

Technical Sheet

Lighting Fixtures and Controls

Energy Solutions For Business

Baltimore Gas and Electric Company (BGE) offers incentives through its Smart Energy Savers Program® to help commercial, industrial, government, institutional and nonprofit electric service customers offset the upfront costs for energy-efficient improvements. The Lighting Technical Sheet offerings cover common energy-efficient lighting and lighting control improvements in projects such as retrofits of existing inefficient lighting systems and the installation of new lighting systems for new construction, major renovation and remodeling projects. Measures can include LED luminaires and retrofit kits, as well as control measures and new construction/major renovation performance lighting designs.

Instructions

Eligible Participants

Incentives are available to non-residential, commercial, industrial, government, institutional and nonprofit electric service customers within the BGE service territory that fall under rate schedules G, GS, GL, P or T.

Eligible Equipment

All equipment must be new and meet all designated requirements. Used equipment or equipment not meeting program and/or technical requirements is not eligible for incentives. Existing equipment must be removed and may not be reinstalled within the BGE service territory.

Submitting an Application

All lighting applications, regardless of the total requested incentive amount, require a <u>program pre-approval letter</u>. No amount of existing equipment being replaced may be removed or altered, and no amount of proposed equipment applied for may be purchased and/or installed prior to the issuance of a program pre-approval letter. To receive a program pre-approval letter, an application must first be submitted for review through <u>BGE's Application Center</u> and include the lighting worksheet and (for retrofit projects) as well as the manufacturer data (cut) sheets for all proposed equipment, and customer-signed <u>Terms and Conditions</u>.

Approval Requirements

Once an application has been submitted, the project will be assigned a project ID. A <u>program pre-approval letter</u> will be issued once the application has been pre-approved. Only at this time may any existing equipment being replaced be removed or altered and may the proposed equipment being applied for be purchased and/or installed. Once the installation of all proposed equipment is complete and the BGE customer is satisfied with the equipment and installation, the BGE customer must sign the program pre-approval letter. The BGE customer-signed pre-approval letter must be uploaded to the <u>BGE Application Center</u> along with the final detailed invoice(s). Pre-approval commitments are valid for up to six months for prescriptive retrofit projects and up to 12 months for new construction and custom projects from the date of the pre-approval letter that is issued to the customer of record.

Program Details

Details of the program, including incentive levels and technical requirements, are subject to change without prior notice. You may go to

<u>BGESmartEnergy.com</u> to get the most current program information, or you may call 410.290.1202. Total incentives are limited to \$1,000,000 per federal tax
ID per calendar year. Incentives above this level may be granted on a case-by-case basis subject to program budget limitations. BGE reserves the right to deny any application that may result in BGE exceeding its program budget.



Instructions (Continued)

Participation Instructions

Step 1 – Verify that your project meets the eligibility requirements specified on the Lighting Technical Sheet. Visit the program website at <u>BGESmartEnergy.com/business/energy-solutions-business</u> or contact us at 410.290.1202 with any questions about eligibility.

Step 2 – Whether the application is submitted by the BGE end-use customer or the Service Provider, the Service Provider and/or installation contractor must submit an Energy Solutions for Business Service Provider application prior to the submission of incentive applications.

The party listed as completing and submitting the application must be the party who completes and submits the application. Service Providers and installation contractors must be properly licensed and insured and could face participation restrictions based on their cumulative score through the Application Evaluation System. For a list of Service Providers who have participated in the program and currently have no participation restrictions, please visit the Energy Solutions for Business Service Provider Directory.

Step 3 – Visit the <u>Application Center</u> to submit an online application. Refer to the Application Checklist to verify that all required information and documentation are included for submission to BGE.

All elements of a completed application must be uploaded to the <u>Application Center</u>. All completed applications will be reviewed for eligibility and completeness in the order they were received. Applicants who submit incomplete applications will be notified of deficiencies. BGE may require a pre-installation inspection and will notify customers if an inspection of the facility is necessary.

Step 4 – The application will be processed, and BGE will notify the applicant in writing when the review is complete and if funds have been reserved. Upon receipt of the program pre-approval letter, participants may begin removing/altering existing equipment and purchase and install the program-approved energy-efficient equipment.

Notify BGE immediately if there are any changes to the scope of work, as this may require additional pre-approval.

Step 5 – Upon project completion, please review your approved application and note any changes to the project that occurred during installation. The BGE end-use customer must sign and return the <u>pre-approval letter</u> and provide invoices for all energy efficiency measures. BGE may require a post-installation inspection to verify compliance with program rules and verify the accuracy of project documentation and equipment operation.

BGE will authorize payment upon the application's review and approval. The incentive check should be received within six to eight weeks after the project's completion and final approval.

Questions

If you have questions about the program, call 410.290.1202, email Business@BGESmartEnergy.com or visit BGESmartEnergy.com

I. Retrofit Lighting Application Checklist
i. Netront Lighting Application Checkinst
Please include the following items when you apply through the <u>Application Center</u> :
☐ BGE electric account number
☐ Supporting documentation to include manufacturer's specification (cut) sheets for all luminaires, retrofit kits, lamps, and controls
☐ Complete lighting worksheet – for retrofit projects only
 Complete the room-by-room inventory worksheet using the <u>Excel-based Lighting Worksheet</u> found on the BGE website
 Rated wattages for various existing luminaire types are found in BGE's Lighting System Rated Wattage Table (included on the <u>Excel-based Lighting</u> <u>Worksheet</u>)
Meet measure code eligibility requirements
 Upload the completed electronic copy of the worksheet under the files tab of your project in the <u>Application Center</u>
☐ <u>Terms and Conditions</u> signed by the BGE end-use customer
BGE will process applications for payment in the order received and issue incentive payment within six to eight weeks after project completion and approval. Applicants will be notified if post-installation inspections are required prior to final payment. Please note that failure to provide any of the above items may



delay the processing of your application and have a negative impact in a Service Provider's Evaluation Score.

II. RETROFIT LIGHTING TECHNICAL REQUIREMENTS

General LED Requirements

- ENERGY STAR luminaires must be hard-wired. Screw/plug-in lamps and recessed trim kits that screw in are ineligible for these measure codes. Incentives for lamps and recessed trim kits are available through BGE's Instant Lighting Discounts offering. Visit a participating local distributor or MGESmartEnergy.com
 for more information.
- Equipment for each measure code must be selected within the specified "Category," "General Application," and "Primary Use" designations, as classified by the Design Lights Consortium (does not include ENERGY STAR measures).
- Wattage, efficacy and lumens values for the proposed equipment are based on "Reported Data" and must be entered exactly as indicated on the Design Lights Consortium Qualified Products List and ENERGY STAR Qualified Products List.
- If LED linear lamps (TLEDs) are being installed and fewer lamps than what is currently installed are proposed for installation (i.e. installing a single lamp in a
 two-lamp fixture), the luminaires must be permanently delamped and the TLEDs re-centered in luminaires through the use of UL/CSA-listed retrofit kits
 specifically made for this purpose.
- Private labeled equipment must be listed on the electronic lighting worksheet in the designated manufacturer and model columns as "Original (as listed on DLC)/Private Labeled" make and model numbers. Spec sheet submissions must include both the spec sheet for the original equipment and the spec sheet for the private labeled equipment with a signed letter attached by the original equipment manufacturer that validates the equipment is the same.
- To qualify for a new fixture incentive, the existing luminaire must be removed and the new luminaire must be independently mounted in a manner that aligns with DLC Primary Use Designation for the luminaire type. Any application that does not align with DLC Primary Use Designation does not qualify for a new fixture incentive.
- A retrofit of existing equipment is any application that makes use of the existing housing luminaire as aligned by DLC Primary Use Designation. Retrofit
 equipment must be listed under DLC Primary Use Designation to qualify for a corresponding measure code.
- The program is intended for one-for-one replacement. If a lighting project exceeds the one-for-one cap, written authorization by the program is required prior to application submission.

Specific LED Requirements

Equipment applying for all Retrofit Lighting (RL) measure codes except for measure codes RL 171, RL 172, and RL 173 must be listed on the DLC's Qualified Product List. See requirements for measure codes RL 170, RL 171, RL 172, and RL 173 below.

Eligibility requirements for measure codes RL 170, 171, 172, 173:

Option 1: Equipment must be listed on the current ENERGY STAR Qualified Products List (QPL). As of January 1, 2025, only downlights and downlight retrofit kits will be evaluated for certification.

• If you are applying for prescriptive retrofit lighting incentives for fixtures qualifying under Option 1, you should submit the ENERGY STAR product certificate or website screenshot with your application. The fixture model number entered in the workbook should match the entry on the QPL.

Option 2: Equipment must be listed on the legacy ENERGY STAR Qualified Products List and meet all other technical requirements required for an incentive. E.g., it must be hard-wired, it must be an integrated luminaire with no screw-based lamp components, it must meet all efficacy and wattage reduction requirements as listed for each individual measure code.

• If you are applying for prescriptive retrofit lighting incentives for fixtures qualifying under Option 2, the fixture model number entered in the workbook should match the entry on the Legacy QPL. If you need a copy of the Legacy QPL, email BGEbusiness@icf.com with the subject line "Requesting Legacy ENERGY STAR QPL".

Option 3: For new equipment that was unable to be certified by ENERGY STAR and is not Certified by the Design Lights Consortium, it may be considered eligible for prescriptive retrofit lighting incentives under RL 171, RL 172, or RL 173 if:

- It belongs to a category of equipment not currently certified by the Design Lights Consortium but formerly certified by Energy Star prior to January 1, 2025. These categories include:
 - Bathroom Vanities and Wall Sconces
 - Decorative Pendants
 - Ceiling Mounted Wrapped Lens Fixtures and Retrofits
 - Interior and Exterior Wall Sconces
 - Track Lighting
 - Exterior Decorative and Walkway Lighting
- And, in addition to belonging to one of the above categories, it meets all technical requirements including:
 - · The wattage reduction and efficacy listed for each individual measure code
 - Being a hardwired, integrated luminaire with no screw-based lamp components
 - Covered by a warranty of at least 3 years
 - If you are applying for prescriptive retrofit lighting incentives for fixtures qualifying under Option 3, the fixture model number entered in the workbook should match the spec sheet and a copy of the spec sheet with relevant technical information highlighted should be submitted.



General Control Requirements

To be eligible for lighting incentives, lighting controls are required to be installed as follows:

- Occupancy/vacancy controls are required to be installed in the following areas:
 - Classroom/lecture/training rooms
 - Conference/meeting/multipurpose rooms
 - Copy/print rooms
 - Employee lunch and break rooms

- Janitorial closets
- Locker rooms
- Lounges
- · Private offices
- Restrooms
- Storage Rooms
- Warehouses
- Other spaces 300 sq. ft. or less that are enclosed by floor-to-ceiling height partitions

- Lighting controls are **not required** in the following areas:
 - · Electrical rooms
 - · Areas designated as security or emergency areas that are required to be continuously lit
 - Interior exit stairways, interior exit ramps, and exit passageways
 - Emergency egress lighting that is normally off
- Space types which fall under the requirements of needing both a daylight and occupancy/vacancy control (for example, an enclosed office containing windows with luminaires totaling more than 150W within the daylight zone) require a dual daylight and occupancy/vacancy DOS control (LC 111-112) or a combination of separate daylight and occupancy/vacancy controls. For combinations of separate control types, only one control incentive will be paid.
- Spaces with existing control types are not eligible for control incentives. Please indicate when entering your equipment if there are existing controls within a space.
- Exterior luminaries require a functioning time clock or photocell to qualify for lighting incentives but are not eligible for daylight control incentives. They are eligible for advanced network control and/or occupancy/vacancy control incentives



III. NEW CONSTRUCTION PERFORMANCE LIGHTING ELIGIBILITY REQUIREMENTS

NOTE: If the code jurisdiction where the building is being built or renovated requires green certification, apply instead under the <u>Comprehensive New</u> <u>Construction Incentives Application</u> (incentives will be determined under the green building track). Contact your jurisdiction for details on specific code requirements.

This offering must be applied for in new construction or major renovation scenarios. Major renovation projects are eligible and classified as:

- Removal of the entire existing lighting system and wiring,
- · Redesign of the entire existing lighting system, and
- Significant change to the actual function of the building through significant renovation, e.g., projects where a licensed professional architect or engineer has prepared and certified building plans for the change of use and reconstruction of an existing or vacant building or space.

All projects must meet the following additional requirements to qualify for Performance-Based Lighting incentives.

- Provide maintained lighting levels in accordance with the recommendations of the Illuminating Engineering Society of North America (IESNA).
- Provide high-quality lighting achieving appropriate levels of glare control, color rendering, lighting uniformity and other lighting quality parameters deemed necessary by BGE.

All project submittals must include the following supporting documentation:

- · Lighting layout plans.
- Manufacturer's specification sheets for all luminaires and lamps.
- Lighting fixture schedule including manufacturer, model number and rated wattage.
- Completed New Construction Lighting Workbook.

Incentives may be provided for reducing the Lighting Power Density (LPD) in watts per square foot from the baseline lighting design that complies with the <u>Interior Power Lighting Allowance</u> obtained from Maryland's current code. Wattage reduction for either the space-by-space or building-area method must be at least 10% more efficient than code requirements to qualify for incentives. The space-by-space method or building-area method can be applied to an entire building that is new construction or major renovation. The space-by-space method must be applied to a partial building renovation that does not include all the space types usually found within the building type.

IV. NEW CONSTRUCTION PERFORMANCE LIGHTING EQUIPMENT GUIDE

All Performance Lighting calculations are now captured through the BGE New Construction Lighting Workbook. This interactive Excel workbook is available for download on the <u>New Construction Performance-Based Lighting application</u> page.

Please note the following:

- The New Construction Lighting workbook is interactive. You must select your calculation method on the 'Information' tab of the workbook. Depending on your selection, some tabs and fields may be hidden or revealed.
- The New Construction Lighting workbook contains the program's new incentives for exterior fixtures.
- The 'Information' tab of the New Construction Lighting workbook should match the lighting fixture schedule. Populate this page with all of the fixture data. Once you do so, this data will populate the drop down menus on the interior and exterior inventory tabs.

Other requirements:

- All projects require preapproval
- 50% of the project fixtures are required to be listed on either the Design Lights Consortium or the ENERGY STAR Qualified projects list. Some exceptions may be available for certain specialty fixtures not listed, for example, medical-grade fixtures. Please contact the program office for details.

Measure Code	Minimum Watts Reduced	Incentive/Unit
Tier 1	>10% Below Base LPD	\$0.40 per watt
Tier 2	>20% Below Base LPD	\$0.80 per watt



	V. Lighting Measures and Incentives								
	Measure Code	Proposed Measure	Min. Watts Reduced	Reported Efficacy (LM/W)	Incentive/ Unit	Technical Requirements In Addition To General LED Requirements Listed On Page 3			
	RL 101	New LED linear recessed or surface troffer for 2x2 and 1x4 luminaires	15	110	\$55/ Fixture	 DLC Category: Indoor DLC General Application: Troffer DLC Primary Use: 2x2 Luminaries for Ambient Lighting of Interior Commercial Spaces 1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces Fixture housing must be a minimum height of 1.5 inches Troffers less than 1.5 inches must apply to RL 103 Product spec sheets must show dimensions 			
LED Troffer Luminaires	RL 102	New LED linear recessed or surface troffer for 2x4 luminaires	20	110	\$85/ Fixture	 DLC Category: Indoor DLC General Application: Troffer DLC Primary Use: 2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces Fixture housing must be a minimum height of 1.5 inches Troffers less than 1.5 inches must apply to RL 104 Product spec sheets must show dimensions 			
LED TI	RL 103	New LED flat panel for 2x2 and 1x4 luminaires	15	110	\$30/ Panel	 DLC Category: Indoor DLC General Application: Troffer DLC Primary Use: 2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces 1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces Product spec sheets must show dimensions 			
	RL 104	New LED flat panel for 2x4 luminaires	20	110	\$45/ Panel	 DLC Category: Indoor DLC General Application: Troffer DLC Primary Use: 2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces Product spec sheets must show dimensions 			
ell Luminaires	RL 111A	New LED linear ambient luminaire with direct and indirect components or VaporTight, min. IP65	5 (per foot)	110	\$12/ Foot	 DLC Category: Indoor DLC General Application: Linear Ambient DLC Primary Use: Direct Linear Ambient Luminaires Linear Ambient Luminaires w/ Indirect Component 			
LED Linear Ambient/Stairwell Luminaires	RL 111B	New LED linear ambient luminaire – Strip or Wrap fixtures	5 (per foot)	110	\$12/ Foot	 DLC Category: Indoor DLC General Application: Linear Ambient DLC Primary Use: Direct Linear Ambient Luminaires Linear Ambient Luminaires w/ Indirect Component 			
	RL 112	New LED stairwell luminaire	10	100	\$48/ Fixture	 Fixture must be installed in stairwell. DLC Category: Outdoor DLC General Application: Outdoor – Low, Mid, High, or Very High Output DLC Primary Use: Stairwell and Passageway Luminaires 			



	V. Lighting Measures and Incentives (Continued)									
	Measure Code	Proposed Measure	Min. Watts Reduced	Reported Efficacy (LM/W)	Incentive/ Unit	Technical Requirements In Addition To General LED Requirements Listed On Page 3				
LED Interior Directional	RL 121	New LED wall wash luminaire	10 (per foot)	75	\$40/ Foot	 DLC Category: Indoor DLC General Application: Interior Directional DLC Primary Use: Wall-Wash Luminaires 				
LED In: Direct	RL 122	New LED track/mono-point luminaire	25	75	\$40/ Head	 DLC Category: Indoor DLC General Application: Interior Directional DLC Primary Use: Track or Mono-Point Luminaires 				
ay Case aires	RL 131	New LED display case luminaire	20	70	\$40/ Fixture	 DLC Category: Indoor DLC General Application: Display Case DLC Primary Use: Display Case Luminaires 				
LED Display Case Luminaires	RL 132	New LED display case luminaire installed in reach-in coolers/freezers	15	85	\$50/ Fixture	 DLC Category: Indoor DLC General Application: Display Case DLC Primary Use: Horizontal Refrigeration Case Luminaires Vertical Refrigerated Case Luminaires 				
LED High/Low Bay Luminaires	RL 141	New LED high/low bay luminaire – DLC reported lumens between 5,000 lm – 9,999 lm	50	110	\$110/ Fixture	 Luminaires must be installed greater than or equal to 15 feet above finished floor (AFF). DLC Category: Indoor DLC General Application: High-Bay DLC Primary Use: High-Bay Luminaires for Commercial and Industrial Buildings Low-Bay Luminaires for Commercial and Industrial Building High-Bay Aisle Luminaires 				
	RL 142	New LED high/low bay luminaire – DLC reported lumens between 10,000 lm – 19,999 lm	75	110	\$160/ Fixture	 Luminaires must be installed greater than or equal to 15 feet AFF. If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be achieved, please apply for RL 141. DLC Category: Indoor DLC General Application: High-Bay DLC Primary Use: High-Bay Luminaires for Commercial and Industrial Buildings Low-Bay Luminaires for Commercial and Industrial Buildings High-Bay Aisle Luminaires 				
	RL 143	New LED high/low bay luminaire – DLC reported lumens between 20,000 lm – 29,999 lm	100	110	\$250/ Fixture	 Luminaires must be installed greater than or equal to 15 feet AFF. If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be achieved, please apply for RL 142. DLC Category: Indoor DLC General Application: High-Bay DLC Primary Use: High-Bay Luminaires for Commercial and Industrial Buildings Low-Bay Luminaires for Commercial and Industrial Buildings High-Bay Aisle Luminaires 				



				V. Lighting	Measures and I	ncentives (Continued)
	Measure Code	Proposed Measure	Min. Watts Reduced	Reported Efficacy (LM/W)	Incentive/ Unit	Technical Requirements In Addition To General LED Requirements Listed On Page 3
LED High/Low Bay Luminaires (Continued)	RL 144	New LED high/low bay luminaire – DLC reported lumens between 30,000 lm – 39,999 lm	150	110	\$300/ Fixture	 Luminaires must be installed greater than or equal to 15 feet AFF. If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be achieved, please apply for RL 143. DLC Category: Indoor DLC General Application: High-Bay DLC Primary Use: High-Bay Luminaires for Commercial and Industrial Buildings Low-Bay Luminaires for Commercial and Industrial Buildings High-Bay Aisle Luminaires
	RL 145	New LED high/low bay luminaire – DLC reported lumens between 40,000 lm or more	400	110	\$360/ Fixture	 Luminaires must be installed greater than or equal to 15 feet AFF. If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be achieved, please apply for RL 144. DLC Category: Indoor DLC General Application: High-Bay DLC Primary Use: High-Bay Luminaires for Commercial and Industrial Buildings Low-Bay Luminaires for Commercial and Industrial Buildings High-Bay Aisle Luminaires
LED Exterior Luminaires	RL 151	New LED exterior luminaire – DLC reported lumens between 4,999 Im or less	40	90	\$100/ Fixture	DLC Category: Outdoor DLC General Application: Outdoor – Low Output DLC Primary Use: Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Outdoor Pole/Arm-Mounted Decorative Luminaires Outdoor Full-Cutoff Wall-Mounted Area Luminaires Bollards Parking Garage Luminaires Fuel Pump Canopy Luminaires Architectural Flood and Spot Luminaires Landscape/Accent Flood and Spot Luminaires Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires
	RL 152	New LED exterior luminaire – DLC reported lumens between 5,000 lm – 9,999 lm	125	95	\$125/ Fixture	If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be obtained, please apply for RL 151. DLC Category: Outdoor DLC General Application: Outdoor – Mid Output DLC Primary Use: Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Outdoor Pole/Arm-Mounted Decorative Luminaires Outdoor Full-Cutoff Wall-Mounted Area Luminaires Bollards Parking Garage Luminaires Fuel Pump Canopy Luminaires Architectural Flood and Spot Luminaires Landscape/Accent Flood and Spot Luminaires Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires



	V. Lighting Measures and Incentives (Continued)									
	Measure Code	Proposed Measure	Min. Watts Reduced	Reported Efficacy (LM/W)	Incentive/ Unit	Technical Requirements In Addition To General LED Requirements Listed On Page 3				
LED Exterior Luminaires (Continued)	RL 153	New LED exterior luminaire – DLC reported lumens between 10,000 lm – 19,999 lm	250	100	\$190/ Fixture	If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be obtained, please apply for RL 152. DLC Category: Outdoor DLC General Application: Outdoor – High Output DLC Primary Use: Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Outdoor Pole/Arm-Mounted Decorative Luminaires Outdoor Full-Cutoff Wall-Mounted Area Luminaires Bollards Parking Garage Luminaires Fuel Pump Canopy Luminaires Architectural Flood and Spot Luminaires Landscape/Accent Flood and Spot Luminaires Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires				
	RL 154	New LED exterior luminaire – DLC reported lumens between 20,000 lm – 29,999 lm	400	100	\$250/ Fixture	 If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be obtained, please apply for RL 153. DLC Category: Outdoor DLC General Application: Outdoor – High Output DLC Primary Use: Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Outdoor Pole/Arm-Mounted Decorative Luminaires Outdoor Full-Cutoff Wall-Mounted Area Luminaires Bollards Parking Garage Luminaires Fuel Pump Canopy Luminaires Architectural Flood and Spot Luminaires Landscape/Accent Flood and Spot Luminaires Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires 				
	RL 155	New LED exterior luminaire – DLC reported lumens between 30,000 Im – 39,999 Im	550	100	\$380/ Fixture	 If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be obtained, please apply for RL 154. DLC Category: Outdoor DLC General Application: Outdoor – Very High Output DLC Primary Use: Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Outdoor Pole/Arm-Mounted Decorative Luminaires Outdoor Full-Cutoff Wall-Mounted Area Luminaires Bollards Parking Garage Luminaires Architectural Flood and Spot Luminaires Landscape/Accent Flood and Spot Luminaires Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires 				
	RL 156	New LED exterior luminaire – DLC reported lumens between 40,000 lm or more	700	100	\$600/ Fixture	 If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be obtained, please apply for RL 155. DLC Category: Outdoor DLC General Application: Outdoor — Very High Output DLC Primary Use: Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Outdoor Pole/Arm-Mounted Decorative Luminaires Outdoor Full-Cutoff Wall-Mounted Area Luminaires Bollards Parking Garage Luminaires Architectural Flood and Spot Luminaires Landscape/Accent Flood and Spot Luminaires Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires 				



	V. Lighting Measures and Incentives (Continued)									
	Measure Code	Proposed Measure	Min. Watts Reduced	Reported Efficacy (LM/W)	Incentive/ Unit	Technical Requirements In Addition To General LED Requirements Listed On Page 3				
	RL 161	LED linear retrofit kit for 2x2 and 1x4 fixtures	15	110	\$30/ Kit	 DLC Category: Indoor Retrofit Kit DLC General Application: Troffer DLC Primary Use: Linear Retrofit Kits for 2x2 Luminaires Linear Retrofit Kits for 1x4 Luminaires 				
	RL 162	LED linear retrofit kit for 2x4 fixtures	20	110	\$50/ Kit	 DLC Category: Indoor Retrofit Kit DLC General Application: Troffer DLC Primary Use: Linear Retrofit Kits for 2x4 Luminaires 				
	RL 163	LED integrated retrofit kit for 2x2 and 1x4 fixtures	15	110	\$55/ Kit	 DLC Category: Indoor Retrofit Kit DLC General Application: Troffer DLC Primary Use: Integrated Retrofit Kits for 2x2 Luminaires Integrated Retrofit Kits for 1x4 Luminaires Must be a minimum height of 1.5 inches Integrated kits less than 1.5 inches must use RL 165 				
	RL 164	LED integrated retrofit kit for 2x4 fixtures	20	110	\$60/ Kit	 DLC Category: Indoor Retrofit Kit DLC General Application: Troffer DLC Primary Use: Integrated Retrofit Kits for 2x4 Luminaires Must be a minimum height of 1.5 inches Integrated kits less than 1.5 inches must use RL 166 				
LED Retrofit Kits	RL 165	LED integrated flat panel retrofit kit for 2x2 and 1x4 fixtures	15	110	\$55/ Panel Kit	 DLC Category: Indoor Retrofit Kit DLC General Application: Troffer DLC Primary Use: Integrated Retrofit Kits for 2x2 Luminaires Integrated Retrofit Kits for 1x4 Luminaires 				
LED Ret	RL 166	LED integrated flat panel retrofit kit for 2x4 fixtures	20	110	\$40/ Panel kit	 DLC Category: Indoor Retrofit Kit DLC General Application: Troffer DLC Primary Use: Integrated Retrofit Kits for 2x4 Luminaires 				
	RL 167	LED retrofit kit for ambient luminaire	5 (per foot)	110	\$7.50/ Foot	 DLC Category: Indoor Retrofit Kit DLC General Application: Linear Ambient DLC Primary Use: Retrofit Kits for Direct Linear Ambient Luminaires 				
	RL 168	LED retrofit kit for high/low bay luminaire	40	110	\$75/ Kit	 DLC Category: Indoor Retrofit kit DLC General Application: Linear Ambient DLC Primary Use: Retrofit Kits for High-Bay Luminaires for Commercial and Industrial Buildings Retrofit Kits for Low-bay Luminaires for Commercial and Industrial Buildings 				
	RL 169	LED retrofit kit for exterior luminaire	40	110	\$75/ Kit	DLC Category: Outdoor Retrofit Kit DLC General Application: Outdoor – Low, Mid, High or Very High Output DLC Primary Use: Retrofit Kits for Outdoor Pole/Arm-Mounted Areas and Roadway Luminaires Retrofit Kits for Pole/Arm-Mounted Decorative Luminaires Retrofit Kits for Large Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Retrofit Kits for Outdoor Full-Cutoff Wall-Mounted Area Luminaires Retrofit Kits for Parking Garage Luminaires Retrofit Kits for Fuel Pump Canopy Luminaires				



	V. Lighting Measures and Incentives (Continued)									
	Measure Code	Proposed Measure	Min. Watts Reduced	Reported Efficacy (LM/W)	Incentive/ Unit	Technical Requirements In Addition To General LED Requirements Listed On Page 3				
LED ENERGY STAR Fixtures	RL 171	New LED ENERGY STAR fixture – 1,499 lm or less	10	70	\$20/ Fixture	 ENERGY STAR fixtures must either be inseparable or be packaged with an ENERGY STAR qualifying lamp from the manufacturer. Screw or plug-in based recessed trim kits are not eligible for this measure. 				
	RL 172	New LED ENERGY STAR fixture – 1,500 lm – 2,999 lm	25	70	\$50/ Fixture	 ENERGY STAR fixtures must either be inseparable or be packaged with an ENERGY STAR qualifying lamp from the manufacturer. Screw or plug-in based recessed trim kits are not eligible for this measure. If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be obtained, please apply for RL 171. 				
	RL 173	New LED ENERGY STAR fixture – 3,000 lm or greater	50	70	\$65/ Fixture	 ENERGY STAR fixtures must either be inseparable or be packaged with an ENERGY STAR qualifying lamp from the manufacturer. Screw or plug-in based recessed trim kits are not eligible for this measure. If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be obtained, please apply for RL 172. 				
LED Replacement Lamps	RL 181	Type C LED linear lamp and new LED driver	10 (per lamp)	110	\$4/ Lamp	DLC Category: Linear Replacement Lamps DLC General Application: Four-Foot Linear Replacement Lamps Two-Foot Linear Replacement Lamps U-Bend Replacement Lamps U-Bend Replacement Lamps DLC Primary Use: 2-lamp External Driver Lamp-Style Retrofit Kits (UL Type C) 3-lamp External Driver Lamp-Style Retrofit Kits (UL Type C) 4-lamp External Driver Lamp-Style Retrofit Kits (UL Type C)				
	RL 182	LED mogul screw- base replacement for an HID lamp and new external driver	60	110	\$30/ Lamp	DLC Category: Mogul Screw-Base Replacements for HID Lamps DLC General Application: Outdoor – Low, Mid, or High Output High-Bay DLC Primary Use: Replacement Lamps for Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Replacement Lamps for Outdoor Pole/Arm-Mounted Decorative Luminaires Replacement Lamps for Outdoor Full-Cutoff Wall-Mounted Area Luminaires Replacement Lamps for Parking Garage Luminaires Replacement Lamps for Fuel Pump Canopy Luminaires Replacement Lamps for High-Bay Luminaires Replacement Lamps for Low-Bay Luminaires				



			VI. L	ighting Control	s Measures and	Incentives	
				Incent	ive Caps		
	Measure Code	Proposed Measure	Min. Watts Controlled	Ceiling or Corner Mounted	Wall Switch	Incentive/ Unit	Technical Requirements In Addition To General Control Requirements Listed On Page 3
Networked Lighting Controls	LC 101	Networked lighting control	20	N/A	N/A	\$60/ Fixture	 Equipment must be listed on DLC NLC Qualified Products List. A minimum of two strategies must be implemented, including occupancy/vacancy
Networked	LC 102	Networked lighting control—lower wattage fixtures/downlights	N/A	N/A	N/A	\$30/ Fixture	Equipment must be listed on DLC NLC Qualified Products List.
Dual Daylight/ Occupancy Controls	LC 111	Dual daylight & occupancy sensor (DOS)	20	\$60/ Control	\$60/ Control	\$50/ Fixture	 Control must have the capability to control fixtures based on both occupancy and daylight. Control must automatically turn fixtures on and off based on occupancy. Control must continuously dim fixtures located in a Daylight Zone (see General Control
	LC 112	Dual daylight & occupancy sensor (DOS) – lower wattage fixtures/downlights	N/A	\$60/ Control	\$60/ Control	\$30/ Fixture	Requirements). `
ıtrols	LC 121	Daylight continuous dimming control	20	\$60/ Control	\$60/ Control	\$40/ Fixture	Control must continuously dim fixtures located in a Daylight Zone (see General Control Requirements) in response to ambient daylight.
Daylight Controls	LC 122	Daylight continuous dimming control – lower wattage fixtures	N/A	\$60/ Control	\$60/ Control	\$20/ Fixture	
ıtrols	LC 131	Vacancy control	20	\$75/ Control	\$50/ Control	\$40/ Fixture	Control must be set to "Manual ON" so fixtures controlled require a person to manually turn them ON.
Occupancy/Vacancy Controls	LC 132	Vacancy control – lower wattage fixtures/downlights	N/A	\$75/ Control	\$50/ Control	\$20/ Fixture	The control must automatically turn off light fixtures after preset time has elapsed where no occupancy is detected.
ancy/Va	LC 133	Occupancy control	20	\$60/ Control	\$40/ Control	\$40/ Fixture	Control must automatically turn fixtures on and off based on occupancy.
Occup	LC 134	Occupancy control – lower wattage fixtures/downlights	N/A	\$60/ Control	\$40/ Control	\$20/ Fixture	

