

## PSO Prescriptive Rebates - Retrofit Lighting Technical Requirements

### Application Requirements

- Project pre-approval is required when the project includes the installation of:
  - 100 high bay/exterior fixtures or more, or
  - 500 total fixtures or more, or
  - LED-to-LED projects, or
  - Multiple upgrade types (e.g. lighting, refrigeration & kitchen equipment, building envelope, and/or plug load & controls), with a total estimated rebate of \$5,000 or more.
- For projects that do not require pre-approval, a rebate application must be submitted within 60 days of the invoice date.

### Required Documentation:

- ☐ Customer signed Terms and Conditions
- ☐ Spec sheets of new equipment
- ☐ For Sign Lighting projects, before and after photos of internal components
- ☐ For Wattage Reduction projects, PSO Retrofit Lighting Worksheet v.26.1 (or higher version)
- ☐ For LED-to-LED projects: photos of the existing fixture or lamp's model number Itemized invoice, upon project completion

Submit the rebate application online: [www.psobusinessrebates.com](http://www.psobusinessrebates.com)

### General LED Requirements

- All proposed equipment must be new. Used or refurbished equipment is not eligible for rebates.
- LED measure selection and wattage reduction requirements are based on nominal wattage.
- LED replacement lamps and LED luminaires must be listed on the [Design Lights Consortium \(DLC\)](#), [ENERGY STAR® Qualified Products List \(QPL\)](#), or meet the corresponding efficacy (Lm/W), warranty, and UL requirements.
- DLC or ENERGY STAR qualified 'Integrated-style' retrofit kits are acceptable as substitutions for fixture replacements. This includes a retrofit system which replaces the entire optical systems of the existing luminaire and fully integrates a replacement light source, optics, and reflective panel.
- All linear lamps are based on 4-foot length. If any other lamp length is used to determine the measure or corresponding rebate amount the equivalent quantity and rebate will be adjusted proportionally.
- Specialized LED upgrades types not listed on this document (sports lighting, stage lighting, etc.) may be considered under the custom application, provided the upgrades are [DLC](#) or [ENERGY STAR](#) qualified products.
- LED fixtures and lamps purchased through retail channels where PSO lighting discounts are applied at the point-of-sale are not eligible for prescriptive rebates.
- For proposed LED selectable wattage fixtures, you must either submit photos of the selected wattage or input the highest selectable wattage.

### Tubular LED (TLED) Requirements

- If proposing to use the LED permanent de-lamping measure, then standard fluorescent de-lamping technical requirements apply, such as requiring lamp centering and the use of listed retrofit kits.
- Currently, three types of TLED products are recognized. Specific technical requirements for each TLED variant are listed below.

#### Type A – TLED using instant or rapid start fluorescent ballast as power supply

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- New compatible instant or rapid start fluorescent ballast must be installed for T8 replacements. T5 replacements do not require a ballast replacement.
- The existing ballast must be removed and legally disposed of. All rebates shall be denied on Type “A” lamp replacements that do not meet these application requirements.
- Label must be installed in the fixture indicating that the fixture has been retrofitted with TLEDs and that fluorescent lamps should not be installed as replacements.

**Type B – TLED with no external driver; line voltage (120 / 277v) applied to TLED via lamp-holder**

- Existing fluorescent ballast must be removed.
- The condition of existing lamp-holders must be verified; replace damaged, corroded, cracked lamp-holders as necessary. Label must be installed in the fixture indicating that the fixture has been retrofitted with TLEDs and that fluorescent lamps should not be installed as replacements.

**Type C – TLED using dedicated external driver**

- Existing fluorescent ballast must be removed.
- Technical specifications for the power supply/driver supplied with the TLEDs must be submitted.

**Specialized LED Lighting**

- Specialized LED lighting, such as for sports lighting, stage lighting, etc., that is not covered by categories on the **DLC** or **ENERGY STAR QPL** may be considered on a case by case basis.
- Manufacturer’s specification sheets demonstrating product testing in compliance with standards such as IES LM79/80/TM21 must be submitted with application.

**Retrofit Lighting Measures and Rebates**

Upgrade Description		Min. Watts Reduced	Rebate/ Unit	Technical Requirements
<b>Screw-in Lamp</b>		<b>Rebate ended June 30<sup>th</sup>, 2023</b>		<ul style="list-style-type: none"> <li>• Installation of LED type A, B, BR, G, MR, PAR, R medium (E26) base, candelabra base, or 2 or 4-pin plug-in lamps do not qualify for rebates.</li> </ul>
<b>LED HID Lamps</b>	<b>LED HID Replacement Lamp:</b> 100 watts and lower	80 Watts/ Lamp	\$30/ Lamp	<ul style="list-style-type: none"> <li>• Installation of High Intensity Discharge (HID) LED mogul (E39) Type B or C (ballast bypass) screw-base lamps.</li> <li>• Socket adaptors do not qualify.</li> </ul>
	<b>LED HID Replacement Lamp:</b> 101 watts and higher	180 Watts/ Lamp	\$75/ Lamp	
<b>Interior LED Fixtures</b>	<b>LED Downlight Fixture</b>	25 Watts/ Fixture	\$6/ Fixture	<ul style="list-style-type: none"> <li>• Installation of LED recessed “can”, surface, pendant, track luminaires.</li> </ul>
	<b>LED Panel, Troffer, or Linear Fixture:</b> 30 watts and lower	20 Watts/ Fixture	\$10/ Fixture	<ul style="list-style-type: none"> <li>• Installation of LED troffers, panels, wraps or similar linear luminaires. Integrated-style LED retrofit kits (as defined on page 1) are also permitted.</li> </ul>
	<b>LED Panel, Troffer, or Linear Fixture:</b> 31 watts and higher	40 Watts/ Fixture	\$20/ Fixture	

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Upgrade Description		Min. Watts Reduced	Rebate/ Unit	Technical Requirements
	<b>LED Stairwell Fixture</b>	10 Watts/ Fixture	\$20/ Fixture	<ul style="list-style-type: none"> <li>Installation of LED occupancy-based luminaires in stairwells.</li> <li>Eligible fixtures contain onboard, factory-furnished occupancy controls and are designed for stairwells and other seldom-occupied spaces.</li> <li>Not eligible for additional lighting control rebates.</li> </ul>
<b>LED Linear Lamp Retrofit</b>	<b>Linear Retrofit Kit:</b> retrofitting an existing 1-2 linear lamp fixtures	25 Watts/ Fixture	\$5/ Retrofitted Fixture	<ul style="list-style-type: none"> <li>Installation of LED tube-shaped or strip-style retrofit kits for troffers that do not replace the fixture optics.</li> <li>All linear lamps are based on 4-ft length, e.g. (1) 8-ft lamp is equivalent to (2) 4-ft lamps, and (2) 2-ft lamp is equivalent to (1) 4-ft lamp.</li> </ul>
	<b>Linear Retrofit Kits:</b> retrofitting an existing 3+ linear lamp fixtures	25 Watts/ Fixture	\$12/ Retrofitted Fixture	
	<b>TLED – Tubular LED</b>	10 Watts/ Lamp	\$3/ Lamp	<ul style="list-style-type: none"> <li>Refer to TLED requirements on page 1.</li> <li>All linear lamps are based on 4-ft. length, e.g. (1) 8-ft lamp is equivalent to (2) 4-ft lamps, and (2) 2-ft lamp is equivalent to (1) 4-ft lamp. Rebates will also be adjusted proportionately. U-bend lamps are based off linear feet.</li> </ul>
<b>Permanent De-lamping LED Lamp Retrofit</b>	<b>LED Permanent De-lamping:</b> 2-3 lamps existing, removing 1	18 Watts/ Fixture	\$8/ Fixture	<ul style="list-style-type: none"> <li>Luminaires must be permanently de-lamped using UL/CSA-listed retrofit kits specifically for this purpose; lamps must be re-centered in luminaires.</li> <li>If installing Type A - TLED lamps, new electronic ballasts must be installed.</li> <li>Refer to TLED requirements above.</li> <li>When de-lamping 8-ft fixtures using 4-ft nominal lamps in tandem, total existing and proposed lamp footage will be used as basis for determining appropriate measure code.</li> </ul>
	<b>LED Permanent De-lamping:</b> 4+ lamps existing, removing 2+	40 Watts/ Fixture	\$15/ Fixture	
<b>LED High/Low Bay Fixtures</b>	<b>LED High Bay Fixture:</b> 124 watts and lower	80 Watts/ Fixture	\$50/ Fixture	<ul style="list-style-type: none"> <li>Luminaires must be on DLC QPL as one of the following categories: High Bay Luminaires for Commercial and Industrial Buildings; Low Bay Luminaires for Commercial and Industrial Buildings or High Bay Aisle Luminaires for Commercial and Industrial Buildings.</li> <li>Installation of on-board occupancy sensors qualifies as an additional Occupancy Sensor rebate.</li> <li>Integrated-style high bay/low bay kits qualify under this measure.</li> </ul>
	<b>LED High Bay Fixture:</b> 125-250 watts	120 Watts/ Fixture	\$90/ Fixture	
	<b>LED High Bay Fixture:</b> 251 watts and higher	180 Watts / Fixture	\$100/ Fixture	

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Upgrade Description		Min. Watts Reduced	Rebate/ Unit	Technical Requirements
LED Exit Signs	LED Exit Signs	10 Watts/ Fixture	\$6/ Sign	<ul style="list-style-type: none"> <li>Installation of LED exit signs to replace incandescent or fluorescent sources.</li> <li>LED retrofit kits are not eligible.</li> </ul>
LED Refrigeration Lighting	LED Refrigeration Lighting	N/A	\$20/ Fixture	<ul style="list-style-type: none"> <li>Installation of LED refrigeration display cases luminaires.</li> <li>LED luminaires must completely replace existing lighting equipment.</li> <li>Existing channel wiring may be reused, if necessary.</li> </ul>
LED Parking Garage Fixtures	LED Parking Garage Fixture: 99 watts and lower	50 Watts/ Fixture	\$40/ Fixture	<ul style="list-style-type: none"> <li>Installation of LED recessed or surface luminaires in parking garages</li> <li>DLC listed integrated retrofit kits are acceptable.</li> <li>Installation of on-board occupancy sensors qualifies for additional rebate under Lighting Controls.</li> </ul>
	LED Parking Garage Fixture: 100 watts and higher.	80 Watts/ Fixture	\$60/ Fixture	
LED Exterior Fixtures	LED Exterior Fixture: 65 watts and lower	35 Watts/ Fixture	\$30/ Fixture	<ul style="list-style-type: none"> <li>Installation of LED exterior parking lot, gasoline canopy, area, flood, or wall pack, landscape, accent, stairway, step and bollard luminaires.</li> <li>LED recessed “can”, surface, pendant, track luminaires qualify under LED Downlight Fixture.</li> <li>DLC listed integrated retrofit kits are acceptable.</li> </ul>
	LED Exterior Fixture: 66-150 Watts	50 Watts/ Fixture	\$50/ Fixture	
	LED Exterior Fixture: 151-250 Watts.	80 Watts/ Fixture	\$100/ Fixture	
	LED Exterior Fixture: 251-350 Watts	350 Watts/ Fixture	\$120/ Fixture	
	LED Exterior Fixture: 351 watts and higher	550 Watts/ Fixture	\$140/ Fixture	
	LED Pole-Mounted Outdoor Fixtures: Replacing multiple 1000 watts or higher fixtures, mounted on the same pole with 50% or fewer new fixtures.	850 Watts/ New Fixture	\$290/ Fixture	<ul style="list-style-type: none"> <li>Installation of LED Parking Lot, Roadway, Area, or Flood pole mounted luminaires.</li> <li>DLC-listed integrated retrofit kits are acceptable.</li> <li>Refers to pole-mounted luminaires, where the number of fixtures per pole will be reduced to half or less than the number of existing fixtures.</li> </ul>

### Wattage Reduction Method

Energy efficient upgrades that improve energy efficiency but do not meet the requirements listed in the measures above can qualify for rebates using the wattage reduction method. Eligible scenarios also include:

- Projects that are not direct one-for-one replacements
- LED-to-LED fixture replacements
- TLED-to-LED fixture replacements
- TLED-to-TLED lamp replacements

### Requirements:

- LED-to-LED (including TLED-to-TLED and TLED-to-LED fixture) projects require:
  - project pre-approval before equipment can be purchased or installed.
  - photos of the existing fixture or lamp's model number.
- Projects with existing LED fixtures or TLED lamps are not eligible if the proposed fixtures have received a rebate within the past 15 years.
- Submit applications using the PSO Retrofit Lighting Worksheet v26.1(or higher version). Contact an Account Manager for a current copy.

Upgrade Description	Rebate	Technical Requirements
<b>Wattage Reduction</b>	\$0.10/kWh Reduced	<ul style="list-style-type: none"> <li>• The proposed equipment must be DLC or Energy Star listed, or meet corresponding efficacy (Lm/W), warranty, and UL requirements.</li> <li>• LED general screw-in lamps, type A, PAR, MR, BR, R, G or B, medium-base (E26), candelabra - base, MR11/MR16, or 4-pin plug-in lamps do not qualify for rebates.</li> </ul>

### Retrofit Sign Lighting Measures and Rebates

- These requirements are for retrofitting existing neon, cold cathode, linear fluorescent, or HID signs using LED technology; LED signs installed in new construction or those installed as part of a complete sign replacement are not eligible.
- Photos of existing system and internal sign components (ballast, lamps, transformers, etc.) and proposed system, including new LED components (LED modules, drivers, etc.) must be submitted with ALL sign lighting applications.
- Manufacturer's specification sheets for all proposed components must be submitted with application.
- Equipment must be UL Listed.

Upgrade Description		Min. Watts Reduced	Rebate/ Unit	Technical Requirements
<b>LED Sign Lighting</b>	<b>24/7 Sign Lighting</b>	NA	\$0.50/ watt reduced	<ul style="list-style-type: none"> <li>• Retrofitting existing neon, cold cathode, linear fluorescent or HID signs using LED technology.</li> <li>• Complete sign replacements are not eligible.</li> <li>• Equipment must be UL listed.</li> </ul>
	<b>Dusk to Dawn Sign Lighting</b>	NA	\$0.25/ watt reduced	
	<b>Interior Retail Sign Lighting</b>	NA	\$0.25/ watt reduced	

### Retrofit Lighting Control Measures and Rebates

- For interior lighting only. **Photocells on exterior fixtures do not qualify for rebates.**

Upgrade Description			Min. Watts Controlled	Rebate/ Unit	Technical Requirements
Interior Lighting Controls	Occupancy Sensors	Wall Switch Replacement	30 Watts	\$10/ Control	<ul style="list-style-type: none"><li>• Passive infrared, ultrasonic or dual technology occupancy controls.</li><li>• Controls may be connected to new equipment or installed on existing fixture(s).</li><li>• Daylight Controls must include photocells designed to dim, multiple step dim and turn off/extinguish lamps in response to ambient daylight.</li></ul>
		Ceiling/Wall Mounted			
		Fixture Mounted			
	Daylight Controls	Continuous Dimming			
		Multiple Step Dimming			
		On/Off (Indoor only)			
	Occupancy Sensors with Daylight Controls	Continuous Dimming		\$15/ Control	
		Multiple Step Dimming			
		On/Off (Indoor only)			
	Networked Lighting Controls			NA	\$20/ Fixture Controlled