

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Kansas City Power & Light)
Company’s Notice of Intent to File an)
Application for Authority to Establish a Demand-) File No. EO-2015-0240
Side Programs Investment Mechanism)

In the Matter of KCP&L Greater Missouri Operations)
Company’s Notice of Intent to File an)
Application for Authority to Establish a Demand-) File No. EO-2015-0241
Side Programs Investment Mechanism)

**KANSAS CITY POWER & LIGHT COMPANY’S
AND KCP&L GREATER MISSOURI OPERATIONS COMPANY’S
APPLICATION FOR APPROVAL
OF MODIFICATION TO ITS DEMAND-SIDE PROGRAMS**

COMES NOW Kansas City Power & Light Company and Greater Missouri Operations (“KCP&L and GMO” or “the Company”), and submits this *Request to Revise Technical Resource Manual and Program Incentive Ranges* to the Missouri Public Service Commission (“Commission”) for approval. In support thereof, the Company respectfully states as follows:

1. On November 23, 2015, KCP&L and GMO and certain other parties to this proceeding submitted a Non-Unanimous Stipulation and Agreement (“Agreement”) to the Commission for approval. After receiving no objections, the Commission issued its Order Approving Non-Unanimous Stipulation and Agreement on March 2, 2016.

2. This filing is made in accordance with MEEIA rule 4 CSR 240-20.094 (4) related to applications for Approval of Modification of Electric Utility Demand-Side Programs. No program specific tariffs are being requested to be changed in this filing. The TRM and Incentive Range List are requested to be updated as well as one rule variance on 4 CSR 240-20.093 (8).

3. In approving the *Agreement*, the Commission also approved a Company-specific Technical Resource Manual (“TRM”) and Incentive Range List. The TRM sets forth measures,

the level of energy savings, incremental costs and effective, useful lives associated with each measure. The TRM, and certain updates thereto, are also used to calculate throughput disincentive on a prospective basis (subject to DSIM¹ true-up provisions). The Incentive Range List outlines the range of rebate levels that the company will provide to customers for participating in specific measures. The exact amount of rebate given to a customer can change within the range per the 11-step Change process outlined in the Company's program description tariffs. Changing the ranges within the Incentive Ranges List requires a program modification as referred to above.

4. The Company offers a revised TRM and Incentive Range for the Commission's approval. The proposed revisions implement suggestions and feedback from the Implementation Team (KCP&L, ICF International and CLEAResult) as well as the Third party Evaluator (Navigant Consulting):

These updates have been reviewed by the Implementation Team and by the Company's contractors. Additionally, The Company provided a high level overview of the proposed TRM revisions to MEEIA Cycle 2 stakeholders on January 13, 2017 via webinar with minimal feedback although positive. The measure changes will not require any adjustment of the portfolio's goals. The revisions are found and explained in the following attachments:

| <u>Attachment</u> | <u>Name</u> | <u>Description</u> |
|--------------------------|---|---|
| A | KCPL-GMO MEEIA Program Modifications Request | Summary description of changes and supporting data of changes |
| B | Current List of DSM Measure Assumptions for KPC&L | Updated TRM with changes proposed |
| C | Highly Confidential Program Design Incentive Ranges | Redline version of Incentive Range list |

¹ "Demand-side Investment Mechanism"

| | | |
|---|---|--|
| D | Highly Confidential Program Design Incentive Ranges | Clean version of Incentive Range list |
| E | KCPL-GMO MEEIA Proposed Program Modifications | Summary PowerPoint presentation given to stakeholders on 1/13/17 |
| F | Navigant Memorandum Re: New MEEIA TRM Measures | Letter of support from Evaluator, Navigant Consulting |

5. The Company requests a MEEIA rule variance on the Demand Side Program Annual Report in Section CSR 240-20.093 (8). The Company would like to provide the demand side program annual report in line with the current MEEIA Cycle 2 program years that run from the period of April to March. The report would summarize that 12-month period and would be submitted 90 days following March 31st of each program year. For example, the program year annual report would be submitted by June 30, 2017. This annual report variance will align with the Evaluation, Measurement and Verification reporting to report on a full twelve months.

6. Based on the information provided herein, KCP&L and GMO asks the Commission to approve the TRM and Incentive Range List as revised as well as the MEEIA rule variance on reporting.

WHEREFORE, KCP&L and GMO requests the Commission issue an order approving the proposed revisions to the TRM.

Respectfully submitted,

/s/ Roger W. Steiner

Robert J. Hack, MBN 36496
Roger W. Steiner, MBN 39586
Kansas City Power & Light Company
1200 Main Street, 19th Floor
Kansas City, MO 64105
Telephone: (816) 556-2314
Facsimile: (816) 556-2110
E-Mail: Rob.Hack@kcpl.com
E-Mail: Roger.Steiner@kcpl.com

**Attorneys for
Kansas City Power & Light Company and
KCP&L Greater Missouri Operations Company**

CERTIFICATE OF SERVICE

I do hereby certify that a true and correct copy of the foregoing document has been hand-delivered, emailed or mailed, postage prepaid, to all counsel of record in this case on this 10th day of February, 2017.

/s/ Roger W. Steiner

Roger W. Steiner

KCP&L & GMO MEEIA Cycle 2 Program Modifications Request

KCP&L and Greater Missouri Operations (“The Company”) requests an update to a few succinct parts of the MEEIA Cycle 2 programs approved under cases EO-2015-0240 and EO-2015-0241 which were approved on March 2, 2016. These changes are in accordance to the MEEIA rules regarding program modifications, specifically 4 CSR 240-20.094 (4) and 4 CSR 240-3.164 (4).

Overall, the modifications of these measures within the KCP&L and GMO Technical Resource Manual (TRM) and Program Incentive Range list will improve the accuracy of savings associated with each measure, allow for greater overall residential and business participation, improve the efficiency of spend of existing program budgets. The Company is not asking for any modification to the budgets or savings targets associated with these changes.

The primary descriptions of the Program Modifications are split up into 4 separate program areas listed below.

- Home Lighting
- Whole House Efficiency
- Income Eligible Multi-family
- Business Standard & Small Business Direct Install

The modifications requested and their impact to which specific documents are summarized below in Table 1 and Table 2.

Table 1. Residential Program Modifications

| Program | Short Description | TRM Add | TRM Change | Incentive Range Update/Change |
|------------------------------|---|---------|------------|-------------------------------|
| Home Lighting | Lower Incentive Range to \$0.75/bulb | | | X |
| Whole House Efficiency | Add Tune Up Measure | X | | X |
| | Add GSHP measure | X | | X |
| | Add Direct Install Filter Whistle measure | X | | X |
| | Update LED direct install measure wattage | | X | |
| Income Eligible Multi-family | Update LED line item to allow for Food Bank | | X | |
| | Update LED direct install measure wattage | | X | |

Table 2. Business Program Modifications

| Program | Short Description | TRM Add | TRM Change | Incentive Range Update/Change |
|--------------------------------------|---|---------|------------|-------------------------------|
| C&I Standard/Small Business Lighting | Add LED high bay retrofit measures (Standard & SBL) | X | | X |
| | Measures naming update (Standard & SBL) | | X | X |
| | Lower LED lighting incentive range (Standard & SBL) | | | X |

As for a point of clarity in the TRM document attached in this filing “TRM MEEIA Cycle 2 (02-03-2017)”, the nomenclature is such that the measure being modified is highlighted in red font and put an effective end date in column Z. The updated measure is added directly below the modified measure in the spreadsheet with a new primary key (as seen in primary key column E) by adding a “.1” to the end to signify it’s a modification of the same measure. All new measures (i.e. no prior corresponding measure in the TRM) were added at the bottom of the list starting with primary key 226.

A similar methodology was utilized in the Program Incentive Range List, such that the measure being modified is highlighted red and has a strikethrough with the updated measure directly below with a new primary key (adding “.1” at the end). All new measures are also added at the end starting with primary key 226.

Additionally, for all measures in the Program Incentive Range List, the “midpoint” value has been removed. This was done for 2 reasons; 1) the value was not necessarily the exact mathematical midpoint and 2) the value was not always the most current incentive level due to the fact that the incentives can be changed within the range through the 11 step change process that happens outside the program modification process.

Lastly, additional clean-up items to the TRM include showing additional decimal points for air sealing measure (prime key 0014) and deleting the incentive column from the TRM to avoid confusion relative to the Incentive Range List.

Home Lighting (LED Discount) Proposed Changes

Lower Screw In – LED Incentive Range

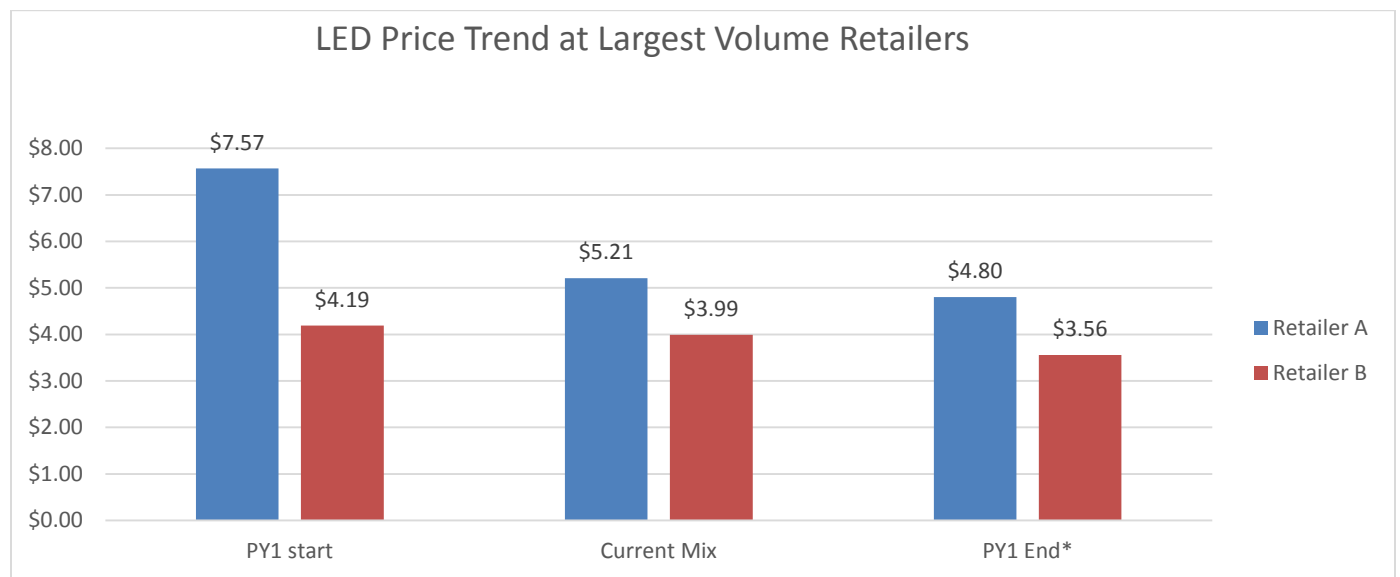
The Company proposes that the low end of the incentive range for the Home Lighting (LED Discount) program be reduced to \$0.75 from the current level of \$2.25.

| Current Incentive Range | Proposed Incentive Range |
|-------------------------|--------------------------|
| \$2.25 - \$15.00 | \$0.75 - \$15.00 |

As the retail price of energy efficient bulbs has come down, it is natural that the incentive should also be reduced given it is covering a lower incremental cost.

The program implementer, ICF, conducted a comprehensive research using the 2016 PY1 invoice data. The research focused on LED bulbs prices for 40W and 60W equivalent over a 9 month period. The chart below illustrates two major retailers, from the research, that represent approximately 90% of the portfolio bulb sales. As a case in point, at the beginning of the program PY1, the LED bulb average price for Retailer A was \$7.57. The average price decreased to \$5.21 by December and will decrease to \$3.56 by the end of PY2, representing a 58% price difference. Although a smaller percent price difference, there were similar results for Retailer B. The trend is clear; in order to compete with halogen, incandescent and the declining price of Non Energy Star bulbs, this program will have to continue incentivizing LED bulbs.

As A-line 40W and 60W LED prices begin to fall in line with more traditional light bulbs, LED price declines will start leveling off; giving consumers a high quality bulb at a great price.



*PY1 End data is based on the removal of v1.1 LED, as well as the removal of products that are likely to no longer be in stores

Reducing the incentive to \$.75 will allow KCP&L flexibility to take advantage of store promotions featuring lowered priced bulb for a limited time in prominent merchandising locations. KCP&L will also be able to incentivize on a wider range of products; specifically A-line multipacks, which have a lower retail price per bulb than single packs. Reducing the incentive will also improve cost effectiveness, since it would mean less cost at the same program volume.

Lighting efficiency still remains the most cost-effective energy efficiency program measure, therefore incentivizing residential lighting products, especially for low-income, late adopters, hard-to-reach markets and for “specialty” bulbs is essential.

Whole House Efficiency – Heating & Cooling Rebate Proposed Changes

Add HVAC Tune-up Measures

KCP&L requests approval to initiate an HVAC Tune-up Efficiency Analysis testing and report, in which are extremely useful to homeowners with a desire to understand how efficiently their system is operating. This analysis will help identify underperforming system components and help guide contractors when developing their scope of work and performing maintenance. Many contractors agree the Tune-up Efficiency Analysis requirements are an easy upsell to diagnose system issues they might not have found prior to using the program protocol. Correcting these system issues is essential to get to a more efficiently operating system.

Benefits to Residential Customers

- Incented to scheduled check-up as part of an annual maintenance contract
- Ensure equipment is operating at peak efficiency resulting in significant energy savings
- Extends the lifecycle of the equipment
- Offer option for customers to increase operating efficiency for equipment, in which they may not qualify under the requirements for early retirement
- Offer option and motivation for customers to increase the efficiency of their existing equipment for those not yet ready to purchase a new system
- Rebate will help offset cost to increase the operating efficiency of HVAC system

Benefits to HVAC Contractors (Authorized Trade Allies)

- Increase sales volume and aid in expense of customer tune-up measures, to increase the propensity for customers to take the next steps to a better and more efficient operating system
 - An additional offering /rebate they can offer our mutual customer base

Benefits of MEEIA (Whole House Efficiency)

- This is a cost effective measure to incorporate into portfolio to diversify residential customer offerings and increase savings

Add Ground Source Heat Pump (GSHP) Measures

The Ground Source Heat Pump referred hereafter as GSHP, is an extremely energy efficient, long lasting alternative to conventional HVAC systems, specifically because they use the constant temperature of the earth as the exchange medium instead of the outside air or combusted air.

GSHP's are measured in EER (Energy Efficiency Ratio), or the operational efficiency; the higher the rating the more efficient.

Benefits to Residential Customers

- Increase efficiency and comfort in heating and cooling the home (this is one of the most efficient methods available)

- Appeal to customers what want to save energy money and energy over the long-term, while lessening their environmental/carbon footprint
- Rebate will aid in offsetting the more substantial upfront cost for the installation

Benefits to HVAC Contractors (Authorized Trade Allies)

- Increase sales opportunity for geothermal heat pump contractors
- An additional offering /rebate they can offer our mutual customer base

Benefits of MEEIA (Whole House Efficiency)

- Increase savings opportunity to this unique customer segment and be able to capture the savings of this very energy efficiency system option, by offering a rebate to offset the upfront cost

Whole House Efficiency – Energy Savings Kit (Tier 1, Assessment/Direct Install Program) Proposed Changes

Update Screw In – LED’s

It is proposed that Screw In-LED’s (Primary Key 0008) be modified to reflect the efficient wattage of Energy Star LED’s installed by ICF during the direct install Energy Savings Kit (Tier 1). The change reduces the Measure Efficiency Value from 11.3W to 9.0W as the Energy Star LED’s installed are rated at 9W as are the Energy Star Rated LED’s planned for PY2 and PY3 installation in customer homes. The change is requested to provide an accurate reflection of measure savings and a realization rate closer to 100%.

| Program | Measure Name | Primary Key | Electric Energy Savings (Annual kWh/unit) | Coincident Peak Demand Savings (kW/unit) | Measure Definition | Measure Efficiency Value |
|------------------------|-----------------|-------------|---|--|--------------------|--------------------------|
| Whole House Efficiency | Screw In - LEDs | 0008 | 30.9532 | 0.0031 | LED (watts) | 11.3 |
| Whole House Efficiency | Screw In - LEDs | 0008 | 33.1677 | 0.0034 | LED (watts) | 9.0 |

The 2.3 watt reduction in measure efficiency value reflects a 7.2% increase in kWh and a 6.8% increase in kW savings per Screw In – LED. As the Energy Savings Kit expects 6,000 appointments over Program Year 2 and Program Year 3 at an average Screw In – LED installation rate of 6 bulbs per appointment the change is expected to increase savings by 80,000 kWh and 8 KW though Cycle 2.

Add Furnace Filter Alarms

It is proposed that a new measure named “Furnace Filter Alarm” be added to the TRM for the Whole House Efficiency (Energy Savings Kit, Tier 1) Program. Impacting the HVAC end use, the reusable Furnace Filter Alarm sounds when a filter becomes 50% clogged alerting occupants it is time to replace the filter. A clogged or dirty furnace filter can rob an HVAC system of energy efficiency.

Beyond the energy savings furnace filter alarms increase indoor air quality by encouraging frequent and necessary filter changes.

Benefits to Residential Customers

- Adding a new filter whistle measure to the Tier 1 Whole House Efficiency portfolio (Energy Savings Kit) and walk through assessment will allow for an additional low cost, easily installed, measure that can provide benefits to the customer in terms of savings and education.
- Beyond the energy savings furnace filter alarms increase indoor air quality by encouraging frequent and necessary filter changes.

Benefits of MEEIA (Whole House Efficiency)

- The addition of the Furnace Filter Alarm allows for greater savings and benefits for each Energy Savings Kit (Tier 1) participant.

Income-Eligible Multi-Family Proposed Changes

Update Screw In – LED’s (60W Equivalent) measure

It is proposed that Screw In-LED’s (Primary Key 0053) be modified to reflect the efficient wattage of Energy Star LED’s installed by ICF during the direct install portion of Income-Eligible Multi-Family and to remove the word “kits” from the Notes to allow for the measures use in determining Food Bank Distribution savings. As compact fluorescent lights will no longer be Energy Star rated in PY2 & PY3 the food bank distribution will consist of Energy Star rated LED’s.

The change reduces the Measure Efficiency Value from 11.3 to 9.0 as the Energy Star LED’s installed are rated at 9W as are the Energy Star Rated LED’s planned for PY2 and PY3 Food Bank Distributions. The change is requested to provide an accurate reflection of measure savings and a realization rate closer to 100%.

| Measure Name | Primary Key | Notes | Electric Energy Savings (Annual kWh/unit) | Coincident Peak Demand Savings (kW/unit) | Measure Definition | Measure Efficiency Value |
|--|-------------|-------|---|--|--------------------|--------------------------|
| Screw In - CFLs (Food Bank Distribution) | 0001 | | 28.2901 | 0.0029 | CFL (watts) | 14 |
| Screw In - LEDs | 0053 | Kits | 30.9532 | 0.0031 | LED (watts) | 11.3 |
| Screw In - LEDs | 0053 | | 33.1677 | 0.0034 | LED (watts) | 9.0 |

The 2.3 watt increase in measure efficiency increases the per bulb kWh savings from 30.95 to 33.17 which reflects a 7.2% increase in kWh and a 7.2% increase in kW savings per Screw In – LED. As the direct install program expects 28,000 bulbs installed over Program Year 2 and Program Year 3 change is expected to increase savings by 62,000 kWh and 6 kW.

The use of Screw-In LED's rather than CFL's reflects a 17.2% increase in kWh and kW. As the Foodbank distribution anticipates 270,000 LED's distributed in PY2 & PY3. This change is expected to increase savings by 1.3M kWh and 133 kW. This will help offset some of the lost savings from reducing light bulb distribution numbers due to higher cost of LED's in comparison the CFL's.

Update Screw in LED's (100W Equivalent) measure

It is proposed that Screw In-LED's (Primary Key 0064) be modified to reflect the efficient wattage of Energy Star LED's installed by ICF during the direct install portion of Income-Eligible Multi-Family. The change reduces the Measure Efficiency Value from 22.0 to 15.0 as the 100W equivalent Energy Star LED's installed are rated at 15W. The change is requested to provide an accurate reflection of measure savings and a realization rate closer to 100%.

| Measure Name | Primary Key | Electric Energy Savings (Annual kWh/unit) | Coincident Peak Demand Savings (kW/unit) | Measure Definition | Measure Efficiency Value |
|-----------------|-------------|---|--|--------------------|--------------------------|
| Screw In - LEDs | 0064 | 217.7040 | 0.0064 | LED (watts) | 22.0 |
| Screw In - LEDs | 0064 | 248.1826 | 0.0073 | LED (watts) | 15.0 |

The 7.0 watt increase in measure efficiency increases the per bulb kWh savings from 217.70 to 248.18 which reflects a 14% increase in kWh and a 14% increase in kW savings per Screw In – LED. As the direct install program expects 1,700 bulbs installed over Program Year 2 and Program Year 3 the change is expected to increase savings by 51,000 kWh and 1.5 kW.

Business Standard & Small Business Direct Install Proposed Changes

All of the below categories of program changes affect both Business Standard and Small Business Direct Install programs.

Lower the filed low range for some Standard LED lighting measures

The reason for the change is that LED lighting pricing is falling 28-44% per year¹. Many of the LED lighting low ranges as filed are becoming outdated due to these plummeting LED lighting prices. The benefits of this change to revise low ranges down will allow the Company to be more responsive to the quickly changing LED lighting market and to boost utility cost effectiveness of offerings.

Measure name changes

The Company requests to update the measure names for LED high/low bay measures and other lighting measures as outlined in the TRM to be more specific on the baseline fixture that is being incented to be replaced. This change will allow for additional clarity in the marketplace for contractors and customers in applying for rebates. Additionally, the change will align the expected savings from the project with the actual baseline. The actual savings associated with the measure including baselines were not changed, just the name of the measure.

Add new categories for LED high/low bay measures

The reason for this change is that the implementation team has observed high market demand for LED high/low bay retrofit kits or lamp replacements due to lower upfront cost compared to fixture replacement. Current categories for LED high/low bay incentive levels set for full fixture replacement and therefore need to add this new category for a retrofit and lamp only replacements. The benefits of the change will be increased participation due to decreased upfront cost of materials and will promote a more cost effective offering.

- Existing Measures affected:
 - LED Low Bay 30-70W
 - LED Low/High Bay 71-110W
 - LED High Bay 111-175W
 - LED High Bay 176-350W
- Proposed change:
 - LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture
 - LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture
 - LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture
 - LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture

¹ <https://ees.lbl.gov/sites/all/files/lbnl-6854e.pdf>

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to **36 months following**

Search using Drop-down Filters in Headers

Column Label:

H

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Count: 162

Column Equation:

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| Measure Description | | | | | | | Gross Measure Value | | | |
|--------------------------------|---------------|--------------|--|-------------|--------|--------------------------|------------------------------------|---|------------------------------------|-------------------------|
| Program | Segment | End Use | Measure Name | Primary Key | Notes | Unit Definition | Incremental Measure Cost (\$/Unit) | Electric Energy Savings (Annual kWh/unit) | Nameplate Demand Savings (kW/unit) | Peak Coincidence Factor |
| Income-Eligible Multi-Family | All | Lighting | Screw In - CFLs (Food Bank Distribution) | 0001 | | per lamp | \$1.70 | 28.2901 | 0.030 | 9.5% |
| Home Lighting Rebate | All | Lighting | Screw In - LEDs | 0002 | | per lamp | \$15.00 | 30.9532 | 0.033 | 9.5% |
| Home Appliance Recycling Reba | All | Appliances | Dehumidifier Recycle | 0003 | | per unit | \$49.00 | 139.0000 | | |
| Home Appliance Recycling Reba | All | Appliances | Freezer - Recycle | 0004 | | per unit | \$93.00 | 1,201.0000 | | |
| Home Appliance Recycling Reba | All | Appliances | Refrigerator - Recycle | 0005 | | per unit | \$93.00 | 1,190.0000 | | |
| Home Appliance Recycling Reba | All | Appliances | Room A/C Recycle | 0006 | | per unit | \$49.00 | 121.0000 | | |
| Whole House Efficiency | Single Family | Lighting | Screw In - CFLs | 0007 | Tier 1 | per lamp | \$1.70 | 28.2901 | 0.030 | 10% |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | 0008 | Tier 1 | per lamp | \$15.00 | 30.9532 | 0.033 | 10% |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | 0008.1 | Tier 1 | per lamp | \$15.00 | 33.1677 | 0.035 | 10% |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Faucet Aerator | 0009 | Tier 1 | per unit | \$2.80 | 65.4500 | | 2% |
| Whole House Efficiency | Single Family | Hot Water | Pipe Insulated | 0010 | Tier 1 | per unit | \$9.00 | 74.0357 | 0.008 | |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Showerhead | 0011 | Tier 1 | per unit | \$15.00 | 272.9500 | | 3% |
| Whole House Efficiency | Single Family | Hot Water | Water Heater Tank Wrap | 0012 | Tier 1 | per unit | \$18.00 | 131.2958 | 0.015 | |
| Whole House Efficiency | Single Family | Electronics | Smart Power Strip | 0013 | Tier 1 | per unit | \$15.00 | 73.7300 | | 80% |
| Whole House Efficiency | Single Family | HVAC - Shell | Air Sealing | 0014 | Tier 2 | per sq ft (floor area) | \$0.12 | 0.2300 | | |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Ceiling Insulation | 0015 | Tier 2 | per sq ft (ceiling area) | \$0.76 | 0.5200 | | |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Wall Insulation | 0016 | Tier 2 | per sq ft (wall area) | \$1.32 | 0.7200 | | |
| Whole House Efficiency | Single Family | HVAC - Shell | ENERGY STAR Windows | 0017 | Tier 2 | per sq ft (window area) | \$1.50 | 2.0500 | | |
| Whole House Efficiency | Single Family | Hot Water | Heat Pump Water Heater | 0018 | Tier 3 | per unit | \$1,000.00 | 1,766.0000 | 0.697 | 12% |
| Whole House Efficiency | Single Family | HVAC | Efficient ECM Fan | 0019 | Tier 3 | per unit | \$353.76 | 608.1000 | | 68% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump Ductless Mini Split | 0020 | Tier 3 | per unit | \$715.90 | 1,314.5143 | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 | 0021 | Tier 3 | per ton | \$184.25 | 149.5400 | | 68% |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement | 0022 | Tier 3 | per ton | \$607.09 | 486.0050 | | 68% |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement (future) | 0023 | Tier 3 | per ton | \$422.84 | 149.5400 | | 68% |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 | 0024 | Tier 3 | per ton | \$276.38 | 210.2906 | | 68% |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement | 0025 | Tier 3 | per ton | \$699.22 | 546.7556 | | 68% |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement (future) | 0026 | Tier 3 | per ton | \$422.84 | 210.2906 | | 68% |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 | 0027 | Tier 3 | per ton | \$368.51 | 263.8941 | | 68% |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement | 0028 | Tier 3 | per ton | \$791.34 | 600.3591 | | 68% |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement (future) | 0029 | Tier 3 | per ton | \$422.84 | 263.8941 | | 68% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 | 0030 | Tier 3 | per ton | \$152.30 | 173.1924 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement | 0031 | Tier 3 | per ton | \$796.86 | 2,220.0717 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement (future) | 0032 | Tier 3 | per ton | \$644.56 | 173.1924 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Replace Electric Resistance Heat | 0033 | Tier 3 | per ton | \$796.86 | 4,719.5584 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 | 0034 | Tier 3 | per ton | \$304.61 | 233.9430 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement | 0035 | Tier 3 | per ton | \$949.17 | 2,282.8214 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement (future) | 0036 | Tier 3 | per ton | \$644.56 | 233.9430 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Replace Electric Resistance Heat | 0037 | Tier 3 | per ton | \$949.17 | 4,780.3091 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 | 0038 | Tier 3 | per ton | \$456.91 | 320.5254 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement | 0039 | Tier 3 | per ton | \$1,101.47 | 2,369.4004 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement (future) | 0040 | Tier 3 | per ton | \$644.56 | 320.5254 | | 72% |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Replace Electric Resistance Heat | 0041 | Tier 3 | per ton | \$1,101.47 | 4,866.8920 | | 72% |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - CFLs | 0042 | Kits | per lamp | \$1.70 | 28.2901 | 0.030 | 10% |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - LEDs | 0043 | Kits | per lamp | \$15.00 | 30.9532 | 0.033 | 10% |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Faucet Aerator | 0044 | Kits | per unit | \$2.80 | 65.4500 | | 2% |
| Income-Eligible Weatherization | Single Family | Hot Water | Pipe Insulated | 0045 | Kits | per unit | \$9.00 | 74.0357 | 0.008 | |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Showerhead | 0046 | Kits | per unit | \$15.00 | 272.9500 | | 3% |
| Income-Eligible Weatherization | Single Family | Hot Water | Water Heater Tank Wrap | 0047 | Kits | per unit | \$18.00 | 131.2958 | 0.015 | |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

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| Measure Description | | | | | | | | |
|--------------------------------|---------------|--------------|--|--|------------------------|----------------------|--------------------------------|--------------------------|
| Program | Segment | End Use | Measure Name | Coincident Peak Demand Savings (kW/unit) | Annual Operating Hours | Measure Life (Years) | Measure Definition | Measure Efficiency Value |
| Income-Eligible Multi-Family | All | Lighting | Screw In - CFLs (Food Bank Distribution) | 0.0029 | 938 | 5 | CFL (watts) | 14 |
| Home Lighting Rebate | All | Lighting | Screw In - LEDs | 0.0031 | 938 | 20 | LED (watts) | 11.3 |
| Home Appliance Recycling Reba | All | Appliances | Dehumidifier Recycle | 0.0350 | | 4 | Unit removed | |
| Home Appliance Recycling Reba | All | Appliances | Freezer - Recycle | 0.1910 | | 8 | Unit removed | |
| Home Appliance Recycling Reba | All | Appliances | Refrigerator - Recycle | 0.1900 | | 8 | Unit removed | |
| Home Appliance Recycling Reba | All | Appliances | Room A/C Recycle | 0.1140 | | 4 | Unit removed | |
| Whole House Efficiency | Single Family | Lighting | Screw In - CFLs | 0.0029 | 938 | 5 | CFL (watts) | 14 |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | 0.0031 | 938 | 20 | LED (watts) | 11.3 |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | 0.0034 | 938 | 20 | LED (watts) | 9.0 |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Faucet Aerator | 0.0101 | | 9 | Low Flow (GPM) | 0.94 |
| Whole House Efficiency | Single Family | Hot Water | Pipe Insulated | 0.0085 | 8,760 | 15 | 5 linear feet of insulation | |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Showerhead | 0.0244 | | 10 | Low Flow (GPM) | 2.5 |
| Whole House Efficiency | Single Family | Hot Water | Water Heater Tank Wrap | 0.0150 | 8,760 | 5 | Water Heater Blanket/Tank Wrap | |
| Whole House Efficiency | Single Family | Electronics | Smart Power Strip | 0.0052 | | 5 | Smart strip | |
| Whole House Efficiency | Single Family | HVAC - Shell | Air Sealing | 0.00005602 | | 15 | Efficient ACH | 3.00 |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Ceiling Insulation | 0.0003 | | 25 | Final R-value | 38 |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Wall Insulation | 0.0004 | | 25 | Final R-value | 5 |
| Whole House Efficiency | Single Family | HVAC - Shell | ENERGY STAR Windows | 0.0008 | | 25 | Efficient U-factor | 0.30 |
| Whole House Efficiency | Single Family | Hot Water | Heat Pump Water Heater | 0.0837 | 2,533 | 13 | Efficient EF | 2.00 |
| Whole House Efficiency | Single Family | HVAC | Efficient ECM Fan | 0.3403 | | 10 | ECM Fan | |
| Whole House Efficiency | Single Family | HVAC | Heat Pump Ductless Mini Split | 0.8170 | | 18 | HP Ductless Mini Split | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 | 0.0890 | | 18 | SEER | 15 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement | 0.2342 | | 6 | SEER | 15 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement (future) | 0.0890 | | 12 | SEER | 15 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 | 0.0890 | | 18 | SEER | 16 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement | 0.2342 | | 6 | SEER | 16 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement (future) | 0.0890 | | 12 | SEER | 16 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 | 0.1141 | | 18 | SEER | 17 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement | 0.2593 | | 6 | SEER | 17 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement (future) | 0.1141 | | 12 | SEER | 17 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 | 0.0542 | | 18 | SEER | 15 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement | 0.8911 | | 6 | SEER | 15 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement (future) | 0.0542 | | 12 | SEER | 15 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Replace Electric Resistance Heat | 1.7652 | | 6 | SEER | 15 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 | 0.0542 | | 18 | SEER | 16 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement | 0.8911 | | 6 | SEER | 16 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement (future) | 0.0542 | | 12 | SEER | 16 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Replace Electric Resistance Heat | 1.7652 | | 6 | SEER | 16 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 | 0.0926 | | 18 | SEER | 17 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement | 0.9295 | | 6 | SEER | 17 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement (future) | 0.0926 | | 12 | SEER | 17 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Replace Electric Resistance Heat | 1.8036 | | 12 | SEER | 17 |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - CFLs | 0.0029 | 938 | 5 | CFL (watts) | 14 |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - LEDs | 0.0031 | 938 | 20 | LED (watts) | 11.3 |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Faucet Aerator | 0.0101 | | 9 | Low Flow (GPM) | 0.94 |
| Income-Eligible Weatherization | Single Family | Hot Water | Pipe Insulated | 0.0085 | 8,760 | 15 | 5 linear feet of insulation | |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Showerhead | 0.0244 | | 10 | Low Flow (GPM) | 2.5 |
| Income-Eligible Weatherization | Single Family | Hot Water | Water Heater Tank Wrap | 0.0150 | 8,760 | 5 | Water Heater Blanket/Tank Wrap | |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

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Count: 162

indicates default plan values that can be adjusted for unique installations.

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| Measure Description | | | | Algorithms | | |
|--------------------------------|---------------|--------------|--|---------------------------------------|---------------------------|--|
| Program | Segment | End Use | Measure Name | Baseline Definition | Baseline Efficiency Value | Electric Energy Savings Algorithm |
| Income-Eligible Multi-Family | All | Lighting | Screw In - CFLs (Food Bank Distribution) | EISA tier 1 compliant Halogen (watts) | 43 | =ROUND((R8-P8)/1000*M8*AC8,4) |
| Home Lighting Rebate | All | Lighting | Screw In - LEDs | EISA tier 1 compliant Halogen (watts) | 43 | =ROUND((R9-P9)/1000*M9*AC9,4) |
| Home Appliance Recycling Reba | All | Appliances | Dehumidifier Recycle | Unit operational | | =ROUND(139,4) |
| Home Appliance Recycling Reba | All | Appliances | Freezer - Recycle | Unit operational | | =ROUND(1201,4) |
| Home Appliance Recycling Reba | All | Appliances | Refrigerator - Recycle | Unit operational | | =ROUND(1190,4) |
| Home Appliance Recycling Reba | All | Appliances | Room A/C Recycle | Unit operational | | =ROUND(121,4) |
| Whole House Efficiency | Single Family | Lighting | Screw In - CFLs | EISA tier 1 compliant Halogen (watts) | 43 | =ROUND((R14-P14)/1000*M14*AC14,4) |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | EISA tier 1 compliant Halogen (watts) | 43 | =ROUND((R15-P15)/1000*M15*AC15,4) |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | EISA tier 1 compliant Halogen (watts) | 43 | =ROUND((R16-P16)/1000*M16*AC16,4) |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Faucet Aerator | Standard (GPM) | 1.39 | =ROUND((R17-P17)*AC17*(AE17*365.25)*AG17,4) |
| Whole House Efficiency | Single Family | Hot Water | Pipe Insulated | none | | =ROUND(74.0356963418427,4) |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Showerhead | Standard (GPM) | 4 | =ROUND((R19-P19)*AC19*(AE19*365.25)*AG19,4) |
| Whole House Efficiency | Single Family | Hot Water | Water Heater Tank Wrap | No Blanket | | =ROUND(131.295784945569,4) |
| Whole House Efficiency | Single Family | Electronics | Smart Power Strip | Standard outlet strip | | =ROUND(73.73,4) |
| Whole House Efficiency | Single Family | HVAC - Shell | Air Sealing | Baseline ACH | 6.00 | =ROUND((R22-P22)*(AA22*AC22 + AB22*AE22),4) |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Ceiling Insulation | Previous R-value | 5 | =ROUND((1/R23-1/P23)*(AA23*AC23 + AB23*AE23),4) |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Wall Insulation | Previous R-value | 2 | =ROUND((1/R24-1/P24)*(AA24*AC24 + AB24*AE24),4) |
| Whole House Efficiency | Single Family | HVAC - Shell | ENERGY STAR Windows | Baseline U-factor | 0.90 | =ROUND((R25-P25)*(AA25*AC25 + AB25*AE25),4) |
| Whole House Efficiency | Single Family | Hot Water | Heat Pump Water Heater | Baseline EF | 0.95 | =ROUND(((1/R26-1/P26)*AE26*AC26*365.25),4) |
| Whole House Efficiency | Single Family | HVAC | Efficient ECM Fan | Std Fan | | =ROUND(608.1,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump Ductless Mini Split | Electric heat & Room A/C | | =ROUND(1314.51428571429,4) |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 | SEER | 13 | =ROUND((1/R29-1/P29)*AA29*AC29/AE29,4) |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement | SEER | 10 | =ROUND((1/R30-1/P30)*AA30*AC30/AE30,4) |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement (future) | SEER | 13 | =ROUND((1/R31-1/P31)*AA31*AC31/AE31,4) |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 | SEER | 13 | =ROUND((1/R32-1/P32)*AA32*AC32/AE32,4) |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement | SEER | 10 | =ROUND((1/R33-1/P33)*AA33*AC33/AE33,4) |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement (future) | SEER | 13 | =ROUND((1/R34-1/P34)*AA34*AC34/AE34,4) |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 | SEER | 13 | =ROUND((1/R35-1/P35)*AA35*AC35/AE35,4) |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement | SEER | 10 | =ROUND((1/R36-1/P36)*AA36*AC36/AE36,4) |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement (future) | SEER | 13 | =ROUND((1/R37-1/P37)*AA37*AC37/AE37,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 | SEER | 14 | =ROUND(((1/R38-1/P38)*AA38 + AG38*AB38)*AC38/AE38,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement | SEER | 9.12 | =ROUND(((1/R39-1/P39)*AA39 + AG39*AB39)*AC39/AE39,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement (future) | SEER | 14 | =ROUND(((1/R40-1/P40)*AA40 + AG40*AB40)*AC40/AE40,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Replace Electric Resistance Heat | SEER | 10 | =ROUND(((1/R41-1/P41)*AA41 + AG41*AB41)*AC41/AE41,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 | SEER | 14 | =ROUND(((1/R42-1/P42)*AA42 + AG42*AB42)*AC42/AE42,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement | SEER | 9.12 | =ROUND(((1/R43-1/P43)*AA43 + AG43*AB43)*AC43/AE43,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement (future) | SEER | 14 | =ROUND(((1/R44-1/P44)*AA44 + AG44*AB44)*AC44/AE44,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Replace Electric Resistance Heat | SEER | 10 | =ROUND(((1/R45-1/P45)*AA45 + AG45*AB45)*AC45/AE45,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 | SEER | 14 | =ROUND(((1/R46-1/P46)*AA46 + AG46*AB46)*AC46/AE46,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement | SEER | 9.12 | =ROUND(((1/R47-1/P47)*AA47 + AG47*AB47)*AC47/AE47,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement (future) | SEER | 14 | =ROUND(((1/R48-1/P48)*AA48 + AG48*AB48)*AC48/AE48,4) |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Replace Electric Resistance Heat | SEER | 10 | =ROUND(((1/R49-1/P49)*AA49 + AG49*AB49)*AC49/AE49,4) |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - CFLs | EISA tier 1 compliant Halogen (watts) | 43 | =ROUND((R50-P50)/1000*M50*AC50,4) |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - LEDs | EISA tier 1 compliant Halogen (watts) | 43 | =ROUND((R51-P51)/1000*M51*AC51,4) |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Faucet Aerator | Standard (GPM) | 1.39 | =ROUND((R52-P52)*AC52*(AE52*365.25)*AG52,4) |
| Income-Eligible Weatherization | Single Family | Hot Water | Pipe Insulated | none | | =ROUND(74.0356963418427,4) |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Showerhead | Standard (GPM) | 4 | =ROUND((R54-P54)*AC54*(AE54*365.25)*AG54,4) |
| Income-Eligible Weatherization | Single Family | Hot Water | Water Heater Tank Wrap | No Blanket | | =ROUND(131.295784945569,4) |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

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Count: 162

| Measure Description | | | | | | |
|--------------------------------|---------------|--------------|--|---|--------------------------|---|
| Program | Segment | End Use | Measure Name | Incentive Definition | Net to Gross Ratio (NTG) | Net Electric Energy Savings (Annual kWh/unit) |
| Income-Eligible Multi-Family | All | Lighting | Screw In - CFLs (Food Bank Distribution) | Distributed free to customers at food banks | 100% | 28.29 |
| Home Lighting Rebate | All | Lighting | Screw In - LEDs | per unit | 100% | 30.95 |
| Home Appliance Recycling Reba | All | Appliances | Dehumidifier Recycle | n/a | 100% | 139.00 |
| Home Appliance Recycling Reba | All | Appliances | Freezer - Recycle | per unit | 100% | 1201.00 |
| Home Appliance Recycling Reba | All | Appliances | Refrigerator - Recycle | per unit | 100% | 1190.00 |
| Home Appliance Recycling Reba | All | Appliances | Room A/C Recycle | n/a | 100% | 121.00 |
| Whole House Efficiency | Single Family | Lighting | Screw In - CFLs | Free to customer | | 28.29 |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | Free to customer | 100% | 30.95 |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | Free to customer | | 33.1677 |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Faucet Aerator | Free to customer | 100% | 65.45 |
| Whole House Efficiency | Single Family | Hot Water | Pipe Insulated | Free to customer | 100% | 74.04 |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Showerhead | Free to customer | 100% | 272.95 |
| Whole House Efficiency | Single Family | Hot Water | Water Heater Tank Wrap | Free to customer | 100% | 131.30 |
| Whole House Efficiency | Single Family | Electronics | Smart Power Strip | Free to customer | 100% | 73.73 |
| Whole House Efficiency | Single Family | HVAC - Shell | Air Sealing | Tiered, see Program Information | 100% | 0.23 |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Ceiling Insulation | Tiered, see Program Information | 100% | 0.52 |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Wall Insulation | Tiered, see Program Information | 100% | 0.72 |
| Whole House Efficiency | Single Family | HVAC - Shell | ENERGY STAR Windows | Tiered, see Program Information | 100% | 2.05 |
| Whole House Efficiency | Single Family | Hot Water | Heat Pump Water Heater | Tiered, see Program Information | 100% | 1766.00 |
| Whole House Efficiency | Single Family | HVAC | Efficient ECM Fan | Tiered, see Program Information | 100% | 608.10 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump Ductless Mini Split | Tiered, see Program Information | 100% | 1314.51 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 | Tiered, see Program Information | 100% | 149.54 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement | Tiered, see Program Information | 100% | 486.01 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement (future) | Tiered, see Program Information | 100% | 149.54 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 | Tiered, see Program Information | 100% | 210.29 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement | Tiered, see Program Information | 100% | 546.76 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement (future) | Tiered, see Program Information | 100% | 210.29 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 | Tiered, see Program Information | 100% | 263.89 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement | Tiered, see Program Information | 100% | 600.36 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement (future) | Tiered, see Program Information | 100% | 263.89 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 | Tiered, see Program Information | 100% | 173.19 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement | Tiered, see Program Information | 100% | 2220.07 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement (future) | Tiered, see Program Information | 100% | 173.19 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Replace Electric Resistance Heat | Tiered, see Program Information | 100% | 4719.56 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 | Tiered, see Program Information | 100% | 233.94 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement | Tiered, see Program Information | 100% | 2282.82 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement (future) | Tiered, see Program Information | 100% | 233.94 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Replace Electric Resistance Heat | Tiered, see Program Information | 100% | 4780.31 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 | Tiered, see Program Information | 100% | 320.53 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement | Tiered, see Program Information | 100% | 2369.40 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement (future) | Tiered, see Program Information | 100% | 320.53 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Replace Electric Resistance Heat | Tiered, see Program Information | 100% | 4866.89 |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - CFLs | 100% covered by program | 100% | 28.29 |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - LEDs | 100% covered by program | 100% | 30.95 |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Faucet Aerator | 100% covered by program | 100% | 65.45 |
| Income-Eligible Weatherization | Single Family | Hot Water | Pipe Insulated | 100% covered by program | 100% | 74.04 |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Showerhead | 100% covered by program | 100% | 272.95 |
| Income-Eligible Weatherization | Single Family | Hot Water | Water Heater Tank Wrap | 100% covered by program | 100% | 131.30 |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

[Link to CDD](#)

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Count: 162

| Measure Description | | | | | | | | |
|--------------------------------|---------------|--------------|--|----------------------------------|-----------------------|----------------------|--------------------|---------------------------|
| Program | Segment | End Use | Measure Name | Data Source | Date of Data Revision | Effective Start Date | Effective End Date | Cooling Degree Days (CDD) |
| Income-Eligible Multi-Family | All | Lighting | Screw In - CFLs (Food Bank Distribution) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Home Lighting Rebate | All | Lighting | Screw In - LEDs | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Home Appliance Recycling Reba | All | Appliances | Dehumidifier Recycle | Navigant 2013 GMO EM&V Report | 7/29/2015 | 4/1/2016 | 4/1/2016 | |
| Home Appliance Recycling Reba | All | Appliances | Freezer - Recycle | Navigant 2013 GMO EM&V Report | 7/29/2015 | 4/1/2016 | 4/1/2016 | |
| Home Appliance Recycling Reba | All | Appliances | Refrigerator - Recycle | Navigant 2013 GMO EM&V Report | 7/29/2015 | 4/1/2016 | 4/1/2016 | |
| Home Appliance Recycling Reba | All | Appliances | Room A/C Recycle | Navigant 2013 GMO EM&V Report | 7/29/2015 | 4/1/2016 | 4/1/2016 | |
| Whole House Efficiency | Single Family | Lighting | Screw In - CFLs | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | AEG KCP&L Program Plan 2016-2019 | 2/1/2017 | 4/1/2017 | | |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Faucet Aerator | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Whole House Efficiency | Single Family | Hot Water | Pipe Insulated | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Showerhead | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Whole House Efficiency | Single Family | Hot Water | Water Heater Tank Wrap | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Whole House Efficiency | Single Family | Electronics | Smart Power Strip | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Whole House Efficiency | Single Family | HVAC - Shell | Air Sealing | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Ceiling Insulation | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Wall Insulation | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC - Shell | ENERGY STAR Windows | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | Hot Water | Heat Pump Water Heater | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Whole House Efficiency | Single Family | HVAC | Efficient ECM Fan | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump Ductless Mini Split | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement (future) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement (future) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement (future) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement (future) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Replace Electric Resistance Heat | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement (future) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Replace Electric Resistance Heat | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement (future) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Replace Electric Resistance Heat | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - CFLs | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - LEDs | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Faucet Aerator | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Weatherization | Single Family | Hot Water | Pipe Insulated | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Showerhead | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Weatherization | Single Family | Hot Water | Water Heater Tank Wrap | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to [Link to HDD](#)

Search using Drop-down Filters in Headers

AB

AC

AD

AE

AF

Count: 162

| Measure Description | | | | Supporting Information | | | | |
|--------------------------------|---------------|--------------|--|---------------------------|-----------|--------------------------|-----------|----------------------------|
| Program | Segment | End Use | Measure Name | Heating Degree Days (HDD) | Quantity1 | Quantity1 Description | Quantity2 | Quantity2 Description |
| Income-Eligible Multi-Family | All | Lighting | Screw In - CFLs (Food Bank Distribution) | | 1.04 | Waste Heat Factor | | |
| Home Lighting Rebate | All | Lighting | Screw In - LEDs | | 1.04 | Waste Heat Factor | | |
| Home Appliance Recycling Reba | All | Appliances | Dehumidifier Recycle | | | | | |
| Home Appliance Recycling Reba | All | Appliances | Freezer - Recycle | | | | | |
| Home Appliance Recycling Reba | All | Appliances | Refrigerator - Recycle | | | | | |
| Home Appliance Recycling Reba | All | Appliances | Room A/C Recycle | | | | | |
| Whole House Efficiency | Single Family | Lighting | Screw In - CFLs | | 1.04 | Waste Heat Factor | | |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | | 1.04 | Waste Heat Factor | | |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | | 1.04 | Waste Heat Factor | | |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Faucet Aerator | | 0.0919 | kWh per gallon hot water | 3 | Minutes per person per day |
| Whole House Efficiency | Single Family | Hot Water | Pipe Insulated | | | | | |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Showerhead | | 0.0919 | kWh per gallon hot water | 3.75 | Minutes per person per day |
| Whole House Efficiency | Single Family | Hot Water | Water Heater Tank Wrap | | | | | |
| Whole House Efficiency | Single Family | Electronics | Smart Power Strip | | | | | |
| Whole House Efficiency | Single Family | HVAC - Shell | Air Sealing | 5249 | 0.00001 | Cooling Coefficient | 0.00001 | Heating Coefficient |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Ceiling Insulation | 5249 | 0.00046 | Cooling Coefficient | 0.00046 | Heating Coefficient |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Wall Insulation | 5249 | 0.00037 | Cooling Coefficient | 0.00037 | Heating Coefficient |
| Whole House Efficiency | Single Family | HVAC - Shell | ENERGY STAR Windows | 5249 | 0.00052 | Cooling Coefficient | 0.00052 | Heating Coefficient |
| Whole House Efficiency | Single Family | Hot Water | Heat Pump Water Heater | | 50 | gallons used per day | 0.175 | Water Heating Coefficient |
| Whole House Efficiency | Single Family | HVAC | Efficient ECM Fan | 5249 | | | | |
| Whole House Efficiency | Single Family | HVAC | Heat Pump Ductless Mini Split | 5249 | | | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement (future) | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement (future) | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement (future) | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement (future) | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Replace Electric Resistance Heat | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement (future) | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Replace Electric Resistance Heat | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement (future) | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Replace Electric Resistance Heat | 5249 | 12,000 | Btu/hr | 1,091 | Coefficient |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - CFLs | | 1.04 | Waste Heat Factor | | |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - LEDs | | 1.04 | Waste Heat Factor | | |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Faucet Aerator | | 0.0919 | kWh per gallon hot water | 3 | Minutes per person per day |
| Income-Eligible Weatherization | Single Family | Hot Water | Pipe Insulated | | | | | |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Showerhead | | 0.0919 | kWh per gallon hot water | 3.75 | Minutes per person per day |
| Income-Eligible Weatherization | Single Family | Hot Water | Water Heater Tank Wrap | | | | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

AG

AH

Count: 162

| Measure Description | | | | | |
|--------------------------------|---------------|--------------|--|-------------|-------------------------|
| Program | Segment | End Use | Measure Name | Quantity3 | Quantity3 Description |
| Income-Eligible Multi-Family | All | Lighting | Screw In - CFLs (Food Bank Distribution) | | |
| Home Lighting Rebate | All | Lighting | Screw In - LEDs | | |
| Home Appliance Recycling Reba | All | Appliances | Dehumidifier Recycle | | |
| Home Appliance Recycling Reba | All | Appliances | Freezer - Recycle | | |
| Home Appliance Recycling Reba | All | Appliances | Refrigerator - Recycle | | |
| Home Appliance Recycling Reba | All | Appliances | Room A/C Recycle | | |
| Whole House Efficiency | Single Family | Lighting | Screw In - CFLs | | |
| Whole House Efficiency | Single Family | Lighting | Screw In - LEDs | | |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Faucet Aerator | 1.44 | Persons per household |
| Whole House Efficiency | Single Family | Hot Water | Pipe Insulated | | |
| Whole House Efficiency | Single Family | Hot Water | Low Flow Showerhead | 1.44 | Persons per household |
| Whole House Efficiency | Single Family | Hot Water | Water Heater Tank Wrap | | |
| Whole House Efficiency | Single Family | Electronics | Smart Power Strip | | |
| Whole House Efficiency | Single Family | HVAC - Shell | Air Sealing | | |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Ceiling Insulation | | |
| Whole House Efficiency | Single Family | HVAC - Shell | Increased Wall Insulation | | |
| Whole House Efficiency | Single Family | HVAC - Shell | ENERGY STAR Windows | | |
| Whole House Efficiency | Single Family | Hot Water | Heat Pump Water Heater | | |
| Whole House Efficiency | Single Family | HVAC | Efficient ECM Fan | | |
| Whole House Efficiency | Single Family | HVAC | Heat Pump Ductless Mini Split | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 15 - Early Retirement (future) | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 16 - Early Retirement (future) | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement | | |
| Whole House Efficiency | Single Family | HVAC | Air Conditioner SEER 17 - Early Retirement (future) | | |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 | 0.001796471 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement | 0.027586522 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Early Retirement (future) | 0.001796471 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 15 - Replace Electric Resistance Heat | 0.073296351 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 | 0.001796471 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement | 0.027621132 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Early Retirement (future) | 0.001796471 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 16 - Replace Electric Resistance Heat | 0.073296351 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 | 0.002367442 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement | 0.028192044 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Early Retirement (future) | 0.002367442 | HSPF improvement factor |
| Whole House Efficiency | Single Family | HVAC | Heat Pump SEER 17 - Replace Electric Resistance Heat | 0.073867331 | HSPF improvement factor |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - CFLs | | |
| Income-Eligible Weatherization | Single Family | Lighting | Screw In - LEDs | | |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Faucet Aerator | 1.44 | Persons per household |
| Income-Eligible Weatherization | Single Family | Hot Water | Pipe Insulated | | |
| Income-Eligible Weatherization | Single Family | Hot Water | Low Flow Showerhead | 1.44 | Persons per household |
| Income-Eligible Weatherization | Single Family | Hot Water | Water Heater Tank Wrap | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to **36 months following**

Search using Drop-down Filters in Headers

Column Label:

H

I

J

K

Count: 162

Column Equation:

see column R

= H / L

| Measure Description | | | | | | | Gross Measure Value | | | |
|-------------------------------------|---------------|---------------|--|-------------|----------------|-----------------------|------------------------------------|---|------------------------------------|-------------------------|
| Program | Segment | End Use | Measure Name | Primary Key | Notes | Unit Definition | Incremental Measure Cost (\$/Unit) | Electric Energy Savings (Annual kWh/unit) | Nameplate Demand Savings (kW/unit) | Peak Coincidence Factor |
| Income-Eligible Weatherization | Single Family | Electronics | Smart Power Strip | 0048 | Kits | per unit | \$15.00 | 73.7300 | | 80% |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Ceiling Insulation | 0049 | Weatherization | per sq ft (ceiling ar | \$0.76 | 0.5200 | | |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Duct Insulation | 0050 | Weatherization | per home | \$720.00 | 210.4900 | | |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Wall Insulation | 0051 | Weatherization | per sq ft (wall area | \$1.32 | 0.7200 | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | 0052 | Kits | per lamp | \$1.70 | 28.2901 | 0.030 | 10% |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 0053 | Kits | per lamp | \$15.00 | 30.9532 | 0.033 | 10% |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 0053.1 | Kits | per lamp | \$15.00 | 33.1677 | 0.035 | 10% |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Faucet Aerator | 0054 | Kits | per unit | \$2.80 | 42.2900 | | 1% |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Pipe Insulated | 0055 | Kits | per unit | \$2.80 | 74.0357 | 0.008 | |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Showerhead | 0056 | Kits | per unit | \$15.00 | 235.9900 | | 3% |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Water Heater Tank Wrap | 0057 | Kits | per unit | \$18.00 | 131.2958 | 0.015 | |
| Income-Eligible Multi-Family | Multi-Family | Electronics | Smart Power Strip | 0058 | Kits | per unit | \$15.00 | 73.7300 | | 80% |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Exit Sign | 0059 | Common Area | per unit | \$30.00 | 78.8400 | 0.009 | 100% |
| Income-Eligible Multi-Family | Multi-Family | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | 0060 | Common Area | per fixture | \$100.00 | 701.0069 | 0.216 | 66% |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Low Wattage T8 Lamp | 0061 | Common Area | per lamp | \$2.00 | 26.1245 | 0.008 | 66% |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Flood Light (<15W) | 0062 | Common Area | per lamp | \$35.00 | 210.8290 | 0.043 | 0% |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | 0063 | Common Area | per lamp | \$3.33 | 204.6418 | 0.063 | 10% |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 0064 | Common Area | per lamp | \$25.08 | 217.7040 | 0.067 | 10% |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 0064.1 | Common Area | per lamp | \$25.08 | 248.1826 | 0.076 | 10% |
| Residential Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | 0065 | | per unit | \$350.00 | 462.0000 | | |
| Business Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | 0066 | | per unit | \$350.00 | 462.0000 | | |
| Small Business Direct Install | Small C&I | Lighting | Photocell Occupancy Sensor | 0067 | | per sensor | \$66.00 | 692.6340 | 0.213 | 66% |
| Small Business Direct Install | Small C&I | Lighting | Interior Daylighting Controls Replacing No Controls | 0067.1 | | per sensor | \$66.00 | 692.6340 | 0.213 | 66% |
| Small Business Direct Install | Small C&I | Lighting | LED Exit Sign | 0068 | | per lamp | \$30.00 | 78.8400 | 0.009 | 100% |
| Small Business Direct Install | Small C&I | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | 0069 | | per fixture | \$100.00 | 701.0069 | 0.216 | 66% |
| Small Business Direct Install | Small C&I | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | 0069.1 | | per fixture | \$100.00 | 701.0069 | 0.216 | 66% |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Bulb (≥15W) | 0070 | | per lamp | \$50.00 | 230.7662 | 0.071 | 66% |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Lamp replacing 71-110W Lamp | 0070.1 | | per lamp | \$50.00 | 230.7662 | 0.071 | 66% |
| Small Business Direct Install | Small C&I | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | 0072 | | per lamp | \$12.00 | 121.9142 | 0.038 | 66% |
| Small Business Direct Install | Small C&I | Lighting | Remove 4ft Lamp from T8 or T12 system | 0072.1 | | per lamp | \$12.00 | 121.9142 | 0.038 | 66% |
| Business Standard | All | Hot Water | Heat Pump Water Heater | 0074 | | per unit | \$1,000.00 | 1,993.0800 | | 12% |
| Business Standard | All | Hot Water | Low Flow Faucet Aerator | 0075 | | per unit | \$8.35 | 131.0300 | | 1% |
| Business Standard | All | Hot Water | Pipe Wrap/Insulation | 0076 | | per unit | \$47.17 | 224.0000 | 0.026 | |
| Business Standard | All | Hot Water | Pre-Rinse Spray Valves | 0077 | | per unit | \$100.00 | 2,670.7000 | | |
| Business Standard | All | Pools | High Efficiency Pool Pump | 0078 | | per unit | \$273.32 | 1,301.2478 | | 100% |
| Business Standard | All | Pools | Pool Pump VSD | 0079 | | per unit | \$579.00 | 2,461.4482 | | 100% |
| Business Standard | All | Refrigeration | ENERGY STAR Beverage Machine | 0081 | | per unit | \$140.00 | 1,752.0000 | | |
| Business Standard | All | Refrigeration | High Efficiency Reach-In Refrigerator/Freezer | 0082 | | per unit | \$262.85 | 3,025.8700 | | |
| Business Standard | All | Refrigeration | Strip Curtains | 0083 | | per unit | \$286.16 | 1,698.0000 | | 100% |
| Business Standard | All | Refrigeration | LED Refrigerator Case Light | 0084 | | per unit | \$133.00 | 373.5410 | 0.060 | 90% |
| Business Standard | All | Refrigeration | ECM Motors Walk-In Coolers & Freezers | 0085 | | per unit | \$50.00 | 401.0000 | | 100% |
| Business Standard | All | HVAC | High Efficiency PTAC/PTHP | 0086 | | per ton | \$12.26 | 30.0701 | | 91% |
| Business Standard | All | HVAC | Programmable Thermostat Controls | 0087 | | per ton | \$5.90 | 126.0527 | | |
| Business Standard | All | HVAC | Air Source Heat Pump <65 kBtuh | 0088 | | per ton | \$120.00 | 157.6937 | | 91% |
| Business Standard | All | HVAC | Air Source Heat Pump 65<135 kBtuh | 0089 | | per ton | \$100.00 | 91.3304 | 0.112 | 91% |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

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| Measure Description | | | | | | | | |
|-------------------------------------|---------------|---------------|--|--|------------------------|----------------------|---------------------------------|--------------------------|
| Program | Segment | End Use | Measure Name | Coincident Peak Demand Savings (kW/unit) | Annual Operating Hours | Measure Life (Years) | Measure Definition | Measure Efficiency Value |
| Income-Eligible Weatherization | Single Family | Electronics | Smart Power Strip | 0.0052 | | 5 | Smart strip | |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Ceiling Insulation | 0.0003 | | 25 | Final R-value | 38 |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Duct Insulation | 0.1178 | | 20 | CFM50 | 4500 |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Wall Insulation | 0.0004 | | 25 | Final R-value | 5 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | 0.0029 | 938 | 5 | CFL (watts) | 14 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 0.0031 | 938 | 20 | LED (watts) | 11.3 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 0.0034 | 938 | 20 | LED (watts) | 9.0 |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Faucet Aerator | 0.0053 | | 9 | Low Flow (GPM) | 0.94 |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Pipe Insulated | 0.0085 | 8,760 | 15 | 5 linear feet of insulation | |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Showerhead | 0.0173 | | 10 | Low Flow (GPM) | 2.5 |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Water Heater Tank Wrap | 0.0150 | 8,760 | 5 | Water Heater Blanket/Tank Wrap | |
| Income-Eligible Multi-Family | Multi-Family | Electronics | Smart Power Strip | 0.0052 | | 5 | Smart strip | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Exit Sign | 0.0090 | 8,760 | 16 | LED (watts) | 2.0 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | 0.1424 | 3,088 | 15 | High Bay - T5 >4 lamp | 295.0 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Low Wattage T8 Lamp | 0.0053 | 3,088 | 10 | Low Wattage T8 (watts) | 22 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Flood Light (<15W) | 0.0000 | 4,903 | 10 | LED (watts) | 8.7 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | 0.0060 | 3,088 | 5 | CFL (watts) | 25 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 0.0064 | 3,088 | 25 | LED (watts) | 22.0 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 0.0073 | 3,088 | 25 | LED (watts) | 15.0 |
| Residential Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | 1.2600 | | 10 | PCT | |
| Business Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | 1.2600 | | 10 | PCT | |
| Small Business Direct Install | Small C&I | Lighting | Photocell Occupancy Sensor | 0.1407 | 3,088 | 8 | Photocell Occupancy Sensor | 587 |
| Small Business Direct Install | Small C&I | Lighting | Interior Daylighting Controls Replacing No Controls | 0.1407 | 3,088 | 8 | Photocell Occupancy Sensor | 587 |
| Small Business Direct Install | Small C&I | Lighting | LED Exit Sign | 0.0090 | 8,760 | 16 | LED (watts) | 2.0 |
| Small Business Direct Install | Small C&I | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | 0.1424 | 3,088 | 15 | High Bay T5 (>4 lamps, wattage) | 295.0 |
| Small Business Direct Install | Small C&I | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | 0.1424 | 3,088 | 15 | High Bay T5 (>4 lamps, wattage) | 295.0 |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Bulb (≥15W) | 0.0469 | 3,088 | 11 | LED (watts) | 22.0 |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Lamp replacing 71-110W Lamp | 0.0469 | 3,088 | 11 | LED (watts) | 22.0 |
| Small Business Direct Install | Small C&I | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | 0.0248 | 3,088 | 11 | Remove T8 | 0 |
| Small Business Direct Install | Small C&I | Lighting | Remove 4ft Lamp from T8 or T12 system | 0.0248 | 3,088 | 11 | Remove T8 | 0 |
| Business Standard | All | Hot Water | Heat Pump Water Heater | 0.2976 | 2,533 | 10 | Efficient EF | 2.00 |
| Business Standard | All | Hot Water | Low Flow Faucet Aerator | 0.1957 | | 9 | Low Flow (GPM) | 0.94 |
| Business Standard | All | Hot Water | Pipe Wrap/Insulation | 0.2780 | 8,760 | 6 | 5 linear feet of insulation | |
| Business Standard | All | Hot Water | Pre-Rinse Spray Valves | 0.0000 | | 5 | Low Flow (GPM) | 1.06 |
| Business Standard | All | Pools | High Efficiency Pool Pump | 0.1485 | | 10 | High Efficiency | |
| Business Standard | All | Pools | Pool Pump VSD | 0.2810 | | 10 | VSD | |
| Business Standard | All | Refrigeration | ENERGY STAR Beverage Machine | 0.1161 | 8,760 | 14 | Efficient Operating Watts | 200 |
| Business Standard | All | Refrigeration | High Efficiency Reach-In Refrigerator/Freezer | 0.1294 | | 12 | High Efficiency kWh/day | 2.76 |
| Business Standard | All | Refrigeration | Strip Curtains | 0.1950 | | 6 | Strip Curtain | |
| Business Standard | All | Refrigeration | LED Refrigerator Case Light | 0.0542 | 6,205 | 10 | LED Display Lighting (watts) | 38 |
| Business Standard | All | Refrigeration | ECM Motors Walk-In Coolers & Freezers | 0.0420 | | 15 | ECM Motor | |
| Business Standard | All | HVAC | High Efficiency PTAC/PTHP | 0.0118 | | 15 | EER | 12 |
| Business Standard | All | HVAC | Programmable Thermostat Controls | 0.0000 | | 8 | Programmable Tstat | |
| Business Standard | All | HVAC | Air Source Heat Pump <65 kBtuh | 0.1941 | 816 | 15 | SEER | 14 |
| Business Standard | All | HVAC | Air Source Heat Pump 65<135 kBtuh | 0.1241 | 816 | 15 | SEER | 14 |

Current List of DSM Measure Assumptions for KCP&L

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Count: 162

indicates default plan values that can be adjusted for unique installations.

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| Measure Description | | | | Algorithms | | |
|-------------------------------------|---------------|---------------|--|---------------------------------------|---------------------------|---|
| Program | Segment | End Use | Measure Name | Baseline Definition | Baseline Efficiency Value | Electric Energy Savings Algorithm |
| Income-Eligible Weatherization | Single Family | Electronics | Smart Power Strip | Standard outlet strip | | =ROUND(73.73,4) |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Ceiling Insulation | Previous R-value | 5 | =ROUND(((1/R57-1/P57)*(AA57*AC57 + AB57*AE57),4) |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Duct Insulation | CFM50 | 4800 | =ROUND((R58-P58)*(AA58*AC58 + AB58*AE58),4) |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Wall Insulation | Previous R-value | 2 | =ROUND(((1/R59-1/P59)*(AA59*AC59 + AB59*AE59),4) |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | EISA tier 1 compliant Halogen (watts) | 43 | =ROUND((R60-P60)/1000*M60*AC60,4) |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | EISA tier 1 compliant Halogen (watts) | 43 | =ROUND((R61-P61)/1000*M61*AC61,4) |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | EISA tier 1 compliant Halogen (watts) | 43 | =ROUND((R62-P62)/1000*M62*AC62,4) |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Faucet Aerator | Standard (GPM) | 1.39 | =ROUND((R63-P63)*AC63*(AE63*365.25)*AG63,4) |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Pipe Insulated | none | | =ROUND(74.0356963418427,4) |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Showerhead | Standard (GPM) | 4 | =ROUND((R65-P65)*AC65*(AE65*365.25)*AG65,4) |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Water Heater Tank Wrap | No Blanket | | =ROUND(131.295784945569,4) |
| Income-Eligible Multi-Family | Multi-Family | Electronics | Smart Power Strip | Standard outlet strip | | =ROUND(73.73,4) |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Exit Sign | Fluorescent (watts) | 11.0 | =ROUND((R68-P68)/1000*M68*AC68,4) |
| Income-Eligible Multi-Family | Multi-Family | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | Metal Halide (watts) | 456.0 | =ROUND((R69-P69)/1000*M69*AC69,4) |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Low Wattage T8 Lamp | Standard T8 (watts) | 28 | =ROUND((R70-P70)/1000*M70*AC70,4) |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Flood Light (<15W) | Metal Halide (watts) | 51.7 | =ROUND((R71-P71)/1000*M71*AC71,4) |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | EISA tier 1 compliant Halogen (watts) | 72 | =ROUND((R72-P72)/1000*M72*AC72,4) |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | EISA tier 1 compliant Halogen (watts) | 72 | =ROUND((R73-P73)/1000*M73*AC73,4) |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | EISA tier 1 compliant Halogen (watts) | 72 | =ROUND((R74-P74)/1000*M74*AC74,4) |
| Residential Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | No PCT | | =ROUND(462,4) |
| Business Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | No PCT | | =ROUND(462,4) |
| Small Business Direct Install | Small C&I | Lighting | Photocell Occupancy Sensor | No Control | | =ROUND(P77/1000*AG77*M77*AC77,4) |
| Small Business Direct Install | Small C&I | Lighting | Interior Daylighting Controls Replacing No Controls | No Control | | =ROUND(P78/1000*AG78*M78*AC78,4) |
| Small Business Direct Install | Small C&I | Lighting | LED Exit Sign | Fluorescent (watts) | 11.0 | =ROUND((R79-P79)/1000*M79*AC79,4) |
| Small Business Direct Install | Small C&I | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | Metal Halide (watts) | 456.0 | =ROUND((R80-P80)/1000*M80*AC80,4) |
| Small Business Direct Install | Small C&I | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | Metal Halide (watts) | 456.0 | =ROUND((R81-P81)/1000*M81*AC81,4) |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Bulb (≥15W) | Incandescent (watts) | 75.0 | =ROUND((R82-P82)/1000*M82*AC82,4) |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Lamp replacing 71-110W Lamp | Incandescent (watts) | 75.0 | =ROUND((R83-P83)/1000*M83*AC83,4) |
| Small Business Direct Install | Small C&I | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | T8 4 ft (watts) | 28 | =ROUND((R84-P84)/1000*M84*AC84,4) |
| Small Business Direct Install | Small C&I | Lighting | Remove 4ft Lamp from T8 or T12 system | T8 4 ft (watts) | 28 | =ROUND((R85-P85)/1000*M85*AC85,4) |
| Business Standard | All | Hot Water | Heat Pump Water Heater | Baseline EF | 0.95 | =ROUND(((1/R86-1/P86)*AE86*AC86*365.25),4) |
| Business Standard | All | Hot Water | Low Flow Faucet Aerator | Standard (GPM) | 1.39 | =ROUND((R87-P87)*AC87*(AE87*365.25),4) |
| Business Standard | All | Hot Water | Pipe Wrap/Insulation | none | | =ROUND(224,4) |
| Business Standard | All | Hot Water | Pre-Rinse Spray Valves | Standard (GPM) | 1.9 | =ROUND((R89-P89)*AC89*(AE89*365.25),4) |
| Business Standard | All | Pools | High Efficiency Pool Pump | Standard Pool Pump | | =ROUND(1301.24777183601,4) |
| Business Standard | All | Pools | Pool Pump VSD | Standard Pool Pump | | =ROUND(2461.44821213111,4) |
| Business Standard | All | Refrigeration | ENERGY STAR Beverage Machine | Watts Base | 400 | =ROUND((R92-P92)/1000*M92,4) |
| Business Standard | All | Refrigeration | High Efficiency Reach-In Refrigerator/Freezer | Standard kWh/day | 3.54 | =ROUND((R93-P93)*365.25*AC93,4) |
| Business Standard | All | Refrigeration | Strip Curtains | none | | =ROUND(1698,4) |
| Business Standard | All | Refrigeration | LED Refrigerator Case Light | Base Refrigeration - Standard (watts) | 81 | =ROUND((R95-P95)/1000*M95*(1+AC95),4) |
| Business Standard | All | Refrigeration | ECM Motors Walk-In Coolers & Freezers | Standard Motor | | =ROUND(401,4) |
| Business Standard | All | HVAC | High Efficiency PTAC/PTHP | EER | 10.2 | =ROUND(((1/R97-1/P97)*AA97 + AG97*AB97)*AC97/AE97,4) |
| Business Standard | All | HVAC | Programmable Thermostat Controls | No Tstat | | =ROUND(126.052734375,4) |
| Business Standard | All | HVAC | Air Source Heat Pump <65 kBtuh | SEER | 13 | =ROUND(((1/R99-1/P99)*AA99 + AG99*AB99)*AC99/AE99,4) |
| Business Standard | All | HVAC | Air Source Heat Pump 65<135 kBtuh | SEER | 13 | =ROUND(((1/R100-1/P100)*AA100 + AG100*AB100)*AC100/AE100,4) |

Current List of DSM Measure Assumptions for KCP&L

Published

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Count: 162

| Measure Description | | | | | | |
|-------------------------------------|---------------|---------------|--|---|--------------------------|---|
| Program | Segment | End Use | Measure Name | Incentive Definition | Net to Gross Ratio (NTG) | Net Electric Energy Savings (Annual kWh/unit) |
| Income-Eligible Weatherization | Single Family | Electronics | Smart Power Strip | 100% covered by program | 100% | 73.73 |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Ceiling Insulation | 100% covered by program | 100% | 0.52 |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Duct Insulation | 100% covered by program | 100% | 210.49 |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Wall Insulation | 100% covered by program | 100% | 0.72 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | 100% covered by program | 100% | 28.29 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 100% covered by program | 100% | 30.95 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 100% covered by program | 100% | 33.17 |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Faucet Aerator | 100% covered by program | 100% | 42.29 |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Pipe Insulated | 100% covered by program | 100% | 74.04 |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Showerhead | 100% covered by program | 100% | 235.99 |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Water Heater Tank Wrap | 100% covered by program | 100% | 131.30 |
| Income-Eligible Multi-Family | Multi-Family | Electronics | Smart Power Strip | 100% covered by program | 100% | 73.73 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Exit Sign | 100% covered by program | 100% | 78.84 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | 100% covered by program | 100% | 701.01 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Low Wattage T8 Lamp | 100% covered by program | 100% | 26.12 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Flood Light (<15W) | 100% covered by program | 100% | 210.83 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | 100% covered by program | 100% | 204.64 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 100% covered by program | 100% | 217.70 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | 100% covered by program | 100% | 248.18 |
| Residential Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | 100% covered by program, \$25/yr after 1st yr | 100% | 462.00 |
| Business Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | 100% covered by program, \$25/yr after 1st yr | 100% | 462.00 |
| Small Business Direct Install | Small C&I | Lighting | Photocell Occupancy Sensor | per unit | 100% | 692.63 |
| Small Business Direct Install | Small C&I | Lighting | Interior Daylighting Controls Replacing No Controls | per unit | 100% | 692.63 |
| Small Business Direct Install | Small C&I | Lighting | LED Exit Sign | per unit | 100% | 78.84 |
| Small Business Direct Install | Small C&I | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | per unit | 100% | 701.01 |
| Small Business Direct Install | Small C&I | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | per unit | 100% | 701.01 |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Bulb (≥15W) | per unit | 100% | 230.77 |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Lamp replacing 71-110W Lamp | per unit | 100% | 230.77 |
| Small Business Direct Install | Small C&I | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | per unit | 100% | 121.91 |
| Small Business Direct Install | Small C&I | Lighting | Remove 4ft Lamp from T8 or T12 system | per unit | 100% | 121.91 |
| Business Standard | All | Hot Water | Heat Pump Water Heater | per unit | 100% | 1993.08 |
| Business Standard | All | Hot Water | Low Flow Faucet Aerator | per unit | 100% | 131.03 |
| Business Standard | All | Hot Water | Pipe Wrap/Insulation | per unit | 100% | 224.00 |
| Business Standard | All | Hot Water | Pre-Rinse Spray Valves | per unit | 100% | 2670.70 |
| Business Standard | All | Pools | High Efficiency Pool Pump | per unit | 100% | 1301.25 |
| Business Standard | All | Pools | Pool Pump VSD | per unit | 100% | 2461.45 |
| Business Standard | All | Refrigeration | ENERGY STAR Beverage Machine | per unit | 100% | 1752.00 |
| Business Standard | All | Refrigeration | High Efficiency Reach-In Refrigerator/Freezer | per unit | 100% | 3025.87 |
| Business Standard | All | Refrigeration | Strip Curtains | per unit | 100% | 1698.00 |
| Business Standard | All | Refrigeration | LED Refrigerator Case Light | per unit | 100% | 373.54 |
| Business Standard | All | Refrigeration | ECM Motors Walk-In Coolers & Freezers | per unit | 100% | 401.00 |
| Business Standard | All | HVAC | High Efficiency PTAC/PTHP | per unit | 100% | 30.07 |
| Business Standard | All | HVAC | Programmable Thermostat Controls | per unit | 100% | 126.05 |
| Business Standard | All | HVAC | Air Source Heat Pump <65 kBtuh | per unit | 100% | 157.69 |
| Business Standard | All | HVAC | Air Source Heat Pump 65<135 kBtuh | per unit | 100% | 91.33 |

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3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

[Link to CDD](#)

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Count: 162

| Measure Description | | | | | | | | |
|-------------------------------------|---------------|---------------|--|--|-----------------------|----------------------|--------------------|---------------------------|
| Program | Segment | End Use | Measure Name | Data Source | Date of Data Revision | Effective Start Date | Effective End Date | Cooling Degree Days (CDD) |
| Income-Eligible Weatherization | Single Family | Electronics | Smart Power Strip | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Ceiling Insulation | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Duct Insulation | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Wall Insulation | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Faucet Aerator | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Pipe Insulated | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Showerhead | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Water Heater Tank Wrap | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Electronics | Smart Power Strip | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Exit Sign | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Low Wattage T8 Lamp | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Flood Light (<15W) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Residential Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | Meta Analysis of PCT programs in midwest | 11/4/2015 | 4/1/2016 | | |
| Business Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | Meta Analysis of PCT programs in midwest | 11/4/2015 | 4/1/2016 | | |
| Small Business Direct Install | Small C&I | Lighting | Photocell Occupancy Sensor | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | Small C&I | Lighting | Interior Daylighting Controls Replacing No Controls | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | Small C&I | Lighting | LED Exit Sign | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Small Business Direct Install | Small C&I | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | Small C&I | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Bulb (≥15W) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Lamp replacing 71-110W Lamp | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | Small C&I | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | Small C&I | Lighting | Remove 4ft Lamp from T8 or T12 system | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Hot Water | Heat Pump Water Heater | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Hot Water | Low Flow Faucet Aerator | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Hot Water | Pipe Wrap/Insulation | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Hot Water | Pre-Rinse Spray Valves | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Pools | High Efficiency Pool Pump | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Pools | Pool Pump VSD | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Refrigeration | ENERGY STAR Beverage Machine | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Refrigeration | High Efficiency Reach-In Refrigerator/Freezer | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Refrigeration | Strip Curtains | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Refrigeration | LED Refrigerator Case Light | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Refrigeration | ECM Motors Walk-In Coolers & Freezers | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | HVAC | High Efficiency PTAC/PTHP | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Business Standard | All | HVAC | Programmable Thermostat Controls | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | HVAC | Air Source Heat Pump <65 kBtuh | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Business Standard | All | HVAC | Air Source Heat Pump 65<135 kBtuh | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |

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Published

3/4/2016

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Count: 162

| Measure Description | | | | Supporting Information | | | | |
|-------------------------------------|---------------|---------------|--|---------------------------|-----------|-----------------------------|-----------|----------------------------|
| Program | Segment | End Use | Measure Name | Heating Degree Days (HDD) | Quantity1 | Quantity1 Description | Quantity2 | Quantity2 Description |
| Income-Eligible Weatherization | Single Family | Electronics | Smart Power Strip | | | | | |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Ceiling Insulation | 5249 | 0.00046 | Cooling Coefficient | 0.00046 | Heating Coefficient |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Duct Insulation | 5249 | 0.00011 | Cooling Coefficient | 0.00011 | Heating Coefficient |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Wall Insulation | 5249 | 0.00037 | Cooling Coefficient | 0.00037 | Heating Coefficient |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | | 1.04 | Waste Heat Factor | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | | 1.04 | Waste Heat Factor | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | | 1.04 | Waste Heat Factor | | |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Faucet Aerator | | 0.0919 | kWh per gallon hot water | 2.24 | Minutes per person per day |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Pipe Insulated | | | | | |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Showerhead | | 0.0919 | kWh per gallon hot water | 3.75 | Minutes per person per day |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Water Heater Tank Wrap | | | | | |
| Income-Eligible Multi-Family | Multi-Family | Electronics | Smart Power Strip | | | | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Exit Sign | | 1.00 | Waste Heat Factor | 1.00 | Waste Heat Factor |
| Income-Eligible Multi-Family | Multi-Family | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Low Wattage T8 Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Flood Light (<15W) | | 1.00 | Waste Heat Factor | 1.00 | Waste Heat Factor |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Residential Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | | | | | |
| Business Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | | | | | |
| Small Business Direct Install | Small C&I | Lighting | Photocell Occupancy Sensor | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | Small C&I | Lighting | Interior Daylighting Controls Replacing No Controls | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | Small C&I | Lighting | LED Exit Sign | | 1.00 | Waste Heat Factor | 1.00 | Waste Heat Factor |
| Small Business Direct Install | Small C&I | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | Small C&I | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Bulb (≥15W) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Lamp replacing 71-110W Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | Small C&I | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | Small C&I | Lighting | Remove 4ft Lamp from T8 or T12 system | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Hot Water | Heat Pump Water Heater | | 55 | gallons used per day | 0.180 | Water Heating Coefficient |
| Business Standard | All | Hot Water | Low Flow Faucet Aerator | | 0.0919 | kWh per gallon hot water | 8.67 | gallons per day |
| Business Standard | All | Hot Water | Pipe Wrap/Insulation | | | | | |
| Business Standard | All | Hot Water | Pre-Rinse Spray Valves | | 0.0919 | kWh per gallon hot water | 94.72 | gallons per day |
| Business Standard | All | Pools | High Efficiency Pool Pump | | | | | |
| Business Standard | All | Pools | Pool Pump VSD | | | | | |
| Business Standard | All | Refrigeration | ENERGY STAR Beverage Machine | | | | | |
| Business Standard | All | Refrigeration | High Efficiency Reach-In Refrigerator/Freezer | | 10.62 | Refrigerated Volume (cu ft) | | |
| Business Standard | All | Refrigeration | Strip Curtains | | 60.5 | sqft | | |
| Business Standard | All | Refrigeration | LED Refrigerator Case Light | | 40% | Savings Factor | | |
| Business Standard | All | Refrigeration | ECM Motors Walk-In Coolers & Freezers | | | | | |
| Business Standard | All | HVAC | High Efficiency PTAC/PTHP | 5249 | 12,000 | Btu/hr | 11,536 | Coefficient |
| Business Standard | All | HVAC | Programmable Thermostat Controls | | | | | |
| Business Standard | All | HVAC | Air Source Heat Pump <65 kBtu/h | 5249 | 12,000 | Btu/hr | 2,194 | Coefficient |
| Business Standard | All | HVAC | Air Source Heat Pump 65<135 kBtu/h | 5249 | 12,000 | Btu/hr | 2,194 | Coefficient |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

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Count: 162

| Measure Description | | | | | |
|-------------------------------------|---------------|---------------|--|-------------|-------------------------|
| Program | Segment | End Use | Measure Name | Quantity3 | Quantity3 Description |
| Income-Eligible Weatherization | Single Family | Electronics | Smart Power Strip | | |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Ceiling Insulation | | |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Duct Insulation | | |
| Income-Eligible Weatherization | Single Family | HVAC - Shell | Increased Wall Insulation | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | | |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Faucet Aerator | 1.25 | Persons per household |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Pipe Insulated | | |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Low Flow Showerhead | 1.25 | Persons per household |
| Income-Eligible Multi-Family | Multi-Family | Hot Water | Water Heater Tank Wrap | | |
| Income-Eligible Multi-Family | Multi-Family | Electronics | Smart Power Strip | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Exit Sign | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Low Wattage T8 Lamp | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | LED Flood Light (<15W) | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - CFLs | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | | |
| Income-Eligible Multi-Family | Multi-Family | Lighting | Screw In - LEDs | | |
| Residential Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | | |
| Business Programmable Thermostat | All | HVAC | Advanced Programmable Communicating Thermostat | | |
| Small Business Direct Install | Small C&I | Lighting | Photocell Occupancy Sensor | 27% | ESF |
| Small Business Direct Install | Small C&I | Lighting | Interior Daylighting Controls Replacing No Controls | 27% | ESF |
| Small Business Direct Install | Small C&I | Lighting | LED Exit Sign | | |
| Small Business Direct Install | Small C&I | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | | |
| Small Business Direct Install | Small C&I | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | | |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Bulb (≥15W) | | |
| Small Business Direct Install | Small C&I | Lighting | Directional LED Lamp replacing 71-110W Lamp | | |
| Small Business Direct Install | Small C&I | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | | |
| Small Business Direct Install | Small C&I | Lighting | Remove 4ft Lamp from T8 or T12 system | | |
| Business Standard | All | Hot Water | Heat Pump Water Heater | | |
| Business Standard | All | Hot Water | Low Flow Faucet Aerator | | |
| Business Standard | All | Hot Water | Pipe Wrap/Insulation | | |
| Business Standard | All | Hot Water | Pre-Rinse Spray Valves | | |
| Business Standard | All | Pools | High Efficiency Pool Pump | | |
| Business Standard | All | Pools | Pool Pump VSD | | |
| Business Standard | All | Refrigeration | ENERGY STAR Beverage Machine | | |
| Business Standard | All | Refrigeration | High Efficiency Reach-In Refrigerator/Freezer | | |
| Business Standard | All | Refrigeration | Strip Curtains | | |
| Business Standard | All | Refrigeration | LED Refrigerator Case Light | | |
| Business Standard | All | Refrigeration | ECM Motors Walk-In Coolers & Freezers | | |
| Business Standard | All | HVAC | High Efficiency PTAC/PTHP | 0.001794835 | HSPF improvement factor |
| Business Standard | All | HVAC | Programmable Thermostat Controls | | |
| Business Standard | All | HVAC | Air Source Heat Pump <65 kBtuh | 0.00410683 | HSPF improvement factor |
| Business Standard | All | HVAC | Air Source Heat Pump 65<135 kBtuh | 0.001794835 | HSPF improvement factor |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to **36 months following**

Search using Drop-down Filters in Headers

Column Label:

H

I

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K

Count: 162

Column Equation:

see column R

= H / L

| Measure Description | | | | | | | Gross Measure Value | | | |
|---------------------|---------|------------|--|-------------|-------|-----------------|------------------------------------|---|------------------------------------|-------------------------|
| Program | Segment | End Use | Measure Name | Primary Key | Notes | Unit Definition | Incremental Measure Cost (\$/Unit) | Electric Energy Savings (Annual kWh/unit) | Nameplate Demand Savings (kW/unit) | Peak Coincidence Factor |
| Business Standard | All | HVAC | Air Sourced Air Conditioner <65 kBtuh | 0090 | | per ton | \$120.00 | 81.5600 | 0.082 | 91% |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 65<135 kBtuh | 0091 | | per ton | \$100.00 | 56.6389 | 0.057 | 81% |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 135<240 kBtuh | 0092 | | per ton | \$100.00 | 80.7362 | 0.081 | 81% |
| Business Standard | All | HVAC | Air Sourced Air Conditioner >240 kBtuh | 0093 | | per ton | \$100.00 | 70.6853 | 0.071 | 81% |
| Business Standard | All | Lighting | Directional LED Bulb (<15W) | 0096 | | per lamp | \$40.00 | 143.6846 | 0.044 | 66% |
| Business Standard | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | 0096.1 | | per lamp | \$40.00 | 143.6846 | 0.044 | 66% |
| Business Standard | All | Lighting | Directional LED Bulb (≥15W) | 0097 | | per lamp | \$50.00 | 230.7662 | 0.071 | 66% |
| Business Standard | All | Lighting | Directional LED Lamp replacing 71-110W Lamp | 0097.1 | | per lamp | \$50.00 | 230.7662 | 0.071 | 66% |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | 0098 | | per fixture | \$200.00 | 1,084.1659 | 0.334 | 66% |
| Business Standard | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | 0098.1 | | per fixture | \$200.00 | 1,084.1659 | 0.334 | 66% |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 ≤4 lamps) | 0099 | | per fixture | \$225.00 | 648.7579 | 0.200 | 66% |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | 0100 | | per fixture | \$100.00 | 701.0069 | 0.216 | 66% |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | 0100.1 | | per fixture | \$100.00 | 701.0069 | 0.216 | 66% |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | 0101 | | per fixture | \$100.00 | 404.9294 | 0.125 | 66% |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | 0101.1 | | per fixture | \$100.00 | 404.9294 | 0.125 | 66% |
| Business Standard | All | Lighting | LED Exit Sign | 0102 | | per lamp | \$30.00 | 78.8400 | 0.009 | 100% |
| Business Standard | All | Lighting | LED Flood Light (<15W) | 0103 | | per lamp | \$35.00 | 210.8290 | 0.043 | 0% |
| Business Standard | All | Lighting | LED Flood Light (≥15W) | 0104 | | per lamp | \$45.00 | 236.3246 | 0.048 | 0% |
| Business Standard | All | Lighting | LED Recessed Fixture (1 ft x 4 ft) | 0106 | | per fixture | \$36.17 | 116.6893 | 0.036 | 66% |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 2 ft) | 0107 | | per fixture | \$22.55 | 70.1007 | 0.022 | 66% |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 4 ft) | 0108 | | per fixture | \$55.50 | 149.7804 | 0.046 | 66% |
| Business Standard | All | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | 0109 | | per lamp | \$12.00 | 121.9142 | 0.038 | 66% |
| Business Standard | All | Lighting | Remove 4ft Lamp from T8 or T12 system | 0109.1 | | per lamp | \$12.00 | 121.9142 | 0.038 | 66% |
| Business Standard | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | 0110 | | per lamp | \$16.00 | 252.5366 | 0.078 | 66% |
| Business Standard | All | Lighting | Remove 8ft Lamp from T8 or T12 System | 0110.1 | | per lamp | \$16.00 | 252.5366 | 0.078 | 66% |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (<10W) | 0112 | | per lamp | \$28.75 | 84.4692 | 0.026 | 66% |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | 0112.1 | | per lamp | \$28.75 | 84.4692 | 0.026 | 66% |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (≥10W) | 0113 | | per lamp | \$38.75 | 130.1870 | 0.040 | 66% |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | 0113.1 | | per lamp | \$38.75 | 130.1870 | 0.040 | 66% |
| Business Standard | All | Lighting | Photocell Occupancy Sensor | 0114 | | per sensor | \$66.00 | 692.6340 | 0.213 | 66% |
| Business Standard | All | Lighting | Interior Daylighting Controls Replacing No Controls | 0114.1 | | per sensor | \$66.00 | 692.6340 | 0.213 | 66% |
| Business Standard | All | Lighting | Wall-Mount Occupancy Sensor | 0115 | | per sensor | \$42.00 | 457.1784 | 0.141 | 66% |
| Business Standard | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | 0115.1 | | per sensor | \$42.00 | 457.1784 | 0.141 | 66% |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (20ft Diameter) | 0116 | | per Fan | \$4,150.00 | 6,577.0000 | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (22ft Diameter) | 0117 | | per Fan | \$4,180.00 | 8,543.0000 | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (24ft Diameter) | 0118 | | per Fan | \$4,225.00 | 10,018.0000 | | |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/4" | 0119 | | per unit | \$57.00 | 1,086.6380 | | |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/8" | 0120 | | per unit | \$42.00 | 393.4380 | | |
| Business Standard | All | Pumps/Fans | Compressed Air - No Loss Condensate Drain/Valve | 0121 | | per unit | \$700.00 | 1,969.6500 | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 1 shift weekdays | 0122 | | per HP | \$140.37 | 329.0000 | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 2 shift weekdays | 0123 | | per HP | \$140.37 | 658.0000 | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays | 0124 | | per HP | \$140.37 | 987.0000 | | |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

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| Measure Description | | | | | | | | |
|---------------------|---------|------------|--|--|------------------------|----------------------|---------------------------------|--------------------------|
| Program | Segment | End Use | Measure Name | Coincident Peak Demand Savings (kW/unit) | Annual Operating Hours | Measure Life (Years) | Measure Definition | Measure Efficiency Value |
| Business Standard | All | HVAC | Air Sourced Air Conditioner <65 kBtuh | 0.0659 | 1,000 | 15 | EER | 14 |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 65<135 kBtuh | 0.0458 | 1,000 | 15 | EER | 11.7 |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 135<240 kBtuh | 0.0653 | 1,000 | 15 | EER | 11.7 |
| Business Standard | All | HVAC | Air Sourced Air Conditioner >240 kBtuh | 0.0571 | 1,000 | 15 | EER | 10.5 |
| Business Standard | All | Lighting | Directional LED Bulb (<15W) | 0.0292 | 3,088 | 11 | LED (watts) | 12.0 |
| Business Standard | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | 0.0292 | 3,088 | 11 | LED (watts) | 12.0 |
| Business Standard | All | Lighting | Directional LED Bulb (≥15W) | 0.0469 | 3,088 | 11 | LED (watts) | 22.0 |
| Business Standard | All | Lighting | Directional LED Lamp replacing 71-110W Lamp | 0.0469 | 3,088 | 11 | LED (watts) | 22.0 |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | 0.2202 | 3,088 | 15 | High Bay T8 (>4 lamps, wattage) | 206.0 |
| Business Standard | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | 0.2202 | 3,088 | 15 | High Bay T8 (>4 lamps, wattage) | 206.0 |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 ≤4 lamps) | 0.1318 | 3,088 | 15 | High Bay T8 (≤4 lamps, wattage) | 146.0 |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | 0.1424 | 3,088 | 15 | High Bay T5 (>4 lamps, wattage) | 295.0 |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | 0.1424 | 3,088 | 15 | High Bay T5 (>4 lamps, wattage) | 295.0 |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | 0.0822 | 3,088 | 15 | High Bay T5 (≤4 lamps, wattage) | 117.0 |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | 0.0822 | 3,088 | 15 | High Bay T5 (≤4 lamps, wattage) | 117.0 |
| Business Standard | All | Lighting | LED Exit Sign | 0.0090 | 8,760 | 16 | LED (watts) | 2.0 |
| Business Standard | All | Lighting | LED Flood Light (<15W) | 0.0000 | 4,903 | 10 | LED (watts) | 8.7 |
| Business Standard | All | Lighting | LED Flood Light (≥15W) | 0.0000 | 4,903 | 10 | LED (watts) | 16.20 |
| Business Standard | All | Lighting | LED Recessed Fixture (1 ft x 4 ft) | 0.0237 | 3,088 | 11 | Linear style LED (watts) | 32 |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 2 ft) | 0.0142 | 3,088 | 11 | Linear style LED (watts) | 45 |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 4 ft) | 0.0304 | 3,088 | 11 | Linear style LED (watts) | 54 |
| Business Standard | All | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | 0.0248 | 3,088 | 11 | Remove T8 | 0 |
| Business Standard | All | Lighting | Remove 4ft Lamp from T8 or T12 system | 0.0248 | 3,088 | 11 | Remove T8 | 0 |
| Business Standard | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | 0.0513 | 3,088 | 11 | Remove T8 | 0 |
| Business Standard | All | Lighting | Remove 8ft Lamp from T8 or T12 System | 0.0513 | 3,088 | 11 | Remove T8 | 0 |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (<10W) | 0.0172 | 3,088 | 8 | LED (watts) | 10 |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | 0.0172 | 3,088 | 8 | LED (watts) | 10 |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (≥10W) | 0.0264 | 3,088 | 8 | LED (watts) | 23 |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | 0.0264 | 3,088 | 8 | LED (watts) | 23 |
| Business Standard | All | Lighting | Photocell Occupancy Sensor | 0.1407 | 3,088 | 8 | Photocell Occupancy Sensor | 587 |
| Business Standard | All | Lighting | Interior Daylighting Controls Replacing No Controls | 0.1407 | 3,088 | 8 | Photocell Occupancy Sensor | 587 |
| Business Standard | All | Lighting | Wall-Mount Occupancy Sensor | 0.0929 | 3,088 | 8 | Wall-Mount Occupancy Sensor | 350 |
| Business Standard | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | 0.0929 | 3,088 | 8 | Wall-Mount Occupancy Sensor | 350 |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (20ft Diameter) | 2.4000 | | 10 | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (22ft Diameter) | 3.1000 | | 10 | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (24ft Diameter) | 3.7000 | | 10 | | |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/4" | 0.5110 | | 15 | | |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/8" | 0.1630 | | 15 | | |
| Business Standard | All | Pumps/Fans | Compressed Air - No Loss Condensate Drain/Valve | 0.3000 | | 15 | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 1 shift weekdays | 0.1582 | | 10 | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 2 shift weekdays | 0.1582 | | 10 | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays | 0.1582 | | 10 | | |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

indicates default plan values that can be adjusted for unique installations.

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| Measure Description | | | | Algorithms | | |
|---------------------|---------|------------|--|---------------------------------------|---------------------------|---|
| Program | Segment | End Use | Measure Name | Baseline Definition | Baseline Efficiency Value | Electric Energy Savings Algorithm |
| Business Standard | All | HVAC | Air Sourced Air Conditioner <65 kBtuh | EER | 13 | =ROUND((1/R101-1/P101)*AA101*AC101/AE101,4) |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 65<135 kBtuh | EER | 11.2 | =ROUND((1/R102-1/P102)*AA102*AC102/AE102,4) |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 135<240 kBtuh | EER | 11 | =ROUND((1/R103-1/P103)*AA103*AC103/AE103,4) |
| Business Standard | All | HVAC | Air Sourced Air Conditioner >240 kBtuh | EER | 10 | =ROUND((1/R104-1/P104)*AA104*AC104/AE104,4) |
| Business Standard | All | Lighting | Directional LED Bulb (<15W) | Incandescent (watts) | 45.0 | =ROUND((R105-P105)/1000*M105*AC105,4) |
| Business Standard | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | Incandescent (watts) | 45.0 | =ROUND((R106-P106)/1000*M106*AC106,4) |
| Business Standard | All | Lighting | Directional LED Bulb (≥15W) | Incandescent (watts) | 75.0 | =ROUND((R107-P107)/1000*M107*AC107,4) |
| Business Standard | All | Lighting | Directional LED Lamp replacing 71-110W Lamp | Incandescent (watts) | 75.0 | =ROUND((R108-P108)/1000*M108*AC108,4) |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | Metal Halide (watts) | 455.0 | =ROUND((R109-P109)/1000*M109*AC109,4) |
| Business Standard | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | Metal Halide (watts) | 455.0 | =ROUND((R110-P110)/1000*M110*AC110,4) |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 ≤4 lamps) | Metal Halide (watts) | 295.0 | =ROUND((R111-P111)/1000*M111*AC111,4) |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | Metal Halide (watts) | 456.0 | =ROUND((R112-P112)/1000*M112*AC112,4) |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | Metal Halide (watts) | 456.0 | =ROUND((R113-P113)/1000*M113*AC113,4) |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | Metal Halide (watts) | 210.0 | =ROUND((R114-P114)/1000*M114*AC114,4) |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | Metal Halide (watts) | 210.0 | =ROUND((R115-P115)/1000*M115*AC115,4) |
| Business Standard | All | Lighting | LED Exit Sign | Fluorescent (watts) | 11.0 | =ROUND((R116-P116)/1000*M116*AC116,4) |
| Business Standard | All | Lighting | LED Flood Light (<15W) | Metal Halide (watts) | 51.7 | =ROUND((R117-P117)/1000*M117*AC117,4) |
| Business Standard | All | Lighting | LED Flood Light (≥15W) | Metal Halide (watts) | 64.40 | =ROUND((R118-P118)/1000*M118*AC118,4) |
| Business Standard | All | Lighting | LED Recessed Fixture (1 ft x 4 ft) | Standard T8 (watts) | 59 | =ROUND((R119-P119)/1000*M119*AC119,4) |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 2 ft) | T8 U-tube (watts) | 61 | =ROUND((R120-P120)/1000*M120*AC120,4) |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 4 ft) | Standard T8 (watts) | 88 | =ROUND((R121-P121)/1000*M121*AC121,4) |
| Business Standard | All | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | T8 4 ft (watts) | 28 | =ROUND((R122-P122)/1000*M122*AC122,4) |
| Business Standard | All | Lighting | Remove 4ft Lamp from T8 or T12 system | T8 4 ft (watts) | 28 | =ROUND((R123-P123)/1000*M123*AC123,4) |
| Business Standard | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | T8 8 ft (watts) | 58 | =ROUND((R124-P124)/1000*M124*AC124,4) |
| Business Standard | All | Lighting | Remove 8ft Lamp from T8 or T12 System | T8 8 ft (watts) | 58 | =ROUND((R125-P125)/1000*M125*AC125,4) |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (<10W) | EISA tier 1 compliant Halogen (watts) | 29 | =ROUND((R126-P126)/1000*M126*AC126,4) |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | EISA tier 1 compliant Halogen (watts) | 29 | =ROUND((R127-P127)/1000*M127*AC127,4) |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (≥10W) | EISA tier 1 compliant Halogen (watts) | 53 | =ROUND((R128-P128)/1000*M128*AC128,4) |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | EISA tier 1 compliant Halogen (watts) | 53 | =ROUND((R129-P129)/1000*M129*AC129,4) |
| Business Standard | All | Lighting | Photocell Occupancy Sensor | No Control | | =ROUND(P130/1000*AG130*M130*AC130,4) |
| Business Standard | All | Lighting | Interior Daylighting Controls Replacing No Controls | No Control | | =ROUND(P131/1000*AG131*M131*AC131,4) |
| Business Standard | All | Lighting | Wall-Mount Occupancy Sensor | No Control | | =ROUND(P132/1000*AG132*M132*AC132,4) |
| Business Standard | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | No Control | | =ROUND(P133/1000*AG133*M133*AC133,4) |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (20ft Diameter) | | | =ROUND(6577,4) |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (22ft Diameter) | | | =ROUND(8543,4) |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (24ft Diameter) | | | =ROUND(10018,4) |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/4" | | | =ROUND(1086.638,4) |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/8" | | | =ROUND(393.438,4) |
| Business Standard | All | Pumps/Fans | Compressed Air - No Loss Condensate Drain/Valve | | | =ROUND(1969.65,4) |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 1 shift weekdays | | | =ROUND(329,4) |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 2 shift weekdays | | | =ROUND(658,4) |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays | | | =ROUND(987,4) |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

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U

V

Count: 162

| Measure Description | | | | | | |
|---------------------|---------|------------|--|----------------------|--------------------------|---|
| Program | Segment | End Use | Measure Name | Incentive Definition | Net to Gross Ratio (NTG) | Net Electric Energy Savings (Annual kWh/unit) |
| Business Standard | All | HVAC | Air Sourced Air Conditioner <65 kBtuh | per unit | 100% | 81.56 |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 65<135 kBtuh | per unit | 100% | 56.64 |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 135<240 kBtuh | per unit | 100% | 80.74 |
| Business Standard | All | HVAC | Air Sourced Air Conditioner >240 kBtuh | per unit | 100% | 70.69 |
| Business Standard | All | Lighting | Directional LED Bulb (<15W) | per unit | 100% | 143.68 |
| Business Standard | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | per unit | 100% | 143.68 |
| Business Standard | All | Lighting | Directional LED Bulb (≥15W) | per unit | 100% | 230.77 |
| Business Standard | All | Lighting | Directional LED Lamp replacing 71-110W Lamp | per unit | 100% | 230.77 |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | per unit | 100% | 1084.17 |
| Business Standard | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | per unit | 100% | 1084.17 |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 ≤4 lamps) | per unit | 100% | 648.76 |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | per unit | 100% | 701.01 |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | per unit | 100% | 701.01 |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | per unit | 100% | 404.93 |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | per unit | 100% | 404.93 |
| Business Standard | All | Lighting | LED Exit Sign | per unit | 100% | 78.84 |
| Business Standard | All | Lighting | LED Flood Light (<15W) | per unit | 100% | 210.83 |
| Business Standard | All | Lighting | LED Flood Light (≥15W) | per unit | 100% | 236.32 |
| Business Standard | All | Lighting | LED Recessed Fixture (1 ft x 4 ft) | per unit | 100% | 116.69 |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 2 ft) | per unit | 100% | 70.10 |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 4 ft) | per unit | 100% | 149.78 |
| Business Standard | All | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | per unit | 100% | 121.91 |
| Business Standard | All | Lighting | Remove 4ft Lamp from T8 or T12 system | per unit | 100% | 121.91 |
| Business Standard | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | per unit | 100% | 252.54 |
| Business Standard | All | Lighting | Remove 8ft Lamp from T8 or T12 System | per unit | 100% | 252.54 |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (<10W) | per unit | 100% | 84.47 |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | per unit | 100% | 84.47 |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (≥10W) | per unit | 100% | 130.19 |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | per unit | 100% | 130.19 |
| Business Standard | All | Lighting | Photocell Occupancy Sensor | per unit | 100% | 692.63 |
| Business Standard | All | Lighting | Interior Daylighting Controls Replacing No Controls | per unit | 100% | 692.63 |
| Business Standard | All | Lighting | Wall-Mount Occupancy Sensor | per unit | 100% | 457.18 |
| Business Standard | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | per unit | 100% | 457.18 |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (20ft Diameter) | | 100% | 6,577.00 |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (22ft Diameter) | | 100% | 8,543.00 |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (24ft Diameter) | | 100% | 10,018.00 |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/4" | | 100% | 1,086.64 |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/8" | | 100% | 393.44 |
| Business Standard | All | Pumps/Fans | Compressed Air - No Loss Condensate Drain/Valve | | 100% | 1,969.65 |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 1 shift weekdays | | 100% | 329.00 |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 2 shift weekdays | | 100% | 658.00 |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays | | 100% | 987.00 |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

[Link to CDD](#)

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W

X

AA

Count: 162

| Measure Description | | | | | | | | |
|---------------------|---------|------------|--|----------------------------------|-----------------------|----------------------|--------------------|---------------------------|
| Program | Segment | End Use | Measure Name | Data Source | Date of Data Revision | Effective Start Date | Effective End Date | Cooling Degree Days (CDD) |
| Business Standard | All | HVAC | Air Sourced Air Conditioner <65 kBtuh | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 65<135 kBtuh | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 135<240 kBtuh | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Business Standard | All | HVAC | Air Sourced Air Conditioner >240 kBtuh | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | 1325 |
| Business Standard | All | Lighting | Directional LED Bulb (<15W) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Directional LED Bulb (≥15W) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Directional LED Lamp replacing 71-110W Lamp | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 ≤4 lamps) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED Exit Sign | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Lighting | LED Flood Light (<15W) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Lighting | LED Flood Light (≥15W) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Lighting | LED Recessed Fixture (1 ft x 4 ft) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 2 ft) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 4 ft) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | | |
| Business Standard | All | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Remove 4ft Lamp from T8 or T12 system | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Remove 8ft Lamp from T8 or T12 System | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (<10W) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (≥10W) | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Photocell Occupancy Sensor | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Interior Daylighting Controls Replacing No Controls | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Wall-Mount Occupancy Sensor | AEG KCP&L Program Plan 2016-2018 | 7/29/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (20ft Diameter) | IL TRM | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (22ft Diameter) | IL TRM | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (24ft Diameter) | IL TRM | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/4" | IL TRM | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/8" | IL TRM | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Compressed Air - No Loss Condensate Drain/Valve | IL TRM | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 1 shift weekdays | IL TRM | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 2 shift weekdays | IL TRM | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays | IL TRM | | 4/1/2016 | | |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to [Link to HDD](#)

Search using Drop-down Filters in Headers

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Count: 162

| Measure Description | | | | Supporting Information | | | | |
|---------------------|---------|------------|--|---------------------------|-----------|-----------------------|-----------|-----------------------|
| Program | Segment | End Use | Measure Name | Heating Degree Days (HDD) | Quantity1 | Quantity1 Description | Quantity2 | Quantity2 Description |
| Business Standard | All | HVAC | Air Sourced Air Conditioner <65 kBtuh | 5249 | 12,000 | Btu/hr | 1,071 | Coefficient |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 65<135 kBtuh | 5249 | 12,000 | Btu/hr | 1,071 | Coefficient |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 135<240 kBtuh | 5249 | 12,000 | Btu/hr | 1,071 | Coefficient |
| Business Standard | All | HVAC | Air Sourced Air Conditioner >240 kBtuh | 5249 | 12,000 | Btu/hr | 1,071 | Coefficient |
| Business Standard | All | Lighting | Directional LED Bulb (<15W) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Directional LED Bulb (≥15W) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Directional LED Lamp replacing 71-110W Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 ≤4 lamps) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED Exit Sign | | 1.00 | Waste Heat Factor | 1.00 | Waste Heat Factor |
| Business Standard | All | Lighting | LED Flood Light (<15W) | | 1.00 | Waste Heat Factor | 1.00 | Waste Heat Factor |
| Business Standard | All | Lighting | LED Flood Light (≥15W) | | 1.00 | Waste Heat Factor | 1.00 | Waste Heat Factor |
| Business Standard | All | Lighting | LED Recessed Fixture (1 ft x 4 ft) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 2 ft) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 4 ft) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Remove 4ft Lamp from T8 or T12 system | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Remove 8ft Lamp from T8 or T12 System | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (<10W) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (≥10W) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Photocell Occupancy Sensor | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Interior Daylighting Controls Replacing No Controls | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Wall-Mount Occupancy Sensor | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (20ft Diameter) | | | | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (22ft Diameter) | | | | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (24ft Diameter) | | | | | |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/4" | | | | | |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/8" | | | | | |
| Business Standard | All | Pumps/Fans | Compressed Air - No Loss Condensate Drain/Valve | | | | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 1 shift weekdays | | | | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 2 shift weekdays | | | | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays | | | | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

AG

AH

Count: 162

| Measure Description | | | | | |
|---------------------|---------|------------|--|-----------|-----------------------|
| Program | Segment | End Use | Measure Name | Quantity3 | Quantity3 Description |
| Business Standard | All | HVAC | Air Sourced Air Conditioner <65 kBtuh | | |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 65<135 kBtuh | | |
| Business Standard | All | HVAC | Air Sourced Air Conditioner 135<240 kBtuh | | |
| Business Standard | All | HVAC | Air Sourced Air Conditioner >240 kBtuh | | |
| Business Standard | All | Lighting | Directional LED Bulb (<15W) | | |
| Business Standard | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | | |
| Business Standard | All | Lighting | Directional LED Bulb (≥15W) | | |
| Business Standard | All | Lighting | Directional LED Lamp replacing 71-110W Lamp | | |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | | |
| Business Standard | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | | |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture (HP T8 ≤4 lamps) | | |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 >4 lamps) | | |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 > 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | | |
| Business Standard | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | | |
| Business Standard | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | | |
| Business Standard | All | Lighting | LED Exit Sign | | |
| Business Standard | All | Lighting | LED Flood Light (<15W) | | |
| Business Standard | All | Lighting | LED Flood Light (≥15W) | | |
| Business Standard | All | Lighting | LED Recessed Fixture (1 ft x 4 ft) | | |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 2 ft) | | |
| Business Standard | All | Lighting | LED Recessed Fixture (2 ft x 4 ft) | | |
| Business Standard | All | Lighting | Lighting Optimization - Remove 4ft Lamp from T8 System | | |
| Business Standard | All | Lighting | Remove 4ft Lamp from T8 or T12 system | | |
| Business Standard | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | | |
| Business Standard | All | Lighting | Remove 8ft Lamp from T8 or T12 System | | |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (<10W) | | |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | | |
| Business Standard | All | Lighting | Omnidirectional LED Bulb (≥10W) | | |
| Business Standard | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | | |
| Business Standard | All | Lighting | Photocell Occupancy Sensor | 27% | ESF |
| Business Standard | All | Lighting | Interior Daylighting Controls Replacing No Controls | 27% | ESF |
| Business Standard | All | Lighting | Wall-Mount Occupancy Sensor | 30% | ESF |
| Business Standard | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | 30% | ESF |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (20ft Diameter) | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (22ft Diameter) | | |
| Business Standard | All | Pumps/Fans | High Volume Low Speed Fans (24ft Diameter) | | |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/4" | | |
| Business Standard | All | Pumps/Fans | Compressed Air - Engineered Nozzle 1/8" | | |
| Business Standard | All | Pumps/Fans | Compressed Air - No Loss Condensate Drain/Valve | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 1 shift weekdays | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 2 shift weekdays | | |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to **36 months following**

Search using Drop-down Filters in Headers

Column Label:

H

I

J

K

Count: 162

Column Equation:

see column R

= H / L

| Measure Description | | | | | | | Gross Measure Value | | | |
|---------------------|---------|------------|--|-------------|------------------|-----------------|------------------------------------|---|------------------------------------|-------------------------|
| Program | Segment | End Use | Measure Name | Primary Key | Notes | Unit Definition | Incremental Measure Cost (\$/Unit) | Electric Energy Savings (Annual kWh/unit) | Nameplate Demand Savings (kW/unit) | Peak Coincidence Factor |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays plus weekends | 0125 | | per HP | \$140.37 | 1,385.3000 | | |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, 2000-4000 annual hours occupancy | 0137 | | per ton | \$400.00 | 420.0000 | | |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, > 4000 annual hours occupancy | 0138 | | per ton | \$400.00 | 700.0000 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Domestic Hot Water Recirculation | 0139 | | per Pump | \$690.79 | 1,312.0900 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Domestic Hot Water Recirculation | 0140 | | per Pump | \$1,324.75 | 6,555.3600 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Heating Water Circulation | 0142 | | per Pump | \$690.79 | 359.0300 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Heating Water Circulation | 0143 | | per Pump | \$1,324.75 | 1,793.5800 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, >500 Watts Max Input, Heating Water Circulation | 0144 | | per Pump | \$1,844.58 | 7,174.3300 | | |
| Business Standard | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | 0146 | Annual Operating | per fixture | \$136.00 | 902.2800 | 0.10 | 100% |
| Business Standard | All | Lighting | Parking Garage 4ft 3 Lamp T5/T5HO or T8 replacing > 175W Fixture | 0146.1 | Annual Operating | per fixture | \$136.00 | 902.2800 | 0.10 | 100% |
| Business Standard | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | 0147 | Annual Operating | per fixture | \$105.00 | 981.1200 | 0.11 | 100% |
| Business Standard | All | Lighting | Parking Garage 4ft 2 Lamp T5/T5HO or T8 replacing 101W-175W Fixture | 0147.1 | Annual Operating | per fixture | \$105.00 | 981.1200 | 0.11 | 100% |
| Business Standard | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | 0148 | Annual Operating | per fixture | \$74.00 | 613.2000 | 0.07 | 100% |
| Business Standard | All | Lighting | Parking Garage 4ft 1 Lamp T5/T5HO or T8 replacing ≤ 100W Fixture | 0148.1 | Annual Operating | per fixture | \$74.00 | 613.2000 | 0.07 | 100% |
| Business Standard | All | Lighting | Exterior LED replacing >400W HID | 0149 | Annual Operating | per fixture | \$4,300.00 | 2,661.7000 | 0.62 | 0% |
| Business Standard | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | 0149.1 | Annual Operating | per fixture | \$4,300.00 | 2,661.7000 | 0.62 | 0% |
| Business Standard | All | Lighting | Exterior LED replacing 251-400W HID | 0150 | Annual Operating | per fixture | \$4,300.00 | 1,191.1000 | 0.28 | 0% |
| Business Standard | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | 0150.1 | Annual Operating | per fixture | \$4,300.00 | 1,191.1000 | 0.28 | 0% |
| Business Standard | All | Lighting | Exterior LED replacing 175-250W HID | 0151 | Annual Operating | per fixture | \$4,300.00 | 602.0000 | 0.14 | 0% |
| Business Standard | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | 0151.1 | Annual Operating | per fixture | \$4,300.00 | 602.0000 | 0.14 | 0% |
| Business Standard | All | Lighting | Exterior LED replacing <175W HID | 0152 | Annual Operating | per fixture | \$8,760.00 | 490.2000 | 0.11 | 0% |
| Business Standard | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | 0152.1 | Annual Operating | per fixture | \$8,760.00 | 490.2000 | 0.11 | 0% |
| Business Standard | All | Lighting | Parking Garage LED replacing >175W HID | 0153 | Annual Operating | per fixture | \$520.00 | 902.2800 | 0.10 | 100% |
| Business Standard | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | 0153.1 | Annual Operating | per fixture | \$520.00 | 902.2800 | 0.10 | 100% |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W HID | 0154 | Annual Operating | per fixture | \$380.00 | 981.1200 | 0.11 | 100% |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | 0154.1 | Annual Operating | per fixture | \$380.00 | 981.1200 | 0.11 | 100% |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W HID | 0155 | Annual Operating | per fixture | \$320.00 | 613.2000 | 0.07 | 100% |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | 0155.1 | Annual Operating | per fixture | \$320.00 | 613.2000 | 0.07 | 100% |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | 0166 | Annual Operating | per lamp | \$24.00 | 54.4896 | 0.02 | 75% |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

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| Measure Description | | | | | | | | |
|---------------------|---------|------------|--|--|------------------------|----------------------|--|--------------------------|
| Program | Segment | End Use | Measure Name | Coincident Peak Demand Savings (kW/unit) | Annual Operating Hours | Measure Life (Years) | Measure Definition | Measure Efficiency Value |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays plus weekends | 0.1582 | | 10 | | |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, 2000-4000 annual hours occupancy | 0.1500 | | 15 | | |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, > 4000 annual hours occupancy | 0.1500 | | 15 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Domestic Hot Water Recirculation | 0.2280 | | 15 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Domestic Hot Water Recirculation | 1.1390 | | 15 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Heating Water Circulation | 0.0000 | | 15 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Heating Water Circulation | 0.0000 | | 15 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, >500 Watts Max Input, Heating Water Circulation | 0.0000 | | 15 | | |
| Business Standard | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | 0.0000 | 8,760 | 6 | 4-ft 3L to 4L 4' T5, T5HO or T8 | 155 |
| Business Standard | All | Lighting | Parking Garage 4ft 3 Lamp T5/T5HO or T8 replacing > 175W Fixture | 0.1030 | 8,760 | 6 | 4-ft 3L to 4L 4' T5, T5HO or T8 | 155 |
| Business Standard | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | 0.1120 | 8,760 | 6 | 4-ft 2L to 3L 4' T5, T5HO or T8 | 84 |
| Business Standard | All | Lighting | Parking Garage 4ft 2 Lamp T5/T5HO or T8 replacing 101W-175W Fixture | 0.1120 | 8,760 | 6 | 4-ft 2L to 3L 4' T5, T5HO or T8 | 84 |
| Business Standard | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | 0.0700 | 8,760 | 6 | 4-ft 1L to 2L 4' T5, T5HO or T8 | 54 |
| Business Standard | All | Lighting | Parking Garage 4ft 1 Lamp T5/T5HO or T8 replacing ≤ 100W Fixture | 0.0700 | 8,760 | 6 | 4-ft 1L to 2L 4' T5, T5HO or T8 | 54 |
| Business Standard | All | Lighting | Exterior LED replacing >400W HID | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 412 |
| Business Standard | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 412 |
| Business Standard | All | Lighting | Exterior LED replacing 251-400W HID | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 167 |
| Business Standard | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 167 |
| Business Standard | All | Lighting | Exterior LED replacing 175-250W HID | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 82 |
| Business Standard | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 82 |
| Business Standard | All | Lighting | Exterior LED replacing <175W HID | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 37 |
| Business Standard | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 37 |
| Business Standard | All | Lighting | Parking Garage LED replacing >175W HID | 0.1030 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 155 |
| Business Standard | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | 0.1030 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 155 |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W HID | 0.1120 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 84 |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | 0.1120 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 84 |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W HID | 0.0700 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 54 |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | 0.0700 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 54 |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | 0.0124 | 4,128 | 12 | 4-ft LED Linear Replacement Lamps | 18 |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

indicates default plan values that can be adjusted for unique installations.

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

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| Measure Description | | | | Algorithms | | |
|---------------------|---------|------------|--|---|---------------------------|---|
| Program | Segment | End Use | Measure Name | Baseline Definition | Baseline Efficiency Value | Electric Energy Savings Algorithm |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays plus weekends | | | =ROUND(1385.3,4) |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, 2000-4000 annual hours occupancy | | | =ROUND(420,4) |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, > 4000 annual hours occupancy | | | =ROUND(700,40) |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Domestic Hot Water Recirculation | | | =ROUND(1312.09,4) |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Domestic Hot Water Recirculation | | | =ROUND(6555.36,4) |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Heating Water Circulation | | | =ROUND(359.03,4) |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Heating Water Circulation | | | =ROUND(1793.58,4) |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, >500 Watts Max Input, Heating Water Circulation | | | =ROUND(7174.33,4) |
| Business Standard | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | 200W - 250W HID Fixture | 258 | =ROUND((R151-P151)*(AC151)*M151/1000,4) |
| Business Standard | All | Lighting | Parking Garage 4ft 3 Lamp T5/T5HO or T8 replacing > 175W Fixture | 200W - 250W HID Fixture | 258 | =ROUND((R152-P152)*(AC152)*M152/1000,4) |
| Business Standard | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | 125W - 175W HID Fixture | 196 | =ROUND((R153-P153)*(AC153)*M153/1000,4) |
| Business Standard | All | Lighting | Parking Garage 4ft 2 Lamp T5/T5HO or T8 replacing 101W-175W Fixture | 125W - 175W HID Fixture | 196 | =ROUND((R154-P154)*(AC154)*M154/1000,4) |
| Business Standard | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | ≤ 100 W HID Fixture | 124 | =ROUND((R155-P155)*(AC155)*M155/1000,4) |
| Business Standard | All | Lighting | Parking Garage 4ft 1 Lamp T5/T5HO or T8 replacing ≤ 100W Fixture | ≤ 100 W HID Fixture | 124 | =ROUND((R156-P156)*(AC156)*M156/1000,4) |
| Business Standard | All | Lighting | Exterior LED replacing >400W HID | > 400 W HID Fixture | 1031 | =ROUND((R157-P157)*(AC157)*M157/1000,4) |
| Business Standard | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | > 400 W HID Fixture | 1031 | =ROUND((R158-P158)*(AC158)*M158/1000,4) |
| Business Standard | All | Lighting | Exterior LED replacing 251-400W HID | 320 W Pulse Start and 400W MH/HPS Fixt | 444 | =ROUND((R159-P159)*(AC159)*M159/1000,4) |
| Business Standard | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | 320 W Pulse Start and 400W MH/HPS Fixt | 444 | =ROUND((R160-P160)*(AC160)*M160/1000,4) |
| Business Standard | All | Lighting | Exterior LED replacing 175-250W HID | 175 W HID - 250 W HID Fixture | 222 | =ROUND((R161-P161)*(AC161)*M161/1000,4) |
| Business Standard | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | 175 W HID - 250 W HID Fixture | 222 | =ROUND((R162-P162)*(AC162)*M162/1000,4) |
| Business Standard | All | Lighting | Exterior LED replacing <175W HID | < 175 W HID Fixture | 151 | =ROUND((R163-P163)*(AC163)*M163/1000,4) |
| Business Standard | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | < 175 W HID Fixture | 151 | =ROUND((R164-P164)*(AC164)*M164/1000,4) |
| Business Standard | All | Lighting | Parking Garage LED replacing >175W HID | 200W - 250W HID Fixture | 258 | =ROUND((R165-P165)*(AC165)*M165/1000,4) |
| Business Standard | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | 200W - 250W HID Fixture | 258 | =ROUND((R166-P166)*(AC166)*M166/1000,4) |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W HID | 125W - 175W HID Fixture | 196 | =ROUND((R167-P167)*(AC167)*M167/1000,4) |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | 125W - 175W HID Fixture | 196 | =ROUND((R168-P168)*(AC168)*M168/1000,4) |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W HID | ≤ 100 W HID Fixture | 124 | =ROUND((R169-P169)*(AC169)*M169/1000,4) |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | ≤ 100 W HID Fixture | 124 | =ROUND((R170-P170)*(AC170)*M170/1000,4) |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | 32W 4-ft T8 with Electronic NBF Ballast | 29 | =ROUND((R171-P171)*(AC171)*M171/1000,4) |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

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Count: 162

| Measure Description | | | | | | |
|---------------------|---------|------------|--|--|--------------------------|---|
| Program | Segment | End Use | Measure Name | Incentive Definition | Net to Gross Ratio (NTG) | Net Electric Energy Savings (Annual kWh/unit) |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays plus weekends | | 100% | 1,385.30 |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, 2000-4000 annual hours occupancy | | 100% | 420.00 |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, > 4000 annual hours occupancy | | 100% | 700.00 |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Domestic Hot Water Recirculation | | 100% | 1,312.09 |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Domestic Hot Water Recirculation | | 100% | 6,555.36 |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Heating Water Circulation | | 100% | 359.03 |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Heating Water Circulation | | 100% | 1,793.58 |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, >500 Watts Max Input, Heating Water Circulation | | 100% | 7,174.33 |
| Business Standard | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 902 |
| Business Standard | All | Lighting | Parking Garage 4ft 3 Lamp T5/T5HO or T8 replacing > 175W Fixture | per unit | 100% | 902 |
| Business Standard | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 981 |
| Business Standard | All | Lighting | Parking Garage 4ft 2 Lamp T5/T5HO or T8 replacing 101W-175W Fixture | per unit | 100% | 981 |
| Business Standard | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 613 |
| Business Standard | All | Lighting | Parking Garage 4ft 1 Lamp T5/T5HO or T8 replacing ≤ 100W Fixture | per unit | 100% | 613 |
| Business Standard | All | Lighting | Exterior LED replacing >400W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 2,662 |
| Business Standard | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 2,662 |
| Business Standard | All | Lighting | Exterior LED replacing 251-400W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 1,191 |
| Business Standard | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 1,191 |
| Business Standard | All | Lighting | Exterior LED replacing 175-250W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 602 |
| Business Standard | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 602 |
| Business Standard | All | Lighting | Exterior LED replacing <175W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 490 |
| Business Standard | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 490 |
| Business Standard | All | Lighting | Parking Garage LED replacing >175W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 902 |
| Business Standard | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 902 |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 981 |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 981 |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 613 |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 613 |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | Approximately \$0.15/kWh; Keeping equitable with T | 100% | 54 |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

[Link to CDD](#)

Search using Drop-down Filters in Headers

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Count: 162

| Measure Description | | | | | | | | |
|---------------------|---------|------------|--|--------------------------------|-----------------------|----------------------|--------------------|---------------------------|
| Program | Segment | End Use | Measure Name | Data Source | Date of Data Revision | Effective Start Date | Effective End Date | Cooling Degree Days (CDD) |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays plus weekends | IL TRM | | 4/1/2016 | | |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, 2000-4000 annual hours occupancy | BPA | | 4/1/2016 | | |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, > 4000 annual hours occupancy | BPA | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Domestic Hot Water Recirculation | Focus On Energy (WI), Grundfos | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Domestic Hot Water Recirculation | Focus On Energy (WI), Grundfos | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Heating Water Circulation | Focus On Energy (WI), | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Heating Water Circulation | Focus On Energy (WI), | | 4/1/2016 | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, >500 Watts Max Input, Heating Water Circulation | Focus On Energy (WI), | | 4/1/2016 | | |
| Business Standard | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | IN TRM | 11/4/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Parking Garage 4ft 3 Lamp T5/T5HO or T8 replacing > 175W Fixture | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Parking Garage 4ft 2 Lamp T5/T5HO or T8 replacing 101W-175W Fixture | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Parking Garage 4ft 1 Lamp T5/T5HO or T8 replacing ≤ 100W Fixture | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Exterior LED replacing >400W HID | IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Exterior LED replacing 251-400W HID | IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Exterior LED replacing 175-250W HID | IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Exterior LED replacing <175W HID | IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Parking Garage LED replacing >175W HID | IN TRM | 11/4/2015 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W HID | IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W HID | IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to [Link to HDD](#)

Search using Drop-down Filters in Headers

AB

AC

AD

AE

AF

Count: 162

| Measure Description | | | | Supporting Information | | | | |
|---------------------|---------|------------|--|---------------------------|-----------|--------------------------|-----------|--------------------------|
| Program | Segment | End Use | Measure Name | Heating Degree Days (HDD) | Quantity1 | Quantity1 Description | Quantity2 | Quantity2 Description |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays plus weekends | | | | | |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, 2000-4000 annual hours occupancy | | | | | |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, > 4000 annual hours occupancy | | | | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Domestic Hot Water Recirculation | | | | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Domestic Hot Water Recirculation | | | | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Heating Water Circulation | | | | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Heating Water Circulation | | | | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, >500 Watts Max Input, Heating Water Circulation | | | | | |
| Business Standard | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage 4ft 3 Lamp T5/T5HO or T8 replacing > 175W Fixture | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage 4ft 2 Lamp T5/T5HO or T8 replacing 101W-175W Fixture | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage 4ft 1 Lamp T5/T5HO or T8 replacing ≤ 100W Fixture | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Exterior LED replacing >400W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Exterior LED replacing 251-400W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Exterior LED replacing 175-250W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Exterior LED replacing <175W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage LED replacing >175W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

AG

AH

Count: 162

| Measure Description | | | | | |
|---------------------|---------|------------|--|-----------|-----------------------|
| Program | Segment | End Use | Measure Name | Quantity3 | Quantity3 Description |
| Business Standard | All | Pumps/Fans | Variable Speed Drive Compressor - 3 shift weekdays plus weekends | | |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, 2000-4000 annual hours occupancy | | |
| Business Standard | All | HVAC | Advanced Rooftop Unit Controls, > 4000 annual hours occupancy | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Domestic Hot Water Recirculation | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Domestic Hot Water Recirculation | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, <100 Watts Max Input, Heating Water Circulation | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, 100 – 500 Watts Max Input, Heating Water Circulation | | |
| Business Standard | All | Pumps/Fans | Variable Speed ECM Pump, >500 Watts Max Input, Heating Water Circulation | | |
| Business Standard | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | | |
| Business Standard | All | Lighting | Parking Garage 4ft 3 Lamp T5/T5HO or T8 replacing > 175W Fixture | | |
| Business Standard | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | | |
| Business Standard | All | Lighting | Parking Garage 4ft 2 Lamp T5/T5HO or T8 replacing 101W-175W Fixture | | |
| Business Standard | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | | |
| Business Standard | All | Lighting | Parking Garage 4ft 1 Lamp T5/T5HO or T8 replacing ≤ 100W Fixture | | |
| Business Standard | All | Lighting | Exterior LED replacing >400W HID | | |
| Business Standard | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | | |
| Business Standard | All | Lighting | Exterior LED replacing 251-400W HID | | |
| Business Standard | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | | |
| Business Standard | All | Lighting | Exterior LED replacing 175-250W HID | | |
| Business Standard | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | | |
| Business Standard | All | Lighting | Exterior LED replacing <175W HID | | |
| Business Standard | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | | |
| Business Standard | All | Lighting | Parking Garage LED replacing >175W HID | | |
| Business Standard | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | | |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W HID | | |
| Business Standard | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | | |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W HID | | |
| Business Standard | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | | |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to **36 months following**

Search using Drop-down Filters in Headers

Column Label:

H

I

J

K

Count: 162

Column Equation:

see column R

= H / L

| Measure Description | | | | | | | Gross Measure Value | | | |
|--------------------------------------|------------|-----------------|---|-------------|-------------------------|--------------------|------------------------------------|---|------------------------------------|-------------------------|
| Program | Segment | End Use | Measure Name | Primary Key | Notes | Unit Definition | Incremental Measure Cost (\$/Unit) | Electric Energy Savings (Annual kWh/unit) | Nameplate Demand Savings (kW/unit) | Peak Coincidence Factor |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | 0166.1 | Annual Operating | per lamp | \$24.00 | 54.4896 | 0.02 | 75% |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | 0167 | Annual Operating | per lamp | \$22.00 | 34.6752 | 0.01 | 75% |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | 0167.1 | Annual Operating | per lamp | \$22.00 | 34.6752 | 0.01 | 75% |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 0168 | Annual Operating | per fixture | \$155.00 | 199.7730 | 0.06 | 75% |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0168.1 | Annual Operating | per fixture | \$155.00 | 199.7730 | 0.06 | 75% |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 0169 | Annual Operating | per fixture | \$145.00 | 257.8703 | 0.08 | 75% |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0169.1 | Annual Operating | per fixture | \$145.00 | 257.8703 | 0.08 | 75% |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | 0170 | Annual Operating | per fixture | \$130.00 | 194.8194 | 0.06 | 75% |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0170.1 | Annual Operating | per fixture | \$130.00 | 194.8194 | 0.06 | 75% |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0171 | Annual Operating | per fixture | \$180.00 | 209.6802 | 0.06 | 75% |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0171.1 | Annual Operating | per fixture | \$180.00 | 209.6802 | 0.06 | 75% |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0172 | Annual Operating | per fixture | \$170.00 | 257.8703 | 0.08 | 75% |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0172.1 | Annual Operating | per fixture | \$170.00 | 257.8703 | 0.08 | 75% |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0173 | Annual Operating | per fixture | \$155.00 | 204.7266 | 0.06 | 75% |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0173.1 | Annual Operating | per fixture | \$155.00 | 204.7266 | 0.06 | 75% |
| Business Standard | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | 0174 | Annual Operating | per door | \$230.00 | 594.9354 | 0.15 | 92% |
| Business Standard | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | 0174.1 | Annual Operating | per door | \$230.00 | 594.9354 | 0.15 | 92% |
| Business Standard | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | 0175 | Annual Operating | per door | \$230.00 | 641.3488 | 0.16 | 92% |
| Business Standard | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | 0175.1 | Annual Operating | per door | \$230.00 | 641.3488 | 0.16 | 92% |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | 0176 | Annual Operating | per fixture | \$35.00 | 195.0768 | 0.06 | 70% |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | 0176.1 | Annual Operating | per fixture | \$35.00 | 195.0768 | 0.06 | 70% |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | 0177 | Annual Operating | per fixture | \$68.00 | 321.8767 | 0.10 | 70% |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | 0177.1 | Annual Operating | per fixture | \$68.00 | 321.8767 | 0.10 | 70% |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | 0178 | Annual Operating | per fixture | \$120.00 | 512.0766 | 0.16 | 70% |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | 0178.1 | Annual Operating | per fixture | \$120.00 | 512.0766 | 0.16 | 70% |
| Small Business Direct Install | All | Lighting | Directional LED Bulb (<15W) | 0179 | | per lamp | \$18.00 | 277.2765 | 0.067 | 70% |
| Small Business Direct Install | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | 0179.1 | | per lamp | \$18.00 | 277.2765 | 0.067 | 70% |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | 0181 | | per fixture | \$220.00 | 1,478.4696 | 0.322 | 78% |
| Small Business Direct Install | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | 0181.1 | | per fixture | \$220.00 | 1,478.4696 | 0.322 | 78% |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | 0183 | | per fixture | \$200.00 | 677.6319 | 0.147 | 78% |
| Small Business Direct Install | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | 0183.1 | | per fixture | \$200.00 | 677.6319 | 0.147 | 78% |
| Small Business Direct Install | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | 0186 | | per lamp | \$70.00 | 337.5878 | 0.078 | 75% |
| Small Business Direct Install | All | Lighting | Remove 8ft Lamp from T8 or T12 System | 0186.1 | | per lamp | \$70.00 | 337.5878 | 0.078 | 75% |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (<10W) | 0187 | | per lamp | \$12.00 | 211.5000 | 0.054 | 65% |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | 0187.1 | | per lamp | \$12.00 | 211.5000 | 0.054 | 65% |

Current List of DSM Measure Assumptions for KCP&L

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Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

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| Measure Description | | | | | | | | |
|-------------------------------|---------|----------|---|--|------------------------|----------------------|---|--------------------------|
| Program | Segment | End Use | Measure Name | Coincident Peak Demand Savings (kW/unit) | Annual Operating Hours | Measure Life (Years) | Measure Definition | Measure Efficiency Value |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | 0.0124 | 4,128 | 12 | 4-ft LED Linear Replacement Lamps | 18 |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | 0.0079 | 4,128 | 12 | 2-ft LED Linear Replacement Lamps | 10 |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | 0.0079 | 4,128 | 12 | 2-ft LED Linear Replacement Lamps | 10 |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 0.0454 | 4,128 | 12 | LED 1X4 Retrofit Kits | 37 |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0.0454 | 4,128 | 12 | LED 1X4 Retrofit Kits | 37 |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 0.0586 | 4,128 | 12 | LED 2X4 Retrofit Kits | 46 |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0.0586 | 4,128 | 12 | LED 2X4 Retrofit Kits | 46 |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | 0.0442 | 4,128 | 12 | LED 2X2 Retrofit Kits | 38 |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0.0442 | 4,128 | 12 | LED 2X2 Retrofit Kits | 38 |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0.0476 | 4,128 | 12 | LED 1X4 Troffer or Linear Ambient Fixtu | 35 |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0.0476 | 4,128 | 12 | LED 1X4 Troffer or Linear Ambient Fixtu | 35 |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0.0586 | 4,128 | 12 | LED 2X2 Troffer or Linear Ambient Fixtu | 46 |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0.0586 | 4,128 | 12 | LED 2X2 Troffer or Linear Ambient Fixtu | 46 |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0.0465 | 4,128 | 12 | LED 2X4 Troffer or Linear Ambient Fixtu | 36 |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0.0465 | 4,128 | 12 | LED 2X4 Troffer or Linear Ambient Fixtu | 36 |
| Business Standard | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | 0.1387 | 6,205 | 8 | LED Refrigerated (Medium Temp) Case | 34 |
| Business Standard | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | 0.1387 | 6,205 | 8 | LED Refrigerated (Medium Temp) Case | 34 |
| Business Standard | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | 0.1450 | 6,205 | 8 | LED Freezer (Low Temp) Case Light Fixt | 34 |
| Business Standard | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | 0.1450 | 6,205 | 8 | LED Freezer (Low Temp) Case Light Fixt | 34 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | 0.0423 | 3,933 | 13 | LED Downlight or Retrofit Kit ≤ 13W | 11 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | 0.0423 | 3,933 | 13 | LED Downlight or Retrofit Kit ≤ 13W | 11 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | 0.0698 | 3,933 | 13 | LED Downlight or Retrofit Kit 14 to 21W | 18 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | 0.0698 | 3,933 | 13 | LED Downlight or Retrofit Kit 14 to 21W | 18 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | 0.1110 | 3,933 | 13 | LED Downlight or Retrofit Kit ≥ 22W | 28 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | 0.1110 | 3,933 | 13 | LED Downlight or Retrofit Kit ≥ 22W | 28 |
| Small Business Direct Install | All | Lighting | Directional LED Bulb (<15W) | 0.0469 | 3,933 | 7 | LED (watts) | 10 |
| Small Business Direct Install | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | 0.0469 | 3,933 | 7 | LED (watts) | 10 |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | 0.2508 | 4,369 | 12 | High Bay T8 (>4 lamps, wattage) | 240 |
| Small Business Direct Install | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | 0.2508 | 4,369 | 12 | High Bay T8 (>4 lamps, wattage) | 240 |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | 0.1150 | 4,369 | 12 | High Bay T5 (≤4 lamps, wattage) | 110 |
| Small Business Direct Install | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | 0.1150 | 4,369 | 12 | High Bay T5 (≤4 lamps, wattage) | 110 |
| Small Business Direct Install | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | 0.0583 | 4,128 | 12 | Remove T8 | 0 |
| Small Business Direct Install | All | Lighting | Remove 8ft Lamp from T8 or T12 System | 0.0583 | 4,128 | 12 | Remove T8 | 0 |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (<10W) | 0.0348 | 3,750 | 7 | LED (watts) | 8 |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | 0.0348 | 3,750 | 7 | LED (watts) | 8 |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

indicates default plan values that can be adjusted for unique installations.

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| Measure Description | | | | Algorithms | | |
|-------------------------------|---------|----------|---|--|---------------------------|---|
| Program | Segment | End Use | Measure Name | Baseline Definition | Baseline Efficiency Value | Electric Energy Savings Algorithm |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | 32W 4-ft T8 with Electronic NBF Ballast | 29 | =ROUND((R172-P172)*(AC172)*M172/1000,4) |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | 17W 2-ft T8 with Electronic NBF Ballast | 17 | =ROUND((R173-P173)*(AC173)*M173/1000,4) |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 1x4 T8, T12 or T5 Fluorescents | 77 | =ROUND((R175-P175)*(AC175)*M175/1000,4) |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 1x4 T8, T12 or T5 Fluorescents | 77 | =ROUND((R176-P176)*(AC176)*M176/1000,4) |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 2x4 T8, T12 or T5 Fluorescents | 98 | =ROUND((R177-P177)*(AC177)*M177/1000,4) |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 2x4 T8, T12 or T5 Fluorescents | 98 | =ROUND((R178-P178)*(AC178)*M178/1000,4) |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | 2x2 T8, T12 or T5 Fluorescents | 77 | =ROUND((R179-P179)*(AC179)*M179/1000,4) |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 2x2 T8, T12 or T5 Fluorescents | 77 | =ROUND((R180-P180)*(AC180)*M180/1000,4) |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 1X4 Troffer or Linear Ambient T8, T12 or T | 77 | =ROUND((R181-P181)*(AC181)*M181/1000,4) |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 1X4 Troffer or Linear Ambient T8, T12 or T | 77 | =ROUND((R182-P182)*(AC182)*M182/1000,4) |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 2X4 Troffer or Linear Ambient T8, T12 or T | 98 | =ROUND((R183-P183)*(AC183)*M183/1000,4) |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 2X4 Troffer or Linear Ambient T8, T12 or T | 98 | =ROUND((R184-P184)*(AC184)*M184/1000,4) |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 2X2 Troffer or Linear Ambient T8, T12 or T | 77 | =ROUND((R185-P185)*(AC185)*M185/1000,4) |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 2X2 Troffer or Linear Ambient T8, T12 or T | 77 | =ROUND((R186-P186)*(AC186)*M186/1000,4) |
| Business Standard | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | Linear Fluorescent T12 and T8 Fixtures | 102 | =ROUND((R187-P187)/1000*M187*AC187,4) |
| Business Standard | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | Linear Fluorescent T12 and T8 Fixtures | 102 | =ROUND((R188-P188)/1000*M188*AC188,4) |
| Business Standard | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | Linear Fluorescent T12 and T8 Fixtures | 102 | =ROUND((R189-P189)/1000*M189*AC189,4) |
| Business Standard | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | Linear Fluorescent T12 and T8 Fixtures | 102 | =ROUND((R190-P190)/1000*M190*AC190,4) |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | Incandescent and Halogen Downlights < 1 | 51 | =ROUND((R191-P191)*(AC191)*M191/1000,4) |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | Incandescent and Halogen Downlights < 1 | 51 | =ROUND((R192-P192)*(AC192)*M192/1000,4) |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | Incandescent and Halogen Downlights 10 | 84 | =ROUND((R193-P193)*(AC193)*M193/1000,4) |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | Incandescent and Halogen Downlights 10 | 84 | =ROUND((R194-P194)*(AC194)*M194/1000,4) |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | Incandescent, HID and Halogen Downlight | 133 | =ROUND((R195-P195)*(AC195)*M195/1000,4) |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | Incandescent, HID and Halogen Downlight | 133 | =ROUND((R196-P196)*(AC196)*M196/1000,4) |
| Small Business Direct Install | All | Lighting | Directional LED Bulb (<15W) | Incandescent (watts) | 60 | =ROUND((R197-P197)*(AC197)*M197/1000,4) |
| Small Business Direct Install | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | Incandescent (watts) | 60 | =ROUND((R198-P198)*(AC198)*M198/1000,4) |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | Metal Halide (watts) | 480 | =ROUND((R199-P199)*(AC199)*M199/1000,4) |
| Small Business Direct Install | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | Metal Halide (watts) | 480 | =ROUND((R200-P200)*(AC200)*M200/1000,4) |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | Metal Halide (watts) | 220 | =ROUND((R201-P201)*(AC201)*M201/1000,4) |
| Small Business Direct Install | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | Metal Halide (watts) | 220 | =ROUND((R202-P202)*(AC202)*M202/1000,4) |
| Small Business Direct Install | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | T8 8 ft (watts) | 58 | =ROUND((R203-P203)/1000*M203*AC203,4) |
| Small Business Direct Install | All | Lighting | Remove 8ft Lamp from T8 or T12 System | T8 8 ft (watts) | 58 | =ROUND((R204-P204)/1000*M204*AC204,4) |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (<10W) | EISA tier 1 compliant Halogen (watts) | 48 | =ROUND((R205-P205)/1000*M205*AC205,4) |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | EISA tier 1 compliant Halogen (watts) | 48 | =ROUND((R206-P206)/1000*M206*AC206,4) |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

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V

Count: 162

| Measure Description | | | | | | |
|-------------------------------|---------|----------|---|--|--------------------------|---|
| Program | Segment | End Use | Measure Name | Incentive Definition | Net to Gross Ratio (NTG) | Net Electric Energy Savings (Annual kWh/unit) |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | per unit | 100% | 54 |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | Approximately \$0.15/kWh; Keeping equitable with T | 100% | 35 |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | per unit | 100% | 35 |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 200 |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 200 |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 258 |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 258 |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 195 |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 195 |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 210 |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 210 |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 258 |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 258 |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 205 |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 205 |
| Business Standard | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 595 |
| Business Standard | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | per unit | 100% | 595 |
| Business Standard | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 641 |
| Business Standard | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | per unit | 100% | 641 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 195 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | per unit | 100% | 195 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 322 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | per unit | 100% | 322 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 512 |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | per unit | 100% | 512 |
| Small Business Direct Install | All | Lighting | Directional LED Bulb (<15W) | per unit | 100% | 277.28 |
| Small Business Direct Install | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | per unit | 100% | 277.28 |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | per unit | 100% | 1,478.47 |
| Small Business Direct Install | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | per unit | 100% | 1,478.47 |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | per unit | 100% | 677.63 |
| Small Business Direct Install | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | per unit | 100% | 677.63 |
| Small Business Direct Install | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | per unit | 100% | 337.59 |
| Small Business Direct Install | All | Lighting | Remove 8ft Lamp from T8 or T12 System | per unit | 100% | 337.59 |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (<10W) | per unit | 100% | 211.50 |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | per unit | 100% | 211.50 |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

[Link to CDD](#)

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AA

Count: 162

| Measure Description | | | | | | | | |
|--------------------------------------|------------|-----------------|---|---|-----------------------|----------------------|--------------------|---------------------------|
| Program | Segment | End Use | Measure Name | Data Source | Date of Data Revision | Effective Start Date | Effective End Date | Cooling Degree Days (CDD) |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | IL TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | IL TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | IL TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | IL TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | Weighted Average using IN TRM | | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Directional LED Bulb (<15W) | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Remove 8ft Lamp from T8 or T12 System | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (<10W) | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

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AC

AD

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AF

Count: 162

| Measure Description | | | | Supporting Information | | | | |
|-------------------------------|---------|----------|---|---------------------------|-----------|--------------------------|-----------|--------------------------|
| Program | Segment | End Use | Measure Name | Heating Degree Days (HDD) | Quantity1 | Quantity1 Description | Quantity2 | Quantity2 Description |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | | 1.41 | Waste Heat Factor_Energy | 1.41 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | | 1.41 | Waste Heat Factor_Energy | 1.41 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | | 1.52 | Waste Heat Factor_Energy | 1.52 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | | 1.52 | Waste Heat Factor_Energy | 1.52 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Directional LED Bulb (<15W) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | Remove 8ft Lamp from T8 or T12 System | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (<10W) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

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Count: 162

| Measure Description | | | | | |
|-------------------------------|---------|----------|---|-----------|-----------------------|
| Program | Segment | End Use | Measure Name | Quantity3 | Quantity3 Description |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | | |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | | |
| Business Standard | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | | |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | | |
| Business Standard | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | | |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | |
| Business Standard | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | | |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | |
| Business Standard | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | |
| Business Standard | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | |
| Business Standard | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | |
| Business Standard | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | |
| Business Standard | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | | |
| Business Standard | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | | |
| Business Standard | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | | |
| Business Standard | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | | |
| Business Standard | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | | |
| Small Business Direct Install | All | Lighting | Directional LED Bulb (<15W) | | |
| Small Business Direct Install | All | Lighting | Directional LED Lamp replacing 50-70W Lamp | | |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture (HP T8 >4 lamps) | | |
| Small Business Direct Install | All | Lighting | High Performance High-Bay Fluorescent Fixture T8 > 4 Lamps Replacing HID Fixture | | |
| Small Business Direct Install | All | Lighting | High Bay Fluorescent Fixture w/ HE Electronic Ballast (T5 ≤4 lamps) | | |
| Small Business Direct Install | All | Lighting | High-Bay Fluorescent Fixture T5 ≤ 4 Lamps w/ HE Electronic Ballast Replacing HID Fixture | | |
| Small Business Direct Install | All | Lighting | Lighting Optimization - Remove 8ft Lamp from T8 System | | |
| Small Business Direct Install | All | Lighting | Remove 8ft Lamp from T8 or T12 System | | |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (<10W) | | |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 40-60W Lamp | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to **36 months following**

Search using Drop-down Filters in Headers

Column Label:

H

I

J

K

Count: 162

Column Equation:

see column R

= H / L

| Measure Description | | | | | | | Gross Measure Value | | | |
|-------------------------------|---------|----------|--|-------------|-------|-----------------|------------------------------------|---|------------------------------------|-------------------------|
| Program | Segment | End Use | Measure Name | Primary Key | Notes | Unit Definition | Incremental Measure Cost (\$/Unit) | Electric Energy Savings (Annual kWh/unit) | Nameplate Demand Savings (kW/unit) | Peak Coincidence Factor |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (≥10W) | 0188 | | per lamp | \$20.00 | 360.4595 | 0.087 | 70% |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | 0188.1 | | per lamp | \$20.00 | 360.4595 | 0.087 | 70% |
| Small Business Direct Install | All | Lighting | Wall-Mount Occupancy Sensor | 0190 | | per sensor | \$84.00 | 323.0366 | 0.074 | 95% |
| Small Business Direct Install | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | 0190.1 | | per sensor | \$84.00 | 323.0366 | 0.074 | 95% |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | 0191 | | per fixture | \$136.00 | 902.2800 | 0.103 | 100% |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W fixture | 0191.1 | | per fixture | \$136.00 | 902.2800 | 0.103 | 100% |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | 0192 | | per fixture | \$105.00 | 981.1200 | 0.112 | 100% |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W | 0192.1 | | per fixture | \$105.00 | 981.1200 | 0.112 | 100% |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | 0193 | | per fixture | \$74.00 | 613.2000 | 0.070 | 100% |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W fixture | 0193.1 | | per fixture | \$74.00 | 613.2000 | 0.070 | 100% |
| Small Business Direct Install | All | Lighting | Exterior LED replacing >400W HID | 0194 | | per fixture | \$1,182.50 | 2,661.7000 | 0.619 | 0% |
| Small Business Direct Install | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | 0194.1 | | per fixture | \$1,182.50 | 2,661.7000 | 0.619 | 0% |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251-400W HID | 0195 | | per fixture | \$535.00 | 1,191.1000 | 0.277 | 0% |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | 0195.1 | | per fixture | \$535.00 | 1,191.1000 | 0.277 | 0% |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175-250W HID | 0196 | | per fixture | \$398.80 | 602.0000 | 0.140 | 0% |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | 0196.1 | | per fixture | \$398.80 | 602.0000 | 0.140 | 0% |
| Small Business Direct Install | All | Lighting | Exterior LED replacing <175W HID | 0197 | | per fixture | \$299.75 | 490.2000 | 0.114 | 0% |
| Small Business Direct Install | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | 0197.1 | | per fixture | \$299.75 | 490.2000 | 0.114 | 0% |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing >175W HID | 0198 | | per fixture | \$520.00 | 902.2800 | 0.103 | 100% |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | 0198.1 | | per fixture | \$520.00 | 902.2800 | 0.103 | 100% |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W HID | 0199 | | per fixture | \$380.00 | 981.1200 | 0.112 | 100% |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | 0199.1 | | per fixture | \$380.00 | 981.1200 | 0.112 | 100% |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W HID | 0200 | | per fixture | \$320.00 | 613.2000 | 0.070 | 100% |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | 0200.1 | | per fixture | \$320.00 | 613.2000 | 0.070 | 100% |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | 0201 | | per fixture | \$24.00 | 54.4896 | 0.017 | 75% |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | 0201.1 | | per fixture | \$24.00 | 54.4896 | 0.017 | 75% |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | 0202 | | per fixture | \$22.00 | 34.6752 | 0.011 | 75% |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | 0202.1 | | per fixture | \$22.00 | 34.6752 | 0.011 | 75% |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 0203 | | per fixture | \$155.00 | 199.7730 | 0.060 | 75% |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0203.1 | | per fixture | \$155.00 | 199.7730 | 0.060 | 75% |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 0204 | | per fixture | \$145.00 | 257.8703 | 0.078 | 75% |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0204.1 | | per fixture | \$145.00 | 257.8703 | 0.078 | 75% |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | 0205 | | per fixture | \$130.00 | 194.8194 | 0.059 | 75% |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0205.1 | | per fixture | \$130.00 | 194.8194 | 0.059 | 75% |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0206 | | per fixture | \$180.00 | 209.6802 | 0.063 | 75% |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0206.1 | | per fixture | \$180.00 | 209.6802 | 0.063 | 75% |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

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| Measure Description | | | | | | | | |
|-------------------------------|---------|----------|--|--|------------------------|----------------------|--|--------------------------|
| Program | Segment | End Use | Measure Name | Coincident Peak Demand Savings (kW/unit) | Annual Operating Hours | Measure Life (Years) | Measure Definition | Measure Efficiency Value |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (≥10W) | 0.0610 | 3,933 | 7 | LED (watts) | 13 |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | 0.0610 | 3,933 | 7 | LED (watts) | 13 |
| Small Business Direct Install | All | Lighting | Wall-Mount Occupancy Sensor | 0.0707 | 4,128 | 8 | Wall-Mount Occupancy Sensor | 185 |
| Small Business Direct Install | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | 0.0707 | 4,128 | 8 | Wall-Mount Occupancy Sensor | 185 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | 0.1030 | 8,760 | 6 | 4-ft 3L to 4L 4' T5, T5HO or T8 | 155 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W fixture | 0.1030 | 8,760 | 6 | 4-ft 3L to 4L 4' T5, T5HO or T8 | 155 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | 0.1120 | 8,760 | 6 | 4-ft 2L to 3L 4' T5, T5HO or T8 | 84 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W | 0.1120 | 8,760 | 6 | 4-ft 2L to 3L 4' T5, T5HO or T8 | 84 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | 0.0700 | 8,760 | 6 | 4-ft 1L to 2L 4' T5, T5HO or T8 | 54 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W fixture | 0.0700 | 8,760 | 6 | 4-ft 1L to 2L 4' T5, T5HO or T8 | 54 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing >400W HID | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 412 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 412 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251-400W HID | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 167 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 167 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175-250W HID | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 82 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 82 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing <175W HID | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 37 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | 0.0000 | 4,300 | 12 | LED Exterior Lighting Fixtures (Includes | 37 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing >175W HID | 0.1030 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 155 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | 0.1030 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 155 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W HID | 0.1120 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 84 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | 0.1120 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 84 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W HID | 0.0700 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 54 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | 0.0700 | 8,760 | 6 | LED Parking Garage Lighting Fixtures | 54 |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | 0.0124 | 4,128 | 12 | 4-ft LED Linear Replacement Lamps | 18 |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | 0.0124 | 4,128 | 12 | 4-ft LED Linear Replacement Lamps | 18 |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | 0.0079 | 4,128 | 12 | 2-ft LED Linear Replacement Lamps | 10 |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | 0.0079 | 4,128 | 12 | 2-ft LED Linear Replacement Lamps | 10 |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 0.0454 | 4,128 | 12 | LED 1X4 Retrofit Kits | 37 |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0.0454 | 4,128 | 12 | LED 1X4 Retrofit Kits | 37 |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 0.0586 | 4,128 | 12 | LED 2X4 Retrofit Kits | 46 |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0.0586 | 4,128 | 12 | LED 2X4 Retrofit Kits | 46 |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | 0.0442 | 4,128 | 12 | LED 2X2 Retrofit Kits | 38 |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 0.0442 | 4,128 | 12 | LED 2X2 Retrofit Kits | 38 |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0.0476 | 4,128 | 12 | LED 1X4 Troffer or Linear Ambient Fixtu | 35 |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0.0476 | 4,128 | 12 | LED 1X4 Troffer or Linear Ambient Fixtu | 35 |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

indicates default plan values that can be adjusted for unique installations.

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

| Measure Description | | | | Algorithms | | |
|-------------------------------|---------|----------|--|--|---------------------------|---|
| Program | Segment | End Use | Measure Name | Baseline Definition | Baseline Efficiency Value | Electric Energy Savings Algorithm |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (≥10W) | EISA tier 1 compliant Halogen (watts) | 78 | =ROUND((R207-P207)/1000*M207*AC207,4) |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | EISA tier 1 compliant Halogen (watts) | 78 | =ROUND((R208-P208)/1000*M208*AC208,4) |
| Small Business Direct Install | All | Lighting | Wall-Mount Occupancy Sensor | No Control | | =ROUND(P209/1000*AG209*M209*AC209,4) |
| Small Business Direct Install | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | No Control | | =ROUND(P210/1000*AG210*M210*AC210,4) |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | 200W - 250W HID Fixture | 258 | =ROUND((R211-P211)*(AC211)*M211/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W fixture | 200W - 250W HID Fixture | 258 | =ROUND((R212-P212)*(AC212)*M212/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | 125W - 175W HID Fixture | 196 | =ROUND((R213-P213)*(AC213)*M213/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W | 125W - 175W HID Fixture | 196 | =ROUND((R214-P214)*(AC214)*M214/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | ≤ 100 W HID Fixture | 124 | =ROUND((R215-P215)*(AC215)*M215/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W fixture | ≤ 100 W HID Fixture | 124 | =ROUND((R216-P216)*(AC216)*M216/1000,4) |
| Small Business Direct Install | All | Lighting | Exterior LED replacing >400W HID | > 400 W HID Fixture | 1031 | =ROUND((R217-P217)*(AC217)*M217/1000,4) |
| Small Business Direct Install | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | > 400 W HID Fixture | 1031 | =ROUND((R218-P218)*(AC218)*M218/1000,4) |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251-400W HID | 320 W Pulse Start and 400W MH/HPS Fixt | 444 | =ROUND((R219-P219)*(AC219)*M219/1000,4) |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | 320 W Pulse Start and 400W MH/HPS Fixt | 444 | =ROUND((R220-P220)*(AC220)*M220/1000,4) |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175-250W HID | 175 W HID - 250 W HID Fixture | 222 | =ROUND((R221-P221)*(AC221)*M221/1000,4) |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | 175 W HID - 250 W HID Fixture | 222 | =ROUND((R222-P222)*(AC222)*M222/1000,4) |
| Small Business Direct Install | All | Lighting | Exterior LED replacing <175W HID | < 175 W HID Fixture | 151 | =ROUND((R223-P223)*(AC223)*M223/1000,4) |
| Small Business Direct Install | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | < 175 W HID Fixture | 151 | =ROUND((R224-P224)*(AC224)*M224/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing >175W HID | 200W - 250W HID Fixture | 258 | =ROUND((R225-P225)*(AC225)*M225/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | 200W - 250W HID Fixture | 258 | =ROUND((R226-P226)*(AC226)*M226/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W HID | 125W - 175W HID Fixture | 196 | =ROUND((R227-P227)*(AC227)*M227/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | 125W - 175W HID Fixture | 196 | =ROUND((R228-P228)*(AC228)*M228/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W HID | ≤ 100 W HID Fixture | 124 | =ROUND((R229-P229)*(AC229)*M229/1000,4) |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | ≤ 100 W HID Fixture | 124 | =ROUND((R230-P230)*(AC230)*M230/1000,4) |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | 32W 4-ft T8 with Electronic NBF Ballast | 29 | =ROUND((R231-P231)*(AC231)*M231/1000,4) |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | 32W 4-ft T8 with Electronic NBF Ballast | 29 | =ROUND((R232-P232)*(AC232)*M232/1000,4) |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | 17W 2-ft T8 with Electronic NBF Ballast | 17 | =ROUND((R233-P233)*(AC233)*M233/1000,4) |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | 17W 2-ft T8 with Electronic NBF Ballast | 17 | =ROUND((R234-P234)*(AC234)*M234/1000,4) |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 1x4 T8, T12 or T5 Fluorescents | 77 | =ROUND((R235-P235)*(AC235)*M235/1000,4) |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 1x4 T8, T12 or T5 Fluorescents | 77 | =ROUND((R236-P236)*(AC236)*M236/1000,4) |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | 2x4 T8, T12 or T5 Fluorescents | 98 | =ROUND((R237-P237)*(AC237)*M237/1000,4) |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 2x4 T8, T12 or T5 Fluorescents | 98 | =ROUND((R238-P238)*(AC238)*M238/1000,4) |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | 2x2 T8, T12 or T5 Fluorescents | 77 | =ROUND((R239-P239)*(AC239)*M239/1000,4) |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | 2x2 T8, T12 or T5 Fluorescents | 77 | =ROUND((R240-P240)*(AC240)*M240/1000,4) |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 1X4 Troffer or Linear Ambient T8, T12 or T | 77 | =ROUND((R241-P241)*(AC241)*M241/1000,4) |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 1X4 Troffer or Linear Ambient T8, T12 or T | 77 | =ROUND((R242-P242)*(AC242)*M242/1000,4) |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

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Count: 162

| Measure Description | | | | | | |
|-------------------------------|---------|----------|--|--|--------------------------|---|
| Program | Segment | End Use | Measure Name | Incentive Definition | Net to Gross Ratio (NTG) | Net Electric Energy Savings (Annual kWh/unit) |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (≥10W) | per unit | 100% | 360.46 |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | per unit | 100% | 360.46 |
| Small Business Direct Install | All | Lighting | Wall-Mount Occupancy Sensor | per unit | 100% | 323.04 |
| Small Business Direct Install | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | per unit | 100% | 323.04 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 902.28 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W fixture | per unit | 100% | 902.28 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 981.12 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W | per unit | 100% | 981.12 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 613.20 |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W fixture | per unit | 100% | 613.20 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing >400W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 2,661.70 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 2,661.70 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251-400W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 1,191.10 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 1,191.10 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175-250W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 602.00 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 602.00 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing <175W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 490.20 |
| Small Business Direct Install | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 490.20 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing >175W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 902.28 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 902.28 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 981.12 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 981.12 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W HID | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 613.20 |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | per unit | 100% | 613.20 |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | Approximately \$0.15/kWh; Keeping equitable with T | 100% | 54.49 |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | per unit | 100% | 54.49 |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | Approximately \$0.15/kWh; Keeping equitable with T | 100% | 34.68 |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | per unit | 100% | 34.68 |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 199.77 |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 199.77 |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 257.87 |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 257.87 |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 194.82 |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 194.82 |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 209.68 |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 209.68 |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

[Link to CDD](#)

Search using Drop-down Filters in Headers

W

X

AA

Count: 162

| Measure Description | | | | | | | | |
|-------------------------------|---------|----------|--|----------------------------------|-----------------------|----------------------|--------------------|---------------------------|
| Program | Segment | End Use | Measure Name | Data Source | Date of Data Revision | Effective Start Date | Effective End Date | Cooling Degree Days (CDD) |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (≥10W) | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Wall-Mount Occupancy Sensor | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | IN TRM | 11/4/2015 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W fixture | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W fixture | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing >400W HID | IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251-400W HID | IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175-250W HID | IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing <175W HID | IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing >175W HID | IN TRM | 11/4/2015 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W HID | IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W HID | IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to [Link to HDD](#)

Search using Drop-down Filters in Headers

AB

AC

AD

AE

AF

Count: 162

| Measure Description | | | | Supporting Information | | | | |
|-------------------------------|---------|----------|--|---------------------------|-----------|--------------------------|-----------|--------------------------|
| Program | Segment | End Use | Measure Name | Heating Degree Days (HDD) | Quantity1 | Quantity1 Description | Quantity2 | Quantity2 Description |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (≥10W) | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | Wall-Mount Occupancy Sensor | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W fixture | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W fixture | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Exterior LED replacing >400W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251-400W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175-250W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Exterior LED replacing <175W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing >175W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W HID | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | | 1.00 | Waste Heat Factor_Energy | 1.00 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

AG

AH

Count: 162

| Measure Description | | | | | |
|-------------------------------|---------|----------|--|-----------|-----------------------|
| Program | Segment | End Use | Measure Name | Quantity3 | Quantity3 Description |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Bulb (≥10W) | | |
| Small Business Direct Install | All | Lighting | Omnidirectional LED Lamp replacing 61-100W Lamp | | |
| Small Business Direct Install | All | Lighting | Wall-Mount Occupancy Sensor | 30% | ESF |
| Small Business Direct Install | All | Lighting | Occupancy or Vacancy Sensor Replacing No Controls | 30% | ESF |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W HID | | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'3L T5, T5HP, or T8 replacing >175W fixture | | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W HID | | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'2L T5, T5HP, or T8 replacing 101W-175W | | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W HID | | |
| Small Business Direct Install | All | Lighting | Parking Garage 4'1L T5, T5HP, or T8 replacing ≤100W fixture | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing >400W HID | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing > 400W Fixture or Mogul Screw-Base Lamp | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251-400W HID | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 251W-400W Fixture or Mogul Screw-Base Lamp | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175-250W HID | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing 175W-250W Fixture or Mogul Screw-Base Lamp | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing <175W HID | | |
| Small Business Direct Install | All | Lighting | Exterior LED replacing < 175W Fixture or Mogul Screw-Base Lamp | | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing >175W HID | | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing > 175W Fixture or Mogul Screw-Base Lamp | | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W HID | | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing 101W-175W Fixture or Mogul Screw-Base Lamp | | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W HID | | |
| Small Business Direct Install | All | Lighting | Parking Garage LED replacing ≤ 100W Fixture or Mogul Screw-Base Lamp | | |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 4' T8, T12, or T5 lamp (Eligible for lighting optimization if applicable to project) | | |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 4ft T8, T12, or T5 Lamp | | |
| Small Business Direct Install | All | Lighting | LED linear replacement lamp replacing a 2-ft T8, T12 or T5 lamp | | |
| Small Business Direct Install | All | Lighting | LED Linear Lamp Replacing 2ft T8, T12, or T5 Lamp | | |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO | | |
| Small Business Direct Install | All | Lighting | LED 1X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO | | |
| Small Business Direct Install | All | Lighting | LED 2X4 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO | | |
| Small Business Direct Install | All | Lighting | LED 2X2 Retrofit Kit replacing T8, T12 or T5/T5HO fixture | | |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | |
| Small Business Direct Install | All | Lighting | LED 1X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to **36 months following**

Search using Drop-down Filters in Headers

Column Label:

H

I

J

K

Count: 162

Column Equation:

see column R

= H / L

| Measure Description | | | | | | | Gross Measure Value | | | |
|-------------------------------|---------|----------|---|-------------|-------|-----------------|------------------------------------|---|------------------------------------|-------------------------|
| Program | Segment | End Use | Measure Name | Primary Key | Notes | Unit Definition | Incremental Measure Cost (\$/Unit) | Electric Energy Savings (Annual kWh/unit) | Nameplate Demand Savings (kW/unit) | Peak Coincidence Factor |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0207 | | per fixture | \$170.00 | 257.8703 | 0.078 | 75% |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0207.1 | | per fixture | \$170.00 | 257.8703 | 0.078 | 75% |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0208 | | per fixture | \$155.00 | 204.7266 | 0.062 | 75% |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0208.1 | | per fixture | \$155.00 | 204.7266 | 0.062 | 75% |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | 0209 | | per fixture | \$230.00 | 594.9354 | 0.096 | 92% |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | 0209.1 | | per fixture | \$230.00 | 594.9354 | 0.096 | 92% |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | 0210 | | per fixture | \$230.00 | 641.3488 | 0.103 | 92% |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | 0210.1 | | per fixture | \$230.00 | 641.3488 | 0.103 | 92% |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | 0211 | | per fixture | \$35.00 | 195.0768 | 0.060 | 70% |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | 0211.1 | | per fixture | \$35.00 | 195.0768 | 0.060 | 70% |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | 0212 | | per fixture | \$68.00 | 321.8767 | 0.100 | 70% |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | 0212.1 | | per fixture | \$68.00 | 321.8767 | 0.100 | 70% |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | 0213 | | per fixture | \$120.00 | 512.0766 | 0.159 | 70% |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | 0213.1 | | per fixture | \$120.00 | 512.0766 | 0.159 | 70% |
| Small Business Direct Install | All | Lighting | LED Low Bay 30-70W | 0214 | | per fixture | \$305.00 | 806.6286 | 0.176 | 83% |
| Small Business Direct Install | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | 0214.1 | | per fixture | \$305.00 | 806.6286 | 0.176 | 83% |
| Small Business Direct Install | All | Lighting | LED Low/High Bay 71-110W | 0215 | | per fixture | \$330.00 | 1,096.0297 | 0.239 | 83% |
| Small Business Direct Install | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | 0215.1 | | per fixture | \$330.00 | 1,096.0297 | 0.239 | 83% |
| Small Business Direct Install | All | Lighting | LED High Bay 111-175W | 0216 | | per fixture | \$430.00 | 1,711.7767 | 0.373 | 83% |
| Small Business Direct Install | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | 0216.1 | | per fixture | \$430.00 | 1,711.7767 | 0.373 | 83% |
| Small Business Direct Install | All | Lighting | LED High Bay 176-350W | 0217 | | per fixture | \$725.00 | 4,482.6382 | 0.976 | 83% |
| Small Business Direct Install | All | Lighting | LED High Bay fixture replacing > 750W fixture | 0217.1 | | per fixture | \$725.00 | 4,482.6382 | 0.976 | 83% |
| Small Business Direct Install | All | Lighting | 28W - 4 ft fluorescent T8 lamp | 0218 | | per lamp | \$1.00 | 17.9222 | 0.004 | 72% |
| Small Business Direct Install | All | Lighting | 25W - 4 ft fluorescent T8 lamp | 0219 | | per lamp | \$2.50 | 35.8443 | 0.009 | 72% |
| Business Standard | All | Lighting | LED Low Bay 30-70W | 0220 | | per fixture | \$305.00 | 806.6286 | 0.176 | 83% |
| Business Standard | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | 0220.1 | | per fixture | \$305.00 | 806.6286 | 0.176 | 83% |
| Business Standard | All | Lighting | LED Low/High Bay 71-110W | 0221 | | per fixture | \$330.00 | 1,096.0297 | 0.239 | 83% |
| Business Standard | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | 0221.1 | | per fixture | \$330.00 | 1,096.0297 | 0.239 | 83% |
| Business Standard | All | Lighting | LED High Bay 111-175W | 0222 | | per fixture | \$430.00 | 1,711.7767 | 0.373 | 83% |
| Business Standard | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | 0222.1 | | per fixture | \$430.00 | 1,711.7767 | 0.373 | 83% |
| Business Standard | All | Lighting | LED High Bay 176-350W | 0223 | | per fixture | \$725.00 | 4,482.6382 | 0.976 | 83% |
| Business Standard | All | Lighting | LED High Bay fixture replacing > 750W fixture | 0223.1 | | per fixture | \$725.00 | 4,482.6382 | 0.976 | 83% |
| Business Standard | All | Lighting | 28W - 4 ft fluorescent T8 lamp | 0224 | | per lamp | \$1.00 | 17.9222 | 0.004 | 72% |
| Business Standard | All | Lighting | 28W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | 0224.1 | | per lamp | \$1.00 | 17.9222 | 0.004 | 72% |
| Business Standard | All | Lighting | 25W - 4 ft fluorescent T8 lamp | 0225 | | per lamp | \$2.50 | 35.8443 | 0.009 | 72% |
| Business Standard | All | Lighting | 25W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | 0225.1 | | per lamp | \$2.50 | 35.8443 | 0.009 | 72% |
| Business Standard | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | 0226 | | per fixture | \$100.00 | 806.6286 | 0.176 | 83% |
| Business Standard | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | 0227 | | per fixture | \$150.00 | 1,096.0297 | 0.239 | 83% |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | 0228 | | per fixture | \$200.00 | 1,711.7767 | 0.373 | 83% |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

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Count: 162

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| Measure Description | | | | | | | | |
|-------------------------------|---------|----------|---|--|------------------------|----------------------|---|--------------------------|
| Program | Segment | End Use | Measure Name | Coincident Peak Demand Savings (kW/unit) | Annual Operating Hours | Measure Life (Years) | Measure Definition | Measure Efficiency Value |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0.0586 | 4,128 | 12 | LED 2X2 Troffer or Linear Ambient Fixture | 46 |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0.0586 | 4,128 | 12 | LED 2X2 Troffer or Linear Ambient Fixture | 46 |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 0.0465 | 4,128 | 12 | LED 2X4 Troffer or Linear Ambient Fixture | 36 |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 0.0465 | 4,128 | 12 | LED 2X4 Troffer or Linear Ambient Fixture | 36 |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | 0.0882 | 6,205 | 8 | LED Refrigerated (Medium Temp) Case | 34 |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | 0.0882 | 6,205 | 8 | LED Refrigerated (Medium Temp) Case | 34 |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | 0.0951 | 6,205 | 8 | LED Freezer (Low Temp) Case Light Fixture | 34 |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | 0.0951 | 6,205 | 8 | LED Freezer (Low Temp) Case Light Fixture | 34 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | 0.0423 | 3,933 | 13 | LED Downlight or Retrofit Kit ≤ 13W | 11 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | 0.0423 | 3,933 | 13 | LED Downlight or Retrofit Kit ≤ 13W | 11 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | 0.0698 | 3,933 | 13 | LED Downlight or Retrofit Kit 14 to 21W | 18 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | 0.0698 | 3,933 | 13 | LED Downlight or Retrofit Kit 14 to 21W | 18 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | 0.1110 | 3,933 | 13 | LED Downlight or Retrofit Kit ≥ 22W | 28 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | 0.1110 | 3,933 | 13 | LED Downlight or Retrofit Kit ≥ 22W | 28 |
| Small Business Direct Install | All | Lighting | LED Low Bay 30-70W | 0.1457 | 4,367 | 12 | LED Low Bay (watts) | 70 |
| Small Business Direct Install | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | 0.1457 | 4,367 | 12 | LED Low Bay (watts) | 70 |
| Small Business Direct Install | All | Lighting | LED Low/High Bay 71-110W | 0.1980 | 4,367 | 12 | LED High/Low Bay (watts) | 110 |
| Small Business Direct Install | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | 0.1980 | 4,367 | 12 | LED High/Low Bay (watts) | 110 |
| Small Business Direct Install | All | Lighting | LED High Bay 111-175W | 0.3092 | 4,367 | 12 | LED High Bay (watts) | 175 |
| Small Business Direct Install | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | 0.3092 | 4,367 | 12 | LED High Bay (watts) | 175 |
| Small Business Direct Install | All | Lighting | LED High Bay 176-350W | 0.8097 | 4,367 | 12 | LED High Bay (watts) | 350 |
| Small Business Direct Install | All | Lighting | LED High Bay fixture replacing > 750W fixture | 0.8097 | 4,367 | 12 | LED High Bay (watts) | 350 |
| Small Business Direct Install | All | Lighting | 28W - 4 ft fluorescent T8 lamp | 0.0031 | 3,911 | 7 | 28W - 4 ft fluorescent T8 lamp | 25 |
| Small Business Direct Install | All | Lighting | 25W - 4 ft fluorescent T8 lamp | 0.0063 | 3,911 | 7 | 25W - 4 ft fluorescent T8 lamp | 22 |
| Business Standard | All | Lighting | LED Low Bay 30-70W | 0.1457 | 4,367 | 12 | LED Low Bay (watts) | 70 |
| Business Standard | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | 0.1457 | 4,367 | 12 | LED Low Bay (watts) | 70 |
| Business Standard | All | Lighting | LED Low/High Bay 71-110W | 0.1980 | 4,367 | 12 | LED High/Low Bay (watts) | 110 |
| Business Standard | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | 0.1980 | 4,367 | 12 | LED High/Low Bay (watts) | 110 |
| Business Standard | All | Lighting | LED High Bay 111-175W | 0.3092 | 4,367 | 12 | LED High Bay (watts) | 175 |
| Business Standard | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | 0.3092 | 4,367 | 12 | LED High Bay (watts) | 175 |
| Business Standard | All | Lighting | LED High Bay 176-350W | 0.8097 | 4,367 | 12 | LED High Bay (watts) | 350 |
| Business Standard | All | Lighting | LED High Bay fixture replacing > 750W fixture | 0.8097 | 4,367 | 12 | LED High Bay (watts) | 350 |
| Business Standard | All | Lighting | 28W - 4 ft fluorescent T8 lamp | 0.0031 | 3,911 | 7 | 28W - 4 ft fluorescent T8 lamp | 25 |
| Business Standard | All | Lighting | 28W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | 0.0031 | 3,911 | 7 | 28W - 4 ft fluorescent T8 lamp | 25 |
| Business Standard | All | Lighting | 25W - 4 ft fluorescent T8 lamp | 0.0063 | 3,911 | 7 | 25W - 4 ft fluorescent T8 lamp | 22 |
| Business Standard | All | Lighting | 25W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | 0.0063 | 3,911 | 7 | 25W - 4 ft fluorescent T8 lamp | 22 |
| Business Standard | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | 0.1457 | 4,367 | 12 | LED Low Bay (watts) | 70 |
| Business Standard | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | 0.1980 | 4,367 | 12 | LED High/Low Bay (watts) | 110 |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | 0.3092 | 4,367 | 12 | LED High Bay (watts) | 175 |

Current List of DSM Measure Assumptions for KCP&L

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indicates default plan values that can be adjusted for unique installations.

Valid for Program Implementation Dates: **Early 2016** to

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Count: 162

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| Measure Description | | | | Algorithms | | |
|-------------------------------|---------|----------|---|--|---------------------------|---|
| Program | Segment | End Use | Measure Name | Baseline Definition | Baseline Efficiency Value | Electric Energy Savings Algorithm |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 2X4 Troffer or Linear Ambient T8, T12 or T | 98 | =ROUND((R243-P243)*(AC243)*M243/1000,4) |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 2X4 Troffer or Linear Ambient T8, T12 or T | 98 | =ROUND((R244-P244)*(AC244)*M244/1000,4) |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | 2X2 Troffer or Linear Ambient T8, T12 or T | 77 | =ROUND((R245-P245)*(AC245)*M245/1000,4) |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | 2X2 Troffer or Linear Ambient T8, T12 or T | 77 | =ROUND((R246-P246)*(AC246)*M246/1000,4) |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | Linear Fluorescent T12 and T8 Fixtures | 102 | =ROUND((R247-P247)*(AC247)*M247/1000,4) |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | Linear Fluorescent T12 and T8 Fixtures | 102 | =ROUND((R248-P248)*(AC248)*M248/1000,4) |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | Linear Fluorescent T12 and T8 Fixtures | 102 | =ROUND((R249-P249)*(AC249)*M249/1000,4) |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | Linear Fluorescent T12 and T8 Fixtures | 102 | =ROUND((R250-P250)*(AC250)*M250/1000,4) |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | Incandescent and Halogen Downlights < 1 | 51 | =ROUND((R251-P251)*(AC251)*M251/1000,4) |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | Incandescent and Halogen Downlights < 1 | 51 | =ROUND((R252-P252)*(AC252)*M252/1000,4) |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | Incandescent and Halogen Downlights 100 | 84 | =ROUND((R253-P253)*(AC253)*M253/1000,4) |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | Incandescent and Halogen Downlights 100 | 84 | =ROUND((R254-P254)*(AC254)*M254/1000,4) |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | Incandescent, HID and Halogen Downlight | 133 | =ROUND((R255-P255)*(AC255)*M255/1000,4) |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | Incandescent, HID and Halogen Downlight | 133 | =ROUND((R256-P256)*(AC256)*M256/1000,4) |
| Small Business Direct Install | All | Lighting | LED Low Bay 30-70W | Pulse Start Metal Halide (watts) | 201 | =ROUND((R257-P257)*(AC257)*M257/1000,4) |
| Small Business Direct Install | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | Pulse Start Metal Halide (watts) | 201 | =ROUND((R258-P258)*(AC258)*M258/1000,4) |
| Small Business Direct Install | All | Lighting | LED Low/High Bay 71-110W | Pulse Start Metal Halide (watts) | 288 | =ROUND((R259-P259)*(AC259)*M259/1000,4) |
| Small Business Direct Install | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | Pulse Start Metal Halide (watts) | 288 | =ROUND((R260-P260)*(AC260)*M260/1000,4) |
| Small Business Direct Install | All | Lighting | LED High Bay 111-175W | Pulse Start Metal Halide (watts) | 453 | =ROUND((R261-P261)*(AC261)*M261/1000,4) |
| Small Business Direct Install | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | Pulse Start Metal Halide (watts) | 453 | =ROUND((R262-P262)*(AC262)*M262/1000,4) |
| Small Business Direct Install | All | Lighting | LED High Bay 176-350W | Pulse Start Metal Halide (watts) | 1078 | =ROUND((R263-P263)*(AC263)*M263/1000,4) |
| Small Business Direct Install | All | Lighting | LED High Bay fixture replacing > 750W fixture | Pulse Start Metal Halide (watts) | 1078 | =ROUND((R264-P264)*(AC264)*M264/1000,4) |
| Small Business Direct Install | All | Lighting | 28W - 4 ft fluorescent T8 lamp | 32W 4 ft fluorescent T8 lamp | 28 | =ROUND((R265-P265)*(AC265)*M265/1000,4) |
| Small Business Direct Install | All | Lighting | 25W - 4 ft fluorescent T8 lamp | 32W 4 ft fluorescent T8 lamp | 28 | =ROUND((R266-P266)*(AC266)*M266/1000,4) |
| Business Standard | All | Lighting | LED Low Bay 30-70W | Pulse Start Metal Halide (watts) | 201 | =ROUND((R267-P267)*(AC267)*M267/1000,4) |
| Business Standard | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | Pulse Start Metal Halide (watts) | 201 | =ROUND((R268-P268)*(AC268)*M268/1000,4) |
| Business Standard | All | Lighting | LED Low/High Bay 71-110W | Pulse Start Metal Halide (watts) | 288 | =ROUND((R269-P269)*(AC269)*M269/1000,4) |
| Business Standard | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | Pulse Start Metal Halide (watts) | 288 | =ROUND((R270-P270)*(AC270)*M270/1000,4) |
| Business Standard | All | Lighting | LED High Bay 111-175W | Pulse Start Metal Halide (watts) | 453 | =ROUND((R271-P271)*(AC271)*M271/1000,4) |
| Business Standard | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | Pulse Start Metal Halide (watts) | 453 | =ROUND((R272-P272)*(AC272)*M272/1000,4) |
| Business Standard | All | Lighting | LED High Bay 176-350W | Pulse Start Metal Halide (watts) | 1078 | =ROUND((R273-P273)*(AC273)*M273/1000,4) |
| Business Standard | All | Lighting | LED High Bay fixture replacing > 750W fixture | Pulse Start Metal Halide (watts) | 1078 | =ROUND((R274-P274)*(AC274)*M274/1000,4) |
| Business Standard | All | Lighting | 28W - 4 ft fluorescent T8 lamp | 32W 4 ft fluorescent T8 lamp | 28 | =ROUND((R275-P275)*(AC275)*M275/1000,4) |
| Business Standard | All | Lighting | 28W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | 32W 4 ft fluorescent T8 lamp | 28 | =ROUND((R276-P276)*(AC276)*M276/1000,4) |
| Business Standard | All | Lighting | 25W - 4 ft fluorescent T8 lamp | 32W 4 ft fluorescent T8 lamp | 28 | =ROUND((R277-P277)*(AC277)*M277/1000,4) |
| Business Standard | All | Lighting | 25W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | 32W 4 ft fluorescent T8 lamp | 28 | =ROUND((R278-P278)*(AC278)*M278/1000,4) |
| Business Standard | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | Pulse Start Metal Halide (watts) | 201 | =ROUND((R279-P279)*(AC279)*M279/1000,4) |
| Business Standard | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | Pulse Start Metal Halide (watts) | 288 | =ROUND((R280-P280)*(AC280)*M280/1000,4) |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | Pulse Start Metal Halide (watts) | 453 | =ROUND((R281-P281)*(AC281)*M281/1000,4) |

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Published

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Count: 162

| Measure Description | | | | | | |
|-------------------------------|---------|----------|---|--|--------------------------|---|
| Program | Segment | End Use | Measure Name | Incentive Definition | Net to Gross Ratio (NTG) | Net Electric Energy Savings (Annual kWh/unit) |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 257.87 |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 257.87 |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Targeted a bit above 25% of IMC between \$0.16-\$0.2 | 100% | 204.73 |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | per unit | 100% | 204.73 |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 594.94 |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | per unit | 100% | 594.94 |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 641.35 |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | per unit | 100% | 641.35 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 195.08 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | per unit | 100% | 195.08 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 321.88 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | per unit | 100% | 321.88 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | Min of 50% Incremental Cost or \$0.10/kWh with som | 100% | 512.08 |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | per unit | 100% | 512.08 |
| Small Business Direct Install | All | Lighting | LED Low Bay 30-70W | per unit | 100% | 806.63 |
| Small Business Direct Install | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | per unit | 100% | 806.63 |
| Small Business Direct Install | All | Lighting | LED Low/High Bay 71-110W | per unit | 100% | 1,096.03 |
| Small Business Direct Install | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | per unit | 100% | 1,096.03 |
| Small Business Direct Install | All | Lighting | LED High Bay 111-175W | per unit | 100% | 1,711.78 |
| Small Business Direct Install | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | per unit | 100% | 1,711.78 |
| Small Business Direct Install | All | Lighting | LED High Bay 176-350W | per unit | 100% | 4,482.64 |
| Small Business Direct Install | All | Lighting | LED High Bay fixture replacing > 750W fixture | per unit | 100% | 4,482.64 |
| Small Business Direct Install | All | Lighting | 28W - 4 ft fluorescent T8 lamp | per unit | 100% | 17.92 |
| Small Business Direct Install | All | Lighting | 25W - 4 ft fluorescent T8 lamp | per unit | 100% | 35.84 |
| Business Standard | All | Lighting | LED Low Bay 30-70W | per unit | 100% | 806.63 |
| Business Standard | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | per unit | 100% | 806.63 |
| Business Standard | All | Lighting | LED Low/High Bay 71-110W | per unit | 100% | 1,096.03 |
| Business Standard | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | per unit | 100% | 1,096.03 |
| Business Standard | All | Lighting | LED High Bay 111-175W | per unit | 100% | 1,711.78 |
| Business Standard | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | per unit | 100% | 1,711.78 |
| Business Standard | All | Lighting | LED High Bay 176-350W | per unit | 100% | 4,482.64 |
| Business Standard | All | Lighting | LED High Bay fixture replacing > 750W fixture | per unit | 100% | 4,482.64 |
| Business Standard | All | Lighting | 28W - 4 ft fluorescent T8 lamp | per unit | 100% | 17.92 |
| Business Standard | All | Lighting | 28W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | per unit | 100% | 17.92 |
| Business Standard | All | Lighting | 25W - 4 ft fluorescent T8 lamp | per unit | 100% | 35.84 |
| Business Standard | All | Lighting | 25W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | per unit | 100% | 35.84 |
| Business Standard | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | per unit | 100% | 806.63 |
| Business Standard | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | per unit | 100% | 1,096.03 |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | per unit | 100% | 1,711.78 |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

[Link to CDD](#)

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Count: 162

| Measure Description | | | | | | | | |
|-------------------------------|---------|----------|---|----------------------------------|-----------------------|----------------------|--------------------|---------------------------|
| Program | Segment | End Use | Measure Name | Data Source | Date of Data Revision | Effective Start Date | Effective End Date | Cooling Degree Days (CDD) |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | IL TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | IL TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | IL TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | IL TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | Weighted Average using IN TRM | 1/0/1900 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | Weighted Average using IN TRM | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED Low Bay 30-70W | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED Low/High Bay 71-110W | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED High Bay 111-175W | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED High Bay 176-350W | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Small Business Direct Install | All | Lighting | LED High Bay fixture replacing > 750W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Small Business Direct Install | All | Lighting | 28W - 4 ft fluorescent T8 lamp | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | | |
| Small Business Direct Install | All | Lighting | 25W - 4 ft fluorescent T8 lamp | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | | |
| Business Standard | All | Lighting | LED Low Bay 30-70W | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED Low/High Bay 71-110W | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED High Bay 111-175W | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED High Bay 176-350W | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | LED High Bay fixture replacing > 750W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | 28W - 4 ft fluorescent T8 lamp | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | 28W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | 25W - 4 ft fluorescent T8 lamp | AEG KCP&L Program Plan 2016-2018 | 2/11/2016 | 4/1/2016 | 3/31/2017 | |
| Business Standard | All | Lighting | 25W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 4/1/2017 | | |
| Business Standard | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 3/1/2017 | | |
| Business Standard | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 3/1/2017 | | |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 3/1/2017 | | |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to [Link to HDD](#)

Search using Drop-down Filters in Headers

AB

AC

AD

AE

AF

Count: 162

| Measure Description | | | | Supporting Information | | | | |
|-------------------------------|---------|----------|---|---------------------------|-----------|--------------------------|-----------|--------------------------|
| Program | Segment | End Use | Measure Name | Heating Degree Days (HDD) | Quantity1 | Quantity1 Description | Quantity2 | Quantity2 Description |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | 1.20 | Waste Heat Factor_Energy | 1.50 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | | 1.41 | Waste Heat Factor_Energy | 1.41 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorsecent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | | 1.41 | Waste Heat Factor_Energy | 1.41 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | | 1.52 | Waste Heat Factor_Energy | 1.52 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorsecent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | | 1.52 | Waste Heat Factor_Energy | 1.52 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | | 1.24 | Waste Heat Factor_Energy | 1.51 | Waste Heat Factor_Demand |
| Small Business Direct Install | All | Lighting | LED Low Bay 30-70W | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED Low/High Bay 71-110W | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED High Bay 111-175W | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED High Bay 176-350W | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED High Bay fixture replacing > 750W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | 28W - 4 ft fluorescent T8 lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | 25W - 4 ft fluorescent T8 lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED Low Bay 30-70W | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED Low/High Bay 71-110W | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED High Bay 111-175W | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED High Bay 176-350W | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED High Bay fixture replacing > 750W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | 28W - 4 ft fluorescent T8 lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | 28W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | 25W - 4 ft fluorescent T8 lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | 25W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |

Current List of DSM Measure Assumptions for KCP&L

Published

3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

AG

AH

Count: 162

| Measure Description | | | | | |
|-------------------------------|---------|----------|---|-----------|-----------------------|
| Program | Segment | End Use | Measure Name | Quantity3 | Quantity3 Description |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | |
| Small Business Direct Install | All | Lighting | LED 2X4 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO | | |
| Small Business Direct Install | All | Lighting | LED 2X2 Troffer or Linear Ambient replacing T8, T12 or T5/T5HO fixture | | |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights (4, 5, and 6-foot) | | |
| Small Business Direct Install | All | Lighting | LED Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Refrigerated Case Lights w/Doors 4ft, 5ft, or 6ft | | |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights (4, 5, and 6-foot) | | |
| Small Business Direct Install | All | Lighting | LED Freezer Case Lights w/Doors 4ft, 5ft, or 6ft replacing Fluorescent Freezer Case Lights w/Doors 4ft, 5ft, or 6ft | | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≤ 13W | | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 45-60W Fixture | | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit 14 to 21W | | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 61-100W Fixture | | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit ≥ 22W | | |
| Small Business Direct Install | All | Lighting | LED Downlight or Retrofit Kit replacing 101-155W Fixture | | |
| Small Business Direct Install | All | Lighting | LED Low Bay 30-70W | | |
| Small Business Direct Install | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | | |
| Small Business Direct Install | All | Lighting | LED Low/High Bay 71-110W | | |
| Small Business Direct Install | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | | |
| Small Business Direct Install | All | Lighting | LED High Bay 111-175W | | |
| Small Business Direct Install | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | | |
| Small Business Direct Install | All | Lighting | LED High Bay 176-350W | | |
| Small Business Direct Install | All | Lighting | LED High Bay fixture replacing > 750W fixture | | |
| Small Business Direct Install | All | Lighting | 28W - 4 ft fluorescent T8 lamp | | |
| Small Business Direct Install | All | Lighting | 25W - 4 ft fluorescent T8 lamp | | |
| Business Standard | All | Lighting | LED Low Bay 30-70W | | |
| Business Standard | All | Lighting | LED Low Bay Fixture replacing 150W-300W fixture | | |
| Business Standard | All | Lighting | LED Low/High Bay 71-110W | | |
| Business Standard | All | Lighting | LED Low/High Bay Fixture replacing 301W-450W fixture | | |
| Business Standard | All | Lighting | LED High Bay 111-175W | | |
| Business Standard | All | Lighting | LED High Bay Fixture replacing 451W - 750W fixture | | |
| Business Standard | All | Lighting | LED High Bay 176-350W | | |
| Business Standard | All | Lighting | LED High Bay fixture replacing > 750W fixture | | |
| Business Standard | All | Lighting | 28W - 4 ft fluorescent T8 lamp | | |
| Business Standard | All | Lighting | 28W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | | |
| Business Standard | All | Lighting | 25W - 4 ft fluorescent T8 lamp | | |
| Business Standard | All | Lighting | 25W 4ft T8 Lamp Replacing 32W 4ft T8 Lamp | | |
| Business Standard | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | | |
| Business Standard | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | | |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | | |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to **36 months following**

Search using Drop-down Filters in Headers

Column Label:

H

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Count: 162

Column Equation:

see column R

= H / L

| Measure Description | | | | | | | Gross Measure Value | | | |
|-------------------------------|---------------|----------|---|-------------|--------|-----------------|------------------------------------|---|------------------------------------|-------------------------|
| Program | Segment | End Use | Measure Name | Primary Key | Notes | Unit Definition | Incremental Measure Cost (\$/Unit) | Electric Energy Savings (Annual kWh/unit) | Nameplate Demand Savings (kW/unit) | Peak Coincidence Factor |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | 0229 | | per fixture | \$350.00 | 4,482.6382 | 0.976 | 83% |
| Small Business Direct Install | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | 0230 | | per fixture | \$305.00 | 806.6286 | 0.176 | 83% |
| Small Business Direct Install | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | 0231 | | per fixture | \$330.00 | 1,096.0297 | 0.239 | 83% |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | 0232 | | per fixture | \$430.00 | 1,711.7767 | 0.373 | 83% |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | 0233 | | per fixture | \$725.00 | 4,482.6382 | 0.976 | 83% |
| Whole House Efficiency | Single Family | HVAC | Furnace Filter Alarm | 0234 | Tier 1 | per unit | \$2.80 | 110.0000 | 0.042 | 68% |
| Whole House Efficiency | Single Family | HVAC | Indoor Coil Cleaning_SF:HVAC | 0235 | Tier 3 | per measure | \$63.00 | 117.0000 | 0.055 | 68% |
| Whole House Efficiency | Single Family | HVAC | Outdoor Coil Cleaning_SF:HVAC | 0236 | Tier 3 | per measure | \$31.00 | 258.0000 | 0.120 | 68% |
| Whole House Efficiency | Single Family | HVAC | Refrigerant Charge Adjustment (RCA)_SF: HVAC | 0237 | Tier 3 | per measure | \$127.00 | 856.0000 | 0.811 | 68% |
| Whole House Efficiency | Single Family | HVAC | HVAC Maintenance and Tune-up_SF: HVAC | 0238 | Tier 3 | per measure | \$ 70.00 | 173.9000 | 0.017 | 68% |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Early Retirement GSHP_SF: HVAC | 0239 | Tier 3 | per measure | \$ 4,859.00 | 8607.0000 | 4.012 | 72% |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Replace at Fail GSHP_SF: HVAC | 0240 | Tier 3 | per measure | \$ 3,200.00 | 3607.0000 | 1.681 | 72% |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Early Retirement Electric Resistance Furnace | 0241 | Tier 3 | per measure | \$ 5,250.00 | 19040.0000 | 12.678 | 72% |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Replace at Fail Electric Resistance Furnace_S | 0242 | Tier 3 | per measure | \$ 4,717.00 | 15988.0000 | 10.645 | 72% |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_ASHP + Early Retirement or Replace at Fail_SF: HV | 0243 | Tier 3 | per measure | \$ 5,250.00 | 12667.0000 | 5.904 | 72% |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

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| Measure Description | | | | | | | | |
|-------------------------------|---------------|----------|---|--|------------------------|----------------------|-------------------------------------|--------------------------|
| Program | Segment | End Use | Measure Name | Coincident Peak Demand Savings (kW/unit) | Annual Operating Hours | Measure Life (Years) | Measure Definition | Measure Efficiency Value |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | 0.8097 | 4,367 | 12 | LED High Bay (watts) | 350 |
| Small Business Direct Install | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | 0.1457 | 4,367 | 12 | LED Low Bay (watts) | 70 |
| Small Business Direct Install | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | 0.1980 | 4,367 | 12 | LED High/Low Bay (watts) | 110 |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | 0.3092 | 4,367 | 12 | LED High Bay (watts) | 175 |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | 0.8097 | 4,367 | 12 | LED High Bay (watts) | 350 |
| Whole House Efficiency | Single Family | HVAC | Furnace Filter Alarm | 0.0286 | 2,611 | 7 | Furnace Filter Alarm | |
| Whole House Efficiency | Single Family | HVAC | Indoor Coil Cleaning_SF:HVAC | 0.0374 | 8640 | 5 | Sub-measure of HVAC Maintenance and | N/A |
| Whole House Efficiency | Single Family | HVAC | Outdoor Coil Cleaning_SF:HVAC | 0.0816 | 8640 | 5 | Sub-measure of HVAC Maintenance and | N/A |
| Whole House Efficiency | Single Family | HVAC | Refrigerant Charge Adjustment (RCA)_SF: HVAC | 0.5515 | 8640 | 5 | Sub-measure of HVAC Maintenance and | N/A |
| Whole House Efficiency | Single Family | HVAC | HVAC Maintenance and Tune-up_SF: HVAC | 0.0112 | 8640 | 5 | Sub-measure of HVAC Maintenance and | N/A |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Early Retirement GSHP_SF: HVAC | 2.8886 | 8640 | 18 | EER | 23 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Replace at Fail GSHP_SF: HVAC | 1.2103 | 8640 | 18 | EER | 23 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Early Retirement Electric Resistance Furnace | 9.1282 | 8640 | 18 | EER | 23 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Replace at Fail Electric Resistance Furnace_S | 7.6644 | 8640 | 18 | EER | 23 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_ASHP + Early Retirement or Replace at Fail_SF: HV | 4.2509 | 8640 | 18 | EER | 23 |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

indicates default plan values that can be adjusted for unique installations.

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

Count: 162

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| Measure Description | | | | Algorithms | | |
|-------------------------------|---------------|----------|---|--|---------------------------|---|
| Program | Segment | End Use | Measure Name | Baseline Definition | Baseline Efficiency Value | Electric Energy Savings Algorithm |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | Pulse Start Metal Halide (watts) | 1078 | =ROUND((R282-P282)*(AC282)*M282/1000,4) |
| Small Business Direct Install | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | Pulse Start Metal Halide (watts) | 201 | =ROUND((R283-P283)*(AC283)*M283/1000,4) |
| Small Business Direct Install | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | Pulse Start Metal Halide (watts) | 288 | =ROUND((R284-P284)*(AC284)*M284/1000,4) |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | Pulse Start Metal Halide (watts) | 453 | =ROUND((R285-P285)*(AC285)*M285/1000,4) |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | Pulse Start Metal Halide (watts) | 1078 | =ROUND((R286-P286)*(AC286)*M286/1000,4) |
| Whole House Efficiency | Single Family | HVAC | Furnace Filter Alarm | No Filter | | =ROUND(110,4) |
| Whole House Efficiency | Single Family | HVAC | Indoor Coil Cleaning_SF:HVAC | kWh, kW | N/A | =ROUND(117,4) |
| Whole House Efficiency | Single Family | HVAC | Outdoor Coil Cleaning_SF:HVAC | kWh, kW | N/A | =ROUND(258,4) |
| Whole House Efficiency | Single Family | HVAC | Refrigerant Charge Adjustment (RCA)_SF: HVAC | kWh, kW | N/A | =ROUND(856,4) |
| Whole House Efficiency | Single Family | HVAC | HVAC Maintenance and Tune-up_SF: HVAC | kWh, kW | N/A | =ROUND(173.9,4) |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Early Retirement GSHP_SF: HVAC | GSHP replacing Operating GSHP – 23 EER | 12 | =ROUND(8607,4) |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Replace at Fail GSHP_SF: HVAC | GSHP replacing Failed GSHP – 23 EER minimum (EER) | 12 | =ROUND(3607,4) |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Early Retirement Electric Resistance Furnace | GSHP replacing operating AC (14 SEER) w/ electric furnace – 23 EER minimum (EER) | 12 | =ROUND(19040,4) |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Replace at Fail Electric Resistance Furnace_SF | GSHP replacing failed AC w/ electric furnace – 23 EER minimum (EER) | 12 | =ROUND(15988,4) |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_ASHP + Early Retirement or Replace at Fail_SF: HV | GSHP replacing operating or failed ASHP (14 SEER) – 23 EER minimum (EER) | 12 | =ROUND(12667,4) |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

T U V

Count: 162

| Measure Description | | | | | | |
|-------------------------------|---------------|----------|---|----------------------|--------------------------|---|
| Program | Segment | End Use | Measure Name | Incentive Definition | Net to Gross Ratio (NTG) | Net Electric Energy Savings (Annual kWh/unit) |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | per unit | 100% | 4,482.64 |
| Small Business Direct Install | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | per unit | 100% | 806.63 |
| Small Business Direct Install | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | per unit | 100% | 1,096.03 |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | per unit | 100% | 1,711.78 |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | per unit | 100% | 4,482.64 |
| Whole House Efficiency | Single Family | HVAC | Furnace Filter Alarm | Free to customer | 100% | 110.0000 |
| Whole House Efficiency | Single Family | HVAC | Indoor Coil Cleaning_SF:HVAC | | 100% | 117.0000 |
| Whole House Efficiency | Single Family | HVAC | Outdoor Coil Cleaning_SF:HVAC | | 100% | 258.0000 |
| Whole House Efficiency | Single Family | HVAC | Refrigerant Charge Adjustment (RCA)_SF: HVAC | | 100% | 856.0000 |
| Whole House Efficiency | Single Family | HVAC | HVAC Maintenance and Tune-up_SF: HVAC | | 100% | 173.9000 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Early Retirement GSHP_SF: HVAC | | 100% | 8607.0000 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Replace at Fail GSHP_SF: HVAC | | 100% | 3607.0000 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Early Retirement Electric Resistance Furnace | | 100% | 19040.0000 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Replace at Fail Electric Resistance Furnace_S | | 100% | 15988.0000 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_ASHP + Early Retirement or Replace at Fail_SF: HV | | 100% | 12667.0000 |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

[Link to CDD](#)

Search using Drop-down Filters in Headers

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Count: 162

| Measure Description | | | | | | | | |
|-------------------------------|---------------|----------|---|--|-----------------------|----------------------|--------------------|---------------------------|
| Program | Segment | End Use | Measure Name | Data Source | Date of Data Revision | Effective Start Date | Effective End Date | Cooling Degree Days (CDD) |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 3/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 3/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 3/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 3/1/2017 | | |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | AEG KCP&L Program Plan 2016-2018 | 2/1/2017 | 3/1/2017 | | |
| Whole House Efficiency | Single Family | HVAC | Furnace Filter Alarm | AEG KCP&L Program Plan 2016-2019 | 2/1/2017 | 3/1/2017 | | |
| Whole House Efficiency | Single Family | HVAC | Indoor Coil Cleaning_SF:HVAC | Ameren Missouri Measure Listing for MEEI | 2/1/2017 | 3/1/2017 | | 3020 |
| Whole House Efficiency | Single Family | HVAC | Outdoor Coil Cleaning_SF:HVAC | Ameren Missouri Measure Listing for MEEI | 2/1/2017 | 3/1/2017 | | 3020 |
| Whole House Efficiency | Single Family | HVAC | Refrigerant Charge Adjustment (RCA)_SF: HVAC | Ameren Missouri Measure Listing for MEEI | 2/1/2017 | 3/1/2017 | | 3020 |
| Whole House Efficiency | Single Family | HVAC | HVAC Maintenance and Tune-up_SF: HVAC | Ameren Missouri Measure Listing for MEEI | 2/1/2017 | 3/1/2017 | | 3020 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Early Retirement GSHP_SF: HVAC | Ameren Missouri Measure Listing for MEEI | 2/1/2017 | 3/1/2017 | | 3020 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Replace at Fail GSHP_SF: HVAC | Ameren Missouri Measure Listing for MEEI | 2/1/2017 | 3/1/2017 | | 3020 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Early Retirement Electric Resistance Furnace | Ameren Missouri Measure Listing for MEEI | 2/1/2017 | 3/1/2017 | | 3020 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Replace at Fail Electric Resistance Furnace_S | Ameren Missouri Measure Listing for MEEI | 2/1/2017 | 3/1/2017 | | 3020 |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_ASHP + Early Retirement or Replace at Fail_SF: HV | Ameren Missouri Measure Listing for MEEI | 2/1/2017 | 3/1/2017 | | 3020 |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to [Link to HDD](#)

Search using Drop-down Filters in Headers

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Count: 162

| Measure Description | | | | Supporting Information | | | | |
|-------------------------------|---------------|----------|---|---------------------------|-----------|-----------------------|-----------|-----------------------|
| Program | Segment | End Use | Measure Name | Heating Degree Days (HDD) | Quantity1 | Quantity1 Description | Quantity2 | Quantity2 Description |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | | 1.41 | Waste Heat Factor | 1.34 | Waste Heat Factor |
| Whole House Efficiency | Single Family | HVAC | Furnace Filter Alarm | | | | | |
| Whole House Efficiency | Single Family | HVAC | Indoor Coil Cleaning_SF:HVAC | 4470 | | | | |
| Whole House Efficiency | Single Family | HVAC | Outdoor Coil Cleaning_SF:HVAC | 4470 | | | | |
| Whole House Efficiency | Single Family | HVAC | Refrigerant Charge Adjustment (RCA)_SF: HVAC | 4470 | | | | |
| Whole House Efficiency | Single Family | HVAC | HVAC Maintenance and Tune-up_SF: HVAC | 4470 | | | | |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Early Retirement GSHP_SF: HVAC | 4470 | | | | |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Replace at Fail GSHP_SF: HVAC | 4470 | | | | |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Early Retirement Electric Resistance Furnace | 4470 | | | | |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Replace at Fail Electric Resistance Furnace_S | 4470 | | | | |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_ASHP + Early Retirement or Replace at Fail_SF: HV | 4470 | | | | |

Current List of DSM Measure Assumptions for KCP&L

Published 3/4/2016

Valid for Program Implementation Dates: **Early 2016** to

Search using Drop-down Filters in Headers

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AH

Count: 162

| Measure Description | | | | | |
|-------------------------------|---------------|----------|---|-----------|-----------------------|
| Program | Segment | End Use | Measure Name | Quantity3 | Quantity3 Description |
| Business Standard | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | | |
| Small Business Direct Install | All | Lighting | LED low bay mogul screw-base lamp/retrofit kit replacing 150W - 300W fixture | | |
| Small Business Direct Install | All | Lighting | LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W - 450W fixture | | |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing 451W - 750W fixture | | |
| Small Business Direct Install | All | Lighting | LED high bay mogul screw-base lamp/retrofit kit replacing > 750W fixture | | |
| Whole House Efficiency | Single Family | HVAC | Furnace Filter Alarm | | |
| Whole House Efficiency | Single Family | HVAC | Indoor Coil Cleaning_SF:HVAC | | |
| Whole House Efficiency | Single Family | HVAC | Outdoor Coil Cleaning_SF:HVAC | | |
| Whole House Efficiency | Single Family | HVAC | Refrigerant Charge Adjustment (RCA)_SF: HVAC | | |
| Whole House Efficiency | Single Family | HVAC | HVAC Maintenance and Tune-up_SF: HVAC | | |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Early Retirement GSHP_SF: HVAC | | |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_Replace at Fail GSHP_SF: HVAC | | |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Early Retirement Electric Resistance Furnace | | |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_AC + Replace at Fail Electric Resistance Furnace_S | | |
| Whole House Efficiency | Single Family | HVAC | GSHP - EER 23_ASHP + Early Retirement or Replace at Fail_SF: HV | | |

ATTACHMENT C

**THIS DOCUMENTS CONTAINS
HIGHLY CONFIDENTIAL INFORMATION NOT
AVAILABLE TO THE PUBLIC
ORIGINAL FILED UNDER SEAL**

ATTACHMENT D

**THIS DOCUMENTS CONTAINS
HIGHLY CONFIDENTIAL INFORMATION NOT
AVAILABLE TO THE PUBLIC
ORIGINAL FILED UNDER SEAL**

KCP&L / GMO MEEIA Cycle 2 Proposed Program Modifications

January 13, 2017

Presentation Overview



Program Modifications

- LED Discount
- Whole House
- Income Eligible Multifamily
- Small Business Lighting /C&I Standard

Other Topics

- Annual Report

Program Modifications

| Program | | TRM Add | TRM Change | Incentive Range Update/Change |
|------------------------------|---|---------|------------|-------------------------------|
| LED Discount | Lower Incentive Range to \$0.75/bulb | | | X |
| Whole House Efficiency | Add Tune Up Measure | X | | X |
| | Add GSHP measure | X | | X |
| | Add Direct Install Filter Whistle measure | X | | X |
| | LED direct install measure wattage | | X | |
| Income Eligible Multi-family | Update LED line item to allow for Food Bank | | X | |
| | LED direct install measure wattage | | X | |

Program Modifications

| Program | | TRM Add | TRM Change | Incentive Range Update/Change |
|--|---|---------|------------|-------------------------------|
| C&I Standard/ Small Business Lighting | Add HVLS fan measures (Standard) | X | | X |
| | Add LED high bay retrofit measures (Standard & SBL) | X | | X |
| | Lighting measures naming update (Standard & SBL) | | X | |
| | Lower LED lighting incentive range (Standard & SBL) | | | X |

LED Discount

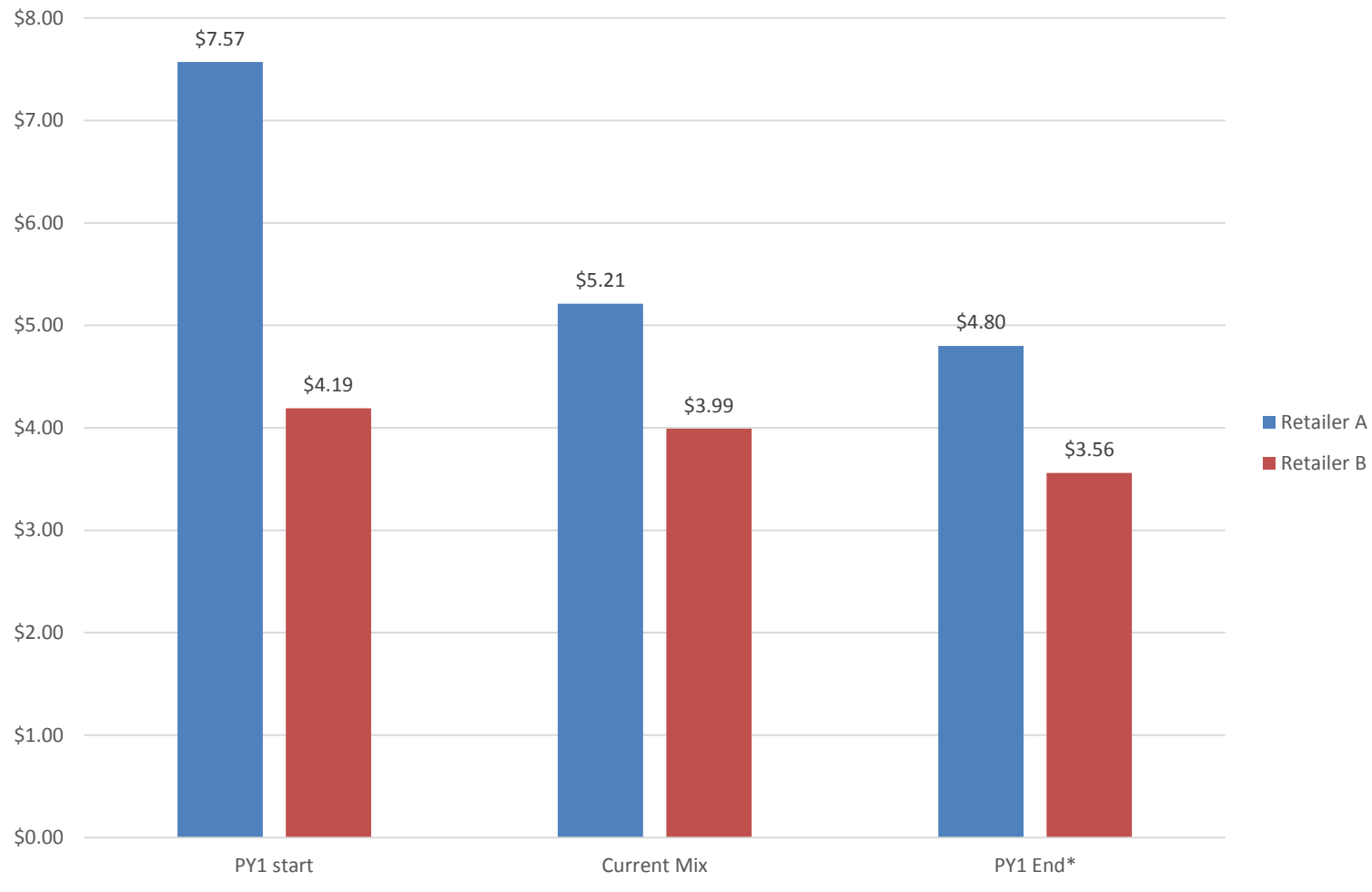
| What is the change? | Change Details | Why the Change? | Benefits of the Change |
|---------------------|--|--|---|
| LED Incentive Range | Move from \$2.25 / bulb lower end to \$0.75 / bulb | LED prices decrease (see chart on marketplace) | More savings within current budget. Less costs at the same program volume |

LED Price Trend at Largest Volume Retailers



Retailer A: **58%**
price difference
from PY1Start
to PY1 End

Retailer B: **18%**
price difference
form PY1Start
to PY1 End



*PY1 End data is based on the removal of v1.1 LED, as well as the removal of products that are likely to no longer be in stores

Whole House- HVAC - Tune-Ups

| Measure & Ameren Reference No. | Incremental Cost | Ann. Demand Reduction (KW) | Ann Electric Savings (kWh) | Measure Life |
|-------------------------------------|------------------|----------------------------|----------------------------|--------------|
| Tune-up | | | | |
| HVAC Maintenance and Tune-up 943 | \$130 | 0.033 | 174 | 10 |
| Indoor Coil Cleaning 941 | \$63 | 0.07 | 183 | 5 |
| Outdoor Coil Cleaning 942 | \$31 | 0.16 | 230 | 5 |
| RCA 10% improvement 940 | \$127 | 0.505 | 687 | 10 |

Why the Change?

Increase WHE program savings and participation to help make-up deficit.

Benefits of the Change:

Grow contractor participation, expand participation to customer base not in the market to replace units.

Whole House - HVAC - GSHP

| Measure & Ameren Reference No. | Incremental Cost | Ann. Demand Reduction (KW) | Ann Electric Savings (kWh) | Measure Life |
|---|------------------|----------------------------|----------------------------|--------------|
| Geothermal Heat Pump | | | | |
| GSHP-EER 17 1218 | \$539 | 0.458 | 1771 | 12 |
| GSHP-EER 19 1219 | \$539 | 0.641 | 2402 | 12 |
| GSHP-EER 14+ ER - Electric Resist Furn 934 | \$5,250 | 3.326 | 28485 | 18 |
| GSHP-EER 14+ Replace Elec Resist Furn 935 | \$4,717 | 1.372 | 27207 | 18 |

Why the Change?

Increase WHE program savings and participation to help make-up deficit.

Benefits of the Change:

Expand participation base to unique set of customers.

Whole House – Direct Install

| What is the change? | Change Details | Why the Change? | Benefits of the Change |
|--|---|---|---|
| Change the efficient wattage of LED direct install | Move from 11.3 watts to 9.0 watts | Direct install measure, only installing 9 watts | Accurate reflection of savings and Realization Rate |
| Add Filter Whistle for Direct Install | New item with 110 kWh and 7 year measure life | Increase WHE program savings | Increase savings per ESK. Increase IAQ in residences. Increase benefit to participating customers |

Income Eligible Multifamily

| What is the change? | Change Details | Why the Change? | Benefits of the Change |
|---|---------------------------------------|---|---|
| Change the efficient LED wattage | Move from 11.3 watts to 9 watts | Direct install measure, only installing 9 watt bulbs | Accurate reflection of savings and Realization Rate |
| Make LED measure applicable to Food Bank Distribution | Delete “kits” from notes field in TRM | Switching from CFLs to LEDs increased savings within the current budget | This allows for more bulbs (reach more customers) |
| Change Screw In – LEDs Common Areas | Move from 22 watts to 15 watts | Direct install measure, only installing 15 watt bulbs | Accurate reflection of savings and Realization |

Income Eligible Multifamily



| Measure Name | Notes | Measure Efficiency Value | Measure Efficiency Value REVISED |
|---------------------------------|---------------|--------------------------|----------------------------------|
| Screw In - LEDs | Kits (Remove) | 11.3 watt | 9 watt |
| Screw In – LEDs Common Areas | | 22 watt | 15 watt |

C&I Standard/Small Business Lighting

| What is the change? | Change Details | Why the Change? | Benefits of the Change |
|---|--|---|---|
| Add HVLS fan measures (Standard) | Add 14', 16' & 18' diameter fan options | Market feedback – smaller facilities very limited with current larger options | <ul style="list-style-type: none"> Engages smaller customer class Encourages non-lighting measure diversity |
| Add LED high bay retrofit measures (Standard & SBL) | Add (4) line items for each category of LED high bay for retrofit kits | Market using this option b/c cheaper; want to incentivize appropriately | <ul style="list-style-type: none"> Right sized rebate based on incremental measure costs of retrofit kit Provides more accuracy for NTG in EM&V |

C&I Standard/Small Business Lighting

| What is the change? | Change Details | Why the Change? | Benefits of the Change |
|--|--|---|---|
| Lighting measures naming update (Standard & SBL) | Update TRM names to include baseline technology <i>Example -</i> Current: <i>LED Low Bay 30-70W</i> New: <i>LED low bay fixture replacing 150W - 300W fixture</i> | <ul style="list-style-type: none"> • Current naming convention not consistent among all lighting measures • Potential confusion of which measure to choose. | <ul style="list-style-type: none"> • Create consistency across all lighting measures • Clarity/ease of measure ID for customers & TA's during application |
| Lower lighting incentive range (Standard & SBL) | Lower range of ~25 LED measures effected by falling market pricing | <ul style="list-style-type: none"> • LED lighting prices falling 28-44%/year • Some measures already below "low" point | <ul style="list-style-type: none"> • Allows more LED market responsiveness to insure cost effective measures |

Other Topics

- Annual Report
 - MEEIA Rules state calendar year reporting
 - KCP&L preference to sync to Program Year instead of calendar year
 - Proposal would move report due date to June 30

Next Steps



Memorandum

To: Jennifer Carpenter
From: Navigant Consulting, Inc.
Date: February 2, 2017
Re: New MEEIA TRM Measures

This memo outlines the results of Navigant’s review of proposed changes and additions to the MEEIA-2 TRM for Kansas City Power & Light (KCP&L).

Navigant agrees with KCP&L’s intent in updating the measures above to better align values with market data, increase potential customer base, and improve usage through more consistent language.

A summary of our review is presented in the tables below:

Home Lighting Rebate (Change):

| Measure Description | Proposed Change | Logic for Changing | Finding |
|---------------------|--|--|---|
| LED Discount | Lower incentive range to \$0.75/bulb from \$2.25/bulb. | The program implementer, ICF, conducted comprehensive research using the 2016 PY1 invoice data. The research focused on LED bulbs prices for 40W and 60W equivalent over a 9-month period. This study found that at the beginning of the program PY1, the LED bulb average price for a retailer was \$7.57. The average price decreased to \$5.21 by December and will decrease to \$3.56 by the end of PY2, representing a 58% price difference. In order to compete with halogen, incandescent, and the declining price of non-ENERGY STAR bulbs, the HLR program will have to continue incentivizing LED bulbs. | Navigant agrees with the proposed changes to lower the incentive per bulb, as reducing the incentive aligns with decreases in market prices. Lighting efficiency still remains the most cost-effective energy efficiency program measure; therefore, incentivizing residential lighting products—especially for low-income, late adopters, hard-to-reach markets, and specialty bulbs—is essential. |

Whole House Program (WHE) (Add/Change):

| Measure Description | Proposed Change | Logic for Adding/Changing | Finding |
|--|--|---|---|
| HVAC Tune Up | New measure with deemed annual savings of 0.011 kW and 174 kWh. | Increase WHE program savings and participation to help make up participation deficit. Grow contractor participation, expand participation to customer base not in the market to replace units. | Navigant agrees with the addition of these measures and the potential to calibrate to current market needs. Measures such as HVAC Tune Up offer the opportunity for KCP&L to supplement existing measures. |
| Indoor Coil Cleaning | New measure with deemed annual savings of 0.037 kW and 117 kWh. | | |
| Outdoor Coil Cleaning | New measure with deemed annual savings of 0.081 kW and 258 kWh. | | |
| RCA 10% Improvement | New measure with deemed annual savings of 0.551 kW and 856 kWh. | | |
| Ground Source Heat Pump EER23 ER | New measure with deemed annual savings of 2.889 kW and 8,607 kWh. | Increase WHE program savings and participation to help make up participation deficit. Expand high efficiency heating and cooling technology offerings. | While offering the potential for savings, the cost-effectiveness of ground source heat pump (GSHP) measures varies by market. Navigant supports KCP&L's approach to add this measure but recognizes the cost-effectiveness of this measure in KCP&L's territory requires further analysis. Navigant notes that proposed savings for GSHP exceed the average residential energy use in MO ¹ and would apply only to very unique customers. |
| Ground Source Heat Pump EER23 ROB | New measure with deemed annual savings of 1.210 kW and 3,607 kWh. | | |
| GSHP EER23+ ROB Electric Resist | New measure with deemed annual savings of 9.128 kW and 19,040 kWh. | | |
| GSHP EER23+ ER Electric Resist | New measure with deemed annual savings of 7.664 kW and 15,988 kWh. | | |
| GSHP EER23+ ASHP | New measure with deemed annual savings of 4.251 kW and 12,667 kWh. | | |
| LED Direct Install | Existing measure with a proposed change in efficient lamp wattage from 11.3W to 9W. | The change reduces the Measure Efficiency Value from 11.3W to 9.0W as the ENERGY STAR LEDs actually installed & rebated are rated at 9W, as are the ENERGY STAR-rated LEDs planned for PY2 and PY3. The change is requested to provide an accurate reflection of measure savings and a realization rate closer to 100%. | Navigant agrees with the proposed changes to the energy efficiency lamp wattages based on current cost-effectiveness results and experience in evaluating other programs. Navigant notes that the proposed baseline wattage of 43W does not align with the Illinois TRM ² Version 5.0 value of 29W (assuming an efficient lamp wattage of 9.6W). However, this baseline value may be reasonable pending established documentation on replaced lamps. Additionally, Navigant notes the following differences vs. the IL TRM (used as comparison): Energy waste heat factors for this measure of 1.04 (SF) and 1.41 (MF) vs. IL TRM values of 1.06 (SF) and 1.04 (MF). Demand Waste Heat Factors (1.04 SF and 1.34 MF) vs IL TRM (1.11 SF and 1.07 MF). Measure life for a LED lamp is capped at 10 years in the Illinois TRM ³ compared to the KCP&L TRM value of 20 years. |
| Filter Whistle Direct Install | New measure with a deemed annual savings of 110 kWh and a 7-year measure life added to increase WHE program savings. | Increases savings per Energy Savings Kit and improves indoor air quality due to cleaner filters. | Navigant agrees with the addition of this measure as a cost-effective means to achieve greater savings. |

Income Eligible Multifamily Program (Change):

| Measure Description | Proposed Change | Logic for Changing | Finding |
|---------------------------------|---|---|---|
| Efficient LED Wattage | Existing measure with a proposed change in efficient lamp wattage from 11.3W to 9W. | The change reduces the measure efficiency value from 11.3W to 9W, as the ENERGY STAR LEDs installed are rated at 9W, as are the ENERGY STAR-rated LEDs planned for PY2 and PY3. The change is requested to provide an accurate reflection of measure savings and a realization rate closer to 100%. | Same as finding in Whole House LED Direct Install. |
| Change from CFLs to LEDs | Change lamps in program from CFLs to LEDs. | Switching from CFLs to LEDs increases savings within the current budget and allows for more bulbs (increasing total customers). | Navigant agrees with the migration from CFLs to LEDs to respond to current market and customer preferences. |
| Screw-in LED Wattage | Existing measure with a proposed change in efficient lamp wattage from 22W to 15W. | Move from 22W to 15W. Direct install measure, only installing 15W bulbs. | Navigant agrees updating to match real-world data is the best practice. Measure life and waste heat factor findings are the same as Whole House LED Direct Install finding for those topics. |

¹ https://www.eia.gov/consumption/residential/reports/2009/state_briefs/pdf/mo.pdf

² http://www.ilsag.info/il_trm_version_5.html

³ http://www.ilsag.info/il_trm_version_5.html

C&I Standard/Small Business Lighting (Add/Change):

| Measure Description | Proposed Change | Logic for Adding/Changing | Finding |
|--|--|--|--|
| <p>LED High Bay Retrofits</p> | <p>Add (4) line items for each category of LED high bay for retrofit kits, including:</p> <ul style="list-style-type: none"> i. LED low bay mogul screw-base lamp/retrofit kit replacing 150W-300W fixture ii. LED low/high bay mogul screw-base lamp/retrofit kit replacing 301W-450W fixture iii. LED high bay mogul screw-base lamp/retrofit kit replacing 451W-750W fixture iv. LED high bay mogul screw-base lamp/retrofit kit replacing >750W fixture | <p>Current measure of fixture replacement is more than needed for customers who are moving toward retrofit kits and/or lamp replacement. Adding new options to align with this market direction and prevent paying higher incentives than needed based on incremental costs.</p> | <p>Navigant agrees with the addition of these measures and the potential to respond to market demand.</p> |
| <p>Lighting Measures Naming</p> | <p>Existing measure with a proposal to update the TRM names to include baseline technology.</p> | <p>Current naming convention is not consistent across all measures.</p> | <p>Navigant agrees a consistent naming methodology will improve readability and reduce data entry errors.</p> |
| <p>Lighting Incentives</p> | <p>Lowering incentives for lighting measures.</p> | <p>Need to lower lighting incentives across 25 measures to align with falling market prices. Revising low ranges down will allow KCP&L to be more responsive to the quickly changing LED lighting market to insure cost effectiveness of offerings.</p> | <p>Navigant agrees with lowering lighting incentives to allow for more LED market responsiveness to ensure cost-effectiveness of these measures.</p> |