.116	610.7	per measure	16
Electronics - Monitor Power Management: Biz Prescriptive								
3065	Jan 1, 2016		6.03	per building	0.2438	1,767.47	per building	5
ENERGY STAR Commercial Glass Door Freezers 15 to 30 ft3: Biz Prescriptive								
827	Jan 2, 2013		950	per measure	0.272	2004.0	per measure	12
ENERGY STAR Commercial Glass Door Freezers 30 to 50ft3: Biz Prescriptive								
828	Jan 2, 2013		1307	per measure	0.5252	3869.0	per measure	12
ENERGY STAR Commercial Glass Door Freezers less than 15ft3: Biz Prescriptive								
826	Jan 2, 2013		220	per measure	0.2298	1693	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
ENERGY STAR Commercial Glass Door Freezers more than 50ft3: Biz Prescriptive								
829	Jan 2, 2013		2300	per measure	0.9662	7118.0	per measure	12
ENERGY STAR Commercial Glass Door Refrigerators 15 to 30 ft3: Biz Prescriptive								
843	Jan 1, 2016		500	per measure	0.0907	668	per measure	12
ENERGY STAR Commercial Glass Door Refrigerators less than 15ft3: Biz Prescriptive								
842	Jan 1, 2016		250	per measure	0.098	722	per measure	12
ENERGY STAR Commercial Solid Door Freezers 15 to 30 ft3: Biz Prescriptive								
831	Jan 2, 2013		400	per measure	0.118	869.0	per measure	12
ENERGY STAR Commercial Solid Door Freezers 30 to 50ft3: Biz Prescriptive								
832	Jan 2, 2013		550	per measure	0.2346	1728.0	per measure	12
ENERGY STAR Commercial Solid Door Freezers less than 15ft3: Biz Prescriptive								
830	Jan 2, 2013		150	per measure	0.0808	595.0	per measure	12
ENERGY STAR Commercial Solid Door Freezers more than 50ft3: Biz Prescriptive								
833	Jan 2, 2013		700	per measure	0.51	3757.0	per measure	12
ENERGY STAR Hot Holding Cabinets Full Size - Electric: Biz Prescriptive								
679	Jan 1, 2016		1783	per measure	1.3241	6624	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
ENERGY STAR Ice Machines 500 to 1000 lbs: Biz Prescriptive								
835	Jan 1, 2016		1500	per measure	0.1211	892	per measure	12
ENERGY STAR Ice Machines less than 500 lbs: Biz Prescriptive								
834	Jan 1, 2016		600	per measure	0.0813	599	per measure	12
ENERGY STAR Ice Machines more than 1000 lbs: Biz Prescriptive								
836	Jan 1, 2016		2000	per measure	0.1746	1286	per measure	12
Energy Star Laptop: Biz Prescriptive								
3066	Jan 1, 2016		0.51	per building	0.1035	750.40	per building	4
Energy Star POS Terminal: Biz Prescriptive								
3067	Jan 1, 2016		292.72	per building	0.3046	2,208.48	per building	4
Energy Star Server: Biz Prescriptive								
3068	Jan 1, 2016		0.04	per building	0.3472	2,516.82	per building	3
ENERGY STAR Steam Cookers 3 Pan - Electric: Biz Prescriptive								
675	Jan 2, 2013		4150	per measure	2.2364	11188.0	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
ENERGY STAR Steam Cookers 4 Pan - Electric: Biz Prescriptive								
676	Jan 2, 2013		4150	per measure	2.4306	12159.2	per measure	12
ENERGY STAR Steam Cookers 5 Pan - Electric: Biz Prescriptive								
677	Jan 2, 2013		4150	per measure	2.6264	13138.9	per measure	12
ENERGY STAR Steam Cookers 6 Pan - Electric: Biz Prescriptive								
678	Jan 2, 2013		4150	per measure	3.0323	15169.4	per measure	12
ENERGY STAR Vending Machine: Biz Prescriptive								
846	Jan 1, 2016		140	per measure	0.1362	1003.35	per measure	10
Garage HID replacement above 175W to 250W HID retrofit: College/University: Biz Prescriptive								
738-1	Jan 1, 2016		500	per measure	0.0037	658.2	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Elementary School: Biz Prescriptive								
738-10	Jan 1, 2016		500	per measure	0.0015	259.2	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Exterior: Biz Prescriptive								
738-15	Jan 1, 2016		500	per measure	0.0026	468.7	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Garage, 24/7 lighting: Biz Prescriptive								
738-19	Jan 1, 2016		500	per measure	0.0053	937.3	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Garage HID replacement above 175W to 250W HID retrofit: Garage: Biz Prescriptive								
738-4	Jan 1, 2016		500	per measure	0.0021	378.8	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Grocery: Biz Prescriptive								
738-5	Jan 1, 2016		500	per measure	0.0039	695.9	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Heavy Industry: Biz Prescriptive								
738-11	Jan 1, 2016		500	per measure	0.0037	657.8	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: High School/Middle School: Biz Prescriptive								
738-12	Jan 1, 2016		500	per measure	0.0026	461.3	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Hospital: Biz Prescriptive								
738-6	Jan 1, 2016		500	per measure	0.0032	562.3	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Hotel/Motel Common Areas: Biz Prescriptive								
738-7	Jan 1, 2016		500	per measure	0.0046	827.2	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Hotel/Motel Guest Rooms: Biz Prescriptive								
738-13	Jan 1, 2016		500	per measure	5.0E-4	83.1	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Garage HID replacement above 175W to 250W HID retrofit: Light Industry: Biz Prescriptive								
738-9	Jan 1, 2016		500	per measure	0.0035	620.4	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Miscellaneous: Biz Prescriptive								
738-14	Jan 1, 2016		500	per measure	0.0033	593.0	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Multifamily Common Areas: Biz Prescriptive								
738-16	Jan 1, 2016		500	per measure	0.0036	636.7	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Office: Biz Prescriptive								
738-8	Jan 1, 2016		500	per measure	0.0028	498.2	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Religious Worship/Church: Biz Prescriptive								
738-18	Jan 1, 2016		500	per measure	0.001	178.0	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Restaurant: Biz Prescriptive								
738-3	Jan 1, 2016		500	per measure	0.0035	615.0	per measure	12
Garage HID replacement above 175W to 250W HID retrofit: Retail/Service: Biz Prescriptive								
738-2	Jan 1, 2016		500	per measure	0.003	540.8	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Garage HID replacement above 175W to 250W HID retrofit: Warehouse: Biz Prescriptive								
738-20	Jan 1, 2016		500	per measure	0.003	540.0	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: College/University: Biz Prescriptive								
739-1	Jan 1, 2016		800	per measure	0.0106	1895.2	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Elementary School: Biz Prescriptive								
739-10	Jan 1, 2016		800	per measure	0.0042	746.2	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Exterior: Biz Prescriptive								
739-15	Jan 1, 2016		800	per measure	0.0076	1349.4	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Garage, 24/7 lighting: Biz Prescriptive								
739-19	Jan 1, 2016		800	per measure	0.0152	2698.9	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Garage: Biz Prescriptive								
739-4	Jan 1, 2016		800	per measure	0.0061	1090.6	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Grocery: Biz Prescriptive								
739-5	Jan 1, 2016		800	per measure	0.0113	2003.9	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Heavy Industry: Biz Prescriptive								
739-11	Jan 1, 2016		800	per measure	0.0106	1894.1	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Garage HID replacement above 250W to 400W HID retrofit: High School/Middle School: Biz Prescriptive								
739-12	Jan 1, 2016		800	per measure	0.0075	1328.2	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Hospital: Biz Prescriptive								
739-6	Jan 1, 2016		800	per measure	0.0091	1619.0	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Hotel/Motel Common Areas: Biz Prescriptive								
739-7	Jan 1, 2016		800	per measure	0.0134	2381.8	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Hotel/Motel Guest Rooms: Biz Prescriptive								
739-13	Jan 1, 2016		800	per measure	0.0013	239.4	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Light Industry: Biz Prescriptive								
739-9	Jan 1, 2016		800	per measure	0.01	1786.4	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Miscellaneous: Biz Prescriptive								
739-14	Jan 1, 2016		800	per measure	0.0096	1707.6	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Multifamily Common Areas: Biz Prescriptive								
739-16	Jan 1, 2016		800	per measure	0.0103	1833.2	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Garage HID replacement above 250W to 400W HID retrofit: Office: Biz Prescriptive								
739-8	Jan 1, 2016		800	per measure	0.0081	1434.5	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Religious Worship/Church: Biz Prescriptive								
739-18	Jan 1, 2016		800	per measure	0.0029	512.7	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Restaurant: Biz Prescriptive								
739-3	Jan 1, 2016		800	per measure	0.0099	1770.8	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Retail/Service: Biz Prescriptive								
739-2	Jan 1, 2016		800	per measure	0.0087	1557.1	per measure	12
Garage HID replacement above 250W to 400W HID retrofit: Warehouse: Biz Prescriptive								
739-20	Jan 1, 2016		800	per measure	0.0087	1554.9	per measure	12
Garage HID replacement to 175W HID retrofit: Biz Prescriptive								
3075	Jan 1, 2016		400	per measure	0.1161	611.0	per measure	12
GSHP under 135,000 17EER: Biz Prescriptive								
686	Jan 2, 2013		180	per ton	0.1066	240.1	per ton	15
GSHP under 135,000 19EER: Biz Prescriptive								
687	Jan 2, 2013		180	per ton	0.1356	305.4	per ton	15

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay 3L T5HO Replacing 250W HID: College/University: Biz Prescriptive								
757-1	Jan 1, 2016		180	per fixture	0.1356	713.6	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Elementary School: Biz Prescriptive								
757-10	Jan 1, 2016		180	per fixture	0.0534	281.0	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Exterior: Biz Prescriptive								
757-15	Jan 1, 2016		180	per fixture	0.0965	508.1	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Garage, 24/7 lighting: Biz Prescriptive								
757-19	Jan 1, 2016		180	per fixture	0.193	1016.2	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Garage: Biz Prescriptive								
757-4	Jan 1, 2016		180	per fixture	0.078	410.6	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Grocery: Biz Prescriptive								
757-5	Jan 1, 2016		180	per fixture	0.1433	754.5	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Heavy Industry: Biz Prescriptive								
757-11	Jan 1, 2016		180	per fixture	0.1355	713.2	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay 3L T5HO Replacing 250W HID: High School/Middle School: Biz Prescriptive								
757-12	Jan 1, 2016		180	per fixture	0.095	500.1	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Hospital: Biz Prescriptive								
757-6	Jan 1, 2016		180	per fixture	0.1158	609.6	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Hotel/Motel Common Areas: Biz Prescriptive								
757-7	Jan 1, 2016		180	per fixture	0.1704	896.8	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Hotel/Motel Guest Rooms: Biz Prescriptive								
757-13	Jan 1, 2016		180	per fixture	0.0171	90.1	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Light Industry: Biz Prescriptive								
757-9	Jan 1, 2016		180	per fixture	0.1278	672.6	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Miscellaneous: Biz Prescriptive								
757-14	Jan 1, 2016		180	per fixture	0.1221	642.9	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Multifamily Common Areas: Biz Prescriptive								
757-16	Jan 1, 2016		180	per fixture	0.1311	690.2	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Office: Biz Prescriptive								
757-8	Jan 1, 2016		180	per fixture	0.1026	540.1	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay 3L T5HO Replacing 250W HID: Religious Worship/Church: Biz Prescriptive								
757-18	Jan 1, 2016		180	per fixture	0.0367	193.0	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Restaurant: Biz Prescriptive								
757-3	Jan 1, 2016		180	per fixture	0.1266	666.7	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Retail/Service: Biz Prescriptive								
757-2	Jan 1, 2016		180	per fixture	0.1114	586.3	per fixture	12
High Bay 3L T5HO Replacing 250W HID: Warehouse: Biz Prescriptive								
757-20	Jan 1, 2016		180	per fixture	0.1112	585.4	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: College/University: Biz Prescriptive								
758-1	Jan 1, 2016		700	per fixture	0.409	2153.0	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Elementary School: Biz Prescriptive								
758-10	Jan 1, 2016		700	per fixture	0.161	847.7	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Exterior: Biz Prescriptive								
758-15	Jan 1, 2016		700	per fixture	0.2912	1533.0	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay 6L T5HO Double fixture replace 1000W HID: Garage, 24/7 lighting: Biz Prescriptive								
758-19	Jan 1, 2016		700	per fixture	0.5824	3066.0	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Garage: Biz Prescriptive								
758-4	Jan 1, 2016		700	per fixture	0.2354	1239.0	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Grocery: Biz Prescriptive								
758-5	Jan 1, 2016		700	per fixture	0.4325	2276.5	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Heavy Industry: Biz Prescriptive								
758-11	Jan 1, 2016		700	per fixture	0.4088	2151.8	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: High School/Middle School: Biz Prescriptive								
758-12	Jan 1, 2016		700	per fixture	0.2866	1508.9	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Hospital: Biz Prescriptive								
758-6	Jan 1, 2016		700	per fixture	0.3494	1839.2	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Hotel/Motel Common Areas: Biz Prescriptive								
758-7	Jan 1, 2016		700	per fixture	0.514	2705.8	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Hotel/Motel Guest Rooms: Biz Prescriptive								
758-13	Jan 1, 2016		700	per fixture	0.0517	272.0	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay 6L T5HO Double fixture replace 1000W HID: Light Industry: Biz Prescriptive								
758-9	Jan 1, 2016		700	per fixture	0.3855	2029.4	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Miscellaneous: Biz Prescriptive								
758-14	Jan 1, 2016		700	per fixture	0.3685	1939.8	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Multifamily Common Areas: Biz Prescriptive								
758-16	Jan 1, 2016		700	per fixture	0.3956	2082.5	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Office: Biz Prescriptive								
758-8	Jan 1, 2016		700	per fixture	0.3096	1629.6	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Religious Worship/Church: Biz Prescriptive								
758-18	Jan 1, 2016		700	per fixture	0.1106	582.4	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Restaurant: Biz Prescriptive								
758-3	Jan 1, 2016		700	per fixture	0.3821	2011.6	per fixture	12
High Bay 6L T5HO Double fixture replace 1000W HID: Retail/Service: Biz Prescriptive								
758-2	Jan 1, 2016		700	per fixture	0.336	1768.9	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay 6L T5HO Double fixture replace 1000W HID: Warehouse: Biz Prescriptive								
758-20	Jan 1, 2016		700	per fixture	0.3356	1766.4	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: College/University: Biz Prescriptive								
759-1	Jan 1, 2016		160	per fixture	0.2248	1183.5	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Elementary School: Biz Prescriptive								
759-10	Jan 1, 2016		160	per fixture	0.0885	466.0	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Exterior: Biz Prescriptive								
759-15	Jan 1, 2016		160	per fixture	0.1601	842.7	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Garage, 24/7 lighting: Biz Prescriptive								
759-19	Jan 1, 2016		160	per fixture	0.3201	1685.3	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Garage: Biz Prescriptive								
759-4	Jan 1, 2016		160	per fixture	0.1294	681.1	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Grocery: Biz Prescriptive								
759-5	Jan 1, 2016		160	per fixture	0.2377	1251.3	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Heavy Industry: Biz Prescriptive								
759-11	Jan 1, 2016		160	per fixture	0.2247	1182.8	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: High School/Middle School: Biz Prescriptive								
759-12	Jan 1, 2016		160	per fixture	0.1576	829.4	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Hospital: Biz Prescriptive								
759-6	Jan 1, 2016		160	per fixture	0.1921	1011.0	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Hotel/Motel Common Areas: Biz Prescriptive								
759-7	Jan 1, 2016		160	per fixture	0.2825	1487.3	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Hotel/Motel Guest Rooms: Biz Prescriptive								
759-13	Jan 1, 2016		160	per fixture	0.0284	149.5	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Light Industry: Biz Prescriptive								
759-9	Jan 1, 2016		160	per fixture	0.2119	1115.5	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Miscellaneous: Biz Prescriptive								
759-14	Jan 1, 2016		160	per fixture	0.2026	1066.3	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Multifamily Common Areas: Biz Prescriptive								
759-16	Jan 1, 2016		160	per fixture	0.2175	1144.7	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Office: Biz Prescriptive								
759-8	Jan 1, 2016		160	per fixture	0.1702	895.8	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Religious Worship/Church: Biz Prescriptive								
759-18	Jan 1, 2016		160	per fixture	0.0608	320.1	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Restaurant: Biz Prescriptive								
759-3	Jan 1, 2016		160	per fixture	0.2101	1105.8	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Retail/Service: Biz Prescriptive								
759-2	Jan 1, 2016		160	per fixture	0.1847	972.3	per fixture	12
High Bay Fluorescent 4LF32T8 Replacing 250W HID: Warehouse: Biz Prescriptive								
759-20	Jan 1, 2016		160	per fixture	0.1845	971.0	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: College/University: Biz Prescriptive								
760-1	Jan 1, 2016		160	per fixture	0.2884	1518.3	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Elementary School: Biz Prescriptive								
760-10	Jan 1, 2016		160	per fixture	0.1136	597.8	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Exterior: Biz Prescriptive								
760-15	Jan 1, 2016		160	per fixture	0.2054	1081.1	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Garage, 24/7 lighting: Biz Prescriptive								
760-19	Jan 1, 2016		160	per fixture	0.4107	2162.2	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Garage: Biz Prescriptive								
760-4	Jan 1, 2016		160	per fixture	0.166	873.8	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Grocery: Biz Prescriptive								
760-5	Jan 1, 2016		160	per fixture	0.305	1605.4	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Heavy Industry: Biz Prescriptive								
760-11	Jan 1, 2016		160	per fixture	0.2883	1517.5	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: High School/Middle School: Biz Prescriptive								
760-12	Jan 1, 2016		160	per fixture	0.2021	1064.1	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Hospital: Biz Prescriptive								
760-6	Jan 1, 2016		160	per fixture	0.2464	1297.0	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Hotel/Motel Common Areas: Biz Prescriptive								
760-7	Jan 1, 2016		160	per fixture	0.3625	1908.1	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Hotel/Motel Guest Rooms: Biz Prescriptive								
760-13	Jan 1, 2016		160	per fixture	0.0364	191.8	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Light Industry: Biz Prescriptive								
760-9	Jan 1, 2016		160	per fixture	0.2719	1431.2	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Miscellaneous: Biz Prescriptive								
760-14	Jan 1, 2016		160	per fixture	0.2599	1368.0	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Multifamily Common Areas: Biz Prescriptive								
760-16	Jan 1, 2016		160	per fixture	0.279	1468.6	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Office: Biz Prescriptive								
760-8	Jan 1, 2016		160	per fixture	0.2183	1149.2	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Religious Worship/Church: Biz Prescriptive								
760-18	Jan 1, 2016		160	per fixture	0.078	410.7	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Restaurant: Biz Prescriptive								
760-3	Jan 1, 2016		160	per fixture	0.2695	1418.6	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Retail/Service: Biz Prescriptive								
760-2	Jan 1, 2016		160	per fixture	0.237	1247.4	per fixture	12
High Bay Fluorescent 6LF32T8 Replacing 400W HID: Warehouse: Biz Prescriptive								
760-20	Jan 1, 2016		160	per fixture	0.2366	1245.7	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: College/University: Biz Prescriptive								
761-1	Jan 1, 2016		400	per fixture	0.5632	2965.0	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Elementary School: Biz Prescriptive								
761-10	Jan 1, 2016		400	per fixture	0.2218	1167.4	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Exterior: Biz Prescriptive								
761-15	Jan 1, 2016		400	per fixture	0.4011	2111.2	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Garage, 24/7 lighting: Biz Prescriptive								
761-19	Jan 1, 2016		400	per fixture	0.8021	4222.3	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Garage: Biz Prescriptive								
761-4	Jan 1, 2016		400	per fixture	0.3241	1706.3	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Grocery: Biz Prescriptive								
761-5	Jan 1, 2016		400	per fixture	0.5955	3135.0	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Heavy Industry: Biz Prescriptive								
761-11	Jan 1, 2016		400	per fixture	0.5629	2963.3	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: High School/Middle School: Biz Prescriptive								
761-12	Jan 1, 2016		400	per fixture	0.3947	2077.9	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Hospital: Biz Prescriptive								
761-6	Jan 1, 2016		400	per fixture	0.4811	2532.8	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Hotel/Motel Common Areas: Biz Prescriptive								
761-7	Jan 1, 2016		400	per fixture	0.7078	3726.2	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Hotel/Motel Guest Rooms: Biz Prescriptive								
761-13	Jan 1, 2016		400	per fixture	0.0711	374.5	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Light Industry: Biz Prescriptive								
761-9	Jan 1, 2016		400	per fixture	0.5309	2794.8	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Miscellaneous: Biz Prescriptive								
761-14	Jan 1, 2016		400	per fixture	0.5075	2671.4	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Multifamily Common Areas: Biz Prescriptive								
761-16	Jan 1, 2016		400	per fixture	0.5448	2867.9	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Office: Biz Prescriptive								
761-8	Jan 1, 2016		400	per fixture	0.4263	2244.2	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Religious Worship/Church: Biz Prescriptive								
761-18	Jan 1, 2016		400	per fixture	0.1524	802.0	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Restaurant: Biz Prescriptive								
761-3	Jan 1, 2016		400	per fixture	0.5263	2770.3	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Retail/Service: Biz Prescriptive								
761-2	Jan 1, 2016		400	per fixture	0.4628	2436.0	per fixture	12
High Bay Fluorescent 8LF32T8 Double fixture replace 1000W HID: Warehouse: Biz Prescriptive								
761-20	Jan 1, 2016		400	per fixture	0.4621	2432.6	per fixture	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay Fluorescent 8LF32T8 Replacing 400W HID: College/University: Biz Prescriptive								
762-1	Jan 1, 2016		414	per fixture	0.1955	1028.9	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Elementary School: Biz Prescriptive								
762-10	Jan 1, 2016		414	per fixture	0.077	405.1	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Exterior: Biz Prescriptive								
762-15	Jan 1, 2016		414	per fixture	0.1392	732.6	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Garage, 24/7 lighting: Biz Prescriptive								
762-19	Jan 1, 2016		414	per fixture	0.2783	1465.2	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Garage: Biz Prescriptive								
762-4	Jan 1, 2016		414	per fixture	0.1125	592.1	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Grocery: Biz Prescriptive								
762-5	Jan 1, 2016		414	per fixture	0.2067	1087.9	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Heavy Industry: Biz Prescriptive								
762-11	Jan 1, 2016		414	per fixture	0.1953	1028.3	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: High School/Middle School: Biz Prescriptive								
762-12	Jan 1, 2016		414	per fixture	0.137	721.1	per fixture	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Hospital: Biz Prescriptive								
762-6	Jan 1, 2016		414	per fixture	0.167	878.9	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Hotel/Motel Common Areas: Biz Prescriptive								
762-7	Jan 1, 2016		414	per fixture	0.2456	1293.1	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Hotel/Motel Guest Rooms: Biz Prescriptive								
762-13	Jan 1, 2016		414	per fixture	0.0247	130.0	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Light Industry: Biz Prescriptive								
762-9	Jan 1, 2016		414	per fixture	0.1842	969.8	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Miscellaneous: Biz Prescriptive								
762-14	Jan 1, 2016		414	per fixture	0.1761	927.0	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Multifamily Common Areas: Biz Prescriptive								
762-16	Jan 1, 2016		414	per fixture	0.1891	995.2	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Office: Biz Prescriptive								
762-8	Jan 1, 2016		414	per fixture	0.1479	778.8	per fixture	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Religious Worship/Church: Biz Prescriptive								
762-18	Jan 1, 2016		414	per fixture	0.0529	278.3	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Restaurant: Biz Prescriptive								
762-3	Jan 1, 2016		414	per fixture	0.1826	961.3	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Retail/Service: Biz Prescriptive								
762-2	Jan 1, 2016		414	per fixture	0.1606	845.4	per fixture	11
High Bay Fluorescent 8LF32T8 Replacing 400W HID: Warehouse: Biz Prescriptive								
762-20	Jan 1, 2016		414	per fixture	0.1604	844.2	per fixture	11
HP 135,000 - 240,000: Biz Prescriptive								
683	Jan 2, 2013		125	per ton	0.0635	143.0	per ton	15
HP over 240,000: Biz Prescriptive								
684	Jan 2, 2013		130	per ton	0.0777	175.1	per ton	15
HP under 65,000 1 Ph: Biz Prescriptive								
685	Jan 2, 2013		73.5	per ton	0.0507	114.1	per ton	15

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
HP Water Heater 100 to 300 MBH: Biz Prescriptive								
851	Jan 2, 2013		25000	per measure	25.5502	141041.0	per measure	15
HP Water Heater 10 to 50 MBH: Biz Prescriptive								
850	Jan 2, 2013		6000	per measure	3.8325	21156.0	per measure	15
HP Water Heater 300 to 500 MBH: Biz Prescriptive								
852	Jan 2, 2013		42000	per measure	51.1002	282081.0	per measure	15
HP Water Heater 50 to 100 MBH: Biz Prescriptive								
853	Jan 2, 2013		14000	per measure	9.5813	52890.0	per measure	15
HP Water Heater above 500 MBH: Biz Prescriptive								
854	Jan 2, 2013		63000	per measure	76.6505	423122.0	per measure	15
HVAC - Occupancy Sensors: Biz Prescriptive								
3058	Jan 1, 2016		6002	per building	5.7347	12916.48	per building	8
Induction Street Lighting: Biz Prescriptive								
3003	Jan 1, 2016		0	per fixture	0.0011	192	per fixture	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Interior Ceiling (6 fixtures controlled): Biz Prescriptive								
3062	Jan 1, 2016		161	per measure	0.1804	949.8	per measure	11
Interior High-Bay T5 (3 fix. Controlled): Biz Prescriptive								
3063	Jan 1, 2016		25	per measure	0.0361	190.2	per measure	15
Interior Wall (3 fixtures controlled): College/University: Biz Prescriptive								
779-1	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Elementary School: Biz Prescriptive								
779-10	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Exterior: Biz Prescriptive								
779-15	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Garage, 24/7 lighting: Biz Prescriptive								
779-19	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Garage: Biz Prescriptive								
779-4	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Grocery: Biz Prescriptive								
779-5	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Interior Wall (3 fixtures controlled): Heavy Industry: Biz Prescriptive								
779-11	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): High School/Middle School: Biz Prescriptive								
779-12	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Hospital: Biz Prescriptive								
779-6	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Hotel/Motel Common Areas: Biz Prescriptive								
779-7	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Hotel/Motel Guest Rooms: Biz Prescriptive								
779-13	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Light Industry: Biz Prescriptive								
779-9	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Miscellaneous: Biz Prescriptive								
779-14	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Interior Wall (3 fixtures controlled): Multifamily Common Areas: Biz Prescriptive								
779-16	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Office: Biz Prescriptive								
779-8	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Religious Worship/Church: Biz Prescriptive								
779-18	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Restaurant: Biz Prescriptive								
779-3	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Retail/Service: Biz Prescriptive								
779-2	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
Interior Wall (3 fixtures controlled): Warehouse: Biz Prescriptive								
779-20	Jan 2, 2013		91	per 3 fixtures	0.060	620.9	per 3 fixtures	11
LED (BAR/R) Reflector Lamp: Biz Prescriptive								
3007	Jan 1, 2016		48.27		0.0372	195.9	per lamp	9

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LED (PAR) Reflector Lamp : Biz Prescriptive								
3008	Jan 1, 2016		74.64		0.0476	250.5	per lamp	9
LED 100 Watt Lamp (12 hrs/day): Biz Prescriptive								
3004-1	Jan 1, 2016		233.64		0.0037	657.0	per lamp	12
LED 100 Watt Lamp (24 hrs/day): Biz Prescriptive								
3004-2	Jan 1, 2016		233.64		0.0074	1314.0	per lamp	9
LED 120 Watt Lamp (12 hrs/day): Biz Prescriptive								
3005-1	Jan 1, 2016		361.64		0.233	1226.4	per lamp	12
LED 120 Watt Lamp (24 hrs/day): Biz Prescriptive								
3005-2	Jan 1, 2016		361.64		0.0138	2452.8	per lamp	9
LED 12-20 Watt A-Line Lamp: Biz Prescriptive								
3009	Jan 1, 2016		19.64		0.0283	148.8	per lamp	9
LED 1-8 Watt Decorative Lamp: Biz Prescriptive								
3010	Jan 1, 2016		22.64		0.0389	205.0	per lamp	5

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LED 5-11 Watt A-Line Lamp: Biz Prescriptive								
3011	Jan 1, 2016		15.64		0.0161	85.0	per lamp	9
LED 52 Watt Lamp (12 hrs/day): Biz Prescriptive								
3006-1	Jan 1, 2016		191.39		0.003	538.7	per lamp	12
LED 52 Watt Lamp (24 hrs/day): Biz Prescriptive								
3006-2	Jan 1, 2016		191.39		0.0061	1077.5	per lamp	9
LED Exit Sign - 3_0 W_CF 18 base								
8001	Jan 1, 2016		91.68	per fixture	0.0425	223.8	per fixture	16
LED Exit Sign - 3_0 W_CF 9 base								
8000	Jan 1, 2016		45.45	per fixture	0.0462	243.1	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: College/University: Biz Prescriptive								
793-1	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Elementary School: Biz Prescriptive								
793-10	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LED Exit Sign - 3_0 W_Inc30 base: Exterior: Biz Prescriptive								
793-15	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Garage, 24/7 lighting: Biz Prescriptive								
793-19	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Garage: Biz Prescriptive								
793-4	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Grocery: Biz Prescriptive								
793-5	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Heavy Industry: Biz Prescriptive								
793-11	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: High School/Middle School: Biz Prescriptive								
793-12	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Hospital: Biz Prescriptive								
793-6	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Hotel/Motel Common Areas: Biz Prescriptive								
793-7	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LED Exit Sign - 3_0 W_Inc30 base: Hotel/Motel Guest Rooms: Biz Prescriptive								
793-13	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Light Industry: Biz Prescriptive								
793-9	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Miscellaneous: Biz Prescriptive								
793-14	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Multifamily Common Areas: Biz Prescriptive								
793-16	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Office: Biz Prescriptive								
793-8	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Religious Worship/Church: Biz Prescriptive								
793-18	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Restaurant: Biz Prescriptive								
793-3	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LED Exit Sign - 3_0 W_Inc30 base: Retail/Service: Biz Prescriptive								
793-2	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED Exit Sign - 3_0 W_Inc30 base: Warehouse: Biz Prescriptive								
793-20	Jan 1, 2016		63	per fixture	0.0425	223.81	per fixture	16
LED MR16 (12 Watt) Lamp: Biz Prescriptive								
3012	Jan 1, 2016		39.64		0.0329	173.1	per lamp	9
LED MR16 (8 Watt) Lamp: Biz Prescriptive								
3013	Jan 1, 2016		36.64		0.0234	123.0	per lamp	9
Lighted Snack Dispensing Machine: Biz Prescriptive								
847	Jan 1, 2016		47	per measure	0.0445	328	per measure	4
Linear Tube LED 4ft Efficient Lamp Upgrade - 25W T8 Base: Biz Prescriptive								
3023	Jan 1, 2016		29.64		0.0063	33.4	per lamp	17
Linear Tube LED 4ft Efficient Lamp Upgrade - 28W T8 Base								
3024	Jan 1, 2016		29.64		0.0081	42.5	per lamp	17
Linear Tube LED 4ft Efficient Lamp Upgrade - 32W T8 Base: Biz Prescriptive								
3025	Jan 1, 2016		29.64		0.0092	48.6	per lamp	17

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Linear Tube LED 4ft Efficient Lamp Upgrade - T12 Base: Biz Prescriptive								
3026	Jan 1, 2016		29.64		0.015	79.0	per lamp	17
Linear Tube T8 4ft Efficient Lamp Upgrade - T12 Base: Biz Prescriptive								
3019	Jan 1, 2016		10.49		0.0035	18.2	per lamp	10
Linear Tube T8 4ft Efficient Lamp Upgrade - T8 Base: Biz Prescriptive								
3020			10.49		0.0035	18.2	per lamp	10
Linear Tube T8 4ft High Efficient Lamp Upgrade - T12 Base: Biz Prescriptive								
3021	Jan 1, 2016		11.69		0.0061	31.9	per lamp	12
Linear Tube T8 4ft High Efficient Lamp Upgrade - T8 Base: Biz Prescriptive								
3022	Jan 1, 2016		11.69		0.0061	31.9	per lamp	12
Low Flow Faucet Aerator - Electric water heater: Biz Prescriptive								
848	Jan 2, 2013		31.10	per building	0.0315	173.9	per building	9
Low Flow Showerhead_MF: Biz Prescriptive								
3074	Jan 1, 2016		42.00	per measure	0.0380	210.00	per measure	12

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
LW HPT8 4 ft 1 lamp: Biz Prescriptive								
3081	Jan 1, 2016		25.29	per measure	0.0055	29.00	per measure	12
LW HPT8 4 ft 2 lamp: Biz Prescriptive								
3082	Jan 1, 2016		30.49	per measure	0.0091	48.00	per measure	12
LW HPT8 4 ft 3 lamp: Biz Prescriptive								
3083	Jan 1, 2016		31.56	per measure	0.0118	62.00	per measure	12
LW HPT8 4 ft 4 lamp: Biz Prescriptive								
3076	Jan 1, 2016		60.00	per measure	0.0175	92.00	per measure	12
Occupancy Sensor (Dual Technology) - Controlling Lighting Circuit > 150 watts								
3016	Jan 1, 2016		128.08	per sensor	0.1463	770.4	per sensor	8
Occupancy Sensor (Single Technology) - Controlling Lighting Circuit > 120 watts								
3079	Jan 1, 2016		119.56	per sensor	0.0874	460.0	per sensor	11
Occupancy Sensor (Single Technology) - Controlling Lighting Circuit GT 50 watts and LTEQ 120 Watts								
3080	Jan 1, 2016		42.35	per sensor	0.0237	125.0	per sensor	11
Occupancy Sensor - Controlling Fixture GT 200 watts and LTEQ 500 watts								
3077	Jan 1, 2016		116.33	per sensor	0.0570	300.0	per sensor	10

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Occupancy Sensors over 500 W: College/University: Biz Prescriptive								
786-1	Jan 1, 2016		311	per 750 square feet	0.3155	1660.9	per 750 square feet	10
Occupancy Sensors over 500 W: Elementary School: Biz Prescriptive								
786-10	Jan 1, 2016		311	per 750 square feet	0.1242	653.9	per 750 square feet	10
Occupancy Sensors over 500 W: Exterior: Biz Prescriptive								
786-15	Jan 1, 2016		311	per 750 square feet	0.2247	1182.6	per 750 square feet	10
Occupancy Sensors over 500 W: Garage, 24/7 lighting: Biz Prescriptive								
786-19	Jan 1, 2016		311	per 750 square feet	0.4493	2365.2	per 750 square feet	10
Occupancy Sensors over 500 W: Garage: Biz Prescriptive								
786-4	Jan 1, 2016		311	per 750 square feet	0.1816	955.8	per 750 square feet	10
Occupancy Sensors over 500 W: Grocery: Biz Prescriptive								
786-5	Jan 1, 2016		311	per 750 square feet	0.3336	1756.1	per 750 square feet	10
Occupancy Sensors over 500 W: Heavy Industry: Biz Prescriptive								
786-11	Jan 1, 2016		311	per 750 square feet	0.3153	1660.0	per 750 square feet	10

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Occupancy Sensors over 500 W: High School/Middle School: Biz Prescriptive								
786-12	Jan 1, 2016		311	per 750 square feet	0.2211	1164.0	per 750 square feet	10
Occupancy Sensors over 500 W: Hospital: Biz Prescriptive								
786-6	Jan 1, 2016		311	per 750 square feet	0.2695	1418.8	per 750 square feet	10
Occupancy Sensors over 500 W: Hotel/Motel Common Areas: Biz Prescriptive								
786-7	Jan 1, 2016		311	per 750 square feet	0.3965	2087.3	per 750 square feet	10
Occupancy Sensors over 500 W: Hotel/Motel Guest Rooms: Biz Prescriptive								
786-13	Jan 1, 2016		311	per 750 square feet	0.0399	209.8	per 750 square feet	10
Occupancy Sensors over 500 W: Light Industry: Biz Prescriptive								
786-9	Jan 1, 2016		311	per 750 square feet	0.2974	1565.6	per 750 square feet	10
Occupancy Sensors over 500 W: Miscellaneous: Biz Prescriptive								
786-14	Jan 1, 2016		311	per 750 square feet	0.2843	1496.4	per 750 square feet	10
Occupancy Sensors over 500 W: Multifamily Common Areas: Biz Prescriptive								
786-16	Jan 1, 2016		311	per 750 square feet	0.3052	1606.5	per 750 square feet	10

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Occupancy Sensors over 500 W: Office: Biz Prescriptive								
786-8	Jan 1, 2016		311	per 750 square feet	0.2388	1257.1	per 750 square feet	10
Occupancy Sensors over 500 W: Religious Worship/Church: Biz Prescriptive								
786-18	Jan 1, 2016		311	per 750 square feet	0.0854	449.3	per 750 square feet	10
Occupancy Sensors over 500 W: Restaurant: Biz Prescriptive								
786-3	Jan 1, 2016		311	per 750 square feet	0.2948	1551.8	per 750 square feet	10
Occupancy Sensors over 500 W: Retail/Service: Biz Prescriptive								
786-2	Jan 1, 2016		311	per 750 square feet	0.2592	1364.6	per 750 square feet	10
Occupancy Sensors over 500 W: Warehouse: Biz Prescriptive								
786-20	Jan 1, 2016		311	per 750 square feet	0.2589	1362.7	per 750 square feet	10
Occupancy Sensors under 500 W: College/University: Biz Prescriptive								
787-1	Jan 1, 2016		144	per 300 square feet	0.1262	664.4	per 300 square feet	10
Occupancy Sensors under 500 W: Elementary School: Biz Prescriptive								
787-10	Jan 1, 2016		144	per 300 square feet	0.0497	261.6	per 300 square feet	10

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Occupancy Sensors under 500 W: Exterior: Biz Prescriptive								
787-15	Jan 1, 2016		144	per 300 square feet	0.0899	473.0	per 300 square feet	10
Occupancy Sensors under 500 W: Garage, 24/7 lighting: Biz Prescriptive								
787-19	Jan 1, 2016		144	per 300 square feet	0.1797	946.1	per 300 square feet	10
Occupancy Sensors under 500 W: Garage: Biz Prescriptive								
787-4	Jan 1, 2016		144	per 300 square feet	0.0726	382.3	per 300 square feet	10
Occupancy Sensors under 500 W: Grocery: Biz Prescriptive								
787-5	Jan 1, 2016		144	per 300 square feet	0.1334	702.4	per 300 square feet	10
Occupancy Sensors under 500 W: Heavy Industry: Biz Prescriptive								
787-11	Jan 1, 2016		144	per 300 square feet	0.1261	664.0	per 300 square feet	10
Occupancy Sensors under 500 W: High School/Middle School: Biz Prescriptive								
787-12	Jan 1, 2016		144	per 300 square feet	0.0884	465.6	per 300 square feet	10
Occupancy Sensors under 500 W: Hospital: Biz Prescriptive								
787-6	Jan 1, 2016		144	per 300 square feet	0.1078	567.5	per 300 square feet	10
Occupancy Sensors under 500 W: Hotel/Motel Common Areas: Biz Prescriptive								
787-7	Jan 1, 2016		144	per 300 square feet	0.1586	834.9	per 300 square feet	10

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Occupancy Sensors under 500 W: Hotel/Motel Guest Rooms: Biz Prescriptive								
787-13	Jan 1, 2016		144	per 300 square feet	0.0159	83.9	per 300 square feet	10
Occupancy Sensors under 500 W: Light Industry: Biz Prescriptive								
787-9	Jan 1, 2016		144	per 300 square feet	0.119	626.2	per 300 square feet	10
Occupancy Sensors under 500 W: Miscellaneous: Biz Prescriptive								
787-14	Jan 1, 2016		144	per 300 square feet	0.1137	598.6	per 300 square feet	10
Occupancy Sensors under 500 W: Multifamily Common Areas: Biz Prescriptive								
787-16	Jan 1, 2016		144	per 300 square feet	0.1221	642.6	per 300 square feet	10
Occupancy Sensors under 500 W: Office: Biz Prescriptive								
787-8	Jan 1, 2016		144	per 300 square feet	0.0955	502.8	per 300 square feet	10
Occupancy Sensors under 500 W: Religious Worship/Church: Biz Prescriptive								
787-18	Jan 1, 2016		144	per 300 square feet	0.0341	179.7	per 300 square feet	10
Occupancy Sensors under 500 W: Restaurant: Biz Prescriptive								
787-3	Jan 1, 2016		144	per 300 square feet	0.1179	620.7	per 300 square feet	10

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Occupancy Sensors under 500 W: Retail/Service: Biz Prescriptive								
787-2	Jan 1, 2016		144	per 300 square feet	0.1037	545.8	per 300 square feet	10
Occupancy Sensors under 500 W: Warehouse: Biz Prescriptive								
787-20	Jan 1, 2016		144	per 300 square feet	0.1035	545.1	per 300 square feet	10
Office Electronics - Monitor, Max Efficiency: Biz Prescriptive								
3064	Jan 1, 2016		136.99	per measure	0.1894	1,372.98	per measure	4
Office Equipment - Plug Load Occupancy Sensors: Biz Presriptive								
3069	Jan 1, 2016		256.82	per building	0.9260	6,712.97	per building	5
Passive Infrared or Ultrasonic_2: College/University: Biz Prescriptive								
781-1	Jan 2, 2013		92	per measure	0.023	616.3		11
Passive Infrared or Ultrasonic_2: Elementary School: Biz Prescriptive								
781-10	Jan 2, 2013		92	per measure	0.023	616.3		11
Passive Infrared or Ultrasonic_2: Exterior: Biz Prescriptive								
781-15	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Garage, 24/7 lighting: Biz Prescriptive								
781-19	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Passive Infrared or Ultrasonic_2: Garage: Biz Prescriptive								
781-4	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Grocery: Biz Prescriptive								
781-5	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Heavy Industry: Biz Prescriptive								
781-11	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: High School/Middle School: Biz Prescriptive								
781-12	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Hospital: Biz Prescriptive								
781-6	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Hotel/Motel Common Areas: Biz Prescriptive								
781-7	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Hotel/Motel Guest Rooms: Biz Prescriptive								
781-13	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Passive Infrared or Ultrasonic_2: Light Industry: Biz Prescriptive								
781-9	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Miscellaneous: Biz Prescriptive								
781-14	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Multifamily Common Areas: Biz Prescriptive								
781-16	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Office: Biz Prescriptive								
781-8	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Religious Worship/Church: Biz Prescriptive								
781-18	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Restaurant: Biz Prescriptive								
781-3	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic_2: Retail/Service: Biz Prescriptive								
781-2	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Passive Infrared or Ultrasonic_2: Warehouse: Biz Prescriptive								
781-20	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: College/University: Biz Prescriptive								
780-1	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Elementary School: Biz Prescriptive								
780-10	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Exterior: Biz Prescriptive								
780-15	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Garage, 24/7 lighting: Biz Prescriptive								
780-19	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Garage: Biz Prescriptive								
780-4	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Grocery: Biz Prescriptive								
780-5	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Heavy Industry: Biz Prescriptive								
780-11	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Passive Infrared or Ultrasonic: High School/Middle School: Biz Prescriptive								
780-12	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Hospital: Biz Prescriptive								
780-6	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Hotel/Motel Common Areas: Biz Prescriptive								
780-7	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Hotel/Motel Guest Rooms: Biz Prescriptive								
780-13	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Light Industry: Biz Prescriptive								
780-9	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Miscellaneous: Biz Prescriptive								
780-14	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Multifamily Common Areas: Biz Prescriptive								
780-16	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Passive Infrared or Ultrasonic: Office: Biz Prescriptive								
780-8	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Religious Worship/Church: Biz Prescriptive								
780-18	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Restaurant: Biz Prescriptive								
780-3	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Retail/Service: Biz Prescriptive								
780-2	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
Passive Infrared or Ultrasonic: Warehouse: Biz Prescriptive								
780-20	Jan 2, 2013		92	per measure	0.023	616.3	per measure	11
PC Power Management Software: Biz Prescriptive								
1178	Jan 2, 2013		20	per unit	0.0276	200.0	per unit	4
Pool Heater Heat Pump: Biz Prescriptive								
3071	Jan 1, 2016		199.14	per measure	0.2497	1,810.39	per measure	15
Pool Pump - Timer: Biz Prescriptive								
3072	Jan 1, 2016		100	per measure	0.0830	601.89	per measure	10

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Pre Rinse Sprayers - Electric water heater: Biz Prescriptive								
849	Jan 2, 2013		85.8	per measure	1.0201	5631.1	per measure	5
Pulse Start Metal Halide 150-200W retrofit only: College/University: Biz Prescriptive								
754-1	Jan 1, 2016		135	per measure	0.0666	350.6	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Elementary School: Biz Prescriptive								
754-10	Jan 1, 2016		135	per measure	0.0262	138.1	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Exterior: Biz Prescriptive								
754-15	Jan 1, 2016		135	per measure	0.0474	249.7	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Garage, 24/7 lighting: Biz Prescriptive								
754-19	Jan 1, 2016		135	per measure	0.0948	499.3	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Garage: Biz Prescriptive								
754-4	Jan 1, 2016		135	per measure	0.0383	201.8	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Grocery: Biz Prescriptive								
754-5	Jan 1, 2016		135	per measure	0.0704	370.7	per measure	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Pulse Start Metal Halide 150-200W retrofit only: Heavy Industry: Biz Prescriptive								
754-11	Jan 1, 2016		135	per measure	0.0666	350.4	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: High School/Middle School: Biz Prescriptive								
754-12	Jan 1, 2016		135	per measure	0.0467	245.7	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Hospital: Biz Prescriptive								
754-6	Jan 1, 2016		135	per measure	0.0569	299.5	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Hotel/Motel Common Areas: Biz Prescriptive								
754-7	Jan 1, 2016		135	per measure	0.0837	440.7	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Hotel/Motel Guest Rooms: Biz Prescriptive								
754-13	Jan 1, 2016		135	per measure	0.0084	44.3	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Light Industry: Biz Prescriptive								
754-9	Jan 1, 2016		135	per measure	0.0628	330.5	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Miscellaneous: Biz Prescriptive								
754-14	Jan 1, 2016		135	per measure	0.06	315.9	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Multifamily Common Areas: Biz Prescriptive								
754-16	Jan 1, 2016		135	per measure	0.0644	339.2	per measure	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Pulse Start Metal Halide 150-200W retrofit only: Office: Biz Prescriptive								
754-8	Jan 1, 2016		135	per measure	0.0504	265.4	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Religious Worship/Church: Biz Prescriptive								
754-18	Jan 1, 2016		135	per measure	0.018	94.8	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Restaurant: Biz Prescriptive								
754-3	Jan 1, 2016		135	per measure	0.0622	327.6	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Retail/Service: Biz Prescriptive								
754-2	Jan 1, 2016		135	per measure	0.0547	288.1	per measure	16
Pulse Start Metal Halide 150-200W retrofit only: Warehouse: Biz Prescriptive								
754-20	Jan 1, 2016		135	per measure	0.0547	287.7	per measure	16
Pulse Start Metal Halide 320W retrofit only: College/University: Biz Prescriptive								
755-1	Jan 1, 2016		150	per measure	0.0993	522.9	per measure	16
Pulse Start Metal Halide 320W retrofit only: Elementary School: Biz Prescriptive								
755-10	Jan 1, 2016		150	per measure	0.0391	205.9	per measure	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Pulse Start Metal Halide 320W retrofit only: Exterior: Biz Prescriptive								
755-15	Jan 1, 2016		150	per measure	0.0707	372.3	per measure	16
Pulse Start Metal Halide 320W retrofit only: Garage, 24/7 lighting: Biz Prescriptive								
755-19	Jan 1, 2016		150	per measure	0.1414	744.6	per measure	16
Pulse Start Metal Halide 320W retrofit only: Garage: Biz Prescriptive								
755-4	Jan 1, 2016		150	per measure	0.0572	300.9	per measure	16
Pulse Start Metal Halide 320W retrofit only: Grocery: Biz Prescriptive								
755-5	Jan 1, 2016		150	per measure	0.105	552.9	per measure	16
Pulse Start Metal Halide 320W retrofit only: Heavy Industry: Biz Prescriptive								
755-11	Jan 1, 2016		150	per measure	0.0993	522.6	per measure	16
Pulse Start Metal Halide 320W retrofit only: High School/Middle School: Biz Prescriptive								
755-12	Jan 1, 2016		150	per measure	0.0696	366.4	per measure	16
Pulse Start Metal Halide 320W retrofit only: Hospital: Biz Prescriptive								
755-6	Jan 1, 2016		150	per measure	0.0849	446.7	per measure	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Pulse Start Metal Halide 320W retrofit only: Hotel/Motel Common Areas: Biz Prescriptive								
755-7	Jan 1, 2016		150	per measure	0.1248	657.1	per measure	16
Pulse Start Metal Halide 320W retrofit only: Hotel/Motel Guest Rooms: Biz Prescriptive								
755-13	Jan 1, 2016		150	per measure	0.0125	66.0	per measure	16
Pulse Start Metal Halide 320W retrofit only: Light Industry: Biz Prescriptive								
755-9	Jan 1, 2016		150	per measure	0.0936	492.9	per measure	16
Pulse Start Metal Halide 320W retrofit only: Miscellaneous: Biz Prescriptive								
755-14	Jan 1, 2016		150	per measure	0.0895	471.1	per measure	16
Pulse Start Metal Halide 320W retrofit only: Multifamily Common Areas: Biz Prescriptive								
755-16	Jan 1, 2016		150	per measure	0.0961	505.8	per measure	16
Pulse Start Metal Halide 320W retrofit only: Office: Biz Prescriptive								
755-8	Jan 1, 2016		150	per measure	0.0752	395.8	per measure	16
Pulse Start Metal Halide 320W retrofit only: Religious Worship/Church: Biz Prescriptive								
755-18	Jan 1, 2016		150	per measure	0.0269	141.4	per measure	16
Pulse Start Metal Halide 320W retrofit only: Restaurant: Biz Prescriptive								
755-3	Jan 1, 2016		150	per measure	0.0928	488.5	per measure	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Pulse Start Metal Halide 320W retrofit only: Retail/Service: Biz Prescriptive								
755-2	Jan 1, 2016		150	per measure	0.0816	429.6	per measure	16
Pulse Start Metal Halide 320W retrofit only: Warehouse: Biz Prescriptive								
755-20	Jan 1, 2016		150	per measure	0.0815	429.0	per measure	16
Pulse Start Metal Halide 750W retrofit only: College/University: Biz Prescriptive								
756-1	Jan 1, 2016		200	per measure	0.3062	1611.7	per measure	16
Pulse Start Metal Halide 750W retrofit only: Elementary School: Biz Prescriptive								
756-10	Jan 1, 2016		200	per measure	0.1206	634.6	per measure	16
Pulse Start Metal Halide 750W retrofit only: Exterior: Biz Prescriptive								
756-15	Jan 1, 2016		200	per measure	0.218	1147.6	per measure	16
Pulse Start Metal Halide 750W retrofit only: Garage, 24/7 lighting: Biz Prescriptive								
756-19	Jan 1, 2016		200	per measure	0.436	2295.1	per measure	16
Pulse Start Metal Halide 750W retrofit only: Garage: Biz Prescriptive								
756-4	Jan 1, 2016		200	per measure	0.1762	927.5	per measure	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Pulse Start Metal Halide 750W retrofit only: Grocery: Biz Prescriptive								
756-5	Jan 1, 2016		200	per measure	0.3237	1704.1	per measure	16
Pulse Start Metal Halide 750W retrofit only: Heavy Industry: Biz Prescriptive								
756-11	Jan 1, 2016		200	per measure	0.306	1610.8	per measure	16
Pulse Start Metal Halide 750W retrofit only: High School/Middle School: Biz Prescriptive								
756-12	Jan 1, 2016		200	per measure	0.2146	1129.5	per measure	16
Pulse Start Metal Halide 750W retrofit only: Hospital: Biz Prescriptive								
756-6	Jan 1, 2016		200	per measure	0.2615	1376.8	per measure	16
Pulse Start Metal Halide 750W retrofit only: Hotel/Motel Common Areas: Biz Prescriptive								
756-7	Jan 1, 2016		200	per measure	0.3848	2025.5	per measure	16
Pulse Start Metal Halide 750W retrofit only: Hotel/Motel Guest Rooms: Biz Prescriptive								
756-13	Jan 1, 2016		200	per measure	0.0387	203.6	per measure	16
Pulse Start Metal Halide 750W retrofit only: Light Industry: Biz Prescriptive								
756-9	Jan 1, 2016		200	per measure	0.2886	1519.2	per measure	16
Pulse Start Metal Halide 750W retrofit only: Miscellaneous: Biz Prescriptive								
756-14	Jan 1, 2016		200	per measure	0.2758	1452.1	per measure	16

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Pulse Start Metal Halide 750W retrofit only: Multifamily Common Areas: Biz Prescriptive								
756-16	Jan 1, 2016		200	per measure	0.2961	1558.9	per measure	16
Pulse Start Metal Halide 750W retrofit only: Office: Biz Prescriptive								
756-8	Jan 1, 2016		200	per measure	0.2317	1219.9	per measure	16
Pulse Start Metal Halide 750W retrofit only: Religious Worship/Church: Biz Prescriptive								
756-18	Jan 1, 2016		200	per measure	0.0828	436.0	per measure	16
Pulse Start Metal Halide 750W retrofit only: Restaurant: Biz Prescriptive								
756-3	Jan 1, 2016		200	per measure	0.286	1505.8	per measure	16
Pulse Start Metal Halide 750W retrofit only: Retail/Service: Biz Prescriptive								
756-2	Jan 1, 2016		200	per measure	0.2515	1324.2	per measure	16
Pulse Start Metal Halide 750W retrofit only: Warehouse: Biz Prescriptive								
756-20	Jan 1, 2016		200	per measure	0.2512	1322.3	per measure	16
Pumps HP 10: Biz Prescriptive								
2795	Jan 1, 2016		332	per measure	0.2778	2014	per measure	15

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Pumps HP 15 (Eff increase 16.09): Biz Prescriptive								
796	Jan 1, 2016		585	per measure	0.4167	3021	per measure	15
Pumps HP 20: Biz Prescriptive								
2797	Jan 1, 2016		850	per measure	0.5556	4028	per measure	15
Pumps HP 3 (Eff increase 7.19): Biz Prescriptive								
798	Jan 1, 2016		350	per measure	0.0833	604	per measure	15
Pumps HP 5: Biz Prescriptive								
2799	Jan 1, 2016		341	per measure	0.1389	1007	per measure	15
Pumps HP 7.5: Biz Prescriptive								
2794	Jan 1, 2016		498	per measure	0.2084	1511	per measure	15
Pumps HP 7.5 (Eff Increase: 6.05): Biz Prescriptive								
1137	Jan 2, 2013		498	per measure	0.2372	1719.9	per measure	15
Pumps HP 7.5 (Eff Increase: 7.48): Biz Prescriptive								
800	Jan 2, 2013		498	per measure	0.2538	1840.2	per measure	15
Refrigerated Display Case Lighting 5ft T8 to 5ft LED - cooler: Biz Prescriptive								
3035	Jan 1, 2016		250		0.0416	219	per measure	8

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Refrigerated Display Case Lighting 5ft T8 to 5ft LED - freezer: Biz Prescriptive								
3036	Jan 1, 2016		250		0.0448	236	per measure	8
Refrigerated Display Case Lighting 6ft T8 to 6ft LED - cooler: Biz Prescriptive								
3037	Jan 1, 2016		250		0.0498	262	per measure	8
Refrigerated Display Case Lighting 6ft T8 to 6ft LED - freezer: Biz Prescriptive								
3038	Jan 1, 2016		250		0.0538	283	per measure	8
Refrigerator - Door Gasket Replacemen: Biz Prescriptivet								
3073	Jan 1, 2016		2,653.75	per measure	3.2747	24,124.99	per measure	8
Strip Curtain for Walk-in Cooler: Biz Prescriptive								
845	Jan 1, 2016		286.16	per measure	0.0573	422	per measure	4
Strip Curtain - Walk In Freezer: Biz Prescriptive								
3034	Jan 1, 2016		286.16		4.0686	29974	per measure	6
T5 High-Bay 4L-F54HO: College/University: Biz Prescriptive								
1102-1	Jan 1, 2016		339	per fixture	0.2653	1396.4	per fixture	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
T5 High-Bay 4L-F54HO: Elementary School: Biz Prescriptive								
1102-10	Jan 1, 2016		339	per fixture	0.1044	549.8	per fixture	11
T5 High-Bay 4L-F54HO: Exterior: Biz Prescriptive								
1102-15	Jan 1, 2016		339	per fixture	0.1889	994.3	per fixture	11
T5 High-Bay 4L-F54HO: Garage, 24/7 lighting: Biz Prescriptive								
1102-19	Jan 1, 2016		339	per fixture	0.3777	1988.5	per fixture	11
T5 High-Bay 4L-F54HO: Garage: Biz Prescriptive								
1102-4	Jan 1, 2016		339	per fixture	0.1527	803.6	per fixture	11
T5 High-Bay 4L-F54HO: Grocery: Biz Prescriptive								
1102-5	Jan 1, 2016		339	per fixture	0.2805	1476.4	per fixture	11
T5 High-Bay 4L-F54HO: Heavy Industry: Biz Prescriptive								
1102-11	Jan 1, 2016		339	per fixture	0.2651	1395.6	per fixture	11
T5 High-Bay 4L-F54HO: High School/Middle School: Biz Prescriptive								
1102-12	Jan 1, 2016		339	per fixture	0.1859	978.6	per fixture	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
T5 High-Bay 4L-F54HO: Hospital: Biz Prescriptive								
1102-6	Jan 1, 2016		339	per fixture	0.2266	1192.8	per fixture	11
T5 High-Bay 4L-F54HO: Hotel/Motel Common Areas: Biz Prescriptive								
1102-7	Jan 1, 2016		339	per fixture	0.3334	1754.9	per fixture	11
T5 High-Bay 4L-F54HO: Hotel/Motel Guest Rooms: Biz Prescriptive								
1102-13	Jan 1, 2016		339	per fixture	0.0335	176.4	per fixture	11
T5 High-Bay 4L-F54HO: Light Industry: Biz Prescriptive								
1102-9	Jan 1, 2016		339	per fixture	0.25	1316.2	per fixture	11
T5 High-Bay 4L-F54HO: Miscellaneous: Biz Prescriptive								
1102-14	Jan 1, 2016		339	per fixture	0.239	1258.1	per fixture	11
T5 High-Bay 4L-F54HO: Multifamily Common Areas: Biz Prescriptive								
1102-16	Jan 1, 2016		339	per fixture	0.2566	1350.7	per fixture	11
T5 High-Bay 4L-F54HO: Office: Biz Prescriptive								
1102-8	Jan 1, 2016		339	per fixture	0.2008	1056.9	per fixture	11
T5 High-Bay 4L-F54HO: Religious Worship/Church: Biz Prescriptive								
1102-18	Jan 1, 2016		339	per fixture	0.0717	377.7	per fixture	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
T5 High-Bay 4L-F54HO: Restaurant: Biz Prescriptive								
1102-3	Jan 1, 2016		339	per fixture	0.2478	1304.7	per fixture	11
T5 High-Bay 4L-F54HO: Retail/Service: Biz Prescriptive								
1102-2	Jan 1, 2016		339	per fixture	0.2179	1147.3	per fixture	11
T5 High-Bay 4L-F54HO: Warehouse: Biz Prescriptive								
1102-20	Jan 1, 2016		339	per fixture	0.2176	1145.7	per fixture	11
T5 High-Bay 6L-F54HO: College/University: Biz Prescriptive								
1106-1	Jan 1, 2016		256	per fixture	0.2279	1199.5	per fixture	11
T5 High-Bay 6L-F54HO: Elementary School: Biz Prescriptive								
1106-10	Jan 1, 2016		256	per fixture	0.0897	472.3	per fixture	11
T5 High-Bay 6L-F54HO: Exterior: Biz Prescriptive								
1106-15	Jan 1, 2016		256	per fixture	0.1622	854.1	per fixture	11
T5 High-Bay 6L-F54HO: Garage, 24/7 lighting: Biz Prescriptive								
1106-19	Jan 1, 2016		256	per fixture	0.3245	1708.2	per fixture	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
T5 High-Bay 6L-F54HO: Garage: Biz Prescriptive								
1106-4	Jan 1, 2016		256	per fixture	0.1311	690.3	per fixture	11
T5 High-Bay 6L-F54HO: Grocery: Biz Prescriptive								
1106-5	Jan 1, 2016		256	per fixture	0.2409	1268.3	per fixture	11
T5 High-Bay 6L-F54HO: Heavy Industry: Biz Prescriptive								
1106-11	Jan 1, 2016		256	per fixture	0.2277	1198.9	per fixture	11
T5 High-Bay 6L-F54HO: High School/Middle School: Biz Prescriptive								
1106-12	Jan 1, 2016		256	per fixture	0.1597	840.6	per fixture	11
T5 High-Bay 6L-F54HO: Hospital: Biz Prescriptive								
1106-6	Jan 1, 2016		256	per fixture	0.1947	1024.7	per fixture	11
T5 High-Bay 6L-F54HO: Hotel/Motel Common Areas: Biz Prescriptive								
1106-7	Jan 1, 2016		256	per fixture	0.2864	1507.5	per fixture	11
T5 High-Bay 6L-F54HO: Hotel/Motel Guest Rooms: Biz Prescriptive								
1106-13	Jan 1, 2016		256	per fixture	0.0288	151.5	per fixture	11
T5 High-Bay 6L-F54HO: Light Industry: Biz Prescriptive								
1106-9	Jan 1, 2016		256	per fixture	0.2148	1130.7	per fixture	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
T5 High-Bay 6L-F54HO: Miscellaneous: Biz Prescriptive								
1106-14	Jan 1, 2016		256	per fixture	0.2053	1080.8	per fixture	11
T5 High-Bay 6L-F54HO: Multifamily Common Areas: Biz Prescriptive								
1106-16	Jan 1, 2016		256	per fixture	0.2204	1160.3	per fixture	11
T5 High-Bay 6L-F54HO: Office: Biz Prescriptive								
1106-8	Jan 1, 2016		256	per fixture	0.1725	907.9	per fixture	11
T5 High-Bay 6L-F54HO: Religious Worship/Church: Biz Prescriptive								
1106-18	Jan 1, 2016		256	per fixture	0.0616	324.5	per fixture	11
T5 High-Bay 6L-F54HO: Restaurant: Biz Prescriptive								
1106-3	Jan 1, 2016		256	per fixture	0.2129	1120.8	per fixture	11
T5 High-Bay 6L-F54HO: Retail/Service: Biz Prescriptive								
1106-2	Jan 1, 2016		256	per fixture	0.1872	985.5	per fixture	11
T5 High-Bay 6L-F54HO: Warehouse: Biz Prescriptive								
1106-20	Jan 1, 2016		256	per fixture	0.187	984.2	per fixture	11

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Tractor Heater Timers: Biz Prescriptive								
681	Jan 2, 2013		35	per measure	0.0	576.0	per measure	10
Vending Equipment Controller: Biz Prescriptive								
794	Jan 2, 2013		141	per measure	0.2271	1646.0	per measure	5
VFD CHW Pump CV reheat econ: Biz Prescriptive								
3046	Jan 1, 2016		198		2.4845	5596	per measure	15
VFD HP 10 Process Pumping: Biz Prescriptive								
801	Jan 2, 2013		2860	per measure	1.4778	10713.4	per measure	15
VFD HP 15 Process Pumping: Biz Prescriptive								
802	Jan 2, 2013		3265	per measure	2.2391	16232.3	per measure	15
VFD HP 20 Process Pumping: Biz Prescriptive								
803	Jan 2, 2013		4515	per measure	2.9856	21643.7	per measure	15
VFD HP 25 Process Pumping: Biz Prescriptive								
804	Jan 2, 2013		5120	per measure	3.7319	27054.1	per measure	15
VFD HP 30 Process Pumping: Biz Prescriptive								
806	Jan 2, 2013		5770	per measure	4.4783	32464.6	per measure	15

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
VFD HP 3 Process Pumping: Biz Prescriptive								
805	Jan 2, 2013		1845	per measure	0.4478	3246.3	per measure	15
VFD HP 40 Process Pumping: Biz Prescriptive								
807	Jan 2, 2013		8095	per measure	5.971	43285.5	per measure	15
VFD HP 50 Process Pumping: Biz Prescriptive								
809	Jan 2, 2013		8950	per measure	7.4639	54108.2	per measure	15
VFD HP 5 Process Pumping: Biz Prescriptive								
808	Jan 2, 2013		2070	per measure	0.7389	5356.5	per measure	15
VFD HP 7.5 Process Pumping: Biz Prescriptive								
810	Jan 2, 2013		2860	per measure	1.1196	8116.6	per measure	15
VFDs on Commercial Swimming Pool Pumps: Biz Prescriptive								
3070	Jan 1, 2016		286	per measure	0.3464	2,511.00	per measure	15
Window replacement: Biz Prescriptive								
671	Jan 2, 2013		7994.87	per building	12.5684	28308.24	per building	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool cent Chiller 150 - 300 ton 0.51 kWperTon with 0.36 kWperTon IPLV: Biz Prescriptive								
2733	Jan 1, 2016		149.24	per ton	0.131	359.1	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.51 kWperTon with 0.39 kWperTon IPLV: Biz Prescriptive								
705	Jan 1, 2016		143.51	per ton	0.128	336.6	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.51 kWperTon with 0.3 kWperTon IPLV: Biz Prescriptive								
2732	Jan 1, 2016		161.85	per ton	0.137	402.8	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.51 kWperTon with 0.41 kWperTon IPLV: Biz Prescriptive								
2734	Jan 1, 2016		137.78	per ton	0.125	316.2	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.51 kWperTon with 0.48 kWperTon IPLV: Biz Prescriptive								
2735	Jan 1, 2016		122.87	per ton	0.116	256.4	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.57 kWperTon with 0.34 kWperTon IPLV: Biz Prescriptive								
2736	Jan 1, 2016		105.29	per ton	0.082	292.5	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.57 kWperTon with 0.43 kWperTon IPLV: Biz Prescriptive								
706	Jan 1, 2016		84.65	per ton	0.071	218.2	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool cent Chiller 150 - 300 ton 0.57 kWperTon with 0.46 kWperTon IPLV: Biz Prescriptive								
2738	Jan 1, 2016		78.2	per ton	0.068	195.4	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.57 kWperTon with 0.4 kWperTon IPLV: Biz Prescriptive								
2737	Jan 1, 2016		91.1	per ton	0.075	243.4	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.57 kWperTon with 0.54 kWperTon IPLV: Biz Prescriptive								
2739	Jan 1, 2016		61.44	per ton	0.058	128.2	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.63 kWperTon with 0.38 kWperTon IPLV: Biz Prescriptive								
2740	Jan 1, 2016		48.73	per ton	0.026	182.4	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.63 kWperTon with 0.45 kWperTon IPLV: Biz Prescriptive								
707	Jan 1, 2016		32.96	per ton	0.018	127.9	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.63 kWperTon with 0.48 kWperTon IPLV: Biz Prescriptive								
2741	Jan 1, 2016		25.8	per ton	0.014	100.0	per ton	20
Wtr-Cool cent Chiller 150 - 300 ton 0.63 kWperTon with 0.51 kWperTon IPLV: Biz Prescriptive								
2742	Jan 1, 2016		18.63	per ton	0.011	74.6	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.46 kWperTon with 0.28 kWperTon IPLV: Biz Prescriptive								
2721	Jan 1, 2016		130.19	per ton	0.125	371.0	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool cent Chiller over 300 ton 0.46 kWperTon with 0.33 kWperTon IPLV: Biz Prescriptive								
2722	Jan 1, 2016		118.26	per ton	0.120	331.2	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.46 kWperTon with 0.35 kWperTon IPLV: Biz Prescriptive								
708	Jan 1, 2016		112.83	per ton	0.117	310.8	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.46 kWperTon with 0.37 kWperTon IPLV: Biz Prescriptive								
2723	Jan 1, 2016		107.41	per ton	0.114	292.2	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.46 kWperTon with 0.44 kWperTon IPLV: Biz Prescriptive								
2724	Jan 1, 2016		92.22	per ton	0.106	234.2	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.52 kWperTon with 0.31 kWperTon IPLV: Biz Prescriptive								
2725	Jan 1, 2016		88.82	per ton	0.075	270.8	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.52 kWperTon with 0.37 kWperTon IPLV: Biz Prescriptive								
2726	Jan 1, 2016		75.40	per ton	0.069	226.0	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.52 kWperTon with 0.39 kWperTon IPLV: Biz Prescriptive								
2727	Jan 1, 2016		69.30	per ton	0.065	203.1	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool cent Chiller over 300 ton 0.52 kWperTon with 0.42 kWperTon IPLV: Biz Prescriptive								
2728	Jan 1, 2016		63.20	per ton	0.062	182.2	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.52 kWperTon with 0.49 kWperTon IPLV: Biz Prescriptive								
709	Jan 1, 2016		46.11	per ton	0.053	117.1	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.58 kWperTon with 0.35 kWperTon IPLV: Biz Prescriptive								
2729	Jan 1, 2016		47.46	per ton	0.025	170.5	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.58 kWperTon with 0.41 kWperTon IPLV: Biz Prescriptive								
710	Jan 1, 2016		32.54	per ton	0.017	120.8	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.58 kWperTon with 0.44 kWperTon IPLV: Biz Prescriptive								
2730	Jan 1, 2016		25.76	per ton	0.014	95.4	per ton	20
Wtr-Cool cent Chiller over 300 ton 0.58 kWperTon with 0.47 kWperTon IPLV: Biz Prescriptive								
2731	Jan 1, 2016		18.98	per ton	0.010	72.3	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.56 kWperTon with 0.34 kWperTon IPLV: Biz Prescriptive								
2709	Jan 1, 2016		203.03	per ton	0.15305	452.09	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.56 kWperTon with 0.43 kWperTon IPLV: Biz Prescriptive								
711	Jan 2, 2013		186	per ton	0.142	422.3	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool Centrifugal Chiller under 150 ton 0.56 kWperTon with 0.46 kWperTon IPLV: Biz Prescriptive								
2712	Jan 1, 2016		180.87	per ton	0.13906	356.3	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.56 kWperTon with 0.4 kWperTon IPLV: Biz Prescriptive								
2710	Jan 1, 2016		191.42	per ton	0.14605	403.67	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.56 kWperTon with 0.53 kWperTon IPLV: Biz Prescriptive								
2713	Jan 1, 2016		166.1	per ton	0.12909	285.73	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.63 kWperTon with 0.38 kWperTon IPLV: Biz Prescriptive								
2714	Jan 1, 2016		124.6	per ton	0.09153	329.89	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.63 kWperTon with 0.45 kWperTon IPLV: Biz Prescriptive								
2715	Jan 1, 2016		111.54	per ton	0.0836	275.5	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.63 kWperTon with 0.48 kWperTon IPLV: Biz Prescriptive								
712	Jan 2, 2013		186	per ton	0.079	276.0	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.63 kWperTon with 0.51 kWperTon IPLV: Biz Prescriptive								
2716	Jan 1, 2016		99.67	per ton	0.07579	222.22	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool Centrifugal Chiller under 150 ton 0.63 kWperTon with 0.60 kWperTon IPLV: Biz Prescriptive								
2717	Jan 1, 2016		83.05	per ton	0.06452	142.88	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.7 kWperTon with 0.44 kWperTon IPLV: Biz Prescriptive								
2718	Jan 1, 2016		46.16	per ton	0.03001	207.39	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.7 kWperTon with 0.53 kWperTon IPLV: Biz Prescriptive								
2719	Jan 1, 2016		25.06	per ton	0.01668	116.17	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.7 kWperTon with 0.57 kWperTon IPLV: Biz Prescriptive								
2720	Jan 1, 2016		18.46	per ton	0.01245	88.02	per ton	20
Wtr-Cool Centrifugal Chiller under 150 ton 0.7 kWperTon with 0.5 kWperTon IPLV: Biz Prescriptive								
713	Jan 2, 2013		186	per ton	0.021	164.0	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.57 kWperTon with 0.34 kWperTon IPLV: Biz Prescriptive								
2771	Jan 1, 2016		149.41	per ton	0.163	423.8	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.57 kWperTon with 0.37 kWperTon IPLV: Biz Prescriptive								
2772	Jan 1, 2016		137.36	per ton	0.159	400.7	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.57 kWperTon with 0.43 kWperTon IPLV: Biz Prescriptive								
2773	Jan 1, 2016		113.26	per ton	0.148	343.7	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool screw chiller 150 - 300 ton 0.57 kWperTon with 0.45 kWperTon IPLV: Biz Prescriptive								
2774	Jan 1, 2016		103.62	per ton	0.144	322.3	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.57 kWperTon with 0.4 kWperTon IPLV: Biz Prescriptive								
714	Jan 1, 2016		125.31	per ton	0.154	373.3	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.57 kWperTon with 0.51 kWperTon IPLV: Biz Prescriptive								
2775	Jan 1, 2016		79.52	per ton	0.134	266.3	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.65 kWperTon with 0.39 kWperTon IPLV: Biz Prescriptive								
2776	Jan 1, 2016		118.38	per ton	0.1	310	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.65 kWperTon with 0.42 kWperTon IPLV: Biz Prescriptive								
2777	Jan 1, 2016		104.83	per ton	0.095	283.7	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.65 kWperTon with 0.45 kWperTon IPLV: Biz Prescriptive								
715	Jan 1, 2016		91.27	per ton	0.089	252.9	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.65 kWperTon with 0.48 kWperTon IPLV: Biz Prescriptive								
2778	Jan 1, 2016		77.72	per ton	0.083	219.3	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool screw chiller 150 - 300 ton 0.65 kWperTon with 0.51 kWperTon IPLV: Biz Prescriptive								
2779	Jan 1, 2016		66.87	per ton	0.078	194.8	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.65 kWperTon with 0.57 kWperTon IPLV: Biz Prescriptive								
2780	Jan 1, 2016		39.76	per ton	0.067	131.8	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.72 kWperTon with 0.43 kWperTon IPLV: Biz Prescriptive								
2781	Jan 1, 2016		87.36	per ton	0.036	201.3	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.72 kWperTon with 0.47 kWperTon IPLV: Biz Prescriptive								
2782	Jan 1, 2016		72.3	per ton	0.031	170.8	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.72 kWperTon with 0.54 kWperTon IPLV: Biz Prescriptive								
2783	Jan 1, 2016		42.17	per ton	0.017	95.4	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.72 kWperTon with 0.57 kWperTon IPLV: Biz Prescriptive								
2784	Jan 1, 2016		30.12	per ton	0.012	67.3	per ton	20
Wtr-Cool screw chiller 150 - 300 ton 0.72 kWperTon with 0.5 kWperTon IPLV: Biz Prescriptive								
716	Jan 1, 2016		57.24	per ton	0.024	134.5	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool screw chiller over 300 ton 0.51 kWperTon with 0.31 kWperTon IPLV: Biz Prescriptive								
2757	Jan 1, 2016		114.05	per ton	0.145	380.168	per ton	20
Wtr-Cool screw chiller over 300 ton 0.51 kWperTon with 0.33 kWperTon IPLV: Biz Prescriptive								
2758	Jan 1, 2016		104.02	per ton	0.141	359.569	per ton	20
Wtr-Cool screw chiller over 300 ton 0.51 kWperTon with 0.36 kWperTon IPLV: Biz Prescriptive								
717	Jan 1, 2016		93.99	per ton	0.137	335.007	per ton	20
Wtr-Cool screw chiller over 300 ton 0.51 kWperTon with 0.38 kWperTon IPLV: Biz Prescriptive								
2759	Jan 1, 2016		83.96	per ton	0.132	308.622	per ton	20
Wtr-Cool screw chiller over 300 ton 0.51 kWperTon with 0.46 kWperTon IPLV: Biz Prescriptive								
2761	Jan 1, 2016		55.87	per ton	0.12	239.719	per ton	20
Wtr-Cool screw chiller over 300 ton 0.51 kWperTon with 0.4 kWperTon IPLV: Biz Prescriptive								
2760	Jan 1, 2016		75.93	per ton	0.128	289.599	per ton	20
Wtr-Cool screw chiller over 300 ton 0.58 kWperTon with 0.35 kWperTon IPLV: Biz Prescriptive								
2762	Jan 1, 2016		93.39	per ton	0.089	277.692	per ton	20
Wtr-Cool screw chiller over 300 ton 0.58 kWperTon with 0.37 kWperTon IPLV: Biz Prescriptive								
2763	Jan 1, 2016		82.1	per ton	0.084	254.586	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool screw chiller over 300 ton 0.58 kWperTon with 0.43 kWperTon IPLV: Biz Prescriptive								
2764	Jan 1, 2016		59.53	per ton	0.074	197.441	per ton	20
Wtr-Cool screw chiller over 300 ton 0.58 kWperTon with 0.45 kWperTon IPLV: Biz Prescriptive								
2765	Jan 1, 2016		50.51	per ton	0.07	175.985	per ton	20
Wtr-Cool screw chiller over 300 ton 0.58 kWperTon with 0.4 kWperTon IPLV: Biz Prescriptive								
718	Jan 1, 2016		70.82	per ton	0.079	227.053	per ton	20
Wtr-Cool screw chiller over 300 ton 0.58 kWperTon with 0.51 kWperTon IPLV: Biz Prescriptive								
2766	Jan 1, 2016		27.94	per ton	0.06	119.836	per ton	20
Wtr-Cool screw chiller over 300 ton 0.64 kWperTon with 0.38 kWperTon IPLV: Biz Prescriptive								
2767	Jan 1, 2016		72.72	per ton	0.032	176.176	per ton	20
Wtr-Cool screw chiller over 300 ton 0.64 kWperTon with 0.42 kWperTon IPLV: Biz Prescriptive								
2768	Jan 1, 2016		60.18	per ton	0.027	150.281	per ton	20
Wtr-Cool screw chiller over 300 ton 0.64 kWperTon with 0.45 kWperTon IPLV: Biz Prescriptive								
719	Jan 1, 2016		47.65	per ton	0.021	119.625	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool screw chiller over 300 ton 0.64 kWperTon with 0.48 kWperTon IPLV: Biz Prescriptive								
2769	Jan 1, 2016		35.11	per ton	0.015	86.563	per ton	20
Wtr-Cool screw chiller over 300 ton 0.64 kWperTon with 0.51 kWperTon IPLV: Biz Prescriptive								
2770	Jan 1, 2016		25.08	per ton	0.011	62.36	per ton	20
Wtr-Cool screw chiller under 150 ton 0.63 kWperTon with 0.38 kWperTon IPLV: Biz Prescriptive								
2743	Jan 1, 2016		193.99	per ton	0.4276	469.5	per ton	20
Wtr-Cool screw chiller under 150 ton 0.63 kWperTon with 0.44 kWperTon IPLV: Biz Prescriptive								
720	Jan 1, 2016		165.46	per ton	0.169	413.5	per ton	20
Wtr-Cool screw chiller under 150 ton 0.63 kWperTon with 0.47 kWperTon IPLV: Biz Prescriptive								
2745	Jan 1, 2016		151.2	per ton	0.3467	380.7	per ton	20
Wtr-Cool screw chiller under 150 ton 0.63 kWperTon with 0.56 kWperTon IPLV: Biz Prescriptive								
2747	Jan 1, 2016		111.25	per ton	0.269	295.4	per ton	20
Wtr-Cool screw chiller under 150 ton 0.63 kWperTon with 0.5 kWperTon IPLV: Biz Prescriptive								
2746	Jan 1, 2016		139.78	per ton	0.3251	357.0	per ton	20
Wtr-Cool screw chiller under 150 ton 0.71 kWperTon with 0.43 kWperTon IPLV: Biz Prescriptive								
2748	Jan 1, 2016		148.71	per ton	0.3182	349.4	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool screw chiller under 150 ton 0.71 kWperTon with 0.46 kWperTon IPLV: Biz Prescriptive								
2749	Jan 1, 2016		132.66	per ton	0.2907	319.2	per ton	20
Wtr-Cool screw chiller under 150 ton 0.71 kWperTon with 0.53 kWperTon IPLV: Biz Prescriptive								
2750	Jan 1, 2016		100.56	per ton	0.2226	244.4	per ton	20
Wtr-Cool screw chiller under 150 ton 0.71 kWperTon with 0.56 kWperTon IPLV: Biz Prescriptive								
2751	Jan 1, 2016		87.72	per ton	0.1973	216.6	per ton	20
Wtr-Cool screw chiller under 150 ton 0.71 kWperTon with 0.5 kWperTon IPLV: Biz Prescriptive								
721	Jan 1, 2016		116.61	per ton	0.097	283.2	per ton	20
Wtr-Cool screw chiller under 150 ton 0.71 kWperTon with 0.63 kWperTon IPLV: Biz Prescriptive								
2752	Jan 1, 2016		55.63	per ton	0.1361	149.4	per ton	20
Wtr-Cool screw chiller under 150 ton 0.79 kWperTon with 0.47 kWperTon IPLV: Biz Prescriptive								
2753	Jan 1, 2016		103.43	per ton	0.2044	224.4	per ton	20
Wtr-Cool screw chiller under 150 ton 0.79 kWperTon with 0.51 kWperTon IPLV: Biz Prescriptive								
2754	Jan 1, 2016		85.59	per ton	0.1738	190.9	per ton	20

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Wtr-Cool screw chiller under 150 ton 0.79 kWperTon with 0.55 kWperTon IPLV: Biz Prescriptive								
722	Jan 1, 2016		67.76	per ton	0.027	150.9	per ton	20
Wtr-Cool screw chiller under 150 ton 0.79 kWperTon with 0.59 kWperTon IPLV: Biz Prescriptive								
2755	Jan 1, 2016		49.93	per ton	0.0983	107.9	per ton	20
Wtr-Cool screw chiller under 150 ton 0.79 kWperTon with 0.62 kWperTon IPLV: Biz Prescriptive								
2756	Jan 1, 2016		35.66	per ton	0.0701	77.0	per ton	20

Business Standard Program Measures:

The Business Standard Program encourages customer participation through a simple and streamlined process. The program is designed to promote the installation of energy efficient technologies such as lighting, motors, HVAC, and refrigeration in nonresidential properties. Measures included within this program are common in multiple marketplaces and have deemed savings values associated with their energy performance. The listings of these measures are in the Prescriptive Measure Listing above. Applications are filled out and delivered to Ameren Missouri via contractors, customers, or through the Company's website. Ameren Missouri, through its contractor, multiply the measure quantities by the saving per measure in this TRM to determine the total energy and demand saved. Various measures may require a simple calculation to identify measure savings, but the measure level incentives will remain fixed regardless of individual project characteristics.

Small Business Direct Install Program Measures:

The Small Business Direct Install (SBDI) Program encourages small customer participation through an even more streamlined process. The program is designed to promote the installation of energy efficient technologies such as lighting, motors, HVAC, and refrigeration in nonresidential properties. Qualified contractors provide a walk-through energy audit and at the customer request can install the energy saving measures with a high percentage of the cost billed to the program implementation contractor. Energy and demand savings are determined by multiplying the measure quantities by the saving measure in this TRM similar to the Standard Program.

Custom, Retro-commissioning and New Construction Program Measure Analysis Methodology

The Business Custom, Retro-commissioning (RCx) and New Construction projects typically require substantial analytic rigor to identifying project savings and costs. The nature of these projects can vary dramatically.

Most commonly found Custom and New Construction measures can be grouped into 14 categories and can be found in, but not limited to, the Prescriptive Measure Listing above:

- Lighting (fixture upgrades, except for exit signs and controls)
- Lighting (Exit signs and controls)
- Packaged Air-Conditioners and Heat Pumps (includes RTUs, ASHPs, WSHPs, GSHPs)
- Chiller
- Cooling Tower

- Refrigeration System
- Motor Drive Installations (i.e. variable-frequency drives [VFDs])
- Compressed-Air Systems
- Controls and Energy Management Systems (EMS)
- Domestic Water Heating (various options)
- Pump, Fan, Piping, and Duct
- Process Upgrades
- All Other

Most commonly found RCx measures can be grouped into 4 categories and can be found in, but not limited to, the Prescriptive Measure Listing above:

- Lighting Improvements (fixture upgrades, except for exit signs and controls)
- Compressed-Air Systems
- Controls and Energy Management Systems (EMS)
- All Other

Some measures involve replacing an item of equipment with a similar, more-efficient model, while others entail enhancing the performance of existing equipment. For example, a measure may consist of modifying the programming of a control system and perhaps also adding one or more sensors and/or circuit-control devices, or it may involve modifying an existing pump or changing a piping system to reduce pressure drop, such that the motor driving the pump draws less power.

In the case of eligible motor upgrades and the installation of Variable Frequency Drive (VFD) drives on motors, this category will be credited with the savings irrespective of where the motor is located, unless the motor is part of a new item of equipment. For example, replacing the motor driving a fan on a cooling tower is a Motor measure, but replacing the entire cooling tower, which includes a new fan motor, is a Cooling Tower Measure.

A Technical Analysis Study (TAS) or energy savings estimate is required for all Custom and RCx projects. An energy savings estimate can be provided by the customer or a contractor. The Program engineering staff will review all TAS reports and energy savings estimates to ensure all assumptions are reasonable and that the study is based on sound engineering methodology. A TAS Report will contain complete documentation for the proposed project, and forms a vital element for the subsequent Impact Evaluation performed by the evaluation contractor. The TAS is also often used by the customer to get funding approval. More specifically, the TAS:

- Identifies the customer (organization), key customer representatives and their contact information, and the location of the facility that will host the proposed project.

- Describes the host facility (typically with a photograph and/or sketch showing site layout or floor plan).
- Documents monthly electricity use, and identifies Ameren Missouri account number and meter number.
- Describes the baseline equipment and provides its electricity-use (with estimated load shape[1]) and estimated annual O&M costs.
- Describes the new equipment to be added, together with key performance specifications and expected lifetime, or otherwise completes the description of the measure (i.e., Energy Management System (EMS) reprogramming and new control functions).
- Provides estimated electricity-use (and estimated load shape) for the retrofit condition.
- Provides the energy and demand savings calculations,[2] together with 1) the source of input parameter numbers, and 2) justification for each assumption made.
- Provides the cost to implement the project, together with a cost breakdown and, when possible, written quotations for major equipment item(s) and estimates of ongoing annual O&M costs.
- Provides the estimated financial incentive and estimated annual cost savings, together with the financial metric(s) requested by the customer (i.e., simple payback, IRR, ROI).

As it is noted above, some measures may involve modifying existing controls or energy management systems so they perform more functions and act more effectively to minimize electricity use while still producing the desired or needed service outputs as a function of time. Examples include the installation of Variable Air Volume (VAV) fans and sensors and the installation of a multistage efficient chiller, with each of these new systems controlled by an existing energy management system. This type of project will involve reprogramming of the EMS for the new control functions. *It is most important that the TAS fully describe the new equipment recommended, the new ventilation and chiller controls strategies to be implemented, and the specific EMS control functions that require reprogramming.*

After the TAS is submitted together with an application signed by the customer that references the TAS, an engineer on the Program staff will formally review it and independently check the savings calculations. The TAS will either be approved or returned to the customer with a written explanation of what modifications are needed.

[1] Load shape expressed as monthly kWh and kW.
[2] Reductions in Greenhouse Gas emissions or other environmental data should be included when available.

When modifications are required, the revision number and date are noted on the cover, new signatures are affixed, and the TAS is resubmitted.

Measure savings calculation for the Energy Management System Pilot will be conducted under these Custom Program procedures.

After final approval for program requirements and cost effectiveness, the customer is authorized to proceed with implementing the project. Program staff will monitor progress and offer advice if this is needed and it is feasible for program staff to provide this assistance.

Calculating Custom, RCx and New Construction Energy and Demand Savings

The energy and demand savings equations used in these programs can be found in the on-line TRM.

Custom Program Measures

The Business Custom Incentive Program provides energy efficiency expertise, services, and financial incentives to encourage nonresidential customers to install energy efficient processes and/or equipment that lie outside the Standard program's pre-defined energy efficiency measures and/or guidelines savings. These custom projects are complex and always unique requiring detailed savings calculations to arrive at the appropriate custom incentive level.

The methodology for calculation of energy savings is described in the Custom, Retro-commissioning and New Construction Program Measure Analysis Methodology section.

The following is a listing of the Business Custom Measures extracted from iTRL.

Ameren Missouri Measure Listing for MEEIA Cycle 2016-18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Custom Measure: Biz Custom								
1169	Jan 2, 2013		variable based on parameters		variable based on parameters	variable based on parameters		

Retro-commissioning Program Measures

The Business Retro-Commissioning Program will deliver energy savings by helping facilities benchmark existing system performance levels, identify operating system performance optimization improvements, and where applicable, provide financial incentives to assist with the implementation of the recommended efficiency improvements.

The measures are associated with efficiency opportunities with existing mechanical, electrical and thermal systems in nonresidential buildings by providing options for retrofitting equipment that is inefficient and outdated. This program also assists occupants in improving their operation and maintenance practices via compressed air, Building Automation System (BAS), lighting and process system upgrades.

The methodology for calculation of energy savings is described in the Custom, Retro-commissioning and New Construction Program Measure Analysis Methodology section.

The program is listed separately because incentive levels could be different.

The following is a listing of the Business Retro-Commissioning Measures extracted from iTRL.

Ameren Missouri Retro-Commissioning Measures for MEEIA Cycle 2016-18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
Retro commissioning: Biz RCx								
1191	Jan 2, 2013		variable based on parameters		variable based on parameters	variable based on parameters		

New Construction Program Measures

The primary goal of this Program is to capture energy savings available in new building construction, major renovations, or tenant build-outs to existing business facilities.

It is important to offer the building community multiple options for their specific projects. The program will accommodate any phase of construction where Program incentives can drive incremental cost effective energy efficiency improvements.

The Program offers financial incentives to encourage building owners/developers and their design/construction team to exceed standard building practices to achieve efficiency, above and beyond, the current building energy code requirements. There are four types of energy efficiency incentives that New Construction Projects can receive through participation in this program.

- **Whole Building Performance Incentives** provide cash incentives to encourage holistic energy efficient building design and construction.
- **Standard Incentives** are available for common, proven energy efficiency measures. These measures have been evaluated and the energy savings/value have been pre-determined.
- **Installed Interior Lighting Incentives** are based upon the efficiency of the installed interior lighting system relative to the baseline lighting power density as defined within ASHARAE 90.1.
- **Custom Incentives** are available for all other energy efficiency measures which are determined to be cost-effective and meet all standards required by the Business Program.

These projects typically require substantial analytic rigor to identifying project savings based on local codes and standards and builder's normal practices and costs.

The methodology for calculation of energy savings is described in the Custom, Retro-commissioning and New Construction Program Measure Analysis Methodology section.

The following is a listing of all the Business New Construction Measures extracted from iTRL.

Ameren Missouri New Construction Measure for MEEIA Cycle 2016-18

Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
New Construction: Biz New Construction								
3000	Jan 2, 2013		variable based on parameters		variable based on parameters	variable based on parameters		

ActOnEnergy®

Ameren MISSOURI

Nexant iEnergy™ TRL

Finding Measure Details – Reference Guide

COPYRIGHT NOTICE

Contents

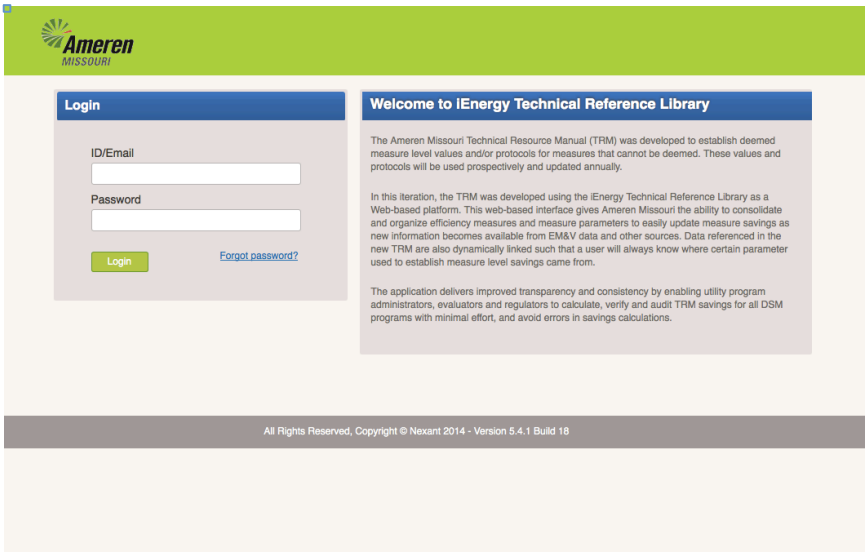
Run Measure Listing Reports

The following procedures detail how a read-only user performs basic navigation within the system to report on and search for measures.

Login to the iEnergy TRL system

To access the Ameren Missouri TRM Measure Library, you need to login to the system with the Username and Password provided by Ameren.

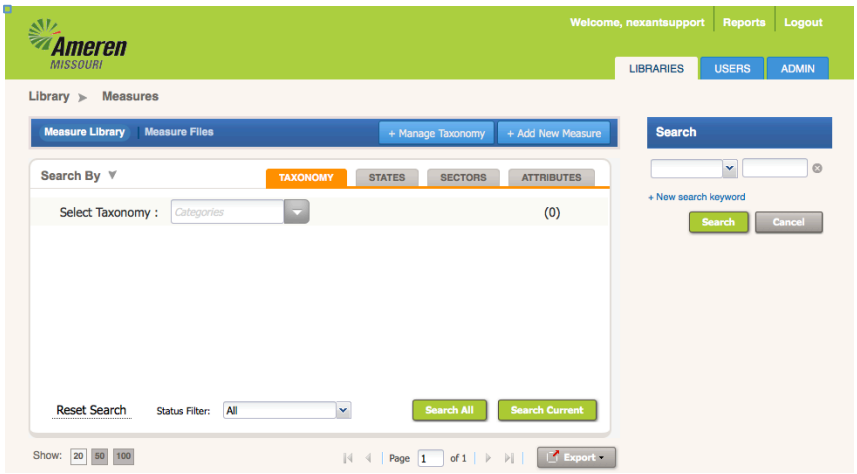
Figure 1: Ameren iEnergy TRL Login Screen



Report Run

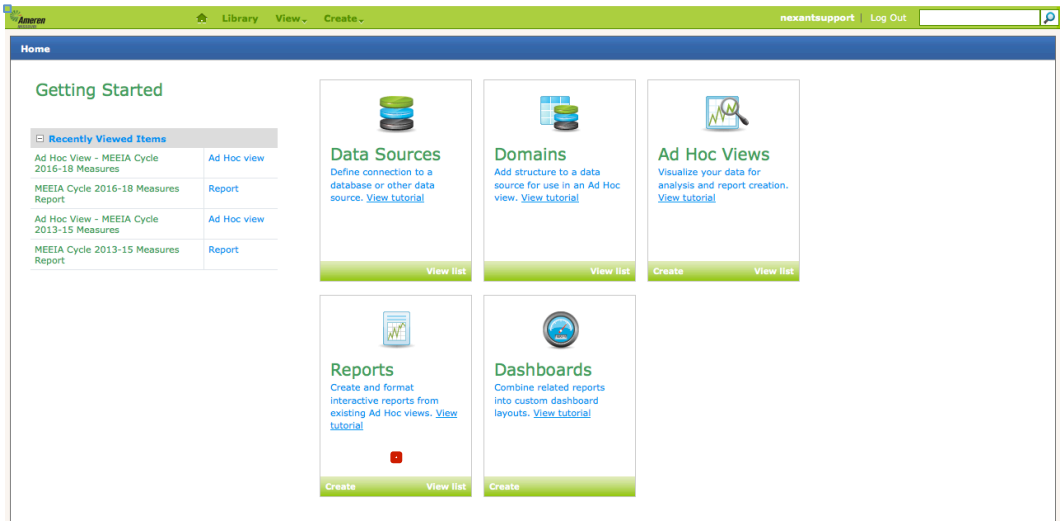
After logging into the system, click the **Reports** link at the upper right corner of the page.

Figure 2: Home Page – Report Link



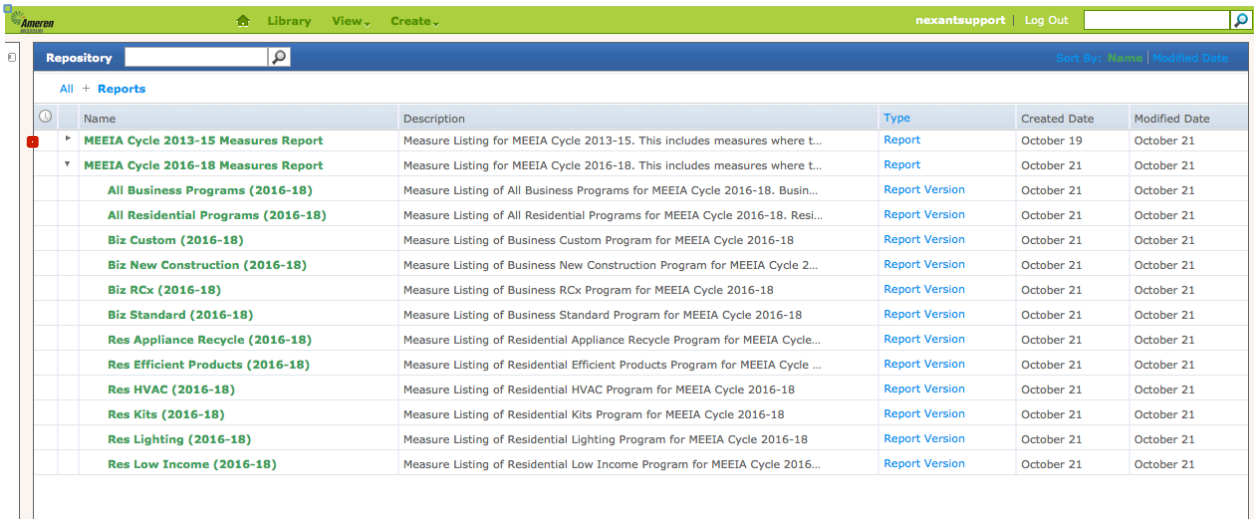
The system opens a new browser tab and displays the reporting dashboard. Click **View List** in the Reports area to open the listing of reports.

Figure 3: Reports – View List



In the repository, the available reports are displayed. Currently there is a report for MEEIA cycle 2013-15 and another report for MEEIA cycle 2016-18. Click the small arrow icon to show the program-specific reports.

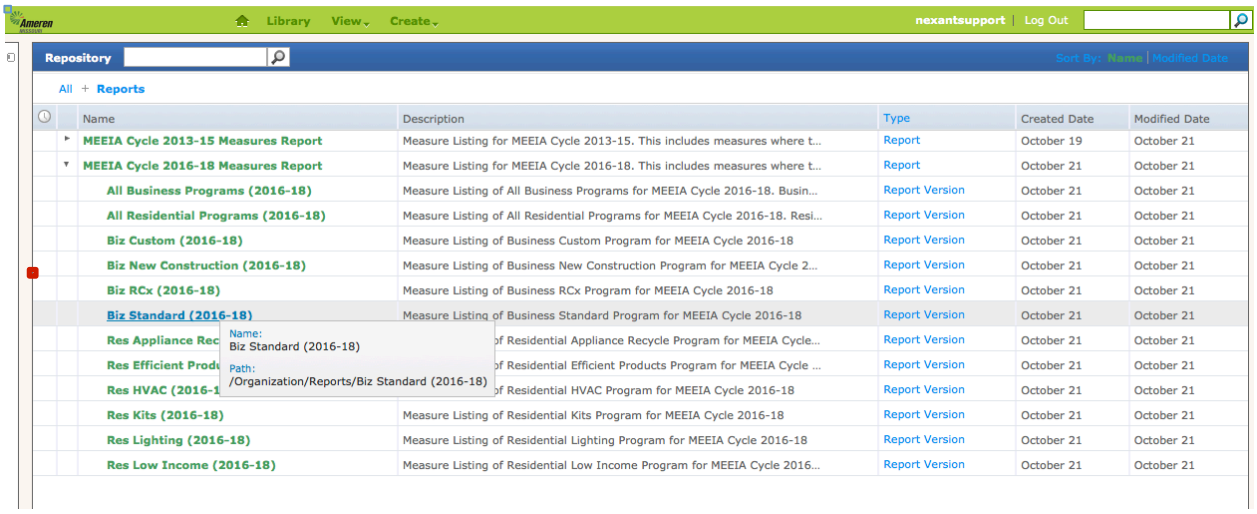
Figure 4: Report Listing Expanded



Name	Description	Type	Created Date	Modified Date
MEEIA Cycle 2013-15 Measures Report	Measure Listing for MEEIA Cycle 2013-15. This includes measures where t...	Report	October 19	October 21
MEEIA Cycle 2016-18 Measures Report	Measure Listing for MEEIA Cycle 2016-18. This includes measures where t...	Report	October 21	October 21
All Business Programs (2016-18)	Measure Listing of All Business Programs for MEEIA Cycle 2016-18. Busin...	Report Version	October 21	October 21
All Residential Programs (2016-18)	Measure Listing of All Residential Programs for MEEIA Cycle 2016-18. Resi...	Report Version	October 21	October 21
Biz Custom (2016-18)	Measure Listing of Business Custom Program for MEEIA Cycle 2016-18	Report Version	October 21	October 21
Biz New Construction (2016-18)	Measure Listing of Business New Construction Program for MEEIA Cycle 2...	Report Version	October 21	October 21
Biz RCx (2016-18)	Measure Listing of Business RCx Program for MEEIA Cycle 2016-18	Report Version	October 21	October 21
Biz Standard (2016-18)	Measure Listing of Business Standard Program for MEEIA Cycle 2016-18	Report Version	October 21	October 21
Res Appliance Recycle (2016-18)	Measure Listing of Residential Appliance Recycle Program for MEEIA Cycle...	Report Version	October 21	October 21
Res Efficient Products (2016-18)	Measure Listing of Residential Efficient Products Program for MEEIA Cycle ...	Report Version	October 21	October 21
Res HVAC (2016-18)	Measure Listing of Residential HVAC Program for MEEIA Cycle 2016-18	Report Version	October 21	October 21
Res Kits (2016-18)	Measure Listing of Residential Kits Program for MEEIA Cycle 2016-18	Report Version	October 21	October 21
Res Lighting (2016-18)	Measure Listing of Residential Lighting Program for MEEIA Cycle 2016-18	Report Version	October 21	October 21
Res Low Income (2016-18)	Measure Listing of Residential Low Income Program for MEEIA Cycle 2016...	Report Version	October 21	October 21

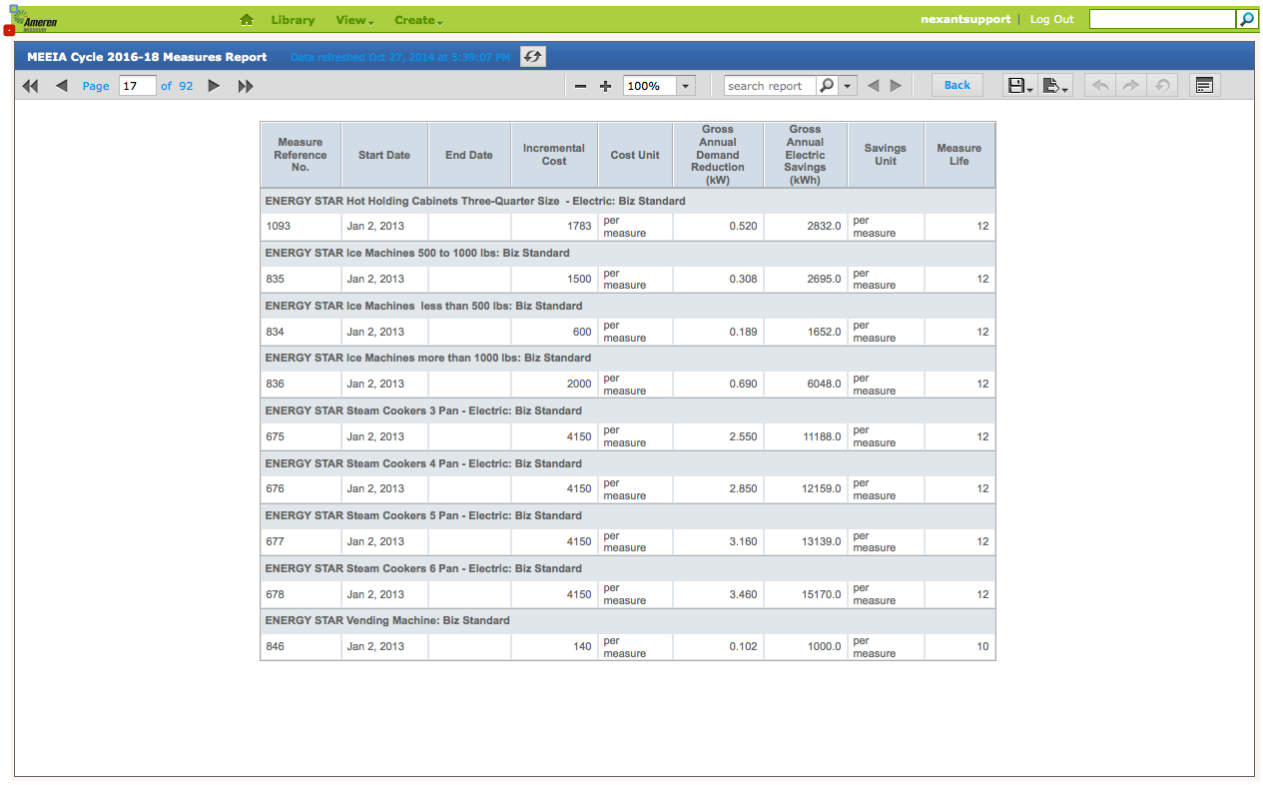
After identifying your report, click on the report link to open and view the report, in the example below we are selecting the Biz Standard program report.

Figure 5: Running a Report



The system displays the report and you can scroll through the pages using the page navigation on the top left of the page.

Figure 6: Generated Report



Measure Reference No.	Start Date	End Date	Incremental Cost	Cost Unit	Gross Annual Demand Reduction (kW)	Gross Annual Electric Savings (kWh)	Savings Unit	Measure Life
ENERGY STAR Hot Holding Cabinets Three-Quarter Size - Electric: Biz Standard								
1093	Jan 2, 2013		1783	per measure	0.520	2832.0	per measure	12
ENERGY STAR Ice Machines 500 to 1000 lbs: Biz Standard								
835	Jan 2, 2013		1500	per measure	0.308	2695.0	per measure	12
ENERGY STAR Ice Machines less than 500 lbs: Biz Standard								
834	Jan 2, 2013		600	per measure	0.189	1652.0	per measure	12
ENERGY STAR Ice Machines more than 1000 lbs: Biz Standard								
836	Jan 2, 2013		2000	per measure	0.690	6048.0	per measure	12
ENERGY STAR Steam Cookers 3 Pan - Electric: Biz Standard								
675	Jan 2, 2013		4150	per measure	2.550	11188.0	per measure	12
ENERGY STAR Steam Cookers 4 Pan - Electric: Biz Standard								
676	Jan 2, 2013		4150	per measure	2.850	12159.0	per measure	12
ENERGY STAR Steam Cookers 5 Pan - Electric: Biz Standard								
677	Jan 2, 2013		4150	per measure	3.160	13139.0	per measure	12
ENERGY STAR Steam Cookers 6 Pan - Electric: Biz Standard								
678	Jan 2, 2013		4150	per measure	3.460	15170.0	per measure	12
ENERGY STAR Vending Machine: Biz Standard								
846	Jan 2, 2013		140	per measure	0.102	1000.0	per measure	10

To see more information about the measures in the report, make note of the measure reference number of the measure. You will use this number to search for the measure in iEnergy TRL to view additional details, such as the algorithm used for the energy savings value. For this example, we will choose the ENERGY STAR Steam Cookers 5 Pan – Electric measure which is Measure Reference Number 677.

Figure 7: Measure Reference Number 677 Report Item

ENERGY STAR Steam Cookers 5 Pan - Electric: Biz Standard								
677	Jan 2, 2013		4150	per measure	3.160	13139.0	per measure	12

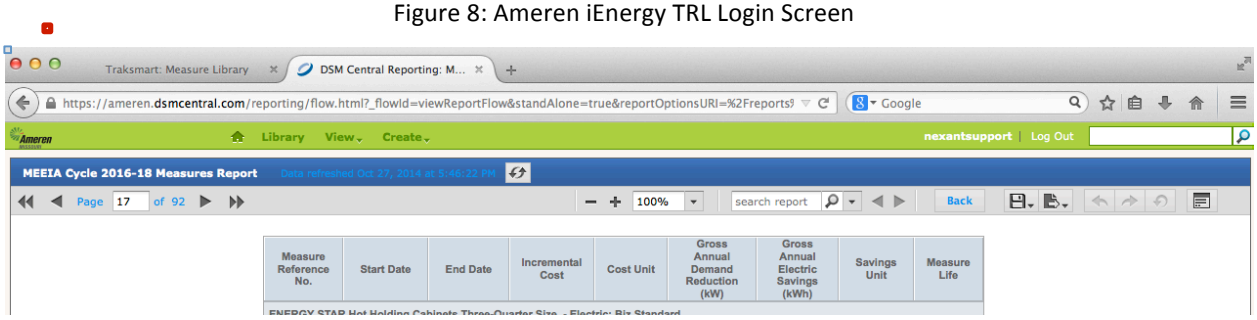
Lookup Measure Details

The Measure Listings in the Ameren TRM include key data elements such as the measure life, energy savings, demand reduction and incremental cost. For each of the measure data elements, the engineering details such as the algorithms and source documentation are stored and viewable in the Nexant iEnergy Technical Reference Library. The following procedures explain the basic navigation steps to take to lookup a measure from the report and view the details in the iEnergy TRL.

Return to the Measure Library

After you have logged into the system and ran the reports, navigate back from the browser tab for reports to the browser tab for the Measure Library.

Figure 8: Ameren iEnergy TRL Login Screen

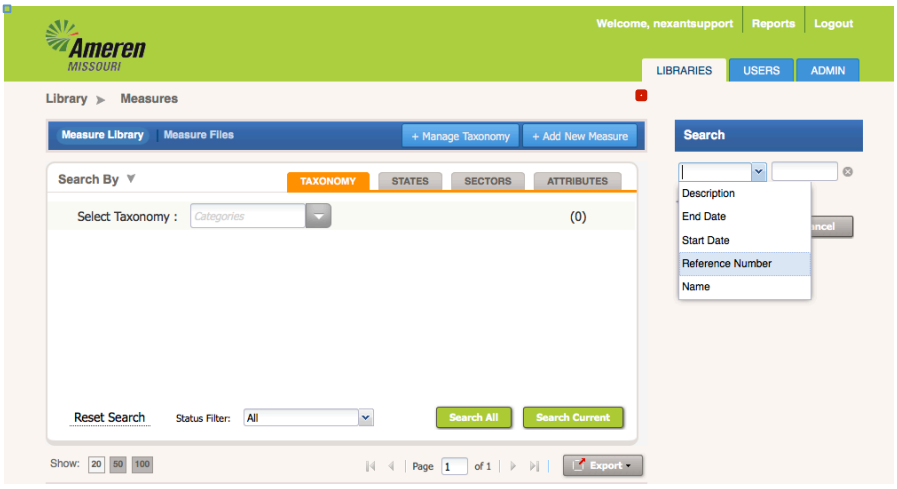


Measure Lookup in iEnergy TRL

From the main Measure Library page, search for the TRM Measure by completing the following steps:

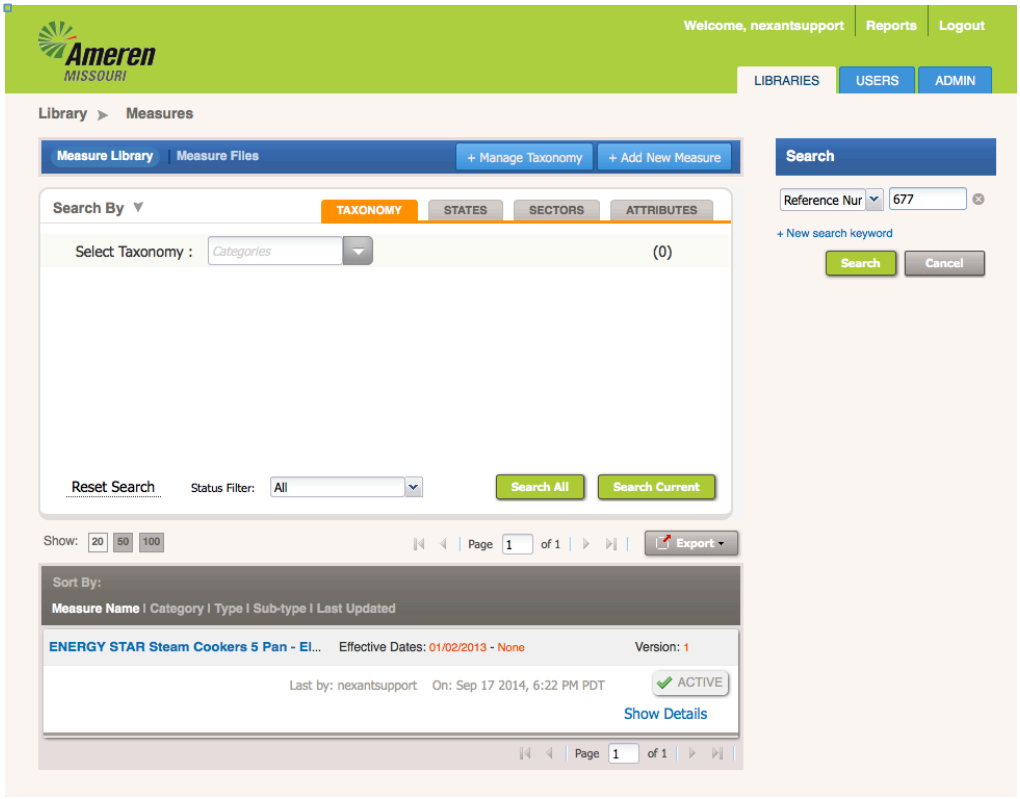
1. Navigate to the search area on the right-hand side of the page.
2. From the drop-down menu, select **Reference Number**.
3. Enter the reference number in the search field directly to the right.
4. Click **Search** button directly below the search field.

Figure 9: Measure Search Screen



The system displays the measure on the lower half of the screen.

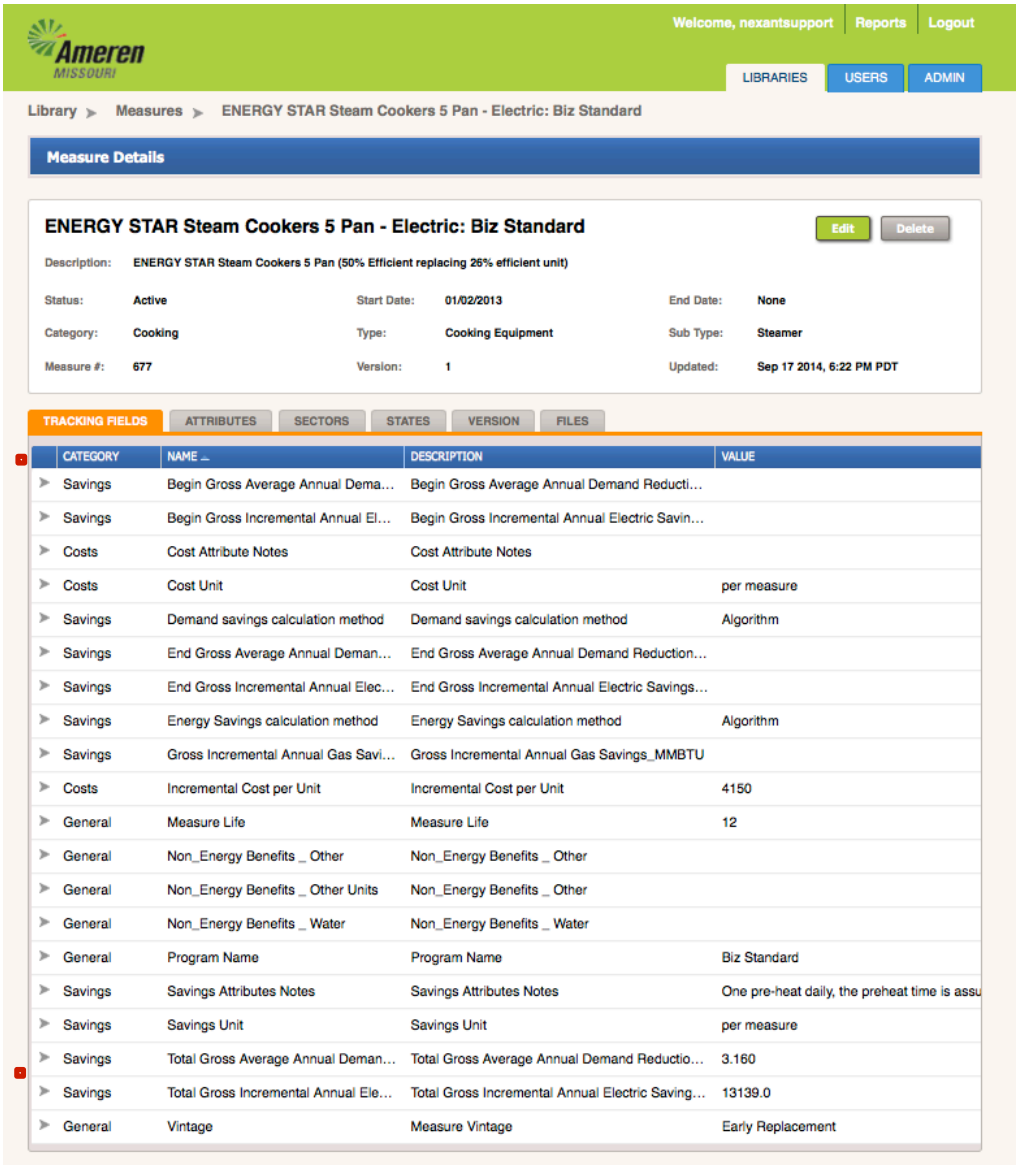
Figure 10: Measure Search Result



To find out more about the measure, complete the following steps:

1. To open the Measure Detail window in a new browser page, right-click the measure name link and select **Open Link in New Tab**.
2. Within the Measure Detail window shown below, there are several tabs containing various measure detail data. In the **Tracking Fields** tab, click the small arrow to the left of the category name to display the measure data parameters. Each measure data element can have associated reference details identifying source documentation and other applicable details.

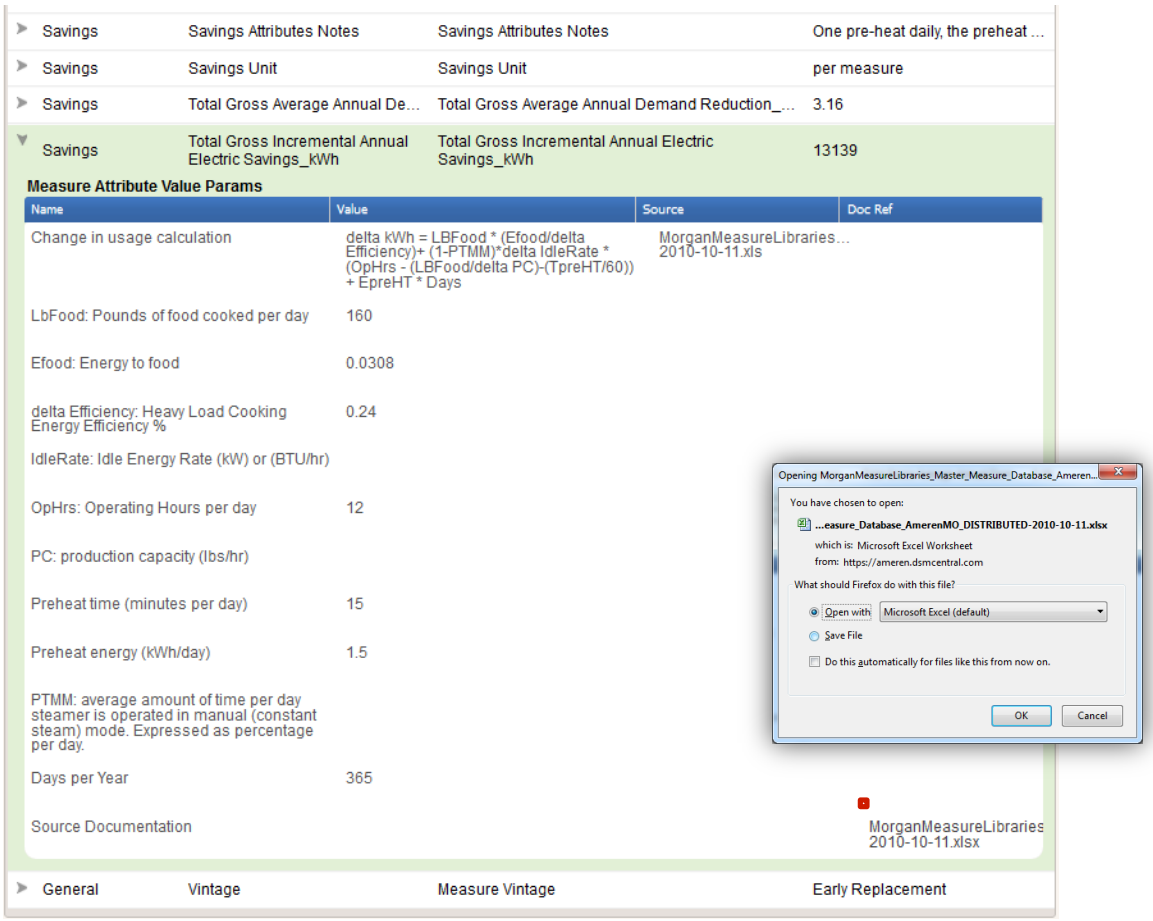
Figure 11: Measure Detail Screen



3. Examine the measure data parameters to see the reference information, including algorithms where applicable, related to the values in the TRM.

4. If there are any associated reference documents, click the reference document links to open/download it.

Figure 12: Measure Attributes Value Parameters



When finished reviewing the measure, close the browser tab with the measure and return to the measure library to do another search; repeat the process as needed. Log out of the system when complete.